6. REGIONAL AND INTERNATIONAL LEGAL FRAMEWORK

6.1 INTRODUCTION

The aim of this chapter is to provide an overview and analysis of the existing legal frameworks for the establishment of harmonised rules for the transportation of dangerous goods on the Mekong.

The Mekong Basin comprises six countries, namely Cambodia, Lao PDR, Thailand, Viet Nam, the People’s Republic of China and Myanmar.

Cambodia, Lao PDR, Thailand, and Viet Nam are members of the Mekong River Commission (MRC). The MRC was established under the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, signed at Chiang Rai, 5 April 1995 (MRC Agreement).51 The People’s Republic of China and Myanmar, located in the Upper Basin, are dialogue partners of the MRC.

Thailand, the People’s Republic of China, Myanmar and the Lao PDR are signatories to the Agreement on Commercial Navigation on Lancang-Mekong River, which relates to the "Upper" Mekong and was signed at Tachileik on 20 April 2000.52

In theory, consideration should be given to the Convention between Siam and France relating to the Regulation of the Relations between Siam and Indochina, signed at Bangkok, 25 August 1926, which applies to the "Middle" Mekong.53

Cambodia and Viet Nam are signatories to the Agreement on Waterway Transportation, signed at Phnom Penh, 17 December 2009. This treaty relates to the "Lower" Mekong.54

51 See below, Chapter 6.3.1
52 See below, Chapter 6.3.2
53 See below, Chapter 6.3.3
54 See below, Chapter 6.3.4
Below, we will recall the general international background on the transportation of dangerous goods by water. Next, we will examine the international instruments pertaining to the Mekong and the provisions concerning the carriage of dangerous goods contained in these instruments.

Existing national laws and regulations should be taken into consideration when drafting harmonised rules for the transportation of dangerous goods on the Mekong. Therefore we will inventory and briefly discuss the relevant domestic laws and regulations of the MRC Member States.

Next, we will focus on international benchmarks and further analyse the legal benchmarks as well as the national regulations on the carriage of dangerous goods. We will then elaborate on the legal bases for the establishment of harmonised rules. In the last section, we will make recommendations on rules and regulations for the transportation of dangerous goods on the Mekong.

6.2 GENERAL INTERNATIONAL BACKGROUND

6.2.1 International Convention for the Prevention of Pollution from Ships, 1973

The *International Convention for the Prevention of Pollution from Ships* (MARPOL) is the main international convention on the prevention of pollution of the marine environment. The Convention includes regulations aimed at preventing and minimising pollution from vessels – both accidental pollution and pollution from routine operations – and currently includes six technical Annexes (see also Chapter 4.4.4.1):

- Annex I-Regulations for the Prevention of Pollution by Oil;
- Annex II-Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk;
- Annex III-Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form;
- Annex IV-Prevention of Pollution by Sewage from Ships;
- Annex V-Prevention of Pollution by Garbage from Ships; and
- Annex VI-Prevention of Air Pollution from Ships.

Thailand, Cambodia, Viet Nam, the People’s Republic of China and Myanmar are parties to MARPOL. Thailand, Viet Nam and Myanmar are only a party to MARPOL 73/78 (Annex I/II). Cambodia is not a party to the 1997 Protocol (Annex VI). Lao PDR is not a party to MARPOL.

**Article 1 (1) of the MARPOL Convention reads:**

*The Parties to the Convention undertake to give effect to the provisions of the present Convention and those Annexes thereto by which they are bound in order to prevent the pollution of the marine environment by the discharge of harmful substances or effluent containing such substances in contravention of the Convention; and*

*The MARPOL Convention applies to ships flying the flag of a Party to the Convention and to ships not entitled to fly the flag of a Party but which operate under the authority of a Party (Article 3).*

The MARPOL Convention should be taken into consideration when establishing harmonised rules for the transportation of dangerous goods on the Mekong.
6.2.2 International Convention for the Safety of Life at Sea, 1974 (SOLAS) and the International Maritime Dangerous Goods (IMDG) Code

The major international convention on the carriage of dangerous goods by sea is the International Convention for the Safety of Life at Sea, 1974 (SOLAS), which entered into force on 25 May 1980.

Cambodia, Thailand and Viet Nam as well as the People’s Republic of China and Myanmar are parties to SOLAS. Thailand is not a party to the 1978 (Tanker Safety and Pollution Prevention) and 1988 (New Harmonised System of Surveys and Certification) Protocol, Myanmar is not a party to the 1988 Protocol. Lao PDR is not a party to SOLAS.

According to Article II, the SOLAS Convention applies to vessels entitled to fly the flag of States the Governments of which are Contracting Governments. Regulation 1 of Chapter I of the SOLAS Convention stipulates that, unless expressly provided otherwise, the regulations apply only to vessels engaged on international voyages. Regulation 2 (d) of the same chapter defines international voyage as a voyage from a country to which the SOLAS Convention applies to a port outside such a country, or conversely.

As all riparian states – with the exception of the Lao PDR – are parties to SOLAS, this Convention should be taken into due account when drafting harmonised rules for the transportation of dangerous goods on the Mekong.

The carriage of dangerous goods is addressed in Chapter VII of the SOLAS Convention. This chapter contains provisions for the classification, packing, marking and labelling, documentation and stowage of dangerous goods in packaged form, in solid form in bulk, and liquid chemicals and liquefied gases in bulk.

Regulation 2 (1) of Chapter VII on carriage of dangerous goods stipulates that unless expressly provided otherwise, its rules apply to the carriage of dangerous goods in packaged form in all vessels to which the regulations apply and in cargo vessels of less than 500 gross tonnage.

In order to assist the contracting states to the SOLAS Convention in issuing instructions to the vessels under their flag concerning the carriage of dangerous goods, the International Maritime Organization (IMO) has developed the International Maritime Dangerous Goods (IMDG) Code.

The IMDG Code – while originally designed to provide merely assistance in the implementation of the SOLAS Convention – is now binding. An amendment to Chapter VII of the SOLAS Convention, which was adopted in May 2002, makes the IMDG Code mandatory as of 1 January 2004 for all countries which have ratified the SOLAS Convention.

Some of the instruments relating to navigation on the Mekong expressly refer to the IMDG Code. This is the case for the Rules on Water Transport Administration on the Lancang-Mekong River (Article 17)\(^55\) as well as for the Agreement on Waterway Transportation (Article 2 [15]).\(^56\)

As a result, the IMDG Code must be taken into due consideration when drafting harmonised rules for the transportation of dangerous goods on the Mekong.

\(^{55}\) See below, Chapter 6.3.2
\(^{56}\) See below, Chapter 6.3.4
6.2.3 ILO Code of Practice on Safety and Health in Ports, 2003

The Code of Practice on Safety and Health in Ports was drafted by the Internal Labour Organisation (ILO). The Code replaces both the second edition of the ILO Code of Practice on Safety and Health in Dock Work (1977) and the ILO Guide to Safety and Health in Dock Work (1976). The text was adopted by a Meeting of Experts held in Geneva from 8 to 17 December 2003.

The Code is not a legally binding instrument. It is not intended to replace national laws and regulations. The practical recommendations in this Code are intended to provide guidance to ILO constituents and to those responsible for or involved in the management, operation, maintenance and development of ports.

The Code is not limited to international trade and is equally applicable to domestic operations, including those on inland waterways (Section 1.2.1).

The Code has a chapter on dangerous goods (Chapter 8). In this chapter, reference is made to the IMDG Code. It is noted that while the IMDG Code is intended mainly for precautions to be taken for sea voyage, its provisions can also be applied in shore-side terminals and the Code of Practice on Safety and Health in Ports recommends that it be so used (Section 8.1.4.15).

The ILO Code of Practice on Safety and Health in Ports could be taken into consideration when establishing harmonised rules for the transportation of dangerous goods on the Mekong.

6.2.4 IMO Revised Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas, 2006

The Revised Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas were approved by the Maritime Safety Committee of the International Maritime Organization (IMO) at its eighty-second session (29 November to 8 December 2006). The Recommendations are aligned with the provisions of the IMDG Code.

The Recommendations are intended to set out a standard framework within which legal requirements can be prepared by governments to ensure the safe transport and handling of dangerous cargoes in port areas.

These recommendations could act as an additional inspiration for the drafting of harmonised rules for the transportation of dangerous goods on the Mekong.

6.2.5 Other Relevant International Instruments

The following can be categorised as maritime instruments:

- International Bulk Chemical Code and the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk;
- International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk and earlier codes, the Gas Carrier Code and the Code for Existing Ships Carrying Liquefied Gases in Bulk;
- International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes onboard Ships (INF Code);
- International Maritime Solid Bulk Cargoes (IMSBC) Code;
- International Convention on the Establishment of an International Fund for the Compensation for Oil Pollution Damage;
- International Convention on the Control of Harmful Anti-Fouling Systems on Ships; and
- International Convention for the Control and Management of Ship's Ballast Water and Sediments.
- **Hague/ Hague-Visby Rules;**
- **Hamburg Rules;**
- **Rotterdam Rules;** and
- **HNS Convention.**

The United Nations Recommendations on the transport of dangerous goods apply to both maritime and inland waterway transport.

The *International Safety Guide for Inland Navigation Tank-barges and Terminals* can be categorized as an instrument applying to inland waterway transport.

### 6.3 INTERNATIONAL INSTRUMENTS PERTAINING TO THE MEKONG

#### 6.3.1 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (MRC Agreement)

Cambodia, Lao PDR, Thailand and Viet Nam are parties to the *Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin*, signed at Chiang Rai, 5 April 1995 (MRC Agreement).

The MRC Agreement is the basic convention under which the Mekong River Commission (MRC) has been established and still functions today.

**Under this Agreement, the parties first and foremost agree:**

> [t]o cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin, including, but not limited to irrigation, hydro-power, navigation, flood control, fisheries, timber floating, recreation and tourism, in a manner to optimize the multiple-use and mutual benefits of all riparians and to minimize the harmful effects that might result from natural occurrences and man-made activities (Art. 1).

The MRC Agreement does not contain specific provisions on dangerous goods. However, some provision of the Agreement might be of interest to the present study.

**Article 9 of the MRC Agreement for instance reads:**

> On the basis of equality of right, freedom of navigation shall be accorded throughout the mainstream of the Mekong River without regard to the territorial boundaries, for transportation and communication to promote regional cooperation and to satisfactorily implement projects under this Agreement. The Mekong River shall be kept free from obstructions, measures, conduct and actions that might directly or indirectly impair navigability, interfere with this right or permanently make it more difficult. Navigational uses are not assured any priority over other uses, but will be incorporated into any mainstream project.
Riparians may issue regulations for the portions of the Mekong River within their territories, particularly in sanitary, customs and immigration matters, police and general security (emphasis added).

According to this Article, the riparian countries – Cambodia, Lao PDR, Thailand and Viet Nam – may issue regulations, particularly in sanitary, customs and immigration matters, police and general security.

The concepts of "police and general security" are not defined in the MRC Agreement. It can be argued that the notion of "general security" encompasses measures on the transportation on the Mekong of explosives, ammunition or similar dangerous cargoes that might be considered a potential threat to security. The notion of "police" is even broader and can be interpreted as comprising all measures aimed at the preservation of public order.

