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Legal Framework of the Water Sector in Vietnam

Nguyen Thi Phuong Loan

Table of Contents

Abstract	iii
List of Charts, Tables and Synopses	iv
Abbreviations	V
Abbreviations of Legal Document Symbols	vi
1. Introduction	1
2. Understanding Vietnam´s Legal System	2
2.1 Constitutional History	2
2.2 Vietnam's Legal System	4
2.2.1 Legal Institutions	4
2.2.2 Hierarchy of Vietnam's Legal Documents	7
2.2.3 Definition of Legal Documents	10
2.2.4 Current Legislative Procedure in Vietnam	11
3. Legal Framework of the Water Sector in Vietnam	13
3.1 The Position and Role of Legislation on the Water Sector	13
3.2 Key Legislation for the Water Sector	15
3.2.1 Historical Development	15
3.2.2 Summary of Laws and Secondary Legislation	18
3.2.2.1 Constitution 1992 (amended)	18
3.2.2.2 Laws and Ordinances	18
The Law on Water Resources (No. 08/1998/QH10 dated May 20, 1998)	21
 Ordinance on Natural Resources Tax (No. 05/1998/PL-UBTVQH10) 	24
 Ordinance on the Exploitation and Protection of Irrigation Works 	
(No. 32/2001/PL-UBTVQH10 dated April, 04, 2001)	25
The Law on Land (No. 13/2003/QH11)	25
The Law on Fisheries (No. 17/2003/QH11 dated November 26, 2003)	26
The Law on Inland Waterway Navigation (No. 23/2004/QH11)	27
The Law on Environmental Protection (No. 52/2005/QH11)	28
3.2.2.3 Secondary Regulations	32
 Regulations on the Exploitation and Utilization of Water Resources 	33
 Regulations on the Protection of Water Resources 	34
Regulations on Violations and Sanctions	40
 Regulations on Environmental Dispute Settlement 	48
3.2.2.4 International Relations	51

3.3 State Management of Vietnam's Water Sector	52
3.3.1 Policy Making and State Responsibilities	52
3.3.2 Implementation and Monitoring	59
4. Analysis of the Legal Framework for Vietnam's Water Sector	63
4.1 Achievements and Main Challenges	63
4.2 Analysis of Legal Contradictions and Conflicting Issues	66
4.2.1 Gaps, Overlaps and Unjustified Regulations	66
4.2.2 Other Conflicting Legal Issues	82
5. Conclusions and Recommendations	83
6. References	87
Annexes	96
Annex 1: Vietnam's Water Classification and Standards	96
Annex 2: Key Regulations on Water Sector in Vietnam	101
Annex 3: Glossary of Water-Related Legal Terminology	102
Annex 4: Overview: Ownership and State Management of Water Resources	111
Annex 5: List of Legal Documents is provided in a separate document	

Abstract

Since 1986 and especially during the early 90s, environmental protection has become a constitutional principle in Vietnam as regulated by Articles 17 and 29 of the 1992 Constitution. The first Law on Environmental Protection, passed by the National Assembly on December 27, 1993 created a foundation for environmental legislation becoming an important field in Vietnam's legal system. In the following, in January 1999, Vietnam enacted its very first Law on Water Resources (No. 08/1998/QH10) aiming to provide a foundational framework for managing the water sector in Vietnam. In recent years, the legislative framework on water resources management has further developed. Important water-related Government decrees, decisions and circulars on the guidance and implementation of the Law on Water Resources have been issued and often amended to meet the requirements of the country's development, and its international integration.

To date, Vietnam's legislation on the water sector consists of a complex system of legal documents issued by different state agencies. Like in other legal fields, the groundwork of the legislation for the water sector is many-faceted. Though legislation of water sector management in Vietnam has greatly improved during the last decade, it has obviously not yet come to full fruition. Hence, this paper intends to analyze contradictions, gaps and overlaps of the current Law on Water Resources with other related laws/ordinances and secondary regulations that have bared themselves in the implementation process. Furthermore, the main aim of the study is to clarify and determine the need for a new comprehensive Law on Water Resources.

Keywords:

Vietnam, Mekong Delta, Water Resources Management, Legal Framework, Legal System

List of Charts, Tables and Synopses

CHALLS	
Chart 1: Legal Institutions in Vietnam	6
Chart 2: Hierarchy of Legal Documents of Vietnam	(
Chart 3: Position and Key Dimensions of Water Sector Legislation in Vietnam	14
Chart 4: Key Laws/ordinances on Water Resources Protection	20
Chart 5: Key Regulations on Water Resources Protection	39
Chart 6: Key Regulations on Violations and Sanctions	47
Chart 7: Dispute Settlement System in Environmental Fields – An Overview	50
Chart 8: Key International Conventions on Environmental Protection	52
Chart 9: State Management on Water Sector at National Level	57
Chart 10: State Management on Water Sector at Local Level	58
Chart 11: Delivery of State Responsibilities for Water Resources Management	62
Chart 12: Key Regulations on Water Sector in Vietnam	100
Chart 13: Overviews: Ownership and State Management of Water Resources	110
Tables	
Table 1: Natural Resource Tax Index Table 2: Environmental protection charge rates applied to industrial wastewater	43 45
Synopses Synopses	
Synopsis 1: Contradiction between the Law on Water Resources and Water-related Secondary Regulations	67
Synopsis 2: Contradictions between Water-Related Secondary Regulations Synopsis 3: Conflict between Legislation on Water Resources and other related Laws and Ordinances Synopsis 4: Contradiction between the Legislation on Water Resources and the Law on the	72 74
Promulgation of Legal Documents 2008	80

Abbreviations

ADB Asian Development Bank AFTA ASEAN Free Trade Area

BOD Biochemical Oxygen Demand

BTA U.S. – Vietnam Bilateral Trade Agreement CBD International Convention on Biodiversity

CERWASS Centre for Rural Clean Water Supply and Sanitation
CWRPI Centre for Water Resources Planning and Investigation
DARD Department of Agriculture and Rural Development
DONRE Department of Natural Resources and Environment

DOST Department of Science and Technology

DWRM Department of Water Resources Management

EIA Environmental Impact Assessment

EPZ Export Processing Zone GoV Government of Vietnam

GSO General Statistics Office of Vietnam

IP Industry Park

IWRM Integrated Water Resources Management

LEP Law on Environmental Protection

LPLDs Law on the Promulgation of Legal Documents

LWR Law on Water Resources

MARD Ministry of Agriculture and Rural Development

MOC Ministry of Construction

MOET Ministry of Education and Training

MOF Ministry of Finance

MOFI Ministry of Fisheries (now merged into MARD)

MOH Ministry of Health

MOI Ministry of Industry and Trade

MONRE Ministry of Natural Resources and Environment

MOST Ministry of Science and Technology

MOSTE Ministry of Sciene, Technology and Environment

(Now changed to MOST)

MOT Ministry of Transport

MPI Ministry of Planning and Investment

MRC Mekong River Commission

NA National Assembly of the Socialist Republic of Vietnam NRWSSS National Rural Water Supply and Sanitation Strategy

NWRC National Water Resources Council NWRS National Water Resources Strategy QCVN National Technical Regulations RWSS Rural Water Supply and Sanitation
TCVN National Environmental Standards
VNMC Vietnam National Mekong Committee

WB World Bank

WSR Water Sector Review
WTO World Trade Organisation

Abbreviations of Legal Document Symbols

.../.../QH Law of National Assembly .../.../PL-UBTVQH Ordinance of Standing Committee of the National Assembly .../.../ND-CP Decree of Government .../.../QD-TTg Decision of Prime Minister .../.../QD-BNN Decision of Ministry of Agriculture and Rural Development .../.../TT-BNN Circular of Ministry of Agriculture and Rural Development Joint Circular of Ministry of Agriculture and Rural Development and .../.../TTLT-BNN-BNV Ministry of Interior Affairs .../.../TTLT-BNN-BTC Joint Circular of Ministry of Agriculture and Rural Development and Ministry of Finance .../.../OD-BTNMT Decision of Ministry of Natural Resources and Environment .../.../TT-BTNMT Circular of Ministry of Natural Resources and Environment .../.../TTLT-BTNMT-BNV Joint Circular of Ministry of Natural Resources and Environment and Ministry of Interior Affairs .../.../TTLT-BTNMT-BTC Joint Circular of Ministry of Natural Resources and Environment and Ministry of Finance .../.../CT-BTNMT Directive of Ministry of Natural Resources and Environment .../.../OD-TNN Decision of Department of Water Resources Management .../.../QD-BTC Decision of Ministry of Finance .../.../QD-BXD Decision of Ministry of Construction .../.../QD-BGTVT **Decision of Ministry of Transport** .../.../QD-BCA Decision of Ministry of Public Security .../.../QD-BKHCNMT Decision of Ministry of Science, Technology and Environment .../.../TT-BTC Circular of Ministry of Finance .../.../TT-BXD Circular of Ministry of Construction .../.../TT-BGTVT Circular of Ministry of Transport .../.../TT-BCA Circular of Ministry of Public Security .../.../TT-BKHCNMT Circular of Ministry of Science, Technology and Environment

1. Introduction

The protection of water resources has become a burning issue at global level, as they constitute a major component for life and the environment, deciding the existence and sustainable development of a country. In recent years, Vietnam has started to set up a framework of regulations to ensure the sustainable use, protection and development of water resources. The Law on Water Resources No. 08/1998/QH10, which was passed by the National Assembly of the Socialist Republic of Vietnam on May 20, 1998, has created the foundation for the legal system on water resource protection in Vietnam. After ten years of implementation, this law represents a major step forward on integrated water resources management. Required secondary regulations covering most water-related protection issues have been adopted and frequently amended to meet the requirements of the country's development, and its international integration in different issues.

However, in the face of the onset of industrialization and modernization, as well as the eventful and comprehensive movement of globalization and international integration, the current Law on Water Resources has revealed its limitations and insufficiency. Water resources have not been developed in the sustainable manner necessary to meet the point of view of the "National strategy on water resources to 2020", approved by the Prime Minister's Decision (No. 81/2006/QD-TTg). Problems include the exploration, exploitation and use of water resources without permission and the discharging of untreated wastewater into water sources that has increased dramatically in recent years and led to a decline in water quality, and which could eventually pose threats to human health. Moreover, contradictions with other related laws and secondary regulations have bared themselves in the implementation process. Though the legislation of water sector management in Vietnam has greatly improved during the last decade, it has obviously not yet come to fruition. The question is how far has the legal framework for the water sector in Vietnam proved its worth?

The main aim of the study is to clarify and determine the answer for this question. Based on the current water sector legislation and information collected by a series of qualitative interviews conducted with representatives from various provincial state management agencies, this study generally presents the legal system of Vietnam. Furthermore, an overview of the legal framework for the water sector in Vietnam shall provide more visibility using charts and tables. Finally, the contradictions, gaps and overlaps in the current legislation will be analyzed thoroughly. In detail, the study consists of the following parts:

- Understanding of the Legal System of Vietnam (Chapter 2)
- Legal Framework of the Water Sector in Vietnam (chapter 3)
- Analysis of the Legal Framework of the Water Sector in Vietnam (chapter 4)
- Conclusion and Recommendations (chapter 5)

The study took place in the framework of the WISDOM Project (Water-related Information System for the Sustainable Development of the Mekong Delta, http://www.wisdom.caf.dlr.de) and contributes to a set of research activities on the organisational and institutional set-up of the water sector in Vietnam.

2. Understanding Vietnam's Legal System

The constitution of the Socialist Republic of Vietnam is the basic state law, with supreme legal force over the legal system in Vietnam. It is a catalogue of fundamental norms setting out the conditions under which the state derives authority, and contains rules organizing and determining the procedures for Vietnam's state bodies in exercising their legislative, executive and judicial responsibilities, as well as recognizing individual freedoms. Based on its radical role, Vietnam's legal system has greatly improved in the last decade, achieving its main goal of building up a "law-based state" (*Nhà nước pháp quyền*) of the people, by the people and for the people. Hence, learning about its development process is critical in determining how Vietnam's legal reform process has worked since the "Đổi Mới" economic reforms.

2.1 Constitutional History

The first Constitution of Vietnam, the **1946 Constitution** of the Democratic Republic of Vietnam (*Hiến pháp nước Việt Nam Dân chủ Cộng hòa năm 1946*), was passed by the National Assembly on November 9, 1946. Due to the war situation, the 1946 Constitution, hence, had not yet been promulgated. However, most of the state activities at that time were managed based on the content and sense found in the 1946 Constitution.



The Constitution of the Democratic Republic of Vietnam, adopted on November 9, 1946 (Source: Tap chi Nghien cuu Lap phap – Van Phong Quoc Hoi)

Due to a new situation and the changing of revolutionary responsibility, the Constitution of 1946 needed to be supplemented. During the 6th session, first Term, the National Assembly of the Democratic Republic of Vietnam decided to modify the 1946 Constitution, which resulted in the establishment of a commission to draft the amended constitution. Following the ensuing discussion between state officers and the working classes (Ho Chi Minh: 1980), on December 31, 1959 the **amended Constitution** was passed by the National Assembly. It was the first socialist Constitution of Vietnam and was based on the socialist constitution model. However, the 1959 Constitution was

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¹ By the end of the 19th and beginning of the 20th centuries, influenced by French bourgeois ideas about democracy such as the Declaration of the Rights of Man and the Citizen 1789, the Constitution 1791 and following the constitutions of France, Vietnamese intelligentsia debated passionately about creating a Vietnamese constitution. At the Versailles Conference in 1919, Nguyen Ai Quoc submitted the "Revendications Du Peuple Annamite" (Bån Yêu sách của Nhân dân An Nam), consisting of seven claims. The requirement of a constitution for the Annam People was presented on the seventh point of the claim. With the subsequent success of the August Revolution (Cách Mạng Tháng Tám), a longing of the Vietnamese people for a constitution was achievable, and on September 2, 1945, Ho Chi Minh proclaimed the formation of the Democratic Republic of Vietnam (Thai Vinh Thang: 2008, 73)

again petitioned for amendment in order to meet the requirements of the new national situation². The **1980 Constitution** of the Socialist Republic of Vietnam (*Hiến pháp nước Cộng hòa Xã hội Chủ nghĩa Việt Nam năm 1980*) was created, marking an important milestone in Vietnam's constitutional history. It was called as the transitional constitution.

Remarkably, the **1992 Constitution**³, a Constitution of the renewal process ($d\hat{o}i \ m \acute{o}i$), was passed by the National Assembly on April 15, 1992, marking the most important episode in Vietnam's constitutional history. With selection of quintessences from the 1946, 1959 and 1980 Constitutions, the 1992 Constitution built up socialism in the renewal period with a comprehensive focus on economic development. After ten years, the 1992 Constitution had created a solid foundation on which to build a "socialist-oriented market economy", protecting the legitimate rights and interests of Vietnamese citizens. However, due to economic and policy changes, the 1992 Constitution needed further amendments in order to bring its validation and effectiveness in adjusting social relations into play. Therefore, the draft amendment of the 1992 Constitution was brought out for discussion by class of people. After collecting constructive suggestions from the population, as well going through editing and supplementing on numerous occasions, on December 25, 2001 Resolution No. 51/2001/QH10 on the amending of and addition to a number of articles of the 1992 Constitution was passed by the 10th Session, 10th Term of National Assembly with a majority consensus. This was an important political and economic milestone in Vietnamese constitutional history and helped to develop cultural, educational, scientific, and technology policy, as well as ensuring the legitimate rights and interests of the people. Above all, the 1992 Constitution (as amended) aimed at consolidating state organizations, coordinating state powers and building up a law-based state of the people, by the people and for the people.

It can be said that the 1992 Constitution represented the early years of the Đổi Mới process – the product of initial legal thoughts and perceptions on the path to national renewal. The 1992 Constitution (as amended) placed emphasis on the economic regime (based on a market economy with continuous international integration) and the organization of the state apparatus. For the first time in Vietnam's constitutional history, the 1992 Constitution (as amended) affirmed the building of a law-governed state, as stipulated in its Article 2: "The Socialist Republic of Vietnam state is a socialist law-governed state of the people, by the people and for the people. All state power belongs to the people whose foundation is the alliance between the working class and the peasantry as well as the intelligentsia. State power is unity with delegation of power to, and co-ordination among state bodies in performing legislative, executive and judicial powers" (NA 2001). Hence, the establishment and development of Vietnam's legal system is associated closely with the implementation of "Đổi Mới" policy since 1980. The proof is that the birth of several important laws such as the Law on Foreign Investment in Vietnam (1987), the Law on Companies and the Law on Private Enterprises (1990) made such a breakthrough that they institutionalized new policy⁴. As can be seen, the 1992 Constitution (as amended) created a legal foundation for a new Vietnamese legal system.

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² In 1975, southern Vietnam was liberated. The most important assignment at that time was to unify the country. The task of uniting the south and north was primarily in the setting up.

³ In 1986, the "Đổi Mới" (economic reform) period in Vietnam was opened by the sixth Party Congress. Its guideline was to face the facts, looking at the situation realistically in order to detect the mistakes of the state and Party, especially extending socialist democracy, promoting independence and building on the creative abilities of all working classes. At the 8th term of National Assembly session, the resolution to establish a Commission for a fundamental and comprehensive amendment of the 1980 Constitution was issued in response to the requirements of the new economic and societal situations; attaching special importance to economic fields. By the end of 1991 and the beginning of 1992, the third draft of the Constitution was presented to hold a referendum. The fourth amendment of the Constitution was completed based on a collection of constructive opinions proffered by the people, political bureaus and the Central Committee of the Party. The 1992 Constitution, the Constitution of the renewal process, was passed by the National Assembly on April 15, 1992 (Thai Vinh Thang: 2008, 73).

⁴ Above all, as affirmed by the 1992 Constitution (as amended), the state adopts consistent policies on the development of a socialist-oriented market economy. The multi-sectoral structure of the economy, along with

However, the legislative programme was not mentioned by the 1946 or 1959 Constitutions. Specifically, the 1946 Constitution regulated an annual budget plan only (NA 1946, Article 52) and the 1959 Constitution specified a "state economy plan" (NA 1959, Article 50), but neither set up nor improved any legislative programmes. Due to the war situation, the state was unable to take care of the legislative assignment. However, by the time of the 1980 Constitution, the state economy plan was extended to a "state plan", which focused particularly on a legislative programme (NA 1980, Article 83). With the 1992 Constitution, the "programme for building laws and ordinances" was regulated separately from the "plan for economic-social development" (NA 1992, Article 84). According to statistical data, a large number of legal documents have been issued since 1992, the quality of which has obviously changed. The application and scope of subjects relating to legal documents has also extended to cover fundamental fields, business activities and social relations. Meanwhile, legislative procedure has played a radical role in developing and improving Vietnam's legal system. The Law on the Promulgation of Legal Documents has become a very important legal document. Under the Constitution, this law is not only considered as the "law of law", but also as the legal foundation on which legislative procedure and Vietnam's legal system can improve.

In the following section, the Vietnam's current legal system will be presented. In order to gain a better overview, the hierarchy of legal documents and definition of legal documents shall be addressed. As groundwork, an overview of the legal institutions in Vietnam shall be firstly provided.

2.2 Vietnam's Legal System

2.2.1 Legal Institutions

The legal documents system of Vietnam, according to the 1992 Constitution (amended in 2001) and the current Law on Promulgation of Legal Documents (2008), consists of legal documents with a hierarchy from a high to low legal force. Accordingly, Vietnam's legal documents are divided into laws/ordinances and secondary regulations. Laws/ordinances are legal documents passed by the **National Assembly**, the highest constitutional body of the Socialist Republic of Vietnam; it is the only body vested with constitutional and legislative powers (Article 83 Constitution 1992 – amended). Laws/ordinances are applied as regulations with the supreme legal force of the Vietnamese legal system. Should other legal documents not be promulgated in accordance with the Constitution, laws and resolutions, they are not considered as legal documents. Secondary regulations are issued by state organizations (administrative and judicial organizations) as legal documents of a lower rank than laws/regulations relating to the legal force in the legal documents' hierarchy.

The **Government**, which consists of the Prime Minister, Deputy Prime Minister, ministers and other members, is the executive body of the National Assembly and the highest administrative state body of Vietnam. The Government assumes the unified administration of the implementation of all political, economic, cultural, social, national defence, security and external activities of the state, and ensures the effectiveness of the state apparatus from the centre down to grassroots level (Article 109, 110 Constitution 1992 – amended). **People's committees** elected by the **People's councils**⁵ are the local

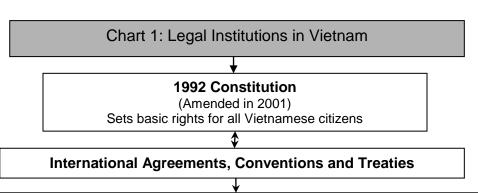
diversified types of production methods and business organizations, is based on ownership by the population and collective and private ownership, of which the first two and the second are cornerstones (NA 2001, Article 15). In addition, individuals, economic entities, smallholders and private capitalist economic sectors are allowed to choose their forms of production and business activities, as well as having rights to set up businesses without any limitations as to their scale of activities in branches and trade (NA 2001, Article 21). Furthermore, the state encourages foreign organizations and individuals to invest capital and technology into Vietnam in accordance with Vietnamese law and international agreements, ensuring legal ownership of capital and assets as well as other rights and interests of foreign organizations and individuals. Enterprises with foreign-invested capital cannot be nationalized (NA 2001, Article 25).

⁵ People's councils are state authorities in their respective localities, representing the people's will, aspirations and rights as their own localities. People's councils are elected by the local population and are responsible to the latter and to the higher state authorities (Article 119 of the 1992 Constitution (amended 2001)).

administrative state bodies with responsibilities for implementing the Constitution, laws and other legal documents adopted by national agencies and resolutions of the People's Councils (Article 123 Constitution 1992 – amended).

People's courts and **People's procuracies** are duty-bound, within their remit, to protect socialist legislation and the socialist system, people's rights as sovereign masters, state and collective property, as well as protecting the lives, properties, freedom, honour and dignity of the Vietnamese citizens. The Supreme People's Court (*Tòa án Nhân dân tối cao*), local people's courts (*Tòa án Nhân dân địa phương*) and military tribunals (*Tòa án Quân sự*) are judicial bodies of the Socialist Republic of Vietnam (Article 127 Constitution 1992).

Furthermore, **other agencies** such as legal firms, legal assistance centres, mediation institutions, and public media support the implementation of legal documents issued by national and local state agencies. These legal institutions shall be addressed further in the following subsections.



Laws, Ordinances and Secondary Regulations

Provide guidelines on the implementation of fundamental constitutional rights and reinforce those rights

Executive & Judicial Organizations

Enforcing Laws, ordinances and other legal documents

Executive Organizations

Government (Law No. 32/2001/QH10, Decree No. 179/2007/ND-CP)

Office of the Government (Decree No. 33/2008/ND-CP)

Ministries (Decree No. 178/2007ND-CP) National Level

ocal Level

People's Committees (Law No. 11/2003/QH11): Executive authorities at provincial, district and communal levels.

People's Councils (Law No. 11/2003/QH11): Represent people's rights and interests.

State Inspectorates: in charge of complaints, denunciations and investigations of legal violations at provincial and district levels.

Village Heads: in charge of supervising the implementation of commune resolutions and decisions as well as mediating disputes.

Judicial Organizations

Court System (Law No. 33/2002/QH10): in charge of civil, economic, labour and administrative disputes as well as criminal cases

- Supreme People's Court
- People's Courts (of provinces)
- People's Courts (of districts)
- Military Tribunals (Ordinance No. 04/2002/PL-UBTVQH11)

People's Procuracies (Law No.

34/2002/QH10): in charge of the supervision and uniformity of the implementation of the legal system.

Judgment Enforcement Agencies:

specializes in the enforcement of civil judgments.

Public Security (Polices): in charge of security supervision at all local levels.

Supporting Agencies

Lawyers

(Law No. 65/2006/QH 11)

Providing services in legal procedures as well as in legal consulting for individuals and enterprises (Private agencies)

Legal Assistance Centres

(Law No. 69/2006/QH 11)

Providing free legal consultation to the poor and disadvantaged society members (State agencies)

Mediation Institutions

(Ordinance No. 09/1998/PL-UBTVQH 10)

In charge of mediation and guidance of parties in finding resolutions for disputes (State agencies)

Public Media

(Law No. 1989/QH, amended by Law No. 12/1999/QH10) Increase legal awareness; instrument of legal propaganda (State & private agencies) The following is an overview of the legal documents of Vietnam, which is important, because different state agencies at different administrative levels are authorized to draft, adopt and promulgate specific categories of legal documents. The overview will allow the reader to better understand the relevance and importance of these documents.

2.2.2 Hierarchy of Vietnam's Legal Documents

The first Law on the Promulgation of Legal Documents (*Luật Ban hành Văn bản quy phạm pháp luật*), which was passed in 1996 by the National Assembly of the Socialist Republic of Vietnam, was considered as the legal foundation for setting up orders and rules for legislative activities.

In response to the requirements of legislative reformation, constitutional conformation (with the 1992) Constitution as amended) and other priority laws (Law on Organization of The National Assembly 2001, Law on Organization of The Government 2001), this first Law on the Promulgation of Legal Documents 1996 was amended by Law No. 02/2002/QH11 on amendment of and in addition to a number of articles of the law on the promulgation of legal documents (Luât của Quốc hôi nước Công hòa xã hôi chủ nghĩa Việt Nam số 02/2002/OH11 ngày 16/12/2002 sửa đổi, bổ sung một số điều của Luật Ban hành Văn bản quy phạm pháp luật); hereafter called 'LPLDs 2002'. Thus, the Vietnamese legal system has not only upgraded in quantity but also in quality, basically meeting the requirements of state management in the socialist-oriented market economy. Nevertheless, the scope of the LPLDs 2002 reformation has only focused on a number of foundational articles – urgent points relating to the legislative procedure itself. Still, main legislative problems remain untouched such as regulations on legislative competence, legal drafting procedures and basic principles on the drafting and promulgating of legal documents. The number of important points has caused a great deal of controversy: the definition of legal documents, the position of international treaties and their relation to inland regulations, principles for the application of general and special laws, legislative authorization, public hearing respects, and the transparence of legislative procedure.

On June 3, 2008 the Law on the Promulgation of Legal Documents (*Luật Ban hành Văn bản quy phạm pháp luật*) No. 17/2008/QH12 (hereafter called 'LPLDs 2008') was passed by the National Assembly of the Socialist Republic of Vietnam (12th legislature, 3rd session), which aimed to settle the problems mentioned above and meet the target of the legal developing strategy by 2020, as well as improving a market-oriented legal framework to conform with Vietnam's international commitments (such as BTA and AFTA, but in particular the WTO (the World Trade Organization), of which Vietnam officially became a member in November 2006). It replaced the 1996 Law on the Promulgation of Legal Documents and Law No. 02/2002/QH11 on the amendment of and addition to a number of articles of the law on the promulgation of legal documents.

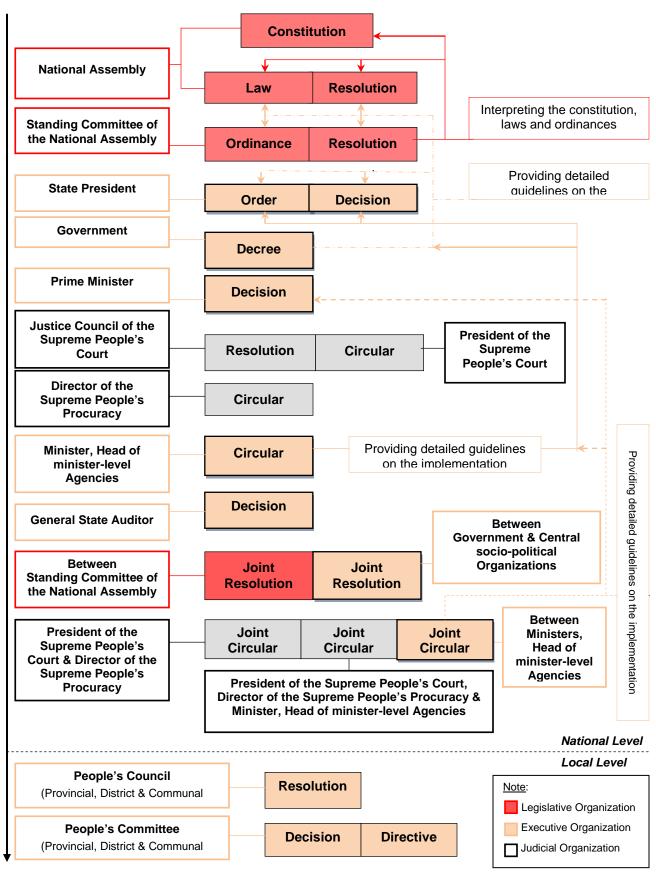
According to the 1996 Law on the Promulgation of Legal Documents (amended in 2002), Vietnam's legal system consisted of more than twenty types of legal documents issued by many different state bodies; each state body had the right to promulgate two or even three types of legal documents. The legal system was thus quite complicated and caused much confusion by implementing these legal documents. Such a legal system was even unclear to the legislative organization itself, as the types and subjects of legal documents were very hard to define. In response to this issue, as regulated by Article 2 of LPLDs 2008, certain state bodies could promulgate only one type of legal document. For instance, the Government, instead of issuing decrees and decisions as regulated by the LPLDs 1996, could issue only decrees; the Prime Minister could issue, instead of directions and decisions, now only decisions; ministers, heads of ministerial-level agencies, directors of the Supreme People's Procuracy, and the president of the Supreme People's Court could only issue one type of legal document – a circular – instead of the decisions, directions and circulars previously regulated by LPLDs 1996. Accordingly, the current legal system of Vietnam, as regulated by Article 2 of LPLDs 2008, consists of the following:

- 1. Constitution, laws and resolutions of the National Assembly;
- 2. Ordinances and resolutions of the Standing Committee of the National Assembly;
- 3. Orders and decisions of the State President;
- 4. Decrees of the Government;
- 5. Decisions of the Prime Minister;
- 6. Resolutions of the Justice Council of the Supreme People's Court and circulars of the President of the Supreme People's Court;
- 7. Circulars of the Director of the Supreme People's Procuracy;
- 8. Circulars of ministers or heads of ministry-equivalent agencies;
- 9. Decisions of the General State Auditor:
- 10. Joint resolutions of the Standing Committee of the National Assembly or those in Government and Central socio-political organizations;
- 11. Joint circulars of the President of the Supreme People's Court and the Director of the Supreme People's Procuracy; those of ministers or heads of ministry-equivalent agencies and the President of the Supreme People's Court, the Director of the Supreme People's Procuracy;
- 12. Legal documents of People's Councils and People's Committees.

Additionally, as regulated by the LPLDs 2008, since coming into effect on January 01, 2009 legal documents other than the above–mentioned but issued before 2009 still retain validity until they are abrogated, abolished or replaced by other legal documents. This applies in areas such as Government resolutions; directions of the Prime Minister; decisions and directions of ministers, heads of ministerial-level agencies, the director of the Supreme People's Procuracy, and the President of the Supreme People's Court; and joint regulations of the Government and central socio-political organizations.

Each of these different types of legal documents is in hierarchical order, which is shown in Chart 2. The chart illustrates that all legal documents must conform to the Constitution and that all local documents must conform to the respective national legislation. The complete hierarchy is as follows:

Chart 2: Hierarchy of Legal Documents of Vietnam



2.2.3 Definition of Legal Documents

As we can see from Chart 2, the current legal system in Vietnam, although it has much improved compared to the previous system thanks to the most recent Law on the Promulgation of Legal Documents 2008 reform, is barely complicated yet might still cause misunderstanding and confusion. Nevertheless, certain types of legal documents can be promulgated by different state agencies. A "decision", for instance, can be issued by the State President, the Prime Minister, the General State Auditor, and even by people's committees of all levels (provincial, district and communal). The question is how to distinguish them from others. As a result, it is then an absolute prerequisite to identify the role and position of each legal document, as well as the relationship between them.

Based on the Law on the Promulgation of Legal Documents No. 17/2008/QH12, legal documents are those issued or jointly issued by state organizations in compliance with this law or the Law on the Promulgation of Legal Documents of the People's Councils and People's Committees. They consist of common rules of conduct and are compulsory. Their implementation is guaranteed by the Government to regulate social relations (Article 1). Accordingly, the legal documents of Vietnam are divided into laws/regulations and secondary regulations. Laws/ordinances are legal documents passed by the National Assembly, the highest constitutional body of the Socialist Republic of Vietnam – the only body vested with constitutional and legislative powers. The procedures and formation of these laws/regulations are regulated within Articles 84, 88 and 147 of the 1992 Constitution (as amended), and consist of the Constitution as well as other laws and resolutions. Laws/ordinances shall be applied as regulations with the supreme legal force of the legal system in Vietnam. Should other legal documents not be promulgated in accordance with the Constitution, laws and resolutions, they cannot be considered as legal documents (Article 146 of the 1992 Constitution; Article 1, Para.2 of the LPLDs 2008).

The fundamental rights of Vietnamese citizens including their civil, political, economic, and social rights are recognized in the 1992 Constitution (as amended), which is applied as the basic regulation. **Laws** ($Lu\hat{q}t$) of the National Assembly shall address fundamental issues as well as the rights and obligations of Vietnamese citizens. **Resolutions** (Nghi $quy\acute{e}t$) of the National Assembly shall reflect their decisions on socio-economic development tasks, planning state budgets, allocating central budgets, and adjusting state budgets (Article 11 LPLDs 2008).

The Standing Committee of the National Assembly (*Ủy ban Thường vụ Quốc Hội*) is the permanent body of the National Assembly, with duties and powers to explain the constitution, laws and ordinances (Article 90, 91 Constitution 1992). **Ordinances** (*Pháp lệnh*) of the Standing Committee of the National Assembly shall contain regulations on those tasks assigned by the National Assembly. These regulations can be proposed for the development of laws after a certain period of implementation. **Resolutions** (*Nghị quyết*) of the Standing Committee of the National Assembly aim to interpret the constitution, laws and ordinances (Article 12 LPLDs 2008).

Secondary regulations are issued by state organizations (administrative and judicial concerns). They are legal documents of a lower rank than laws/regulations relating to the legal force in the legal documents' hierarchy. Executive organizations, at national level as well as local level, also have power to promulgate legal documents. The State President is the head of state, acting on behalf of the Socialist Republic of Vietnam in domestic and foreign affairs (Article 102 Constitution 1992). **Orders and decisions** (*Lệnh & Quyết định*) of the State President are issued to exercise tasks and competences defined in the constitution, laws and resolutions (Article 13 LPLDs 2008).

The Government, which is composed of the Prime Minister, Deputy Prime Minister, ministers and heads of ministerial-level agencies, is the executive body of the National Assembly, and the highest administrative state body of Vietnam (Article 109, 110 of Constitution 1992; Article 3 of Law on Organization of the Government). **Decrees** (*Nghị định*) issued by the Government provide detailed guidelines on the implementation of laws and resolutions of the National Assembly, ordinances and resolutions of the Standing Committee of the National Assembly, and orders and decisions of the State President. Above all, Government's decrees shall specify the tasks, authorities and

organizational structures of ministries, ministry-equivalent agencies and Government-affiliated agencies (Article 14 LPLDs 2008). **Decisions** (*Quyết định*) of the Prime Minister focus on state management relating to the Government's operation and public administrative system (from central to local levels), as well as the working regulations of Government members and Chairmen of People's Committees in provinces throughout the country (Article 15 LPLDs 2008). **Circulars** (*Thông tur*) issued by ministers and heads of ministry-equivalent agencies (*Thủ trưởng co quan ngang bộ*) provide detailed guidelines on the implementation of laws and resolutions of the National Assembly, ordinances and resolutions of the Standing Committee of the National Assembly, orders and decisions of the State President – as well as Government decrees – and decisions of the Prime Minister. Moreover, ministers' circulars specify regulations on technical standards and procedures, as well as setting techno-economic standards for sectors of which they are in charge (Article 16 LPLDs 2008).

People's courts and people's procuracies are duty-bound, within their specific sets of responsibilities, to protect socialist legislation, the socialist system, people's rights as sovereign masters, and state and collective property, as well as protecting the lives, property, freedom, honour and dignity of Vietnamese citizens. The Supreme People's Court (Tòa án Nhân dân tối cao), local People's Courts (Tòa án Nhân dânđ ia phương), and military tribunals (Tòa án Quân su) are judicial bodies of the Socialist Republic of Vietnam (Article 127 Constitution 1992). The Supreme People's Court, according to Article 134 of the 1992 Constitution, is the highest judicial body of the Socialist Republic of Vietnam. Its legal documents, however, aim to exercise management of the court's system, as well as lead courts in applying legal documents in a consistent manner. In particular, **resolutions** (Nghị quyết) of the Justices' Councils of the Supreme People's Court ensure that courts apply legal documents in a consistent manner. Circulars (Thông tw) of the Chief Justices of the Supreme People's Court aim to exercise management of local people's courts and military courts. Circulars of the President of the Supreme People's Procuracy shall provide methods to ensure the implementation of local people's procuracy tasks and authorities, as well as military procuracies (Article 17 & 18 LPLDs 2008). **Decisions** (Quyết định) of the General State Auditor shall prescribe the state's auditing standards and provide guidelines for the implementation of, and detailed auditing procedures for, auditing documents (Article 19 LPLDs 2008).

Finally, **Joint resolutions** (*Thông tư liên tịch*) of the Standing Committee of the National Assembly, or those of the Government and central socio-political organizations, shall create guidelines on how to address issues related to their participation in state management as stipulated by law. Joint circulars of the President of the Supreme People's Court and Director of the Supreme People's Procuracy and those of ministers, heads of ministerial-level agencies, the President of the Supreme People's Court, and the Director of the Supreme People's Procuracy shall provide guidelines for the consistent application of legal documents relating to judicial operation. Joint circulars issued by ministers and heads of ministerial-level agencies shall provide guidelines on the implementation of laws and resolutions from the National Assembly, ordinances and resolutions of the Standing Committee of the National Assembly, orders and decisions of the State President, decrees of the Government, and decisions of the Prime Minister related to his/her functions, tasks and authorities (Article 20 LPLDs 2008).

