ILO

Conditions of work in inland navigation in Southeast Asia

The case of the Mekong River system

Final Report

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Table of content

1. Introduction 4
2. The Mekong River system (General overview) 4
   2.1 Inland navigation in the Mekong River system 4
      2.1.1 Physical characteristics 5
      2.1.2 Navigation conditions and improvement on the Mekong River 7
      2.1.3 Navigation safety 14
      2.1.4 Aids to navigation 14
   2.2 Importance, trends and developments 15
      2.2.1 Regional cooperation and integration 15
      2.2.2 Inland waterway transport 16
      2.2.3 Hydropower development 20
   2.3 Harmonization at regional level 21
   2.4 Labour overview in the study area 23
   2.5 Social dialogue in the study area 26
3. Overview of legal framework and practice in inland navigation in the Mekong River 27
   3.1 Minimum requirements for work on board inland waterway vessels 27
      3.1.1 Minimum age 27
      3.1.2 Medical examination and fitness 30
      3.1.3 Education, training and recruitment 32
      3.1.4 Certificates and qualifications 32
   3.2 Conditions of service 35
      3.2.4 Work agreements 35
      3.2.5 Wages 37
      3.2.6 Working time 40
      3.2.4 Manning levels 43
   3.3 Safety, health and well-being 43
      3.3.1 Occupational safety and health 43
      3.3.2 Medical care 46
      3.3.3 Accommodation and food 47
   3.4 Social protection 47
      3.4.1 Vessel owners' liability in case of occupational injuries or diseases 48
      3.4.2 Social security 49
   3.5 Enforcement 51
      3.5.1 Inspection 51
      3.5.2 Complaint procedures 53
   3.6 Final considerations 54

Acronyms and abbreviations

AIS	Automatic Identification System
APT	ASEAN Plus Three
ASEAN	Association of South East Asian Nations
CTWF	Cambodian Transport Workers' Federation
DWT	Dead Weight Tonnage
FTC	Fixed Term Contract
GPS	Global Positioning System
ILO	International Labour Organisation
ITF	International Transport Workers' Federation
IWT	Inland Waterway Transport
IWTD	Inland Waterway Transport Department
JCCCN	Joint Committee on Coordination of Commercial Navigation
JWG	Joint Working Group
LFTU	Lao Federation of Trade Unions
LMB	Lower Mekong Basin
LMC	Lancang-Mekong Cooperation
MLC 2006	Maritime Labour Convention
MOU	Memorandum Of Understanding
MPWT	Ministry of Public Works and Transport
MRB	Mekong River Basin
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
OSH	Occupational Safety and Health
OSHE	Occupational Safety, Health and Environment
PPE	Personal Protective Equipment
RCEP	Regional Comprehensive Economic Partnership
UDC	Undermined Duration Contract
UMB	Upper Mekong Basin
VGS	Vessel Guidance System
VTS	Vessel Traffic Services

1. Introduction

Inland navigation in Southeast Asia has not received much attention in terms of labour in spite of the significant number of persons working on board vessels operating on the Mekong River and its tributaries.

The Mekong River is the major inland waterway in Southeast Asia. It flows across six countries, namely: China, Myanmar, Thailand, Lao PDR, Cambodia and Vietnam. Inland navigation in the Mekong River is regulated through two distinct regional agreements; the Agreement on Commercial Navigation on Lancang-Mekong River for the Upper Mekong Basin on the one hand and the Agreement on Cooperation for the Sustainable Development of the Mekong River for the Lower Mekong Basin on the other.

The geographical scope of the study is restricted to Thailand, Lao PDR and Cambodia. Its purpose is twofold: a) provide a comprehensive overview of the existing legal framework governing living and working conditions on inland waterway vessels operating on the Mekong River system, both at the regional and national levels; and b) highlight gaps in the various legal systems and identify areas that need to be addressed to improve the living and working conditions of workers employed on these vessels. The study focuses on commercial vessels transporting passengers and goods, but does not cover fishing vessels.

Information and data used in support of this study are drawn from research on the internet and information collected by national consultants at the country level. While some interviews were conducted with government authorities, it was not possible, due to sanitary constraints, to organise a comprehensive set of meetings with vessel owners, representatives of companies and enterprises engaged in inland waterway transport (IWT), labour unions and workers employed on inland waterway vessels. These constraints made it difficult for the study to provide an informed and accurate picture of the labour situation, in practice, in the inland navigation sector. In addition, little information was found or made available to assess the impact of the COVID-19 pandemic on IWT in the Mekong region and its repercussions on employment and labour conditions.

The study is divided into two parts. Part 2 provides a general overview of the Mekong River system with emphasis on current trends and developments, importance of inland waterway in regional trade, harmonization at the regional level, personnel, fleets and social dialogue. Part 3 provides an overview of the situation in law and practice in the inland navigation sector and comprises 6 separate chapters. Chapter 1 focuses on the minimum requirements for employment on inland waterway vessels, particularly the minimum age, medical examination and fitness, education, training and recruitment, and professional qualifications. Chapter 2 examines the conditions of service, in particular work agreement, wages, working time and manning levels. Chapter 3 deals with safety, health and well-being, including occupational safety and health, medical care and accommodation and food. Chapter 4 addresses the issue of social protection, particularly vessel owners' liability in case of occupational injuries or illnesses and social security. Chapter 5 focuses on inspection and complaint procedures. Lastly, Chapter 6 provides some final considerations.

2. The Mekong River system (General overview)

2.1 Inland navigation in the Mekong River system

2.1.1 Physical characteristics

The Mekong River is the longest river in Southeast Asia and the world's 12th longest river, with a length of approximately 4,880 km.[1] Rising in Southeastern Qinhai Province, China, it flows through the eastern part of the Tibet Autonomous Region and Yunnan Province, after which it forms part of the international border between Myanmar and Lao PDR, as well as between Lao PDR and Thailand. The river then flows through Lao PDR, Cambodia and Vietnam before draining in the South China Sea, south of Ho Chi Minh City.

The Mekong River Basin (MRB) includes seven broad regions with diverse topography, drainage patterns and geomorphology. The basin is commonly divided into the Upper and Lower Mekong Basin. The Upper Mekong Basin (UMB) comprises the Tibetan Plateau, the Three Rivers Area and Lancang Basin in China and Myanmar. The Lower Mekong Basin (LMB) is made up of the Northern Highlands, the Khorat Plateau, the Tonle Sap Basin and the Mekong Delta. It covers Thailand, Lao PDR, Cambodia and Vietnam.

Figure 1. Mekong River catchment area

[1] Note that according to the source of information consulted, the length of the Mekong River varies from 4 350 km to 4 900 km. The figure reproduced here is taken from section 2.1.1 of the Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin, Volume 1, Mekong River Commission (December 2015).

Mekong overview



The Mekong River watershed covers about 795 000 km2, and includes the UMB and LMB. The UMB surrounds the territories of China and Myanmar while the LMB makes up three-fourth of the drainage basin, including Lao PDR, Thailand, Cambodia and Vietnam. In China, the River is known as the Lancang. The Lancang River Basin makes up 24 percent of the total Basin area and contributes 15 – 20 percent of the water that flows into the Mekong.

Table 1. Mekong River catchment area per country[2]

Riparian countries	Area of country within the MBR	% of total area of the MRB	% of total country area	Flow as % of total MRB
China	165,000	21	2	16
Myanmar	24,000	3	4	2
Thailand	184,000	23	36	18
Lao PDR	202,000	25	85	35
Cambodia	155,000	20	86	18
Vietnam	65,000	8	20	11

[2] MRC. 2015. *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin,* at p.4. See https://www.mrcmekong.org/assets/Master-Pla-RWTMRB-V1.pdf

Throughout its course, the Mekong River is fed by a series of tributaries. These tributaries are generally classified into two groups: the left-bank tributaries drain areas of high rainfall and contribute to wet season flows, while the right-bank tributaries drain low relief regions with lower rainfall.

In the Upper Mekong Basin in China's Yunnan Province, the tributaries are small. As the river widens in the Northern Highlands, large tributaries – including the Nam Ta, Nam Ou, Nam Soung and Nam Khan – enter on the Mekong River's left bank; the Nam Mae Kok and Nam Mae Ing enter on the right bank.

Further downstream in the Khorat Plateau, the main stream is joined by the gently sloping Songkhram and Mun Rivers on the right bank and the steep Nam Ca Dinh, Se Bang Fai and Se Bang Hiang Rivers on the left bank.

The Se Kong, Se San, and Sre Pok (3S Basin) are the main tributaries entering on the left bank of the Mekong. The Tonle Sap River drains the Great Lake (or Tonle Sap Lake) into the Mekong River during the dry season and reverses its flow during the rainy season.

Near the Cambodian capital Phnom Penh, the Bassac River, the Mekong's largest distributary, branches off. This is where the Mekong Delta begins as the Mekong and Bassac Rivers enter a large fertile plain in southern Vietnam. In this area, known as the 'Nine Dragons', a series of smaller distributaries split off from the main stream of the Mekong and Bassac.[3]

The Mekong ranks 8th in terms of mean annual discharge flow (at the mouth), which is approximately 14,500 m3/s. The hydrology of the Basin is characterised by very high inter-annual variability, with discharge over the wet season on average 5-10 times greater than over the dry season. Snowmelt off the Tibetan Plateau dominates dry season discharge north of Vientiane. Between June and October, the Southwest Monsoon delivers a discharge pulse from the Mekong tributaries when the monsoonal winds meet the Annamite range along Lao PDR, Cambodia and Vietnam. Along with tropical storms moving in from the sea, this can contribute to extensive flooding in parts of Lao PDR and in the Mekong Delta in Cambodia and Vietnam. These wet season peak flows also cause the large flow reversal up the Tonle Sap River to the Great Lake in Cambodia, triggering fish movement and delivering a pulse of sediment and nutrients to the floodplain, which supports fish and other biodiversity, and enables recession rice agriculture around the lake.

This annual cycle of flooding is the basis of water resources productivity within the basin, benefiting the local inhabitants for centuries through abundant fisheries and fertile floodplains. The magnitude of the annual flood has led to the concept of 'living with floods' which recognises the valuable role flooding plays in the economy and society of the region, and the need to work in harmony with that cycle, while seeking to mitigate the destructive nature of the most extreme events.[4]

2.1.2 Navigation conditions and improvement on the Mekong River

Navigation conditions vary greatly along the length of the Mekong River. Obstructions and obstacles to navigation are both natural and man-made. The river is unique in that annual variations of low and high water volumes are greater in the Mekong than for any other large rivers in the world, resulting in drastic fluctuations of water level that affect navigation in some reaches of the Mekong River and its

[3] See https://www.mrcmekong.org/about/mekong-basin/geography/
[4] Mekong River Commission. *Basin Development Strategy 2021-2030*, at p.15
See https://www.mrcmekong.org/assets/Publications/BDS-2021-2030-and-MRC-SP-2021-2025.pdf

tributaries. Additionally, rocky outcrops impede navigation in some stretches of the river (e.g., the Khone Falls between Lao PDR and Cambodia). While an increasing number of bridges have been built across the Mekong River to facilitate transport networks,[5] the most significant change in the past fifteen years has been the construction of hydropower dams on the Mekong River and its tributaries (see section 2.2 below).

2.1.2.1 Upper Mekong River

Recognizing that trade would greatly benefit from waterway transportation development on the Lancang-Mekong River, the governments of China, Myanmar, Lao PDR and Thailand undertook a joint investigation of water transportation on the Upper Mekong River in 1993, with the following conclusions:

a) under the natural conditions, the waterway is navigable for passenger and cargo vessels of 60 Dead Weight Tonnage (DWT);
b) after a certain regulation,[6] the waterway can be navigable for vessels of 100 – 150 DWT for at least 95% of the time in a year;
c) after a further regulation, the waterway can be navigable for vessels of 300 DWT for at least 95% of the time in a year;
d) after the canalization of the waterway, it can be navigable for vessels of 500x4 DWT for at least 95% of the time in a year.

Subsequently, the four countries signed the Agreement on Commercial Navigation on Lancang-Mekong River on 20th April 2000, known as the Quadripartite Agreement.[7] By entering into this Agreement, the Contracting Parties agreed that the Lancang-Mekong River should be opened for commercial navigation among the four signatories one year after the signing of the Agreement. This means that vessels flying the flag of any Contracting Party are entitled to sail freely between Simao, China, and Luang Prabang, Lao PDR, in accordance with the Agreement and the rules and regulations jointly adopted by the Contracting Parties.[8] The need to improve navigability in the upper reaches of the river has been recognized as a central matter for cooperation among Contracting Parties. In this regard, article 21 of the Quadripartite Agreement stipulates that Contracting Parties shall meet once a year or whenever necessary to consult and promote cooperation in matters relating to: (a) maintenance and improvement of navigability of the river; (b) measure to increase safety for navigation; (c) exchange information on navigation channels, obstacles and obstructions relating to navigation safety; and (d) safe and smooth navigation, especially during the dry season, to cooperate to a possible extent in the provision of water flow and the relevant data.

In 2001, the Contracting Parties signed a Memorandum of Understanding (MOU) to facilitate the implementation of the Quadripartite Agreement, whereby they, among other things, agreed that the improvement of navigation channels in the Upper Mekong River was an important prerequisite for safe and smooth navigation of vessels of the four countries and endorsed the Joint Survey Report on the Feasibility of the Waterway Improvement Project on the Upper Mekong River from China-Myanmar Boundary Marker 243 to Ban Huay Xai of Lao PDR prepared by the Quadripartite Joint Survey Group

[5] In Cambodia, the first bridge across the Mekong River in Kampong Cham Province was completed in 2018. See https://www.khmertimeskh.com/114116/hun-sen-lauds-first-cambodian-built-bridge-across-mekong-river/ The first bridge span of the China-Lao PDR railway in Northern Lao PDR was completed in 2019. See http://www.xinhuanet.com/english/2019-05/21/c_138077701.htm

[6] In this particular context the term "regulation" should be construed as referring to any intervention designed to improve navigation on the Mekong River (e.g., removal of rocks, installation of navigation markers).

[7] See https://www.md.go.th/md/index.php/2014-01-19-05-02-28/page-dredging/--70/3153-agreement/file#:~:text=The%20Parties%20agree%20in%20principle,along%20the%20Upper%20Mekong%20River.&text=The%20Parties%20agree%20that%20the,China%20in%20late%20June%202001

[8] Article 2 of the Quadripartite Agreement

in November 2000.[9] This survey built on the data obtained from the joint investigation in 1993 and concluded that these data were still applicable in 2000. It made the following recommendations:

a) the construction of the Water Improvement Project should entail two phases. The first phase will be devoted to the removal of the shoals and scattered reefs impeding navigation in certain reaches of the Upper Mekong River. The remaining works will be completed in the second phase.
b) The waterway regulation of the Lancang-Mekong River should be implemented in three distinct phases. In the first phase, after the removal of the 11 major rapids, shoals and 10 scattered reefs and the setting-up of 100 navigation marks, 106 markers and 4 winches, the waterway can be navigable for vessels at least of 100 DWT for at least 95% of the time in a year. In the second phase, after the regulation of 51 rapids and shoals, the waterway can be navigable for vessels at least of 300 DWT for at least 95% of the time in a year. In the third phase, after the canalization of the waterway, it can be navigable for vessels 500x4 DWT for at least 95% of the time in a year.

Figure 2. Map of the Upper Mekong River Basin[10]



At present, the navigable river section according to the Quadripartite Agreement is 890 kilometers long from Simao, China, to Luang Prabang, Lao PDR, of which the 104-kilometer section from the Nandeba area to the Nuozhadu Hub (Xiaoganlanba Area of Simao Port) and the 155-kilometer section from Xiaoganlanba to China-Myanmar Boundary Marker 243 are the inland river of China; the 31-kilometer section from China-Myanmar Boundary Marker 243 to China-Lao PDR-Myanmar Boundary Marker 244 is the boundary river between China and Myanmar; the 300-kilometer section from China-Lao PDR-Myanmar Boundary Marker 244 to Huay Xai, Lao PDR / Chiangkhong, Thailand is the boundary

[9] See http://www.livingriversiam.org/4river-tran/4mk/mek_rapid_fs.pdf
[10] Development Plan for International Navigation of the Lancang-Mekong River of China, at p. 13. See https://www.jcccn.org/images/rule/Plan-29-6-2015.pdf

river between Lao PDR and Myanmar and Thailand; the 300-kilometer section from Huay Xai, Lao PDR to Luang Prabang, Lao PDR, except for a 26-kilometer section of Lao-Thai boundary river, is the inland river of Lao PDR. The current navigation channel conditions on the Lacang-Mekong River from Simao, China to Luang Prabang, Lao PDR are summarized in table 2 below.