More importantly, the Article under discussion contains the word "particularly". This indicates that riparians may also issue regulations on other matters, not specifically mentioned in Article 9 of the Agreement, such as the transportation of dangerous goods.

Remarkably, Article 9 of the MRC Agreement empowers each riparian state to unilaterally issue national regulations for its own stretch of the river. It should be noted that the regime of international rivers in Europe provides for the establishment of regulations on navigation by common consent among the riparians, but this principle does not appear to prevail worldwide.57

**Article 11 of the MRC Agreement stipulates:**

*The institutional framework for cooperation in the Mekong River Basin under this Agreement shall be called the Mekong River Commission and shall, for the purpose of the exercise of its functions, enjoy the status of an international body, including entering into agreements and obligations with the donor or international community.*

According to Article 18 of the Agreement, the functions of the Council of the Mekong River Commission are:

a. To make policies and decisions and provide other necessary guidance concerning the promotion, support, cooperation and coordination in joint activities and projects in a constructive and mutually beneficial manner for the sustainable development, utilization, conservation and management of the Mekong River Basin waters and related resources, and protection of the environment and aquatic conditions in the Basin as provided for under this Agreement;

b. To decide any other policy-making matters and make decisions necessary to successfully implement this Agreement, including but not limited to approval of the Rules of Procedures of the Joint Committee under Article 25, Rules of Water Utilization and Inter-Basin Diversions proposed by the Joint Committee under Article 26, and the basin development plan and major component projects/programmes; to establish guidelines for financial and technical assistance of development projects and programmes; and if considered necessary, to invite the donors to coordinate their support through a Donor Consultative Group; and

c. To entertain, address and resolve issues, differences and disputes referred to it by any Council member, the Joint Committee, or any member State on matters arising under this Agreement.

57 Art. CVIII of the 1815 Vienna Final Act provides: “The Powers whose states are separated or crossed by the same navigable river, engage to regulate, by common consent, all that regards its navigation. For this purpose they will name Commissioners, who shall assemble, at latest, within six months after the termination of the Congress, and who shall adopt as the basis of their proceedings, the principles established by the following Articles” (emphasis added). For a detailed discussion, see Vitanyi, B, The International Regime of River Navigation, Alphen aan den Rijn, Sijthoff & Noordhoff, 1979, 219 et seq.
The latter provision of the MRC Agreement offers a legal basis for the MRC Council to "make policies and decisions" relating to, *inter alia*, the "utilization" of the Mekong River Basin as well as for the "protection of the environment". Furthermore, the MRC Council is empowered to "decide" on any "other policy-making matters" and "make decisions necessary to successfully implement [the MRC] Agreement".

At first sight, the inter-relation between Article 18 on the decision-making powers of the Council on the one hand and the above mentioned Article 9 on national regulatory powers in the field of navigation is unclear. In our view, regulatory bodies of the Riparian States may enact national regulations on the transportation of dangerous goods on the basis of Article 9, while the MRC Council may on the basis of Article 18 also take an initiative for the establishment of harmonised rules on this matter. However, Article 18 does not seem to empower the MRC Council to adopt directly applicable regulations. In other words, if the MRC Council would adopt harmonised regulations, these would subsequently have to be "transposed" into national regulations by the competent national authorities of the Riparian States.58

### 6.3.2 Agreement on Commercial Navigation on Lancang-Mekong River between P.R. China, Lao PDR, Myanmar and Thailand

The Agreement on Commercial Navigation on Lancang-Mekong River, signed at Tachileik on 20 April 2000, forms the legal basis of the opening of the Upper Mekong for international navigation (the Agreement is briefly introduced in Chapter 3.3.2). The Parties to this Agreement are People's Republic of China, Lao PDR, Myanmar and Thailand.

**Article 17 of the Agreement reads:**

*For the safety of life, health and the protection of the environment the carriage under this Agreement of hazardous materials such as toxic chemicals, explosives and radioactive material shall be prohibited. However, the carriage of some other types and categories of dangerous goods and the safety measures thereof may be agreed upon by consultation among the Contracting Parties.*

In other words, the Agreement prohibits the carriage of toxic chemicals, explosives and radioactive material on the Upper Mekong. The carriage of other types and categories of dangerous goods is only allowed when agreed upon among the Contracting Parties.

**Article 8 of the Agreement stipulates:**

*Vessels and their crewmembers and passengers of one Contracting Party, during their stay and passage through the territory of another Contracting Party, shall respect the common navigation rules and the laws and regulations of the country of that Contracting Party, in particular, customs and immigrations, environment protection and ecology balance and other laws and regulations concerning public order and security.*

*The Contracting Parties shall give due publicity to all such laws and regulations.*

This Article clearly distinguishes between "common" navigation rules jointly adopted by the Riparian States and national laws and regulations.

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58 Interestingly, under a 2005 Treaty between the Netherlands and Flanders the Permanent Commission for the Supervision of Navigation of the River Scheldt has been granted the power to enact directly applicable regulations without any intervention by national regulatory authorities.
Article 21 of the Agreement reads:

With a view to promoting the objectives of this Agreement and to resolving problems which may arise from its implementation, representatives of the Contracting Parties shall hold meetings at least once a year alternately in the country of the Contracting Parties or whenever necessary upon request by any Contracting Party to consult and to promote cooperation in the following matters, inter alia:

a. the maintenance and improvement of the navigability of the river;

b. measure to increase safety for navigation and protection of environment;

c. exchange of information on navigation channels, obstacles and obstructions relating to navigation safety;

d. improvement and expansion of port facilities;

e. cooperation and coordination in the customs, immigration and other related matters;

f. for the purpose of safe and smooth navigation, especially in dry season, to cooperate to a possible extent in the provision of water flow and the relevant data;

g. cooperation in improvement of telecommunication network for the foregoing purposes;

h. formulation and improvement of relevant common rules and regulations for the effective implementation of this Agreement; and

i. other matters arising from the interpretation and application of this Agreement.

Article 21 of the Agreement stipulates that the Contracting Parties will hold meetings to consult and to promote cooperation on, inter alia, the formulation and improvement of relevant common rules and regulations for the effective implementation of the Agreement.

The wording of Article 21 appears sufficiently broad in order to serve as a legal basis for the adoption by the Contracting Parties of harmonised rules for transportation of dangerous goods on the Upper Mekong. However, the Agreement does not contain an express legal basis for the adoption of directly applicable "common" regulations without the subsequent intervention of competent national regulatory authorities. Whether the "common" regulations are considered directly applicable in practice remains to be seen investigated.

In practice, the Agreement was supplemented by the following six technical annexes (see also Chapter 4.4.4.1):

- Regulations on Safe Navigation of Vessels on the Lancang-Mekong River;
- Rules on Water Transport Administration on the Lancang-Mekong River;
- Guidelines on the Maintenance and Improvement of the Navigability of the Lancang-Mekong River;
- Regulations on the Investigation and Handling of Waterborne Traffic Accidents on the Lancang-Mekong River;
- Regulations on Management of Search & Rescue, Salvage and Wreck Removal on the Lancang-Mekong River; and

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Article 1 of the Regulation on Safe Navigation of Vessels on the Lancang-Mekong River reads:

These regulations are formulated with a view to jointly strengthening the traffic control on the Lancang-Mekong River, maintaining the order of waterborne traffic and ensuring the safety of vessels in accordance with the Agreement on Commercial Navigation on the Lancang-Mekong River concluded among the Governments of the People’s Republic of China, the Lao People’s Democratic Republic, the Union of Myanmar and the Kingdom of Thailand.

The five other regulations and guidelines contain a similar provision.

Article 2 of the Regulation on Safe Navigation of Vessels on the Lancang-Mekong River reads:

These Regulations are applicable to all vessels sailing, berthing or conducting operations on the section of the Lancang-Mekong River between Simao in P.R. China and Luang Prabang in Lao PDR.

The five other regulations and guidelines contain a similar provision.

Some Regulations contain provisions on their implementation by the Contracting Parties. Article 3 of the Regulations on Management of Search & Rescue, Salvage and Wreck Removal on the Lancang-Mekong River for instance stipulates:

The competent authorities of the Contracting Parties are responsible for implementing these Regulations in respect of coordinating, organizing and commanding search & rescue and salvage of persons and vessels in distress as well as management operations on wreck removal.

Furthermore, some of the regulations and guidelines contain specific provisions on dangerous goods. These provisions shall be highlighted below.

Article 25 of the Regulations on Safe Navigation of Vessels on the Lancang-Mekong River stipulates:

During berthing, loading and unloading or navigating, a vessel carrying dangerous goods shall, in addition to exhibiting signals as generally prescribed, exhibit an all-round red light at the mast yard at night and the International Code Flag “B” in the day time.

Article 16 of the Rules on Water Transport Administration on the Lancang-Mekong River reads:

For the safety of life, health and the protection of environment, the carriage of dangerous goods such as explosives, poisonous and infectious substances [and] radioactive materials shall be prohibited.

Article 17 of these Rules stipulates:

The protection requirements for each packaging group and each type of package as required in the carriage of dangerous goods shall be in compliance with the provisions for packaging type, packing method, specifications and performance tests in [the] IMDG Code.

The proper shipping name of the goods shall be displayed on the package of dangerous goods and the name used shall be in compliance with the individual schedules of dangerous
goods in [the] IMDG Code. Labels and marks as required by the provisions of [the] IMDG Code shall be adhered on the evident place of the package either by pasting, printing or fastening.

The UN number of the dangerous goods contained shall also be displayed on their packages.

The documents used for the transport of dangerous goods shall meet the requirements stipulated in [the] IMDG Code.

Article 18 of the Rules reads:

Vessels carrying dangerous goods shall comply with relevant technical requirements for the carriage of dangerous goods.

When carrying dangerous goods onboard vessels, precautions shall be made to ensure the normal use of the safety facilities and unimpeded pass of the pass ways.

Article 19 of the Rules stipulates:

Passenger vessels, cargo and passenger vessels and vessels other than steel construction shall not be allowed to carry dangerous goods.

Finally, Article 20 of the Rules reads:

The loading and carriage of ruptured and leaked packages and contaminated dangerous goods shall be prohibited.


Article 33 of the Technical Regulations of Surveys of Commercial Ships on the Lancang-Mekong River stipulates that the vessel intended for carrying dangerous goods must be equipped with an additional all-round red light.

The rules and regulations mentioned above – which apply only to the Upper Mekong – should be taken into consideration when establishing harmonised rules for the transportation of dangerous goods on the Mekong. As we have seen, the Rules on Water Transport Administration on the Lancang-Mekong River contain provisions on the carriage of dangerous goods. These provisions refer to the IMDG Code.

6.3.3 Convention between Siam and France relating to the Regulation of the Relations between Siam and Indochina

There is currently no updated and harmonised legal regime for navigation on the stretch of the Mekong between Luang Prabang and the Khone Falls.

However, the Convention between Siam and France relating to the Regulation of the Relations between Siam and Indochina, signed at Bangkok, 25 August 1926 appears still to be in force between Lao PDR and Thailand.61

61 See also the summary of the regional meeting to establish a legal framework for cross border navigation between the Lao PDR and Thailand on the stretch downstream of Luang Prabang, held at Vientiane on 27 October 2010.
The 1926 Convention does not contain provisions on dangerous goods.

Under this Convention, a "Franco-Siamese Permanent High Commission of the Mekong" was established which functioned fairly effectively until the beginning of World War II and encountered further political difficulties as from 1954. The Commission elaborated a number of common regulations.