In addition, **People's Councils and People's Committees'** legal documents, based on the Law on the Promulgation of Legal Documents 2008, shall comply with the Law on the Promulgation of Legal Documents for People's Councils and People's Committees (*Luật Ban hành Văn bản quy phạm pháp luật của Hội đồng Nhân dân, Ủy ban Nhân dân)* No. 31/2004/QH11 dated December 3, 2004. Accordingly, People's Councils (at provincial, district and communal levels) have the right to provide resolutions (Article 11, 15, 18). In addition, decisions and directives are issued by the People's Committees at provincial, district and communal levels (Article 13, 14, 16, 17, 18 and 20).

2.2.4 Current Legislative Procedure in Vietnam

In fact, Vietnam's legislation process is still limited and not yet comprehensive in several respects such as effectiveness, validity and public participation criteria. According to Government legal

experts, the current legislation process still does not meet the needs of urgent legal documents, and the current legal system of Vietnam is still quite complicated; identical phases in the legislation process bring about delays in promulgating timely regulations. Although the Law on the Promulgation of Legal Documents 1996 was replaced and much improved by the Law on the Promulgation of Legal Documents 2008, the current legal system of Vietnam is still complicated with more than eighteen types of legal documents issued by different state agencies at national and local levels. Today, we can find unfeasible, overlapping and unjustified regulations causing the lack of unity and regulations in the entire legal system that specify the responsibilities of state organizations in the examination, revision and systemization of issued legal documents caused many difficulties in implementing and looking up of such legal documents. Further, there is still no unification in the implementation of legal documents, which causes confusion and misunderstanding, as regulations on such matters are not yet presented. Above all, transparency in legal issues still remains unchanged – public participation in the legislative process is still restricted. Public hearing on the procedure for promulgating laws and ordinances is being interested in a formal sense only (GoV 11.12.2007; 09.05.2008).

Following this overview of Vietnam's legal system, it is now easier to examine the legal framework of the water sector in Vietnam. In the following section, an overview of the legislation pertaining to the water sector in Vietnam shall be provided. Furthermore, the current situation and resulting problems, as well as conflicting issues relating to implementation, shall be analyzed.

3. Legal Framework of the Water Sector in Vietnam

3.1 The Position and Role of Legislation on the Water Sector

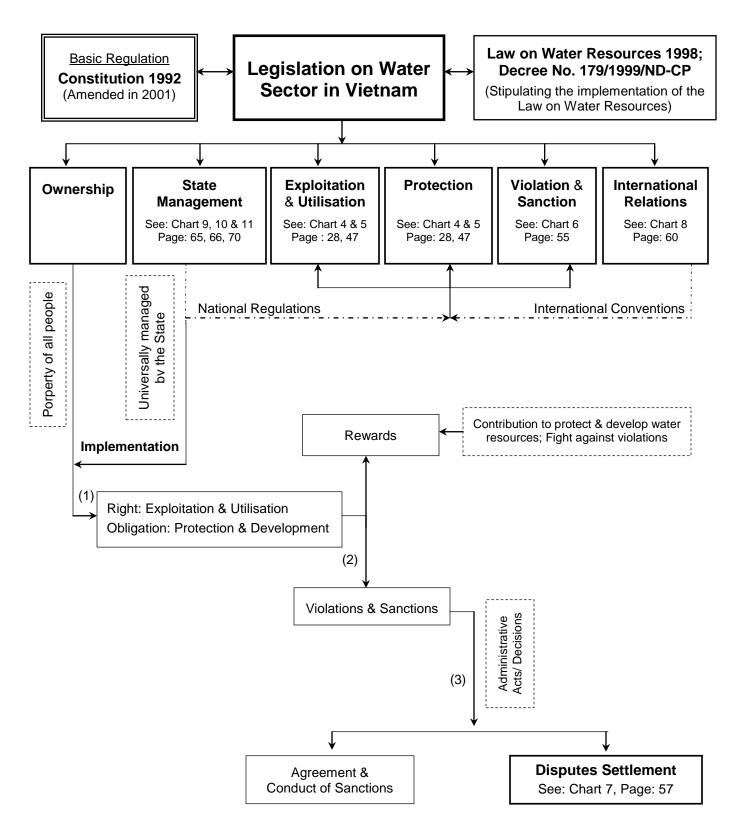
According to Vietnam's current water sector legislation, water resources are under the ownership of the entire population and uniformly managed by the state. All organizations and individuals have the right to exploit and use water resources to meet their daily life and production demands. In addition, they are also obligated to protect and develop water resources in a sustainable manner, as well as prevent against and mitigate for any harm caused by water.

Pursuant to the Constitution of the Socialist Republic of Vietnam in 1992, the Law on Water Resources No. 08/1998/QH10 (hereafter called LWR) was passed by the National Assembly on May 20, 1998. The law outlined state management, exploitation and utilization, the protection of water resources and sanctions against violations, as well as international relations in water resources management. To guide the LWR's implementation, Decree No. 179/1999/ND-CP (hereafter called Decree 179/CP) was promulgated by the Government on December 30, 1999, and prescribed in detail state management, exploitation and utilization, the protection of water resources, especially relating to the discharge of wastewater into water sources, and the granting of permit(s) related to water resources, as well as the prevention of, combat against and overcoming of harmful effects caused by water. These two legal documents created a legal basis for the management of the water sector in Vietnam.

In addition, important related laws and ordinances have been developed to meet the requirements of the country's development and its international integration in different issues regarding environmental protection, in particular water resources protection: the Law on Minerals 1996 (amended in 2005), Ordinance on Exploitation and Protection of Irrigation Works 2001, the Law on Land 2003, the Law on Fisheries 2003, the Law on Inland Waterway Navigation 2004, the Law on Tendering 2005, the Law on Dykes 2006, and especially the Law on Environmental Protection 2003 (which replaced the Law on Environmental Protection 1993). These legal documents have an inseparable relationship with legislation on the water sector in Vietnam.

Apart from the legal groundwork for managing the water sector (the Law on Water Resources and the Decree 179/CP) and respective laws/ordinances, important secondary regulations have been developed to provide further provisions for protecting the water resources as well as dealing with violations against the legislation on water resources protection. Overviews of the secondary regulations on exploitation and utilization, the protection of water resources and sanctions against violations – as well as international relations in water resources management in Vietnam – are provided in 3.2.2.3 and 3.2.2.4. A general overview on the legal framework is provided in chart 12, annex 4. The following chart (3) provides an overview of the position and key dimensions of water sector legislation in Vietnam.

Chart 3: Position and Key Dimensions of Water Sector Legislation in Vietnam



3.2 Key Legislation for the Water Sector

Nowadays, environmental protection in general, as well as the protection of water resources in particular, is a burning issue at a global level. The many dangers of water pollution, recession and other related problems are hard to deal with, especially for developing countries where daily life and social development needs conflict with the necessity of protecting water resources. Like many other developing countries, Vietnam is coping with the contradictions of developing and protecting of its water resources.

In order to gain a better insight into key legislations for the water sector in Vietnam, it is, first of all, essential to examine its historical development.

3.2.1 Historical Development

Water is an important resource and essential for human life and the environment, deciding the existence and sustainable development of a country. Protecting the water source ensures the continuation of the lives of humans as well as the Earth. Hence, the protection of water resources is an indispensable content of the law on environmental protection. It could be said that environmental protection law is the most innovative field within Vietnam's current legal system. How environmental protection law has developed can be divided into two main periods.

Before 1986, environmental protection did not exist as a specific legal field; it was impossible to find any regulations relating environmental protection. Decree No. 142/SL, dated December 21, 1949 and issued by President Ho Chi Minh, on the checking and report making of violations against forest protection regulations was considered the very first regulation on environmental protection. Later versions can be exemplified by laws such as the resolution of the Government Council No. 36/CP dated March 11, 1961 regulated management and protection of underground resources; direction of the Government Council No. 127/CP dated May 24, 1971 on the basic investigation of environmental resources and natural conditions; direction of the Prime Minister No. 07/TTg dated January 16, 1964 on money collection from buying forest products and forest keeping; ordinance on forest protection dated September 11, 1972; and especially as regulated by Article 36 of the 1980 Constitution "...state organizations, enterprises, co-operatives...and citizens are all obligated to implement the policy of improving recycling and protecting environmental resources" (Le Hong Thanh 2006:7-58).

Despite Article 36 of the 1980 Constitution, most regulations on environmental protection in this period were promulgated mainly as secondary regulations in the absence of an environmental protection law. In addition, Vietnam's legal system before 1986 was not comprehensive in any way; the domination of a state-subsidized mechanism limited legal development. Even practical laws during this period (such as economic law and financial banking law) remained undeveloped (Le Hong Thanh 2006:47). Therefore the lack of an environmental protection law meant that Vietnam was unable to meet the requirements of international cooperation in protecting the environment.

By the end of the 1970s and beginning of the 1980s, economic reform – caused by the social-economic crisis that removed a subsidized, concentrated economy to a market-oriented economy – brought significant changes to Vietnam. Nevertheless, despite many positive outcomes of the reform, there were a number of negative social-economic problems. In particular, the exploitation of natural resources was uncontrolled. People tried to outdo each other in digging gold and logging (Le Hong Thanh 2006:48). In addition, environmental pressure increased as a result of the rapid development of urbanization caused by the market economy. The need for a vastly increased public infrastructure, the dramatic rise in the amount of motorbikes and cars and air and water pollution caused by industrial zones led to irreversible after effects such as acid rain and different kinds of human diseases. Thus, the need for environmental protection and sustainable development was not only a considerable challenge, but also needed to be integrated into the primary development strategy of Vietnam.

Since 1986, especially during the early 90s, environmental protection has become a constitutional principle, as regulated by Articles 17 and 29 of the 1992 Constitution. Furthermore, the Law on Foreign Investment in Vietnam (1987) has specific Articles regulating environmental protection obligations. It was the very first promulgated legal document to view environmental protection as a legal issue. Following this, environmental protection was regulated via obligation articles for those in charge of environmental development by other legal documents (Maritime Code 1990, the Law on Private Enterprises (1990), Land Law 1993, Petroleum Law 1993, the Law on Water Resources 1998, etc.). Furthermore, international cooperation was forthcoming to help with reforming environmental protection issues.

The first Law on Environmental Protection, passed by the National Assembly on December 27, 1993 (hereafter called LEP 1993), created a foundation for environmental legislation becoming an important field in Vietnam's legal system. It can be said that after the first law on environmental protection which came into effect on January 10, 1994, Vietnam's attitude toward environmental. It was the first time that basic definitions of the environment and environmental protection were regulated as regulations; the rights and obligations of organizations and individuals to protect the environment were regulated clearly and specifically. At this time, however, the system of water management focused only on a few water development issues that continued until 1990s. It was firstly about the development of irrigated agriculture and hydropower and protection from floods as a secondary objection. Conflicts between different types of water usage such as water supplies for domestic users and industrial production, irrigation works, hydropower, navigable inland waterways and fisheries have been rising during the 1990s. Water resources management evolved into a priority issue. Together with the LEP 1993, several key legal documents were issued before the 1990s, such as:

- Law on People's Health Protection 1989 (Luật Bảo vệ Sức KhỏeNhân dân);
- Ordinance on Natural Resources Tax 1989 (Pháp Lệnh về Thu Thuế Tài Nguyên);
- Ordinance on Dykes Protection 1989 (*Pháp Lênh Bảo vê Đê Điều*);
- Ordinance on Protection of aquatic products sources 1989 (*Pháp Lệnh Bảo vệ Nguồn lợi Thủy Sản*).

Based on the LEP 1993, the state encouraged and created favourable conditions for organizations and individuals in the rational use and exploitation of environmental components. Accordingly, components of the environment were defined as: air, water, soil, sound, light, Earth's interior, mountains, forests, rivers, lakes, sea, living organisms, ecosystems, pollution areas, production centres, nature reserves, natural landscapes, historical vestiges and other physical forms. The task of water resources protection was further cited in Article 15 of LEP 1993, whereby "...organizations and individuals must protect water resources, water supply and drainage systems, vegetation, [and] sanitation facilities..."

Moreover, anyone conducting operations relating to water resources has to comply with the environmental standards for water protection (Article 22 of Government's Decree No. 175/CP issued in 1994 – hereafter called Decree No. 175/CP – on providing guidance for the implementation of the Law on Environmental Protection 1993). The environmental standards for water protection specify the parameters and allowable concentrations of pollutants in surface water (TCVN 5942-1995: surface water quality standard), coastal water (TCVN 5943-1995: coastal water quality standard), groundwater (TCVN 5944-1995: Groundwater quality standard), and in industrial wastewater (TCVN 5945-1995: Industrial wastewater discharge standards). In addition, according to the Government's Decree No. 175/CP, the financial source for environmental protection tasks was spent on the basic surveys; especially on land, water, air, forest, sea, related activities, etc. Furthermore, it was the first time that regulations relating to the assessment of environmental impact were specified, as regulated by the Government's Decree No. 175/CP, as well as suggesting that a state inspection authority could take sanctions against any administrative violations in the field of environmental protection. These suggestions were, however, argued against and not applied at that time.

In 1995, the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin⁶ was signed by the Governments of The Kingdom of Cambodia, The Lao People's Democratic Republic, The Kingdom of Thailand, and The Socialist Republic of Vietnam. Each signatory agreed on the joint management of shared water resources and the development of the economic potential of rivers. The main aim of this Agreement is to protect the environment, natural resources, aquatic life, and ecological balance of the Mekong River Basin from pollution or other harmful effects resulting from any development plans and the use of water and related resources in the Basin. In addition, it further focuses on cooperation in the fields of sustainable development, utilization, management and conservation of water and related resources within the Mekong River Basin including, but not limited to, irrigation, hydropower, navigation, flood control, fisheries, timber floating, recreation and tourism, in a manner that shall optimize the multiple uses and mutual benefits of all riparians and minimize any harmful effects that might result from natural occurrences and man-made activities (as regulated by Article 1 & 3 of the 1995 Mekong Agreement and Procedural Rules).

In January 1999, Vietnam enacted its very first Law on Water Resources No. 08/1998/QH10 (hereafter called LWR), which was adopted in May 1998 to provide a foundational framework for managing the water sector in Vietnam. Almost a year later, on December 30, 1999, an implementation Decree No. 179/1999/ND-CP (hereafter called Decree 179/CP) was issued by the Government specifying functions of the National Water Resources Council as defined in Article 63 of the LWR. Accordingly, the National Water Resources Council was established to advise the Government on important decisions related to water resources. In addition, the Ministry of Agriculture and Rural Development was assigned to establish and provide specific regulations for the organization and operation of the River Basin Planning Organizations in the Hong-Thai Binh River (sông Hồng-Thái Bình) and Cuu Long Delta (sông Cửu Long). Along with the LWR and Decree 179/CP, a comprehensive foundation for water management was provided in Vietnam.

In the following subsection, the main water-related laws/ordinances and secondary regulations shall be summarized. In order to gain a better insight into the legal framework on water sector management in Vietnam, water-related legal documents will be provided together with the following charts:

Chart 4: Key Laws/ordinances on Water Resources Protection

Chart 5: Key Regulations on Water Resources Protection

Chart 6: Key regulations on Violations and Sanctions

Chart 7: Disputes Settlement System in Environmental Fields – An Overview

Chart 8: Key International Conventions on Environmental Protection

Chart 9: State Management on Water Sector at National Level

Chart 10: State Management on Water Sector at Local Level

Chart 11: Delivery of State Responsibilities for Water Resources Management

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⁶ Mekong River Commission (MRC): http://www.mrcmekong.org

3.2.2 Summary of Laws and Secondary Legislation

Vietnam's legislation on the water sector consists of a complex system of legal documents issued by different state agencies. Like other legal fields, the groundwork of the legislation for the water sector is many-faceted. Numerous water-related legal documents are specified by general laws and ordinances. Other regulations are systematized and prescribed by specific secondary regulations. In the following subsection, an overview of the key legal documents related to water management in Vietnam is given.

3.2.2.1 Constitution 1992 (amended)

With its radical role as the basis of the law, the 1992 Constitution (amended) specified the task of environmental protection as a constitutional obligation. Accordingly, "...all state agencies, armed forces units, economic organizations, social organizations and individuals have to observe state regulations on the radical utilization of natural resources and protecting the environment. Any acts resulting in the depletion and destruction of the environment are strictly prohibited" (Article 29). This regulation created the constitutional foundation for communicating to all subjects in charge of environmental development the obligation to protect the environment.

Furthermore, the 1992 Constitution (amended) stipulated through Article 17 that "...land, forest, rivers and lakes, water resources, underground natural resources, resources in the territorial water, etc. fall under the ownership of all people", exerting a deep influence on the legal status of subjects in charge of the environment. These constitutional regulations on environmental protection caused a further impact on the contents of other legal documents related to the environment, which had to comply with the 1992 Constitution (amended). Furthermore, the 1992 Constitution (amended) had the decisive role in making decisions on Vietnam's participation in international agreements on the environment (multilateral, as well as bilateral).

3.2.2.2 Laws and Ordinances

According to the Law on the Promulgation of Legal Documents 2008, laws are promulgated by the National Assembly, addressing fundamental issues in the following fields: economics, society, national defence and security, finance, money, the budget, tax, ethnicity, religion, culture, education, health, science and technology, the environment, external relations, the organization and functioning of state apparatus, the civil service, public officials and civil servants, and the rights and obligations of citizens. Ordinances issued by the Standing Committee of the National Assembly contain regulations on issues suggested by the National Assembly. After a certain period of implementation, these issues are proposed for development into laws for the National Assembly's consideration.

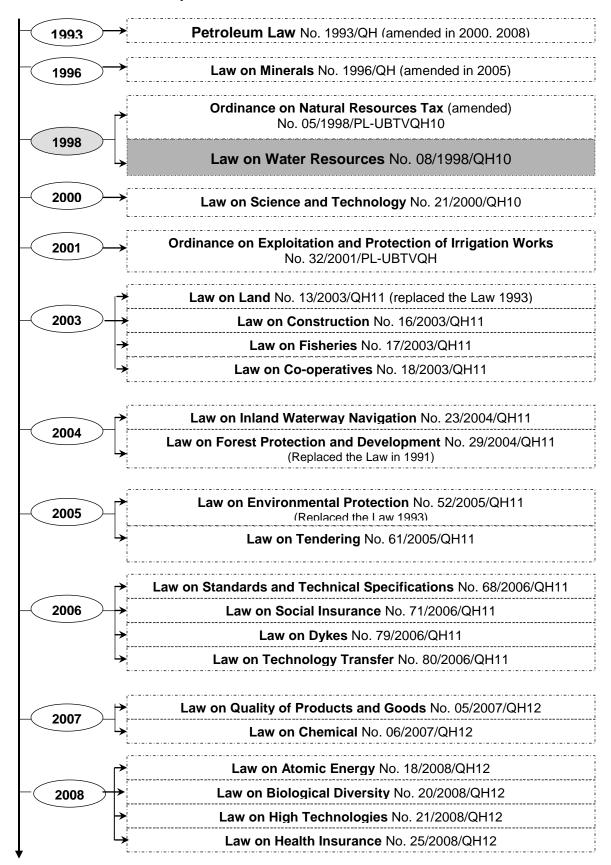
Based on the reform of the LPLDs 2008, the collection of comments on the draft of laws and ordinances and the comments of concerned agencies, organizations and directly relevant objects must be made by the draft's leading agencies/organizations in the drafting process of laws and ordinances. The process of drafting a law can therefore be very long; all of these consultation processes must be observed and the various comments dealt with accordingly. Sometimes, it takes several years before a law is finally passed. To be more precise, the following is required:

Full texts of the draft laws and ordinances shall be posted within a minimum 60 days on Government websites, as well as on those of the draft's leading agencies/organizations, so that any concerned agencies, organizations or other individuals can make any relevant comments. These comments may be collected directly from the concerned agencies/organizations/individuals or by sending them the draft documents for their comments or to organize consultative workshops, through the websites of the Government, the draft's leading agencies/organizations or through public media outlets. Furthermore, concerned agencies/organizations shall be responsible for providing their written comments on the proposed laws and ordinances; specifically, the Ministry of Finance shall be responsible for providing comments on financial sources, the Ministry of Home Affairs on human

resources, the Ministry of Natural Resources and Environment on environmental impacts, and the Ministry of Foreign Affairs on the relevance to any related international treaties of which the Socialist Republic of Vietnam is a member.

Regarding water resources protection, in addition to the 1992 Constitution (amended) as the basic law, numerous important laws and ordinances have been developed to meet the requirements of the country's development and its international integration in different issues. The following chart (4) provides an overview of the key laws and ordinances promulgated since 1993, all of which have a inseparable relationship with legislation on the water sector in Vietnam.

Chart 4: Key Laws/ordinances on Water Resources Protection



Pursuant to the 1992 Constitution of the Socialist Republic of Vietnam, the Law on Water Resources (*Luật Tài nguyên nước*) No. 08/1998/QH10 was passed by the National Assembly at the 10th legislature, 3rd session on May 20, 1998. The law stipulates the management, protection, development, and utilization of water resources, as well as the control and mitigation of any adverse consequences caused by water.

Water resources stipulated in this law refer to surface water, rainwater, groundwater and seawater within the territory of the Socialist Republic of Vietnam. In legal terms, "water resources" refers to various forms of natural or man-made water accumulations that can be exploited and used – rivers, streams, canals, ditches, sea, lakes, lagoons, ponds, aquifers, drains, ice, snow and other forms of water accumulation. Depending on quality and features, there are different requirements on the management and use of water resources. The LWR divides these into specific groups: (1) "surface water" occurring on the surface of the mainland or on islands; (2) "groundwater" occurring in aquifers underground; (3) "domestic water" used for cooking, drinking and sanitary purposes; (4) "domestic water source" supplied as domestic water or water, which can be economically treated to meet the quality requirements of Vietnam's standards for clean water; and (5) "international water sources" flowing from Vietnamese territory into other countries, from the territory of another country into Vietnam, or occurring on the border between Vietnam and a neighbouring country.

In particular, the LWR consists of ten chapters with 75 Articles, and has been in force since January 01, 1999. Apart from the general provisions (ownership, subject and scope of application, legal term explanations, etc.), the LWR provides provisions on protecting water resources (chapter II); the rights and obligations to exploit and use water resources (chapter III); the prevention, control and mitigation of the consequences of flooding, inundation and other adverse effects caused by water (chapter IV); the exploitation and protection of hydraulic works (chapter V), as well as international relations in respect of water resources (chapter VI); state management on water resources (chapter VIII); the duties and authority of specific inspectorates for water resources (chapter VIII); violation settlement (chapter IX); and, finally, implementation provisions (chapter (X)).

As regulated by chapter II of this law, state agencies, economic organizations, political organizations, political-social organizations, social organizations, people's armed force units, and individuals all have the responsibility to protect water resources. Local authorities at all levels (provincial, district, and communal) have the responsibility to protect water resources in their localities. Accordingly, the state shall adopt plans for the protection and development of upstream protective forests and other forests, the construction of hydraulic works and the rehabilitation of degraded and depleted water sources, and encourage organizations and individuals to exploit and use water rationally and economically to protect the water resources.

Furthermore, organizations and individuals carrying out geological exploration drilling, groundwater exploration drilling or foundation treatment must take measures to protect **groundwater** resources in accordance with the provisions of the law. In addition, organizations and individuals exploiting groundwater must comply with the procedures and regulations on technical safety and subsidence control, on the protection of aquifers and the related environment and on back-filling after exploitation. Relating to mining activities, the construction of underground structures and groundwater exploitation works must comply with the procedures and regulations on technical safety and avoid the degradation and depletion of groundwater sources and serious land subsidence (Article 12). Further, organizations and individuals carrying out groundwater exploration and exploitation, as regulated by Articles 24 and 34, must apply for a licence from a competent state authority, except in such cases of the exploitation and utilization of groundwater sources on a small scale within family homes for domestic purposes; and for agricultural, forest, aqua-culture production, small industrial and handicraft production, hydropower generation and for other purposes.

It is forbidden to discharge into water sources toxic water, untreated wastewater or treated wastewater not meeting the permissible standards stipulated by the legislation on environmental protection. The planning and management of industrial areas, tourist areas, concentrated population areas, hotels, large scale livestock raising and slaughtering establishments, radioactive substance and solid waste disposing landfills, and graveyards shall comply with the provisions of this law and the legislation on environmental protection, ensuring water sources not to be polluted (Article 13). In addition, organizations and individuals using water in production, business and other activities wishing to discharge wastewater into water sources must obtain permits from the competent state authorities. The issuance of such permits must be based on the capability of the water sources to accept the wastewater, to prevent the pollution of water sources and ensure water resource protection. Furthermore, those permitted to discharge wastewater into water sources shall have rights (1) to be compensated for losses in cases where the competent licensing agency changes the discharge location or reduces the term of the wastewater discharge permit; (2) to complain about and initiate lawsuits against acts of infringement upon their rights and the legitimate interests of wastewater discharge in accordance with the provisions of the law. Apart from these rights, relevant organizations also have **obligations** (1) to carry out wastewater treatment to meet permissible standards before discharging into the water sources - should they violate these provisions and cause damage, they shall compensate for such damages; and (2) to pay wastewater discharge permit issuance charges and wastewater discharge fees in accordance with the provisions of the law (Articles 18 & 19).

Furthermore, it is forbidden to dispose of waste and polluting waste into sanitary protection zones around domestic water intakes. Organizations and individuals have the responsibility to implement environment sanitation measures in order to protect **domestic water sources**. People's Committees at all levels (provincial, district and communal) must specify domestic water intakes' sanitary protection zones within their own localities (Article 14). Further, as regulated by Article 25, the state shall give priority to the exploitation and utilization of water resources for domestic purposes by: (1) investing in and supporting domestic water supply and clean water projects, with priority given to areas with special water scarcity, areas with difficult socioeconomic conditions, areas with specially difficult socioeconomic conditions, and areas with severely polluted water sources; (2) encouraging domestic and foreign organizations and individuals to invest in the exploitation of domestic water sources. Additionally, People's Committees at all levels and competent state agencies have the responsibility to work out and implement domestic water and clean water supply plans and projects and take urgent measures to ensure the availability of domestic water in cases of natural calamities or incidents causing a water shortage. Organizations and individuals provided with domestic and clean water supplies have the responsibility to contribute effort and money to the exploitation and utilization of domestic water and clean water, as stipulated by the competent agencies and organizations.

Organizations and individuals using chemicals in **agricultural production, aquatic and marine product cultivation and breeding** must not cause the pollution of water sources. Industrial production and mining establishments shall not discharge untreated waste gas and wastewater or treated gas or water not meeting permissible standards into the air and water sources, which may result in the pollution of water sources (Article 15). Moreover, the state shall invest in and support the exploitation and utilization of water resources for agricultural production. Measures to economize on the use of water – preventing and controlling acidification and salinization, swamping and the erosion of soil and the pollution of water resources – must be taken. Wastewater for agricultural production should only be used when such wastewater has met the standard for water quality (Article 26). The state shall also encourage investment in the exploitation and utilization of seawater for salt production and aquatic and marine product cultivation and breeding. The exploitation and utilization of water resources for aquatic and marine product exploitation, cultivation and breeding shall not cause the degradation and/or depletion of water sources, hinder the flow, damage hydraulic works, cause obstruction to water transport or cause the salinization of water sources and cultivated soil (Article 27). Organizations and individuals using water resources for industrial production shall economize on

the use of water and be encouraged to recycle water and reuse water and not cause the pollution of water sources (Article 28).

Organizations and individuals **exploiting and using water resources** shall apply for **permits** from the competent state authority, except in the following circumstances: (1) the exploitation and utilization of surface water sources or groundwater sources on a small scale within family homes for domestic purposes; (2) the exploitation and utilization of surface water sources or groundwater sources on a small scale within family homes for agricultural, forestry or aqua-culture production, small industrial and handicraft production, hydropower generation and for other purposes; (3) the exploitation and utilization of seawater sources on a small scale within family home for salt production and marine product cultivation and breeding; and (4) the exploitation and utilization of rainwater, surface water or seawater on land allocated and leased to themselves in accordance with the provisions of the Law on Land, provisions of this law and other provisions of the law (Article 24).

Furthermore, organizations and individuals exploiting and using water resources shall have the rights (1) to exploit and use water resources for the purposes of domestic consumption, agricultural, forestry and industrial production, mining, power generation and water transport, aquatic and marine product cultivation and breeding, salt production, sport, recreation, tourism, health care, health rehabilitation, scientific research and other purposes as stipulated in this law and other provisions of the law; (2) to benefit from the exploitation and utilization of water resources, to assign, lease, pass to heirs and mortgage the property invested in the exploitation and utilization and development of water resources; (3) to be compensated for losses in cases where their water resource exploitation and utilization licenses are revoked before expiration of their terms for reasons of national defence, security or national public interests: (4) to complain and initiate lawsuits against a competent state authority regarding acts of infringement upon their rights of the exploitation and utilization of water resources and other legitimate interests; (5) to receive state protection in respect of their legitimate interests in the exploitation and utilization of water resources. Furthermore, they are **obligated** (1) to comply fully with provisions on the legislation of water resources; (2) to use water for the correct purposes - economically, safely and efficiently; (3) to provide information for the inventory and evaluation of water resources when required; (4) not to hinder or affect the legitimate water resources exploitation and utilization rights of other organizations or individuals; (5) to protect water resources from being exploited and overused; (6) and to carry out their financial obligations, compensate for losses caused by themselves in the exploitation and utilization of water resources in accordance with the provisions of law (Article 22 & 23).

The rights to **complain, denunciate and initiate a lawsuit** against acts of infringement upon their rights to exploit and utilize water resources and other legitimate interests are regulated by Article 69. Accordingly, organizations and individuals subjected to inspection shall have the rights to complaint and initiate lawsuits against decisions or sanctioned measures given by the Inspection Team or Inspector. Individuals shall have the right to denunciate the competent state authorities' acts of violating the LWR. State authorities receiving complaint, denunciation and the initiation of a lawsuit have the responsibility to examine and settle them promptly in accordance with the provisions of the legislation on complaints and denunciations and other provisions of the law.

In addition, all organizations and individuals shall have the responsibility to protect **hydraulic works**. The Government shall decide and direct ministries, sectors and People's Committees at all levels to carry out the protection of hydraulic works. People's Committees at all levels have the responsibility to protect hydraulic works within their localities. Organizations or individuals managing and exploiting hydraulic works have the responsibility to protect directly such hydraulic works (Article 48). The following acts are prohibited:

(1) Illegal invasion and the use of land within the hydraulic works protection zone and activities causing obstruction to the management, repair and treatment of the hydraulic works when accidents occur;

- (2) Illegal activities causing instability of the hydraulic works within the protection zone comprise: (a) drilling, excavation and the illegal construction of buildings within a hydraulic works protection zone and river bed, river flood plain causing instability to the hydraulic works and retarding the retreat of a flood; (b) using dykes, embankments or sluices for transport purposes, making the dykes unsafe; (c) using explosives and causing damage, removing or filling up by one's own will hydraulic works to serve public interests; (d) constructing additional hydraulic works on the site of existing hydraulic works without the approval of the competent state authority; and
- (3) Operating hydraulic works not in accordance with the stipulated technical procedures and regulations.

Regarding **international relations** in respect of water resources, as regulated by chapter VI, the state of Vietnam offers its cooperation with foreign countries, organizations and individuals in basic surveys and the protection, exploitation and utilization of water resources, staff training, scientific research in water resources, the prevention, control and mitigation of any adverse effects caused by water. Moreover, the state of Vietnam encourages the exchange of information relating to international water resources, coordinates the research and working out of plans for the protection, exploitation and utilization of international water sources, coordinates plans for the prevention, control and mitigation of adverse effects caused by water, and work out and implement projects to increase common benefits and limit losses to the populace of countries sharing water sources.

Ordinance on Natural Resources Tax (No. 05/1998/PL-UBTVQH10)

Pursuant to the 1992 Constitution, the Ordinance on Natural Resource Tax (amended) (*Pháp lệnh về Thuế Tài nguyên sửa đổi*) No. 05/1998/PL-UBTVQH10 (hereafter called the Ordinance on Natural Resource Tax amended) was promulgated by the Standing Committee of the National Assembly on April 16, 1998, and replaced the Ordinance on Natural Resource Tax issued on 30 March, 1990. Taking effect since 01 June, 1998, this ordinance aims at contributing to the protection, exploitation and use of natural resources in an economic, rational and effective manner, as well as protecting the environment and ensuring revenue sources for the state budget.

Accordingly, all organizations and individuals that exploit natural resources have to pay natural resource tax, except in cases where Vietnamese parties, in joint ventures with foreign parties under the Law on Foreign Investment in Vietnam, make legal capital contributions with natural resources. Based on this Ordinance, the Government's Decree No. 68/1998/ND-CP of September 03, 1998 on detailing provisions and providing guidelines for implementing of the Ordinance on Natural Resource Tax; and the Decree No. 147/2006/ND-CP of December 01, 2006; Objects of natural resource tax prescribed included: (1) metallic minerals; (2) non-metallic minerals, including minerals to be used as common construction materials such as exploited earth, natural mineral water and thermal water; (3) petroleum; (4) gas; (5) products of natural forests; (6) natural aquatic resources; and (7) natural water, including surface water and groundwater (Article 2 Ordinance on natural source tax – amended, Article 2 of Decree No. 147/2006/ND-CP).

However, the Government's Decree No. 68/1998/ND-CP of September 03, 1998 on detailing provisions and providing guidelines for implementing of the Ordinance on Natural Resource Tax; and the Decree No. 147/2006/ND-CP of December 01, 2006 were abrogated and replaced by Decree No. 05/2009/ND-CP of January 19, 2009, issued by the Government. Therefore, the current objects of natural resource tax will be addressed further in chapter 3.2.2.3 (Secondary Regulations: Regulations on Violations and Sanctions).

Ordinance on the Exploitation and Protection of Irrigation Works (No. 32/2001/PL-UBTVQH10 dated April, 04, 2001)

Pursuant to the 1992 Constitution and the Law on Water Resources No. 08/1998/QH10, the Ordinance on the Exploitation and Protection of Irrigation Works (*Pháp lệnh Khai thác và Bảo vệ Công trình Thủy lợi*) No. 32/2001/PL-UBTVQH10 was passed by the Standing Committee of the National Assembly on April 04, 2001, and replaced the ordinance on the exploitation and protection of irrigation works adopted on August 31, 1994. This ordinance applies to irrigation works that have been built and already put into operation. Accordingly, the exploitation and protection of irrigation works is related to dykes, flood and storm prevention works and hydroelectric works, as well as water supply and drainage works for urban areas.

Irrigation works built by capital sourced from the state budget shall be managed by state enterprises. Irrigation works built by supporting sources from the state budget and capital contributed by water-consuming organizations and individuals shall by managed by cooperative organizations for water consumption. Irrigation works built by organizations' capital and/or that from individuals shall be managed by such organizations and/or individuals under provisions of the law.

However, the Government shall exercise unified state management over the exploitation and protection of irrigation works. The Ministry of Agriculture and Rural Development takes responsibility before the Government for the state management of irrigation works. Ministries, ministerial-level agencies and agencies attached to the Government have to coordinate with the Ministry of Agriculture and Rural Development when exercising state management over the exploitation and protection of irrigation works, as assigned by the Government. People's Committees at all levels need to exercise state management over the exploitation and protection of irrigation works in localities, as assigned by the Government (Article 30). Furthermore, People's Councils and People's Committees at all levels shall, within their authorities, apply measures to exploit and protect the irrigation works and supervise and inspect the observance of the legislation on the exploitation and protection of irrigation works in their respective localities (Article 5).

As regulated by Article 14, organizations and individuals consuming water or providing services with water from irrigation works for agricultural production must pay an irrigation charge. A wastewater discharging fee is paid when discharging wastewater into an irrigation works. Based on the practical conditions of each locality, the Government must prescribe the amount of the irrigation charge, water-consuming money and wastewater discharging fee for each kind of irrigation works, each type of water-consuming project and each type of subject providing services from irrigation works. The Ministry of Agriculture and Rural Development specifies the levels of irrigation charge, water-consuming money and wastewater discharging fee for state enterprises that exploit irrigation works under their management. Under the respective authorities, provinces' People's Committees and centrally-run cities have to specify the levels of irrigation charge, water-consuming money and wastewater discharging fee for state enterprises exploiting irrigation works and cooperative organizations for water consumption.

The Law on Land (No. 13/2003/QH11)

On November 26, 2003, the Law on Land (*Luật Đất đai*) No. 13/2003/QH11 was issued, which replaced the first Law on Land from 1993. This law prescribes the authorities and responsibilities of the state that represents the people ownership of land; performs the united management over land, land use management, and rights and obligations of land users. Accordingly, one of the key principles of land use is ensuring the economical and efficient use of environmental resources, as well as protecting the environment. Additionally, any plans drawn up for land use must ensure that natural resources are rationally used and exploited and the environment protected and developed in a sustainable manner.

Regarding water resource protection, Article 78 of this Law specifies regulations on the use of land with inland water for aquaculture and agricultural production as follows:

(1) Ponds, lakes and lagoons shall be assigned or leased by the state, with land rent collected annually from organizations, households and/or individuals involved in aquaculture and/or agricultural production.

Ponds, lakes and lagoons shall be assigned or leased by the state, with land rents collected in a lump sum for the entire lease term, or collected annually from overseas Vietnamese for the execution of investment projects in aquaculture and/or agricultural production.

Ponds, lakes and lagoons shall be leased by the state with land rents collected in a lump sum for the entire lease term or collected annually from foreign organizations and/or individuals for the execution of investment projects in aquaculture and/or agricultural production.

(2) For lakes or lagoons that lie in geographical areas stretching over many communes, wards and/or district towns, their use shall be decided by the People's Committees of rural districts, urban districts, provincial capitals or provincial towns. For lakes or lagoons that lie in geographical areas stretching over many rural districts, urban districts, provincial capitals or provincial towns, their use shall be decided by the People's Committees of the provinces or centrally run cities. For lakes or lagoons that lie in geographical areas stretching over various provinces or centrally run cities, their use thereof shall be stipulated by the Government.

As regulated by Article 102, the exploitation and use of river, brook, canal, ditch, stream and special-use surface water on land must not affect the primary set of purposes. Users must comply with the technical regulations of the relevant branches or sectors as well as regulations on the protection of scenic places and the environment, and must not impede the natural flows or obstruct waterway navigation. Based on the determined primary use, rivers, brooks, canals, ditches, streams and special-use surface water shall be managed and used in accordance with the following regulations:

The state shall assign such land to organizations for management in combination with the use and exploitation of special-use land-based water for non-agricultural purposes or non-agricultural production in combination with the culture and exploitation of aquatic products;

The state shall lease river, brook, canal or stream land with land rents collected annually from economic organizations, households and individuals for aquaculture;

The state shall lease river, brook, canal, and ditch and/or stream land with land rents collected annually from overseas Vietnamese and/or foreign organizations and individuals for the execution of investment projects in aquaculture.