Table 2. Navigation channel conditions of the section from Simao, China to Luang Prabang, Lao PDR[11]

Section	Length (km)	Grade	DWT of navigating vessels	Navigation Channel dimensions (m)
Nandeba area of Simao Port, China to Nuozhadu Hub (Xiaoganlanba Area of Simao Port), China	74	IV	500 DWT throughout the year	1.2×30×180
Nuozhadu Hub, China to China-Myanmar Boundary Marker 243	185	V	300 DWT	2.0×40×300
China-Myanmar Boundary Marker 243 to China-Lao PDR-Myanmar Boundary Marker 244	31	VI	150 DWT throughout the year and 200-300 DWT seasonally	1.2×30×180
China-Lao PDR-Myanmar Boundary Marker 244 to Huay Xai, Lao PDR	300	VI	150 DWT throughout the year and 200-300 DWT seasonally	1.2×30×180
Huay Xai, Lao PDR to Luang Prabang, Lao PDR	300	Never improved and maintained, some simple aids to navigation, wide and shallow section navigable for vessels of 60 DWT in dry season		
Total	890			

In the upper part of the Mekong River Basin, neither Myanmar and Lao PDR nor Thailand has a waterway classification. Only China has a waterway classification, which is used on all Chinese rivers and which reaches from class VII to class I corresponding to Least Available Depths of 0.7 m up to 4.0 m.

Importantly, the MOU establishes a Joint Committee on Coordination of Commercial Navigation (JCCCN) on the Lancang-Mekong River to coordinate Contracting Parties' actions and matters relating to navigation (improve navigation safety, maintenance and improvement of the navigability of the river), improvement and expansion of port facilities, cooperation and coordination in the customs, immigration and other related matters. The JCCCN meets at least once a year or whenever necessary upon request by any Contracting Party.[12]

[11] *Ibid*, at p.14. This table is based on the Chinese classification of inland waterways.
[12] Article 2 of the MOU

The MOU entails 6 annexes which, combined, form a set of common rules, including Regulations on Safe Navigation of Vessels on the Lancang-Mekong River (Annex I) and Guidelines on the Maintenance and Improvement of the Navigability of the Lancang-Mekong River (Annex III).

2.1.2.2 Lower Mekong River

Regional cooperation over the Mekong River goes back more than 60 years, with the establishment of the Committee for the Coordination of Investigations on the Lower Mekong River Basin, making it one of the first transboundary rivers governed by an international river body. In 1995, the four riparian countries of the LMB, namely Thailand, Lao PDR, Cambodia and Vietnam, signed the Agreement on Cooperation for the Sustainable Development of the Mekong River Basin (the 1995 Mekong River Agreement). The Contracting Parties recognize that the MRB and the related natural resources and environment are natural assets of tremendous value to all the riparian countries for the economic and social well-being and living standards.[13] Consequently, they agree to cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the MRB, including irrigation, navigation, flood control and tourism in a manner to optimize the multiple-use and mutual benefits of all riparian countries and to minimize the harmful effects that might result from natural occurrences and man-made activities.[14] They emphasize the need to cooperate in the maintenance of the flows on the mainstream of the Mekong River from diversions, storage releases, or other actions of a permanent nature.[15] In 2006, the four Contracting Parties agreed on the Procedures for the Maintenance of Flows on the Mainstream.[16] Most importantly, they recognize that freedom of navigation shall, on the basis of equality of rights, be accorded throughout the Mekong River without regard to territorial boundaries, for transportation and communication to promote regional cooperation and to satisfactorily implement projects under the 1995 Mekong Agreement. As a result, the Mekong River must 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. To ensure and facilitate freedom of navigation, riparian countries may issue regulations for the portions of the Mekong River within their territories.[17]

The 1995 Mekong River Agreement provides an institutional framework for cooperation by setting up the Mekong River Commission (MRC). The Commission consists of three permanent bodies, namely, the Council, the Joint Committee and the Secretariat. The Council is the policy and decision-making organ.[18] The Joint Committee is responsible, among other things, for the implementation of the policies and decisions of the Council and the formulation of a basin development plan.[19]

The MRC has been implementing navigation projects since the mid-1990's although earlier projects like the first Hydrographic Atlas date back to the 1980's. Significant developments within the basin and the lack of a strategic approach to navigation development and coordination were the main justifications for updating the policy documents that underpin navigation activities. In 2003 the Commission formulated and approved the MRC Navigation Strategy and Navigation Programme in a highly-participatory process of national and regional consultation visits and workshops. The Navigation Strategy identified significant opportunities as well as barriers to regional navigation development in the Lower Mekong Basin such as physical and non-physical barriers including navigation channels, ports, aids to navigation, fleet, crews, and legislation. It also identified a need for institutional strengthening in order to improve navigation information exchange, navigation monitoring and

[13] Preamble of the 1995 Mekong River Agreement
[14] Article 1 of the 1995 Mekong River Agreement
[15] Article 6 of the 1995 Mekong River Agreement
[16] See https://www.mrcmekong.org/assets/Publications/policies/Procedures-Maintenance-Flows.pdf
[17] Article 9 of the 1995 Mekong River Agreement
[18] Article 18 of the 1995 Mekong River Agreement
[19] Article 24 of the 1995 Mekong River Agreement

management, and bilateral and regional cooperation. The Navigation Programme is articulated around five components addressing a range of issues: (a) regional transport planning and the comparative advantages of waterborne transport, (b) a new legal framework for Mekong navigation, (c) measures to strengthen safety and environmental protection, (d) improved information and coordination systems and (f) institutional development through capacity and partnership building within the navigation sector. In addition, the programme seeks to develop national and regional management capacities; not only to ensure that it is implemented, but also to strengthen the voice and role of the navigation sector in national and regional development planning. Management capacities will be enhanced within the national line agencies as well as ports and waterway administrations. Decisive steps will be taken towards establishing close partnerships between public and private stakeholders.

In December 2015, the MRC published the *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin (Volume 1)*.[20] The main objective of this project is to design a short-term and long-term development program which will rehabilitate and improve the national and international transport network using the Mekong River Basin in the MRC Member Countries. It provides baseline information on key areas in the four MRC member countries: socio-economic situation; transport economics; fleet and crew; waterway characteristics, bottlenecks and opportunities; navigation safety; aids to navigation; port development and management; legal aspects, agreements, rules and regulations; environmental aspects; social aspects; education and training; institutional and organisational aspects; recent and ongoing bilateral and regional plans and projects. It also includes short and long-term development scenarios for 2020 and 2040. These scenarios would have to be reassessed and adjusted in light of, and in response to, the impact of the COVID-19 pandemic.

The Lower Mekong River Basin has been split up in stretches that are suitable for navigation and have common hydrographic and topographic characteristics. Twenty-five stretches have been identified from the Green Triangle (mark 244)[21] to the Mekong Delta in Vietnam.

Table 3. Stretches suitable for navigation in the Lower Mekong River Basin[22]

Stretch	From	Km	To	km	length
1	Green Triangle (mark 244)	2,606	Golden Triangle[23]	2,373	233 km
2	Golden Triangle	2,373	Chiang Saen, Thailand	2,363	10 km
3	Chiang Saen, Thailand	2,363	Huay Xai, Lao PDR	2,313	50 km
4	Huay Xai, Lao PDR	2,313	Luang Prabang, Lao PDR	2,007	306 km
5	Luang Prabang, Lao PDR	2,007	Planned Sanakham Dam, Lao PDR	1,728	279 km
6	Planned Sanakham Dam, Lao PDR	1,728	Vientiane (Laksi Port), Lao PDR	1,580	148 km
7	Vientiane (Laksi Port), Lao PDR	1,580	Savannakhet, Lao PDR	1,125	455 km
8	Savannakhet, Lao PDR	1,125	Pakse, Lao PDR	869	256 km
9	Pakse, Lao PDR	869	Khone Falls, Lao PDR	735	134 km
10	Khone Falls, Lao PDR	735	Planned Sambor Dam	593	142 km
11	Planned Sambor Dam, Cambodia	593	Kratie, Cambodia	561	32 km
12	Kratie, Cambodia	561	Kompong Cham, Cambodia	447	114 km
13	Kompong Cham, Cambodia	447	Phnom Penh Chaktomuk, Cambodia	347	100 km

[20] See https://www.mrcmekong.org/assets/Master-Pla-RWTMRB-V1.pdf
[21] The Green Triangle corresponds to the three-land point between China, Myanmar and Lao PDR.
[22] See MRC. *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin*, section 2.4.1
[23] The Golden Triangle corresponds to the three-land point between Myanmar, Thailand and Lao PDR.

14	Phnom Penh Chaktomuk, Cambodia		Kompong Chhnang, Cambodia		122 km
15	Kompong Chhnang, Cambodia		Chong Kneas, Cambodia		122 km
16	Phnom Penh Chaktomuk, Cambodia	347	PPAP NCT LM17, Cambodia	322	25 km
17	PPAP NCT LM17, Cambodia	322	Cambodia-Vietnam border	251	71 km
18	Cambodia-Vietnam border	251	Entrance Vam Nao River, Vietnam	218	33 km
19	Entrance Vam Nao River, Vietnam	218	Entrance Cho Gao Canal, Vietnam	66	152 km
20	Entrance Cho Gao Canal, Vietnam		Cai Mep, Vietnam		116 km
21	Entrance Cho Gao Canal, Vietnam	66	Cua Tieu (Mekong mouth), Vietnam	0	66 km
22	Entrance Vam Nao River, Vietnam	218	Bassac River Vam Nao Pass, Vietnam	B188	24 km
23	Bassac River Vam Nao Pass, Vietnam	B188	Can Tho, Vietnam	B106	82 km
24	Can Tho, Vietnam	B106	Entrance Quang Chanh Bo, Vietnam	B33	73 km
25	Entrance Quang Chanh Bo, Vietnam		Quang Chanh Bo seaside, Vietnam		32 km

A description of the physical characteristics (rapids, shoals, rocks, reefs, dangerous areas, etc.) and conditions of navigation is provided for each of the 25 stretches in section 2.4.3 of the Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin.

According to the study, there seem to be some 40 places between the Golden Triangle and Kompong Cham, where the Least Available Depth (LAD) during the dry season is less than 2.0 m. Between Kompong Cham and Phnom Penh, there are some 4 places where the LAD is less than 6.0 m and downstream Phnom Penh to Cai Mep, there are some 6 places where the LAD is less than 8.0 m.

From the condition survey of the various dangerous areas between Huay Xai and Pakxe, some 15 narrow places (width of the navigation channel less than 40.0 m) have been identified in this stretch. These widths occur during the dry season.

Another obstacle could come from the bridge air clearance and the navigation quadrangle. The bridge air clearance is defined as being the vertical height of the quadrangle (defining the width of the navigation channel) that can be drawn under the bridge without touching the bridge beams.[24]

In December 2017, in complement to the Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin, the MRC produced a thematic report on the impacts and benefits of navigation infrastructure development in the LMB, including recommendations for positive impact enhancement, negative impact avoidance and mitigation measures.[25]

[24] A table giving the navigation quadrangles of the bridges over the Mekong mainstream between the Green Triangle and the sea is provided in section 2.4.4 of the Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin.

[25] MRC. *The Council Study: Report for Navigation Thematic Area – Cambodia, Lao PDR, Thailand and Vietnam.* See https://www.mrcmekong.org/assets/Publications/Council-Study/Navigation-report_Council-Study.pdf

There are plans to improve navigation channels in Lao PDR, Thailand and Cambodia:

a) Lao PDR-Thailand : Plans to improve the navigation channel between the Green Triangle and Luang Prabang are proposed in the Development Plan on International Navigation on the Lancang-Mekong River (2015-2025);
b) Cambodia: Plans to improve the navigation channel between Kratie and Phnom Penh are proposed in the Feasibility Study on Waterway Improvement for Port Logistics Development in Cambodia, (February 2015).

2.1.3 Navigation safety

Lao PDR, Thailand and Cambodia have adopted legal instruments and other measures to regulate navigation safety in inland waterways:

a) in Lao PDR, legal instruments that address safety management on board inland waterway vessels on the Mekong River are limited to 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. In addition, the Automatic Identification System (AIS), which is an anti-collision device, may be used on board inland waterway vessels on a voluntary basis. Similarly, the installation and use of a Vessel Guidance System (VGS) and/or a Global Positioning System (GPS) are voluntary. It is unclear whether any of these systems are currently used in practice. Vessel Traffic Services (VTS) are not available in Lao PDR on the Mekong River;

b) in Thailand, Safety Measures for Transportation of Petroleum Products on the Mekong River have been adopted by the Marine Department. Like in Lao PDR, AIS and a VGS and/or GPS may be used on a voluntary basis by inland waterway vessels. As of 2015, only three vessels were reported to be fitted with GPS equipment. VTS are also not available in Thailand on the Mekong River;

c) in Cambodia, a report on waterway safety was prepared by the Cambodian Navigation Coordination Committee in December 2009. As for the other two countries, AIS and a VGS and/or GPS may be used on board inland waterway vessels on a voluntary basis. In 2009, the MRC developed a strategy for the use of AIS in Phnom Penh Autonomous Port, which called for implementing AIS coverage along the Mekong River between Phnom Penh and the Vietnam border. As of 2015, about 21 barges, mainly containerships sailing between Phnom Penh and Vietnam, were reported to be equipped with AIS transponders. No VTS are available in Cambodia on the Mekong River.[26]

2.1.4 Aids to navigation

In Lao PDR and Thailand, between the Green Triangle and Huay Xai (Lao PDR), a stretch of about 300 km, the Chinese authorities have installed 57 aids to navigation, including large beacons on the shore and on some rocks. In addition, signs indicating the name of villages and sound signals (warning horn) have been installed. From Bokeo, Lao PDR to the Khone Falls, Lao PDR, between 1910 and 1930 some 600 concrete beacons were built by the French. Some of them disappeared but there are still 541 unlighted concrete beacons left in the Lao PDR, although many of them are damaged. Between Huay Xai, Lao PDR, and Luang Prabang, Lao PDR, in 2014 the MRC installed a GPS Navigation Guided

[26] MRC. *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin,* sections 2.5.1 and 2.5.2.

System with a navigation map on some 15 vessels. The system is fully functional in this portion of the Mekong River.