The status of the common regulations of the Franco-Siamese Permanent High Commission of the Mekong remains to be ascertained. Furthermore, we were unable to access the text of all regulations. However, it seems unlikely that these regulations contain up-to-date provisions relating to dangerous goods. In any case, it appears that the Commission had no regulatory powers and did not have the power to establish binding rules. From the wording of Article 10 of the Convention, it follows that the Commission was only charged with the preparation of rules.

6.3.4 Agreement on Waterway Transportation between Cambodia and Viet Nam

The Agreement on Waterway Transportation, signed at Phnom Penh, 17 December 2009, was concluded by Cambodia and Viet Nam and relates to the Lower Mekong Basin (the Agreement is briefly introduced in Chapter 3.3.2). The Agreement replaces the Agreement on Waterway Transportation, signed at Hanoi, 13 December 1998.

The purpose of the Agreement is to establish a legal framework for the effective implementation of freedom of navigation in the Mekong River system, thereby implementing Article 9 of the MRC Agreement as well as to create favourable conditions for transit and cross-border navigation within the regulated waterways (Art. 1).

The term dangerous goods within the context of the Agreement is defined in Article 2 (15). This definition reads:

'Dangerous goods' means goods classified in the IMDG Code or in any other relevant IMO publication as dangerous for carriage by sea, and any other substance or goods the properties of which might be dangerous if that substance or those goods were carried by

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66 Article 10 stipulates:
There shall be a "Permanent Franco-Siamese High Commission for the Mekong" consisting of an equal number of Siamese and Indo-Chinese officials.
In addition to the powers granted it under Articles 2, 3, 5, 6 and 9 of the present Convention, it shall be the duty of the Permanent Franco-Siamese Commission for the Mekong to superintend in general the execution of the various special agreements concerning the frontier region and to study all questions arising through the application of the new system in this region; in particular, it shall give its opinion if any disputes arise concerning the river frontier line. It may also propose such solutions as might, in its opinion, secure the friendly settlement of questions connected with rights of cultivation carried on, as circumstances allow, by the nationals of the two countries in land situated in the bed of the river. In no case shall these proposals be adopted until the common consent of the two Governments concerned has been obtained in writing.
It shall also be the duty of the Permanent Franco-Siamese High Commission for the Mekong to supply the two Governments concerned with all useful information and to prepare all the rules required to ensure the most satisfactory degree of cooperation in the policing of navigation and the maintenance of health and security in the frontier region. These rules may provide for the punishment of offenders and shall be put into force simultaneously by the two Governments concerned, when both Governments have reached an agreement regarding them. Siam and Indo-China shall negotiate, as soon as possible, an agreement for the creation and constitution of the Permanent Franco-Siamese High Commission for the Mekong which shall, on the lines laid down in the present Article, define the Commission's organisation and method of working.
sea, and includes empty receptacles, residues in empty tanks or cargo holds which have been used previously for the carriage of dangerous goods unless such receptacles, empty tanks or cargo holds have been cleaned and dried, purged, gas freed or ventilated as appropriate or in the case of radioactive materials have been both cleaned and adequately closed; but the expression shall not include goods forming part of the equipment or stores of the ship in which they are carried.

Some other provisions of the Agreement also refer to dangerous goods.

Article 15 of the Agreement, which deals with documents and permits for inland waterway vessels, stipulates that Cross-Border Transportation Permits are classified into three categories. One of these three categories – the so-called “special category” – relates to permits for vessels carrying dangerous goods, with a maximum validity of 60 days.

Article 18 of the Agreement, which contains provision on pilotage, stipulates that pilotage is compulsory for, inter alia, vessels engaged in cross-border transportation carrying dangerous goods.

Article 20 of the Agreement, on criminal jurisdiction, provides in its fifth paragraph that the provisions of this article do not prejudice the rights of the Competent Authorities in the enforcement of the applicable laws and regulations relating to customs, public health and control measures over the safety of vessels and ports, the protection of human life, security of goods, immigration as well as the transportation of dangerous goods and environmental pollution, provided that such measures take due consideration of freedom of navigation as guaranteed by the Agreement.

These provisions should be taken into consideration when drafting harmonised rules for transportation of dangerous goods on the Mekong.

**Article 12 (1) of the Agreement reads:**

> The laws, rules and regulations under which freedom of navigation shall be exercised, including on immigration, customs, health, veterinary and phytological matters, shall, with a view to an improvement of navigational conditions, be harmonised through joint decision-making. Proposals for harmonised rules and regulations shall be made by the Mekong Navigation Facilitation Committee and submitted for approval to the Contracting Parties.

Accordingly, the Agreement provides a mechanism for the harmonisation of national laws, rules and regulation through joint decision making. A proposal for such harmonised rules must be made by the Mekong Navigation Facilitation Committee (MNFC) and has to be submitted to the Contracting Parties.

Article 16 of the Agreement provides, inter alia:

1. The laws and regulations on immigration, customs, health, veterinary and phytological matters and environment shall be enacted by the Contracting Parties.

2. The laws and regulations referred to under paragraph (1) shall conform to applicable international conventions and generally accepted international practice.

Article 32 of the Agreement mentions the harmonisation of regulations as one of the basic duties of the Mekong Navigation Facilitation Committee:

The Mekong Navigation Facilitation Committee is charged with:

a. ensuring the smooth implementation of the present Agreement and actively contributing to the realisation of its objectives;
b. improving and harmonising the regulations and other conditions under which freedom of navigation is exercised;

c. promoting and intensifying the cooperation between the Contracting Parties in all matters related to navigation in the Mekong river system and related activities; and

d. obtaining compliance with the provisions of the present Agreement (emphasis added).

Article 33 of the Agreement continues:

1. With a view to the harmonisation of laws, rules and regulations and the facilitation of navigation within the Mekong river system, the Mekong Navigation Facilitation Committee shall make proposals for the adoption and, if need be, the revision by the Contracting Parties of:

   [...] 

   f. rules and regulations on the transportation of dangerous goods;

   [...] 

2. The implementing regulations referred to in paragraph (1) shall conform to the present Agreement, other applicable international conventions and generally accepted international standards.

   [...] 

In other words, Article 33 (1) of the Agreement specifically instructs the MNFC to make proposals for the adoption by the Contracting Parties of rules and regulations on the transportation of dangerous goods. Pursuant to the provision at hand, harmonised rules on the carriage, handling and storage of dangerous goods can be adopted by the Governments of Cambodia and Viet Nam, upon a proposal from the MNFC. Any harmonised rules adopted within the MNFC can never be considered directly applicable. Such harmonised rules are merely proposals for subsequent national lawmaking.

Article 33 (2) of the Agreement furthermore provides that the implementing regulations should conform to generally accepted international standards.67

Article 34 (1) of the Agreement stipulates that the MNFC consists of an Executive Council, a Board, Working Groups and a Waterway Transportation Consultative Group. According to Article 34 (2) the MNFC Executive Council has the power to establish and adopt implementing regulations under the Agreement "subject to prior or subsequent approval by the respective Governments, which shall be requested in due time".

67 With regard to these international standards, see above, Chapter 6.2
6.4 NATIONAL LAWS AND REGULATIONS

6.4.1 Inventory of National Instruments in Cambodia

When drafting harmonised rules for the transportation of dangerous goods on the Mekong, existing national laws and regulations should be taken into consideration as well.

The following Cambodian laws and regulations are relevant to the carriage of dangerous goods by inland navigation.

A first relevant instrument is the Constitution of the Kingdom of Cambodia. Article 58 of the Constitution with regard to control, use and management of *i.e.* rivers, canals, streams and lakes stipulates:

*State property comprises land, underground mineral resources, mountains, sea, undersea, continental shelf, coastline, airspace, islands, rivers, canals, streams, lakes, forests, natural resources, economic and cultural centres, bases for national defence and other buildings determined as State property.*

*The control, use and management of State properties shall be determined by law.*

A second relevant instrument is the Decree of 28 October 1988, "referring to Contract and Other Liabilities". This Decree does not contain specific provisions on the transport of dangerous goods. However, Article 83 of the Decree contains a definition of the term carrier contract, which reads:

*A contract for carriage is a contract whereby a person who is a carrier undertakes to transport passengers, luggage [sic] or goods from one place to another for a fee determined by an agreement of the parties or a fee determined by the state.*

A third relevant instrument is the Sub-Decree on Water Pollution Control of 6 April 1999. Article 3 (i) of this Decree defines hazardous substances and reads:

*Hazardous substances refers to any substances that cause danger to living organisms, damage or break down any object or buildings or adversely impact and damage the environment. The types of hazardous substances are listed in the Annex 1 of this sub-decree.*

**Article 8 of the Sub-Decree stipulates:**

*The disposal of solid waste or any garbage or hazardous substances into public water areas or into public drainage system shall be strictly prohibited.*

*The storage or disposal of solid waste or any garbage and hazardous substances that lead to the pollution of water of the public water areas shall be strictly prohibited.*

Cambodia is preparing a national instrument to regulate transport over inland waterways. The draft law on inland waterway transportation contains an interesting provision concerning the transport of dangerous goods. Article 61 of the draft law reads:

[...]

*The carriage of dangerous goods shall be permitted by the competent authorities. The technical details for the carriage of dangerous goods by inland waterways ship shall be determined by the declaration of the minister in charge of public works and transport.*

[...]

The current status of the Draft Law on Inland Waterway Transportation is unknown.
On 30 June 2011 a draft of the “Prakas on Technical [sic] for carriage of dangerous goods by inland waterway in the Kingdom of Cambodia” was presented (the Prakas is briefly introduced in Chapter 3.3.3.1). The wording of the Prakas is not always clear. The aim of the Prakas is laid down in Article 1:

This Prakas shall aim to determine technical [sic] for carriage, loading and unloading of dangerous goods in the inland waterway of the Kingdom of Cambodia.

**Article 2 of the draft Prakas stipulates:**

The purpose of this Prakas shall be determined as follows:

To protect human life, animals, damage of public and private properties during carrying of dangerous goods in the inland waterway of the Kingdom of Cambodia.

To prevent the carriage of dangerous goods without technical procedure.

To maintain good order, security and environmental prevention pollution in the inland waterway.

**Article 3 of the draft Prakas reads:**

The scopes of this Prakas shall be applied as follows:

Any means of commercial inland waterway transport which is carried dangerous goods in the Kingdom of Cambodia, except vessels in properties of Ministry of Defense and Ministry of Interior.

Person who runs businesses or other services which involving of carrying of dangerous goods.

Shipowners of all kinds of ship, mobile floating barges, ports, and landing stages.

Article 4 of the draft Prakas divides the dangerous goods into classes following the IMDG Code classification.

**Article 5 of the draft Prakas stipulates:**

Carriage of dangerous goods in the inland waterway shall be applied to European Agreement concerning the international carriage of dangerous goods by inland waterway ADN.

Article 9 of the draft Prakas obliges all vessels carrying dangerous goods to have a dangerous goods manifest, an example of which can be found in annex to the draft Prakas.

The current status of this draft Prakas is unknown.