Additionally, regarding water resource protection, this Law provides regulations on coastal water (Article 79), riparian and coastal alluvial land (Article 80), land used for mineral activities (Article 94), land used for the construction of public works with safety protection corridors (includes land for the construction of traffic systems, irrigation, dyke systems, water supply systems, water drainage systems, waste treatment systems, electricity transmission, petrol, oil or gas pipe lines, communications systems and land in corridors for the protection of these works – Article 97), etc.

The Law on Fisheries (No. 17/2003/QH11 dated November 26, 2003)

Pursuant to the 1992 Constitution, which was amended and supplemented by Resolution No. 51/2001/QH10 of December 25, 2001, the Law on Fisheries (*Luật Thủy sản*) No. 17/2003/QH11 (hereafter called Law on Fisheries 2003) was adopted on November 26, 2003 by the XI National Assembly at its fourth session. This Law applies to the fishery activities of Vietnamese organizations and individuals, foreign organizations and individuals on land, islands, internal water, territorial sea,

exclusive economic zones, and the continental shelf of the Socialist Republic of Vietnam. Under this Law, "fishery activities" are understood as the exploitation, culture and transportation of exploited aquatic resources; the preservation, processing, trading in, export and import of aquatic products; services in fishery activities; and the surveying, protection and/or development of aquatic resources. Organizations and individuals conducting fishery activities or other activities directly affecting the habitats, migration and reproduction of aquatic species must observe the provisions of this Law, legislation on environmental protection, legislation on water resources, and other relevant laws (Article 7 Law on Fisheries 2003).

As regulated by Article 6 of the Law on Fisheries 2003, it is prohibited to discharge wastewater and waste matter from aquatic resource-breeding establishments or aquaculture establishments and aquatic product-preserving and/or processing establishments, which have not yet been treated, or have been treated improperly, into the environment. The exploitation of aquatic resources in sea areas, rivers, lakes, marshes, lagoons, and other natural water areas must not exhaust aquatic resources – conforming to regulations on exploitation seasons, exploitation periods, categories and sizes of exploitable aquatic resources, and annual exploitable volumes (Article 11). In addition, exploiting, culturing, preserving, transporting, processing, exporting and /or importing of aquatic resources or products must conform to legislation on goods quality and food hygiene and safety (Article 45).

In addition, organizations and individuals exploiting aquatic resources must apply for permits to do so, except in cases where they exploit aquatic resources with fishing boats under 0.5 tons or without fishing boats. Permits to exploit aquatic resources can also be withdrawn in such cases regulated by Article 18 of the Law on Fisheries 2003. However, organizations and individuals exploiting aquatic resources have the right to complain about and/or denounce, to competent state bodies, any administrative acts violating fisheries legislation according to the legislation on complaints and denunciations (Article 59).

The Law on Inland Waterway Navigation (No. 23/2004/QH11)

The Law on Inland Waterway Navigation (*Luật Giao thông đường thủy nội địa*) No. 23/2004/QH11 (hereafter called LIWN 2004) was passed on June 15, 2004 by the XI National Assembly at its fifth session, pursuant to the 1992 Constitution (amended). This Law applies to organizations and individuals involved in navigable inland waterways activities, providing provisions for navigable inland waterways activities and conditions to ensure safety for navigable inland waterways infrastructures, vessels and people participating in navigable inland waterways and transport.

Based on this Law, the term "navigable inland waterway activities" shall be defined as the activities of people and vessels participating in navigable inland waterways or transport, development, building, operation and protection planning in and around navigable inland waterways infrastructures, and state management over navigable inland waterways. These navigable inland waterways activities must be smooth, ensure the safety of people, vessels and property, as well as the environment (Article 4). As regulated by Article 77, inland waterway transport refers to passenger transport and cargo transport. The transporter may only put vessels into operation according to their use and operation areas stated in the technical safety and environmental protection certificates granted by registry agencies. Forms of passenger transport on navigable inland waterways are stipulated by Article 78 of this Law.

It is prohibited to put vessels that do not meet the operating conditions stipulated in Article 24 of this Law on an inland waterway. Further, using vessels for tasks other than their intended purpose or in operational areas other than those stated in the technical safety and environmental protection certificates issued by registry agencies is prohibited. Vessels of lawful origin meeting the requirements of quality, technical safety and environmental protection standards, as stipulated by law, shall be granted registration certificates by competent state agencies (Article 25). These registry agencies, when inspecting the technical safety of vessels, must observe the Vietnamese system of

regulations and standards as well as brand standards. The heads of registry agencies and inspectors are responsible for the inspection results. The Transport Minister prescribes the quality, technical safety and environmental protection standards of vessels, regulating and implementing the registry of vessels nationwide (Article 26).

According to Article 99 of this Law, the state management of navigable inland waterways is stipulated as follows:

The Government performs united state management over navigable inland waterways.

The Ministry of Transport is responsible to the Government for the state management of navigable inland waterways.

The Ministry of Public Security coordinates with other ministries (Ministry of Transport, Ministry of Agriculture and Rural Development) in taking measures to protect the regulations and safety of navigable inland waterways, by organizing police forces to patrol and inspect and deal with acts violating legislation on navigable inland waterways, as well as collecting statistics and supplying data on navigable inland waterways accidents.

The Ministry of Agriculture and Rural Development shall coordinate with the Ministry of Transport in planning the network of fishing ports and wharves as well as fishery areas on inland waterways, directly guiding the implementation of measures to ensure the safe navigation of fishing vessels operating on inland waterways.

The Ministry of Agriculture and Rural Development, furthermore, shall assume the prime responsibility for and coordinate with the Ministry of Transport and other related Ministries and Branches for drawing up planning for the dyke system, irrigation works and flood and storm prevention and developing combat plans related to navigable inland waterways; guiding of placing and maintenance of inland waterway signs for irrigation works and timely clearance of irrigation works which are no longer in use and affect the channels and channel protection corridors.

The Ministry of Natural Resources and Environment shall coordinate with the Ministry of Transport in planning the development of river basins, managing and exploiting natural resources related to channels and channel protection corridors, ensuring navigation safety and protecting the environment on inland waterways;

Other Ministries and ministerial-level agencies shall, within their authorities, coordinate with the Ministry of Transport in performing the state management over the navigable inland waterways and transport.

The Law on Environmental Protection (No. 52/2005/QH11)

On November 29, 2005, the first Law on Environmental Protection 1993 was replaced by the Law on Environmental Protection (*Luật Bảo vệ Môi trường*) No. 52/2005/QH11 (hereafter called LEP 2005), and was passed by the National Assembly of the Socialist Republic of Vietnam in response to changes in the country's development requirements (industrialization, modernization, globalization and international economic integration).

Previously, the scope of the LEP 1993 covered purely environmental protection activities including maintaining clear and clean air, improving the environment, ensuring ecological balance, preventing and overcoming any adverse effects caused by the environment, and determining the rational and economical exploitation and utilization of natural resources. Today, the LEP 2005 provides not only environmental protection activities, but also policies, measures and resources for protecting the environment, as well as regulations on the rights and obligations necessary to protect the environment for state agencies, organizations, households and individuals, overseas Vietnamese, and foreign organizations and individuals carrying out activities in the Socialist Republic of Vietnam.

Furthermore, the primary position of international treaties in which the Socialist Republic of Vietnam has taken part in is specifically regulated as follows: "Where treaties to which Vietnam contains different provisions from those of the Law on Environmental Protection 2005, such treaties shall be applied" (Articles 1 & 2 LEP 2005).

As regulated by the LEP 2005 (Chapter VII – a completely new chapter), specific water resources such as marine, river and other water sources in Vietnam are currently very well protected. In recent years, the quality of water resources has dramatically decreased due to unplanned exploitation, unfriendly environmental development and the exploitation of aquatic products. This has led to the threat of extirpation for some species, caused by large amounts of untreated waste being discharged into various water sources. Hence, protecting the marine environment, river water environment and other sources such as lakes, ponds, canals and ditches must be regulated by law in order to protect the water sector effectively, ensuring the sustainable development of water resources and increasing the economic effects associated with environmental protection.

Regulations on the protection of the **marine environment** consist of four Articles (Articles 55 – Article 58 of the LEP 2005) that set out principles for the conservation and rational use of marine resources, the control and treatment of marine pollution, and the prevention and response to any marine-based environmental incidents.

Protecting the **river water environment**, as regulated by Articles 59 to Article 62 of the LEP 2005, includes: (1) principles for river water protection; (2) the control and treatment of polluted water in river basins; (3) the responsibilities of provincial-level People's Committees for water protection in river basins; and (4) the organization of water protection in river basins. Accordingly, river water protection constitutes one of the fundamental requirements when planning the exploitation, use and management of water resources in river basins.

Furthermore, river basin localities must be jointly responsible for protecting water in river basins, taking the initiative to tap jointly benefits brought about by water resources in river basins and ensuring the interests of local people. River basin waste sources must be investigated, quantified and assessed, and then applied with control and treatment measures before being discharged into rivers. Furthermore, waste from production, business, services, construction, transport activities, the exploitation of riverbed minerals and garbage from households located on the rivers must be controlled and treated to meet environmental protection requirements before being discharged into the rivers. In addition, the development of new production outlets, businesses, services, urban centres, and concentrated residential areas in river basins must be considered in light of the interests of the whole river basin, taking into account water currents, hydraulic regime, load capacity and the self-cleaning ability of the river and the current production, business, services and urban development activities in the river basin. Additionally, an appraisal must be made of the impact by upstream establishments on those living or working downstream.

Regulation on the protection of the environment of other water sources, as mentioned in Articles 63, 64, and 65 of the LEP 2005, specifies the protection of water sources in lakes, ponds, canals and ditches. Correspondingly, lakes, ponds, canals and ditches in urban centres and residential areas must be planned correctly, renovated and protected – organizations and individuals must not transgress the water's surface by building structures or houses over it or on the banks adjacent to the water surface. In addition, they cannot fill in or level lakes and ponds in urban centres or residential areas, where possible. Furthermore, project managers looking to obstruct, fill in or level water courses must provide detailed environmental impact assessment reports in accordance with provisions of the law. Any discharge of soil, rock, sand, gravel, solid water, wastewater not yet treated, and/or and other kinds of waste into water surface sources is strictly prohibited. In addition, the construction, management and operation of reservoirs used for irrigation and hydropower purposes must be associated with environmental protection. It is strictly forbidden to transgress reservoirs or dump untreated solid wastes, soil, rock and wastewater into reservoirs. Further, the water in reservoirs used

for irrigation and hydropower purposes must be periodically monitored to detect any changes in water quality, the hydraulic regime for regulating water sources and to protect the environment.

Above all else, environmental protection in **groundwater exploration** and exploitation is provided for, as follows: (1) Projects exploiting groundwater up to 10,000 cubic metres or more per day must produce environmental impact assessment reports; (2) only chemicals on permitted lists issued by competent state agencies may be used in groundwater exploration and exploitation; (3) it is strictly forbidden to introduce into groundwater sources toxic chemicals and waste, untested microorganisms and other agents harmful to humans and living organisms; (4) measures must be taken to prevent groundwater source pollution through drilled wells for groundwater exploration and exploitation; and (5) groundwater-exploiting organizations are responsible for rehabilitating explored and exploited areas – exploration and exploitation boreholes no longer in use must be filled in accordance with strict technical processes to avoid groundwater pollution.

In addition, related regulations on the obligation to protect water resources have been drawn up for other different laws/ordinances as follows:

- (1) In order to effectively conserve, exploit and utilize petroleum resources for the development of the national economy and the promotion of cooperation with foreign countries, pursuant to Articles 17, 29 and 84 of the 1992 Constitution of the Socialist Republic of Vietnam, the **Petroleum Law** (*Luật Dầu Khí*) No. 1993/QH was issued on July 06, 1993 and amended by Law No. 19/2000/QH10 and Law No. 10/2008/QH12. This law governs petroleum exploration and production activities carried out within the territory, the exclusive economic zone and the continental shelf of the Socialist Republic of Vietnam.
- (2) The **Law on Minerals** (*Luật Khoáng Sản*) No. 1996/QH was issued on March 20, 1996 and amended by Law No. 46/2005/QH11 on amendment of and addition to a number of Articles of the Law on Minerals 1996; it provides administration, protection and basic geological surveys for mineral resources, and mineral activities (comprising the prospecting, exploration, mining, and processing of minerals) in solid and gaseous forms, mineral water and natural thermal water, except oil and gas and other types of natural water, which are subject to separate legal regulations.
- (3) The **Law on Science and Technology** (*Luật Khoa học và Công nghệ*) No. 21/2000/QH10 was issued on June 09, 2000, and provides regulations on scientific and technological organizations, individuals involved in scientific and technological activities, and the organization of scientific and technological activities is raising scientific and technological capacity in order to master advanced and higher-level technologies as well as advanced managerial measures. This can be done by the rational use of natural resources, protecting the environment and people's health, and promptly forecasting, preventing, combating, restricting and overcoming any serious consequences of natural calamities.
- (4) The **Law on Construction** (*Luật Xây Dựng*) No. 16/2003/QH11 was issued on November 26, 2003, and provides for construction activities the rights and obligations of organizations and individuals that invest in construction works and conduct construction activities. This law applies to Vietnamese organizations and individuals, as well as foreign organizations and individuals that invest in construction works and conduct construction activities in Vietnamese territory. Any organizations and individuals engaged in construction activities must ensure the compliance of the construction works with plans and designs, the aesthetic appearance of the works, regulations on environmental protection and the landscape, and the suitability of the project with natural conditions and the sociocultural characteristics of each locality particularly ensuring the rational use and

- exploitation of natural resources, land and other resources in compatibility with natural conditions.
- (5) The **Law on Co-operatives** (*Luật Họp Tác Xã*) No. 18/2003/QH11 issued on November 26, 2003 provides regulations on the setting-up, organization and operation of co-operatives in all branches and fields of the national economy. According to this law, "Co-operatives" means collective economic organizations established under certain provisions of the law by individuals, households or legal persons, who share common demands and interests and volunteer to contribute capital and labour in order to bring into play the collective strength of each co-operative member, to help one another to efficiently conduct production/business activities and to improve the material and spiritual life, thus contributing to national socio-economic development. A co-operative operates as a type of enterprise, with legal person status, and enjoys autonomy in its financial obligations within the scope of its charter capital, accumulated capital and other capital sources.
- (6) The **Law on Forest Protection and Development** (*Luật Bảo vệ và Phát triển Rừng*) No. 29/2004/QH11 was issued on December 03, 2004, replacing the previous Law on Forest Protection and Development 1991. This law provides regulations on the management, protection, development, and use of forests, as well as the rights and obligations of forest owners. Accordingly, protective forests are used mainly to protect water sources and land by preventing erosion and desertification, restricting natural calamities, and regulating the climate, thus contributing to environmental protection.
- (7) The **Law on Tendering** (*Luật Đấu Thầu*) No. 61/2005/QH11, issued on November 29, 2005, regulates tendering activities and the rules governing the selection of contractors for consultancy services, the procurement of goods and the installation of tender packages for the following projects: (1) investment and development projects financed by the state for over 30% of the total project budget; (2) projects financed by the state for the procurement of assets for the purpose of maintaining state bodies' regular activities, political organizations, socio-political organizations, etc.; and (3) projects financed by the state for the procurement of assets for the purpose of renovation or major repairs to equipment, production lines, building works and state-owned factories.
- (8) The **Law on Standards and Technical Specifications** (*Luật Tiêu chuẩn và Quy chuẩn Kỹ thuật*) No. 68/2006/QH11 issued on June 29, 2006 provides regulations on the formulation, announcement and application of standards, the formulation, promulgation and application of technical regulations, and the assessment of conformity with standards and technical regulations. Accordingly, activities that fall within the domain of standards and technical regulation include products, goods, services, processes, environment, and other objects in socio-economic activities. Standards and technical regulations must meet requirements on safety, national security, hygiene, human health, and the legitimate rights and interests of related parties, protect animals, plants and the environment, and rationally use natural resources.
- (9) The **Law on Dykes** (*Luật Đê Điều*) No. 79/2006/QH11 was adopted on November 29, 2006 by the XI National Assembly at its tenth session, and replaced the Ordinance on Dykes dated August 24, 2000. The law provides regulations on planning for flood prevention for river areas with dykes and the planning of the construction, repair, upgrading, solidifying, managing, protecting, maintaining and utilizing dykes. This law applies to domestic and foreign agencies, organizations and individuals with operations in relation to dykes within Vietnamese territory.

3.2.2.3 Secondary Regulations

Secondary regulations are issued by administrative and judicial organizations, which provide detailed guidelines on the implementation of laws and ordinances. However, secondary regulations are legal documents of a lower rank than laws/ordinances relating to the legal force in the legal documents' hierarchy. According to the Law on the Promulgation of Legal Documents 2008, current secondary regulations consist of the following legal documents:

- 1. Orders and decisions of the State President;
- 2. Decrees of the Government;
- 3. Decisions of the Prime Minister;
- 4. Resolutions of the Justice Council of Supreme People's Court and circulars of the President of the Supreme People's Court;
- 5. Circulars of the Director of the Supreme People's Procuracy;
- 6. Circulars of ministers or heads of ministry-equivalent agencies;
- 7. Decisions of the General State Auditor;
- 8. Joint resolutions of the Standing Committee of the National Assembly or those of Government and central socio-political organizations;
- 9. Joint circulars of the President of the Supreme People's Court and the Director of the Supreme People's Procuracy; those of ministers or heads of ministry-equivalent agencies and the President of the Supreme People's Court, the Director of the Supreme People's Procuracy; those of ministers or heads of ministry-equivalent agencies;
- 10. Resolutions of People's Councils, and decisions and directions made by People's Committees.

It is remarkable in Vietnam's legal system that the contents of legal documents must be detailed and specific so that they may be effectively enforced as soon as they come into force. In other words, the effectiveness of certain legal documents (such as laws and ordinances) depends on secondary regulations. For instance, one common phrase that is found in numerous legal documents – "The Government shall stipulate in ..." – refers to, in particular:

- Article 18 of the Law on Water Resources: "The Government shall stipulate in particular the issuance of permits to discharge wastewater into water sources"
- Article 61 of the Law on Water Resources: "The Government shall stipulate in particular the authority to issue and withdraw water resource permits"
- Article 66 of the Law on Water Resources: "The Government shall stipulate in particular the organization and operation of the Special Inspectorate for water resources"
- Article 62 of the Law on Fisheries 2003: "The Government shall provide details and guidelines for the implementation of this Law"

Based on the current LPLDs 2008, the three types of secondary regulations providing guidelines and details for the implementation of certain legal documents shall be addressed as follows:

- Decrees of the Government shall provide detailed guidelines on the implementation of laws and resolutions of the National Assembly, ordinances and resolutions of the Standing Committee of the National Assembly and orders and decisions of the State President (Article 14 LPLDS 2008).
- Circulars of ministers and heads of ministry-equivalent agencies shall provide detailed guidelines on the implementation of laws and resolutions of the National Assembly, ordinances and resolutions of the Standing Committee of the National Assembly, orders and

- decisions of the State President as well as Government decrees, and decisions of the Prime Minister (Article 16 LPLDs 2008).
- Joint resolutions of ministers, heads of minister-level agencies shall provide guidelines on the implementation of laws and resolutions of the National Assembly, ordinances and resolutions of the Standing Committee of the National Assembly, orders and decisions of the State President, decrees of the Government, and decisions of the Prime Minister related to their functions, tasks and authorities (Article 20 LPLDs 2008).

Regarding water resource protection, apart from the legal groundwork for managing the water sector (the Law on Water Resources and related key laws/ordinances as mentioned in 3.2.2.2.), various important secondary regulations have also been developed to protect water resources in different areas, as well as to deal with violations against laws and ordinances. An overview of secondary regulations on the management of the water sector in Vietnam shall be presented based on the key subjects addressed by the current Law on Water Resources (exploitation and utilization, protection, violations and sanction, and dispute settlement).

Regulations on the Exploitation and Utilization of Water Resources

According to the current Law on Water Resources, water resources are under the entire population's ownership and uniformly managed by the state. All organizations and individuals have to the right to exploit and use water resources to meet their daily life and production demands, and also have the responsibility to protect and develop water resources in a sustainable manner and prevent and mitigate harm caused by water in accordance with the provisions of law. However, their legitimate rights and interests in exploiting and utilizing water resources should be protected by the state.

Based on the Government's **Decree No. 179/1999/ND-CP** issued on December 30, 1999, which stipulates implementation of the Law on Water Resources, agencies in charge of the state management of water resources shall, based on river basins and actual potential of the water sources, announce the capacity of water sources to the related branches and localities for working out of populated distribution and socio-economic suitable plans to the water sources potential. Should the water source be incapable of meeting water use requirements, the branches and localities shall have to readjust their plans to make them suitable for the water source's actual capacity.

When a drought occurs, thus causing severe water shortage, the agencies in charge of the state management of water resources must regulate and distribute these water resources based on the following principles:

- (1) Ensuring water supply with the prescribed minimum ratio needed for daily life in any circumstances;
- (2) Meeting water demand for cattle and poultry raising, and aquatic and marine product culture;
- (3) Ensuring sufficient water supply for important industrial establishments and scientific research institutions:
- (4) Ensuring sufficient water supply to service the food security programme and to irrigate crops of high economic value.

In addition, the financial obligations of organizations and individuals stipulated by Point E, Clause 1, Article 23 of the LWR are specified as follows: (1) organizations and individuals exploiting and using water resources must pay natural resource tax according to the Ordinance on Natural Resource Tax No. 05/1998/PL-UBTVQH10 dated April 10, 1998; (2) a water use charge must be paid; (3) compensation must be paid for damage caused by the exploitation and use of water resources; (4) a fee for granting permits for the exploitation and use of water resources has to be paid.

As regulated by Article 9 of Decree No. 179/1999/ND-CP, organizations and individuals that exploit and use water resources for daily life, agriculture, industrial production, mining, and electric power generation have to apply for permits from competent state agencies. Conditions for granting such permits must be based on current legislation on water resources and other relevant forms of legislation. Permits for the exploitation and use of surface water are valid for twenty years. Permits for the exploitation and use of groundwater are valid for fifteen years. Competent state agencies to grant such permits shall decide their extension, but each extension must not exceed ten years.

Regulations on the Protection of Water Resources

In recent years, Vietnam has built up and implemented various programmes and strategies on water resource protection and development, such as the "National Target Program for Clean Water and Environmental Hygiene in Rural Areas" approved by Decision of the Prime Minister No. 237/1998/QD-TTg dated December 03, 1998 and "Orientation for the Development of Urban Drainage in Vietnam up to the year 2020" ratified by Decision of the Prime Minister No. 35/1999/QD-TTg. The long-term objective up to 2020 – to substantially improve drainage – is aimed at protecting and upgrading the urban environment, doing away with the usual waterlogging during the rainy season in the urban centres. Each urban centre shall have its own wastewater drainage system, with the appropriate technology to ensure hygienic disposal of excess water. Specific objectives of the programs⁷ on national strategy on environmental protection are to put an end to the exploration, exploitation and use of water resources and the discharge of wastewater into water sources without the permission of competent agencies – controlling the pollution of water sources and ending the use of toxic chemicals in industrial and agricultural production and aquaculture. In addition, polluted water decreases biodiversity, so the strategy will also ensure that the exploitation of water does not exceed the exploitation limits for rivers, exploitable deposits or for water-bearing beds. Furthermore, they control the distribution and sharing of water resources in a harmonious and rational manner between branches and localities, giving priority to the use of water for daily life and the economy, and by associating plans on the sustainable development of water resources with plans on the protection, exploitation and use of water resources, as well as on prevention and mitigation of harm caused by water.

Based on the current provisions of the law, the Ministry of Natural Resources and the Environment (below referred to as MONRE) is responsible for setting and announcing water resource standards (or submitting to the Minister of Science and Technology for the promulgation of national standards) and formulating and the promulgation, according to their competence, of national technical regulations on the protection and use of water resources (Point 6, Article 2 of the Government's Decree No. 25/2008/ND-CP dated March 04, 2008). Currently, the list of Vietnamese **environmental standards**, which are compulsory, is regulated by Decision No. 35/2002/QD-BKHCNMT, issued by the Ministry of Science, Technology and the Environment on June 25, 2002. After reaching a consensus with the Ministry of Science and Technology, Decision No. 22/2006/QD-BTNMT was issued on December 18, 2006 by MONRE, abrogating numerous Vietnamese environmental standards, as well as amending five compulsory environmental standards. Accordingly, the following Vietnamese Environmental Standards are⁸:

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⁷ "National Strategy on Environmental Protection till 2010 and orientation towards 2020" was adapted by Decision of the Prime Minister No. 256/2003/QD-TTg dated December 02, 2003; "National Strategy on Water Resources to 2020" approved by the Prime Minister's Decision No. 81/2006/QD-TTg on April, 14, 2006.

⁸ For further information, see Annex 1: Vietnam's Water Classification and Standards.

- TCVN 5937 : 2005: Air Quality Ambient air quality standards
- TCVN 5938 : 2005: Air Quality Maximum allowable concentration of hazardous substances in ambient air
- TCVN 5939 : 2005: Air Quality Industrial emission standards
 - Inorganic substance and dusts
- TCVN 5940 : 2005: Air Quality Industrial emission standards Organic substances
- TCVN 5942: 1995: Water Quality Standards Surface Water
- TCVN 5943: 1995: Water Quality Standards Coastal Water
- TCVN 5944 : 1995: Water Quality Standards Groundwater
- TCVN 5945 : 2005: Industrial Wastewater Discharge Standards

Further, MONRE's Circular No. 05/2008/TT-BTNMT⁹ provides details for the implementation of strategic environmental assessments, the **environmental impact assessment** (hereinafter called EIA) and environmental protection commitment provided for in the November 29, 2005 Law on Environmental Protection, the Government's Decree No. 80/2006/ND-CP of August 09, 2006 on detailing and guiding the implementation of a number of articles of the LEP 2005; and the Government's Decree No. 21/2008/ND-CP of February 28, 2008 on amending and supplementing a number of articles of the Government's Decree No. 80/2006/ND-CP. Accordingly, organizations and individuals that own investment projects subject to an EIA report (below referred to as 'project owners') shall carry out by themselves EIA reports or use a qualified consultancy service or organization (as specified in Article 14 of the LEP 2005) to do this job. EIA reports have a strict content format.

In addition, project owners are required to apply Vietnam's compulsory environmental standards and national technical regulations (and compulsory environmental standards and regulations under treaties to which Vietnam is a contracting party), when elaborating EIA reports or environmental protection commitment documents for their projects. Dossiers of requests for the appraisal of EIA reports shall be sent to the competent agencies specified in Points a & b, Clause 7, Article 21 of the LEP 2005 and Clause 5, Article 1 of the Decree No. 21/2008/ND-CP. Accordingly:

- (1) MONRE must organize councils or choose service organizations for the appraisal of EIA reports of inter-branch or inter-provincial projects, as well as projects which must be decided or approved by the National Assembly, the Government or the Prime Minister.
- (2) Ministries, ministerial-level agencies or government-attached agencies shall organize councils or choose service organizations for the appraisal of EIA reports for projects falling under their respective competences;
- (3) People's Committees at provincial level shall organize an appraisal council or authorize a specialized environmental protection agency (at the same level) to organize an appraisal council, or select an appraisal service organization to appraise EIA reports relating to investment projects in their localities.

After receiving a valid dossier that has been qualified for appraisal, the appraising agency needs to set up a council to appraise the EIA report. Within five working days after receiving the appraisal result from the appraisal council, the council's standing body shall notify in writing the project owner of the appraisal results and requirements to finalize the dossier for the EIA report. The finalized EIA reports must satisfy the requirements regulated by Section 6, Part III of the Circular No. 05/2008/TT-BTNMT. A reappraisal of the EIA report may be carried out by the appraisal council or appraisal service organization. Expenses for the reappraisal of an EIA report must be paid by the project owner. Approval of an EIA report shall be expressed in a decision. After the EIA report is approved, the

35

⁹ It replaced the Circular No. 08/2006/TT-BTNMT of September 08, 2006 on providing details for the implementation of strategic environmental assessments, the environmental impact assessment.

competent agency then must send the certified EIA report together with the approved decision to the project owner.

Based on the LWR, organizations and individuals exploiting and using water resources have to apply for permits, except in cases regulated by Clause 2, Article 24 of the LWR. The **issuance of permits for water resources exploitation**, **extraction and utilization** and wastewater discharge into water sources is further regulated by the Government's Decree No. 149/2004/ND-CP of July 27, 2004 and MONRE's Circular No. 02/2005/TT-BTNTM, issued on June 24, 2005. Accordingly, permits for the exploration, extraction and utilization of water resources and of wastewater discharge into water sources include a groundwater exploration permit, a groundwater extraction and utilization permit, a surface water exploitation and utilization permit, and a wastewater discharge permit. The terms and any extensions of such permits are regulated as follows:

- (1) The term of a surface water exploitation and utilization permit shall not exceed twenty years, and may be considered for extension but not for more than ten years;
- (2) The term of a groundwater exploration permit shall not exceed three years, and may be considered for extension but not for more than two years;
- (3)The term of a groundwater extraction and utilization permit shall not exceed fifteen years, and may be considered for extension but not for more than ten years;
- (4) The term of a permit for the discharge of wastewater into water sources shall not exceed ten years, and may be considered for extension but not for more than five years.

A permit can be invalidated in the following cases: (a) the organization or individual granted the permit (referred to collectively as the permit owner) violates the provisions of the permit; (b) the permit owner transfers the permit without permission; and/or (c) the permit owner misuses the permit to organize operations not prescribed in the permit. In addition, a permit invalidation period can be defined by the permit-issuing agency. During the invalidation period, the permit owner shall have no permit-related rights. Furthermore, a permit can be withdrawn in the following cases:

- (1)An organization holding a permit is dissolved or declared bankrupt by a court or the individual permit owner dies, is declared dead by a court, has lost his/her civil act capacity, or is declared missing;
- (2) The permit has been granted but has not been used for twelve consecutive months without permission by the competent state management agency in charge of water resources;
- (3) The permit owner violates the invalidation decision of the permit;
- (4)The permit owner violates the provisions of the permit, thus exhausting or polluting water sources;
- (5) The permit has been issued incorrectly;
- (6)The competent state agency decides to withdraw the permit for national defence or security reasons, or for national or public interests.

In cases where permits are withdrawn due to the violation of points (2) and (3) above, permit owners shall only be considered for new permits after three years from the permit withdrawal date, provided they have fulfilled their obligations relating to the reasons for the withdrawal of the old permit. In cases where permits are withdrawn according to the provisions of points (5) and (6) above, the competent state agency in charge of water resources shall consider the issuance of new permits. Competent state organizations allowed to issue, extend, change, adjust, invalidate or withdraw such permits are MONRE and People's Committees (at provincial-level).

The granting of **permits to discharge wastewater into water sources**, stipulated in Article 18 of the Law on Water Resources, is specified by the Government's Decree No. 179/1999/ND-CP as follows:

- (1)Organizations and individuals using water in production, business and/or scientific research activities, hospitals, urban centres, densely populated areas and other activities must apply for a permit from a competent state agency when discharging wastewater into water source;
- (2)The conditions for granting such permits must be based on the Law on Water Resources and other relevant legislations (Government's Decree No. 149/2004/ND-CP and MONRE's Circular No. 02/2005/TT-BTNMT);
- (3)Permits for such cases shall be valid for three to five years.

An extension is possible, but this must not exceed three years. Withdrawal and/or suspension of the use of such permits shall be affected in cases stipulated by Article 5 of the Decree No. 179/1999/ND-CP.

Based on MONRE's Decision No. 05/2003/QD-BTNMT of September 04, 2003 for licensing **groundwater exploration, exploitation and drilling** practice, "exploration of groundwater" means the combined use of various geological survey methods to appraise and determine deposits and the quality of groundwater, and to forecast the environmental impacts on a given area, which may be caused by water exploitation, aiming to serve the designing of water exploitation projects with set outputs. The licensing of groundwater exploration and exploitation must adhere to the following principles: (1) good quality groundwater must be prioritized for people's daily life requirements; (2) the volume of groundwater permitted for exploitation in an area must not exceed the exploitable deposit; and (3) where the exploitation deposit of groundwater has been reached in an exploitation area, the scope of exploitation must not be expanded unless man-made supplementation is effected.

Competent state agencies in charge of granting, extending, adjusting and revoking such permits are MONRE and People's Committees (provincial level). Cases of groundwater exploration and exploitation not subject to permission are regulated by Article 7 of Decision No. 05/2003/QD-BTNMT. Further regulations on licensing groundwater exploration, exploitation and drilling practices are provided in MONRE's Decision No. 17/2006/QD-BTNMT of October 12, 2006 on the granting of practice permits for groundwater drilling, Decision No. 13/2007/QD-BTNMT of September 04, 2007 on groundwater resources investigation and assessment, and Decision No. 15/2008/QD-BTNMT of December 31, 2008 on the protection of groundwater resources.

Regulations on the licensing of **hazardous waste management** are provided by MONRE's Circular No. 12/2006/TT-BTNMT of December 26, 2006 on guiding practice conditions, procedures for the compilation of dossiers, registration and licensing of the practice, and hazardous waste management identification numbers, as well as the MONRE's Decision No. 23/2006/QD-BTNMT of December 26, 2006 on the publication of hazardous wastes list.

Regulations on the **collection, management, exploitation and use of dates and information** on the environment are specified by the Government's Decree No. 162/2003/ND-CP of December 19, 2003 (on water resources), the Government's Decree No. 101/2007/ND-CP of June 13, 2007 (on natural marine resources), and the Government's Decree No. 102/2008/ND-CP of December 15, 2008 (on natural resources and the environment).

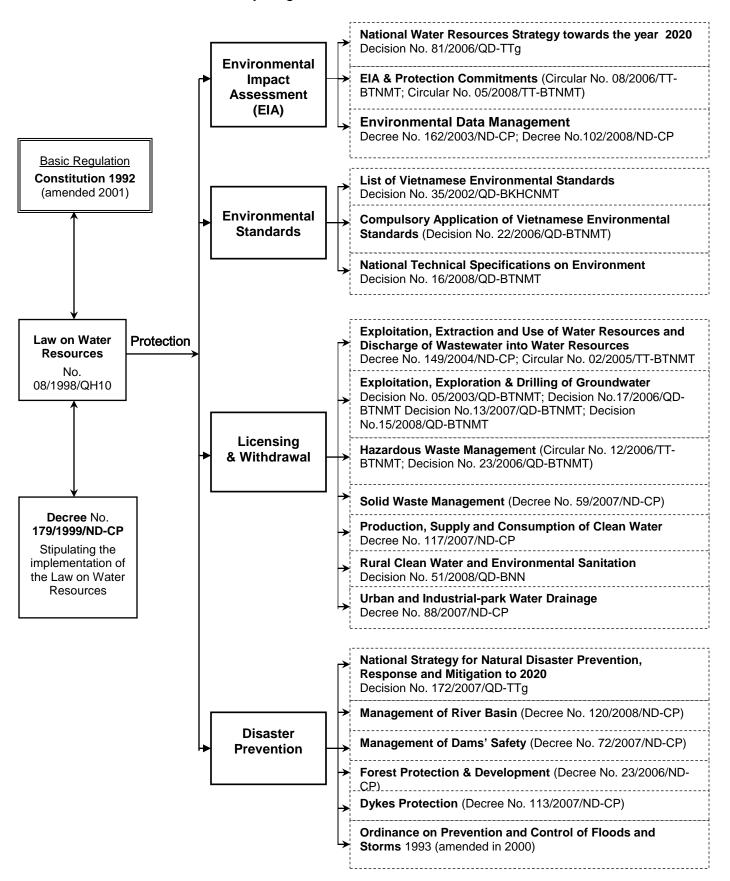
The Government's Decree No. 59/2007/ND-CP, issued on April 09, 2007 provides regulations on **solid waste management**, as well as the rights and obligations of entities engaged in solid waste-related activities.

Based on the Prime Minister's Decision No. 277/2006/QĐ-TTg dated December 11, 2006 on approval of the National Target Program for **Rural Water Supply and Sanitation** period 2006-2010, Decision No. 51/2008/QD-BNN was issued by the Ministry of Agriculture and Rural Development on April 14, 2008, which provides regulation on issuance of the monitoring and evaluation indicator set for the clean rural water supply and environmental sanitation.

Regulation on the **drainage of urban and industrial park water** is specified by the Government's Decree No. 88/2007/ND-CP of May 28, 2007, which provides regulations for water drainage activities in urban centres and industrial parks, economic zones, export processing zones and hi-tech parks, and sets out the rights and obligations of organizations, individuals and households involved in water drainage activities in Vietnamese territory. The application of this Decree is encouraged also for rural population quarters, where conditions permit the construction of concentrated water drainage systems.

The Chart (5) below provides an overview of the current key regulations on the protection of the water sector in Vietnam. In addition, an important number of regulations dealing with disaster preventions are dealt with here.

Chart 5: Key Regulations on Water Resources Protection



Regulations on Violations and Sanctions

Administrative violations in the field of environmental protection include acts of violating state administration regulations in the field of environmental protection, which may intentionally or intentionally be committed by individuals or organizations. Although they are not crimes per se, they must be handled administratively under the provisions of the Ordinance on the Handling of Administrative Violations (No. 44/2002/PL-UBTVQH10, amended in 2007 and 2008), and the Government's Decree No. 81/2006/ND-CP¹⁰ of August 09, 2006 on administrative violation sanctions in the field of environmental protection. Accordingly, administrative violations in the field of environmental protection include:

- (1) Violation of regulations on environmental standard registration, environmental impact evaluation reports and other regulations on environmental protection;
- (2) Violation of regulations on environmental pollution, depletion and incident prevention and combat.

Vietnamese individuals and organizations that commit acts of administrative violation in the field of environmental protection shall be sanctioned. Foreign individuals and organizations that commit acts of administrative violation in the field of environmental protection within the territory, exclusive economic zone and continental shelf of the Socialist Republic of Vietnam shall be sanctioned like Vietnamese individuals and organizations, except in cases where international agreements signed or acceded to by the Socialist Republic of Vietnam make other provisions.

For each act of administrative violation in the field of environmental protection, the violating individuals or organizations shall be subject to one of the following principle sanctioning forms:

(1)Caution;

(2) Fine (the maximum fine for one act of violation in the field of environmental protection is VND 70,000,000).