In Cambodia, 56 lighted buoys and eight leading markers were inaugurated between Phnom Penh and the Cambodia-Vietnam border in 2007. As of 2015, some 34 buoys were still in place and installed with lantern and GSM locator modules to prevent theft. In 2009, between Kompong Cham and Phnom Penh, 45 lighted buoys were inaugurated, but only 8 medium sized buoys remained in 2015. Many of the installed buoys have been swept away by debris or through theft. In 2012, 18 lighted buoys were installed between Phnom Penh and Chhnok Trou but only 8 medium sized buoys remained in 2015 and some of the lanterns were reported to be dysfunctional.[27]

2.2 Importance, trends and developments

2.2.1 Regional cooperation and integration

Cooperation between countries throughout the Mekong and wider region is becoming deeper and more comprehensive, especially through the Association of South East Asian Nations (ASEAN), the primary regional cooperation body for Southeast Asian countries, including all LMB states and Myanmar. In 2015 the ASEAN Economic Community was established, eliminating tariffs between Member Countries in a market of USD 2.6 trillion and a region of 622 million people. China is ASEAN's number one trading partner, and trade and foreign direct investment between all countries is growing strongly.[28]

In 2016, the leaders of the six Mekong River's riparian countries made a joint declaration, known as the Sanya Declaration of the First Lancang-Mekong Cooperation (LMC) Leaders' Meeting, whereby they committed to enhancing regional cooperation with a view to contributing to the economic and social development of sub-regional countries, enhancing the well-being of their people, narrowing the development gap among regional countries and supporting ASEAN Community building as well as promoting the implementation of the United Nations Agenda for Sustainable Development and advancing South-South cooperation.[29] They agreed that LMC practical cooperation will be carried out through three cooperation pillars, namely: (a) political and security issues, (b) economic and sustainable development, and (c) social, cultural and people-to-people exchanges. They also endorsed the view that practical cooperation will, during the initial stage, start with the following six key priority areas: (a) connectivity, (b) production capacity, (c) cross-border economic cooperation, (d) water resources, (e) agriculture and (f) poverty reduction. This is part of a wider strategy which aims at advancing the China-ASEAN strategic partnership, and strengthening cooperation under the framework of ASEAN Plus Three (APT),[30] East Asia Summit, ASEAN regional Forum and other regional cooperation mechanisms and at encouraging synergy between China's Belt and Road Initiative[31] and LMC activities and projects. The leaders also vowed to work together to push forward the Regional Comprehensive Economic

[27] MRC. *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin,* section 2.6
[28] See MRC. *Basin Development Strategy 2021-2030 & MRC Strategic Plan 2021-2025,* p. 25.
See https://www.mrcmekong.org/assets/Publications/BDS-2021-2030-and-MRC-SP-2021-2025.pdf
[29] See full text of the Sanya Declaration of the First Lancang-Mekong Cooperation (MLC) Leaders' Meeting at: https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1350039.shtml
[30] ASEAN Plus Three (APT) consist of the ten ASEAN Member States and the People's Republic of China, Japan and the Republic of Korea. The APT process began in December 1997 and since has evolve as the main vehicle to the promotion of East Asian Cooperation towards the long-term goal of building an East Asian Community, with ASEAN as the driving force.
[31] The Belt and Road Initiative is a global infrastructure development strategy adopted by the Chinese government in 2013. It seeks to connect Asia with Africa and Europe via land and maritime networks with the aim of improving regional integration, increasing trade and stimulating economic growth.

Partnership (RCEP) negotiations and promote trade and investment facilitation in East Asia. The RCEP is a regional trade agreement, which was signed by 15 countries, on 15 November 2020. The agreement seeks to unify and deepen economic activities among the existing ten-member ASEAN trade bloc with five other East Asian economies, including China, Korea and Japan (ASEAN+3), as well as Australia and New Zealand (ASEAN+5).

Stepping up both hardware and software connectivity among the LMC countries is a central element of the practical cooperation promoted by the Sanya Declaration. In practical terms, this translates into the improvement of the Lancang-Mekong rivers, roads and railways networks and the development of key infrastructure projects to build a comprehensive connectivity network of highways, railways, waterways, ports and air linkages in the Lancang-Mekong region.

2.2.2 Inland waterway transport

2.2.2.1 Cargo and passenger transport

The Mekong River is an important inland waterway for both cargo and passenger transport between the numerous riverine communities along the Mekong River. In addition, the river has also emerged as an increasingly important international trade route connecting the six Mekong riparian countries, and the lower reaches of the basin to the sea and wider international markets.

The development of inland waterway transport (IWT) in the upper reaches of the Mekong River (above the Khone Falls, Lao PDR), is constrained by narrow and turbulent sections of the river and large seasonal variations in water levels. Nevertheless, the Mekong River does provide an important link in the transit route between Kumming, China and Bangkok, Thailand. Overall, about 800,000 tons of cargo are shipped annually between China, Thailand, Myanmar and Lao PDR. Cargo volumes across all LMB countries grew by more than 6.4% per year between 2007 and 2014 with average annual growth of 3.7% in Thailand, 6.2% in Lao PDR, 7% in Cambodia and 6.5% in Vietnam.

In **Lao PDR**, IWT was the most important mode of transport before 1996. However, with the completion of roads No. 13N and No. 13S after that year, the proportion of IWT diminished progressively compared to road transport due to a range of reasons, including lack of tools and equipment for loading and unloading cargo and port facilities and fluctuations in water level.

Thailand does not make significant use of the Mekong River and its associated waterways for domestic transport. This may be attributed to the high density of the road network that can be used year-round and which links all major and minor population centres along the Mekong River and its tributaries. The presence of flexible, convenient and relatively fast road transport alternatives throughout the LMB in Thailand has meant that IWT is now used only where such alternatives are unavailable, such as for cross-river (and cross-border) traffic at locations not yet connected by a road bridge.

In **Cambodia**, IWT is used to carry goods and passengers on the navigable portions of the Mekong River and its tributaries and also cross-border with Vietnam. In 2009, the governments of Cambodia and Vietnam signed an Agreement on Waterway Transportation whose main purpose is twofold: (1) establish a legal framework for the effective implementation of freedom of navigation in the Mekong River System, thereby implementing article 9 of the 1995 Mekong Agreement; and (2) create favourable conditions for transit and cross-border navigation within the regulated waterways.[32] IWT trade received a significant boost with the opening of a new deep-water port at Cai Mep in Vietnam where container

[32] See https://www.mrcmekong.org/assets/Publications/policies/agreement-waterway-trans-btw-Cam-n-VN-Eng.pdf

terminals can accommodate some of the largest container ships in the world. Cargo can therefore be shipped internationally to and from Phnom Penh with only a single transhipment at Cai Mep. Seagoing vessels up to 5,000 DWT can enter Cambodia through the Mekong River mainly for general cargo, bulk, liquefied petroleum gas (LPG) and oil.

The annual economic value of cargo transportation in 2007 was estimated to be around US$ 6.8 billion, of which Cambodia's share was US$ 1.1 billion, that of Lao PDR US$ 0.4 billion, Thailand US$ 0.2 billion and Vietnam US$ 5.1 billion (MRCS 2017).[33]

Table 4. LMB cargo volume 2007 and 2014 (tons)[34]

Country	2007	2014	AAGR 2007-2014 (%)
Cambodia	1,818,000	2,920,000	7.0
Lao PDR	523,000	748,000	5.2
Thailand	898,000	1,152,140	3.6
Vietnam	11,615,000	18,050,000	6.5
Total	14,854,000	22,870,140	6.4

With regard to passenger transport, IWT provides an essential service in the upper reaches of the Mekong River and it is estimated that about 50,000 passengers (including tourists) are being transported annually between China, Thailand, Myanmar and Lao PDR. Similarly, the number of passengers travelling on IWT (speed boats and cruise vessels) in the Lower Mekong River is also significant. It is estimated that about 63,000 passengers (including tourists) are being transported annually in Cambodia and Vietnam.[35]

As mentioned above, in 2015, MRC started the design of a *Master plan for Regional Waterborne Transport in the Mekong River Basin* with the main objective of designing a short-term and long-term development programme which should rehabilitate and improve the national and international transport network using the Mekong River Basin in the MRC Member Countries.[36] It provided a baseline study of the situation in 2015, an economic forecast for the short term (2020) and the long term (2040), and the development of a prioritized Action Plan and Investment Programme.

Based on national plans, navigation is expected to expand considerably to 2040, facilitated by further hydropower development on the mainstream, as well as dredging and clearing of rocky areas within the channel. The MRC Master Plan for navigation foresees an increase in cargo and tourism capacity in both the upper parts of the Mekong River between China, Thailand and Lao PDR, and in the lower reaches between Cambodia and Vietnam. The value of the navigation sector is projected to increase substantially across the LMB with Cambodia and Vietnam the major beneficiaries, with related benefits for other sectors. However, development of navigation is highly dependent on the capacity and links with other transport modes and corridors and can also bring risks including riverbank erosion and damage to fish habitats.[37]

There is considerable potential throughout the mainstream for the further development of IWT as an integrated, effective, safe and environmentally friendly way to move people and goods. This opportunity can be realised by taking advantage of greater water depth in the dry season and continuing to implement the existing IWT plans for the upper, middle and lower parts of the river. Elevated water

[33] MRC. *State of the Basin Report 2018*, at p.114
See https://www.mrcmekong.org/assets/Publications/SOBR-v8_Final-for-web.pdf
[34] *Ibid*
[35] *Ibid*, at p.115
[36] MRC. 2015. *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin.*
[37] See MRC. *Basin Development Strategy 2021-2030 & MRC Strategic Plan 2021-2025,* pp. 44-45.

levels due to hydropower dams may assist development of navigation in Lao PDR and Cambodia, but only if dams are sited to also suit IWT.

The investment opportunities for the navigation sector occur in many areas, ranging from waterway improvements (such as dredging, river works, etc.) to navigation aids and port development. Capitalizing on the opportunities requires the implementation of a Strategic Environmental Assessment (SEA) of the IWT plans, which steers environmental and social impact assessments for specific port and terminal constructions and waterway improvement projects. Major risks need to be fully addressed while basin countries consider and address jointly the transboundary impacts through national regulatory frameworks and guidelines, as well as applicable regional procedures and guidelines.[38]

China is interested in expanding the Mekong River's ability to carry larger vessels. For this purpose, the Chinese are dredging and installing navigation aids and facilities along the upper stream of the river. The aim is to make sure that the passage for navigation would be open all year long and could facilitate passage of vessels with 100-150 DWT.[39] As a key priority of China's Belt and Road Initiative, one of the most ambitious Chinese plans is to make the Mekong River wide and deep enough to permit 300-DWT cargo ships to navigate between Yunnan, China and Luang Prabang, Lao PDR.[40]

As of writing, it is unclear what the impact of the COVID-19 pandemic has been on the development of IWT in the Mekong River Basin as transport of passengers and goods was almost entirely shut down for more than a year.

2.2.2.2 Inland water fleets

In the MRB, there is no harmonized vessel classification among the six riparian countries.

In **Lao PDR**, the Department of Waterways in the Ministry of Public Works and Transport (MPWT) is responsible for the registration of inland waterway vessels. As the only landlocked country in Southeast Asia, Lao PDR has adopted a very limited number of legal instruments to regulate IWT and inland waterway vessels. However, since LAO PDR is a signatory of the Memorandum of Understanding (MOU) to facilitate the implementation of the Quadripartite Agreement, the Department of Waterways can apply the Guidelines annexed to it to survey and register inland waterway vessels.[41]

According to the figures provided by the Department of Waterways, the Laotian fleet, as of February 2020, comprised a total of 493 cargo ships, 33 ferry boats and 4 116 passenger vessels broken down into several categories as follows:

Table 5. Inland water fleet – Lao PDR (2020)[42]

Type	Tonnage	Seat	Unit
General cargo ships	0,5 – 5 tons		185

[38] *Ibid*, at p. 73

[39] Mekong Institute. 2016. *Development Potential for International Shipping on the Lancang-Mekong River (China, Lao PDR, Myanmar and Thailand)*, at p. 25 https://www.mekonginstitute.org/uploads/tx_ffpublication/Development_Potential_for_International_Shipping_on_the_Lancang-Mekong_River__China__Lao_PDR__Myanmar_and_Thailand_.pdf

[40] European Parliament. Study. 2019. *The Mekong River geopolitics over development, hydropower and the environment*, at p. 33.
See https://www.europarl.europa.eu/RegData/etudes/STUD/2019/639313/EXPO_STU(2019)639313_EN.pdf

[41] In particular Annex VI, which sets out the technical regulations on surveys of commercial ships in the Lancang-Mekong River

[42] Presentation made by the Department of Waterways, Ministry of Public Works.
See https://www.unescap.org/sites/default/files/Country%20presentation%20-%20Lao%20PDR%20%283%29-1.pdf

	6 – 50 tons		237
	> 50 tons		71
Ferry			33
Passenger vessels		<15	3 054
		16 – 50	303
		>50	84
Speedboats			675

In **Thailand**, the Marine Department of the Ministry of Transport has the mandate to regulate water transport and the shipping industry, including in inland waterways, conduct study for the development of water transport infrastructure, and to enforce, among others, the Navigation in Thai Waters Act, B.E. 2456 (1913) and the Thai Vessels Act, B.E. 2481 (1938). Both legislations apply to all types of vessels, including river vessels.

In 2014, there were 183 vessels registered in Thailand to sail on the Mekong River. This figure does not include the numerous local ferries which are operated at various ferry sites along the Mekong River and its tributaries.

Table 6. Inland water fleet – Thailand (2014)[43]

	Tonnage	Seat	Unit
Cargo fleet	Up to 50 tons		82
	50-100 tons		53
Passenger fleet		Up to 50	16
		50-100	32
Total			183

In **Cambodia**, the Ministry of Public Works and Transport was restructured in 2016 with the creation of an Inland Waterways Transport Department (IWTD) within the General Directorate of Inland Waterways, Maritime Transport and Port. The IWTD is responsible for the registration of ships navigating on Cambodian inland waterways. Any vessel or ship with a loading capacity of 40 tons or more and an engine of 90 HP or more, any oil tanker, any passenger vessel with a loading capacity of 50 seats or more, any tourist boat, any ferry boat, and any vessel conducting business across borders are required to be registered with the IWTD. Any vessel with a loading capacity of less than 40 tons and an engine of less than 90 HP and any passenger vessel with a loading capacity of less than 50 seats must be registered with the relevant provincial Public Works and Transport Office.[44]

Circular No. 003 SRC/MPWT on the Management of Means of Water Transport of 27 June 2000 sets out the various categories of vessels/boats that navigate in Cambodia's waterways as follows:[45]

a) Dry goods boat;
b) Passenger boat;
c) Oil tanker;
d) Trailer boat;
e) Non-motor boat;
f) Boat, ferry boat, ferry, dredge, gravel/sand dredge, poling boat;
g) Specialized or personal boat;

[43] MRC. 2017. *Council Study: Report for Navigation. Thematic Area,* p. 15
[44] Article I of Circular No. 003 SRC/MPWT on the Management of Means of Water Transport of 27 June 2000
[45] *Ibid*, article IV

h) Fishing boat;
i) Foreigner's boat;
j) Tourist boat or power boat; and
k) Rescue boat.

Cambodia has not adopted a comprehensive policy and legal framework to manage and regulate IWT. To date, the main legislation is the Circular No. 003 SRC/MPWT on the Management of Means of Water Transport mentioned above. It is worth noting, however, that the MPWT has been working on a draft Inland Waterway Transport Law for several years.[46]

According to MRC, there were 246 vessels of more than 125 tons registered with the Cambodian MPWT in 2014 (see Table 7 below).

Table 7. Inland water fleet – Cambodia (2014)[47]

Type of vessel	Number	Average capacity (ton)
Sand cargo vessels	69	1,690
Dry bulk cargo vessels	20	380
General cargo vessels	10	1,200
Oil tankers	10	125
Container cargo vessels	3	560
Passenger vessels 100 pax	9	
Passenger vessels 50 pax	63	
Ferry boats	19	240
Dredging boats	43	260
Total	246	

2.2.3 Hydropower development

Most of the Mekong Basin countries are concentrating on hydropower for their energy needs, constructing large dams in the Mekong River and its tributaries. Hydropower development in the Mekong began years ago in tributary basins of Thailand and Vietnam. In the last decade, this development increased dramatically, particularly in Lao PDR, China and Cambodia. On the mainstream, 11 projects are planned, with 7 in Lao PDR, 2 in Cambodia and 2 across the Lao-Thai border. Of these, two, Xayabury, Lao PDR, and Don Sahong, Lao PDR, have become operational.