It is furthermore reported that the following relevant circulars are currently being prepared by the Inland Waterway Transport Department of the Ministry of Public Works and Transport (MPWT) (see also Chapter 4.3.2.3):

- Circular on Waste Management from Ships in Inland Waters;
- Circular on Dangerous Goods Transportation Technique on Inland Waterways;
- Circular on the License for Barges and Ships;
• Circular on Protection and Prevention of Traffic Accidents along Inland Waterways;
• Circular on Management of Means of Waterway Transport.

The Cambodian laws, decrees and sub-decrees on environmental protection, natural resources management, protected areas and land-use planning are listed in Chapter 7.2.1. In the same chapter, reference is made to the 1999 Sub-Decree on the Environmental Impact Assessment Process, the Decree on Water Pollution Control, the Sub-Decree on Solid Waste Management and the Sub-Decree on Air Pollution, Vibration and Noise Disturbance.

In addition, reference can also be made to the following instruments which are discussed elsewhere in this volume:
• Prakas on the Formation of Private Port Management Commission (see Chapter 3.3.3.1);
• Sub-Decree No. 218 of 24 December 2008 on the Establishment of Cambodian Maritime Institute (CMI) (see Chapter 3.3.3.1);
• Law on Fire Prevention and Firefighting of 2001 and its implementing decree and circulars (see Chapter 3.3.4.1).

6.4.2 Inventory of National instruments in Lao PDR

The following laws of the Lao PDR contain provisions which are relevant to the transportation of dangerous goods by inland waterways.

A first relevant instrument is the Law on Water and Water Resources of 11 October 1996. According to Article 1, the Law determines the necessary principles, regulations, and measures relating to the administration, exploitation, use and development of water and water resources in the Lao PDR, in order to preserve the sustainability of water and water resources, to ensure that water is available in the volume and quality necessary for the people’s living requirements, to promote agriculture, forestry, and industry, to develop the national economy, and to ensure that no damage is caused to the environment.

Article 42 of the Law contains provisions on preventing polluted water and waste water and reads:

**Polluted water is water which is not clean or water which has been used, which can be reused after being recycled. Waste water is water which has been used and which has dirty substances in it or has chemicals mixed in it so as to cause it to lose its characteristics as water, being dangerous to the environment.**

**Individuals, legal entities or organisations must adhere to regulations regarding the prevention of waste water.**

**It is prohibited to undertake any activity that may cause damage to water or water resources, the environment, animals, and the living condition of the people; it is prohibited to dump or discharge waste of any kind into water sources so as to create polluted water or waste water containing pollutants or waste in excess of the discharge standard.**

**Polluted water, waste water, and waste that exceed the discharge standard must first be treated before they may be dumped or discharged into water sources; this includes: water from plants, factories, abattoirs, hospitals, and others.**
Should any individual discover any act referred to above, he must report it to the village administrative authorities or to a responsible agency for timely resolution.

A second relevant instrument is the Land Transport Law of 12 April 1997. According to Article 1, the Land Transport Law has the function of "determining the regime for the administration, organisation, and operation of the domestic, international and cross-border transport of goods and of passengers in order to efficiently and safely expand travel and distribution of goods, using the country’s potential in respect of its geographical location at the centre of countries in the region to contribute to socio-economic development and international cooperation”.

Article 2 of the Law defines land transport as "the transport of goods, passengers, materials, commodities, and animals via roads by means of various types of vehicles and motorised mechanisms, including tractors carrying goods, passengers and animals, and automobiles ranging from three-wheeled vehicles to all types of automobiles, including different types of trucks". As such, the Law does not apply to transportation by waterways.

Nevertheless, Article 23 of the Law contains an interesting provision on dangerous goods which reads:

*Transport of Dangerous Materials.*

The transport of dangerous materials, such as: chemical materials, flammable materials, explosive materials, whether by transport enterprise, specialised transport or personal transport, must receive approval from the Ministry of Communication, Transport, Post and Construction in coordination with concerned sectors and must strictly comply with the regulations regarding the transport of dangerous materials.

It is not clear what is meant by the above mentioned "regulations regarding the transport of dangerous materials".

Other relevant instruments include the Draft Rule on Safety of the Port, the Draft Rule on Dry Port, the Draft Regulation on Handling and Storage of Dangerous Goods and the Draft Rule on Inland Waterway Transportation of Dangerous Goods (see also Chapter 3.3.6.1). At this stage, these instruments are only available in Lao.

In addition, reference can be made to the following regulations, guidelines, technical standards and notifications that currently apply to inland waterway transportation in Lao PDR (already presented in Chapter 4.3.5.1):

- Guideline on River Traffic Regulation No. 219/MCTPC of 19 April 2000;
- Guideline on River Transport Regulation No. 104/MCTPC of 12 January 2000;
- Guideline on Request for Ship Building Permission No. 1442/MCTPC of 26 January 1996;
- Notification for Operating of Passenger Speed Boat No. 1663/MCTPC of 1 June 1997;
- Standard of Technical Inspection for Ship and Ferry No. 0030/Transport Section of 8 January 1996;
- Regulation on transport business establishment, forwarders and maintenance services owned by state, group of people, state-private, private and individual No. 1423/CTPC of 22 June 1996;
- Regulation on Truck and Transport Boat Association No. 1414/CTPC of 22 July 1996.

Furthermore, reference can be made to the relevant environmental legislation, which will be further discussed in Chapter 7.2.2.1 and which includes the following instruments:
• Environmental Protection Law No. 02/99/NA of 3 April 1999;
• Forestry Law of 2005;
• National Heritage Law of 2005;
• Land Law of 1997;
• Decree on the Environment Protection Fund No. 146/PM of 6 June 2005;
• Environmental Assessment Decree of 16 February 2010;
• EIA Regulation for Hydropower Development Sector of 2001;
• EIA Regulation for Road Development Sector of 2003;
• EIA Regulation for Industry Sectors of 2005,
• National Environmental Standard, No. 2734/PMO, WREA of 7 December 2009.

6.4.3 Inventory of National Instruments in Thailand

The following Thai laws and regulations contain provisions which are relevant to the carriage of dangerous goods by inland waterway.

The Navigation in Thai Waters Act of 1913, as amended in 1992, contains several provisions on the carriage of dangerous goods. The wording of the Act is not always clear, presumably due to the translation into English.

Section 189 of the Navigation in Thai Waters Act stipulates:

The Harbor Master with the approval of the Minister of Communication shall have power to announce in the Government Gazette to classify the things and the thing that may cause danger.

Section 190 of the Act reads:

The Minister of Communication shall have power to issue the Ministerial Regulations prescribing the rules and means concerning the packing, storing, classifying, providing and showing the sign, preparing the necessary document, and transshipment the things that may cause danger during transportation under this chapter.

Such Ministerial Regulations shall become effect upon their publication in the Government Gazette.

Section 191 of the Act reads:

The transshipment of anything that may cause danger from vessel to vessel, transferring from vessel to land, or transferring from land to vessel. The master or the representative of vessel must inform the harbour Master least 24 hours before transferring, and do not transfer until receive the permission from the Harbor Master.

The Harbor Master with the approval of the Minister of Communication shall have power to announce in the Government Gazette to except the what type of vessel or what type of transferring that is not in force of provision under paragraph one.
Section 192 of the Act reads:

The Harbor Master with the approval of the Minister of Communication shall have power to announce in the Government Gazette, what type of vessel that carry things that may cause danger must fly the flag or show the sign or give any warning as prescribed.

Section 193 of the Act stipulates:

The sending of things that may cause danger by ship, the sender must prepare the sticker showing clearly the dangerous condition of that things on the box, and notify by letter concerning the dangerous condition of that things including the name and address of sender tot the master for information while of before bringing that things to the vessel.

Section 194 of the Act reads:

The master must check carefully, do not allow to bring the thing that may cause danger to vessel with the offense to the Ministerial Regulation issued under Section 190. In case of any doubt concerning the hiding the thing that may cause danger to a vessel, the master may deny to receive that box, except the owner or the possessor allow to open that box for inspection.

Section 195 of the Act stipulates:

Any person offending against any of the provisions of Section 192 or Section 194 paragraph one shall be punished with imprisonment not exceeding three months or with a fine not exceeding then thousand Bath or both.

Section 196 of the Act reads:

Any person offending against any of the provisions of Section 190, Section 191 or Section 193 paragraph two shall be punished with an imprisonment not exceeding six months or with a fine not exceeding twenty thousand Bath or both.

A second relevant instrument is the Hazardous Substance Act of 29 March 1992, as amended. This Act (which is briefly referred to in Chapter 3.3.5.1) establishes a Hazardous Substance Committee (Sec. 6) and contains provisions on duties and civil liabilities (Chapter 3) and penalties (Chapter 4). The Hazardous Substance Act does not contain specific provisions on the transportation of dangerous goods.

The Marine Department of the Thai government issued several notifications on the carriage of dangerous goods by inland waterways.

A first relevant notification of the Marine Department is Notification no. 353/2529 of 15 December 1986 which concerns the classification of dangerous substances and articles (see also Chapters 3.3.5.1 and 7.2.1.1). Thailand – as a party to the SOLAS convention – follows the IMDG Code classification of dangerous goods, which is duplicated in the notification.

A second relevant notification of the Marine Department is Notification no. 411/2543 of 22 December 2000 concerning safety measures for the loading/discharging of oil and chemicals (see also Chapters 3.3.5.1 and 7.2.1.1). This notification reads:

1. The owner or operator of port loading/discharging oil or chemicals shall develop an action...
plan for the prevention and response of marine pollution caused by oil or chemical spillage in accordance with the Marine Department’s guidelines. Such plan shall be approved by the Marine Department before implemented.

The Marine Department’s Working Group shall finish consideration of the action plan within 60 days since the day receiving the submission. If the consideration prolongs beyond such period, it shall be deemed that the action plan has been approved by the Marine Department.

If the Marine Department notifies the submitting port owner or operator of its disapproval for subsequent revision/improvement of the action plan. The Marine Department’s Working Group shall finish consideration of the revised action plan within 30 days since the day receiving the revised action plan. If the consideration prolongs beyond such period, it shall be deemed that the revised action plan has been approved by the Marine Department.

2. Preparation of appliances/equipment for emergency response:

2.1 The owner or operator of port loading/discharging oil products shall always maintain all appliances/equipment necessary for the oil spill response in accordance with the action plan for the prevention and response of marine pollution caused by oil spill approved by the Marine Department. Such appliances/equipment must be ready for use at all times, particularly during the loading/discharging of oil products.

2.2 In case certain chemicals are needed for oil spill response, chemicals certified by national authorities or international organizations shall be used subject to prior approval by the Marine Department.

2.3 The owner or operator of port loading/discharging chemicals shall always maintain all appliances/equipment necessary for the response of chemical spillage or fire in accordance with the action plan for the prevention and response of marine pollution caused by chemicals approved by the Marine Department. Such appliances/equipment must be ready for use at all times, particularly during the loading/discharging of chemicals.

3. Before the loading/discharging of oil and chemicals, the Harbour Master and Ship Master shall carry out a joint inspection between the ship and port by using a Ship/Shore Safety Check List as recommended by the International Safety Guide for Oil Tankers and Terminals.

The port owner or operator shall maintain the Ship/Shore Safety Check List for the purpose of inspection not less than 3 months. If there is any legal dispute, the Ship/Shore Safety Check List shall be kept until the dispute is legally settled.