Furthermore, dependent on the nature and seriousness of the violations, the violating individuals or organizations may be subject to the application of one or all of the following additional sanctioning forms: (a) deprivation of the right to use environment permits; (b) confiscation of the material evidences and/or means used while committing the administrative violation.

Apart from the sanction forms mentioned above, individuals and organizations committing administrative violations in the field of environmental protection may also be compelled to apply one or many of the remedial measures: (a) being compelled to apply environmental protection measures for a definite period of time, as requested by the state management agencies in charge of environmental protection; (b) being forced to apply measures to address environmental pollution, depletion and/or incidents caused by their acts; (c) being forced to take out of Vietnamese territory or re-export the goods or articles that caused the environmental pollution; (d) being forced, even, to destroy such environment-polluting goods/articles.

Based on the Government's Decree No. 34/2005/ND-CP of March 17, 2005 on sanctions against administrative violations of **water resources** management regulations, and the Circular No. 05/2005/TT-BTNMT of July 22, 2005 on guiding the implementation of the Decree No. 34/2005/ND-CP, any act by an individual or organization, whether deliberate or not, which violates the principles of the regulations on the state management of water resources, shall be subject to administrative sanctions. Administrative violations of water resource management regulations subject to this case consist of:

¹⁰ This Decree replaced the Government's Decree No. 121/2004/ND-CP of May 12, 2004 on administrative violation sanctions in the field of environmental protection

- (1) Violations of water resource protection regulations;
- (2) Violations of regulations covering water resources exploration, exploitation and utilization, as well as the discharge of wastewater into water resources;
- (3) Violations of regulations concerning the collection, management, dissemination and use of water resources data and/or information.

This Decree applies to domestic as well as foreign individuals and organizations (hereafter referred to as 'individuals and organizations') that commit administrative violations of the regulations on water resource management within the territory of Vietnam. If any of the sanctions' provisions are regulated by international treaties to which the Socialist Republic of Vietnam is a party or signatory of, the subjects of this regulation shall be bound by those treaties.

Accordingly, sanction and mitigation measures consist of warnings, fines (the maximum fine for an administrative violation of regulations on water resources is VND 100,000,000) and additional sanctions. The specific fine for each administrative violation is as follows:

- (1) A fine of between VND 200,000 and 30,000,000 shall be applied for violations of water resource exploration, abstraction and utilization, as well as the discharge of wastewater into water sources without the required permit.

 Additional sanctions and mitigation measures include confiscation of the material evidence, tools and means used to commit the violations, and forcible implementation of the measures for overcoming water source pollution and degradation caused by each of the violations (Article 8 of the Decree No. 34/2005/ND-CP);
- (2) A fine of between VND 100,000 and 25,000,000 shall be applied for violations of any permit regulations for the exploration, abstraction and utilization of water resources, and the discharge of wastewater into water sources. Mitigation measures for such violations include the forcible undertaking of the measures for overcoming water source pollution and depletion caused by the violations, and the forcible observation of terms and conditions given in the permit (Article 9 of the Decree No. 34/2005/ND-CP);
- (3) A fine of between VND 10,000,000 and 12,000,000 shall be applied for lending, leasing or transferring such permits. A fine of VND between 20,000,000 and 30,000,000 shall be applied for changing the contents of such permits.

 Additional fining measures for such violations include suspension of the permit for a period ranging from ninety (90) days to a hundred and eighty (180) days if the permit owner lends or leases his/her permit, and stripping of the right to use the permit if the permit owner transfers and changes the contents of his/her permit (Article 10 of the Decree No. 34/2005/ND-CP);
- (4) Warning sanctions shall be applied for an individual or organization that continues to explore, extract and utilize water resources or discharge wastewater into water sources when the permit has expired for thirty (30) days or less.
 - A fine of between VND 100,000 and 10,000,000 shall be applied for those continuing to explore, extract and utilize water resources or discharge wastewater into water sources when the permit has been expired for more than thirty (30) days and less than sixty (60) days. If the permit has been expired for sixty (60) days or more, the applicable sanctions are the same as those stipulated by Article 8 of this Decree.
 - Additional fining measures for such violations include (i) confiscation of the material evidence, tools and means used to commit the violations; (ii) stripping of the right to use

such permits; and/or (iii) forcible implementation of measures to overcome water source pollution and degradation caused by such violations (Article 11 of the Decree No. 34/2005/ND-CP 11);

- (5) A fine of between VND 500,000 and 14,000,000 shall be applied for violations of regulations on groundwater drilling practices (Article 12 of the Decree No. 34/2005/ND-CP);
- (6) Other violations against regulations on water resources are stipulated by Article 16 of this Decree, and further detail specified by the Circular No. 05/2005/TT-BTNMT of July 22, 2005, issued by MONRE.

As regulated by Articles 17, 18, 19 and 20 of Decree No. 34/2005/ND-CP, state organizations in charge of sanctioning violations against water sector regulations consist of People's Committees (at communal, district and provincial levels) and natural resources and environment inspectors.

Any organization or individual, or their legitimate representative, sanctioned for an administrative violation of water resource regulations has the right to complain against sanctioning decisions given by an authorized state agency. All citizens have the right to denunciate any individual and/or organization that commits violations regulated in Decree No. 34/2005/ND-CP, and any authorized state agency that misuses his/her authority and contravenes the regulations provided by Decree No. 34/2005/ND-CP. The competences, procedures and schedules for settling complaints and denunciations shall be implemented in accordance with the current regulations on complaints and denunciations (the Law on Complaints and Denunciations 1998, amended in 2004 and 2005).

In addition, according to the Ordinance on **Natural Resources Tax** (amended) No. 05/1998/PL-UBTVQH10 of April 16, 1998 (hereafter called Ordinance on Natural Resources Tax, amended), issued by the Standing Committee of the National Assembly, the Government's Decree No. 05/2009/ND-CP¹¹ of January 19, 2009 on detailing the implementation of the Ordinance on Natural Resources Tax, and Circular No. 124/2009/TT-BTC of June 17, 2009 (issued by the Ministry of Finance) guiding the implementation of the Government's Decree No. 05/2009/ND-CP, all organizations and individuals that exploit any kind of natural resource found within inland areas, offshore islands, internal waters, territorial waters, exclusive economic zones, and the continental shelf under the sovereignty of the Socialist Republic of Vietnam shall be subject to natural resources taxes on the following extracted products:

(1) Metallic minerals;

(2) Non-metallic minerals including minerals used as common construction materials and earth exploited for ground-levelling, fill-up and/or building projects, as raw materials or for other purposes; mineral water and natural thermal water as specified in the Law on Minerals;

- (3) Petroleum, being crude oil as specified in Clause 2, Article 3 of the Petroleum Law;
- (4) Gas, being natural gas as specified in Clause 3, Article 3 of the Petroleum Law;
- (5) Coal gas (hydrocarbon), the main element of which is methane in gaseous or liquid form, contained in coal seams or other adjacent seams as specified in Clause 3, Article 1 of the Petroleum Law (amended in 2008);
- (6) Natural forest products such as plants and animals of various species and other products of natural forests:

¹¹ The Government's Decree No. 68/1998/ND-CP of September 03, 1998 on detailing provisions and providing guidelines for implementing the Ordinance on Natural Resource Tax; and the Decree No. 147/2006/ND-CP of December 01, 2006 were abrogated and replaced by Decree No. 05/2009/ND-CP of January 19, 2009, issued by the Government.

- (7) Natural aquatic products including natural animals and plants of various species in seas, rivers, streams and lakes:
- (8) Natural water, including surface water and groundwater, except natural mineral water and natural thermal water.

The bases on which natural resource taxes are calculated are the volume of commercial natural resources, the tax calculation price and the tax rate. The price for calculating natural resources tax is the selling price of a natural resource product unit at the place of exploitation. For natural water used for hydroelectric power generation, the natural resource tax calculation price is the selling price of commercial electricity.

The natural resources tax index, in particular the tax rates of water resources, is prescribed as follows:

Table 1: Natural Resource Tax Index (Based on the Ordinance on Natural Resource Tax (amended), and the Government's Decree No. 05/2009/ND-CP of January 19, 2009)

No.	Categories, Groups of natural resources	Tax rate (%)
V.	Natural Mineral Water, Natural Water	
1.	Natural mineral water; purified natural water, bottled or canned	8
2.	Natural water used for hydroelectric power generation	2
3.	Natural water exploited in service or production sectors (except those specified in Points 1 and 2	
3.1	Used as main or auxiliary raw materials to create material content of products	3
3.2	Used in common service of production (industry hygiene, cooling, steaming, etc.)	
	a. Use of surface water	1
	b. Use of groundwater	2
3.3	Natural water used for the production of clean water, in the service of	
	agriculture, forestry, fisheries and natural water exploited from dug wells and drilled wells in the service of daily life	0
	- Case of groundwater used for the production of clean water	0,5
4.	Natural water exploited for other purposes except those stipulated in Points 1, 2 and 3	
4.1	For services purposes	
	a. Use of surface water	3
	b. Use of groundwater	5
4.2	For industry production, construction and mining purposes	
	a. Use of surface water	3
	b. Use of groundwater	4
4.3	Exploited for other purposes	
	a. Use of surface water	0
	b. Use of groundwater	0,5

In particular, the Ministry of Finance issued Circular No. 68/2005/TT-BTC of August 19, 2005; guiding the various levels of value added tax and business income tax paid into the state budget by subcontractors for **oil and gas field exploration** and development, and oil and gas exploitation activities.

The direct activities of oil and gas field exploration and development, and oil and gas exploitation by subcontractors, referred to as "oil and gas activities" in Clause 4, Article 3 of the 1993 Petroleum Law and oil and gas field development activities are specified in Clause 6, Article 4 of the Government's Decree No. 48/2000/ND-CP of September 12, 2000, detailing the implementation of the Petroleum Law, which includes the collection and processing of seismological documents, seismological interpretation, seabed exploration and geological investigation, exploration of drill wells, directional drilling, geophysical measurement of drill wells, construction of drilling platforms, well ridge plastering, solid substance separation, desalination and dehydration, preparation and investment in the construction of oil and gas exploitation works, exploitation drilling, installation of equipment, and the operation of drilling platforms.

Furthermore, Circular No. 114/2007/TT-BTC, which was issued on September 25, 2007, amending and supplementing the Circular of the Ministry of Finance No. 95/2004/TT-BTC of October 11, 2004, guides a number of policies on financial support and tax preferences for the development of raw material areas as well as **agriculture-forest-fishery product processing** and salt making industries.

In order to suit the new organizational characteristics of the power industry and the strategy for development of Vietnam's power industry, the calculation and declaration for payment of natural resource tax on natural water used for hydroelectricity generation has been made easier through the further reform of administrative procedures in taxation via Circular No. 05/2006/TT-BTC, which was adopted on January 19, 2006 by the Ministry of Finance to guide natural resource tax on **natural water used for hydroelectricity generation**.

Moreover, in order to limit environmental pollution caused by wastewater, to economically use clean water and create funding sources for the Environmental Protection Fund to protect the environment and address environmental pollution, Decree No. 67/2003/ND-CP was adopted by the Government on June 13, 2003. The Decree provides regulations on **environmental protection charges for wastewater**. This Decree was amended on January 08, 2007 by the Government's Decree No. 04/2007/ND-CP. Accordingly, subject to the environmental protection charges for wastewater stipulated in this Decree are industrial wastewater and daily-life wastewater. "Industrial wastewater" means water discharged into the environment from industrial production establishments and agricultural, forestry and aquatic product-processing establishments. "Daily-life wastewater" refers to water discharged into the environment from households and organizations. Organizations and households discharging wastewater as defined above are liable to pay environmental protection charges for wastewater, which are described as follows:

- (1) For daily-life wastewater, the environmental protection charge rates shall be calculated as a percentage (%) of the selling price of 1m³ (one cubic metre) of clean water, but must not exceed 10% (ten per cent) of the non-VATable clean water selling price. For daily-life wastewater discharged from organizations and households that exploit water for use by themselves (except for households in localities where no clean water supply systems exist), the charge rate shall be determined for each water user and based on the average clean water use volume per head in the commune or ward where the water is exploited, and on the average supply price of 1m³ of clean water in the locality.
 - People's Councils (at provincial level) decide the specific rates of environmental protection charges for the abovementioned daily-life wastewater, which are applicable to each geographical area and each subject in their localities based on the socio-economic situation and living conditions as well as the incomes of their local populations.
- (2) Environmental protection charge rates applicable to industrial wastewater and calculated for each pollutant are described as follows:

Table 2: Environmental protection charge rates applied to industrial wastewater (Based on Government's Decree No. 67/2003/ND-CP, amended by the Government's Decree No. 04/2007/ND-CP of January 08, 2007)

No.	Pollutants in Wastewater		Charge Rates pollutants found	
	Name	Symbol	Minimum	Maximum
1.	Biochemical oxygen demand ¹²	ABOD	100	300
2.	Suspended solids ¹³	ATSS	200	400
3.	Mercury ¹⁴	AHg	10,000,000	20,000,000
4.	Lead ¹⁵	APb	300,000	500,000
5.	Arsenic	AAs	600,000	1,000,000
6.	Cadmium ¹⁶	ACd	600,000	1,000,000

Based on the bracket of the environmental protection charge rates for industrial wastewater, the Ministry of Finance shall coordinate with the Ministry of Natural Resources and the Environment in prescribing specific environmental protection charge rates for each pollutant in industrial wastewater to suit each environment into which the wastewater has been discharged and each business line, guiding the calculation of environmental protection charge amounts for industrial wastewater to be paid.

The Ministry of Finance further adopted Decision No. 59/2006/QD-BTC on October 25, 2006, providing a regime of charges for the collection, remittance, management and use of water resources, along with the discharge of wastewater into water sources and **drilling for underground water.**

On July 21, 2008, the Ministry of Finance issued Circular No. 67/2008/TT-BTC, guiding the implementation of the Government's Decree no. 63/2008/ND-CP of May 13, 2008 on environmental protection charges for mineral exploitation. The quantity of exploited minerals used to determine the environmental protection charge amount is the number of crude minerals actually exploited in the charge payment period, regardless of exploitation purposes (for sale, barter, internal consumption, or reserve for subsequent production), exploitation technologies (manual or mechanical) or exploitation areas and conditions (mountainous, mid-land or delta areas, difficult or complicated conditions). If exploited minerals need to be sorted or processed before sale, an appropriate ratio used for converting the quantity of sold finished mineral products into the quantity of crude minerals shall be specified as a basis for calculating the amount of environmental protection charge for each type of mineral, depending on the actual mineral exploitation conditions and processing technologies in each locality. Based on the charge rates specified in Clause 2, Article 4 and Article 5 of Decree No. 63/2008/ND-CP, and this Circular's guidance, provincial-level People's Committees shall set the environmental protection charge rates for each type of exploited mineral suitable to their local practical conditions, and submit them to provincial-level People's Councils for a decision in order to apply charge rates from January 1, 2009.

Environment 2009)

13 Suspended Solids: Small particles of solid pollutants that float on the surface of, or are suspended in sewage or other liquids: they resist removal by conventional means (US Environment 2009)

⁵ Cadmium (Cd): A heavy metal that accumulates in the environment (US Environment 2009)

45

¹² **Biochemical Oxygen Demand (BOD):** A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution (US Environment 2009)

or other liquids; they resist removal by conventional means (US Environment 2009)

14 Mercury (Hg): Heavy metal that can accumulate in the environment and is highly toxic if breathed in or swallowed. Heavy Metals: Metallic elements with high atomic weights (e.g. mercury, chromium, cadmium, arsenic, and lead) can damage living things at low concentrations and tend to accumulate in the food chain (US Environment 2009).

Lead (Pb): A heavy metal hazardous to health if breathed or swallowed. Its use in gasoline, paints, and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations (US Environment 2009).

Circular No. 39/2008/TT-BTC was issued by the Ministry of Finance on May 19, 2008, and guide the implementation of the Government's Decree No. 174/2007/ND-CP of November 29, 2007 on **environmental protection charges for solid wastes**. Accordingly, environmental protection charges for solid wastes under Article 2 of the Decree No. 174/2007/ND-CP of the Government on November 29, 2007 on environmental protection charges for solid wastes must be paid for ordinary and hazardous solid wastes discharged from the process of production and business, and the provision of services or other activities, including:

- (1) Hazardous solid wastes, which are named on the list of hazardous solid wastes promulgated by the Ministry of Natural Resources and Environment;
- (2)Ordinary solid wastes, which are not named on the list of hazardous solid wastes promulgated by the Ministry of Natural Resources and Environment.

Environmental protection charges are not collected for ordinary solid wastes discharged from the daily-life activities of individuals and households. Based on the provisions on charge rates in Article 5 of Decree No. 174/2007/ND-CP, the guidance in Clause 1 of this Section, and the practical conditions for solid waste treatment and destruction in their localities, People's Committees (provincial-level) shall formulate environmental protection charge rates for each kind of solid waste in each geographical area and for each type of payer in their localities, and then submit these to provincial-level People's Councils for a decision.

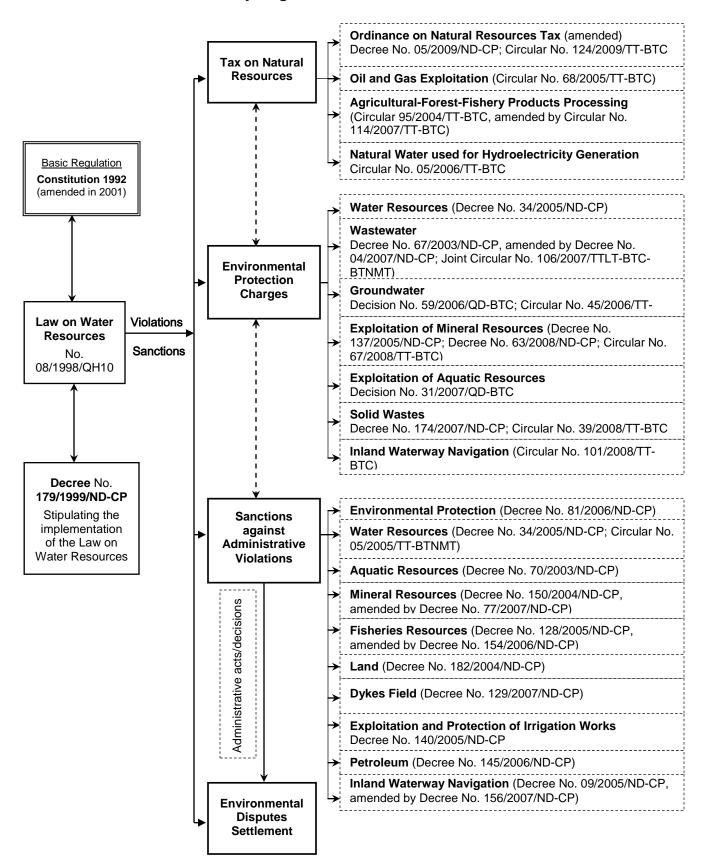
After consulting the Ministry of Transport, Circular No. 101/2008/TT-BTC of November 11, 2008 was adopted by the Ministry of Finance to guide the collection, remittance and management of use of charges and dues levied by inland waterway port authorities. Accordingly, waterway vessels entering, leaving and operating in inland waterway ports or wharves (including special-use ports and wharves) which have been licensed for operation and had their operation licenses publicized by state agencies, shall pay charges and dues levied by inland waterway port authorities under this Circular, except in cases where:

- (1) Vessels are used by the Ministry of Defence and the Ministry of Public Security for defence or security purposes (excluding those used in economic activities); vessels of customs offices on duty (excluding those used in economic activities); and vessels of transport inspectorates and inland waterway port authorities;
- (2) Vessels entering ports for storm sheltering or emergency medical treatment;
- (3) Cargo vessels of under 10 tons or passenger vessels of less than 13 seats;
- (4) Vessels engaged in storm prevention and response.

Agencies collecting charges and dues levied by inland waterway port authorities are classed as port authorities defined in Article 71 and Clause 10, Article 72 of the Law on Inland Waterway Navigation. Collecting agencies shall register and declare for remitting charges and dues into the State budget under the Ministry of Finance's Circular No. 60/2007/TT-BTC of June 14, 2007, which guides the implementation of a number of articles of the Law on Tax Administration and guides the implementation of the Government's Decree No. 85/2007/ND-CP of May 25, 2007, detailing the implementation of a number of articles of the Law on Tax Administration. Recently, on August 06, 2009, the Ministry of Finance issued the Circular No. 157/2009/TT-BTC, amending and supplementing Circular No. 60/2007/TT-BTC and guiding the implementation of Decree No. 85/2007/ND-CP on detailing the implementation of a number of articles of the Law on Tax Administration.

The following Chart (6) provides an overview of the key regulations on sanctions against administrative violations in the environmental field in general and particularly in the water sector in Vietnam.

Chart 6: Key Regulations on Violations and Sanctions



Regulations on Environmental Dispute Settlement

According to Article 62 of the Law on Water Resources, disputes within the water sector shall be settled as follows:

- (1) The People's Committees of communes shall have the responsibility for dispute mediation;
- (2) Agencies with authority to issue certain types of water resources permits shall have the responsibility of settling claims as well as complaints arising from the implementation of those types of permits;
- (3) In case the claimant disagrees with the decision made by said administrative body to settle a dispute, he shall be entitled to bring the case to the competence courts, in accordance with the provisions of the law.

As regulated by the Government's Decree No. 149/2004/ND-CP, Decree No. 13/2008/ND-CP, and Decision of the Ministry of Natural Resources and the Environment No. 216/2009/QD-BTNMT, agencies with the authority to issue permits and to license the exploration, extraction, exploitation and utilization of water resources, as well as wastewater discharge into water resources are: the Ministry of Natural Resources and the Environment, the Department of Water Resources Management, People's Committees of provinces, and other agencies in charge of the state management of water resources.

Heads of People's Committees of provinces and centrally-run cities (hereinafter referred to as 'provincial-level People's Committees') shall have the competence: (1) to settle complaints about their own administrative decisions or administrative acts; and (2) to settle complaints further lodged after having been first settled by directors of provincial services or equivalent agencies under provincial-level People's Committees, with contents falling under the management by provincial-level People's Committees (Article 23 of the Law on Complaints and Denunciations 1998, amended in 2004 by the Law No. 26/2004/QH11 and in 2005 by the Law No. 58/2005/QH11).

The Minister of the Ministry of Natural Resources and Environment, as regulated by Article 25 of the Law on Complaints and Denunciations 1998, amended in 2004 and 2005, shall have to: (1) settle complaints about administrative decisions or administrative acts of their own or of cadres and employees under their direct management (in this case, the Department of Water Resources Management); (2) settle complaints with contents falling under the state management of its respective ministry or agencies, which are further lodged after having been first settled by directors of provincial services or equivalent agencies under provincial-level People's Committees.

Should the complainant disagree with the complaint settlement decision of the Minister of the Ministry of Natural Resources and the Environment, Head of the Department of Water Resources Management, or President of provincial-level People's Committees, he/she may, within 30 days from the date of expiration of the settlement time limit defined in Article 43 of the Law on Complaints and Denunciations (the same 30-day limit applies if the complaint has not yet been settled), initiate an administrative lawsuit before the provincial-level People's Court (Article 39, 46 of the Law on Complaints and Denunciations 1998, amended in 2004 and 2005).

The court system in Vietnam is divided into three levels: District People's Courts (*Tòa án Nhân dân tỉnh, thành phố trực thuộc Trung wong*), Provincial People's Courts (*Tòa án nhân dân huyện, quận, thị xã, thành phố thuộc tỉnh*), and the Supreme People's Court (*Tòa án Nhân dân tối cao*). Each administrative district has a District People's Court, which is responsible, in the first instance, for dealing with criminal cases and civil, economic, labour and administrative disputes. There is a Provincial People's Court in each province, which acts mainly as a court of appeals for cases decided by the District People's Courts. Provincial People's Court can also act as the first port-of-call for certain types of cases. Its decisions can be appealed against directly to the Supreme People's Court. The Supreme People's Court is the highest appellate court in Vietnam. The Standing Committee of

the National Assembly 17 ($\dot{U}y$ ban thường vụ Quốc hội) is responsible for constitutional matters. An overview of the key regulations on the settlement of environmental disputes is provided as follow:

- Constitution 1992, amended in 2001 (basic regulation)
- Law on Organization of the Government No. 32/2001/QH10
- Law on Organization of the People's Courts No. 33/2002/QH10
- Labour Code 1994 (amended in 2002, 2006, 2007)
- Penal Code 1999 (amended by the Law No. 37/ 2009/QH12) & Penal Procedure Code No. 19/2003/QH11
- Civil Code 2005 & Civil Procedure Code No. 24/2004/QH11
- Law on Complaints and Denunciations No. 09/1998/QH10 (amended in 2004, 2005)
- Law on Environmental Protection No. 52/2005/QH11
- Ordinance on Natural Resources Tax No. 05/1998/PL-UBTVQH10 (amended)
- Ordinance on Handling of Administrative Violations No. 44/2002/PL-UBTVQH10 (amended in 2007, 2008)

The following Chart (7) provides an overview of the current disputes settlement system in environmental fields in Vietnam.

The number of members of the Standing Committee is determined by the National Assembly. A member of the Standing Committee cannot be at the same time a member of the Government. The Standing Committee of each legislature of the National Assembly shall discharge its duties and exercise its power until the next legislature of the National Assembly has elected a new Standing Committee.

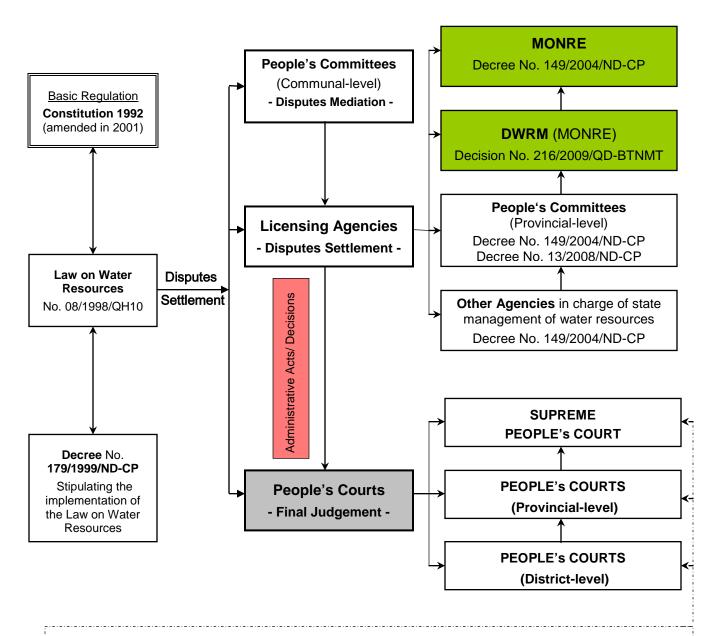
¹⁷ Base on the 1992 Constitution (as amended), Article 90, the Standing Committee of the National Assembly is the permanent body of the National Assembly, which consists of:

[•] The Chairman of the National Assembly;

[•] The Deputy-Chairmen of the National Assembly.

[•] The members.

Chart 7: Dispute Settlement System in Environmental Fields – An Overview



Related Regulations:

- Constitution 1992 amended 2001 (basic regulation)
- Law on Organization of the Government No. 32/2001/QH10
- Law on Organization of the People's Courts No. 33/2002/QH10
- Labor Code 1994 (amended in 2002, 2006, 2007)
- Penal Code 1999 (amended by the Law No. 37/ 2009/QH12) & Penal Procedure Code No. 19/2003/QH11
- Civil Code 2005 & Civil Procedure Code No. 24/2004/QH11
- Law on Complaints and Denunciations No. 09/1998/QH10 (amended in 2004, 2005)
- Law on Environmental Protection No. 52/2005/QH11
- Ordinance on Natural Resource Tax No.05/1998/PL-UBTVQH10 (amended)
- Ordinance on Handling of Administrative Violations No. 44/2002/PL- UBTVQH10 (amended in 2007, 2008)
- Other related legal documents

3.2.2.4 International Relations

Chapter XII of the Law on Environmental Protection 2005 regulates international cooperation in environmental protection. In particular, Articles 118, 119 & 120 provide the implementation of environmental treaties, environmental protection in the process of international integration and globalization, as well as the expansion of international cooperation in environmental protection.

Furthermore, international relations in water resources management are regulated in detail by the Law on Water Resources (Article 8, Article 55). The state of Vietnam has been expanding its cooperation with foreign countries, organizations and individuals in basic surveys, the protection, exploitation and utilization of water resources, staff training, and scientific research in water resources, as well as the prevention, control and mitigation of adverse affects caused by water. Moreover, the state of Vietnam encourages the exchange of information relating to international water resources, coordinates research and the formation of plans for the protection, exploitation and utilization of international water sources, as well as coordinate plans for the prevention, control and mitigation of adverse effects caused by water in accordance with provisions of the law; creating favourable conditions for the management and implementation of projects to increase common benefits and limit losses to countries' populace sharing water sources.

Accordingly, Vietnam has been taking part in several international conventions on environmental protection. An overview is provided below:

- (1) The **RAMSAR Convention** (Convention on Wetlands of International Strategic Importance Especially as Waterfowl Habitat). This Convention was adopted in 1971. Vietnam has taken part since September 20, 1989, and formally approved the convention in 1991. Regulations to implement the convention are the Government's Decree No.109/2003/ND-CP; the Preservation of Wetlands Strategy; Action Plan for Biodiversity Conservation; Special Forest Management Rules; Law on Water Resources 1998, Law on Fisheries 2003, Law on Land 2003, Law on Forest Protection and Development 2004, Law on Environmental Protection 2005, Law on Dykes 2006;
- (2) The **International Convention on Biodiversity (CBD)**. This was signed in 1992 and came into force on November 29, 1993. Regulations to implement the convention are the Law on Environmental Protection, the Law on Protection and Development; the Action Plan on Biodiversity; the National Strategy on Environmental Protection 2001-2010; Agenda 21; and the Law on Biological Diversity 2008;
- (3) Agreement on Cooperation for the Sustainable Development of the Mekong River Basin. The Governments of The Kingdom of Cambodia, The Lao People's Democratic Republic, The Kingdom of Thailand, and The Socialist Republic of Vietnam officially signed the Agreement on 5 April 1995 at Chiang Rai, Thailand;
- (4) Convention on the Control of Transboundary Movement of Hazardous Wastes (Basel Convention). This was adopted in 1989. Vietnam has taken part since March 13, 1995. Regulations to implement this convention are Government's Decree No. 175/CP, Hazardous Waste Management Rule, complete compilation of waste and waste sources; and Formation of the Basel Secretariat;
- (5) The **Stockholm Convention on Persistent Organic Pollutants (POP Convention)**. Vietnam has officially taken part since May 23, 2001. It was approved by the National Assembly of Vietnam on July 22, 2002;
- (6) The UN Framework Convention on Climate Change (1992) and the Kyoto Protocol on the Clean Development Mechanism (1997). Vietnam approved it on September 25, 2002. Regulations to implement the convention are the National Program on implementing the UN Framework Convention on Climate Change; the National Gas Emission Statistics;

Development of Solutions to reduce Greenhouse Gasses; Formation of a National Working Group on Climate Change; and Formation of National Platforms on Climate Change.

The following Chart (8) provides an overview of the key international conventions on environmental protection in which Vietnam has taken part in so far:

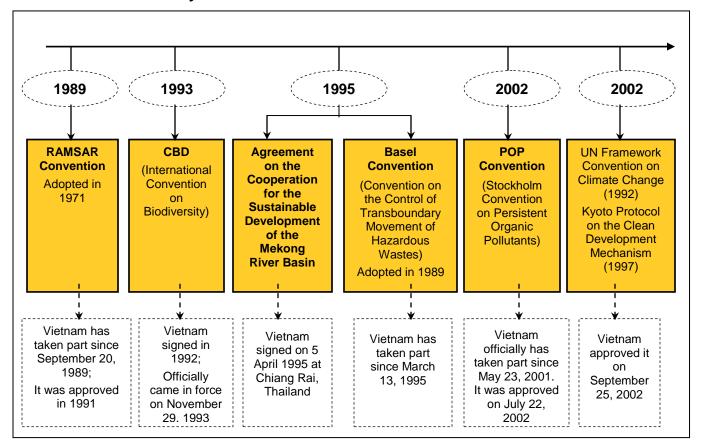


Chart 8: Key International Conventions on Environmental Protection

3.3 State Management of Vietnam's Water Sector

3.3.1 Policy Making and State Responsibilities

According to the current legislation on water sector management, the Government shall carry out unified state management in respect to water resources. The Ministry of Natural Resources and the Environment (MONRE) shall be responsible to the Government for implementing state management in respect to water resources. Ministries, ministerial-level agencies and agencies attached to the Government shall implement state management in respect to water resources according to the authority and assignments given by the Government. At local levels, People's Committees (provincial level) shall be responsible for state management in respect to water resources within their localities. The organizational system, tasks and authorities of the competent state management agencies in charge of water resources under the MONRE and People's Committees (at all levels) shall be stipulated by the Government.

In particular, the current state agencies (at national level) involved in water resources management in Vietnam include:

(1) The Government

Based on the 1992 Constitution (amended), and the Law on Organization of the Government (*Luật Tổ chức Chính phủ*) No. 32/2001/QH10 of December 25, 2001, the Government, which is composed of the Prime Minister, Deputy Prime Ministers, Ministers and Heads of ministerial-level agencies, is the executive body of the National Assembly and the highest administrative state body of Vietnam (Article 109, 110 of the 1992 Constitution; Article 3 of the Law on Organization of the Government). In respect to water resources management, the Government carries out unified state management (Article 4, 58 of the LWR);

(2) The Ministry of Natural Resources and Environment (MONRE)

The Ministry of Natural Resources and Environment (Bộ Tài nguyên và Môi trường Việt Nam) was established in 2002 in accordance with the Government's Decree No. 91/2002/ND-CP, which was recently amended by the Government's Decree No. 25/2008/ND-CP of March 04, 2008. Accordingly, MONRE is a governmental agency, performing the state management of land, water resources and mineral resources as well as geology, environment, meteorology and hydrology, metrology and cartography, sea and inlands. The structural organization of MONRE consists of:

- Eighteen departments assisting the Minister of MONRE in performing the state management function; namely:
 - 1. International Cooperation Department
 - 2. Planning Department
 - 3. Science and Technology Department Legal Department
 - 4. Finance Department
 - 5. Emulation and Commendation Department
 - 6. Organization and Personnel Department
 - 7. Inspectorate
 - 8. Office
 - 9. Vietnam Sea and Island Administration
 - 10. Environment Administration
 - 11. Land Administration
 - 12. Department of Geology and Minerals of Vietnam
 - 13. Department of Survey and Mapping of Vietnam
 - 14. Department of Water Resources Management
 - 15. Information Technology Department
 - 16. Department of Hydrometeorology and Climate Change
 - 17. Ministry's representative Agency in Ho Chi Minh City
- Six state non-business units serving the state management function of the MONRE; namely:
 - 1. National Hydrometeorology Centre
 - 2. Centre for Water Resources Survey and Planning
 - 3. National Remote Sensing Centre
 - 4. Institute for Natural Resources and Environment Strategies and Policies

- 5. Natural Resources and Environment Newspaper
- 6. Natural Resources and Environment Magazine

(3) The National Water Resources Council (**NWRC**)

Based on the Law on Water Resources, the Decision of the Prime Minister No. 67/2000/QD-TTg of June 15, 2000; the National Water Resources Council (*Hội đồng Quốc gia về Tài nguyên Nước*); (hereafter called the 'NWRC'), was established in 2000 by the Government to advise on important decisions on water resources management. It may also assist MONRE and other ministries to share water resources information and to better coordinate the activities of international donors.

The organization and operation of the NWRC is regulated further in detail by the Prime Minister's Decision No. 99/2001/QD-TTg of June 28, 2001. Accordingly, the NWRC has the task of giving consultancy advice and assistance to the Government to help it make the following decisions regarding water resources management:

- Consultancy on national strategy and policies on water resources;
- Consultancy on examining and approving the plans on major river basins;
- Consultancy on shifting water among the major river basins;
- Consultancy on projects of protection, exploitation and use of water resources decided by the Government; preventing, controlling and overcoming the aftermath of floods and other damage caused by water;
- Consultancy on the management, protection, exploitation and use of international water resources and settling disputes arising therein; and
- Consultancy on dispute settlement regarding water resources among the ministries and branches, between the ministries and branches on one side and the People's Committees (provincial level) on the other side, and among the People's Committees (provincial level).

(4) The Department of Water Resources Management (**DWRM**)

The Department of Water Resources Management (*Cuc Quản lý Tài nguyên Nr ớc*), ('DWRM') was established in 2003 in accordance with the Decision of MORNE No. 600/2003/QD-BTNMT of May 08, 2003, which was recently amended by Decision No. 1035/QD-BTNMT of May 19, 2008 on stipulating the functions, tasks, powers and organizational structure of the Department of Water Resources Management. Accordingly, the DWRM is an organization under MONRE, which provides assistance to the Minister of MONRE in implementing the nationwide state management of water resources.

The structural organization of DWRM is:

- The department's leadership is composed of one Director and no more than three Deputy Directors;
- The department's assisting divisions consist of:
 - 1. Bureau of Planning Administration
 - 2. Bureau of Science Technology and International Relation
 - 3. Bureau of Legal and Policy on Water Resources
 - 4. Bureau of Water Resources Survey and Investigation
 - 5. Bureau of Water Resources Planning and Development
 - 6. Office
- The department's institutional agencies include:

- 1. Centre for Water Resources Technology
- 2. Centre for Water Resources Appraisement and Consultancy
- 3. Centre for Water Resources Information and Economy

In addition, the **Appraisal Councils** (*Hội đồng Thẩm định*) (as stipulated by the Decision 13/2006/QD-BTNMT), **Inspectorates** (*Thanh tra Tài nguyên Môi trường*) (as stipulated by the Government's Decree No. 35/2009/ND-CP), the **Centre for Water Resources Planning and Investigation** – **CWRPI** (*Trung tâm Quy hoạch và Điều tra Tài nguyên nước*) (as stipulated by the Decision No. 1027/QD-BTNMT of May 16, 2008), and the **Major River Basin Commissions** (as stipulated by the Government's Decree No. 120/2008/ND-CP) are also in charge of water resources management within their authorities.