As of 2019, the number of hydropower projects in the LMB was 89 with 12,285 MW total installed capacity. Of these, 2 are in Cambodia (400 MW installed capacity), 65 in Lao PDR (8,033 MW installed capacity), 7 in Thailand (1,245 MW installed capacity) and 14 in Vietnam (2,607 MW installed capacity).[48]

China has constructed 11 hydropower dams (of which two are large storage dams) on the mainstream of the Lancang River with another 11, each greater than 100 MW, either being constructed or planned. The installed capacity in the Lancang River is 21,310 MW with the planned total rising to 31,605 MW. Only a small portion of China's part of the MRB is irrigated due to the narrow, steep sides gorges that dominate there.[49]

[46] The current status of this draft is unclear.
[47] MRC. 2017. *Council Study: Report for Navigation Thematic Area*, pp. 15-16
[48] See MRC website at: https://www.mrcmekong.org/our-work/topics/hydropower/
[49] See MRC. *Basin Development Strategy 2021-2030 & MRC Strategic Plan 2021-2025,* p. 19

The Myanmar portion of the MRB is relatively undeveloped compared to the other countries. The first dam on its Mekong tributaries was commissioned in 2017 and there are plans for at least six more small storage dams.[50]

Hydropower development in the LMB brings both positive and negative consequences. According to the MRC Council Study on the Sustainable Development of the Mekong River Basin including impacts of the mainstream hydropower projects, the LMB could see economic gains from full hydropower development of more than US$160 billion by 2040. Development of hydropower brings synergies with other water related sectors as well, including contributing to navigation by regulating water flows which, in turn, enhances regional trade. But those benefits come with potential costs. In particular, decline of fisheries and loss of forests, wetlands and mangroves. With further reduction of sediment due to dams and sand mining, rice growth along the Mekong River will be severely curtailed.[51]

Figure 3. Map of Mekong mainstream dams



2.3 Harmonization at regional level

As indicated in section 2.1.2 above, regional cooperation on water use of, and navigation on, the Mekong River is assured through two main legal instruments:

a) the Quadripartite Agreement of 2000, which deals with the UMB, and has been signed by the governments of China, Myanmar, Lao PDR and Thailand; and

[50] *Ibid*
[51] See MRC website at: https://www.mrcmekong.org/our-work/topics/hydropower/

b) the 1995 Mekong Agreement, which deals with the LMB, and has been signed by the governments of Lao PDR, Thailand, Cambodia and Vietnam.

In Mekong water resources development and management, the four Lower Mekong riparian States have been cooperating through the MRC, based on the 1995 Mekong Agreement, for 25 years, building on a long history of cooperation since 1957 with the Mekong Committee. The Upper Mekong States of China and Myanmar have been dialogue partners of the MRC since 1996, cooperating in data and information sharing, technical exchanges, joint studies, and policy dialogue.

The MRC remains the only treaty-based intergovernmental river basin organisation with a clear mandate and core functions, focusing on principles of integrated water resources management, common procedures, strategies, guidelines and tools to support the sustainable and equitable use of water and related resources, and joint actions to address transboundary issues, in particular navigation and water flow. As a regional knowledge hub and water diplomacy platform, its core functions have been defined to include: data acquisition, exchange and monitoring; analysis, modelling and assessment; basin planning support; forecasting, warning and emergency response; implementation of the five MRC procedures for basin management; and dialogue and facilitation.

The LMC on water resources, recently established through the Sanya Declaration in 2016 (see 2.2.1), has a broader scope with water resource management being one of six priority areas, which also include connectivity, production capacity, cross-border economic cooperation, agriculture and poverty reduction through project-based initiatives. LMC water cooperation does not solely focus on the Mekong River Basin but on regional, national and local water issues in the six riparian countries (Cambodia, China, Lao PDR, Myanmar, Thailand and Vietnam). Projects are financed through a Special Fund which provides a vehicle for investment and technology transfer in water resources management.

The water resources cooperation area of LMC Water is managed through a Joint Working Group (JWG) of water and related line agencies in the six countries supported by the Lancang-Mekong Water Resources Cooperation Center (LMC Water Center) in Beijing. The Center is a platform for technical exchanges, research, information sharing and capacity building. A Lancang-Mekong Environmental Cooperation Center has also been established in Beijing.

The JWG is an important new avenue for whole-of-basin cooperation. The MRC Secretariat (MRCS) being granted observer status at JWG meetings and the agreement to a Memorandum of Understanding between MRCS and LMC Water Center is evidence of the willingness of both cooperation platforms to work more closely together. Increasing engagement between MRC and the LMC Water builds on the strong positive trajectory of cooperation between the MRC and China highlighted above.

Reflecting the need for enhanced regional cooperation, the *Basin Development Strategy 2021-2030 & MRC Strategic Plan 2021-2025* approved by the MRC Council in November 2020, focus on the entire Mekong River Basin. This is because MRC Member Countries believe that the basin's sustainable development and current water security issues can only be effectively addressed at the basin scale through cooperation between all six riparian countries and established cooperative bodies. The increasing regulation of the basin and the uncertainties and opportunities presented by hydropower operations in the management of floods and droughts, and in rapid water level fluctuations highlight the importance of enhanced cooperation between upstream and downstream states. Enhanced regional cooperation will need to go beyond identifying and sharing information to avoid duplication in areas of "common interest" and focus on strategic win-win outcomes in areas of "complementary interest", where the relative strengths of different bodies can be maximised in support of integrated policy

approaches at the water-food-energy nexus. Areas of complementary interest between different bodies include water resources and energy planning, environmental and social protection, and benefit sharing, data management and infrastructure operations, and early warning and disaster response amongst others.[52]

Compared to the pace and scope of the increased integration across the broader regional economy in Southeast Asia, cooperation in water resources planning and development has been relatively modest. National water-related sector plans are prepared and implemented largely independently from those of the other basin countries. Regional water cooperation focuses primarily on data and information sharing and knowledge acquisition, while joint investment projects by two or more countries have been developed only for hydropower, driven by energy sector planning.

It is important to note that the 1995 Mekong Agreement and the Quadripartite Agreement do not address the issue of labour rights and working conditions on board inland waterway vessels. As a result, neither the MRC nor the JCCCN has been mandated to establish regional minimum labour standards and harmonize working conditions on board Member States' inland water fleets. This issue remains a national matter to be dealt with through national legislation.

At the regional level, ASEAN Member States, in 2012, have, through the ASEAN Declaration of Human Rights, affirmed the right of every person to work, to the free choice of employment and to enjoy just, decent and favourable conditions of work and to have access to assistance schemes for unemployment. Through the framework of ASEAN Declarations, they have also recognized the crucial role of social protection in enhancing the well-being, livelihood and welfare of the peoples[53] and the imperative need to take concrete actions towards the transition from informal employment to formal employment to promote inclusive and sustainable growth, employment and decent work.[54]

2.4 Labour overview in the study area

The three countries examined in this study (hereinafter referred to as "the concerned countries") share the characteristic of having a high per centage of their employed population earning their livelihood in the informal economy. According to the International Labour Organisation (ILO) statistics published in 2019,[55] the share of informal employment in total employment and in non-agriculture employment was 93.1% and 89.8% respectively in Cambodia and 93.6% and 78.5% in Lao PDR. While percentage for Thailand was not reported, it is understood to be less than in Cambodia and Lao PDR, but still significant.

A common feature in the concerned countries is that few information related to employment and working conditions in the inland navigation and transport sector is available. There are no comprehensive national or regional studies that show the contribution of the IWT sector to the respective national economies in terms of employment. Surveys conducted by the MRC at the national level for the preparation of the Master Plan for Regional Waterborne Transport in the Mekong River focused primarily on users of transport services (e.g., access, frequency and purpose of user) and thus

[52] MRC. *Basin Development Strategy 2021-2030 & MRC Strategic Plan 2021-2025,* pp. 25-28

[53] ASEAN Declaration on Strengthening Social Protection of 9 October 2013

[54] Vientiane Declaration on Transition from Informal Employment to Formal Employment towards Decent Work Promotion in ASEAN of 6 September 2016

[55] ILO. 2018. *Women and Men in the Informal Economy: A Statistical Picture* https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf

contained scant information on the workforce employed on board passenger or cargo vessels.[56] According to MRC, employment in the IWT sector, in 2014, could be roughly estimated at 780,000 people.[57] Interestingly, no information on employment, workforce and labour conditions on board inland waterway vessels is provided in the 2017 MRC report on navigation.[58]

This lack of interest in the IWT sector can be explained by a combination of several factors. First, although there are no official figures, it is likely that a high percentage of the workforce employed in the IWT is working informally. Second, the development of IWT has not been a government priority in the concerned countries due to navigability issues on some stretches of the Mekong River (e.g., important fluctuations in water level, physical barriers) and competition with other modes of transport (e.g., high density of highways and roads, construction of bridges, faster modes of transport). Third, and linked to the second factor, government institutions responsible for the management and development of IWT are of low administrative status and endowed with limited human, technological and financial resources, capacities and capabilities. Thus, restricting their ability to be heard and act effectively.

Considering the little attention paid to the IWT sector, it is not surprising that the legal framework regulating the IWT sector and labour rights in this sectoral activity is sketchy in the three concerned countries. In addition, one should stress the fact that almost no international labour standards have been developed by the ILO for this sectoral activity[59], as the Maritime Labour Convention (MLC, 2006) does not cover inland navigation[60] and the Work in Fishing Convention (C188) applies only to fishers and commercial fishing vessels, which are excluded from the scope of this study. Based on the definition of "ship"[61] under the MLC, 2006, however, the labour standards set out in this convention do apply to ships which do not navigate exclusively in inland waters. Typically, this would cover seagoing vessels which enter the Mekong River in Vietnam and sail upstream to the Phnom Penh river port. Of the three concerned countries, only Thailand has ratified the MLC, 2006.[62] This also raises the issue of the legal status of workers employed on board inland waterway vessels as they are neither regarded as "seafarers" nor "fishers".

As shown in Table 8 none of the concerned countries has adopted a specific and comprehensive legislation governing employment and working conditions in the inland navigation sector. It is worth noting, however, that: (i) Cambodia has issued Circular No. 003 SRC/MPWT on the Management and Means of Water Transportation (2000), which specifies the requirements for the licensing of skippers and mechanics to be employed on board river vessels; and (ii) in Thailand, the Marine Department (MD) Regulations on Examination of Knowledge of Ship Operators, B.E. 2532 (1989) issued under the Thai Waters Act, B.E. 2546 (1913), which applies to both maritime and inland waters, regulate the minimum age. In the absence of comprehensive sectoral regulations, it is assumed that labour laws of general application apply to the inland navigation sector, since no specific exclusions of the inland waterway transport sector have been found.

[56] MRC. 2015. *Design of a Master Plan for Regional Waterborne Transport in the Mekong River Basin,* Section 2.10 at pp. 88-101

[57] MRC. 2017. *Council Study: Report for Navigation Thematic Area*, p. 9. It is assumed that this figure reflects the total number of people employed in the IWT sector in the four LMB countries.

[58] MRC. 2017. *Council Study: Report for Navigation Thematic Area*

[59] Apart from the Hours of Work (Inland Navigation) Recommendation, 1920 (No. 8)

[60] MLC 2006 applies to "seafarer" that is "any person who is employed or engaged or works in any capacity on board a ship to which this convention applies" (Article II.1 (f)). For the purpose of the MLC 2006, the term "ship" means "a ship other than one which navigates exclusively in inland waters or waters within, or closely adjacent to, sheltered waters or areas where port regulations apply" (Article II.1 (i)).

[61] See footnote 55

[62] Note that Lao PDR, as a landlocked country, has no reason to ratify MLC 2006 as it does not operate an international ship registry.

Table 8. National labour legislation and other relevant legislation applicable to inland navigation and inland water transport

Countries	General legislation	Specific legislation
Cambodia	Law on Social Security for Persons Defined by the Provisions of the Labour Law (2019)	Circular No. 003 SRC/MPWT on the Management and Means of Water Transportation (2000)
	Law on Trade Union (2016)	
	Law on Labour (1997)	
	Law on Suppression of the Kidnapping, Trafficking and Exploitation of Human Persons (1996)	
	Prakas No. 429/20 of 31 December 2020 on Physical Examination of Cambodian Employees	
	Prakas No.002/08 of 8 January 2008 on determination of light work for minors between the ages of 12 and 15 years	
	Prakas No. 106 of 2004 on the prohibition of hazardous work for child labour	
	Prakas on Arbitration Council (2004)	
	Prakas No. 243 of 10 September 2002 on notification of work-related accidents, how to offer benefits and rate of disability	
	Joint Prakas No.09 of 19 January 19 1994 on fitness check of Cambodian nationals and foreigners	
Lao PDR	Law on Anti-Trafficking in Persons (2015)	Decree on Labour Dispute Resolution (No.76 of 2018)
	Labour Law (2013)	
	Social Security Law (No. 34/NA) (2013)	
	Trade Unions Law (2007)	
Thailand	Human Trafficking Procedure Act, B.E: 2559 (2016)	Thai Vessels Act B.E. 2481 (1938)
	Prevention and Suppression of Human Trafficking (No. 2) Act B.E. 2558 (2015)	Marine Department Regulation on Examination of Knowledge of Ship Operators B.E. 2532 (1989) - adopted under the Thai Waters Act B.E.2456 (1913)
	Occupational Safety, Health and Environment Act B.E. 2554 (2011)	Act on Navigation in Thai Waters, B.E. 2456 (1913)
	Establishment of Labour Court and Consideration of Labour Cases Act (No. 2) B.E. 2550 (2007)	
	Labour Protection Act B.E 2541 (1998)	
	Workmen's Compensation Act B.E. 2537 (1994)	
	Social Security Act B.E. 2533 (1990)	
	Labour Relations Act B.E. 2518 (1975)	
	Ministerial regulations on the provision of welfare in the workplace B.E. 2548 (2005)	

2.5 Social dialogue in the study area

At the regional level, social dialogue in ASEAN Member States is promoted through the annual ASEAN regional tripartite social dialogue organised jointly by the ASEAN Service Employees Trade Union Council and Labour Ministries in the ASEAN Member States. This dialogue does not focus on any sectoral issues, but rather on general principles for the advancement of social dialogue in ASEAN Member States.

In 2012, the ASEAN Guidelines on Good Industrial Relations Practices were adopted and recognized:

a) the basic rights of employers and workers to freely organise and pursue their own affairs;
b) freedom of association and the right to collective bargaining as fundamental principles at work;
c) sound bipartite relations based on genuine cooperation and collaboration in workplaces represent the anchor of successful country-wide sound industrial relations;
d) effective resolution of labour disputes is an integral component of a successful industrial relations system;
e) tripartism and social dialogue involving government, employers and workers can be a key competitive advantage supporting economic competitiveness, harmonious industrial relations, and overall national progress.

At the national level, there is currently no social dialogue taking place in any of the concerned countries with respect to the working conditions in the inland navigation sector.

To date, Cambodia is the only of the three concerned countries to have ratified the ILO fundamental conventions underpinning social dialogue, namely the Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87) and the Right to Organise and Collective Bargaining Convention, 1949 (No. 98).

In **Cambodia**, union multiplicity has been identified as one of the key characteristics of the trade union movement. It is a reflection of the strong influence of the political parties in the labour movement. The number of entreprise unions, federations and confederations has been increasing over the years with a strong increase between 2009 and 2016. Three of the major confederations are the Cambodian Confederation of Trade Unions, formed in 2004 to combine all federations supportive of the government into one group, the Cambodian Confederation of Unions established in 2006, and the Cambodian Labour Confederation, which is an independent federation.[63] In 2015, the Cambodian Transport Workers' Federation (CTWF) was created in a push to unionise workers outside the garment sector. The CTWF is an affiliate of the International Transport Workers' Federation (ITF). It is composed of 7 transport workers unions mainly in the aviation and road transportation sectors.

In **Lao PDR**, the Lao Federation of Trade Unions (LFTU) is the sole trade union since the communist revolution in 1975. No independent trade unions can be formed outside the LFTU. To date, there is no ITF affiliate in Lao PDR.

In **Thailand**, it was estimated that about 2% of the workforce was organized into trade unions and the Government's data shows that less than half percent of private enterprises in Thailand had unions in 2015. This low trade union density is a result of combination of factors such as restrictive laws, resistance from employers and lack of enforcement of workers' rights that in the end also weakens trade unions capacities to represent workers effectively.[64] General unions include the Confederation of

[63] Serrano R. Melisa and Nuon Veasna, Unions and Development in Cambodia, Friedrich Ebert Stiftung Office for Regional Cooperation in Asia (2018). See https://www.researchgate.net/publication/335601120_Unions_and_Development_in_Cambodia
[64] ILO website. See https://www.ilo.org/asia/countries/thailand/WCMS_546209/lang--en/index.htm

Industrial Labour of Thailand, the Thai Trade Union Congress and the National Congress Private Industrial of Employees. In the transport sector, the Thai Seafarer Association is an ITF affiliate.