In case of the ship-to-ship loading/discharging of oil or chemicals, the Masters of both ships shall carry out a joint inspection of safety of both vessels before the loading/discharging commences. The joint inspection will be carried out in accordance with the Ship to Ship Transfer Guide developed by the International Chamber of Shipping and the oil Companies International Marine Forum. The Masters of both ships shall maintain the joint inspection report for verification not less than 3 months. If there is any legal dispute, the joint inspection report shall be kept until the dispute is legally settled.

A third relevant notification is Notification No. 412/2543 also of 22 December 2000 (see also Chapters 3.3.5.1 and 7.2.1.1). This notification contains guidelines for the action plan for combatting marine pollution at ports where dangerous goods are loaded/discharged.

The Safety Measures for Transportation of Petroleum Products on Mekong River (Thailand) constitute another relevant instrument (see also Chapters 3.3.5.1 and 7.2.1.1). These Safety Measures have been developed with a view to serving as a guideline for management and control to ensure safe
transportation. They also provide a guideline for a response to unexpected incidents of oil spills. In addition, they contain provisions on the compensation of operational expenses and damages caused by marine pollution as a result of oil spill.

Reference can furthermore be made to the following instruments which are already presented above:

- *Port Authority of Thailand Act* (B.E. 2494) as amended in B.E. 2543 (see Chapter 3.3.5.1);
- *Ship Survey Regulation Act* (B.E. 2534) (see Chapter 4.3.4.1);
- *Thai Vessel Act* (B.E. 2481) (see Chapter 4.3.4.1).

Moreover, a number of legal instruments deal with environmental issues and will be further discussed below (see Chapter 7.2.3.1). These instruments include:

- *Enhancement and Conservation of the National Environmental Quality Act* (B.E. 2535);
- *Public Health Act* (B.E. 2535);
- *Fishery Act* (B.E. 2496);
- *Factories Act* (B.E. 2535);
- *Public Cleansing Act* (B.E. 2535);
- *Industrial Estate Authority of Thailand Act* (B.E. 2522);
- *Land Transportation Act* (B.E. 2522);
- *Industrial Products Standards Act* (B.E. 2511);
- *Petrol Act* (B.E. 2521);
- *Land Traffic Act* (B.E. 2535);
- *Highway Act* (B.E. 2535);
- *Building Control Act* (B.E. 2522);
- *Energy Conservation Promotion Act* (B.E. 2535);

### 6.4.4 Inventory of National Instruments in Viet Nam

The following Vietnamese laws and regulations contain provisions that are relevant to the carriage of dangerous goods by inland navigation.

A first relevant instrument is the *Decree No. 40-CP on Ensuring Navigation Orders and Safety on Inland Waterways* by the government dated 5 July 1996. Article 31 (2) of this Decree stipulates:

*The passenger transport means must not carry toxic, explosive, inflammable and other dangerous substances which affect the health and life of passengers.*

**Article 32 of this Decree reads:**

*A means of transport carrying toxic goods, explosive and other dangerous substances must get permission from the competent State agency and must be marked with a special sign as prescribed. It must strictly observe the prescriptions on the prevention and fight against toxicity, fires and explosions.*
A second relevant instrument is the Regulation on Inland Waterway Cargo Transportation, Handling, Consignment and Preservation. This Regulation was issued together with Decision 1895/1999/QD-BGVTV of 30 July 1999 promulgating the regulation on inland waterway cargo transportation, handling, consignment and preservations. Article 1 of the Regulation reads:

[...]

The transportation, handling, consignment and preservation of dangerous goods shall comply with separate regulations.

This provision probably refers to Decree No. 29/2005/ND-CP of 10 March 2005, which will be discussed below.

A third relevant instrument is the Law No. 23/2004/QH11 of 15 June 2004 on Inland Waterway Navigation. Article 1 defines the scope of the Law and reads:

This Law provides for inland waterway navigation activities; conditions to ensure safety for inland waterway navigation infrastructures, vessels and people participating in inland waterway navigation and transport.

Article 2 of the Law stipulates:

This Law applies to organizations and individuals involved in inland waterway navigation activities.

In cases where international agreements which the Socialist Republic of Vietnam has signed or acceded to contain provisions different from those of this Law, the provisions of such international agreements shall apply.

Article 95 of the Law contains provisions on transport of dangerous cargoes and stipulates:

1. Vessels engaged in the transport of dangerous cargoes must be permitted by competent State agencies and have unique codes. Transporters must strictly observe regulations on prevention and control of hazards, fires and explosions; must have plans on coping with oil-spill incidents when transporting petrol and oil.

2. The Government shall prescribe the list of dangerous goods and the transport of dangerous goods on inland waterways.

The list of dangerous goods as mentioned in Article 95 (2) of Law No. 23/2004/QH11 is laid down in Decree No. 29/2005/ND-CP of 10 March 2005 promulgating the list of dangerous goods and the inland waterway transportation thereof (the Decree is briefly touched upon in Chapter 3.3.4.1).

This Decree only concerns the transportation of dangerous goods on inland waterways, but excludes transportation of dangerous goods on inland waterways in service of armed forces’ defence and security purposes (Art. 1).

Article 2 (1) of the Decree stipulates:

This Decree applies to domestic as well as foreign organizations and individuals engaged in the transportation of dangerous goods on inland waterways.
Article 2 (2) of the Decree reads:

In cases where the international agreements which the Socialist Republic of Vietnam has signed or acceded to contain provisions different from those of this Decree, the provisions of such international agreements shall apply.

Article 3 of the Decree contains definitions and reads:

1. Dangerous substances mean substances or compounds in a gaseous, liquid or solid form which may cause harms to human life and health, environment, safety or national security.

2. Dangerous goods mean those containing dangerous substances which may cause harms to human life and health, environment, safety or national security when being transported on inland waterways.

The second chapter of the Decree provides a classification and a list of dangerous goods. This classification is similar to that of the IMDG Code. Dangerous goods are divided into 9 different classes and divisions:

**Class 1:** Explosives
- Division 1.1: Explosives
- Division 1.2: Industrial explosive materials

**Class 2:** Flammable or Toxic Gases
- Division 2.1: Flammable gases. identification numbers of a group of two or three
- Division 2.2: Toxic gases

**Class 3:** Flammable Liquids

**Class 4:** Flammable Solids
- Division 4.1: Flammable solids, self-active
- Division 4.2: Substances prone to self combustibility
- Division 4.3: Substances which on contact with water emit flammable gases

**Class 5:** Oxidizing Substances
- Division 5.1: Oxidizing substances
- Division 5.2: Organic peroxides

**Class 6:** Toxic or Infectious Substances
- Division 6.1: Toxic substances
- Division 6.2: Infectious substances

**Class 7:** Radioactive Substances

**Class 8:** Corrosives

**Class 9:** Other Dangerous Substances and Goods
The second chapter of the Decree also deals with rules on packaging, labels and symbols (Art. 6) and with responsibilities to formulate, amend and supplement regulations on dangerous goods (Art. 7).

The third chapter of the Decree contains provisions on the transportation of dangerous goods. In this chapter rules are laid down concerning “conditions on persons involved in transportation of dangerous goods” (Art. 8), “loading and unloading of dangerous goods” (Art. 9), “conditions on vessels carrying dangerous goods” (Art. 10), “responsibilities of dangerous goods carriers” (Art. 11), “responsibilities of shipmasters and vessel operators” (Art. 12), “responsibilities of dangerous goods transportation hirers” (Art. 13), “responsibilities of local People’s Committees” (Art. 14), “competence to grant dangerous goods transportation permits” (Art. 15) and “contents of, procedures and time limits for granting dangerous goods transportation permits” (Art. 16).

Chapter Four of the Decree contains provisions on the inspection, examination and handling of violations. Chapter Five contains implementation provisions.

A following relevant instrument is the Decree of 19 October 2009 on multimodal transport, which holds several provisions concerning the liability of the consignor when transporting dangerous goods through a multimodal transport mode.

**Article 25 of the Decree concerns the liability to provide information on goods:**

1. The consignor or his/her representative shall accurately provide the multimodal transport operator with the following information on the goods:
   a) *Particulars relating to the goods for insertion in the multimodal transport document:*
      - The general nature, marks, number, weight, volume and quality of the goods; and
      - The apparent condition of the goods.
   b) *Papers related to the goods as provided for by law or agreed in the trading contract.*

2. In addition to the liabilities mentioned in Clause 1 of this Article, the consignor or his/her representative that hands over dangerous goods to the multimodal transport operator for carriage shall:
   a) *Supply the multimodal transport operator with necessary documents and instructions on the danger of the goods and, if necessary, the precautions to be taken;*
   b) *Mark or label dangerous goods in accordance with treaties or current national law; and*
   c) *Appoint escorts, if it is so required for dangerous goods.*

**Article 26 (2) of the Decree, which deals with liability for the loss of goods, stipulates:**

> When the consignor or his/her representative fails to comply with the provisions of Clause 2, Article 25 of this Decree and the multimodal transport operator has no way to know the particulars and danger of such goods, the consignor shall indemnify the multimodal transport operator against any loss resulting from the carriage of such goods, even they may be unloaded, destroyed or rendered innocuous by the multimodal transport operator, as the circumstances may require, if dangerous goods become an actual danger to life or property.
A number of instruments that apply to inland waterway ports and landing stages were already dealt with in Chapter 3.3.4.1 and include the following decision and circulars:

- **Decision No. 27/2008/QD-BGTVT** of 4 December 2008 regulating the responsibilities and authorities of VIWA;
- **Circular No. 25/2010/TT-BGTVT** of 31 August 2010 regulating the implementation of inland waterway ports and landing stages;
- **Circular No. 34/2010/TT-BGTVT** of 8 November 2010 regulating the operation of the Port Authority (port state control) systems; and
- **Circular No. 101/2008/TT-BTC** of 11 November 2008 regulating the implementation for fee, charge and fine collection of inland waterway ports and landing stages.

Reference can furthermore be made to the following instruments that relate to maritime transport and that were discussed in Chapter 4.3.3.3:

- **Maritime Code of Viet Nam**;
- **Decree 30/CP on Activities of People and Foreign Navigation Facilities in Viet Nam’s Waters of 29 January 1980**;
- **Decree No. 13/CP on Regulation on the Management of Maritime Shipping at Seaports and in the Maritime Navigable Zones of Viet Nam of 25 February 1994**;
- **Decree on the Tasks of Viet Nam’s Marine Police including the Task of Marine Environment Protection of 28 March 1998**;
- **Decree No. 160/2003/ND-CP on Administering Maritime Activities at Vietnamese Ports and Maritime Waters of 18 December 2003**.

In Chapter 4.3.3.4, the following instruments that regulate inland waterway transportation were briefly presented:

- **Circular No. 20/2011/TT-BGTVT** on the rules for management of passenger transport;
- **Circular No. 21/2011/TT-BGTVT** on the rules for registration of inland vessels;
- **Decision No. 25/QD-BGTVT** on the rules for registry of inland vessels;
- **Decision No. 33/2004/QD** on the rules for management of cargo transport;
- **Decision No. 34/2011/QD** on the rules for inland waterway port authority; and
- **Circular No. 14/2011/TT-BGTVT** on the rules for crew members on inland waterways).