(5) Indirectly, the Ministry of Agriculture and Rural Development (Bộ Nông nghiệp và Phát triển Nông thôn), hereafter called 'MARD', the Ministry of Industry (Bộ Công Thương), Ministry of Health (Bộ Y Tế), the Ministry of Construction (Bộ Xây Dựng), and the Ministry of Transport (Bộ Giao Thông Vận Tải), with their specialized departments for environmental protection, also have inseparable roles in the state management of water resources. MARD, for instance, is still responsible for agriculture, forestry, salt-making, irrigation, fisheries management, as well as dykes, flood and storm management, and rural water supply, even though its responsibility in the field of water resources management was transferred to MONRE in 2002.

Regarding irrigation, as regulated by the Government's Decree No. 01/2008/ND-CP of January 03, 2008 on specifying the functions, tasks, powers and organizational structure of the Ministry of Agriculture and Rural Development, which was amended by the Decree No. 75/2009/ND-CP dated September 10, 2009; MARD is in charge of guiding the implementation of legal documents on irrigation and dykes, implementing regulations issued by competent authorities on the prevention of damage caused by water salinization, as well as approving plans on dykes and irrigation facilities related to two or more provinces involved in flood prevention. Regarding agricultural and rural environment protection, MARD has the responsibility to direct, guide and inspect the implementation of environmental protection legislation and other relevant legal provisions on the production, importation and use of chemicals, plant protection drugs, fertilizers and waste in agriculture, on dyke systems and irrigation works, rural daily-life clean water, and marine conservation zones.

Regulation on specialized organizations and sections of environmental protection in state agencies and state enterprises is specified in the Government's Decree No. 81/2007/ND-CP of May 23, 2007. Accordingly, the Department of Environment is established at the following ministries: Ministry of Industry, Ministry of Agriculture and Rural Development, Ministry of Health, Ministry of Construction, and Ministry of Transport, in order to assist each minister from the relevant ministries mentioned above by giving advice and submitting to the minister, for issuance and implementation, legal documents, programmes, proposals and projects on environmental protection in the assigned sectors and areas. For other ministries and ministerial-level agencies where there already exists a Department of Science and Technology, these should be renamed as the Department of Science. Technology and Environment, in order to advise and submit to the ministers and heads of the above agencies legal documents, programmes, plans, projects and proposals on science, technology and environmental protection in the assigned sectors and areas. The Ministry of Public Security will investigate violations of the legislation on environmental protection. The organization and operation of 'environment police' are decided by the Minister of Public Security. On February 06, 2009, the Ministry of Public Security, together with the MONRE, issued the Joint Circular No. 02/2009/TTLT-BCA-BTNMT, guiding the cooperative relationship between the two ministries in preventing and combating violations against the legislation on environmental protection.

At local levels, Departments of Natural Resources and the Environment ('DONREs') are specialized organizations under People's Committees (provincial level), which assist the People's Committees to implement their state management tasks on natural resources and the environment, especially on

water resources. Offices of the Natural Resources and Environment that are under the People's Committees at district level shall be accountable for state management of the environment, water resources, and mineral resources, as well as land, sea and island issues. At the commune level, civil servants in charge of land and construction issues shall be responsible for communal affairs of land and environment management, as well as mediation of environmental disputes (stipulated by the Joint Circular No. 03/2008/TTLT-BTNMT-BNV of July 15, 2008 providing regulations on functions, tasks, competences and organizational structures of agencies specialized on natural resources and environment of People's Committees of all levels).

In particular, the DONREs assist Provincial People's Committees to implement the functions and authorities of state management on environmental protection in provincial areas as regulated by Items b, c, d, e, f, and g of Clause 1 of Article122 of the Law on Environmental Protection 2005. The Offices of Natural Resource and the Environment shall assist the district People's Committees to perform the tasks and authorities of state management on environmental protection in the district areas as regulated by Items b, c, d, e, f, g, and h of Clause 2 of Article 122 of the Law on Environmental Protection 2005. Heads of Offices of Natural Resource and Environment shall assign staff to manage and assist the performance of state management functions of environmental protection as regulated on the staffing of civil servants of the Office of Natural Resource and the Environment as follows: (a) Two to three civil servants will be assigned to the plain districts; island districts with national parks or a natural reservation zone; quarters; cities under the provincial level; and towns with a population of more than 35,000 people; (b) One to two civil servants will be assigned to the mountainous districts, other island districts, and towns with a population of less than 35,000 people.

At commune level, civil servants in charge of land and construction have the responsibility to assist commune People's Committees to perform the tasks and authorities of state management of environmental protection in the commune areas as regulated by Clause 3, Article 122 of the Law on Environmental Protection 2005. Based on the working requirements and character of environmental protection in the areas, the Chairmen of commune People's Committees shall sign labour contracts to support environmental protection tasks. The budget of implementing such labour contracts derives from the budget for environmental protection allocated to the commune. On July 24, 2008, the Ministry of Finance, together with the MONRE, issued the Joint Circular No. 70/2009/TTLT-BTC-BTNMT, guiding the operating expenditure of specialized originations, departments, and persons in charge of environmental protection. Furthermore, expenditure for the implementation of labour is controlled by the Government's Decree No. 81/2007/ND-CP dated July 23, 2007, which provides regulations for specialized environmental protection organizations and departments in state authorities and state enterprises.

On river basin management, the Government has recently issued Decree No. 120/2008/ND-CP of December 01, 2008. Its main aim is to protect the water environment, cope with water-based environmental incidents, regulate and distribute water resources, etc. As a guide, major river basins in the Vietnamese context consist of the Red River (sông Hồng) and the Thai Binh, Bang Giang, Ky Cung, Ma, Ca, Vu Gia, Thu Bon, Ba, Dong Nai, and Mekong River Basins. An inter-provincial river basin is stipulated as a river basin located on more than two provinces or cities under central government (Article 6, Para. 2). Based on a suggestion made by MONRE, **Major River Basin Commissions** (*Ủy ban Lưu vực sông lón*) were established by the Prime Minister to supervise and coordinate the operations of ministries and local-level agencies involved in the implementation of river basin planning, as well as the exploitation, use and development of water resources (Article 30, Para. 1 & Para. 4a). Presidents of **Inter-provincial river basin Commissions** (*Ủy ban Lưu vực sông liên tỉnh*) are Chairmen of People's Committees (provincial-level), with a two-year term (Article 30, Para. 3, Para. 4b). **River Basin Offices** (for major river basins and inter-provincial river basins) are set up by MONRE to assist River Basin Commissions in implementing their tasks (Article 31).

The following charts (9 & 10) provide an overview of the state management on water sector at national and local levels:

Chart 9: State Management on Water Sector at National Level

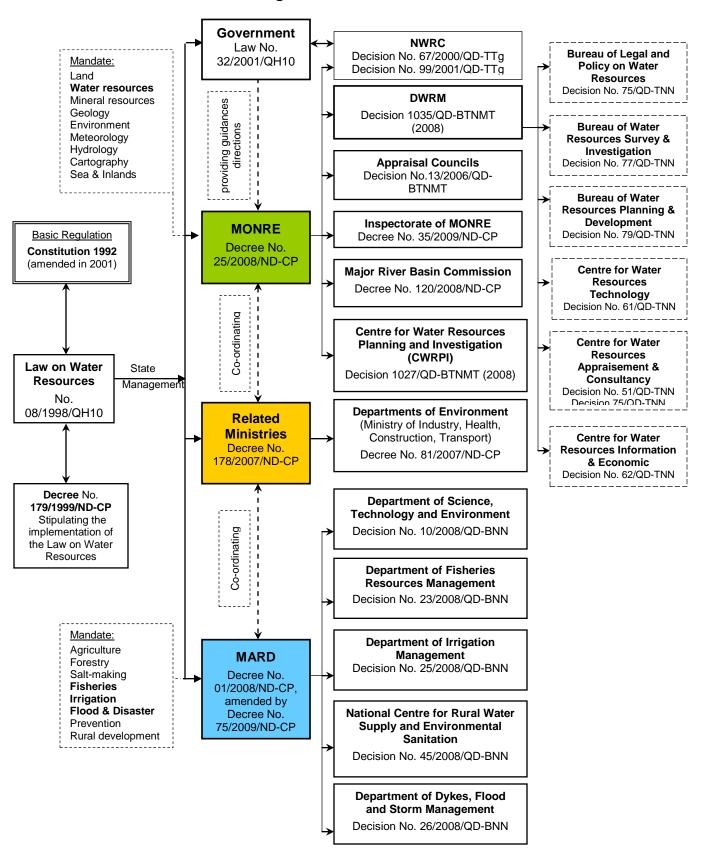
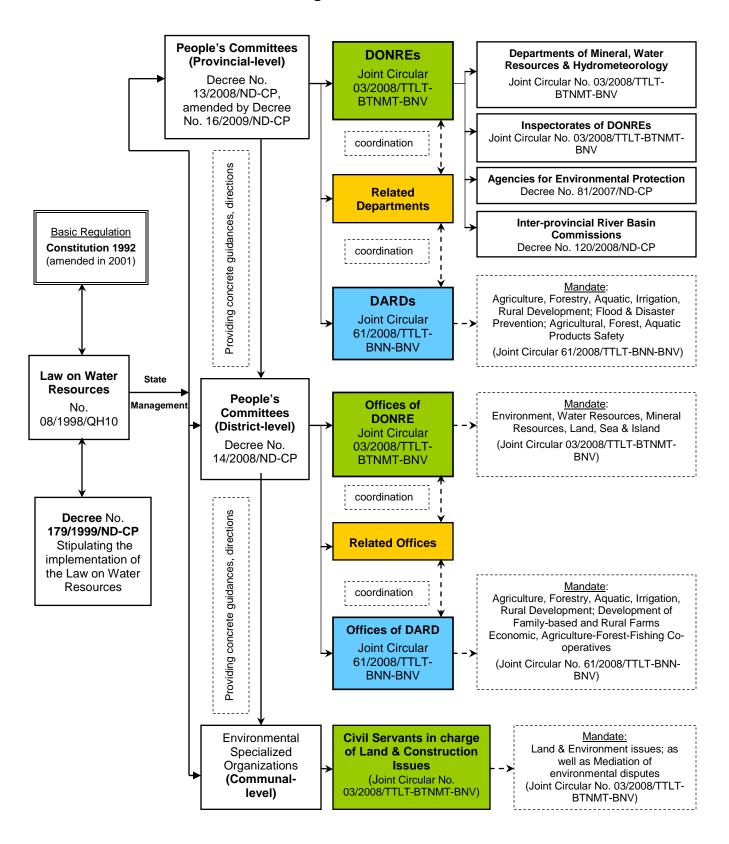


Chart 10: State Management on Water Sector at Local Level



3.3.2 Implementation and Monitoring

The coordinating state management of the water sector regarding responsibility and monitoring shall be addressed as follows:

First of all, state agencies in charge of water management (referred to below as 'state management agencies for the water sector') are responsible for working out and guiding the implementation of strategies, plans, policies on the protection, exploitation, utilization and development of water resources, and the prevention, control and mitigation of adverse effects caused by water. Namely, MONRE is in charge of submitting the development strategies, master plans, long-term, five-year and annual plans, and national programmes and projects on water sector protection to the Prime Minister (stipulated by Clause 2, Article 2 of the Government's Decree No. 25/2008/ND-CP of March 04, 2008 defining functions, tasks, powers, and organizational structure of the Ministry of Natural Resources and Environment). Furthermore, MONRE has the responsibility to formulate master plans and plans on the management of, as well as measures for using, water resources for sustainable development and multipurpose uses, and the proactive prevention and control of the degradation and exhaustion of water sources. In addition, MONRE guides and examines the implementation of strategies and master plans after they have been approved by the Prime Minister (Clause 6, Article 2 of the Government's Decree No. 25/2008/ND-CP). Based on these development strategies and master plans submitted by MONRE, the Government shall approve the list and plans for major river basins as well as important engineering projects dealing with water resources (Article 59 of the Law on Water Resources). MONRE shall further approve the lists and plans for major river basins as authorized by the Government.

Second, state management agencies for the water sector have the authority to *promulgate and organize the implementation of legal documents*, *procedures*, *regulations and standards on water resources*. According to the Government's Decree No. 178/2007/ND-CP of December 03, 2007, which regulates the functions, duties, powers, and organizational structure of ministries and ministerial agencies, MONRE has the power to submit to the Government draft laws and draft resolutions of the National Assembly, draft ordinances and resolutions of the Standing Committee of the National Assembly, draft resolutions and decrees of the Government based on the annual law-making programmes approved by the ministry, and projects and schemes as assigned by the Government. MONRE has, in addition, the authority to promulgate decisions, directions and circulars, formulate and announce manufacturer standards according to their competence, or submit such national standards to the Ministry of Science and Technology for announcement.

Regarding water resource management, MONRE is in charge of directing, guiding and organizing the implementation of legal documents, mechanisms and policies on water resources promulgated by competent authorities. Further, it decides on the classification and listing of water sources (rivers, lakes, streams, and other forms of natural reservoirs), sets and announces manufacturers' standards, and formulates and promulgates national technical regulations on conservation and the use of water resources in accordance with its competence.

Next, state management agencies for the water sector are responsible for *managing basic surveys on water resources*, carrying out meteorological and hydrological forecasts, warning on floods, inundation and drought and other adverse effects caused by water, as well as organizing research, applying advanced science and technology, and archiving data on water resources. The Government unifies the management of basic water resources surveys (Article 60 of the Law on Water Resources). MONRE is in charge of building, managing and exploiting the water resources observation network, organizing basic surveys on inventory, and assessing water resources nationwide, and notifying branches and localities of water source potential so that they can create master plans and plans to use water rationally, economically and efficiently (Clause 6, Article 2 of the Government's Decree No. 25/2008/ND-CP). People's Committees (at provincial level) organize the implementation of basic

surveys, inventories and evaluations of water resources in their localities, based on the assignment of the Government and the guidelines of the related ministries and sectors.

Moreover, water resource permits shall be issued, suspended and revoked (withdrawn) by the competent water sector state management agencies. Based on the Government's Decree No. 149/2004/ND-CP of July 27, 2004 and MONRE's Circular No. 02/2005/TT-BTNTM issued on June 24, 2005, permits for the exploration, extraction and utilization of water resources and of wastewater discharge into water sources include a groundwater exploration permit, a groundwater extraction and utilization permit, a surface water exploitation and utilization permit, and a wastewater discharge permit. Competent state organizations allowed to issue, extend, change terms, adjust the contents of, invalidate and withdraw such permits are MONRE and People's Committees (provincial-level). MONRE has, further, the authority to guide, examine and organize the issuance and withdrawal of water resource permits. In particular, MONRE is in charge of granting, extending, changing the duration of, adjusting the contents of, invalidating and withdrawing permits in the following cases:

- (1) Water resource exploitation and use, for national important works already approved by the Prime Minister;
- (2) Underground water exploration and exploitation, for works with a flow of 3,000m³/day or more;
- (3) Surface water exploitation and use for agricultural production with a flow of 2m³/second or more;
- (4) Surface water exploitation and for power generation with the installed machine capacity of 2,000 kW or more;
- (5) Surface water exploitation and use for other purposes with a flow of 50,000m³/day or more;
- (6) Discharge of wastewater into water sources with a flow of 5,000m³/day or more.

People's Committees (provincial level) have the authority to grant, extend, change terms or adjust the contents of, invalidate and withdraw permits in cases not specified in the abovementioned points, and not falling into the cases where permits are not required under the provisions of Article 6 of Government's Decree No. 149/2004/ND-CP.

In addition, state management agencies for the water sector are responsible for **inspecting compliance** with and implementation of the legislation on water sector protection, dealing with acts of violating water sector legislation, as well as settling disputes, complaints and denunciations against acts violating water sector legislation.

According to the Law on Water Resources, the Government's Decree No. 179/1999/ND-CP and the Government's Decree No. 35/2009/ND-CP¹⁸ of April 07, 2009 specify regulations on the organization and operation of the Inspectorates of Natural Resource and Environment. The Inspectors of Natural Resource and Environment consist of inspectors of MONRE and inspectors of DONREs. These bodies must perform administrative and specialized inspections of land, water, mineral sources and the environment, as well as hydrometeorology, mapping and survey, and general management of the sea and islands (hereinafter referred to as natural resources and environment) in accordance with the provisions of the law. Specialized Inspectors for water resources have the following duties:

60

¹⁸ This replaced the Government's Decree No. 65/2006/ND-CP of June 23, 2006 on specifying regulation on the organization and operation of Inspectorates of Natural Resources and Environment.

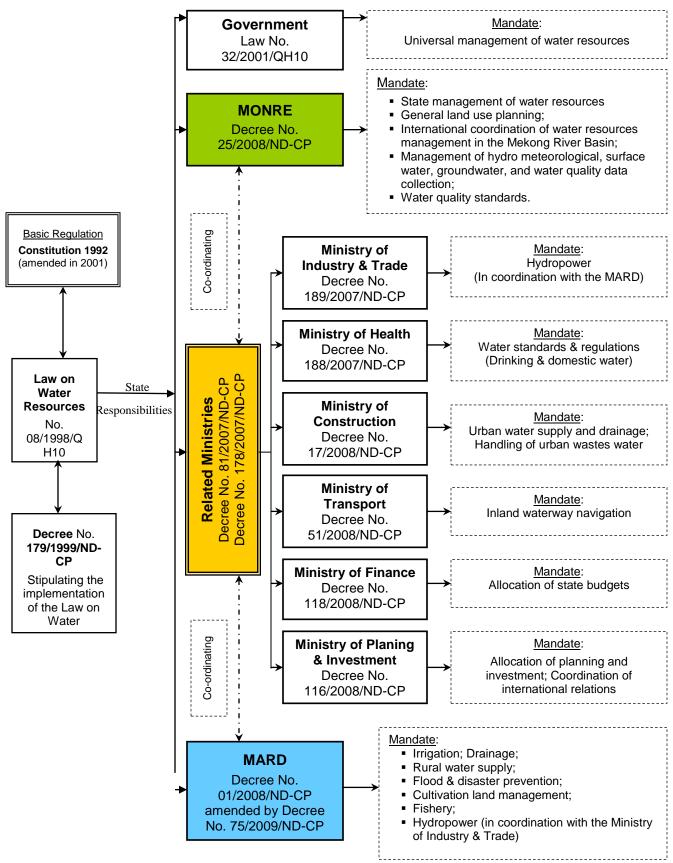
- 1. Inspecting compliance with the procedures, regulations and technical standards made for the protection, exploitation and utilization of water resources and the prevention, control and mitigation of adverse effects caused by water;
- 2. Inspecting the issuance and withdrawal of water resource permits and compliance with water resource permits;
- 3. Coordinating with the Government's Inspector and the specialized Inspectorates of ministries, sectors and localities in the inspection of compliance with the Law on Water Resources and activities relating to water resources.

In particular, MONRE's inspectors are responsible directly to the Minister of MONRE, simultaneously working under the specialist guidance of the Government's Inspectorate. DONRES Inspectors are responsible directly to the Directors of DONRES, working under the specialized administrative guidance of provinces' Inspectors.

Regarding dispute settlement, agencies with the authority to issue certain types of water resource permits have the responsibility to settle claims as well as complaints arising from the implementation of those types of permits. If the claimant disagrees with a decision made on a dispute settlement by one of these administrative agencies, he shall be entitled to bring the case to the competence courts, in accordance with the provisions of the law (see Part A, 2.2.3). Finally, the state shall carry out international relations in the field of water resources and implement international conventions on water resources that the Socialist Republic of Vietnam has signed or participated in.

The following Chart (11) provides an overview of the current delivery of national state responsibilities for water sector management in Vietnam:

Chart 11: Delivery of State Responsibilities for Water Resources Management



4. Analysis of the Legal Framework for Vietnam's Water Sector

The Law on Water Resources No. 08/1998/QH10, which was passed by the National Assembly of the Socialist Republic of Vietnam on May 20, 1998, created the foundation for the water resources protection legal system in Vietnam. After ten years of implementation, the Law on Water Resources represents a major step forward on integrated water resource management. The Legislative framework on water resource management is in progress. Required secondary regulations, for instance, cover most of water-related protection issues. Important water-related Government decrees, decisions and circulars on the guidance and implementation of the Law on Water Resources have been issued and often amended to meet the requirements of the country's development, and its international integration in different issues.

4.1 Achievements and Main Challenges

In recent years, over more than 300 legal documents required to implement the Law on Water Resources have been developed as secondary regulations to protect and sustainably develop water resources from a range of different legal viewpoints such as: regulation on the exploitation, extraction and utilization of water resources and discharge of wastewater into water resources; regulation on the licensing of exploration, exploitation and drilling of underground water; regulation on urban and industrial-park water drainage; regulation on the production, supply and consumption of clean water; regulation on clean water and the sanitation of rural developments; regulation on licensing the practice of hazardous waste management; regulation on solid waste management; regulation on management of the river basin; regulation on the collection, management, exploitation and use of data and information on water resources; regulation on environmental protection charges; and regulation on sanctions against administrative violations of water resource management regulations.

In addition, apart from the legal groundwork for managing the water sector (the 1992 Constitution (amended), the Law on Water Resources and related key secondary regulations as mentioned above (chapter 3.2.2), numerous important laws and ordinances have been developed to protect and develop the environment and the water resources, and to meet the requirements of the country's development and its international integration in different areas. Such examples are the Law on Dykes 2006, Law on Environmental Protection 2005 (replaced the Law in 1993), Law on Tendering 2005, Law on Forest Protection and Development 2004 (replaced the Law in 1991), Law on Inland Waterway Navigation 2004, Law on Fisheries 2003, Law on Land 2003 (replaced the Law in 1993), Ordinance on Natural Resources Tax 1998 (amended), Law on Minerals 1996 (amended in 2005), etc.

It is evident that Vietnam has started to set up a framework of regulations to ensure the sustainable use, protection and development of the environment in general, and water resources in particular. In recent years, policies and institutional systems on water resource management have been developed and improved systematically. The task of protecting the water sector in Vietnam has changed positively and, as a consequence, the awareness of water resource protection has grown considerably.

At sub-national levels, legal documents relating to water resource management and issued by competent state agencies have been developed in recent years. These myriad documents have, basically, created a rather comprehensive legal system for the state management of water sector protection, and raised the awareness of local people and enterprises on water resource protection and development. The leadership at provincial levels is nowadays aware of the importance of water sector management through the uses of laws. Annually, based on the suggestions of specialized departments and sections, legislative programmes on water sector management are issued in most localities. According to these legislative programmes – and the guidance offered by People's Committees at provincial level – agencies assigned to lead legal document development have the responsibility to carry out research and develop drafts of such legal documents, collect comments from related

departments and sections, submit drafts to Departments of Justice for appraisal, and submit the appraised drafts to People's Committees (provincial level) for promulgation. Subsequently, leading agencies shall organize training courses, and then communicate and popularize these legal documents to related state departments and sectors, private organizations and enterprises, as well as individuals.

Based on Law No. 31/2004/QH11 on the Promulgation of Legal Documents of People's Committees, People's Councils (*Luật ban hành Văn bản quy phạm pháp luật của Hội đồng Nhân dân*, *Ủy ban Nhân dân*), in order to have the legal foundation for developing legal documents, numerous localities have to issue regulations on the procedures of drafting, development, collecting comments, as well as appraising and promulgating legal documents in accordance with their authorities. Therefore, in recent years, most of the legal documents on environmental and water resource protection issued by local state agencies have conformed to national legal documents relating to competences, procedures and formats.

The main aims of such a legal framework shall serve the development of water resources in a sustainable manner, ensuring the efficient exploitation and use of water resources, and encouraging the protection and development of water resources in an integrated manner and for multiple purposes. In addition, the legal framework of the water sector in Vietnam aims at enhancing the effectiveness and efficiency of the state management of water resources, raising the responsibilities of private organizations/enterprises and individuals in the protection, exploitation and use of water resources, as well as the prevention, mitigation and remedying of consequences and harm caused by water. Additionally, water resources must be managed in an integrated and uniform manner, based on established ways of preserving river basins. The water use structure must conform to economic restructuring in a period of accelerated national industrialization and modernization. Finally, this legal framework shall bring other countries together to cooperate, share and ensure the equity and rationality of the exploitation, use, protection and development of water resources as well as the prevention and mitigation of harm caused by water in trans-boundary rivers and river basins on the principles of ensuring national sovereignity, territorial integrity and national interests.

However, in the face of the pressures caused by industrialization and modernization, as well as the comprehensive movement of globalization and international integration, the current Law on Water Resources has revealed its limitations and insufficiency. Contradictions with other related laws and secondary regulations have bared themselves in the implementation process. Though legislation of water sector management in Vietnam has greatly improved during the last decade, it has obviously not yet come to full fruition. The question is, therefore, how has the legal framework for the water sector in Vietnam proved its worth?

Most of the surface, ground and coastal waters of Vietnam are polluted, with no current sign of abating. Water pollution, for instance, is still not yet under control. Rivers, reservoirs, water-bearing beds and submerged areas are seriously polluted, degraded and exhausted, such examples of which are: Nhue – Day River Basins, Cau River, Dong Nai (Saigon) River, Huong River, and Hau (Can Tho City) River. Especially in large cities and industrial zones, problems with the exploitation, exploration and use of water resources and the discharge of wastewater into water sources without permission still occur and remain unaddressed. Many water sources in Vietnam are dying due to the discharge of toxic chemicals from industrial and agricultural production and aquaculture, which has polluted the water sources and decreased biodiversity. The following point shall provide an overview of the problems and conflicting issues with Vietnam's current water sector management legislation. In addition, the main gaps, overlaps and unjustified regulations within the legal framework shall be addressed.

Based on the Vietnam Environment Monitor of 2003 (WB 2003), irrigation makes the largest demand on water resources in Vietnam. The supply of clean drinking water to households is now provided to

60% of Vietnam's population¹⁹. In addition, sectors such as fisheries (including aquaculture), industry, hydropower, services and transport also make demands on water resources. Agriculture still remains the largest consumer of water²⁰, while industry and domestic use²¹ is rising with population growth and economic development (MONRE 2003).

Furthermore, there is increasing evidence of the pollution of surface, ground and coastal waters. Downstream sections of major rivers reveal poor water quality, while lakes and canals in urban areas are almost becoming sewage sinks. Rivers in Vietnam's urban areas, especially major cities, are seriously polluted by untreated industrial wastewater, which is the main source of water pollution. According to the Institute of Tropical Techniques and Environmental Protection, industrial parks (IPs) and export processing zones (EPZs) in the Southern Key Economic Zone discharge over 137,000m³ of wastewater, containing nearly 93 tons of waste, into the Dong Nai, Thi Vai and Saigon Rivers each day (MONRE 2003:23). In addition, according to the results of MOSTE monitoring up to 2002, the water quality of the Saigon River exceeds the national water quality class A standards²² by 2-4/BOD5²³; the water quality of the Thi Vai River, even, exceeds the national water quality class A standards by 10-15/BOD5 (MOSTE 2002:21). According to MONRE, there are about 4,000 enterprises discharging wastewater, of which 439 are classed as 'serious' and are required to adapt cleaner technologies and treatment of their wastewater, otherwise they will be reallocated or closed. Industrial and other types of pollution add to human waste from the population. Around seventy industrial parks have been developed, and with more than 1,000 hospitals nationwide some one million cubic metres of untreated wastewater is discharged from these sources alone every day (MONRE 2003:22).

In addition, groundwater also shows pockets of contamination, and some salinity intrusion. There is evidence of pollution from poorly maintained septic tanks, garbage dumping, industrial effluent, and overexploitation in parts of Hanoi, Ho Chi Minh City and the Mekong River Delta. A pressing issue is the salinity intrusion taking place in the Red River Delta, central coastal regions and in the Mekong River Delta. Salinity intrusion is a natural phenomenon in coastal areas. However, due to increased groundwater exploitation, salinity intrusion has increased and is posing a threat to safe water supplies in the Red River and Mekong River Deltas. In the Mekong River Delta, for instance, saltwater is registered in half of the delta area.

Furthermore, coastal waters are being contaminated by land-based pollution sources, port development activities, oil spills and coastal erosion. The threats to water quality include land-based pollution sources, fishing with poisons (e.g. cyanide), unregulated tourism, transport and seaport development, and the oil and gas industries. The dominant land-based source of pollution to the coastal environment is discharged from river and sewage systems. For instance, the levels of some important pollutants of the Saigon – Dong Nai or Mekong river system have been estimated as

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¹⁹ Although there is an overall increase in the percentage of the population with access to clean water over the last decade, the supply of piped water is still far from the demand, given the rapid growth of the urban population. Most rural and remote areas have not yet benefited from the Government's water supply and sanitation programme.

²⁰ Total irrigation demand in 2000 was 76.6 billion m³, representing 84% of total demand. The Government expects irrigation demand to increase to 88.8 billion m³ by 2010 (representing an irrigated area of 12 mill. ha).

²¹ Domestic use of water by comparison is very small, accounting only for 2% of total demand. The consumption was only 1.341 billion m³ in 1990, but is expected to increase to 3.088 billion m³ in 2010 with population growth.

²² Vietnam has an extensive set of water quality classifications and standards: Class A is water resource for domestic use; Class B is water resource for other uses.

²³ Based on United States Environment: Terms of Environment 2009 – Glossary, Abbreviations and Acronyms, **BOD5** means the amount of dissolved oxygen consumed in five days by biological processes breaking down organic matter; **Biochemical Oxygen Demand (BOD):** a measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.

follows: Cu: 11000; Pb: 1102; Zn: 15696; As: 1600; Phosphate: 28220; Nit-rate: 191570 (Pham Van Ninh 1998). Wastewater and fish and marine product residues from fishing ports are major sources of organic pollutants in coastal waters.

4.2 Analysis of Legal Contradictions and Conflicting Issues

As we can see from the current situation, although the legislation of water sector management in Vietnam has significantly improved during the last decade, it has obviously not yet made an impact. Vietnam's current legal system in relation to water resources therefore seems insufficient. The question is, hence, how has the legal framework for the water sector in Vietnam proved its worth?

4.2.1 Gaps, Overlaps and Unjustified Regulations

The main cause behind the incomprehensiveness and insufficiency of the water-related legal framework in Vietnam is the lack of a united and stable legal system; conflicts and contradictions between laws, ordinances and secondary regulations still persist.

According to the Law on the Promulgation of Legal Documents 2008, secondary regulations are promulgated to provide detailed guidelines (only) for the implementation of laws and ordinances (Articles 8, 14, 16, 20 of the LPLDs 2008). Accordingly, water-related secondary regulations (Decrees of the Government, circulars and joint circulars of ministries (e.g. MONRE, MARD, MOF, etc.) and heads of ministry-equivalent agencies) shall be issued in accordance with the Law on Water Resources, and provide guidelines for the implementation of the Law on Water Resources.

Further, as regulated by Article 9 of the LPLDs 2008, legal documents shall only be revised, substituted, replaced, cancelled, or abolished by state agencies that have promulgated those legal documents. This means – regarding legislation on water resources – that should the Law on Water Resources be amended, revised or replaced, it must be amended, revised or replaced by another Law on Water Resources, issued by the National Assembly of the Socialist Republic of Vietnam.

In fact, the current water-related secondary regulations system has not only amended but almost changed the main content of the Law on Water Resources in order to meet the requirements of the country's development and its international integration. The following synopses shall provide an overview of the main contradictions of the legal framework for the water sector in Vietnam, which causes confusion, misunderstanding, problems, and difficulties in the implementation process. Moreover, the key contradictions between the Law on Water Resources and its secondary regulations, the contradictions between water-related secondary regulations, and the overlaps of and conflicts between the Law on Water Resources and other related Laws and Ordinances shall be analyzed.

- Synopsis 1: Contradiction between the Law on Water Resources and its secondary regulations.
- Synopsis 2: Contradiction between water-related secondary regulations.
- Synopsis 3: Conflict between the Legislation on Water Resources and other related laws and ordinances.
- Synopsis 4: Contradiction between the Legislation on Water Resources and the Law on the Promulgation of Legal Documents 2008

Synopsis 1: Contradiction between the Law on Water Resources and Water-related Secondary Regulations

Issues	Law on Water Resources (No.08/1998/QH10)	Water-related secondary regulations	Analysis
Subject of application	Article 1: "1. Water resources shall be the property of all the people and shall be universally managed by the state. 2. Any organization or individual shall have the right to exploit and use water resources for living and production, and at the same time they shall have the responsibility to protect water resources, to prevent, control and mitigate the adverse effects caused by the water in accordance with the provisions of law. The State shall protect the legitimate rights of organizations and individuals in the exploitation and utilization of water resources."	 Decision of MONRE No. 05/2003/QD-BTNMT Article 2: "The regulation shall apply to Vietnamese and foreign organizations and individuals that are engaged in activities of exploring, exploiting and drilling groundwater". Government's Decree No. 149/2004/ND-CP Article 2, para.1: "The Decree shall be applied to all national and foreign organizations and individuals that are involved in the exploration, extraction, exploitation, and use of water resources, as well as the discharging of wastewater into water sources." Government's Decree No. 34/2005/ND-CP Article 2, para.1: "Domestic individuals and organizations as well as foreign individuals and organizations who commit administrative violations of water resource management regulations within the territory of Vietnam shall be subject to this decree and other related decrees." 	Regarding ownership of water resources, as regulated by the current Law on Water Resources, water resources shall be the property of all people (Vietnamese citizens). In this case, "Organizations and individuals" should be understood as "Vietnamese organizations and individuals". Problems: In contrast, almost all of the water-related secondary regulations have "extended" the scope of water resources ownerships to "Foreign organizations and individuals". It can be seen, first of all, that the subject of the application of the Law on Water Resources has been amended by its guiding secondary regulations. Consequences: → Violation against the Law on Water Resources; → Violation against the Law on the Promulgation of Legal Documents 2008
State management of the water sector	Article 58 (para. 2): "2. The Ministry of Agriculture and Rural Development shall be responsible to the Government for implementing the function	■ Government's Decree No. 25/2008/ND-CP Article 1: "The <u>Ministry of Natural Resources and</u>	Regarding state management of the water sector; Article 58 (para.2); Article 59 (para.3), Article 60 (para.3) of the Law on Water Resources were "specified in details", but actually amended by the

MARD – MONRE

of state management in respect of water resources."

Article 60 (para.3):

"3. The Ministry of Agriculture and Rural Development shall integrate and manage the results of a basic survey, inventory and evaluation of water resources and establish a database on water resources."

Article 59 (para.3)

"3. The Ministry of Agriculture and Rural Development shall *approve river basin plans and hydraulic works system plans* as authorized by the Government."

<u>Environment</u> is a governmental agency, performing the state management of land, water resources, mineral resources and geology, the environment; meteorology and hydrology, metrology and cartography, sea and islands..."

Article 2, para. 6 (f)

- "6. Tasks and powers of the *Ministry of Natural Resources and the Environment* regarding water resources:
- f. To build, manage and exploit water source observation networks, to organize basin surveys on, and inventory and assessment of water resources nationwide; to notify branches and localities of water source potential so that they can adopt master plans and plans to use water rationally, economically and efficiently."

Government's Decree No. 120/2008/ND-CP

Article 9, para.2:

"The Ministry of Natural Resources and Environment shall assume the prime responsibility for, and coordinate with, other ministries, branches and People's Committees (provincial level); organizing basic surveys of the river basin environment and water resources; guiding the making plans on distribution of river basin environment-water resources data directories"

Article 17, para. 1a:

"The Ministry of Natural Resources and Environment shall formulate planning tasks and draft for river basins on the list of big river

following secondary regulations:

- Government's Decree No. 01/2008/ND-CP on stipulating functions, duties, authorities and organizational structure of the Ministry of Agriculture and Rural Development;
- Government's Decree No. 25/2008/ND-CP on specifying the functions, tasks, authority and organizational structure of The Ministry of Natural Resources and the Environment:
- Government's Decree No. 120/2008/ND-CP on River Basin Management.

Whereas, the Ministry of Agriculture and Rural Development based on the Law on Water Resources, shall be responsible to the Government to implement the function of state management in respect of water resources.

Problems:

In contrast, as regulated by Decree No. 25/2008/ND-CP issued in March 04, 2008 and the Government's Decree No.120/2008/ND-CP of December 01, 2008; the Ministry of Natural Resources and Environment is the governmental agency that performs the state management of water resources nationwide. In practice, this leads to conflicts over resource allocation and responsibilities, and the reluctance of agencies to fulfill their tasks.