3. Overview of legal framework and practice in inland navigation in the Mekong River

As highlighted in section 2.4 above, few rules and regulations have been adopted to regulate working conditions in the inland navigation sector in the concerned countries. Hence, in the absence of specialized regulations, it is assumed that rules laid down in the general labour law are applicable to the inland navigation sector.

In **Cambodia**, the Labour Law of 13 March 1997 governs relations between employers and workers resulting from employment contracts to be performed within the territory of the Kingdom of Cambodia. It applies to every commercial enterprise or establishment including those involved in **water transportation**.[65] Personnel serving in the air and maritime transport do not fall within the scope of this Law insofar as they are regulated by special legislation. Thus, it can be inferred from these provisions that the Labour Law 1997 is applicable to personnel or workers serving on board Cambodian-flagged inland waterway vessels.

In **Lao PDR**, the Labour Law No. 43/NA of 24 December 2013 broadly applies to all employers and registered and unregistered employees.[66]

In **Thailand**, the Labour Protection Act, B.E, 2541 of 12 February 1998 applies to all types of activities. However, different rules may be adopted through ministerial regulations to govern specific sectoral activities including transportation.[67] To date, no regulations have been adopted to regulate labour protection on board inland waterway vessels.

In all three countries, general labour legislation appears to apply to persons working on board nationally flagged inland waterways vessels. The question arises whether in the absence of specific regulations, general labour law continues to apply to inland waterway vessels while they navigate through waters under the jurisdiction of another state.

3.1 Minimum requirements for work on board inland waterway vessels

3.1.1 Minimum age

3.1.1.1 International standard

The three concerned countries have ratified the Minimum Age Convention, 1973 (C.138), which is one of the eight ILO fundamental conventions. This Convention, which is supplemented by the Minimum Age Recommendation (No. 146), applies to all sectors of economic activities and all forms of employment and work, including the workforce on board inland waterway vessels.

[65] Article 1 of Labour Law 1997
[66] Article 6 of Labour Law No. 43/NA of 2013
[67] Section 22 of Labour Protection Act of 1998

In accordance with the provisions of Article 2(1) of the Convention, States which ratify the Convention shall specify, in a declaration attached to their ratification, a minimum age for admission to employment or work within their territory and on means of transport registered in their territory.

- Cambodia declared that the minimum age was 14 years. The Convention came into force for Cambodia on 23 August 1999.
- Likewise, Lao PDR declared that the minimum working age was 14 years. The Convention came into force for Lao PDR on 13 June 2005.
- In its declaration, Thailand, in line with Article 5(2) of the Convention, indicated that the minimum age was 15 years and specified the branches of economic activities, including transport, to which it applies. The Convention came into force for Thailand on 11 May 2004.

The Convention stipulates in Article 2(3) that the minimum age specified in paragraph 1 should not be less than the age of completion of mandatory schooling and, in any case, must not be less than 15 years. In both Cambodia and Lao PDR, the declared minimum age is less than 15 years. However, this is not conflicting with the provisions of the Convention as Article 2(4) provides that, notwithstanding the provisions of Article 2(3), a Member State whose economy and educational facilities are insufficiently developed may, after consultation with the organisations of employers and workers concerned, where such exist, initially specify a minimum age of 14 years.

It is also worth mentioning that Article 3(1) of the Convention states that the minimum age for admission to any type of employment or work, which by its nature or the circumstances in which it is carried out, is likely to jeopardise the safety, health or morals of young persons shall not be less than 18 years. As a result, each Member State will have to determine, in its national legislation, whether working on board inland waterway vessels should be regarded as hazardous work or employment. It should be noted that according to the type of work undertaken by any person on board any inland waterway vessel, the risk in terms of safety, health and morals may vary. The Convention does not encompass any definition on what may constitute hazardous work or employment nor does it entail any criteria to take into consideration to assess whether any work or employment may be hazardous. Recommendation No. 146, however, provides some guidance to national authorities by including a few examples of criteria to take into account to make such assessment, namely: any activity involving the handling of dangerous substances, agents or processes, the lifting of heavy weights or underground work.

At the regional level, no legal minimum age for admission to work or employment has been recognized by ASEAN Member States. It is a matter of national sovereignty and thus should be addressed through national legislation.

3.1.1.2 National standards

3.1.1.2.1 Cambodia

As per the Labour Law 1997 the minimum age for paid employment in Cambodia is 15 years.[68] However, depending on the nature of the work to be undertaken the legal minimum age may vary. For any kind of employment or work, which, by its nature, could be hazardous to the health, safety or morals of a minor, the minimum age is 18 years. The types of employment or work covered by this provision are established by ministerial regulation (Prakas) of the Minister responsible for labour, in consultation with the Labour Advisory Committee.[69] In 2004, Prakas No. 106 on the prohibition of hazardous work for child labour was adopted and laid down the list of activities that are considered hazardous work or employment for youth. While it does not make specific mention of work or employment on board inland

[68] Article 177.1 of Labour Law 1997
[69] Article 177.2 of Labour Law 1997

waterway vessels, there are provisions that may be applicable to certain types of occupation on board these vessels, such as welding metal and operating cranes, hoists, or other lifting machines.[70]

In addition, children from 12 to 15 years of age can be hired to do light work provided that the work: (a) is not hazardous to their health or mental or physical development; and (b) will not affect their regular school attendance, their participation in guidance programmes or vocational training approved by a competent authority.[71] Prakas No. 002/08 of 8 January 2008 was adopted to establish the list of light work that can be undertaken by minors between the ages of 12 and 15 years.[72]

Minors (from 16 to less than 18 years of age) should not work more than 8 hours per day and must be given at least 13 consecutive hours of rest between shifts.[73] They may be allowed to work at night in certain lines of work as defined by ministerial regulations, but only for the purpose of training.[74] Night work is work performed between 22:00 hours and 05:00 hours. Night work performed during normal working hours (non-overtime hours) is paid at 130% of the rate for normal working hours that are not worked at night.[75]

The minimum age for skippers (boatmasters) and mechanics on board vessels varies according to the classes of vessels concerned, but cannot be less than 22 years of age for the former and 20 years of age for the latter.[76]

3.1.1.2.2 Lao PDR

The Labour Law 2013 contains a definition of the term "workforce" which means any person of at least 14 years of age and less than 60 years of age who is able to work.[77] This provision is complemented by an entire Chapter dedicated to youth employment setting out the following rules:

a) employers may accept employees under the age of 18 years, but not younger than 14 years, provided they are exempted from working overtime;

b) where necessary, employers may hire youth employees under the age of 14 years, but not younger than 12 years to carry out light work, that is work that will not negatively impact the body, psychology or mind and prevent school attendance, professional guidance or vocational training. The list of light work activities is to be established through regulation.[78]

It is prohibited to employ any youth to perform hazardous work that is any work in activities, duties, and locations that are unsafe and/or dangerous to physical or psychological health. The list of hazardous works is to be defined through regulation.[79] While it could not be ascertained whether such a list has been established and whether work on board waterway vessels has been recognized as hazardous work, there is indication that this may be the case as crewmen employed on board inland waterway vessels are apparently required to undergo a medical examination twice a year (see section 3.1.2.2).

[70] Article 2 of Prakas No. 106 of 2004 on the prohibition of hazardous work for child labour
[71] Article 177.4 of Labour Law 1997
[72] Article 2 of Prakas No.002/08 of 8 January 2008 on determination of light work for minors between the ages of 12 and 15 years
[73] Article 1 of Prakas No. 144 of 10 June 2002 on exceptional works on the prohibition of the employment of child workers
[74] This list is established by Prakas No. 144 of 10 June 2002 on exceptional works on the prohibition of the employment of child workers
[75] Article 144 (new) of Labour Law 1997
[76] Circular No.003 dated June 27, 2000 on management of means of water transports
[77] Article 3 of Labour Law 2013
[78] Article 101 of Labour Law 2013
[79] Article 102 of Labour Law 2013

3.1.1.2.3 Thailand

As a general rule, no employer should hire as an employee a child less than 15 years of age.[80] Where a child under the age of 18 years is employed, the employer is required to notify the labour inspector of the hiring of the child employee within 15 days from the date the child employee starts his or her work.[81]

Child employees less than 18 years of age benefit from a range of enhanced labour protections:

a) an employer shall not require a young worker to work between 22.00 hours and 6.00 hours unless written permission is granted by the Director-General or a person entrusted by the Director-General;[82]
b) an employer is prohibited from causing a child employee to work overtime or on holidays;[83]
c) an employer is prohibited from causing a child employee to perform any hazardous work such as: work involving conditions of heat, cold, vibrations, sound and abnormal lighting; driving or controlling hoists or cranes; and any such other works as may be prescribed by ministerial regulations;[84] and
d) for the purpose of the development and promotion of quality of life and work of children, child employees shall have the right to take leave to attend meetings, seminars, or training sessions, which are held by educational institutes or a government or private agency approved by the Director-General.[85]

In the inland navigation sector, all crew members including the skipper are required to be of a minimum age of 16 years to pursue a career. However, the helmsman and engine operator of power-driven river vessel are required to be literate and of not less than 18 years of age.[86]

3.1.1.3 Conclusion

Thailand has the most protective legislation with respect to the minimum age for employment in the inland navigation sector, as no youth less than 16 years of age can be employed on board an inland waterway vessel compared to 15 years of age and 14 years of age in Cambodia and Lao PDR respectively. Moreover, the labour laws of the concerned countries provide special protections for youth less than 18 years of age (e.g., hazardous work, occupation harmful to youth' safety or morals, overtime) and permits the employment of youth as of 12 years of age to do light work under certain conditions. It is unclear whether work on board inland waterway vessels is considered to be hazardous work (dangerous workplace) or whether only certain activities or tasks in such work environment are regarded as being hazardous in any of the concerned countries.

3.1.2 Medical examination and fitness

3.1.2.1 Cambodia

According to Article 2 of Joint Prakas No. 09 of 19 January 1994 on fitness check of Cambodian nationals and foreigners who work in Cambodia and Prakas No. 429/20 of 31 December 2020 on

[80] Section 44 of the Labour Protection Act of 1998
[81] Section 45 of the Labour Protection Act of 1998
[82] Section 47 of the Labour Protection Act of 1998
[83] Section 48 of the Labour Protection Act of 1998
[84] Section 49 of the Labour Protection Act of 1998
[85] Section 52 of the Labour Protection Act of 1998
[86] Marine Department Regulation on Examination of Knowledge of Ship Operators, B.E. 2532 (1989) adopted under the Thai Waters Act B.E.2456 (1913) as amended

Physical Examination of Cambodian Employees, all employees are required to undergo a medical examination by the Labour Medical Unit Department or local health care centres accredited by the Ministry of Health or in cooperation with Labour Medical Unit Department. After completion of the medical examination, the Labour Medical Unit Department is required to issue a medical certificate to any interested person for official use.[87] The cost of these medical exams must be borne by the employer. Article 247 of Labour Law 1997 requires the Minister in charge of labour to issue regulations to determine the conditions under which periodical and special medical exams are to be provided. No such regulations were identified.

3.1.2.2 Lao PDR

Employers are required to facilitate medical examinations of employees at least once a year. Employees who work in dangerous areas, perform hazardous work or work at night must undergo a medical examination at least twice a year.[88] This is apparently the case for any crewman working on board inland waterway vessels.

To work as a crewman on board an inland waterway vessel, any applicant is required to provide a medical certificate showing that the applicant has:

a) no insanity or mental infirmity;
b) no handicap or physical disability, which results in inability to work;
c) no contagious disease; and
d) good eyesight and hearing.

3.1.2.3 Thailand

Any person applying for a work as a boatman on board inland waterway vessels must be in good mental and physical health and in particular show that he or she has:

a) no insanity or mental infirmity;
b) no handicap or physical disability which results in inability to work on duties;
c) no contagious disease; and
d) good eyesight and hearing.

In order for the labour authorities to verify the veracity of the information to be provided, applicants must submit a medical certificate as evidence for consideration.[89]

More generally, employers are required to make arrangements for all employees to be checked by a medical doctor to ensure that they are fit to work within 30 days from the date of acceptance of the work agreement. After that, all employees are required to undergo an annual medical exam to check their health and fitness.[90]

[87] Article 6 of Joint Prakas No. 09 of 19 January 1994 on fitness check of Cambodian nationals and foreigners who work in Cambodia
[88] Article 126 of Labour Law 2013
[89] Marine Department regulation on Examination of Knowledge of Ship Operators, B.E. 2532 (1989)
[90] Clause 3 of Ministerial Regulations determining the criteria and methods of health check-up for employees adopted under section 107 of the Labour Protection Act of 1998

3.1.2.4 Conclusion

In all three countries, a medical certificate is required to work on board inland waterway vessels.

3.1.3 Education, training and recruitment

3.1.3.1 Cambodia

There is no specific regulation setting out the requirements in terms of education and training for personnel working on board inland waterway vessels in Cambodia.

3.1.3.2 Lao PDR

Lao PDR has not developed training curriculums for personnel working on board inland waterway vessels.

3.1.3.3 Thailand

The Marine Department regulation on Examination of Knowledge of Ship Operators, B.E. 2532 (1989) provides the general subject matters to be covered by curriculums in relation to various classes of certificates of knowledge and abilities in deck and engine departments.

The curriculum in preparation of the exam to obtain a Skipper of Power-Driven River Vessel certificate includes the following topics: ship types and equipment, aids to navigation, ship handling, anchor and rope operation, cargo handling, ship business, passenger handling, ship communication, navigation rules and regulations, handling of emergency, life-saving appliances, fire-fighting equipment, and protection of water environment.

The knowledge to be acquired in preparation of the exam to obtain a certificate as a first-class engine operator for self-propelled river vessel covers the following topics: laws and regulations, emergency response, ship propelling engine, auxiliary engine, all types of electric machines, maintenance of all machinery, ship fuel, and protection of water environment.

3.1.3.4 Conclusion

Of the three concerned countries, and based on the information available, only Thailand has developed a comprehensive education and training programme for skippers and engine operators to serve on board inland waterway vessels. No specific legislation has been found or made available governing the recruitment process.

3.1.4 Certificates and qualifications

3.1.4.1 Cambodia

Circular No.003 of 27 June 2000 on management of means of water transports establishes three types of skipper licenses to pilot inland waterway vessels:

a) Skipper License Class 1: a bearer of a class 1 skipper license shall be at least twenty-five years of age and shall be entitled to pilot a vessel/boat with a capacity of 301 tons or more or a tugboat with a capacity of 301 tons or more;

b) Skipper License Class 2: a bearer of a class 2 skipper license shall be at least twenty-five years of age and shall be entitled to pilot a vessel/boat with a capacity from 51 to 300 tons or tugboat with a capacity of 25 to 300 tons;
c) Skipper License Class 3: a bearer of a class 3 skipper license shall be at least twenty-two years of age and shall be entitled to pilot a boat with a capacity of 50 tons or below or a tugboat with a capacity of 50 tons or below.

Any vessel is required to have a mechanic on board whose main responsibility is to maintain the engine in good working order. Every mechanic must be in possession of the appropriate license corresponding to the class of vessel he or she has been hired to work on. There are three types of mechanic licenses as follows:

a) Mechanic License Class 1: a bearer of a class 1 mechanic license shall be qualified to work on board a boat/vessel with a capacity of 151 HP or more and shall be at least twenty-two years of age;
b) Mechanic License Class 2: a bearer of a class 2 mechanic license shall be qualified to work on board a boat/vessel with a capacity of 91 HP to 150 HP and shall be at least twenty-two years of age;
c) Mechanic License Class 3: a bearer of a class 3 mechanic license shall be qualified to work on board a boat/vessel with a capacity of 30 HP to 90 HP or more and shall be at least twenty years of age.

Among the documents to be carried on board inland waterway vessels engaged in cross-border navigation between Cambodia and Vietnam and to be produced upon request to the competent authorities, is a crew list specifying the titles and professional certificates of each of the crew members.[91]

3.1.4.2 Lao PDR

In Lao PDR, any person who want to pilot a vessel must be in possession of a Skipper of Power-Driven River Vessel Certificate. Any applicant for such a certificate must satisfy the following requirements in terms of education and work experience:

a) be no less than 20 years of age;
b) have graduated from middle school or possess other equivalent curriculums;
c) for skipping any vessel of no more than 100 gross tonnage (GT), must demonstrate at least one year experience as skipper of any power-driven vessel larger than 15 GT or as skipper assistant on power driven vessel larger than 30 GT;
d) for skipping any vessel of more than 100 GT, must demonstrate at least one year experience as skipper of any power-driven vessel larger than 30 gross tonnage or as skipper assistant on power-driven vessel larger than 60 GT.