In addition, the following two legal instruments that were presented in Chapter 4.3.3.4 contain standards for vessels carrying dangerous goods:

- **Decision No. 28/2004/QD-BGTVT**; and
- **Decree No. 125/2005/ND-CP**.
Furthermore, reference can be made to **Decision No. 63/2000/QD-Ttg of 7 June 2000** and **Decision No. 129/2001/QD-Ttg of August 2001**, discussed in Chapter 4.3.3.6, which both regulate the response to oil incidents.

The environmental legislation, which will be further discussed in Chapter 7.2.4.1, includes the following legal instruments:

- **Law on Protection of the Environment** of 1994;
- **Water Law** of 20 May 1998;
- **Decree 80/CP/2006** on environmental impact assessment, pollution, disaster control and monitoring (amended and supplemented by **Decree No. 21/2008/ND**);
- **Decree 117/2009/ND-CP** on increased violation for environmental pollution;
- **Decree No. 120/2008/ND-CP** on regulations for river basin management of 1 December 2008;
- **Circular No. 04/2008/TT-BTNMT** on certification and inspection of environmental protection schemes;
- **Circular No. 05/2008/TT-BTNMT** on Strategic Environmental Assessment (SEA), EIA and environmental protection commitment;
- **Decision No. 2242/QD/KHKT-PC** by the Minister of Transport on regulation of environmental protection in the transport sector of 12 September 1997;
- **Decision No. 32/2004/QD-BGTVD** of the Minister of Transport on the organisation and operation of ports of 21 December 2004;
- **Industry Standard 22 TCN264** on rules to prevent river pollution caused by vessels, 2006.

The specific legal instruments related to environmental impact assessment, which will be further dealt with in Chapter 7.2.4.2 include:

- **Circular 490/1998/TT-BKHCMT** which requires the submission of an EIA report and provides guidance on the EIA process;
- **Decree No. 143/2004/ND-CP** which describes the appraisal process for EIA’s;
- **Circular No. 08/2006 TT-BTNMT** which provides further guidance on strategic environmental assessment, EIA and environmental protection commitment;
- **Decree No. 21/2008/ND-CP**;
- **Decree No. 80/2006/ND-CP**.

Finally, reference can be made to **Decree 117/2009/ND – CP** which provides for guidelines for handling law violations in the field of environmental protection (see further below, Chapter 7.2.4.3).
6.5 INTERNATIONAL BENCHMARKS

In this section, we will analyse a number of agreements and regulations concerning the carriage of dangerous goods on international waterways. In Europe, there is a tendency towards harmonisation, with an important role for the *European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)*. In the United States, the transportation of dangerous goods on inland waterways is regulated by federal law and regulations concerning transportation. Both legal regimes will be discussed below.

The instruments presented below can be used as a benchmark for the drafting of harmonised rules for the transportation of dangerous goods on the Mekong.

6.5.1 European Inland Waterways

6.5.1.1 Rules of Safety for the Transportation of Dangerous Goods on the Rhine

Since the 19th century (1838), the Central Commission for the Navigation of the Rhine (CCNR) has drawn up specific rules for the transportation of dangerous goods on the Rhine (cannon powder, explosives, poisonous and corrosive substances, etc.)

In 1972, the CCNR adopted the *Rules of Safety for the Transportation of Dangerous Goods on the Rhine (ADNR)*, which were regularly updated.

The ADNR was drafted upon the model of the European Agreement concerning the international carriage of dangerous goods by road (ADR), adopted in 1957 under the aegis of the United Nations Economic Commission for Europe (UNECE).

A new version of the ADNR came into force on 1 January 1995. In a bid to harmonise international regulations, the CCNR amended the ADNR to reflect the amendments made to ADR, as well as to the regulations concerning the international carriage of dangerous goods by rail (RID) and to the IMDG Code.

6.5.1.2 European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

In the mid 90s, European States felt the need for a Europe-wide harmonisation in the field of international carriage of dangerous goods by inland waterways. The UNECE, which comprises 56 European Member States, was viewed as the better venue to achieve this goal. Following a proposal by the CCNR, and with the active participation thereof, the UNECE transformed a previously non-binding resolution into an international agreement akin to the ADR. The *European Agreement concerning International Carriage of Dangerous Goods by Inland Waterway (ADN)* was signed on May 26, 2000 in Geneva and entered into force on February 29, 2008. The ADN consists of an Agreement and annexed Regulations, the content of which is identical to the ADNR.

The Regulations annexed to this agreement were based on the terms of the ADNR. The CCNR decided that following a period of transition the ADN regulation would supersede the ADNR. This took effect on 1 January 2011.

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According to the Preamble of the ADN, the aim of the Contracting Parties is to establish by joint agreement uniform principles and rules, for the purpose of:

- increasing the safety of international carriage of dangerous goods by inland waterways;
- contributing effectively to the protection of the environment, by preventing any pollution resulting from accidents or incidents during such carriage; and
- facilitating transport operations and promoting international trade.

**Article 1 of the ADN defines the scope of the Agreement. It reads:**

1. *This Agreement shall apply to the international carriage of dangerous goods by vessels on inland waterways;*

2. *This Agreement shall not apply to the carriage of dangerous goods by seagoing vessels on maritime waterways forming part of inland waterways; and*

3. *This Agreement shall not apply to the carriage of dangerous goods by warships or auxiliary warships or to other vessels belonging to or operated by a State, provided such vessels are used by the State exclusively for governmental and non-commercial purposes. However, each Contracting Party shall, by taking appropriate measures which do not impair the operations or operational capacity of such vessels belonging to or operated by it, ensure that such vessels are operated in a manner compatible with this Agreement, where it is reasonable in practice to do so.*

The ADN does not apply to the carriage of dangerous goods by seagoing vessels on maritime waterways forming part of inland waterways, as this type of transport is covered by the IMDG Code.

According to Article 2 (1) of the ADN, the Regulations annexed to the Agreement form an integral part thereof. These annexed Regulations include (a) provisions concerning the international carriage of dangerous goods by inland waterways (b) requirements and procedures concerning inspections, the issue of certificates of approval, recognition of classification societies, derogations, special authorizations, monitoring, training and examination of experts (c) general transitional provisions and (d) supplementary transitional provisions applicable to specific inland waterways (Art. 2 [2]).

**Article 3 of the ADN contains definitions:**

For the purposes of this Agreement:

a. “vessel” means an inland waterway or seagoing vessel;

b. “dangerous goods” means substances and articles the international carriage of which is prohibited by, or authorized only on certain conditions by, the annexed Regulations;

c. “international carriage of dangerous goods” means any carriage of dangerous goods performed by a vessel on inland waterways on the territory of at least two Contracting Parties;

d. “inland waterways” means the navigable inland waterways including maritime waterways on the territory of a Contracting Party open to the navigation of vessels under national law;

e. “maritime waterways” means inland waterways linked to the sea, basically used for the traffic of seagoing vessels and designated as such under national law;
f. “recognized classification society” means a classification society which is in conformity with the annexed Regulations and recognized, in accordance with the procedures laid down in these Regulations, by the competent authority of the Contracting Party where the certificate is issued;

g. “competent authority” means the authority or the body designated or recognized as such in each Contracting Party and in each specific case in connection with these provisions;

h. “inspection body” means a body nominated or recognised by the Contracting Party for the purpose of inspecting vessels according to the procedures laid down in the annexed Regulations.

Article 6 of the ADN stipulates that each Contracting Party retains the right to regulate or prohibit the entry of dangerous goods into its territory for reasons other than safety during carriage.

**Article 10 of the ADN stipulates:**

**Contracting Parties**

1. Member States of the Economic Commission for Europe whose territory contains inland waterways, other than those forming a coastal route, which form part of the network of inland waterways of international importance as defined in the *European Agreement on Main Inland Waterways of International Importance* (AGN) may become Contracting Parties to this Agreement:

a. by signing it definitively;

b. by depositing an instrument of ratification, acceptance or approval after signing it subject to ratification, acceptance or approval; and

c. by depositing an instrument of accession.

2. The Agreement shall be open for signature until 31 May 2001 at the Office of the Executive Secretary of the Economic Commission for Europe, Geneva. Thereafter, it shall be open for accession.

3. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary General of the United Nations.

Article 17 of the ADN establishes an Administrative Committee. This Committee shall consider the implementation of the ADN, any amendments proposed thereto and measures to secure uniformity in the interpretation and application thereof. The Contracting Parties are members of the Administrative Committee. The Committee may decide that the States referred to in Article 10, paragraph 1 of the Agreement which are not Contracting Parties, any other Member State of the Economic Commission for Europe or of the United Nations or representatives of international intergovernmental or nongovernmental organizations may, for questions which interest them, attend the sessions of the Committee as observers (Art. 17 [2]).

Article 18 of the ADN establishes a Safety Committee. This Committee shall consider all proposals for the amendment of the Regulations annexed to the Agreement, particularly as regards safety of navigation in relation to the construction, equipment and crews of vessels.
The annexed Regulations, which run to more than 500 pages, have the following structure:

- Part 1: General provisions;
- Part 2: Classification;
- Part 3: Dangerous goods list, special provisions and exemptions related to limited and excepted quantities;
- Part 4: Provisions concerning the use of packagings, tanks and bulk cargo transport units;
- Part 5: Consignment procedures;
- Part 6: Requirements for the construction and testing of packagings (including IBCS and large packagings), tanks and bulk cargo transport units;
- Part 7: Requirements concerning loading, carriage, unloading and handling of cargo;
- Part 8: Provisions for vessels crews, equipment, operation and documentation; and
- Part 9: Rules for construction.


In the mid 90s, the European Union set out uniform regulations for the transport of dangerous goods by road and by rail, which provided for the application of the ADR and RID rules. In 2008, these directives were repealed and replaced by Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods. This directive also lays down provisions in relation to inland waterways.

The Preamble of the Directive recalls that the majority of Member States are contracting parties to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), subject to the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) and, in so far as is relevant, contracting parties to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN).

The Preamble furthermore recalls that the ADR, RID and ADN lay down uniform rules for the safe international transport of dangerous goods. According to the Preamble such rules should also be extended to national transport in order to harmonise across the Community the conditions under which dangerous goods are transported and to ensure the proper functioning of the common transport market.

The scope of the Directive is defined in its Article 1, the first paragraph of which reads:

This Directive shall apply to the transport of dangerous goods by road, by rail or by inland waterway within or between Member States, including the activities of loading and unloading, the transfer to or from another mode of transport and the stops necessitated by the circumstances of the transport.

It shall not apply to the transport of dangerous goods:

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by vehicles, wagons or vessels belonging to or under the responsibility of the armed forces;

b. by seagoing vessels on maritime waterways forming part of inland waterways;

c. by ferries only crossing an inland waterway or harbour; or

d. wholly performed within the perimeter of an enclosed area.

Article 2 of the Directive contains definitions. ‘ADN’ is defined as the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways, concluded at Geneva on 26 May 2000, as amended (Art. 2 [3]). ‘Vessel’ is defined as any inland waterway or seagoing vessel.

Article 3 of the Directive contains general provisions.

It reads:

1. Without prejudice to Article 6, dangerous goods shall not be transported in so far as this is prohibited by Annex I, Section I.1, Annex II, Section II.1, or Annex III, Section III.1.

2. Without prejudice to the general rules on market access or the rules generally applicable to the transport of goods, the transport of dangerous goods shall be authorised, subject to compliance with the conditions laid down in Annex I, Section I.1, Annex II, Section II.1, and Annex III, Section III.1.