Consequences:

- → Violation against the Law on Water Resources;
- → Violation against the Law on the Promulgation of Legal Documents 2008.

		basins or the list of inter-provincial river basins". Article 19, para. 6: "The Ministry of Natural Resources and Environment shall inspect and annually report to the Prime Minister on the implementation of river basin planning throughout the country.	
Content of the Law on Water Resources 1. Regarding the discharge of wastewater into	Article 18: "Organizations and individuals using water in production, business and other activities wishing to discharge wastewater into water sources must apply for permission from a competent state authority."	Government's Decree No. 149/2004/ND-CP Article 6, para. 2: "Article 6: Exemption from licensing:	Regarding the discharge of wastewater into water sources, as regulated by Article 18 of the Law on Water Resources, organizations and individuals using water in production, business and other activities wishing to discharge wastewater into water sources must apply for permission from the competent state authority.
water sources;		 2. Domestic wastewater discharge into water sources at small household scale". Circular of MONRE No. 02/2005/TT-BTNMT Part I, 3 "Exploitation and use of water resources and discharge of wastewater into water sources within the family scale" shall be understood as the exploitation and use of water resources and discharge of wastewater into water sources with a volume or a capacity not exceeding: a. 0.02m3/s, for surface water exploitation and use for agricultural production; b. The installed machine capacity of 50 kW, for surface water exploitation and use for power generation without diverting water sources; c. 100 m³/day for surface water exploitation 	Problems: In contrast, Government's Decree No. 149/2004/ND-CP issued on July 27, 2004, providing regulation on the licensing of water resources exploitation, extraction and use; as well as discharging of wastewater into water sources, "extended" an exception where "domestic wastewater discharge into water sources at small household scale" does not need any permission. Further, based on Circular No. 02/2005/TT-BTNMT, still the definition of the "domestic wastewater discharge into water sources at small household scale" is not clear. Circular No. 02/2005/TT-BTNMT only specifies "10m³/day for the discharge of wastewater" Questions: 1. How can the concept "small household" be understood? 2. Can domestic "untreated" wastewater also be discharged into water sources? In the case of no,
		and use for other purposes; d. 20m³/day for exploitation and use of	how can it be proved whether wastewater has been

		underground water.	treated or not?
		e. 10m³/day for discharge of wastewater.	3. Can domestic wastewater be discharged into water sources for any purposes?
			Consequences:
			→ Regulations of secondary legal documents are unclear. It can be misunderstood, causing confusion.
			→ Violation against the Law on Water Resources.
			→ Violation against the Law on the Promulgation of Legal Documents 2008.
Content of the Law on	Article 22, para. 4:	 Decision of MONRE 	Regarding the right to complain, denunciate, and
Water Resources	"Organizations and individuals exploiting	No. 05/2003/QD-BTNMT	initiate lawsuits against acts/ decisions issued by administrative agencies
	and using water resources shall have the right to file claims and initiate lawsuits to a	Article 13:	Based on the Law on Water Resources (Article 22,
2. Regarding the right to complain,	competent state authority against acts of	Responsibilities and rights of organizations and	para.4, Article 69), organizations and individuals
denunciate, and	infringement upon their rights of exploitation and utilization of water	individuals licensed to explore groundwater:	have the rights to complain, denunciate, and initiate lawsuits against acts/ decisions issued by
initiate lawsuits against acts/ decisions	resources and other legitimate interests."	To conduct exploration according to the schemes already approved by competent	administrative agencies infringing upon their
issued by	Article 69	state agencies;	rights of exploitation and utilization of water resources and other legitimate interests.
administrative agencies;	(provides regulation on the right to file claims and denunciations and initiate lawsuits)	To comply with the provisions of this regulations and other relevant law provisions;	As regulated by the Government's Decree No. 67/2003/NC-CP, amended by Decree No. 04/2007/ND-CP, regarding collection, remittance,
	"1. Organizations and individuals subjected to inspection shall have the right to file claims or initiate legal action against the	To supply truthful information on the exploration situation upon inspection by the water resource management agency;	management and use of the environmental protection charges for wastewater, the "organizations and individuals" shall only have
	decision or sanction measures given by the Inspection Team or Inspector in accordance with the provisions of law.	To pay compensation for damage caused by groundwater exploration;	the right to complain and denunciate only. How's about the right to initiate lawsuits to the courts? It might have been "forgotten" to be mentioned.
	2. Individuals shall have the responsibility to	5. To pay a fee for groundwater exploration licensing, according to law provisions.	Problems:
	denunciate to the competent state authority acts of violating the Law on Water Resources;	Article 14:	This important right is not guaranteed by many water-related secondary regulations.
	3. The agency receiving the claims, denunciation and legal actions shall have the	Responsibilities and rights of organizations and individuals licensed to exploit groundwater:	For instance, the Decision of MONRE No. 05/2003/QD-BTNMT of September 04, 2003 promulgating the regulations on licensing of

responsibility to examine and settle them promptly in accordance with the provisions of the legislation on claims and denunciations and other provisions of the law."

- (1) To exploit water according to the provisions of their licenses;
- To comply with the provisions of this regulation and other relevant law provisions;
- (3) To supply truthful information on the exploitation situation upon inspection by the water resource management agency;
- (4) To report in a timely manner to the licensing agencies when detecting big changes in the volume and quality of groundwater and the surrounding environment;
- (5) To pay a fee for groundwater exploitation licensing and natural resource tax, according to law provisions.
- (6) To be considered for compensation according to the law's provisions when competent state agencies suspend the validly of their licenses for defence or security reasons, or when in the public interest.
- Government's Decree No. 67/2003/NC-CP (amended by Decree No. 04/2007/ND-CP)

Article 14:

"Complaints and denunciations about the collection, remittance, management and use of environmental protection charges for wastewater prescribed in this Decree – and the settlement thereof – shall be made in compliance with the provisions of the legislation on complaints and denunciations, as well as the legislation on fees and charges."

groundwater exploration, exploitation and drilling practice mentions about the "responsibilities and rights of organizations and individuals licensed to explore groundwater" (Article 13) and the "responsibilities and rights of organizations and individuals licensed to exploit groundwater" (Article 14), but the right to complain and initiate lawsuits against acts/ decisions issued by administrative agencies has not been specified.

Questions:

- 1. How the rights of "organizations and individuals" exploiting and using water resources can be guaranteed, when there is a lack of the participation by judicial organizations?
- 2. Do "organizations and individuals" exploiting and using water resources still have the right to initiate lawsuits to the courts against acts/decisions issued by administrative agencies, when the regulations are unclear, or not specifically provided?
- 3. Who should be responsible for such cases where the regulations of secondary legal documents are unclear?

Consequences:

- → Regulations of secondary legal documents are unclear. It can be misunderstood, causing confusion.
- → Violation against the Law on Water Resources.
- → Violation against the Law on the Promulgation of Legal Documents 2008.

Synopsis 2: Contradictions between Water-Related Secondary Regulations

Issues	Law on Water Resources (No.08/1998/QH10)	Water-related secondary regulations	Analysis
Regulation on the licensing of groundwater exploration, exploitation and drilling practice	"1. Organizations or individuals carrying out geological exploration drilling, groundwater exploration drilling or foundation treatment must take measures to protect groundwater resources in accordance with the provisions of the law. 2. Organizations and individuals exploiting groundwater must comply with the procedures and regulations on technical safety and subsidence control, on the protection of aquifers and the related environment, and on back-filling after exploitation. 3 Organizations and individuals carrying out mining activities, the construction of underground structures and the construction of groundwater exploitation works must comply with the procedures and regulations on technical safety and avoid degradation and depletion of groundwater sources and/or serious land subsidence."	 Current legislation on licensing of groundwater exploration, exploitation and drilling practice: Decision No. 05/2003/QD-BTNMT; Decision No. 13/2007/QD-BTNMT on groundwater resources investigation and assessment; Decision No. 17/2006/QD-BTNMT on licensing of practice permits for groundwater drilling; Decision No. 15/2008/QD-BTNMT on protection of groundwater resources; Decision No. 59/2006/QD-BTC providing regime of charges for collecting, remittance, management, use of water resources; discharge of wastewater into water sources and drilling for underground water. Further, the licensing of groundwater exploration, exploitation and drilling practice is also regulated by: Government's Decree No. 149/2004/ND-CP provides regulation on the licensing of water resources exploitation, extraction and use, as well as the discharging of wastewater into water sources; and Circular No. 02/2005/TT-BTNMT Guiding the implementation of the Government Decree No. 149/2004/ND-CP on licensing of water resources exploration, exploitation, utilization and wastewater discharge into water resources. 	 Contradictions: Regarding different regulations on the procedure of licensing of groundwater exploration, exploitation and drilling practice (e.g. between Decision No. 05/2003/QD-BTNMT and Decree No. 149/2004/ND-CP) Regarding different regulations on the duration of permits of groundwater exploration, exploitation and drilling practice: A permit of groundwater exploration shall be issued initially for a duration of up to 3 (three) years, and can be renewed only once to extend the permit for up to a further 2 (two) years (Article 7 of the Decree No. 149/2004/ND-CP); Valid duration of groundwater exploration permits is between 1 (one) year and 3 (three) years; the extended period shall not exceed 1 (one) year (Article 10, para. 1 & 2 of the Decision No. 05/2003/QD-BTNMT) However, as regulated by the Government's Decree No. 179/1999/ND-CP stipulating the implementation of the LWR, permits for the exploration and use of groundwater shall be valid for 15 years. Permits can be extended, but each extension must not exceed 10 years (Article 9, para.3). Questions: Which procedures for licensing the exploration, exploitation and use of groundwater shall be applied? Can a permit for groundwater exploration be extended for one or two years? Which regulations should be considered as the legal

	basis to handle such contradictions between secondary regulations and the Law on Water Resources?
	4. Who shall be responsible for such different and contradictive regulations?
	Consequences:
	 Such a contradiction obviously causes confusion, misunderstanding and many problems and difficulties in the implementation process.
	■ The current Law on Water Resources provides very abstract provisions. Therefore, the Law on Water Resources cannot be utilized to solve conflicts or contradictions occurring in its secondary regulations.
	→ Violation against the Law on the Promulgation of Legal Documents 2008.

Synopsis 3: Conflict between Legislation on Water Resources and other related Laws and Ordinances

Issues	Legislation on Water Resources	Overlaps, Conflicts and Contradictions	Analysis
Conflict between the Law on	■ The scope of application of the Law on Water Resources is regulated in Article 2, para.1 as follows:	Regarding the marine environment, Articles 55, 56, 57, 58 of the LEP 2005 have provided the following regulations:	Obviously, there are overlaps of regulations between the legislation on water resources and the Law on Environmental Protection 2005.
Haw on Water Resources – Law on Environ- mental Protection 2005	"The water resources stipulated in this Law consist of <u>surface water</u> , <u>rainwater</u> , <u>groundwater</u> and <u>marine water</u> within the territory of the Socialist Republic of Vietnam." • River basin plan management is regulated by: + LWR (Article 64) + Government's Decree No. 120/2008/ND-CP of December 01, 2008 on river basin management.	 + Principles for marine environment; + Conservation and rational use of marine resources; + Control and treatment of marine environmental pollution; as well as + Prevention and response to marine environmental incidents. • Regarding the river water environment, Articles 59, 60, 61, and 62 of the LEP 2005 have provided following regulations: 	Although the current Law on Water Resources has specified clearly its scope of application in Article 2: the "water resources" which are subject of this Law consist of surface water, rainwater, groundwater, and marine water. Relating to specific water resources, the LWR provides further Articles regulating each kind of water resource (e.g. regulation on river basin management (article 64); regulation on exploitation and use of water resources for hydropower generation (article 29); regulation on exploitation and protection of irrigation works (article 47, 48, 49, 50, 51); regulation on groundwater (article 12, 34); regulation on discharge of wastewater (article 18, 19).
	 Regulation on the <i>exploitation and use of water resources for hydropower generation</i> and for <i>waterway transportation</i> is specified in Article 29, 30 of the LWR. Regulation on the <i>exploitation and protection of irrigation works</i> is specified in Articles 47, 48, 49, 50, 51, and 52 of the LWR. Regulation on <i>groundwater</i> protection is specified in: 	 + Principles for river water environment protection; + Control and treatment of pollution of the water environment in river basins; + Responsibilities of provincial-level People's Committees for the water environment protection in river basins; + Organization of water environmental protection in river basins; 	In addition, water-related secondary regulations have also provided further regulations, specifying specific subjects mentioned in the LWR in further detail. However, the Law on Environmental Protection No. 52/2005/QH11 issued on November 19, 2005 has also provided numerous Articles, specifying the regulations on protection of marine environment, river water environment, water sources in lakes, ponds, canals and ditches, groundwater, as well as wastewater.
	+ LWR (Article 12) + Decision of MONRE No. 13/2007/QD-BTNMT on groundwater resource investigation and assessment + Decision of MONRE No.	canals and ditches is regulated by Article 63 of the LEP 2005. The protection of reservoir environments used for irrigation and hydropower purposes is regulated by Article 64 of the LEP 2005.	 Problems: Evidentially, the scope of applications of the LWR and the LEP 2005 is overlapped. In other words, the scope of application of the LRW has been repeated and even amended by those of the LEP 2005. In comparison with the LWR, the above mentioned

	15/2008/QD-BTNMT on the protection of groundwater resources. In addition, the <i>exploration and exploitation of groundwater</i> are	 The protection of groundwater is regulated by Article 65 of the LEP 2005. Regarding wastewater, Articles 81, 82 of the LEP provide the following regulations: 	regulations provided by the LEP 2005 are more specific, in detail, and even different from those in the LWR (e.g. new points, extended obligations, state management authorities, etc.).
	regulated by: + LWR (Article 34); + Decision of MONRE No.	- Collection and treatment of wastewater; - Wastewater treatment systems.	If an amendment or supplement were necessary for the Law on Water Resources, would it be amended or supplemented by itself?
	05/2003/QD-BTNMT; + Decision of MONRE No. 17/2006/QD-BTNMT on licensing		 Evidently, such overlaps and contradictions cause confusion, misunderstanding and difficulties in the implementation process.
	of practice permits for groundwater drilling.		Questions:
	Regulation on water quality protection in different purposes (e.g. domestic, agricultural, aquatic, marine product cultivation and breeding,		1. What else do we need the Law on Water Resources for, when its subject and scope of application have been amended and virtually replaced by the Law on Environmental Protection 2005?
	industrial production and mining, etc.) is specified in Articles 13, 14, 15, and 16 of the LWR.		2. Which regulations should be applied when a water- related incident occurs – the Legislation on Water Resources or the Law on Environmental Protection?
	Regulation on the discharge of		2a. Who should be responsible for such differences?
	wastewater into water sources is specified in:		2b. Which sanctions should be applied?
	+ LWR (Articles 18 and 19); + Government's Decree No. 149/2004/ND-CP providing		2c. Which regulations should be applied to guarantee the rights of "organizations and individuals" when their legitimate rights and interests are violated?
	regulation on the licensing of water resources exploitation, extraction		<u>Consequences</u> :
	and use, and the discharging of		→ Violation against the Law on Water Resources.
	wastewater into water sources; + Circular of MONRE No. 02/2005/TT-BTNMT		→ Violation against the Law on the Promulgation of Legal Documents 2008.
Conflict between the	Regulation on the exploitation and utilization of water resources for waterway transportation is appointed.	The current key legislation on navigable inland waterways is provided as follows:	Here occurs the contradiction of state management in field of navigable inland waterways.
Law on Water Resources –	waterway transportation is specified in Article 30 of the Law on Water Resources.	Law on Inland Waterway Navigation No. 23/2004/QH11;	According to the LWR and the Government's Decree No. 149/1999/ND-CP, the state agencies in charge of inland waterways navigation consist of the Ministry of Transport,
<u>Law on</u> <u>Inland</u>	Government's Decree No.	■ Government's Decree No. 21/2005/ND-CP on detailing and guiding the implementation of a	the Ministry of Agriculture and Rural Development and

Waterway
Navigation
2004

179/1999/ND-CP stipulating the implementation of the LWR.

Article 14:

"The Ministry of Transport shall coordinate with the Ministry of Agriculture and Rural Development and the related ministries and branches in working out and organizing the implementation of the planning of waterway navigation networks, and constructing waterway navigation works (para.4).

- number of articles of the Law on Inland Waterway Navigation;
- Government's Decree No. 09/2005/ND-CP on sanctioning administrative violations in the field of navigable inland waterways.

Regarding state responsibilities when accidents happen on inland waterways:

As regulated by Article 7, paras. 2 and 3 of the Law on Inland Waterway Navigation 2004, the informed police offices or People's Committees must immediately send their officials to the scenes of accidents or the places where persons and/or vessels in distress are detected; shall be entitled to mobilize people and vessels to rescue and treat victims, protect property and vessels in distress, traces and exhibits related to the accidents; ensure navigation order, safely and uninterrupted; where accidents or incidents cause harm to the environment, such must be immediately notified to the state management agencies in charge of environmental protection.

Police offices or other competent state agencies, when being informed of accidents on inland waterways, must conduct an investigation in a timely manner and take handling measures according to law provisions.

Inland waterway port authorities are agencies performing the function of specialized state management over navigable inland waterways and transport at inland waterway ports and landing stages in order to ensure the law enforcement on the field of navigation inland waterways and regulations on safety and prevention of environmental pollution (Article 71 of Law on Inland Waterway Navigation 2004).

related ministries and branches. Government's Decree No. 149/1999/ND-CP does not specify the "related ministries and branches". In other words, the definition of "related ministries and branches" is still unclear.

In contrast, as regulated by the Law on Inland Waterway Navigation, the Ministry of Transport is responsible to the Government for performing state management of navigable inland waterways. The Ministry of Public Security coordinates with other ministries (Ministry of Transport, Ministry of Agriculture and Rural Development) in taking measures to protect regulations and safety of the navigable inland waterways, organizing police forces to patrol, inspect and handle violating acts against legislation on navigable inland waterways, as well as collecting statistics and supplying data on navigable inland waterways accidents. In addition, The Ministry of Natural Resources and Environment shall coordinate with the Ministry of Transport in planning the development of river basins, managing and exploiting natural resources related to channels and channel protection corridors, ensuring navigation safety and protecting the environment on inland waterways.

Problems:

Regulations on the state management on navigable inland waterways are abstract, unclear, and complicated.

Ouestions:

When a water-related incident occurs within the field of navigable inland waterways, who as the state management agency should be in charge of, the Inland waterway navigation Inspectorate or the Specialized Inspectorate of water resources or environmental Public Security?

Consequences:

→ State agencies have abused their authority to provide legal documents not suited to their competences. This causes contradictions, overlaps and unjustified regulations issued by different state agencies.

Conflict
between the
Law on
Water
Resour-ces
- Law on
Fisher-ies
2003 & Law
on Land
2003

Law on Water Resources 1998

Based on the LWR, "Organizations and individuals" shall have the right to exploit and use water resources for aquatic production and cultivation purposes (Article 22 LWR).

In addition, water quality protection in aquatic production and cultivation is specified in Article 15 of the LWR.

Furthermore, regulation on the exploitation and utilization of water resources for aquatic production and cultivation is specified in Article 27 of the LWR.

 Government's Decree No. 179/1999/ND-CP stipulating the implementation of the LWR

Article 1:

- "1. This Decree prescribes the management, protection, exploitation and use of water resources; discharge of wastewater into water sources; granting of permit(s) related the water resources, as well as prevention of, combat against and overcoming of harmful effects caused by water.
- 2. This Decree also defines activities that cause seawater pollution; regulates

Contradictions between the Law on Water Resources, Law on Fisheries 2003, and the Law on Land 2003, regarding the <u>right to use land</u> and <u>sea surface</u> for aquaculture production.

According to the Law on Fisheries 2003, organizations and individuals engaged in aquaculture have the right to be granted, by competent state agencies, certificates indicating the right to use land or sea surfaces for aquaculture. This right shall be protected by the state when it is infringed upon by other persons, as well as receiving damage compensation when their land or sea surface is recovered by the state for public, defence or security purposes ahead of the expiry of the assigning or leasing term according to law provisions (Article 25 of Law on Fisheries 2003).

Additionally, organizations and individuals engaged in aquaculture are obligated to use, for the right purposes and efficiently, land areas and sea surfaces assigned or leased for aquaculture and to protect the public works in the service of aquaculture. Further they must perform their financial obligations regarding the use of land or sea surfaces for aquaculture according to law provisions, as well as hand back land or sea surface for aquaculture under recovery decisions according to law provisions (Article 26 of Law on Fisheries 2003).

The assignment or lease of sea surfaces for aquaculture must be effected in accordance with the aquaculture development planning ²⁴. The terms of

→ Violation against the LPLDs 2008.

Problems:

Regarding the right to use land and sea surfaces for aquaculture production, evidentially, there are overlaps and contradictions between the Law on Water Resources, the Law on Fisheries 2003, and the Law on Land 2003.

First of all, the Law on Water Resources regulated the provisions on exploitation and use of water resources for aquatic production in general (Article 15, 22, 27). In addition, the Government's Decree No. 179/1999/ND-CP stipulating the implementation of the LWR also defined activities causing seawater pollution, as well as aquatic production activities.

Secondly, the Law on Fisheries No. 17/2003/QH11 adopted on November 26, 2003, shall be applied to fishery activities of Vietnamese organizations and individuals, foreign organizations and individuals on land, islands, internal water, territorial sea, exclusive economic zone, and continental shelf of the Socialist Republic of Vietnam. Under this Law, the "fishery activities" shall be understood as exploitation, culture, transportation of exploited aquatic resources; preservation, processing, trading in, export and import of aquatic products; services in fishery activities; survey, protection and/or development of aquatic resources.

According to this Law, organizations and individuals engaged in aquaculture have the right to be granted by competent State agencies certificates of the right to use land or sea surface for aquaculture. Regulation on the assignment or lease of sea surfaces for aquaculture

²⁴ Aquaculture development planning constitutes a part of the overall planning on fishery sector development, already approved by the Government (Article 23, para. 1 of the Law on Fisheries 2003).

the planning of the construction of projects on the sea as navigation, irrigation, aquatic resource works and other works; and controls salt-making, aquatic and marine product culture and other relevant activities." assignment or lease of sea surface for aquaculture shall not exceed 20 years 25 (Article 28, para. 6 of the Law on Fisheries 2003).

Regulation on *land assignment*, *land lease*, *change of land use purposes*²⁶ specified in Article 31, 32, 33, 34, 35, 36, and 37 of the Law on Land (No. 13/2003/OH11).

Cases of *land withdrawal* are regulated in Articles 38, 39, 40, 41, 42, 43, 44, & 45 of the Law on Land 2003).

The *duration* of leasing annual crop land, aquaculture land, and salt-making land to *households or individuals* for use shall not exceed <u>twenty years</u> (Article 67 of the Law on Land 2003).

The land assignment or lease *duration* for *economic* organizations²⁷ for the purposes of agricultural production, forestry, aquaculture, salt-making shall be considered and decided on the basis of investment projects or the written applications for land assignment or lease, but shall not exceed <u>fifty years</u> (Article 67, para. 3 of the Law on Land 2003).

Additionally, the *use of land with inland water* surface for aquaculture, agricultural production, as stipulated in Article 78²⁸, states that "Ponds, lakes

specifies in Article 28, 29, 30, 31.

Further, the Law on Land No. 13/2003/QH11, which replaced the first Law on Land in 1993, has also provided regulations on the *use of land with inland water surface for aquaculture, agricultural production* (Article 78), coastal water surfaces (Article 79), and riparian and coastal alluvial (Article 80). Besides, this Law has also specified regulations on land assignment, land lease, change of land use purposes (Articles 31, 32, 33, 34, 35, 36, and 37). Cases of land withdrawal are regulated in Articles 38, 39, 40, 41, 42, 43, 44, & 45.

Questions:

- 1. Which regulations should be applied when a fishery-related incident (caused water pollution for instance) occurs: the Law on Water Resources, Law on Fisheries, and Law on Land or the Law on Environmental Protection?
- 2. Who as state agencies should be in charge of such cases?
- 3. Who should be responsible for such differences?
- 4. Which sanctions should be applied?
- 5. Which regulations should be applied to guarantee the

²⁵ Upon the expiry of such terms, if the users wish to continue using the assigned or leased sea surface for aquaculture while the state has no demand to recover such sea surface, the users shall have the right to continue using such sea surface under new sea surface assignment decisions or lease contracts (Article 28, para. 6 of the Law on Fisheries 2003).

²⁶ Accordingly, the state assigns land without collecting land-use levies in cases where households and/or individuals are directly engaged in agricultural labour, forestry, aquaculture, salt-making and assigned agricultural land within the quotas not exceeding 3 hectares (as prescribed in Article 70 of the Law on Land). Households and individuals have the right to rent land with the collection of annual land rents for agricultural production, forestry, aquaculture, salt-making (Article 35, para.1a of the Law on Land).

²⁷ In addition, the land assignment or lease *duration* for *economic organizations*, *households and/or individuals* for use as ground for the construction of production and/or business establishments; for *economic organizations to execute investment projects*; overseas Vietnamese and foreign organizations and individuals for the *execution of investment projects* in Vietnam (Article 67, para. 3 of the Law on Land 2003).

In particular: (1) Ponds, lakes and lagoons shall be assigned or leased by the state, with land rents collected in a lump sum for the whole leasing term or collected annually from overseas Vietnamese executing or investing in aquaculture and/or agricultural production projects. (2) Ponds, lakes and lagoons shall be leased by the state,

and lagoons shall be assigned or leased by the state with land rents collected annually from economic organizations, households and/or individuals for the purposes of aquaculture and/or agricultural production"

As regulated by Article 79 of the Law on Land, coastal water surface land²⁹ shall be leased by the state, with land rents collected annually from economic organizations, households and individuals for the purposes of aquaculture, agricultural production, forestry and/or salt-making.

In addition, *riparian and coastal alluvial*³⁰ land shall be leased by the state, with land rents collected annually from economic organizations, households and individuals for the purposes of agricultural production, forestry, aquaculture, salt-making (Article 80, para. 3 of the Law on Land 2003).

right of "organizations and individuals", when their legitimate rights and interests are violated?

Consequences:

- → State agencies have abused their authority to provide legal documents, which are not suited to their competences. It causes contradictions, overlaps and unjustified regulations issued by different state agencies.
- → Violation against the LPLDs 2008.

with land rents collected in a lump sum for the whole leasing term or collected annually from foreign organizations and/or individuals executing or investing in aquaculture and/or agricultural production projects."

²⁹ Furthermore, the use of coastal water surface land for aquaculture, agricultural production, forestry and/or salt-making shall comply with the following regulations:

a) Being strictly in accordance with the approved land use planning, plans;

b) Protecting land and increasing coastal land deposits;

c) Protecting the ecological system, environment and landscapes;

d) Not impeding the protection of national security and marine navigation.

³⁰ Riparian and coastal alluvial land includes riparian alluvial land, river isle land, coastal alluvial land and marine island land. Riparian and coastal alluvial land in the areas of any communes, wards or townships shall be managed by the People's Committees of such communes, wards or townships (Article 80, para. 1 & 2 of the Law on Land 2003).

Synopsis 4: Contradiction between the Legislation on Water Resources and the Law on the Promulgation of Legal Documents (2008)

LPLDs 2008	Legislation on Water Resources	Analysis: Conflicts, Contradictions	Unjustified Regulations (issued after 01/01/2009)
According to the Law on the Promulgation of Legal Documents No. 17/2008/QH12 (LPLDs 2008), the ministers or heads of ministry-equivalent agencies, within their authorities, have the right to promulgate Circulars only (Article 2). In addition, in co-ordinance with other ministers and heads of other minister-level agencies; they shall together	■ Government's Decree No. 25/2008/ND-CP defining the functions, tasks, powers and organizational structure of the Ministry of Natural Resources and the Environment. Article 2, para. 3: "The Ministry of Natural Resources and Environment has the power to promulgate decisions, directives, and circulars ■ Government's Decree No. 01/2008/ND-CP defining the functions, tasks, powers and organizational structure of the Ministry of Agriculture and Rural Development. Article 1, para. 3: "The Ministry of Agriculture and Rural Development has the power to promulgate decisions, directives and circulars"	Problems: Competence of the issuance of legal documents: Based on the two main Decrees issued by the Government recently (No. 25/2008/ND-CP and No. 01/2008/ND-CP), the Ministry of Natural Resources and Environment (MONRE) and the Ministry of Agriculture and Rural Development (MARD) have the power, within their authorities, to promulgate three types of legal documents: decisions, directives, and circulars. In contrast, as regulated by Article 2 of the current Law on the Promulgation of Legal Documents 2008, the Minister of MONRE and the Minister of MARD have the authority to promulgate only one type of legal document – a circular. Circulars of ministers and heads of ministry-equivalent agencies shall provide detailed guidelines on the implementation of: + Laws and resolutions of the National Assembly; + Ordinances and resolutions of the Standing Committee of the National Assembly;	As regulated by the LPLDs 2008, since its effectiveness on January 01, 2009, the following legal documents are no longer considered as legal documents: + Resolutions of the Government; + Directions of the Prime Minister; + Decisions and Directions of the Minister, Head of minister-level Agencies; + Decisions and Directions of President of the Supreme People's Court; + Decisions and Directions of Director of the Supreme People's Procuracy; + Joint regulations of the Government and the Central socio-political organizations. Legal documents issued before 01.01.2009 however still retain their validity until they are abrogated, abolished or replaced by other legal documents. Therefore, due to the violation against the LPLDs 2008 (competence of issuance of legal documents), the following legal documents issued by MONRE and MARD recently (after 01/01/2009) shall be abolished or replaced by other justified legal documents: Decision of MONRE No. 1396/QD-BTNMT of 22/07/2009; Decision of MONRE No. 216/QD-BTNMT of 24/04/2009; Decision of MONRE No. 216/QD-BTNMT of 24/02/2009; Furthermore, other water-related legal documents issued by other related ministries shall also be abolished or replaced by other justified legal documents: Decision of the Minister of the Ministry of Transport No. 970/QD-BGTVT of 15/04/2009;
promulgate Joint Circulars.		President; + Government's decrees; + Decisions of the Prime Minister.	 Directive of the Minister of the Ministry of Construction No. 02/CT-BXD of 16/07/2009); Directive of the Minister of the Ministry of Construction No.01/CT-

Moreover, circulars of the ministers shall specify regulations on technical standards and procedures, as well as setting technoeconomic standards for the sectors of which they are in charge, as well as ways to perform the state management of the sector/area covered by each ministry or ministry-equivalent agency and other issues upon instruction by the Government (Article 16 LPLDs 2008).

In addition, related to their functions, tasks and authorities, the <u>joint circulars</u> of ministers and heads of minister-level agencies shall provide guidelines on the implementation of:

- + Laws and resolutions of the National Assembly;
- + Ordinances and resolutions of the Standing Committee of the National Assembly;
- + Orders and decisions of the State President;
- + Decrees of the Government;
- + Decisions of the Prime Minister.

Consequences:

- → Violation against the Law on Water Resources;
- → Violation against the Law on the Promulgation of Legal Documents 2008.

BTX of 18/03/2009);

Directive of the Minister of the Ministry of Construction No.02/CT-BXD of 25/02/2009);

4.2.2 Other Conflicting Legal Issues

As we can see from all four synopses above, obviously there are contradictions, conflicts and overlaps within the current legislation on water resources and other related legislations, the results of which are confusion, misunderstanding, problems and difficulties in the implementation process.

In addition, the lack of specific guiding regulations issued at national level also causes difficulties in implementation at local levels. Many localities experience trouble when dealing with new situations. Regarding the drilling of wells, for instance, there is still a lack of specific guiding regulation (of national level) on filling up unused wells; regulation on guiding procedures on filling up of wells; regulation on sanction against violation of legislation on groundwater protection; etc. To summarize, Vietnam is in need of a review and the systematization of legal documents on water sector management. In recent years, more than 300 legal documents required to implement the Law on Water Resources have been developed as secondary regulations to protect and develop water resources from different legal aspects. However, the quality of these documents has yet to meet reallife requirements. There are still overlaps, contradictions and conflicts between them, which have caused confusion, misunderstandings and difficulties in the implementation process. Furthermore, though the legal framework for the water sector has developed and improved during the last decade, there is still a lack of regulation on *sanctions* against violations of the legislation on water resources. Regarding taxes on natural resources, for instance, the Ordinance on Natural Resources Tax (amended) and Decree No. 05/2009/ND-CP, issued by the Government, still do not provide specific enough regulations to protect and sustainably develop water resources from different legal viewpoints. In fact, difficulties still remain in the application of regulations on environmental protection charges. Current regulations on sanctions against violations in the field of the water sector have not yet come to fruition.

In recent years, Vietnam has had to face the urgent matter of water pollution. According to the Department of Water Resources Management, the *licensing of wastewater discharge into water sources* is still limited in quantity. Up to this point, only 5,000 water resource permits have been issued, among which are only 400 permits on wastewater discharge into water sources (gain ca. 8%) (DWRM: 15.05.2009). Obviously, the number of licenses given out is quite far from the needs. At local levels, the licensing of water resources continues to be fraught with difficulties. The *state management capacity* of Departments of Natural Resources and the Environment, as well as those of other related departments, is unspecialized and too small in number to effectively undertake the significant tasks assigned. The situation on district level is even worse (ADB 2008:9). Most authorities in charge of water management lack not only specialized awareness on water management, but also on legal awareness.

In order to deal with the above mentioned resulting problems and difficulties, there is obviously a *need for a new, comprehensive Law on Water Resources*. A draft of the new Law on Water Resources should be well prepared by the Ministry of Natural Resources and the Environment. It is interesting to note that the Law on Water Resources (as amended) has been noticed by previous Legislative Programs, but it has not been adapted yet. However, it is "still" on the list of laws to be amended by the 2010 Legislative Programme, and shall be submitted to the Government at the National Assembly by 2010.

Conclusions and Recommendations

It is evident that Vietnam has started to set up a framework of regulations to ensure the sustainable use, protection and development of the environment in general, and water resources in particular. The main aim of such a legal framework shall serve the development of water resources in a sustainable manner, ensuring the efficient exploitation and use of water resources, and encouraging the protection and development of water resources in an integrated manner and for multiple purposes. In addition, the legal framework aims to enhance the effectiveness and efficiency of the state management of water resources, raising the responsibilities of private organizations/enterprises and individuals in the protection, exploitation and use of water resources, as well as the prevention, mitigation and remedying of consequences and harm caused by water.

Due to the pressures of industrialization and modernization, water resources have not been developed in a sustainable and integrated manner; socio-economic development has not been aligned with the water sources capacity. The escalating exploitation and use of water resources as well as the discharging of untreated wastewater into water sources have caused serious levels of water pollution, degradation and exhaustion; the use of water sources is no longer harmonized with the interests of local communities. Although the legislation has greatly improved during the last decade, it has obviously not yet had the desired effect. The current legal system for the protection of water resources in Vietnam therefore seems insufficient.

One of the main causes of this insufficiency is the lack of a united and stable legal system, as conflicts and contradictions between laws, ordinances and secondary regulations still persist. Due to the fact that the Vietnamese legal system is generally complex, with varied legal documents ordered on many levels and adopted by different state authorities, the current legal framework for the water sector is thus complicated with overlapping and contradictory regulations. More than 300 legal documents required to implement the Law on Water Resources - and over thirty water-related legal documents (including amended Laws, Government's Decrees, Circulars and Joint Circulars of MARD, MONRE and other Ministries) - have been adopted just since May 2009 (a six-month period), so there is obviously a need to have a specific agency through which water-related regulations are supervised, checked and systematized. The supervising and checking of legal documents must be undertaken to detect legal documents' contents that are unjustified, overlap and contradict other related legal documents, or are no longer appropriate so that implementation of such legal documents shall be suspended. In this case, the necessary amendments, revisions, abrogations or abolishment of all or part of such legal documents shall be conducted. At the same time, the requirement to pinpoint the responsibility of related state agencies, organizations and individuals that promulgated the unjustified, overlapping and contradictory legal documents must be accomplished.

However, such specific regulations that specify the responsibilities of state organizations in examination, revision and systemization still remain to be fully appraised as to their true worth. Many regulations on this subject have been promulgated so far, such as:

- Government's Decree No. 135/2003/ND-CP of November 14, 2003 on the examination and handling of legal documents;
- Decision of Ministry of Justice No. 1523/2005/QD-BTP of August 15, 2005 on the self-inspection and processing of legal documents issued by the Ministry of Justice;
- Decision of Ministry of Justice No. 1212/QD-BTP of May 08, 2006 on suspending the enforcement of part of or all contents of legal documents handling administrative violations issued by local authorities in contravention of laws;

- Decision of MONRE No. 21/2007/QD-BTNMT of December 10, 2007 on the elaboration and promulgation of legal documents in the domain of natural resources and the environment; and
- Circular of MARD No. 28/2009/TT-BNNPTNT of June 02, 2009 on the procedures of drafting and issuing legal documents in the domain of agriculture and rural development.

What about the regulation which specifies the state obligation to unify and code legal documents for water sector fields? Lacking regulations on the state's obligations lead to difficulties in looking up legal documents, causing confusion in the implementation process. Although, as regulated by the Law on Promulgation of Legal Documents (1996, amended by the LPLDs in 2002, and replaced by the LPLDs in 2008), legal documents must be checked and reviewed, collated and codified into thematic volumes of codes. State agencies withith their authorities and responsibilites shall be responsible for regularly checking and periodically systematizing legal documents. Particularly, regarding checking and dealing with overlapping and unjustified water sector management regulations, the Minister for the Ministry of Natural Resources and Environment, and Heads of Ministry-equivalent agencies (in this case the Head of the Department of Water Resources Management) shall be responsible for checking legal documents issued by themselves, by Ministries and Ministry-equivalent agencies with regards to contents related to sectors and fields falling under their authorities. Upon detecting any legal documents that are against the constitution or other laws, or are contradictory, overlapping or no longer appropriate or suitable for the development of the country, the Minister of MONRE and the Head of the DWRM, either by themselves or other state competent agencies, shall revise, amend, replace, abolish and/or suspend the implementation of such legal documents.

Regarding legal enforcement, in certain fields, regulations on the water sector are dispersed and scattered in many legal documents with identical contents, but with different hierarchies and in total contradiction of one another in many instances. The development and promulgation of legal documents must ensure the constitutionality, legality and consistence of legal documents in the legal system (Article 3 of the LPLDs 2008). The current problem, though, is that the legislation lacks a general regulation on dealing with unfeasible, overlapping and unjustified water sector regulations with other related regulations (such as Law on Environmental Protection 2005, Law on Fisheries 2003, Law on Minerals 2006 (amended in 2005), Law on Inland Waterway Navigation 2004, Civil Code 2005, Penal Code 1999 (amended in 2009), Law on Investment 2005, Law on Enterprises 2005, etc.), thus causing difficulties in cases where such overlapping and contradictions have occurred. For many local state agencies in charge of water resources management, it is hard to find the "selected regulation" to deal with such cases in the implementation process.

It is for this reason that improving regulations on sanctions taken against violators of the legislation is completely imperative. Based on the current regulations on violation and sanction, apart from the sanction forms (warning and a fine), individuals and organizations committing administrative violations in the field of environmental protection may also be compelled to apply one, or many, of the remedial measures and additional sanctioning forms. Nevertheless, the current sanction forms are no longer suitable for specific violations against water sector regulations. For instance, fines for administrative violations against water sector legislation are not fair in many cases. Thus, it has not yet proved its worth. The proof is that most of the organizations and individuals who have violated the legislation would rather pay fines than invest their capital in the installation of environmentally friendly systems.

On June 19, 2009, the National Assembly passed Law No. 37/2009/QH12 as an amendment and supplement to a number of articles of the Criminal Code 1999, which specifies additional sanctions (criminal processing) against violations of legislation on environmental protection and water resources particularly. Accordingly, those who discharge environmental pollutants into the air, water sources or soil, disperse radiation where the radioactivity levels exceed the national waste discharge

standards to severe levels, "seriously pollute the environment" or cause any other serious consequences, shall be fined from 50.000.000 VND (fifty million) to 500.000.000 VND (five hundred million), rehabilitated with non-imprisonment for up to three years, or face imprisonment for six months to five years. In the following cases, offenders shall be imprisoned for three to ten years: (a) organized cases; (b) causing a "particularly serious polluted environment" or any other extremely serious consequences. In addition, offenders can be fined from 10.000.000 VND (ten million) to 150.000.000 VND (one hundred and fifty million) and prohibited from undertaking any positions, and banned from practicing or undertaking certain types of business for one to five years.