3.1.4.3 Thailand

The Marine Department regulation on Examination of Knowledge of Ship Operators, B.E. 2532 (1989) sets out the various types of certificate and requirements that are required to pilot a vessel as follows:

1. Classes of Certificate of Knowledge and Abilities in Deck Department ranked from the highest to the lowest level are the following:

    a) Skipper of Power-Driven River Vessel (boatmaster)

[91] Article 15(1)(f) of the Agreement between the Government of the Socialist Republic of Vietnam and the Royal Government of Cambodia on Waterway Transportation of 17 December 2009

b) First Class Helmsman of Power-Driven River Vessel
c) Second Class Helmsman of Power-Driven River Vessel

Applicants for Skipper of Power-Driven River Vessel Certificate must satisfy the following education and work experience requirements:

(1) be no less than 20 years of age;
(2) have graduated from middle school or have acquired other equivalent curriculums;
(3) for piloting vessels of no more than 250 GT, they must demonstrate at least one year experience as skipper of power driven vessels larger than 30 GT or as skipper assistant on power driven vessels larger than 60 GT ;
(4) for piloting vessels of any size, they must demonstrate at least one year experience as skipper on power driven vessels larger than 60 GT or as skipper assistant on power driven vessels larger than 250 GT; or
(5) be no less than 20 years of age and have passed the special training curriculum of deck department which has been approved by the competent authority.

Applicants for First Class Helmsman of Power-Driven River Vessel Certificate must satisfy the following knowledge and work experience requirements:

(1) be no less than 19 years of age;
(2) be literate; and
(3) be holders of Second Class Helmsman of Power-Driven River Vessel Certificate and demonstrate at least one year experience as second class helmsman on vessels; or
(4) demonstrate working experience on ships larger than 30 GT for at least three years; or
(5) have passed the competency examination according to the general occupational curriculum of Helmsman of Power-Driven Vessel.

Applicants for Second Class Helmsman of Power-Driven River Vessel Certificate must meet the following requirements:

(1) be no less than 18 years of age; and
(2) be literate.

2. Classes of Certificate of Knowledge and Abilities in Engine Department ranking from the highest to the lowest level are the following:

a) Special First-Class Engine Operator for Self-propelled River Vessel
b) First Class Engine Operator for Self-propelled River Vessel
c) Second Class Engine Operator for Self-propelled River Vessel

Applicants for Special First-Class Engine Operator for Self-propelled River Vessel Certificate must meet the following education and work experience requirements:

(1) be no less than 18 years of age;
(2) be a holder of a First-Class Engine Operator for Self- propelled River Vessel Certificate with working experience as engine operator on river vessels for at least one year; or
(3) be no less than 18 years of age and have passed the special training curriculum of Engine Department at the training institute approved by the competent authority.

Applicants for First-Class Engine Operator for Self- propelled River Vessel Certificate must satisfy the following education and work experience requirements:

(1) be no less than 18 years of age;
(2) be a holder of a Second-Class Engine Operator for Self-propelled River Vessel Certificate with working experience as engine operator on River Vessels for at least one year; or
(3) be no less than 18 years of age and have passed the special training curriculum of Engine Department at the training institute approved by the competent authority.

Applicants for Second-Class Engine Operator for Self-propelled River Vessel Certificate must meet the following education and work experience requirements:

(1) be no less than 18 years of age;
(2) have acquired working experience as engine operator on River Vessels for at least one year; or
(3) be no less than 18 years of age and have passed the special training curriculum of Engine Department at the training institute approved by the competent authority.

3.1.4.4 Conclusion

In all three concerned countries, skippers are required to be certified to pilot various classes of vessels. Certification is also required for engine operators in both Cambodia and Thailand. Overall, Thailand has the most structured and detailed requirements for skippers, helmsmen and engine operators. It is also worth noting that Lao PDR and Thailand have adopted similar requirements, including criteria on knowledge and experience, for the certification of skippers of inland waterway vessels.

3.2 Conditions of service

3.2.4 Work agreements

3.2.4.1 Cambodia

Employment agreements in the inland navigation sector in Cambodia are subject to the general rules provided for under the Labour Law 1997.

An employment contract is an agreement in which one person, the employee, agrees to work for wages for another person or company, the employer. Employment contracts establish working relationship between the employee and the employer. They can be in a written or oral format and can be drawn up and signed in accordance with local customs.[92] There are two types of employment contracts under the Labour Law 1997 for regular employees[93]: fixed term contracts (FTCs) and undetermined duration contracts (UDCs).[94]

A contract is a FTC if it:

- is in writing;
- is no longer than 2 years; and
- has a specific starting and end date.

[92] Article 65 of Labour Law 1997
[93] Regular workers "are those who regularly perform a job on a permanent basis" as defined in article 9 of Labour Law 1997
[94] Article 65, 67, 73 and 74 of Labour Law 1997

In accordance with the provisions of article 65 of the Labour Law 1997, a FTC can be renewed one or more times, as long as the contract is not extended for a period exceeding 2 years. In any case, the duration of the initial contract, after the probation period,[95] shall not be longer than 2 years. As a result, the total duration of a FTC cannot exceed a period of four years, including the first contract and subsequent renewal. If it exceeds this duration, the FTC will automatically become an undetermined duration contract (UDC).

Sometimes, a FTC can have an unspecified end date when it is drawn up for:

- replacing a worker who is temporarily absent;
- seasonal work; and
- occasional increase in work or unusual activity of the enterprise.

In such cases, the contract will end:

- when the worker who is temporarily absent returns to work or when the contract terminates;
- at the end of the seasonal period;
- when the need for extra workers is no longer required.[96]

If a contract does not meet the above-mentioned standards, it shall be regarded as a UDC.

The Labour Law 1997 provides a definition of the notion of "casual" workers who are those contracted to perform a specific work that should normally be completed within a short period of time or a temporary, intermittent or seasonal work.[97] Casual workers are sometimes also referred to as floating or temporary employees.

The Labour Law also makes provisions for apprenticeship to help unskilled workers acquire sufficient knowledge and skills to enter the labour market. Under an apprenticeship contract, an employer provides professional training to apprentices who are newly recruited and unskilled. Such a contract must be in a written format either by notarial deed or private agreement. Through the apprenticeship, unskilled workers get initial training and after successful completion of the training programme they can expect to be offered a probation period before becoming regular employees.[98]

3.2.4.2 Lao PDR

Employment contracts in the inland navigation sector in Lao PDR are regulated by the Labour Law 2013.

An employment contract is an agreement between an employee and an employer or between an employee representative and an employer representative to determine the conditions of work, salary or wages, welfare, and other policies. Employment contracts must be based on the principle of equality and should result from a consensual agreement between an employer and an employee and be in accordance with the law.[99]

An employment contract may be made either for a fixed term or for an indefinite period depending on the agreement between the employer and the employee concerned. The duration of fixed term

[95] At the beginning of an employment contract the employer can set a probation period of up to 3 months in order to evaluate the skills and attitude of an employee (article 68 of Labour Law 1997)
[96] Article 67 of Labour Law 1997
[97] Article 9 of Labour Law 1997
[98] Articles 51 to 64 and 82 of Labour Law 1997 and Prakas No. 004 of 5 January 2000 on Training of Apprentices
[99] Article 75 of Labour Law 2013

employment contracts, including any extensions, may not be longer than three years. If the duration exceeds a three-year period, the contract will be held to be an indefinite employment contract. The extension of any employment contract must be made within sixty days from the date of expiration of the prior contract, except in cases of employment contracts with set durations in accordance with project length or seasons.[100]

Employment contracts may be in a written or verbal form. In cases where one party or both parties is or are a legal entity or organisation, employment contracts must be in writing. Employment contracts may be verbal in situations where the employer and employee are both individuals.[101]

The Labour Law 2013 specifies the information and subject matters that must be included and covered in an employment contract as a minimum standard. It includes the following: (a) scope of work, rights, obligations, responsibilities and occupational duties of the employee; (b) salary or wages of the employee and the form of payment of such salary or wages; (c) duration of the employment contract as well as the dates of commencement and expiration of the employment contract; (d) welfare and other policies for employees; and (e) working days, rest days and holidays.[102]

An employment contract may be contingent upon the successful completion of a probation period by the employee that must not exceed thirty days for unskilled work and sixty days for work requiring special skills.[103]

3.2.4.3 Thailand

Employment contracts in the inland navigation sector in Thailand are regulated by the main legislation on labour, the Labour Protection Act, 2541 B.E. (1998). Under Thai law, employment contracts do not have to be in writing to be enforceable. Different types of employment contracts can be drawn up: open-ended employment contract, fixed-term employment contract or temporary employment contract.

An employment contract is an agreement whereby a person, the employee, agrees to work for another person, the employer, under certain conditions in return for remuneration throughout the period of employment. It can be made in written or verbal form.[104]

3.2.4.4 Conclusion

In all three concerned countries, the general regime applicable to work agreements is set out under the Labour Law and applies across economic sectors, including inland navigation. Work contracts are generally in writing but, in certain circumstances, may also be verbal. As for the inland navigation sector, there is no available data to estimate the percentage of the workforce which actually holds a work agreement.

3.2.5 Wages

3.2.5.1 Cambodia

[100] Article 76 of Labour Law 2013
[101] Article 77 of Labour Law 2013
[102] Article 78 of Labour Law 2013
[103] Article 79 of Labour Law 2013
[104] Section 5 of Labour Protection Act, B.E. 2541 (1998). This Act has been amended several times.

In accordance with the provisions of the Labour Law 1997, workers' salaries must be at least equal to the guaranteed minimum wage, ensuring every worker a decent standard of living consistent with human dignity. Consequently, any written or verbal employment agreement which provides for remuneration less that the guaranteed minimum wage shall be null and void.[105]

The minimum wage rate is set by the Ministry of Labour and Vocational Training in consultation with the Labour Advisory Committee through ministerial orders. The guaranteed minimum wage must be established without distinction among professional occupations or jobs. However, minimum wages may vary according to the region, depending on economic conditions and cost of living.[106]

In 2018, the government passed a Minimum Wage Law designed to codify a process to set a wage floor across industries, as stipulated in the Labour Law 1997 but never implemented. It provides for the establishment of a National Council on Minimum Wages, which is a tripartite body with equal representation from all partners (government, employers' and workers' organizations), with the following responsibilities: conduct scientific study on minimum wages; recommend minimum wage rates to the Ministry; and disseminate and raise awareness and promote social dialogue on minimum wage. It also requires employers to post the minimum wage in the workplace and in payment and hiring offices.

Despite the enactment of this new law, to date, only garment and footwear factory workers, forming the backbone of Cambodia's economy have a guaranteed minimum wage. Workers in other sectors, such as the inland navigation sector, have yet to see any progress toward a guaranteed minimum wage.

3.2.5.2 Lao PDR

According to the Labour Law 2013, salaries and wages are compensation for work on the part of the employee that are payable by the employer in accordance with an employment contract, either monthly, daily, hourly, as a lump sum or by unit of production. It provides for a minimum wage, a basic salary and a total salary:

a) the minimum wage is the level of salary or wages which the government prescribes by ministerial order and adjusts from time to time to ensure a basic livelihood for every worker;

b) the basic salary is the salary that an employer pays to an employee according to the employment contract and basic agreement, depending on level of education, knowledge, capacity, expertise and work experience;

c) the total salary is the money that an employee receives in total within one month, including basic salary, subsidies, per production unit pay and other policies.

In April 2018, the Lao PDR prime minister's office issued a notification increasing the monthly minimum wage in the Lao PDR from LAK 900,000 (approximately USD 85) to LAK 1,100,000 (approximately USD 103[107]).[108] A few days later, the Department of Labour and Social Welfare issued the notification No. 1121/LSW of 25 April 2018 to clarify the government's announcement of minimum wage increase by specifying that:

[105] Articles 104 and 105 of Labour Law 1997
[106] Article 107 of Labour Law 1997
[107] US dollar equivalence as of 15 November 2021.
[108] Prime Minister Notification No. 560/PMO of 20 April 2018.

a) the employer must pay the new monthly minimum wage to employees who work for not more than 26 days, 6 days a week and 8 hours per day. This excludes overtime payment and allowances as well as other benefits as agreed by the employers and employees;

b) in addition, employees whose occupation is regarded as being hazardous work must be paid an additional of 15% of the minimum wage.[109]

In practice, there is no record of wages being paid to workers employed on board inland waterway vessels. Wages are basic and paid on a monthly basis and generally in cash.

3.2.5.3 Thailand

The Labour Protection Act B.E. 2441 (1998) provides the following definition of the notion of "wages": "money agreed between an Employer and an Employee to be paid in return for work done under a Contract of Employment for regular working periods on an hourly, daily, weekly, monthly or other period of time basis, or on the basis of piecework done during the normal working time of a Working Day and includes money to be paid by an Employer to an Employee on Holiday and on Leave during which the Employee does not work but is entitled to the money under this Act". It also makes provision for the establishment of a minimum wage rate to be determined by the National Wage Committee.[110]

The National Wage Committee consists of the Permanent Secretary of the Ministry of Labour and Social Welfare as Chairperson, four government representatives, five representatives each from both employers and employees appointed by the Cabinet as members, and an official of the Ministry of Labour and Social Welfare appointed by the Minister as the secretary.

The powers and duties entrusted in the National Wage Committee include the following:

a) make recommendations concerning wage policy to the Cabinet;
b) provide guidance to employers in determining annual wages adjustment, taking into consideration social and economic conditions;
c) determine the Basic Minimum Wage Rate;
d) advise the Cabinet on the development of a wage system; and
e) provide technical advice and guidance on the harmonization of interests among Government agencies, private sector's organisations and the general public.[111]

In order to determine the Minimum Wage Rate and Basic Minimum Wage Rate, the National Wage Committee is required to study and consider the prevailing rate of wages received by employees across the different industries and regions, together with other relevant factors, particularly the cost-of-living index, the inflation rate, standards of living, production costs, prices of goods, capabilities of business, labour productivity, gross national product, and the general economic situation. Based on this study, the National Wage Committee shall prescribe the Minimum Wage Rate or the Wage Rate by skill standards and propose it to the Cabinet for publishing in the Government Gazette.[112] In 2019, the National Wage Committee issued a notification to announce that the daily minimum wage rate would increase by 5-6 baht, to 313 (approximately USD 9.5) to 336 baht (approximately USD 10.3)[113] as of 1 January 2020.[114] The daily minimum wage rate varies by province, from 313 to 336 baht, as published

[109] See https://www.zicolaw.com/resources/alerts/new-minimum-wage-in-laos/
[110] Section 5 of the Labour Protection Act, B.E. 2441 (1998)
[111] Sections 78 and 79 of the Labour Protection Act, B.E. 2441 (1998)
[112] Sections 87 and 88 of the Labour Protection Act, B.E. 2441 (1998)
[113] US dollar equivalence as of 15 November 2021.
[114] National Wage Committee Notification on Minimum Wage Rate (No. 10) B.E. 2562 (2019).

on the official website of the Ministry of Labour and Social Welfare.[115] In practice, the minimum daily wage is applied to workers employed in the inland navigation sector.

3.2.5.4 Conclusion

In all concerned countries, the principle of payment of a minimum wage to every worker is enshrined in the Labour Law. The purpose is to ensure a basic livelihood to every employed person across economic sectors. In both Cambodia and Thailand, a national institution, comprising a tripartite membership, has been set up to provide a forum of discussion for the government, and the employers' and workers' organisations and determine the minimum wage rate. In practice, however, except for Thailand, only workers from certain economic sectors do benefit from a wage floor. These sectors are generally those that are regarded as priority sectors by the government and where workers are better organised and represented so that their voice can be heard.