Annex III of the Directive relates to transport by inland waterway.

It reads:

III. 1 ADN

Annexed Regulations to the ADN, as applicable with effect from 1 July 2009, as well as Articles 3(f), 3(h), 8(1), 8(3) of the ADN, it being understood that “contracting party” is replaced by “Member State” as appropriate.

III. 2 Additional transitional provisions

1. Member States may maintain restrictions on the transport of substances containing dioxins and furans applicable on 30 June 2009.

2. Certificates, in accordance with Annex III, Section III.1 (8.1), issued before or during the transitional period referred to in Article 7(2) shall be valid until 30 June 2016, unless a shorter period of validity is indicated in the certificate itself.

III. 3 National derogations

[none listed]

Article 4 of the Directive contains provisions on the transport of dangerous goods between EU Member States and third countries.

The Article stipulates:

The transport of dangerous goods between Member States and third countries shall be authorised in so far as it complies with the requirements of the ADR, RID or ADN, unless otherwise indicated in the Annexes.

Article 5 of the Directive contains provisions on restrictions on grounds of transport safety.
Article 5 (1) stipulates:

Member States may on grounds of transport safety apply more stringent provisions, with the exception of construction requirements, concerning the national transport of dangerous goods by vehicles, wagons and inland waterway vessels registered or put into circulation within their territory.

Following this Directive, all Member States of the European Union are bound by the regulations provided in the ADN Agreement. Nevertheless, according to Article 6 of the Directive, some derogations are possible.

Article 6 stipulates:

1. Member States may authorise the use of languages other than those provided for in the Annexes for transport operations performed within their territories.

2. a. Provided that safety is not compromised, Member States may request derogations from Annex I, Section I. 1, Annex II, Section II. 1, and Annex III, Section III. 1, for the transport within their territories of small quantities of certain dangerous goods, with the exception of substances having a medium or high level of radioactivity, provided that the conditions for such transport are no more stringent than the conditions set out in those Annexes.

b. Provided that safety is not compromised, Member States may also request derogations from Annex I, Section I. 1, Annex II, Section II. 1, and Annex III, Section III. 1, for the transport of dangerous goods within their territory in the case of:

i) local transport over short distances; or

ii) local transport by rail on particular designated routes, forming part of a defined industrial process and being closely controlled under clearly specified conditions.

The Commission shall examine in each case whether the conditions laid down in subparagraphs (a) and (b) have been met and shall decide, in accordance with the procedure referred to in Article 9(2), whether to authorise the derogation and to add it to the list of national derogations set out in Annex I, Section I. 3, Annex II, Section II. 3, or Annex III, Section III. 3.

[...]

Article 10 of the Directive stipulates that EU Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 30 June 2009 at the latest.

6.5.1.4 The Sava River Basin

The Sava is a river in Southeast Europe, a right side tributary of the Danube river at Belgrade. The Sava is 947 kilometres long and flows through Slovenia, Croatia, along the northern border of Bosnia and Herzegovina, and through Serbia.

In 2005 the International Sava River Basin Commission (ISRBC) was established. This Commission is in charge of the implementation of the Framework Agreement on the Sava River Basin (FASRB).

On 8 June 2000, the Sava River Basin Commission adopted Rules for the Transport of Dangerous goods on the Inland Waterways on the Sava River Basin.\(^{71}\)
The scope of these Rules is laid down in Article 1, which reads:

1. These Rules shall apply to the transport of dangerous goods on the inland waterways on the Sava River from the river kilometre 0.00 to Brežice, on the Kolubara River from the river kilometre 0.00 to the river kilometre 5.00, on the Drina River from the river kilometre 0.00 to the river kilometre 15.00, on the Bosna River from the river kilometre 0.00 to the river kilometre 5.00, on the Vrbas River from the river kilometre 0.00 to the river kilometre 3.00, on the Una River from the river kilometre 0.00 to the river kilometre 15.00 and on the Kupa River from the river kilometre 0.00 to the river kilometre 5.00, including the activities of loading and unloading, the transfer to or from another mode of transport and the stops necessitated by the circumstances of the transport.

2. These Rules shall not apply to the transport of dangerous goods:
   a. by vessels belonging to or under responsibility of the armed forces
   b. by ferries only crossing waterway or port; or
   c. wholly performed within the perimeter of an enclosed area.

3. Parties may lay down specific safety requirements for the national and international transport of dangerous goods within their territory as regards the transport of dangerous goods by vessels not covered by these Rules. They shall inform the International Sava River Basin Commission (hereinafter the Sava Commission) of such provisions and their justification.

4. The Sava Commission shall inform the other Parties accordingly.

5. Parties may regulate or prohibit, strictly for reasons other than safety during transport, the transport of dangerous goods within their territory.

Article 2 of the Rules contains definitions. It reads:

For the purpose of these Rules:

a. ‘ADN’ means the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways, concluded at Geneva on 26 May 2000, as amended;

b. ‘vessel’ means any inland waterway vessel; and


Article 3 of the Rules refers to the ADN.

The Article stipulates:

On the waterways mentioned under the Article 1, paragraph 1, Annexed Regulations to the ADN, as applicable with effect from 1 January 2011, as well as Articles 3(ff), 3(h), 8(1), 8(3) of the ADN, it being understood that ‘contracting party’ is replaced by ‘Party’ as appropriate, shall be applied for the transport of the dangerous goods.

It should be noted that only Serbia and Croatia are Parties to the ADN. Bosnia, Herzegovina and Slovenia are not. On the strength of Article 3, the ADN applies to the waterways identified in Article 1, which include waterways in Bosnia, Herzegovina and Slovenia.
Article 5 of the Rules stipulates that Parties may, on grounds of transport safety, apply more stringent provisions, with the exception of construction requirements, concerning the national transport of dangerous goods by vessels registered or put into circulation within their territory.


It reads:

1. Member States may authorize the use of languages other than those provided for in Article 3 for transport operations performed within their territories.

2. Provided that safety is not compromised, Parties may request derogations from Article 3, for the transport within their territories in the case of:
   a. small quantities of certain dangerous goods, with the exception of substances having a medium or high level of radioactivity, provided that the conditions for such transport are no more stringent than the conditions set out in Article 3;
   b. local transport over short distances;

   The Sava Commission shall examine in each case whether the conditions laid down in subparagraphs (a) and (b) have been met and shall decide whether to authorize the derogation and to add it to the list of national derogations.

3. Derogations under paragraph 2 shall be valid for a period not exceeding six years from the date of authorization, such period to be fixed in the authorization decision. Derogations shall be applied without discrimination.

4. If a Party requests the extension of an authorization for derogation, the Sava Commission shall review the derogation in question. If no amendment to Article 3, affecting the subject matter of the derogation has been adopted, the Sava Commission shall renew the authorization for a further period not exceeding six years from the date of authorization, such period to be fixed in the authorisation decision. If an amendment to Article 3, affecting the subject matter of the derogation has been adopted, the Sava Commission may:
   a. declare the derogation obsolete and remove it from the relevant list of derogations;
   b. limit the scope of the authorization and amend the relevant list of derogations accordingly; and
   c. renew the authorization for a further period not exceeding six years from the date of authorization, such period to be fixed in the authorization decision.

5. Every Party may, exceptionally and provided that safety is not compromised, issue individual authorizations to carry out transport operations of dangerous goods within its territory, which are prohibited by this Rules, or to carry out such operations under conditions different from those laid down in this Rules, provided that those transport operations are clearly defined and limited in time.
6.5.2 Inland Waterways of the United States

6.5.2.1 United States Code

Transportation of dangerous goods on inland waterways in the United States is regulated by federal law and regulations. The federal law is published in the Code of Laws of the United States of America. The Code is a compilation and codification of the general and permanent federal laws of the United States. It is published every six years by the Office of the Law Revision Counsel of the House of Representatives. Title 49 of the US Code deals with transportation. Chapter 51 of Subtitle III (General and Intermodal Programmes) contains provisions on the transportation of hazardous material.

Section 5101 of Chapter 51 stipulates:

The purpose of this chapter is to protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce.

Section 5102 (13) provides for a definition of transportation, which reads:

“transports” or “transportation” means the movement of property and loading, unloading, or storage incidental to the movement.

The transportation of dangerous goods on inland waterways falls within the scope of this law.

Section 5103 (a) stipulates:

The Secretary of Transportation shall designate material (including an explosive, radioactive material, etiologic agent, flammable or combustible liquid or solid, poison, oxidising or corrosive material, and compressed gas) or a group or class of material as hazardous when the Secretary decides that transporting the material in commerce in a particular amount and form may pose an unreasonable risk to health and safety or property.

The federal legislation on transportation of dangerous goods contains provisions on a wide diversity of subjects. The legislation has the following structure:

- Sec. 5104: Representation and tampering
- Sec. 5105: Transporting certain highly radioactive material
- Sec. 5106: Handling criteria
- Sec. 5107: Hazmat employee training requirements and grants
- Sec. 5108: Registration
- Sec. 5109: Motor carrier safety permits
- Sec. 5110: Shipping papers and disclosure
- [Sec. 5111: Repealed]

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72 Article 9 of the MRC Agreement reads: On the basis of equality of right, freedom of navigation shall be accorded throughout the mainstream of the Mekong River without regard to the territorial boundaries, for transportation and communication to promote regional cooperation and to satisfactorily implement projects under this Agreement. The Mekong River shall be kept free from obstructions, measures, conduct and actions that might directly or indirectly impair navigability, interfere with this right or permanently make it more difficult. Navigational uses are not assured any priority over other uses, but will be incorporated into any mainstream project. Riparians may issue regulations for the portions of the Mekong River within their territories, particularly in sanitary, customs and immigration matters, police and general security (underlining added).
6.5.2.2 Code of Federal Regulations

The Code of Federal Regulations (CFR) is the codification of the general and permanent rules and regulations published in the Federal Register by the executive departments and agencies of the Federal Government of the United States. The CFR is published by the Office of the Federal Register, an agency of the National Archives and Records Administration.

Title 49 of the CFR deals with transportation. Chapter I of Subtitle B on Other Regulations Relating to Transportation contains the regulations of the Pipeline and Hazardous Materials Safety Administration of the Department of Transport.

Subchapter C contains the hazardous materials regulations. Part 176 of the Subchapter C contains the provisions on the carriage of dangerous goods by vessel. Paragraph 176.5 defines the scope of these provisions.

It reads:

a. Except as provided in paragraph (b) of this section, this subchapter applies to each domestic or foreign vessel when in the navigable waters of the United States, regardless of its character, tonnage, size, or service, and whether self-propelled or not, whether arriving or departing, underway, moored, anchored, aground, or while in dry dock.

b. This subchapter does not apply to:

i) A public vessel not engaged in commercial service;

ii) A vessel constructed or converted for the principal purpose of carrying flammable or combustible liquid cargo in bulk in its own tanks, when only carrying these liquid cargoes;
iii) A vessel of 15 gross tonnes or smaller when not engaged in carrying passengers for hire;
iv) A vessel used exclusively for pleasure;
v) A vessel of 500 gross tonnes or smaller when engaged in fisheries;
vi) A tug or towing vessel, except when towing another vessel having Class 1 (explosive) materials, Class 3 (flammable liquids), or Division 2.1 (flammable gas) materials, in which case the owner/operator of the tug or towing vessel shall make such provisions to guard against and extinguish fire as the Coast Guard may prescribe;
vii) A cable vessel, dredge, elevator vessel, fireboat, icebreaker, pile driver, pilot boat, welding vessel, salvage vessel, or wrecking vessel; or
viii) A foreign vessel transiting the territorial sea of the United States without entering the internal waters of the United States, if all hazardous materials being carried onboard are being carried in accordance with the requirements of the IMDG Code (IBR, see §171.7 of this subchapter).