Aside from the criminal sanctions mentioned above, those who have violated the regulations on hazardous waste management, causing serious environmental pollution or any other serious consequences in the process, shall be fined from 50.000.00 VND (fifty million) to 500.000.000 VND (five hundred million), and rehabilitated with non-imprisonment for up to two years or imprisonment for six months to three years. In the following cases, offenders shall be imprisoned from two to seven years: (a) organized cases; (b) causing serious consequences; and/or (c) serious repeat offences. Offenders causing particularly serious consequences shall be punished through imprisonment for five to ten years.

In order to deal with the above-mentioned resulting problems and difficulties, there is obviously a need for a new comprehensive Law on Water Resources. Recently, a draft of the Law on Water Resources (as amended) was forwarded by the Ministry of Natural Resources and Environment. According to the Legislative Program to 2010, approved by the Resolution of the National Assembly on July 17, 2009, along with other water-related Laws (such as the Law on Irrigation Works, Law on Protection of Maritime Environment, Law on Minerals (as amended), Law on Handling of Violations against Administrative Regulations, etc.), the Law on Water Resources (as amended) shall be submitted to the Government at the National Assembly in 2010 for further appraisal. The proposed Law on Water Resources (as amended) consists of twelve chapters:

Chapter 1: General provisions

Chapter 2: Planning and management of water resources

Chapter 3: Protection of water resources

Chapter 4: Utilization of water

Chapter 5: Preventing and overcoming the consequences of harm caused by water

Chapter 6: International cooperation on water resources

Chapter 7: Information systems on water resources

Chapter 8: Waterworks

Chapter 9: Securing waterworks

Chapter 10: Regulations regarding financial and economic issues

Chapter 11: Right to access and use the land of others

Chapter 12: State organization on water management.

³¹ As regulated by Article 92 of the Law on Environmental Protection 2003, the environment shall be considered <u>seriously polluted</u> when the content of one or more chemicals and heavy metals exceeds three times the environmental quality standards, or the content of one or more other polluting substances exceeds five times the environmental quality standards.

³² The environment shall be considered <u>particularly seriously polluted</u> when the content of one or more chemicals and heavy metals exceeds five times the environmental quality standards, or the content of one or more polluting substances exceeds ten times the environmental quality standards (based on Article 92 of the Law on Environmental Protection 2003)

To enhance water resources protection and water supply to meet the demands of socio-economic development, environmental protection and sustainable development in a period of industrialization, modernization and international integration, Vietnam needs a completely new comprehensive Law on Water Resources. In addition, the forthcoming regulations implementing this new Law on Water Resources must be minimized, avoiding incomprehensible regulations. In order to allow this legal framework to come fully to life, the opinions of related organizations, individuals and international/national/local experts must be carefully collected, and transparency in legal issues must be improved. Public hearings and participation in the legislative process must be conducted and implemented according to current law provisions. The main aim of such a legal framework shall serve the sustainable development of water resources, ensuring their efficient exploration, exploitation and utilization, and encouraging the protection and development of water resources in an integrated manner and for multiple purposes now and in the future.

6. References

- ADB (2008, 9): ADB TA 4903-VIE Water Sector Review Project, Status Report of 29.04.2008
- Basel Convention (1989): the Convention on the Control of Transboundary Movement of Hazardous Wastes
- CBD Convention (1992): the International Convention on Biodiversity
- DWRM (15.05.2009): Cả nước cấp được hơn 400 giấy phép xả thải vào nguồn nước (www.nwrc.ciren.vn)
- GoV (09.05.2008): Một số kiến nghị đổi mới quy trình ban hànhăv n bản quy phạm pháp luật (www.chinhphu.vn)
- GoV (11.12.2007): Đổi mới công tác xây dựng pháp luật (www.chinhphu.vn)
- GoV (1999): Decree No. 179/1999/ND-CP on stipulating the implementation on the Law on Water Resources [Nghị định của Chính phủ số 179/1999/NĐ-CP quy định việc thi hành Luật Tài nguyên nước]
- GoV (2000): Decree No. 48/2000/ND-CP of September 12, 2000 on detailing the implementation of the Petroleum Law [Nghị định số 48/2000/NĐ-CP của Chính phủ quy định chi tiết thi hành Luật Dầu khí]
- GoV (2003): Decree No. 162/2003/ND-CP of December 19, 2003 on collection, management, exploitation and use of date and information on water resources [Nghị định số 162/2003/NĐ-CP của Chính phủ ban hành quy chế thu thập, quản lý, khai thác, sử dụng dữ liệu, thông tin về tài nguyên nước]
- GoV (2003): Decree No. 67/2003/ND-CP of June 13, 2003 on providing regulations on environmental protection charges for wastewater [Nghị định số 67/2003/NĐ-CP của Chính phủ về phí môi trường đối với nước thải]
- GoV (2004): Decree No. 121/2004/ND-CP of May 12, 2004 on sanctions of administrative violations in the field of environmental protection [Nghị định số 121/2004/NĐ-CP của Chính phủ quy định về xử phat hành chính trong lĩnh vực bảo về môi trường]
- GoV (2004): Decree No. 149/2004/ND-CP of July 27, 2004 on the issuance of permits for exploration, exploitation and use of water resources; wastewater discharge into water sources [Nghị định số 149/2004/NĐ-CP của Chính phủ quy định việc cấp phép thăm dò, khai thác và sử dụng tài nguyên nước, xả thải vào nguồn nước]
- GoV (2005): Decree No. 34/2005/ND-CP of March 17, 2005 on sanctions against administrative violations of water resources management regulations [Nghị định số 34/2005/NĐ-CP của Chính phủ quy định về xử phạt hành chính trong lĩnh vực tài nguyên nước]
- GoV (2006): Decree No. 147/2006/ND-CP on amending and supplementing a number of articles of the Government's Decree No. 68/1998/ND-CP of September 03, 1998, which details the implementation of the Ordinance on Natural Resources Tax (amended) [Nghị định của Chính phủ số 147/2006/NĐ-CP sửa đổi, bổ sung một số điều của Nghị định số 68/1998/NĐ-CP của Chính phủ quy định chi tiết thi hành Pháp lệnh Thuế Tài nguyên (sửa đổi)]
- GoV (2006): Decree No. 80/2006/ND-CP of August 09, 2006 on detailing and guiding the implementation of a number of articles of the Law on Environmental Protection [Nghị định số 80/2006/NĐ-CP của Chính phủ quy định chi tiết và hướng dẫn thi hành một số điều của Luật Bảo vệ Môi trường]
- GoV (2007): Decree No. 04/2007/ND-CP of January 08, 2007 on amending and supplementing a number of articles of the Government's Decree No. 67/2003/ND-CP of June 13, 2003 on providing regulations on environmental protection charges for wastewater [Nghị định số 04/2007/NĐ-CP của Chính Phủ quy định v/v sửa đổi, bổ sung một số điu của Nghị định số 67/2003/NĐ-CP của Chính phủ về phí môi trường đối với nước thải]

- GoV (2007): Decree No. 101/2007/ND-CP of June 13, 2007 on collection, management, exploitation and use of date and information on marine natural resources [Nghị định số 101/2007/NĐ-CP của Chính phủ ban hành quy chế thu thập, quản lý, khai thác, sử dụng dữ liệu tài nguyên môi trường biển]
- GoV (2007): Decree No. 174/2007/ND-CP of November 29, 2007 on environmental protection charges for solid wastes [Nghị định số 174/2007/NĐ-CP của Chính Phủ quy định về phí bảo vệ môi trường đối với chất thải rắn]
- GoV (2007): Decree No. 178/2007/ND-CP of December 03, 2007 on regulating functions, duties, powers, and organizational structure of Ministries and Ministerial Agencies [Nghị định số 178/2007/NĐ-CP của Chính Phủ quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ, cơ quan ngang Bộ]
- GoV (2007): Decree No. 188/2007/ND-CP of December 27, 2007 on stipulating functions, duties, authorities and organizational structure of The Ministry of Health [Nghị định của Chính phủ số 188/2007/NĐ-CP ngày 27/12/2007 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Y Tế]
- GoV (2007): Decree No. 189/2007/ND-CP of December 27, 2007 on stipulating functions, duties, authorities and organizational structure of The Ministry of Industry and Trade [Nghị định của Chính phủ số 189/2007/NĐ-CP ngày 27/12/2008 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Công Thương]
- GoV (2007): Decree No. 59/2007/ND-CP of April 09, 2007 on providing regulations on solid waste management [Nghị định số 59/2007/NĐ-CP của Chính phủ về quản lý chất thải rắn]
- GoV (2007): Decree No. 81/2007/ND-CP of May 23, 2007 on specialized organizations and sections of environmental protection in the state agencies and state enterprises [Nghị định số 81/2007/NĐ-CP của Chính Phủ quy định tổ chức, bộ phận chuyên môn về bảo vệ môi trường tại cơ quan nhà nước và doanh nghiệp nhà nước]
- GoV (2007): Decree No. 85/2007/ND-CP of May 25, 2007 on detailing the implementation of a number of articles of the Law on Tax Administration [Nghị định số 85/2007/NĐ-CP của Chính Phủ quy định chi tiết thi hành một số điều của Luật Quản lý thuế]
- GoV (2008): Decree No. 01/2008/ND-CP of January 03, 2008 on specifying functions, tasks, powers and organizational structure of the Ministry of Agriculture and Rural Development [Nghị định số 01/2008/NĐ-CP của Chính Phủ quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Nông nghiệp và Phát triển nông thôn]
- GoV (2008): Decree No. 102/2008/ND-CP of December 15, 2008 on collection, management, exploitation and use of date and information on natural resources and environment [Nghị định số 102/2008/NĐ-CP của Chính phủ ban hành quy chế thu thập, quản lý, khai thác, sử dụng dữ liệu về tài nguyên và môi trường]
- GoV (2008): Decree No. 116/2008/ND-CP of November 14, 2008 on defining functions, tasks, powers and organizational structure of the Ministry of Planning and Investment [Nghị định của Chính phủ số 116/2008/NĐ-CP ngày 14/11/2008 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Kế hoạch và Đầu tư]
- GoV (2008): Decree No. 118/2008/ND-CP of November 27, 2008 on stipulating functions, duties, authorities and organizational structure of The Ministry of Finance [Nghị định của Chính phủ số 118/2008/NĐ-CP ngày 27/11/2008 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Tài chính]
- GoV (2008): Decree No. 120/2008/ND-CP of December 01, 2008 on river basin management [Nghị định số 120/2008/NĐ-CP của Chính Phủ quy định về quản lý lưu vực sông]
- GoV (2008): Decree No. 13/2008/ND-CP of February 04, 2008 on providing regulations on organization of specialized agencies of provincial/municipal People's Committees [Nghị định số 13/2008/NĐ-CP của Chính Phủ quy định tổ chức các cơ quan chuyên môn thuộc UBND tỉnh, thành phố trực thuộc Trung ương]

- GoV (2008): Decree No. 17/2008/ND-CP of February 04, 2008 on prescribing the functions, tasks, powers and organizational structure of the Ministry of Construction [Nghị định của Chính phủ số 17/2008/NĐ-CP ngày 4/2/2008 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Xây dựng]
- GoV (2008): Decree No. 21/2008/ND-CP of February 28, 2008 on amending and supplementing a number of articles of the Government's Decree No. 80/2006/ND-CP of August 09, 2006 detailing and guiding the implementation of a number of articles of the Law on Environmental Protection [Nghị định số 21/2008/NĐ-CP của Chính phủ v/v sửa đổi, bổ sung một số điều của Nghị định 80/2006/NĐ-CP của Chính phủ v/v quy định chi tiết và hướng dẫn thi hành một số điều của Luật Bảo vệ môi trường]
- GoV (2008): Decree No. 25/2008/ND-CP of March 04, 2008 on defining the functions, tasks, powers and organizational structure of the Ministry of Natural Resources and the Environment [Nghị định số 25/2008/NĐ-CP của Chính phủ quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Tài nguyên và Môi trường]
- GoV (2008): Decree No. 28/2008/ND-CP of March 14, 2008 on stipulating functions, tasks, powers and organizational structure of The Ministry of Science and Technology [Nghị định của Chính phủ số 28/2008/NĐ-CP ngày 14/3/2008 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Khoa học và Công nghệ]
- GoV (2008): Decree No. 51/2008/ND-CP of April 22, 2008 on stipulating functions, tasks, powers and organizational structure of The Ministry of Transport [Nghị định của Chính phủ số 51/2008/NĐ-CP ngày 22/4/2008 quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Giao thông vận tải]
- GoV (2009): Decree No. 05/2009/ND-CP of January 19, 2009 on detailing the implementation of the Ordinance on Natural Resources Tax (amended) [Nghị định số 05/2009/NĐ-CP của Chính phủ quy định chi tiết thi hành Pháp lệnh Thuế Tài nguyên]
- GoV (2009): Decree No. 16/2009/ND-CP of February 16, 2009 on amendment and addition to article No. 8 para. 2 of the decree No. 13/2008/ND-CP dated 4/2/2008 on organization of professional agencies under the people's committees of the provinces and centrally-run cities (the provincial agencies and equivalent agencies [Nghị định của Chính phủ số 16/2009/NĐ-CP ngày 16/2/2009 sửa đổi, bổ sung khoản 2 Điều 8 Nghị định số 13/2008/NĐ-CP ngày 4/2/2008 của Chính phủ quy định tổ chức các cơ quan chuyên môn thuộc Ủy ban nhân dân tỉnh, thành phố trực thuộc Trung ương]
- GoV (2009): Decree No. 35/2009/ND-CP of April 07, 2009 on specifying regulation on organization and operation of the Inspectorates of Natural Resource and Environment [Nghị định số 35/2009/NĐ-CP của Chính Phủ quy định về tổ chức hoạt động của Thanh tra Tài nguyên môi trường]
- Government Council (1946): Resolution No. 36/CP on management and protection of underground resources [Nghị quyết số 36/CP của Hội đồng Chính phủ về việc quản lý, bảo vệ tài nguyên dưới lòng đất]
- Government Council (1971): Direction No. 127/CP on basic investigation of environmental resources and natural conditions [Chỉ thị số 127/CP của Hội đồng Chính phủ về công tác điều tra cơ bản tài nguyên và điều kiện thiên nhiên]
- Ho Chi Minh (1949): Decree No. 142/SL on checking and report-making of violations against regulations on forest protection was considered as the very first regulation on environmental protection [Sắc lệnh số 142/SL do Chủ tịch Hồ Chí Minh ký ngày 21/12/1949 quyđ ịnh việc kiểm soát lập biên bản các hành vi vi phạm pháp luật về bảo vệ rừng]
- Kyoto Protocol on the Clean Development Mechanism (1997)
- Le Hong Thanh (2006): Textbook on Environmental Law; Chapter I, Page: (7-58); Cong an Nhan dan Publisher (22/2006/CXB/221-1883/CAND)

- MARD (2008): Decision No. 51/2008/QD-BNN of April 14, 2008 on issuance of the monitoring and evaluation indicator set for the clean rural water supply and environmental sanitation [Quyết định số 51/2008/QĐ-BNN của Bộ Nông nghiệp và Phát triển Nông thôn ban hành bộ chỉ số theo dõi và đánh giá nước sạch và vệ sinh môi trường nông thôn]
- MOF (2005): Circular No. 68/2005/TT-BTC of August 19, 2005 on guiding the distribution among budgets of various levels of value added tax and business income tax paid into the state budget by subcontractors for oil and gas field exploration and development, and oil and gas exploitation activities [Thông tu số 68/2005/TT-BTC của Bộ Tài Chính quy định v/v hướng dẫn thực hiện phân chia thuế giá trị gia tăng, thuế thu nhập doanh nghiệp của các nhà thầu phụ phát sinh từ hoạt động thăm dò, phát triển mỏ và khai thác dầu khí nộp ngân sách giữa ngân sách các cấp do Bộ Tài chính ban hành]
- MOF (2006): Circular No. 05/2006/TT-BTC of January 19, 2006 on guiding natural resource tax on natural water used for hydroelectricity generation [Thông tư số 05/2006/TT-BTC của Bộ Tài Chính hướng dẫn thuế tài nguyên đối với nước thiên nhiên dùng để sản xuất thủy điện]
- MOF (2006): Decision No. 59/2006/QD-BTC of October 25, 2006 on providing regime of charges for collecting, remittance, management, use of water resources; discharge of wastewater into water sources and drilling for underground water [Quyết định số 59/2006/TT-BTC của Bộ Tài Chính quy định mức thu, chế độ thu, nộp, quản lý và sử dụng phí thẩm định, lệ phí cấp phép thăm dò, khai thác, sử dụng tài nguyên nước, xả thải vào nguồn nước và hành nghề khoan nước dưới đất]
- MOF (2007): Circular No. 114/2007/TT-BTC of September 25, 2007 on amending and supplementing the Circular No. 95/2004/TT-BTC of October 11, 2004, guiding a number of policies on financial support and tax preferences for development of raw material areas as well as agriculture-forest-fishery products processing and salt making industries [Thông tư số 114/2007/TT-BTC của Bộ Tài Chính quy định v/v sửa đổi, bổ sung Thông tư số 95/2004/TT-BTC của Bộ Tài chính hướng dẫn một số chính sách hỗ trợ tài chính và ưu đãi về thuế phát triển vùng nguyên liệu và công nghiệp chế biến nông, lâm, thủy sản, muối]
- MOF (2008): Circular No. 101/2008/TT-BTC of November 11, 2008 on guiding the collection, remittance and management of use of charges and dues levied by inland waterway port authorities [Thông tư số 101/2008/TT-BTC của Bộ Tài Chính hướng dẫn chế độ thu, nộp và quản lý sử dụng phí, lệ phí áp dụng tại cảng vụ đường thủy nội địa]
- MOF (2008): Circular No. 39/2008/TT-BTC of May 19, 2008 on guiding the implementation of the Government's Decree No. 174/2007/ND-CP of November 29, 2007 on environmental protection charges for solid wastes [Thông tu số 39/2008/TT-BTC của Bộ Tài Chính hướng dẫn thực hiện Nghị định số 174/2007/NĐ-CP của Chính phủ về phí bảo vệ môi trường đối với chất thải rắn]
- MOF (2008): Circular No. 67/2008/TT-BTC of July 21, 2008 on guiding the implementation of the Government's Decree No. 63/2008/ND-CP of May 13, 2008, on environmental protection charges for mineral exploitation [Thông tư số 67/2008/TT-BTC của Bộ Tài Chính hướng dẫn thực hiện Nghị định số 63/2008/NĐ-CP về phí bảo vệ môi trường đối với khai thác khoáng sản]
- MOF (2009): Circular No. 124/2009/TT-BTC of June 17, 2009 on guiding the implementation of the Government's Decree No. 05/2009/ND-CP [Thông tư số 124/2009/TT-BTC của Bộ Tài Chính ban hành quy định hướng dẫn thi hành Nghị định số 05/2009/NĐ-CP của Chính phủ quy định chi tiết thi hành Pháp lệnh Thuế Tài nguyên]
- MOF (2009): Circular No. 157/2009/TT-BTC of August 06, 2009 on amending and supplementing of the Circular No. 60/2007/TT-BTC; and guiding the implementation of the Decree No. 85/2007/ND-CP on detailing the implementation of a number of articles of the Law on Tax Administration [Thông tu số 157/2009/TT-BTC của Bộ Tài Chính sửa đổi, bổ sung Thông tu số 60/2007/TT-BTC và hướng dẫn thi hành Nghị định số 85/2007/NĐ-CP của Chính phủ quy định chi tiết thi hành một số điều của Luật Quản lý thuế]
- MONRE (2003): Decision No. 05/2003/QD-BTNMT of September 04, 2003 on licensing the groundwater exploration, exploitation and drilling practice [Quyết định số 05/2003/QĐ-BTNMT]

- của Bộ Tài nguyên Môi trường quy định về việc cấp phép thăm dò, khai thác và hành nghề khoan nước dưới đất]
- MONRE (2003): Vietnam Environment Monitor of 2003 Water (Báo cáo diễn biến môi trường Việt Nam 2003 Môi trường nước)
- MONRE (2005): Circular No. 02/2005/TT-BTNTM of June 24, 2005 on guiding the implementation of the Government's Decree No. 149/2004/ND-CP of July 27, 2004 on the issuance of permits for exploration, exploitation and use of water resources; wastewater discharge into water source [Thông tư số 02/2005/TT-BTNMT của Bộ Tài nguyên Môi trường hướng dẫn thực hiện Nghị định số 49/2004/NĐ-CP của Chính phủ quy định việc cấp phép thăm dò, khai thác và sử dụng tài nguyên nước, xả thải vào nguồn nước]
- MONRE (2005): Circular No. 05/2005/TT-BTNMT of July 22, 2005 on guiding the implementation of the Decree No. 34/2005/ND-CP provided sanctions against administrative violations of water resources management regulations [Thông tu số 05/2005/TT-BTNMT của Bộ Tài nguyên và Môi trường hướng dẫn thi hành Nghị định số 34/2005/NĐ-CP của Chính phủ quy định về xử phạt hành chính trong lĩnh vực tài nguyên nước]
- MONRE (2006): Circular No. 08/2006/TT-BTNMT of September 08, 2006 on guiding strategic environmental assessment, environmental impact assessment and environmental protection commitment [Thông tư số 08/2006/TT-BTNMT của Bộ Tài nguyên Môi trường hướng dẫn về đánh giá môi trường chiến lược, đánh giá tác động môi trường và cam kết bảo vệ môi trường]
- MONRE (2006): Circular No. 12/2006/TT-BTNMT of December 26, 2006 on guiding the practice conditions, procedures for compilation of dossiers, registration and licensing of practice and hazardous waste management identification numbers [Thông tư số 12/2006/TT-BTNMT của Bộ Tài nguyên Môi trường hướng dẫn điều kiện hành nghề và thủ tục lập hồ sơ, đăng ký, cấp phép hành nghề, mã số quản lý chất thải nguy hại]
- MONRE (2006): Decision No. 17/2006/QD-BTNMT of October 12, 2006 on granting of practice permits for groundwater drilling [Quyết định số 17/2006/QĐ-BTNMT của Bộ Tài nguyên Môi trường quy định về việc cấp phép hành nghề khoan nước dưới đất]
- MONRE (2006): Decision No. 23/2006/QD-BTNMT of December 26, 2006 on the publication of hazardous wastes list [Quyết định số 23/2006/QĐ-BTNMT của Bộ Tài nguyên Môi trường quy định v/v ban hành danh mục chất thải nguy hại]
- MONRE (2007): Decision No. 13/2007/QD-BTNMT of September 04, 2007 on groundwater resources investigation and assessment [Quyết định số 13/2007/QĐ-BTNMT của Bộ Tài nguyên Môi trường quy định v/v điều tra, đánh giá tài nguyên nước dưới đất]
- MONRE (2008): Circular No. 05/2008/TT-BTNMT of December 08, 2008 provided details for the implementation of strategic environmental assessments, the environmental impact assessment and environmental protection commitment [Thông tư số 05/2008/TT-BTNMT của Bộ Tài nguyên Môi trường hướng dẫn về đánh giá môi trường chiến lược, đánh giá tác động môi trường và cam kết bảo vệ môi trường]
- MONRE (2008): Decision No. 1305/2008/QD-BTNMT of May 19, 2008 on stipulating functions, tasks, powers and organizational structure of the Department of Water Resources Management [Quyết định số 1305/2008/QĐ-BTNMT của Bộ trưởng Bộ Tài nguyên và Môi trường quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Cục Quản lý tài nguyên nước]; It replaced the Decision No. 600/2003/QD-TTg of May 08, 2003.
- MONRE (2008): Decision No. 15/2008/QD-BTNMT of December 31, 2008 on protection of groundwater resources [Quyết định số 15/2008/QĐ-BTNMT của Bộ Tài nguyên Môi trường quy định v/v bảo vệ tài nguyên nước dưới đất]
- MONRE (2008): Joint Circular No. 03/2008/TTLT-BTNMT-BNV of July 15, 2008 providing regulations on functions, tasks, competences and organizational structures of agencies specialized on natural resources and environment of People's Committees of all levels [Thông tư liên tịch số 03/2008/TTLT-BNV-BTNMT của Bô Nôi vu và Bô Tài nguyên môi trường hướng dẫn chức năng,

nhiệm vụ, quyền hạn và cơ cấu tổ chức của cơ quan chuyên môn về tài nguyên và môi trường thuộc UBND các cấp]

MONRE (2009): Decision No. 216/2009/QD-BTNMT of February 24, 2009 [Quyết định số 216/2009/QĐ-BTNMT của Bộ Tài nguyên Môi trường quy định v/v ủy quyền Cục trưởng Cục Quản lý tài nguyên nr ớc ký thừa ủy quyền Bộ trưởng các văn bản lien quan đến cấp phép thăm dò, khai thác, sử dụng tài nguyên nước và hành nghề khoan nước dưới đất]

MONRE (2009): Joint Circular No. 02/2009/TTLT-BCA-BTNMT of February 06, 2009 on guiding the cooperative relation between the two Ministries in prevention, combat and violation against the legislation on environmental protection [Thông tư liên tịch số 02/2009/TTLT-BCA-BTNMT của Bộ Công an và Bộ Tài nguyên môi trường hướng dẫn quan hệ phối hợp công tác phòng chống tội phạm và vi phạm pháp luật về môi trường]

MOSTE (2002): Decision No. 35/2002/QD-BKHCNMT of June 25, 2002 on publicizing the list of Vietnamese environmental standards for compulsory application [Quyết định số 35/2002/QĐ-BKHCNMT của Bộ Khoa học Công nghệ và Môi trường v/v công bố danh mục tiêu chuẩn Việt Nam về môi trường bắt buộc áp dụng]

MOSTE (2002): Vietnam Environment Monitor 2002

MRC (1995): 1995 Mekong Agreement and Procedural Rules

MRC (1995): Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin 1995

NA (1946): Constitution of the Democratic Republic of Vietnam 1946 [Hiến pháp nước Việt Nam Dân chủ Cộng hòa năm 1946]

NA (1980): Constitution of the Socialist Republic of Vietnam 1980 [Hiến pháp nước Cộng hòa Xã hội Chủ nghĩa Việt Nam năm 1980]

NA (1992): Constitution 1992 [Hiến pháp nước Cộng hòa Xã hội Chủ nghĩa Việt Nam năm 1992]

NA (1992): Law No. 1993/QH on Petroleum [Luât Dầu Khí]

NA (1993): Law on Environmental Protection [Luật Bảo vệ Môi trường]

NA (1993): Law on Land 1993 [Luât Đất Đai 1993]

NA (1994): Labour Code (amended in 2002, 2006, 2007) [Bộ Luật Lao động]

NA (1996): Law No. 1996/QH on Minerals [Luật Khoáng sản]

NA (1996): Law on the Promulgation of Legal Documents [Luật Ban hành Văn bản quy phạm pháp luật]

NA (1998): Law No. 08/1998/QH10 on Water Resources [Luật Tài nguyên nước]

NA (1998): Law No. 09/1998/QH10 on Complaints and Denunciations [Luật Khiếu nại tố cáo]. This Law was amended in 2004 by the Law No. 26/2004/QH11; and in 2005 by the Law No. 58/2005/QH11.

NA (1999): Penal Code [Bô Luật Hình sư]

NA (2000): Law No. 19/2000/QH10 on amending and supplementing a number of articles of the Petroleum Law [Luật số 19/2000/QH10 sửa đổi, bổ sung một số điều của Luật Dầu Khí]

NA (2000): Law No. 21/2000/QH10 on Science and Technology [Luât Khoa hoc và Công nghê]

NA (2001): Constitution 1992 (amended) [Hiến pháp nước Cộng hòa Xã hội Chủ nghĩa Việt Nam năm 1992 đã được sửa đổi, bổ sung theo Nghi quyết của Quốc hôi số 51/2001/OH-10]

NA (2001): Law No. 32/2001/OH10 on Organization of the Government [Luât Tổ chức Chính phủ]

NA (2002): Law No. 02/2002/QH11 on amendment of and addition to a number of articles of the Law on the Promulgation of Legal Documents [Luật của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam số 02/2002/QH11 ngày 16/12/2002 sửa đổi, bổ sung một số điều của Luật Ban hành Văn bản quy phạm pháp luật]

NA (2002): Law No. 33/2002/QH10 on Organization of the People's Courts [Luật Tổ chức Tòa án Nhân dân]

NA (2003): Law No. 13/2003/QH11 on Land [Luật Đất Đai]

NA (2003): Law No. 16/2003/QH11 on Construction [Luật Xây Dựng]

NA (2003): Law No. 17/2003/QH11 on Fisheries [Luật Thủy sản]

NA (2003): Law No. 18/2003/QH11 on Co-operatives [Luật Hợp Tác Xã]

NA (2003): Penal Procedure Code No. 19/2003/QH11 [Bộ Luật Tố tụng hình sự]

NA (2004): Civil Procedure Code No. 24/2004/QH11 [Bô Luât Tố tung dân sư]

NA (2004): Law No. 23/2004/QH11on Inland Waterway Navigation [Luật Giao thông đường thủy nội địa]

NA (2004): Law No. 29/2004/QH11 on Forest Protection and Development [Luật Bảo vệ và Phát triển Rừng]

NA (2004): Law No. 31/2004/QH11 on Promulgation of legal documents of People's Councils and People's Committees [Luật Ban hành Văn bản quy phạm pháp luật của Hội đồng Nhân dân, Ủy ban Nhân dân]

NA (2004): Law No. 31/2004/QH11 on the Promulgation of Legal Documents of People's Committees, People's Councils [Luật ban hành Văn bản quy phạm pháp luật của Hội đồng Nhân dân, Ủy ban Nhân dân]

NA (2005): Civil Code [Bộ Luật Dân sự]

NA (2005): Law No. 46/2005/QH11 on amendment of and addition to a number of articles of the Law on minerals 1996 [Luật số 46/2005/QH11 sửa đổi, bổ sung một số điều của Luật Khoáng sản 1996]

NA (2005): Law No. 61/2005/QH11 on Tendering [Luật Đấu Thầu]

NA (2005): Law No. No. 52/2005/QH11 on Environmental Protection [Luật Bảo vệ Môi trường]

NA (2006): Law No. 68/2006/QH11 on Standards and Technical Specifications [Luật Tiêu chuẩn và Quy chuẩn Kỹ thuất]

NA (2006): Law No. 79/2006/QH11 on Dykes [Luật Đê Điều]

NA (2008): Law No. 10/2008/QH12 on amending and supplementing a number of articles of the Petroleum Law [Luật số 10/2008/QH12 sửa đổi, bổ sung một số điều của Luật Dầu Khí]

NA (2008): Law No. 17/2008/QH12 on Promulgation of Legal Documents [Luật Ban hành Văn bản quy phạm pháp luật]. It replaced the Law on the Promulgation of Legal Documents 1996 and the Law No. 02/2002/QH11 on amendment of and addition to a number of articles of the Law on the Promulgation of Legal Documents [Luật của Quốc hội nước Cộng hòa xã hội chủ nghĩa Việt Nam số 02/2002/QH11 ngày 16/12/2002 sửa đổi, bổ sung một số điều của Luật Ban hành Văn bản quy phạm pháp luật]

Pham Van Ninh (1998): Marine Water Pollution Assessment in Vietnam

POP Convention: the Stockholm Convention on Persistent Organic Pollutants

Prime Minister (1964): Direction No. 07/TTg on money collection from buying of forest products and forest keeping; ordinance on forest protection [Chỉ thị số 07/TTg của Thủ Tướng về thu tiền bán khoán lâm sản và thu tiền nuôi rừng]

Prime Minister (1998): Decision No. 237/1998/QD-TTg of December 03, 1998 on approval of the "National Target Program for Clean Water and Environmental Hygiene in Rural Areas" [Quyết định số 237/1998/QĐ-TTg của Thủ tướng Chính phủ phê duyệt "Chương trình mục tiêu quốc gia nước sạch và vệ sinh môi trường nông thôn"]

Prime Minister (1999): Decision No. 35/1999/QD-TTg March 05, 1999 on approval of the "Orientation for the Development of Urban Drainage in Vietnam up to the year 2020" [Quyết định số 35/1999/QĐ-TTg của Thủ Tướng Chính phủ phê duyệt "Định hướng phát triển nước đô thị Việt Nam đến năm 2020"]

Prime Minister (2000): Decision No. 67/2000/QD-TTg of June 15, 2000 on the establishment of the National Water Resources Council [Quyết định số 67/2000/QĐ-TTg của Thủ tướng Chính phủ thành lập Hôi đồng quốc gia về Tài nguyên nước]

Prime Minister (2001): Decision No. 99/2001/QD-TTg of June 28, 2001 on promulgating regulations on the organization and operation of the National Water Resources Council [Quyết định số 67/2000/QĐ-TTg của Thủ tướng Chính phủ v/v ban hành quy chế tổ chức và hoạt động của Hội đồng quốc gia về Tài nguyên nước]

Prime Minister (2006): Decision No. 277/2006/QĐ-TTg of December 11, 2006 on approval of the "National Target Program for Rural Water Supply and Sanitation period 2006-2010" [Quyết định số 277/2006/QĐ-TTg của Thủ tướng Chính phủ phê duyệt "Chiến lược mục tiêu quốc gia về nước sach và vê sinh môi trường nông thôn giai đoan 2006 – 2010]

Prime Minister (2006): Decision No. 81/2006/QD-TTg of April 14, 2006 a on approval of the "National Strategy on Water Resources to 2020" [Quyết định số 81/2006/QĐ-TTg của Thủ tướng Chính phủ phê duyệt "Chiến lược quốc gia về tài nguyên nước đến năm 2020"]

RAMSAR Convention (1971): Convention on Wetlands of International Strategic Importance Especially as Waterfowl Habitat

Statistical Official of Vietnam (GSO): www.gso.gov.vn

Su That Publication: Ho Chi Minh Collection (1980)

Tap chi Nghien cuu Lap phap – Van phong Quoc Hoi (Legislative Research Magazine of National Assembly Office): www.nclp.org.vn

Thai Vinh Thang (2008): Textbook on Constitutions of Vietnam, Chapter III, Page: (73-126); Cong an Nhan dan Publisher (43-2008/CXB/240-2506/CAND)

The Department of Water Resources Management (DWRM): www.dwrm.gov.vn

The Government (GoV): www.chinhphu.vn

The Legal Department of the Government: www.chinhphu.vn

The Mekong River Commission (MRC): www.mrcmekong.org

The Ministry of Agriculture and Rural Development (MARD): www.agroviet.gov.vn

The Ministry of Natural Resources and the Environment (MONRE): www.monre.gov.vn

The National Assembly of the Socialist Republic of Vietnam (NA): www.na.gov.vn

The National Water Resources Council (NWRC): www.nwrc.ciren.vn

The Standing Committee of National Assembly (1998): Ordinance No. 05/1998/PL-UBTVQH10 on Natural Resource Tax (amended) [Pháp lệnh về Thuế Tài nguyên sửa đổi]

The Standing Committee of National Assembly (1998): Ordinance No. 05/1998/PL-UBTVQH10 of April 16, 1998 on Natural Resources Tax (amended) [Pháp lệnh số 05/1998/PL-UBTVQH10 của UBTVQH về Thuế tài nguyên (sửa đổi)]

The Standing Committee of National Assembly (2001): Ordinance No. 32/2001/PL-UBTVQH10 on Exploitation and Protection of Irrigation Works [Pháp lệnh Khai thác và Bảo vệ Công trình Thủy lơi]

The Standing Committee of National Assembly (2002): Ordinance No. 44/2002/PL-UBTVQH10 of July 02, 2002 on handling of administrative violations [Pháp lệnh số 44/2002/PL-UBTVQH10 của UBTVQH quy định v/v xử lý vi phạm hành chính]

The Standing Committee of National Assembly (2007): Ordinance No. 31/2007/PL-UBTVQH11 on amending and supplementing a number of articles of the Ordinance No. 44/2002/PL-UBTVQH10 of July 02, 2002 on handling of administrative violations [Pháp lệnh số 31/2007/PL-UBTVQH11 của UBTVQH sửa đổi một số điều của pháp lệnh xử lý vị phạm hành chính]

The Standing Committee of National Assembly (2008): Ordinance No. 04/2008/PL-UBTVQH12 on amending and supplementing a number of articles of the Ordinance on handling of administrative

violations [Pháp lệnh số 04/2008/PL-UBTVQH12 của UBTVQH sửa đổi một số điều của pháp lệnh xử lý vi phạm hành chính]

United States Environment: Terms of Environment (2009) - Glossary, Abbreviations and Acronyms UN Framework Convention on Climate Change (1992)

Annexes

Annex 1: Vietnam's Water Classification and Standards

Based on the Law on Environmental Protection 2005, Decision No. 35/2002/QD-BKHCNMT, issued by the Ministry of Science Technology and Environment, which was amended by the Decision of the Ministry of Natural Resources and Environment No. 22/2006/QD-BTNMT dated December 18, 2006 and providing mandatory Vietnamese environmental standards regarding water quality standards, the following standards (for surface water, coastal water and groundwater quality) are compulsorily applied:

TCVN 5942: 1995: Water Quality Standards - Surface Water TCVN 5943: 1995: Water Quality Standards - Coastal Water TCVN 5944: 1995: Water Quality Standards - Ground Water

TCVN 5942: 1995 Water Quality Standards - Surface Water

№ TO	B 4 1614	TT 14	Limitation Value	
N^o	Parameter and Substance	Unit	\mathbf{A}^{33}	\mathbf{B}^{34}
1	pH value		6 - 8,5	5,5 - 9
2	BOD ₅ (20°C)	mg/l	<4	<25
3	COD	mg/l	<10	<35
4	Dissolved oxygen	mg/l	³ 6	3 2
5	Suspended solids	mg/l	20	80
6	Arsenic	mg/l	0,05	0,1
7	Barium	mg/l	1	4
8	Cadimium	mg/l	0,01	0,02
9	Lead	mg/l	0,05	0,1
10	Chromium, Hexavalent	mg/l	0,05	0,05
11	Chromium, Trivalent	mg/l	0,1	1
12	Copper	mg/l	0,1	1
13	Zinc	mg/l	1	2
14	Manganese	mg/l	0,1	0,8
15	Nickel	mg/l	0,1	1
16	Iron	mg/l	1	2
17	Mercury	mg/l	0,001	0,002
18	Tin	mg/l	1	2
19	Ammonia (as N)	mg/l	0,05	1
20	Fluoride	mg/l	1	1,5
21	Nitrate (as N)	mg/l	10	15
22	Nitrite (as N)	mg/l	0,01	0,05
23	Cyanide	mg/l	0,01	0,05

³³ Values in Column A are applied to surface water used for domestic water supply with appropriate treatments.