3.2.6 Working time

As mentioned earlier in this study, the Hours of Work (Inland Navigation) Recommendation, 1920 (No. 8) is the only international labour standard applicable to the inland navigation sector. This brief sector-specific ILO instrument is non-binding.

Paragraph I of Recommendation No. 8 provides that each ILO Member should "enact legislation limiting in the direction of the […] declaration in the Constitution of the International Labour Organisation the hours of work of workers employed in inland navigation […]". The aforementioned declaration is enshrined in Article 427 of the Treaty of Versailles, according to which, among the "methods and principles for regulating labour conditions which all industrial communities should endeavour to apply, so far as their special circumstances will permit", is the "adoption of an eight hours day or a forty-eight hours week as the standard to be aimed at where it has not already been attained."

Paragraph II of Recommendation No. 8 invites riparian ILO Member States to enter into agreements for limiting hours of work in inland navigation in the same direction.

Under Paragraph III, "such national legislation and such agreements between riparian countries should follow as far as possible the general lines of the Convention concerning hours of work adopted by the International Labour Conference at Washington,[116] with such exceptions as may be necessary for meeting the climatic or other special conditions of the countries concerned.

3.2.6.1 Cambodia

In Cambodia, the normal number of working hours must not be more than 8 hours per day, or 48 hours per week.[117] Employees are entitled to a weekly time off that should not be less than 24 consecutive hours. While this rest time should normally be on Sunday, it can be adjusted according to the nature of the work.[118] As a general rule, each enterprise is authorized to set its work schedule for different occupations based on the nature of its activities and work organisation, provided it complies with the limitations on working hours.[119]

[115] See https://www.mol.go.th/en/minimum-wage
[116] Hours of Work (Industry) Convention, 1919 (No. 1)
[117] Article 137 of Labour Law 1997
[118] Articles 146 to 148 of Labour Law 1997
[119] Article 138 of Labour Law 1997

Overtime work is a work done in excess of normal working hours that may be allowed to respond to exceptional and urgent situations. Employees should have the freedom to accept or decline to work overtime and should not be punished if they choose not to do so. Employers are required to first obtain a permission from the Ministry of Labour and Vocational Training before requesting any employees to work overtime. Overtime work should be paid at a better rate that normal working hours according to the following schedule:[120]

Night work performed as overtime is paid at 200% of the rate for normal working hours that are not worked at night (a 100% increase in addition to the basic wage).[121] If employees finish their shift during night time, the employer is required to either provide them with a place to sleep or transport to bring them back home.[122]

Table 9. Payment rates for overtime work or work during public holidays or on Sundays

Time of work	Rate
Overtime on Monday to Saturday (day time)	150%
Overtime on Monday to Saturday (night time, from 22:00 to 05:00)	200%
Sundays	200%
Public holidays	200%

3.2.6.2 Lao PDR

It is the responsibility of the employer to set the working hours and hours of rest in accordance with the location of the labor unit,[123] the nature of the work and real working conditions.

Normal hours of work in every labor unit must be no more than 6 days per week and 8 hours per day or no more than 48 hours per week, regardless of the type of salary or wage.

Hours of rest for lunch break should be no less than 60 minutes and may not be included in hours of work. The work schedule can be adjusted to fit the needs of specific economic sectors and particular occupations or where it is deemed necessary, provided it has been approved by the labor management authority after tripartite consultation and unanimous consent. Hours of work must not exceed 6 hours per day or 36 hours per week for employees performing hazardous work.[124]

An employer may request employees to work overtime, if necessary, subject to the prior consent of the trade union, worker's representative, or the majority of employees. Overtime shall not exceed 45 hours per month or 3 hours per day. During that period, it is prohibited for any employee to work more than 4 consecutive days, except in the case of an emergency such as combating natural disasters or an accident that would cause serious damage to the labor unit.[125] The employer is required to notify, in advance, and explain the necessity of overtime work to the employees and to pay overtime wages as determined by law.[126]

[120] Articles 139 of Labour Law 1997, Prakas No. 80 1 March 1999 on overtime work and Notice No. 014 of 6 August 1999 on overtime work
[121] Article 139 (new) of Labour Law 1997
[122] Article 6 of Prakas No. 80 of 1 March 1999 on overtime work and Notice No. 014 of 6 August 1999 on overtime work
[123] In accordance with section 3 of the Labour Law 2013, the notion of "labour unit" means legally registered production, business or service units in the economic and social sector registered according to laws and regulations
[124] Article 51 of Labour Law 2013
[125] Article 53 of Labour Law 2013
[126] Article 61 of Labour Law 2013

Workers are entitled to at least one day of rest per week or four days per month, which may be Sunday or any other day as may be agreed between the workers and the employer.[127]

Under Labour Law 2013, the term "night" is defined as the hours between 22:00 and 06:00. Night work is any type of work that is undertaken for no less than seven consecutive hours during that period. Any employee working at night should be entitled to at least 11 hours of rest before resuming work on a new day.

3.2.6.3 Thailand

As a general rule, the number of working hours in one day shall not exceed 8 hours and the total number of working hours per week 48 hours. Where the work may be harmful to the health or safety of the employee, the normal number of working hours per day shall not exceed 7 hours and the total number of working hours per week 42 hours.[128]

An employer should not require an employee to work overtime on a normal working day, unless the employee has consented to do so. Under certain circumstances, including the nature of the work, the employer may require an employee to work overtime as necessary.[129]

An employee is entitled to a rest period of at least one hour per day. Such period should not be counted as working time, except where the accumulated rest periods in one day exceed two hours.[130]

Employers are required to allow every employee to take a weekly holiday of not less than one day per week and the interval between each weekly holiday shall not be more than six days. In certain economic sectors, including transport, different rules may apply and an employer and an employee may agree in advance that weekly holidays be accumulated and be taken at a later time, provided they are taken within a period of four consecutive weeks.[131]

It is prohibited to employ a child employee to work at night between 22:00 hours and 6:00 hours, unless a written permission has been granted by the Director-General.[132]

3.2.6.4 Conclusion

The general rules governing working hours are similar in all three concerned countries:

a) the normal working hours are 8 hours a day and no more than 48 hours a week with at least one day of rest;
b) overtime work is subject to the prior consent of the employee(s) and should not exceed a certain number of hours per week and should be paid at a better rate than normal hours in accordance with the labour law;
c) night time work is regulated and paid at a better rate than working hours;
d) flexibility is provided to adjust working hours in certain economic sectors to fit with the nature of the work. This includes the transport sector in Thailand.

[127] Article 54 of Labour Law 2013
[128] Section 23 of the Labour Protection Act, B.E. 2541 (1998)
[129] Section 24 of the Labour Protection Act, B.E. 2541 (1998)
[130] Section 27 of the Labour Protection Act, B.E. 2541 (1998)
[131] Section 28 of the Labour Protection Act, B.E. 2541 (1998)
[132] Section 47 of the Labour Protection Act, B.E. 2541 (1998)

In practice, no regulations or collective labour agreements have been adopted or reached to regulate working hours in the inland navigation sector in any of the concerned countries.

3.2.7 Manning levels

Manning levels with respect to vessels refer to the number of crew members required to be on board to ensure the safe and efficient operation of the vessels. That number depends on the size and mode of propulsion of the vessel as well as the duration of the trip, and may be adjusted for each trip. In accordance with article 4 of the Quadripartite Agreement, manning standards for inland waterway vessels are required be determined through the national regulatory framework.

3.2.7.1 Cambodia

To date, there are no rules or regulations governing the manning levels of vessels in inland navigation in Cambodia. Apart from Circular No.003 of 27 June 2000 on management of means of water transports, the General Department of Waterway and Maritime Transport and Port has not issued any relevant rules and regulations with respect to inland navigation. Therefore, the only requirement with respect to manning levels is that every vessel operating in Cambodia's inland waterways must have on board, in addition to the master of the vessel, at least one mechanic responsible for maintaining the engine.

3.2.7.2 Lao PDR

Existing regulations in Lao PDR establish the level of skills for each position on board a vessel, but, as far as could be ascertained, do not seem to provide specific rules regarding the manning levels of vessels in inland navigation.

3.2.7.3 Thailand

While Thailand has adopted specific rules governing the manning levels of seagoing vessels, these rules are not applicable to inland waterway vessels.[133] As a result, there is currently no specific regulation governing the manning levels of vessels operating exclusively in inland waterways.

3.2.7.4 Conclusion

To date, the manning levels on board inland waterway vessels have not been established in any of the concerned countries.

3.3 Safety, health and well-being

3.3.1 Occupational safety and health

None of the three concerned countries has ratified the Occupational Safety and Heath Convention, 1981 (No. 155), which sets out the basic principles for a national and enterprise level policy and strategy for the implementation of occupational safety and health preventive and protective measures.

[133] Marine Department Announcement No. 23/2019 on manning levels for seagoing vessels

In 2017, the ASEAN Labour Ministers signed a Statement on improving occupational safety and health (OSH) for sustainable economic growth whereby they committed to taking actions to protect the safety, health and welfare of workers in the ASEAN region, including:[134]

a) raise OSH standards through developing and regularly reviewing OSH legislation for adequate coverage of the working population;
b) build OSH inspection capabilities and capacities to ensure that inspectorates are adequately resourced and skilled to enforce their respective OSH legislation;
c) encourage the participation of employers' organisations and workers' organisations in optimizing OSH standards and performance; and
d) reduce the social costs of injury and illness by improving the OSH performance.

3.3.1.1 Cambodia

Circular No.003 of 27 June 2000 on management of means of water transports requires that technical inspection of inland waterway vessels be carried out to check whether they are of sufficient standard to ensure adequate safety and protection of crew members and passengers traveling on the inland waterways within Cambodia.

As a general rule, the Labour Law 1997 provides that all establishments and workplaces must always be kept clean and maintain hygiene, sanitation and working conditions of a sufficient standard to provide adequate protection of workers' health.[135]

The Labour Law 1997 stipulates that an accident is considered to be work related, regardless of whether or not the worker is at fault, if it happens to a worker:

a) while working;
b) during the working hours; or
c) while travelling directly from home to the work place or vice versa.

Once an employer is informed of any occupational injury or work-related accident, the employer has the obligation to:[136]

a) provide first aid;
b) inform the competent authorities;
c) secure the scene of accidents;
d) provide the investigating committee with relevant documentation;
e) allow any witnesses to report to the competent authorities;
f) cover the financial cost of the technical investigative work; and
g) take action to prevent similar accidents from happening again.

Occupational illnesses are regarded as being work-related accidents and must be dealt with as such and remedied in the same manner.[137]

3.3.1.2 Lao PDR

[134] https://asean.org/wp-content/uploads/2017/09/SIGNED_ASEAN-Labour-Ministers-Statement-on-Improving-OSH-for-Sustainable-Economic-Growth.pdf
[135] Article 229 of Labour Law 1997
[136] Article 257 of Labour Law 1997 and article 5 of Prakas No. 243 of 10 September 2002 on notification of work-related accidents, how to offer benefits and rate of disability
[137] Article 248 of Labour Law 1997 and Prakas No. 243 of 10 September 2002 on notification of work-related accidents

Labour safety and health is defined as a joint activity between the employer and the employee designed to ensure OSH in the workplace, including risk assessment of the work environment, appropriate measures for reducing hazards and risks, methods for protecting against workplace accidents, protection against injury and occupational diseases and the gradual creation of a culture of safety at the workplace at all times.

It is the duty of the State to:

a) devise, implement and review policies and strategies relating to labour safety and health;
b) adopt health and safety measures, including for the prevention and protection against workplace accidents and occupational diseases and protection of employees.[138]

Employers have the obligation to:

a) adopt appropriate measures to ensure the health and safety of employees in the workplace;
b) regularly assess the adequacy of all safety measures and improve them if they prove to be inadequate;
c) supply personal protective equipment (PPE) to employees and ensure that they are in good condition and meet relevant international standards;
d) report any work-related accident or occupational disease that caused major injury or death to the Labour Administration Agency within a period of three days;
e) record any work-related accidents that cause an employee to take time off work for four days or more;
f) regularly inspect and assess risks to safety and health in the labour unit and workplace and report the findings of the assessment to the Labour Inspection Agency at least once a year.[139]

3.3.1.3 Thailand

In 2011, Thailand adopted specific legislation on OSH, the Occupational Safety, Health and Environment Act B.E. 2554. This Act is of general application and thus its principles apply to the inland navigation sector.

Employers have the general obligation to provide safe and clean work environment and workplaces to protect employees' safety and health.[140] More specifically, employers are required to:

a) administer, manage and operate occupational safety, health and environment (OSHE) in accordance with the prescribed standards;[141]
b) provide an OSHE training designed for all employees, regardless of their level of responsibilities, including executives and supervisors;[142]
c) provide employees with PPE. Employees have the obligation to wear the PPE and keep it in good working condition throughout the working period;[143]
d) conduct hazard and risk assessment;
e) assess adequacy of working conditions to measure their impact on work activities;
f) prepare OSHE operational plan;
g) report findings of hazard and risk assessments and impact study to the National Labour Authority;[144]

[138] Articles 117 and 118 of Labour Law 2013
[139] Article 119, 122 and 125 of Labour Law 2013
[140] Section 6 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)
[141] Section 8 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)
[142] Section 16 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)
[143] Section 22 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)
[144] Section 32 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)

h) any work-related death or injury immediately to a safety inspector in the event of an employee's death or injury due to a work-related accident; and
i) any occupational disease to the Social Security Office.[145]

The Occupational Safety, Health and Environment Act B.E. 2554 provides for the establishment of an OSHE Committee. It is a tripartite committee with equal representation from the government administration, employers' organisations and workers' organisations. In addition, five qualified persons (experts) are appointed as members by the Minister responsible for labour. One of the main functions of the OSHE Committee is to advise the Minister responsible for labour on OSHE policies, work plans and measures.[146]

3.3.1.4 Conclusion

In all concerned countries government authorities and employers are required to devise OSH policies and measures to ensure the health and safety of employees at work. OSH rules and measures broadly apply to all work environments and workplaces across economic sectors. However, none of the concerned countries has adopted specific OSH measures that are adapted to working conditions on board inland waterway vessels.

3.3.2 Medical care

Inland waterway vessels unlike seagoing vessels operate alongside the river banks. Therefore, in case of accidents, illnesses or other health-related emergency, crew members can be rapidly transported to a health care centre or hospital onshore. Nonetheless, first-aid kits must always be available on board.

Article 19 of the Agreement between Cambodia and Vietnam on Waterway Transportation stipulates that, in the event of sickness, crew members of vessels flying the flag of either Contracting Party or third States shall be allowed to remain in the territory of the other Contracting Party for the time necessary for treatment in accordance with the latter's laws and regulations.

Article 12 of the Quadripartite Agreement provides that the crew members of the vessels of one Contracting Party requiring medical treatment in the territory of another Contracting Party shall be allowed by the competent authorities of that Contracting Party to remain in its territory for the period of time necessary for such treatment.

3.3.2.1 Cambodia

As a general rule, any enterprises and establishments falling within the scope of the Labour Law 1997, including those involved in the water transport sector, are required to provide primary health care to their employees.[147] Other rules provided by the law, however, are designed to apply to onshore establishments and thus are not applicable to any vessels.

Circular No.003 of 27 June 2000 on management of means of water transports does not address the issue of medical care.

3.3.2.2 Lao PDR

[145] Article 34 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)
[146] Sections 24 and 25 of the Occupational Safety, Health and Environment Act B.E. 2554 (2011)
[147] Article 238 of Labour Law 1997

As in Cambodia, provisions of Labour Law 2013 relating to medical care were designed to apply to onshore establishments and thus are not applicable to vessels.

3.3.2.3 Thailand

Ministerial regulations on the provision of welfare in the workplace B.E. 2548 (2005) stipulate that employers should be required to provide their employees with fresh water, toilet, medical first aid kits and medical services.

Other provisions of the Labour Protection Act B.E. 2541 (1998) relating to medical care were designed to apply to onshore workplaces and thus do not apply to inland waterway vessels.

3.3.2.4 Conclusion

Apart from the general principle of medical assistance, between contracting parties, to crew members of inland waterway vessels operating on the Mekong River found in the bilateral and regional agreements mentioned above, no specific regulations and measures have been adopted in any of the concerned countries to specifically address the issue of medical care on board inland waterway vessels.