[...]

Part 176 of the Subchapter C on the carriage of dangerous goods by vessel has the following structure:

Subpart A : General
Subpart B : General Operating Requirements
Subpart C : General Handling and Stowage
Subpart D : General Segregation Requirements
Subpart E : Special Requirements for Transport Vehicles Loaded With Hazardous Materials and Transported onboard Ferry Vessels
Subpart F : Special Requirements for Barges
Subpart G : Detailed Requirements for Class 1 (Explosive) Materials
Subpart H : Detailed Requirements for Class 2 (Compressed Gas) Materials
Subpart I : Detailed Requirements for Class 3 (Flammable) and Combustible Liquid Materials
Subpart J : Detailed Requirements for Class 4 (Flammable Solids), Class 5 (Oxidizers and Organic Peroxides), and Division 1.5 Materials
Subpart K : [Reserved]
Subpart L : Detailed Requirements for Division 2.3 (Poisonous Gas) and Division 6.1 (Poisonous) Materials
Subpart M : Detailed Requirements for Radioactive Materials
Subpart N : Detailed Requirements for Class 8 (Corrosive Materials) Materials
Subpart O : Detailed Requirements for Cotton and Vegetable Fibers, Motor Vehicles, and Asbestos

The legal regime of the inland waterways of the United States of America will be included in the international benchmarking analysis in Chapter 6.
6.6 INTERNATIONAL BENCHMARKING ANALYSIS

The table presented below provides an overview of the subjects dealt with by the international instruments pertaining to the Mekong – in particular the Agreement on Commercial Navigation on Lancang-Mekong River, signed at Tachileik, 20 April 2000, and the technical annexes that supplement it–and by the national laws and regulations pertaining to the transport of dangerous goods which were enacted or prepared by the Riparian States of the Mekong River Basin, as well as by the international benchmarking instruments discussed above.

This table allows the reader (1) to identify the subjects covered by the current legal regime pertaining to transport of dangerous goods on the Mekong, (2) to compare the available legal rules with the international benchmarking instruments, and (3) to identify gaps in the rules for waterborne transportation on the Mekong.

With regard to Cambodia, both the existing legislation and the legislation in preparation are presented in the table below.

The table does not include information on Lao PDR, as no English translation of the relevant instruments is available.

The column pertaining to the United States combines the provisions of the United States Code and the Code of Federal Regulations.

Table 66: Current Legal Regime in the Upper Mekong, Member Countries Compared to ADN Code and Sava Rules.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>Upper Mekong</th>
<th>Cambodia</th>
<th>Lao PDR</th>
<th>Thailand</th>
<th>Viet Nam</th>
<th>ADN Agreement</th>
<th>Sava Rules</th>
<th>United States</th>
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Table 67: **Current legal regime in the Upper Mekong, Member Countries compared to ADN Code and Sava Rules**

<table>
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<tr>
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The above comparison of the legal regime pertaining to transport of dangerous goods on the Mekong with the international benchmarks reveals that – with the exception of the Cambodian law in preparation – the current regime is imperfect with important gaps and major differences between the riparian countries.
The current legal regime does not contain provisions on, *inter alia*, dangerous goods packed in limited quantities, the construction and testing of packaging, the training of crews (with the exception of Viet Nam, however), the construction of vessels and the segregation of dangerous goods (again with the exception of Viet Nam).

### 6.7 LEGAL BASES FOR THE ESTABLISHMENT OF HARMONISED RULES

The existing national rules and regulations and treaties on navigation on the Mekong River contain different mechanisms for the harmonisation of regulations, including on the transportation of dangerous goods. No available treaty covers the Mekong in its entire length (‘Upper’, ‘Middle’ and ‘Lower’ Mekong).

The 1995 MRC Agreement confirms the power of each Riparian State to adopt national regulations for its own stretch of the river. The MRC Council may take an initiative to harmonise such regulations. However, such harmonised rules must subsequently be transposed into national regulations.

According to Article 9 of the MRC Agreement, the riparian countries – Cambodia, Lao PDR, Thailand, and Viet Nam – may issue regulations, particularly in sanitary, customs and immigration matters, police and general security for the portions of the Mekong River within their territories.

The concepts of "police and general security" are not defined in the MRC Agreement. It can be argued that the notion of "general security" encompasses measures on the transportation on the Mekong of explosives, ammunition or similar dangerous cargoes that may be considered a potential threat to security. The notion of "police" is even broader and can be interpreted as comprising all measures aimed at the preservation of public order.

More importantly, the Article under discussion contains the word "particularly". This indicates that Riparian States may also issue regulations on other matters, not expressly mentioned in Article 9 of the Agreement, such as the transportation of dangerous goods.

In practice, and as presented in Chapter 6.4, the riparian countries have in the past adopted national laws and regulations on transportation of dangerous goods, although it must be stressed that the current legal regime is imperfect with important gaps and major differences between the riparian countries.

The possible advantages of using the existing national laws and regulations as a basis for harmonisation are that the new rules and regulations would be in line with existing concepts and rules and that enforcement would be facilitated. However, such an approach would require more preparatory legal work, consultation and negotiations. In this regard, it can be noted that the Vietnamese rules are well developed but are probably also too complicated to be used as a basis for the establishment of harmonised rules and regulations.

On the other hand, Article 18 of the MRC Agreement offers a legal basis for the MRC Council to "make policies and decisions" relating to, inter alia, the "utilisation" of the Mekong River Basin as well as for

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73 Article 18 of the MRC Agreement reads:

**The functions of the Council are:**

A. To make policies and decisions and provide other necessary guidance concerning the promotion, support, cooperation and coordination in joint activities and projects in a constructive and mutually beneficial manner for the sustainable development, utilization, conservation and management of the Mekong River Basin waters and related resources, and protection of the environment and aquatic conditions in the Basin as provided for under this Agreement;

B. To decide any other policy-making matters and make decisions necessary to successfully implement this Agreement, including but not limited to approval of the Rules of Procedures of the Joint Committee under Article 25, Rules of Water Utilization and Inter-Basin Diversions proposed by the Joint Committee under Article 26, and the basin development plan and major component projects/programmes; to establish guidelines for financial and technical assistance of development projects and programs; and if considered necessary, to invite the donors to coordinate their support through a Donor Consultative Group; and,

C. To entertain, address and resolve issues, differences and disputes referred to it by any Council member, the Joint Committee, or any member State on matters arising under this Agreement.
the "protection of the environment". Furthermore, the MRC Council is empowered to "decide" on any "other policy-making matters" and "make decisions necessary to successfully implement [the MRC] Agreement".

It could be envisaged that the MRC Council would – on the basis of Article 18 of the MRC Agreement and inspired by, for instance, the ADN Agreement – take the initiative and propose a set of rules on the transportation of dangerous goods on the Mekong that have to be implemented by the riparian countries. Furthermore, some leeway could be given to the riparian states when transposing the rules into national regulations. This would give the riparian states the opportunity to adapt the rules to local circumstances as well as to existing national laws and regulations. Moreover, this is likely to facilitate the enforcement of the rules.

The quadripartite Agreement on Commercial Navigation on Lancang-Mekong River contains a mechanism for the establishment by the Riparian States of "common" rules on the transportation of dangerous goods on the Upper Mekong. It remains to be seen whether such common rules should be regarded as directly applicable without any further intervention of national regulatory bodies.

In theory, consideration should be given to the Convention between Siam and France relating to the Regulation of the Relations between Siam and Indochina, signed at Bangkok, 25 August 1926, which applies to the ‘Middle’ Mekong. The Convention contains a mechanism for the preparation of harmonised rules which is however no longer operational today.

Concerning the Lower Mekong, the 2009 Agreement on Waterway Transportation specifically instructs the Mekong Navigation Facilitation Committee to make proposals for the adoption by the Contracting Parties of harmonised rules and regulations on the transportation of dangerous goods.

If a harmonisation of rules on the transportation of dangerous goods for the entire course of the Mekong (‘Upper’, ‘Middle’ and ‘Lower’ Mekong) is considered useful, an alternative option would be to establish harmonised rules for the transportation of dangerous goods on the Mekong under a separate international treaty or a treaty ‘ad hoc’.

**6.8 INTERIM CONCLUSIONS**

A brief international benchmarking analysis reveals that the current legal regime pertaining to transport of dangerous goods on the Mekong is imperfect, with important gaps and major differences between the riparian countries. Important aspects of the transportation of dangerous goods by inland waterways such as, *inter alia*, dangerous goods packed in limited quantities, the construction and testing of packaging, the training of crews (with the exception of Viet Nam, however), the construction of vessels and the segregation of dangerous goods (again with the exception of Viet Nam), are not covered by the current regime.

As a result, it would appear that there is a case for the establishment of comprehensive, harmonised and up-to-date legal rules on the transportation of dangerous goods on the Mekong.

In Europe, a general tendency towards harmonisation of rules on the transportation of dangerous goods by inland waterways has emerged, with a key role for the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN).

The ADN was drafted by the United Nations Economic Commission for Europe (UNECE), in close cooperation with the Central Commission for the Navigation of the Rhine (CCNR). Currently, 17 countries are party to the ADN. 74

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74 Bulgaria, Croatia, Czech Republic, France, Germany, Hungary, Luxembourg, Poland, Netherlands, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Switzerland, Ukraine.
The preamble of the ADN recalls the aim of the Contracting Parties, which is to establish by joint agreement uniform principles and rules, for the purpose of:

- increasing the safety of international carriage of dangerous goods by inland waterways;
- contributing effectively to the protection of the environment, by preventing any pollution resulting from accidents or incidents during such carriage; and
- facilitating transport operations and promoting international trade.

These policy objectives appear to have relevance to the Mekong River Basin as well.

Furthermore, following Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods, all EU Member States are now bound by the regulations provided in the ADN Agreement.

The example of the Sava River Basin likewise illustrates the importance of the ADN. The Sava flows through Slovenia, Croatia, along the northern border of Bosnia and Herzegovina, and through Serbia. Only Serbia and Croatia are party to the ADN. Bosnia, Herzegovina and Slovenia are not. However, on the strength of Article 3 of the Rules for the Transport of Dangerous goods on the Inland Waterways on the Sava River Basin, adopted by the Sava River Basin Commission, the ADN also applies to waterways in Bosnia, Herzegovina and Slovenia.

In Southeast Asia, Cambodia is close to adopting rules on transport of dangerous goods by inland waterways that explicitly refer to the ADN. Article 5 of the draft “Prakas on Technical [sic] for carriage of dangerous goods by inland waterway in the Kingdom of Cambodia” stipulates:

Carriage of dangerous goods in the inland waterway shall be applied to European Agreement concerning the international carriage of dangerous goods by inland waterway ADN.

In the light of the above, it could be envisaged to use the ADN as a basis for harmonised rules for the transportation of dangerous goods on the Mekong.