³⁴ Values in Column B are applied to surface water used for purposes other than domestic water supply. The quality criteria of water for aquatic life are specified in a separate standard.

24	Phenol compounds	mg/l	0,001	0,02
25	Oil and grease	mg/l	not detectable	0,3
26	Detergent	mg/l	0,5	0,5
27	Coliform	MPN/100 ml	5000	10000
28	Total pesticides (except DDT)	mg/l	0,15	0,15
29	DDT	mg/l	0,01	0,01
30	Gross alpha activity	Bq/l	0,1	0,1
31	Gross beta activity	Bq/l	1,0	1,0

Parameter Limits and Maximum Allowable Concentration of Pollutants in Surface Water (Based on the TCVN 5942: 1995 Water Quality Standards - Surface Water)

TCVN 5943: 1995 Water Quality Standards - Coastal Water

	Parameter and Substance		Lim	Limitation Values		
Nº		Unit	Bathing and Recreation Area	Aquatic Cultivation Area	Others	
1	Temperature	°C	30			
2	Odour		unobjectionable			
3	pH value		6,5 - 8,5	6,5 - 8,5	6,5 - 8,5	
4	Dissolved solid	mg/l	>or= 4	>or= 5	>or= 4	
5	BOD ₅ (20°C)	mg/l	<20	<10	<20	
6	Suspended solid	mg/l	25	50	200	
7	Arsenic	mg/l	0,05	0,01	0,05	
8	Ammonia (as N)	mg/l	0,1	0,5	0,5	
9	Cadmium	mg/l	0,005	0,005	0,01	
10	Lead	mg/l	0,1	0,05	0,1	
11	Chromium (VI)	mg/l	0,05	0,05	0,05	
12	Chromium (III)	mg/l	0,1	0,1	0,2	
13	Chloride	mg/l		0,01		
14	Copper	mg/l	0,02	0,01	0,02	
15	Fluoride	mg/l	1,5	1,5	1,5	
16	Zinc	mg/l	0,1	0,01	0,1	
17	Manganese	mg/l	0,1	0,1	0,1	
18	Iron	mg/l	0,1	0,1	0,3	
19	Mercury	mg/l	0,005	0,005	0,01	
20	Sulfide	mg/l	0,01	0,005	0,01	
21	Cyanide	mg/l	0,01	0,01	0,02	
22	Phenol compounds	mg/l	0,001	0,001	0,002	
23	Oil and fat film	mg/l	none	none	0,3	

24	Oil and fat suspension	mg/l	2	1	5
25	Total pesticides	mg/l	0,05	0,01	0,05
26	Coliform	MPN/100 ml	1000	1000	1000

Parameter Limits and Allowable Concentrations of Pollutants in Coastal Water (Based on the TCVN 5943:1995 Water Quality Standards - Coastal Water)

TCVN 5944: 1995 Water Quality Standards - Ground Water

Nº	Parameter and Pollutant	Unit	Limitation Value
1	pH value		6,5 - 8,5
2	Colour	Pt - Co	5 - 50
3	Hardness (as CaCO ₃)	mg/l	300 - 500
4	Total solids	mg/l	750 - 1500
5	Arsenic	mg/l	0,05
6	Cadmium	mg/l	0,01
7	Chloride	mg/l	200 - 600
8	Lead	mg/l	0,05
9	Chromium (VI)	mg/l	0,05
10	Cyanide	mg/l	0,01
11	Copper	mg/l	1,0
12	Fluoride	mg/l	1,0
13	Zink	mg/l	5,0
14	Manganese	mg/l	0,1 - 0,5
15	Nitrate	mg/l	45
16	Phenol compound	mg/l	0,001
17	Iron	mg/l	1 - 5
18	Sulphate	mg/l	200 , 400
19	Mercury	mg/l	0,001
20	Selenium	mg/l	0,01
21	Fecal coli	MPN/100 ml	Not detectable
22	Coliform	MPN/100 ml	3

Parameter Limits and Maximum Allowable Concentrations of Pollutants in Groundwater (Based on the TCVN 5944: 1995 Water Quality Standards - Ground Water)

TCVN 5945: 2005³⁵ Industrial Waste Water - Discharge Standards

Nº	Parameters and Substances	Unit	Limitation Values ³⁶		
			A	В	C
1	Temperature	°C	40	40	45
2	pH value	-	6 - 9	5,5 - 9	5 - 9
3	Odour	-	endurable	endurable	-
4	Color Co-Pt at pH=7		20	50	-
5	BOD ₅ (20°C)	mg/l	30	50	100
6	COD	mg/l	50	80	400
7	Suspended solids	mg/l	50	100	200
8	Arsenic	mg/l	0,05	0,1	0,5
9	Mercury	mg/l	0,005	0,01	0,01
10	Lead	mg/l	0,1	0,5	1
11	Cadmium	mg/l	0,005	0,01	0,5
12	Chromium (VI)	mg/l	0,05	0,1	0,5
13	Chromium (III)	mg/l	0,2	1	2
14	Copper	mg/l	2	2	5
15	Zinc	mg/l	3	3	5
16	Nickel	mg/l	0,2	0,5	2
17	Manganese	mg/l	0,5	1	5
18	Iron	mg/l	1	5	10
19	Tin	mg/l	0,2	1	5
20	Cyanide	mg/l	0,07	0,1	0,2

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This standard specifies limit values for the parameters and concentration of substances in waste water production, servicing and trading establishments, etc. (hereafter called industrial waste water), applying to the control of the quality of industrial waste waters before being discharged into water bodies used for domestic water supply, other water usage purposes with lower quality requirements, or discharge into wastewater receiving resources.

- + Limit values of parameters and maximum allowable concentrations of pollutants in industrial wastewater before being discharged into water bodies shall not exceed the values given in Table 1.
- + Industrial wastewater containing values of parameters and concentrations of pollutants, which are equal to or lower than the values specified in Column A, may be discharged into the water bodies used for domestic water supply.
- + Industrial wastewater containing values of parameters and concentration of pollutants, which are greater than the values specified in Column A and lower than or equal to those specified in column B, is allowed to be discharged into water bodies other than those stipulated for Column A.
- + Industrial wastewater containing values of parameters and concentrations of pollutants, which are greater than those specified in Column B but not exceeding those specified in Column C (Table 1), is allowed to be discharged only into specific water bodies (such as reservoirs specially built for waste water, a sewerage pipe leading to a concentrated wastewater treatment plant, etc.).
- + Industrial wastewater from some particular forms of production, trading or service activities with specific pollutant contents due to characteristics of particular industries shall be regulated in separate standards.
- + The standard methods of sampling, analysis, computing and determining certain parameters and concentrations of pollutants are stipulated in the TCVN ruling or specified by the competent authority.

³⁵ Replaced the TCVN 5945-1995: Industrial Waste Water Discharge Standards

³⁶ Limitation Values

21	Total phosphorous	mg/l	0,1	0,5	1
22	Mineral oil	mg/l	5	5	10
23	Animal-vegetable fat and oil	mg/l	10	20	30
24	Chlorine	mg/l	1	2	-
25	PCBs	mg/l	0,003	0,01	-
26	Pesticide: organic phosphorous	mg/l	0,3	1	
27	Pesticide: organic chlorine	mg/l	0,1	0,1	
28	Sulfide	mg/l	0,2	0,5	1
29	Fluoride	mg/l	5	10	15
30	Chloride	mg/l	500	600	1000
31	Ammonia (as N)	mg/l	5	10	15
32	Total Nitrogen	mg/l	15	30	60
33	Total phosphorous	mg/l	4	6	8
34	Coliform	MNP/100ml	3000	5000	-
35	Bioassay		90% of fishes alive after 96 hrs in 100% waste water		-
36	Gross a activity	Bq/l	0,1	0,1	-
37	Gross b activity	Bq/l	1,0	1,0	-

Industrial Waste Water: Limit Values of Parameters and Maximum Allowable Concentration of Pollutants (Based on the TCVN 5945: 2005: Industrial Waste Water - Discharge Standards)

Annex 2: Key Regulations on Water Sector in Vietnam

Basic Regulation Constitution 1992 (amended in 2001)

Law on Water Resources

(No. 08/1998/QH10)

			V	
ecree of	Decision of Prime Minister	Main water-related Regulations issued by		
overnment		MARD	MONRE	Other Ministries
003/ND-CP 003/ND-CP 003/ND-CP 2003/ND-CP 2004/ND-CP 2005/ND-CP 2005/ND-CP 2006/ND-CP 2007/ND-CP 2008/ND-CP	07/CT-TTg (1964) 237/1998/QD-TTg 67/2000/QD-TTg 99/2001/QD-TTg 567/QD-TTg (2003) 62/2004/QD-TTg 39/2005/QD-TTg 328/2005/QD-TTg 81/2006/QD-TTg 81/2006/QD-TTg 84/2006/QD-TTg 97/2007/QD-TTg 126/2008/QD-TTg 128/2008/QD-TTg 132/2008/QD-TTg 134/2008/QD-TTg 147/2008/QD-TTg 147/2008/QD-TTg 144/0/QD-TTg (2008) 13/2009/QD-TTg 1446/QD-TTg (2009) 1581/QD-TTg (2009) 1590/QD-TTg (2009)	37/2001/QD-BNN-TCCB 39/2001/QD-BNN-TCCB 13/2004/QD-BNN-TCCB 77/2007/CT-BNN 81/2007/CT-BNN 09/2008/QD-BNN 10/2008/QD-BNN 11/2008/QD-BNN 12/2008/QD-BNN 13/2008/QD-BNN 13/2008/QD-BNN 15/2008/QD-BNN 15/2008/QD-BNN 15/2008/QD-BNN 16/2008/QD-BNN 17/2008/QD-BNN 17/2008/QD-BNN 18/2008/QD-BNN 19/2008/QD-BNN 19/2008/QD-BNN 19/2008/QD-BNN 20, 21, 22, 23, 24, 25, 26, 27, 29, 30//2008/QD-BNN 36/2008/CT-BNN 61/2008/TT-BNN 61/2008/TT-BNN 51/2008/QD-BNN 51/2008/QD-BNN 51/2008/QD-BNN 51/2008/QD-BNN 15/2009/TT-BNN 45/2009/TT-BNN 44/2009/TT-BNN 45/2009/TT-BNN 45/2009/TT-BNN 47/2009/TT-BNN	04, 05, 06/2003/QD-BTNMT 15/2003/QD-BTNNT 02/2004/CT-BTNMT 04/2004/QD-BTNMT 17/2004/QD-BTNMT 18/2004/TT-BTNMT 21, 22, 23/2004/QD-BTNMT 05/2005/TT-BTNMT 05/2005/TT-BTNMT 07/2005/QD-BTNMT 13/2005/QD-BTNMT 13/2005/QD-BTNMT 14/2005/QD-BTNMT 12/2006) 08/2006/TT-BTNMT 12/2006/TT-BTNMT 12/2006/TT-BTNMT 13/2006/QD-BTNMT 13/2006/QD-BTNMT 13/2006/QD-BTNMT 13/2006/QD-BTNMT 22/2006/QD-BTNMT 22/2006/QD-BTNMT 23/2006/QD-BTNMT 23/2006/QD-BTNMT 13/2007/QD-BTNMT (2007) 515/QD-BTNMT (2007) 04/2008/TT-BTNMT 15/2008/QD-BTNMT 15/2008/QD-BTNMT 15/2008/QD-BTNMT 16/2008/QD-BTNMT	90/2000/QD-BTC 48/2001/TT-BTC 35/2002/QD- BKHCNMT 18/2003/QD-BXD 31/2004/QD- BGTVT 63/2004/QD-BNV 95/2004/TT-BTC 02/2005/TT-BXD 08/2005/QD-BYT 27/2005/QD-BYT 27/2005/QD-BTC 39/2005/QD-BTC 39/2005/QD-BTC 39/2005/QD-BNV 05/2006/TT-BTC 59/2006/QD-BNV 05/2006/TT-BTC 42/2007/TD-BCA 31/2007/QD-BCA 31/2007/QD-BYT 106/2007/TT-BTC 42/2007/TT-BTC 41/2007/TT-BTC 01/2008/TT-BTC 01/2008/TT-BTC 01/2008/TT-BTC 61/2008/TT-BTC 118/2008/TT-BTC 118/2009/TT-BTC 124/2009/TT-BTC 125/2009/TT-BTC 125/2009/TT-BTC BTC-BXD-BNN

Regulations on Sanctions

- Constitution 1992 (amended in 2001) Basic regulation
- Law on Organization of the National Assembly No.30/2001/QH10 (amended in 2007)
- Law on Organization of the Government No. 32/2001/QH10
- Law on Organization of the People's Courts No. 33/2002/QH10
- Law on Complaints and Denunciations No. 09/1998/QH10 (amended in 2004, 2005)
- Law on Environmental Protection No. 52/2005/QH11
- Ordinance on Natural Resources Tax No. 05/1998/PL-UBTVQH10 (amended)
- Ordinance on Handling of Administrative Violations No. 44/2002/PL-UBTVQH10 (amended in 2007, 2008)
- Labor Code 1994 (amended in 2002, 2006, 2007)
- Penal Code 1999 (amended by Law No. 37/ 2009/QH12) & Penal Procedure Code No. 19/2003/QH11
- Civil Code 2005 & Civil Procedure Code No. 24/2004/QH11

Key referential Regulations

1993

Petroleum Law (amended in 2000, 2008)

Annex 3: Glossary of Water-Related Legal Terminology

According to the current regulations of Vietnam, legal terms related to water management shall be defined as follows:

- "Accreditation" means certification that a testing laboratory, calibration laboratory, conformity certification organization or inspection organization has the capacity conformable with relevant standards (Article 3 of the Law on Standards and Technical Regulations).
- "Announcement of standard conformity" means announcement by an organization or individual of the conformity of objects of activities in the domain of standard with relevant standards (Article 3 of the Law on Standards and Technical Regulations).
- "Announcement of technical regulation conformity" means announcement by an organization or individual of the conformity of objects of activities in the domain of technical regulation with relevant technical regulations (Article 3 of the Law on Standards and Technical Regulations).
- "Aquatic resources" mean natural organisms in natural water areas, of economic or scientific value for development of the exploitation of aquatic resources, for conservation and development of aquatic resources (Article 2 of the Law on Fisheries).
- "Area with difficult socioeconomic conditions" is an ethnic minority, mountainous area; area with undeveloped infrastructure; or area with unfavorable natural conditions (Article 3 of the Law on Water Resources).
- "Area with especially difficult socioeconomic conditions" is an ethnic minority area with the high mountain region, island area, area with poor infrastructure or area with very unfavorable natural conditions (Article 3 of the Law on Water Resources).
- "'River basin environment-water resource data directory" means a general database of statistical particularities of a river basin, including geographical position area, total water volume, water quality, water exploitation and use status, wastewater discharge, socio-economic characters and environmental particularities (Article 3 of Government's Decree No. 120/2008/ND-CP).
- "Certification of standard conformity" means certification that objects of activities in the domain of standard conform to relevant standards (Article 3 of the Law on Standards and Technical Regulations).
- "Certification of technical regulation conformity" means certification that objects of activities in the domain of technical regulation conform to relevant technical regulations (Article 3 of the Law on Standards and Technical Regulations).
- "Clean water" is water meeting the quality requirements for clean water stipulated in the Vietnamese standards (Article 3 of the Law on Water Resources).
- "COD" means the chemical oxygen demand for oxidization of chemicals existing in water (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Collection of solid waste" means activities of gathering, separation, packing and temporarily storing solid waste from different collection depots to a place or facility recognized by a competent state agency (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Conformity assessment" means determination as to whether objects of activities in the domain of standard or objects of activities in the domain of technical regulation are conformable with technical characteristics and management requirements in relevant standards or technical regulations. Conformity assessment covers testing, calibration, inspection and certification of standard or technical regulation conformity; announcement of standard or technical regulation conformity; and accreditation of the capacity of testing laboratories, calibration laboratories, conformity certification organizations and inspection organizations (Article 3 of the Law on Standards and Technical Regulations).
- "Cooperative organization for water consumption" is a form of cooperation between people sharing benefits from irrigation works, performing task of exploiting and protecting irrigation works,

- served the production and people's life (Article 2 of the Ordinance on Exploitation and Protection of Irrigation Works)
- "Daily-life waste water" means water discharged from humans' daily-life activities such as eating and drinking, bathing and washing, personal hygiene (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Degradation and depletion of water resources" is the decrease in quality and quantity of a water source (Article 3 of the Law on Water Resources).
- "**Domestic water source**" is water source which can be supplied as domestic water of the water which can be economically treated to become clear water (Article 3 of the Law on Water Resources).
- "**Domestic water**" is water used for cooking, drinking, and sanitary purposes of the humans (Article 3 of the Law on Water Resources).
- "Environment components" are physical elements hat constitute the environment, including soil, water, air, sound, light, living organisms, ecosystems and other physical forms (Article 2 of the Law on Environmental Protection 2005).
- "Environment" comprises natural and man-made physical factors that surround human beings and affect life, production, existence and development of human beings and living organisms (Article 2 of Law on Environmental Protection 2005).
- "Environmental degradation" means qualitative and quantitative deterioration of environmental components, adversely affecting human beings and organisms (Article 2 of the Law on Environmental Protection 2005).
- "Environmental impact assessment" means analysis and forecast of impacts on the environment to be exerted by specific projects so as to work out measures to protect the environment when such projects are carried out (Article 2 of the Law on Environmental Protection 2005).
- "Environmental incidents" mean disasters or risks occurring in the process of human activities, or abnormal changes of nature causing serious environmental pollution, degradation or alteration (Article 2 of the Law on Environmental Protection 2005).
- "Environmental information" means figures and data about environmental components; reserves, ecological value and economic value of natural resources; impacts on the environment; wastes; degree of environmental pollution and degradation: and information about other environmental issues (Article 2 of the Law on Environmental Protection 2005).
- "Environmental monitoring" means the process of systematic observation of the environment and factors that exert impacts on the environment in order to supply information for the assessment of status and changes in the quality of, and adverse impacts, on the environment (Article 2 of the Law on Environmental Protection 2005).
- "Environmental pollution" means the status that environmental components have been changed to extend beyond environmental standards and adversely affect human beings and living organisms (Article 2 of the Law on Environmental Protection 2005).
- "Environmental protection activities" mean activities of keeping the environment sound, clean and beautiful; preventing and restricting adverse impacts on environment, responding to environmental incidents; remedying environmental pollution and degradation, rehabilitating and improving the environment; exploiting and rationally and economically using natural resources; and protecting biodiversity (Article 2 of the Law on Environmental Protection 2005).
- "Environmental standards" mean allowable limits of parameters of the quality or surrounding environment, the content of pollutants in wastes, set by competent state agencies as a basic for environmental management and protection (Article 2 of the Law on Environmental Protection 2005).
- "Expenses for collection and transportation of solid waste" means expenses for vehicles and equipment, labor training, management and operation of the facility for the collection and transportation of solid waste, which are calculated according to the duration of capital retrieval and per

- collected or transported solid waste quantity unit (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Expenses for solid waste disposal" means expenses for ground clearance, construction investment, procurement of vehicles and equipment, labor training, management and operation of a solid waste disposal facility, which are calculated according to the duration of capital retrieval and per disposed solid waste quantity unit (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Experimental development" is the activity of applying the results of scientific research to experiments in order to create new technologies or new products (Article 2 of the Law on Science and Technology No. 21/2000/QH10).
- "Exploitation areas" means areas where groundwater exploitation projects are located, including areas where the groundwater level is lowered due to the exploitation projects' water pumping and drainage (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Exploitation of aquatic resources" means the exploitation of aquatic resources in the sea, rivers, lakes, marshes, lagoons and other natural water areas (Article 2 of the Law on Fisheries).
- **"Exploitation of water resources"** means activities aiming at bringing benefits from the water resources (Article 3 of the Law on Water Resources).
- **Exploration of groundwater**" means the combined use of various geological survey methods to appraise and determine the deposit and quality of groundwater and to forecast the environment impacts on a given area, which may be caused by water exploitation, aiming to server the designing of water exploitation projects with set outputs (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- **"Exploration-cum-exploitation of groundwater"** means the exploration of groundwater whereby, in the exploration process, one or some of drilling holes are structured into and used as exploitation wells (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Fishery activities" mean the exploitation, culture, transportation of exploited aquatic resources; preservation, processing, trading in, export and import of aquatic products; services in fishery activities; survey, protection and development of aquatic resources (Article 2 of the Law on Fisheries)
- "Fishing grounds" mean sea areas with concentrated aquatic resources, which are identified for exploitation by fishing ships (Article 2 of the Law on Fisheries).
- "Flood diversion, flood retardation" is the active changing of the flow direction of a part of flood or temporary storage of water in a reservoir to decrease the flood level (Article 3 of the Law on Water Resources).
- "Greenhouse gas quota" means the volume of greenhouse gas which each country is permitted to emit into the atmosphere in accordance with relevant treaties (Article 2 of the Law on Environmental Protection 2005).
- "Greenhouse gas" means assorted gases that affect the thermal exchange between the earth and surrounding atmosphere, thereby warming up the air surrounding the earth (Article 2 of the Law on Environmental Protection 2005).
- "Groundwater exploitation projects" means drilled wells, dug wells, caves or water exploitation corridors or open-air spots of groundwater, which are built or used for groundwater exploitation (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Groundwater" is water occurring in aquifers under the ground (Article 3 of the Law on Water Resources).
- "Hazardous solid waste" means solid waste containing substances or compounds that exhibit any of the characteristics of radioactivity, ignitability, explosiveness, corrosiveness, infectiousness, toxicity or other hazardous characteristics (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Hazardous wastes" mean wastes containing elements that are toxic, radioactive, inflammable, explosive, abrasive, contagious, poisonous or otherwise harmful (Article 2 of the Law on Environmental Protection 2005).

- "Hydraulic work" is a work to exploit beneficial effects of water, to prevent and control adverse effects caused by water and to protect the environment and ecological equilibrium (Article 3 of the Law on Water Resources).
- "Individual water drainage households" means those that discharge rain water and waste water directly into the environment (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Inland waterway navigation activities" mean activities of people and vessels participating in inland waterway navigation or transport; planning of the development, building, operation and protection of inland waterway navigation infrastructures and State management over inland waterway navigation (Article 3 of the Law on Inland Waterway Navigation)
- "Integrated use of water resources" is the appropriate use, development of potential of water source and restriction of adverse effects caused by water for integrated services of various purposes (Article 3 of the Law on Water Resources).
- "International river basin" means a river basin where exists one or more than one international water sources (Article 3 of Government's Decree No. 120/2008/ND-CP).
- "International water source" is water source flowing from territory of Vietnam into that of another country, from the territory of another country into that of Vietnam or occurring on a border between Vietnam and a neighboring country (Article 3 of the Law on Water Resources).
- "Irrigation charge" means the water service charge collected from organizations and individuals using water or providing services from irrigation works for agricultural production in order to contribute to covering part of expense for management, maintenance and protection of irrigation works (Article 2 of the Ordinance on Exploitation and Protection of Irrigation Works).
- "**Irrigation work system**" includes irrigation works which are directly interrelated in terms of exploitation and protection in certain geographical area (Article 2 of the Ordinance on Exploitation and Protection of Irrigation Works).
- "Irrigation works" mean infrastructure works built to tap the water's usefulness to prevent and combat harms caused by water, protecting the environment and ecology balance, which include: reservoirs, dams, pumping stations, wells, penstocks, canals, works on canals and embankments of all types (Article 2 of the Ordinance on Exploitation and Protection of Irrigation Works).
- "Land for aquaculture" means land with inland water surfaces, including ponds, lakes, marshes, lagoons, rivers, canals, ditches and trenches; coastal land with water surfaces, riverside and coastal alluvial land; coastal sand banks and dunes; land used for farm economy; non-agricultural land with water surfaces assigned or leased for aquaculture (Article 2 of the Law on Fisheries).
- "Large-sized exploitation projects" means projects with exploitation outputs exceeding 5,000m3/day and night (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Medium-sized exploitation projects" means projects with exploitation outputs of between 1,000m3/day and night and 5,000m3/day and night (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Mineral water" means a type of underground natural water possibly open the ground in some places, which contains a number of biologically active compounds of high concentration in compliance with the Vietnamese standards or international standards permitted by the Vietnamese State for application (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Minimum flow" means the flow at the lowest level necessary for maintaining a river or river section, ensuring the normal development of aquatic ecosystems and the minimum level for water resource exploitation and use by water users in the priority order stated in the river basin planning (Article 3 of Government's Decree No. 120/2008/ND-CP).
- "Natural thermal water" means underground natural water possibly open on the ground in some places, which is always of a certain temperature in compliance with the Vietnamese standards or international standards permitted by the Vietnamese State for application (Article 1 of the Decision No. 05/2003/QD-BTNMT).

- "Place or facility recognized by a competent agency" means a place of storage, disposal or burial of solid waste approved by a competent state management agency (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Plan for water pollution prevention and combat and rehabilitation of polluted water sources" covers managerial measures, investment plan and schedule for specific activities to achieve the water quality targets set in water resources protection planning (Article 3 of Government's Decree No. 120/2008/ND-CP).
- "Pollutant" means substances or physical factors that cause environmental pollution when they are present in the environment (Article 2 of the Law on Environmental Protection 2005).
- "Pollution of water resources" is the change in physical, chemical properties and biological composition which breaches the permissible standards (Article 3 of the Law on Water Resources).
- "Processing of solid waste" means the process of applying technological and technical solutions to reduce, remove or destroy harmful or useless constituents of solid waste; and to recover, recycle or reuse useful constituents of solid waste (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Products and goods capable of causing unsafety" (below referred to as group-2 products and goods) mean those products and goods which under rational conditions of transportation, storage, preservation and use of proper purposes, can latently caused harms to humans, animals, plants, assets or the environment (Article 3 of the Law on Products and Goods Quality).
- "Products and goods incapable of causing unsafety" (hereafter referred to as group-1 products and goods) mean those products and goods which under rational conditions of transportation, storage, preservation and use of proper purposes caused no harm to humans, animals, plants, assets or the environment (Article 3 of the Law on Products and Goods Quality).
- "**Products and goods quality**" means the products and goods properties' extent of satisfaction of requirements under announced applicable standards or relevant technical regulations (Article 3 of the Law on Products and Goods Quality).
- "Rain water drainage systems" include networks of culverts, rain water-collecting and -conducting, regulating lakes, key works (pump stations, sluice gates') and other support facilities for rain water collection and drainage (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Receiving sources" means parts of the environment, including sources of constantly or periodically flowing water such as ponds, lakes, rivers, streams, canals, groundwater, sea (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Reproduction of aquatic resources" means the process of self-reproduction or activities of reproducing and increasing aquatic resources (Article 2 of the Law on Fisheries)
- "River basin group" means a group of river basins which are geographically close to one other (Article 3 of Government's Decree No. 120/2008/ND-CP).
- "River basin list" means a collection of river basins classified on the basic of criteria of their importance, basin area, main river length, administrative and territorial characters and others (Article 3 of Government's Decree No. 120/2008/ND-CP).
- "River basin planning" is the planning for protection, exploitation and utilization of water resources, development of water resources, prevention, control and mitigation of adverse effects caused by water in a river basin (Article 3 of the Law on Water Resources).
- "River basin" is a geographical area within which the surface water and groundwater flow naturally into the river (Article 3 of the Law on Water Resources).
- "Sanitary landfill of solid waste" means burying solid waste in accordance with requirements of technical standards on sanitary landfills for solid waste.
- "Sanitary protection zone of water intakes" is the surrounding area of water intake from a water source stipulated to be protected for preventing and controlling pollution of domestic water resources (Article 3 of the Law on Water Resources).

- "Science" is a system of knowledge about phenomena, things and regulations of the nature, society and thought (Article 2 of the Law on Science and Technology No. 21/2000/QH10).
- "Scientific and technological activities" include scientific research, technological research and development, scientific and technological services, innovation promotion, technical improvement, production rationalization and other activities aimed to develop science and technology (Article 2 of the Law on Science and Technology No. 21/2000/QH10).
- "Scientific and technological services" are activities which serve scientific research and technological development; activities related to intellectual property and technology transfer; services on information, consultancy, personnel training and fostering, popularization and application of scientific and technological knowledge as well as practical experiences (Article 2 of the Law on Science and Technology No. 21/2000/QH10).
- "Scientific research" is the activity of discovering and inquiring into phenomena, things and laws of the nature, society and thought; and creating solutions for practical application. Scientific research includes basic research and applied research (Article 2 of the Law on Science and Technology No. 21/2000/QH10)
- "**Scrap**" means products and materials discarded from production or consumption and recovered for reprocessing or reuse as input materials for the production of other products (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Sea surface for aquaculture" mean sea areas zoned off for aquaculture (Article 2 of the Law on Fisheries).
- "Small-sized exploitation projects" means projects with exploitation outputs of less than 1,000m3/day and night (Article 1 of the Decision No. 05/2003/QD-BTNMT).
- "Solid waste collector or transporter" means an organization or individual licensed to conduct the collection or transportation of solid waste (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Solid waste disposal complex" means a combination of one or more works for disposal, recycle or reuse of solid waste and one or more solid waste landfills (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Solid waste disposal facility owner" means an organization or individual licensed to dispose of solid waste. A solid waste disposal facility owner may be the investor of a solid waste disposal facility or a professionally qualified organization or individual and hired by the investor to operate the solid waste disposal facility (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Solid waste disposal facility" means material foundation including land, workshops, technological chain, equipment and auxiliary structures used in activities of disposing of solid waste (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Solid waste management facility investor" means an organization or individual licensed to invest in activities of collecting, separating, transporting, processing or disposing of solid waste (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Solid waste management facility" means material foundation, technical chain and equipment used in the collection, separation, transportation, processing and disposal of solid waste.
- "Solid waste management" means activities of planning, managing, investing in building solid waste management facilities, separating, collecting, storing, transporting, reusing, recycling and disposing of solid waste in order to prevent and minimize adverse impacts on the environment and human health (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Solid waste" means waste in a solid form, discharged from production, business, service, daily life or other activities. Solid waste includes ordinary solid waste and hazardous solid waste. Solid waste generated in daily-life activities of individuals, households or at public places is collectively referred to as daily-life solid waste. Solid waste generated in industrial production, craft villages, business and

service activities or other activities is collectively referred to as industrial solid waste (Article 3 of the Government's Decree No. 59/2007/ND-CP).

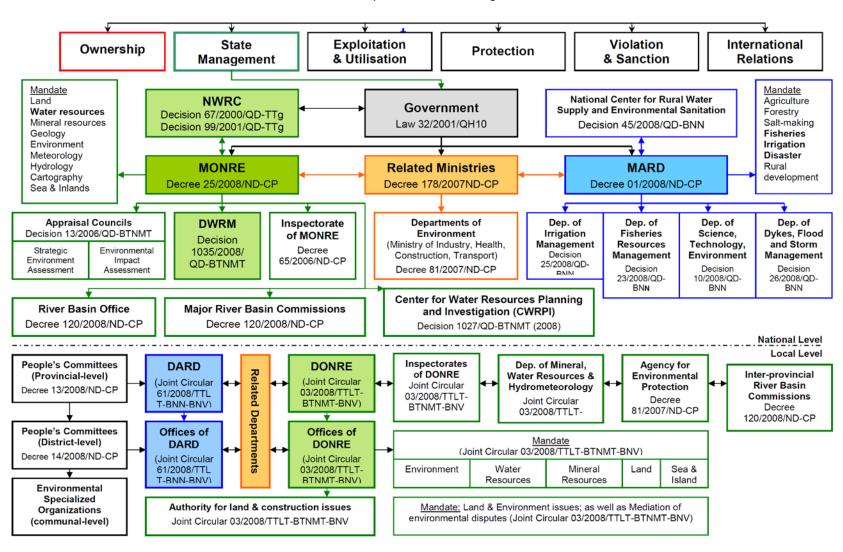
- "Standard" means regulation on technical characteristics and management requirements used as standard for classifying and appraising products, goods, services, processes, the environment and other objects in socio-economic activities with a view to improving the quality and effectiveness of these objects. Standard shall be published in a written form by an organization for voluntary application (Article 3 of the Law on Standards and Technical Regulations).
- "State examination of products and goods quality" (below referred to as products and goods quality examination) mean that a state agency reconsiders and reevaluates the quality of products and goods or production or service provision processes which have been evaluated in terms of quality by conformity evaluation organization or to which other quality control measures have been applied by production and business organizations or individuals (Article 3 of the Law on Products and Goods Ouality).
- "Storage of solid waste" means the keeping of solid waste for a given period of time at a place recognized by a competent agency before solid waste is transported to a processing facility (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "Strategic environmental assessment" means analysis and forecast of impacts on the environment to be exerted by draft development strategies, planning and plans before they are approved in order to attain sustainable development (Article 2 of the Law on Environmental Protection 2005).
- "Surface water" is water occurring on the surface of the mainland or islands (Article 3 of the Law on Water Resources).
- "Surrounding culverts" mean main culvert lines with wastewater-separating wells to gather the entire wastewater, when there is no rain, and part of wastewater which is mixed, when there is rain, in common water drainage systems from different basins and carried to pump stations or waste water treatment plants (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Sustainable development" means development that meets the needs of the present generation without harming the capability of meeting those of future generation on the basis of close and harmonious combination of economic growth, assurance of social advancement and environmental protection (Article 2 of the Law on Environmental Protection 2005).
- "Systems of regulating lakes" include natural or artificial lakes to receive water and regulate water drainage for water drainage systems (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Technical regulation" means regulation on the limits of technical characteristics and management requirements which products, goods, services, processes, the environment and other objects in socio-economic activities must comply with in order to ensure safety, hygiene and human health; to protect animals, plants and environment; to safeguard national interests and security, consumer interests and other essential requirements. Technical regulation shall be promulgated in a written form by a competent state agency for mandatory application (Article 3 of the Law on Standards and Technical Regulations).
- "**Technological development**" is the activity aimed to create and perfect new technologies or new products. Technological development includes experimental development and trial production (Article 2 of the Law on Science and Technology No. 21/2000/QH10).
- "**Technology**" is a combination of measures, processes, skills, know-how, implements and means used to turn resources into products (Article 2 of the Law on Science and Technology No. 21/2000/QH10).
- "Transportation of solid waste" means the process of carrying solid waste from a place of generation, collection, storage or transfer to a place of processing, recycle or reuse or to a final landfill (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- "**Trial production**" is the activity of applying the results of experimental development to small-scale trial production in order to perfect new technologies or new products before putting them into production and life (Article 2 of the Law on Science and Technology No. 21/2000/QH10).

- "Waste generator" means an organization, individual or household engaged in activities that generate solid waste (Article 3 of the Government's Decree No. 59/2007/ND-CP).
- **"Waste management"** means activities of sorting, collecting, transporting, minimizing, reusing, reprocessing, treating, destroying and discarding wastes (Article 2 of the Law on Environmental Protection 2005).
- "Waste water-discharged fee" means fee collected from organizations and individuals discharging waste water into irrigation works to cover part of expenditure on protection of water quality (Article 2 of the Ordinance on Exploitation and Protection of Irrigation Works).
- "Wastes" mean substances in the solid, liquid or gaseous form discharged from production, business, service, daily life or other activities (Article 2 of the Law on Environmental Protection 2005).
- "Wastewater drainage systems" include networks of culverts, wastewater-collecting and conducting, regulating lakes, key works (pump stations, treatment plants, sluice gates,') and other support facilities for collection, drainage and treatment of waste water (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage activities" are those related to water drainage, including planning, designing consultancy, construction investment, management, operation, exploitation and use of water drainage systems (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage basins" mean certain areas where rain water or waste water is collected and carried to one or a number of points for discharge into receiving sources (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage charges" means environmental protection charges for waste water applicable to urban centers and industrial parks with concentrated water drainage systems. Water drainage charges are set by People's Committees (provincial level) after they are submitted to People's Councils of the same level for passage with a view to incrementally maintaining and developing water drainage services in localities (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage households" cover households, non-business administrative units, establishments providing services on discharge of rain water or wastewater into a water drainage system (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage service" means activities of managing and operating according to law water drainage systems in order to satisfy the rain water and wastewater drainage and wastewater-treatment requirements of those that have demands for water drainage (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage systems" include networks of culverts, water-collecting and -conducting canals, regulating lakes, key works (pump stations, treatment plants, and sluice gates) and other support facilities, aiming to collect, conduct and drain rain water, waste water and treat waste water. Water drainage systems are classified into the following types: (1) common water drainage systems, which are systems assorted wastewater and rain water are collected into the same systems; (2) separate water drainage systems, which are separate systems for rain water drainage or waste-water drainage; (3) semi-separate water drainage systems, which are common water drainage systems with surrounding culvert lines for separation and carriage of wastewater to treatment plants (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water drainage units" means organizations or individuals that provide water drainage services under contracts on management and operation of water drainage systems (Article 2 of the Government's Decree No. 88/2007/ND-CP).
- "Water resource regulation and distribution plan" covers managerial measures, investment plan and schedule for specific activities to ensure water resource regulation and allocation according to rates set in the water resource allocation planning in order to meet the water user's needs (Article 3 of Government's Decree No. 120/2008/ND-CP).

- "Water resources development" means measures to increase the possibility of exploitation and sustainable utilization of water resources and the value of water resources (Article 3 of the Law on Water Resources).
- "Water resources permit" comprises groundwater exploration license, license for exploitation and utilization of water resources, license for discharging waste water into water resources and license for activities requiring an application for license within protection zone of hydraulic works (Article 3 of the Law on Water Resources).
- "Water resources protection" means measures for preventing and controlling the degradation and depletion of water resources, ensuring safety for water resources and securing the possibility of water resources development (Article 3 of the Law on Water Resources).
- "Water resources" refers to various forms of natural or man-made water accumulations which can be exploited and used, consisting of rivers, streams, canals, ditches, sea, lakes, lagoons, ponds, aquifers, drains, ice, snow and other forms of water accumulations (Article 3 of the Law on Water Resources).
- "Water-consuming money" means the sum of money inscribed in water service contracts collected from organizations and individuals consuming water or providing services from irrigation works purposes aside from agricultural production (Article 2 of the Ordinance on Exploitation and Protection of Irrigation Works).

Annex 4: Overview: Ownership and State Management of Water Resources

Chart 13: Overview: Ownership and State Management of Water Resources



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