3.3.4 Accommodation and food

3.3.3.1 Cambodia

The Labour Law 1997 does not address the issues of accommodation and food in a comprehensive manner. Apart from Prakas No. 54 of 10 February 2000 on the supply of beverages to employees, which aims to ensure that workers in all workplaces have access to potable water and safe drinking beverages, it seems that no other regulations have been adopted.

3.3.3.2 Lao PDR

While the Labour Law 2013 does not make any provisions on accommodation and food, it appears that, in practice, employers provide food and beverages to workers on board inland waterway vessels. However, this cost is deducted from their wages.

3.3.3.3 Thailand

In accordance with section 95 of the Labour Protection Act B.E. 2541 (1998), the Minister responsible for labour is empowered to issue regulations setting the standards for the provision of welfare in the workplaces. In 2005, Ministerial Regulations on the provision of welfare in the workplace B.E.2548 were adopted and require that employers provide fresh water to their employees.

3.3.3.4 Conclusion

None of the concerned countries has developed comprehensive standards for the provision of accommodation and food on board inland waterway vessels.

3.4 Social protection

3.4.1 Vessel owners' liability in case of occupational injuries or diseases

3.4.1.1 Cambodia

In Cambodia, there are no regulations specifically governing vessel owners' liability in case of occupational injuries or diseases of workers employed on board inland waterway vessels flying the Cambodian flag.

As a general rule, managers of enterprises are liable for all work-related accidents regardless of the personal status of the worker.[148]

In the event of work-related injuries causing temporary disability (more than four days), the employee is entitled to compensation to be paid by the employer.[149]

In addition, victims of work-related accidents shall be entitled to:

a) compensation for fatal accidents or for accidents causing permanent disability to be paid to the victim or his beneficiaries as an annuity;
b) medical assistance (benefits in kind, medical treatment and medicaments as well as hospitalization) and to all surgical assistance and prostheses deemed necessary after the accident.[150]

3.4.1.2 Lao PDR

According to the Labour Law 2013, if an employee is injured as a result of a work-related accident or occupational disease, the employer or social security agency must take responsibility for the cost of treatment as determined in the Law on Social Security.

During the period of treatment and rehabilitation, employers have the obligation to pay disabled employees their normal salary or wages for a maximum period of six months. Beyond that period, the employer or the social security agency will cover the cost in accordance with the Law on Social Security.

In the event an employee dies from a work-related accident or an occupational disease, the employer or the social security agency shall bear the costs of the funeral and pay compensation to the victim's beneficiaries in accordance with the conditions determined in the Law on Social Security.

In cases where an employee loses a limb or organ due to a work-related accident or an occupational disease, the employer or the social security agency is required to pay compensation to the victim in accordance with the conditions determined in the Law on Social Security.[151]

3.4.1.3 Thailand

The Workmen's Compensation Act B.E. 2537 (1994) makes provisions regulating employers' liability as follows:

[148] Article 249 of Labour Law 1997
[149] Article 252 of Labour Law 1997
[150] Articles 253 and 254 of Labour Law 1997
[151] Article 128 of Labour Law 2013

In the case where an employee suffers from occupational injuries or sickness, the employer has the legal obligation to:

a) immediately provide appropriate medical treatment to the employee and bear the cost of the medical expenses within the prescribed limits;
b) pay for rehabilitation expenses, where rehabilitation is needed;
c) bear the costs of funeral expenses where the work-related accident or sickness resulted in the employee's death;
d) pay monthly indemnity to the employee or the entitled person.[152]

The employer shall not be liable to pay compensation where the injuries or sickness is the result of the employee's losing self-control, due to over drinking or any other substance abuse, or self-inflicted injuries.[153]

3.4.1.4 Conclusion

None of the concerned countries has developed specific regulations governing vessel owners' liability in case of occupational injuries or diseases on board inland waterway vessels flying their flag.

3.4.2 Social security

Social security is a fundamental right[154] which enhances the well-being and livelihood of peoples by allowing any worker and his or her family to benefit from social services to face life and work contingencies. This includes medical care, unemployment benefit, invalidity benefit and old-age benefit to name a few.

The ILO Social Security (Minimum Standards) Convention, 1952 (No. 102) establishes **internationally** agreed minimum standards for social security. The Convention establishes nine branches of social security, namely: medical care, sickness benefit, unemployment benefit, old-age benefit, employment injury benefit, family benefit, maternity benefit, invalidity benefit and survivors' benefit. It also lays down common rules of collective organisation, financing and management of social security systems, as well as principles of good governance of the systems. To date, none of the three concerned countries has ratified this Convention.

At the **regional** level, ASEAN Member States have recognized the importance of social protection in enhancing the well-being, livelihood and welfare of the peoples of ASEAN in line with the primary goal of the ASEAN Socio-Cultural Community to contribute to realising an ASEAN Community that is people-centred and socially responsible. This led ASEAN Heads of State or Government, on 9 October 2013, to announce, through the ASEAN Declaration on Strengthening Social Protection, their commitment to strive to adhere to the following principles, *inter alia*:

a) Everyone, especially those who are poor, at risk, persons with disabilities, older people, out-of-school youth, children, migrant workers, and other vulnerable groups, is entitled to have equitable access to social protection;
b) Extending coverage, availability, quality, equitability and sustainability of social protection should be gradually promoted to ensure optimal benefits to the beneficiaries;

[152] Sections 13, 15, 16 and 18 of the Workmen's Compensation Act 2537 (1994)
[153] Section 22 of the Workmen's Compensation Act 2537 (1994)
[154] Article 22 of the Universal Declaration of Human Rights (1948)

c) Social protection is a cross-cutting issue, hence its implementation requires coordinated and holistic approaches with the involvement of governments, private sector, civil society, service providers and other relevant stakeholders;
d) Social protection shall be adaptive to the different risks such as lifestyle and individual risks, social risks, and emerging risks and vulnerabilities faced by the region.

Implementation of these principles should be applied in accordance with national laws and policies of respective ASEAN Member States.

It is noteworthy that ASEAN Member States were encouraged to advocate strategies to extend social insurance to the informal sector.[155]

3.4.2.1 Cambodia

In 2019, Cambodia enacted the Law on Social Security Schemes for Persons Defined by the Labour Law.[156] The purpose of the law is to define the common principles, procedures, mechanisms and administration system of the social security schemes established by it.[157] The latter include a pension scheme, a health care scheme, an occupational risk scheme, and an unemployment risk scheme.

The scope of persons covered by each established scheme is specified in the law through separate lists of insured persons. As mentioned in its title, the law applies to all persons covered by the Labour Law 1997, as defined in its Article 1, and includes workers in the water transport sector. There is no provision to extend social security protection to the informal sector.

3.4.2.2 Lao PDR

In 2013, Lao PDR passed a Law on Social Security.[158] The purpose of the law is to define the principles, rules and regulations for the organisation, implementation, management, monitoring and inspection of social security affairs.[159]

It applies countrywide to employers, employees and their family members, self-employed persons and voluntary insured persons.[160] Thus, in principle, it covers workers employed on board Laotian-flagged inland waterway vessels. It does not contain any provision to extend social protection to people working in the informal sector.

Employers, employees, self-employed persons and voluntary insured persons are required to make contribution to the National Social Security Fund.[161]

The law establishes nine types of social security benefits (schemes), namely: health care benefit, maternity and abortion benefit, occupational injury and disease benefit, sickness benefit, invalidity benefit, old-age pension, death grant benefit, family benefit for insured persons, and unemployment benefit.[162]

[155] Paragraph 12 of the ASEAN Declaration on Strengthening Social Protection
[156] See http://www.nssf.gov.kh/default/wp-content/uploads/2020/09/2.-Law-on-Social-Security-Schemes.pdf
[157] Article 1 of Law on Social Security for Persons Defined by the Provisions of the Labour Law
[158] Law on Social Security (No. 34/NA) of 26 July 2013
See https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/95117/128492/F1193623474/LAO95117%20Eng.pdf
[159] Article 1 of Law on Social Security (No. 34/NA) of 26 July 2013
[160] Article 7 of Law on Social Security (No. 34/NA) of 26 July 2013
[161] Article 6 of Law on Social Security (No. 34/NA) of 26 July 2013
[162] Article 9 of Law on Social Security (No. 34/NA) of 26 July 2013

3.4.2.3 Thailand

In 1990, Thailand adopted the Social Security Act B.E. 2533. The Law applies to insured persons, that is persons who pay contributions to the Social Security Fund and are thus entitled to benefit from social security schemes. Any employee who is not less than 15 years of age and not more than 60 years of age qualifies as an insured person.[163]

Any insured person is entitled to receive the following benefits from the Social Security Fund:[164]

a) injury or sickness benefits;
b) maternity benefit;
c) invalidity benefits;
d) death benefits;
e) child benefits;
f) old-age benefits;
g) unemployment benefits.

In the absence of specific regulations, workers employed on board Thai-flagged inland waterway vessels are covered by the Social Security Act B.E. 2533 (1990) as long as they satisfy the requirements of an insured person.

3.4.2.4 Conclusion

While none of the concerned countries have ratified the ILO Social Security Convention (Minimum Standards), 1952 (No.102), all have enacted national legislation on social security reflecting, to some extent, the international minimum standards set out by that Convention. To benefit from the various schemes established by social security legislation, one has to be an insured person in all three concerned countries. General social security legislation appears to apply to persons working on board nationally flagged inland waterways vessel. The question arises whether in the absence of specific regulations, general social security law continues to apply to inland waterway vessels while they navigate through waters under the jurisdiction of another state.

It is also worthy to note that none of the national social security legislations make provision to extend social security protection to workers employed in the informal economy.

3.5 Enforcement

None of the three concerned countries has ratified the ILO Labour Inspection Convention, 1947 (No. 81).

3.5.1 Inspection

3.5.1.1 Cambodia

Technical inspections of river vessels may be conducted periodically or randomly by the Ministry of Public Works and Transport's Department of Water Transport or City or Provincial Department of Water Transport. These inspections focus on compliance with inland navigation regulations through the

[163] Section 33 of the Social Security Act B.E. 2533 (1990)
[164] Section 54 of the Social Security Act B.E. 2533 (1990)

checking of technical documents (e.g., registration certificate, log book, technical inspection book, master's licence), means of communications and equipment.[165]

Labour inspections are carried out by the General Department of Labour in the Ministry of Labour and Vocational Training to ensure compliance with labour laws and regulations in all enterprises and establishments. In addition to their enforcement mission, labour inspectors are also requested to bring to the attention of the competent authorities any improprieties or abuses that are not specifically covered by the existing legislation.[166] Powers of labour inspectors are defined in the Labour Law 1997. The main labour act is supplemented by a Prakas regulating the conduct of labour inspections to ensure that they are carried out in a fair, transparent and non-discriminatory manner.[167]

In 2014, a Prakas was adopted to provide for the establishment of joint labour inspection teams between the Ministry of Labour and Vocational Training and other line ministries or agencies. As of yet, no joint Prakas has been signed by the Ministry of Labour and Vocational Training and the Ministry of Public Works and Transport to set up a joint inspection team to facilitate labour inspection in the inland navigation sector.[168]

No statistics were made available to this study as to the number of inland waterway vessels' inspections carried out every year nor on the types of deficiencies found and remedies taken.

3.5.1.2 Lao PDR

In Lao PDR, labour inspections are administered by the Labour Inspection Agency. Labour inspections may be carried out at fixed-time period, with advance notice or at random. Powers vested in labour inspectors are laid down in the Labour Law 2013.[169]

No statistics were made available to this study as to the number of inland waterway vessels' inspections carried out on annual basis nor on the types of deficiencies found and remedies taken.

3.5.1.3 Thailand

In Thailand, the Ministry of Labour and, particularly, the Department of Labour Protection and Welfare monitors compliance with the labour law and provides support towards the improvement of working conditions and the working environment.

Labour inspectors in Thailand are responsible for overseeing compliance with general working conditions, occupation safety and health, labour welfare and labour relations. Powers of labour inspectors are set out in article 139 of the Labour Protection Act B.E. 2541 (1998).

No statistics were made available to this study as to the number of inland waterway vessels' inspections carried out annually nor on the types of deficiencies found and remedies taken.

3.5.1.4 Conclusion

In the absence of statistics and information, the level and frequency of labour inspections of inland waterway vessels in the concerned countries is unknown. Considering the limited human and financial resources of the labour departments, the non-existence of specific regulations for the inland navigation

[165] Chapter 5 of Circular No.003 dated June 27, 2000 on management of means of water transports
[166] Article 344 of Labour Law 1997
[167] Prakas No. 318 of 7 August 2017 regulating the conduct of labour inspections
[168] Prakas No. 037 of 21 February 2014 on the establishment of joint labour inspection team
[169] Articles 171, 173 and 175 of Labour Law 2013

sector and the lack of cooperative agreements between labour departments and inland waterway departments, it is unlikely that inland waterway vessels operating on the Mekong River are inspected on a regular basis.

3.5.2 Complaint procedures

3.5.2.1 Cambodia

The Labour Law 1997 differentiates between individual and collective labour disputes.[170] With respect to the former, it stipulates that, prior to any judicial action, an individual dispute can be referred for a preliminary conciliation, at the request of one of the parties, to the labour inspector of the relevant province or municipality. As for the latter, disputes can be settled through conciliation or arbitration procedures. If there is no planned settlement procedure in a collective agreement, the parties are required to communicate the collective labour dispute to the labour inspector of their province or municipality who will attempt to conciliate the parties on the basis of relevant laws and regulations. If conciliation fails, the labour dispute shall be referred to be settled: a) through any arbitration procedure set out in the collective agreement, if there is such a procedure; b) by any other procedure agreed on by all the parties to the dispute; or c) by the arbitration procedure provided for in section 1 of Chapter XII of the Labour Law 1997.[171]

No statistics were made available for this study as to the number of complaints filed, the types of reported violations or the remedy measures taken in the inland navigation sector.

3.5.2.2 Lao PDR

In accordance with article 147 of the Labour Law 2013, labour disputes are divided into two distinct categories:

a) disputes concerning the implementation of the Labour Law, internal regulations of the labour unit, labour regulations, employment contracts, or other legislation relating to labour;
b) disputes relating to benefits.

Labour disputes can be settled through: a) conciliation, b) administrative resolution, c) resolution of the committee for labour dispute resolution; or d) court ruling.

No statistics are available as to the number of complaints filed, the types of violations that occurred nor the remedy measures that have been taken in the inland navigation sector.

3.5.2.3 Thailand

In Thailand, victims of labour rights violations can lodge a complaint to the Thai Labour Court. The specialized court was established under the Act on the Establishment of and Procedure for the Labour Court B.E. 2522 (1979). It is responsible for settling disputed matters involving rights and duties under employment contract or conditions of employment.

In accordance with Chapter 12 of the Labour Protection Act B.E. 2541 (1998),[172] any employee, whether a Thai national or a migrant worker, has the right to file a complaint with the Ministry of Labour's Department of Labour Protection and Welfare for a wide range of offences, including

[170] Articles 300 and 302 of Labour Law 1997
[171] Articles 303 to 317 of Labour Law 1997
[172] Sections 123 and 124 of the Labour Protection Act B.E. 2541 (1998)

violations regarding working hours, annual leave, payment of wages, and harassment. Petitions made to the Ministry of Labour are lodged with the provincial or district-level labour inspector, who is required to investigate the complaint and issue an order within sixty days from the date the complaint is received. If the inquiry finds that a violation has been committed and the parties involved cannot agree on a monetary settlement, they can bring the case to the labour court within 30 days.[173]

No statistics were made available for this study as to the number of complaints filed, the types of reported violations nor the remedy measures that have been taken in the inland navigation sector.

3.5.2.4 Conclusion

In the absence of statistics and information on the number of complaints filed with labour inspectors or labour courts, it is impossible to assess whether violations of labour rights or non-compliance with labour standard is prevalent in the inland navigation sector.

3.6 Final considerations

Throughout this study, it has been made abundantly clear that the inland navigation sector in the Mekong River system suffers from a deficit of regulations as far as labour issues are concerned. This is true at a triple level. At the international level, almost no minimum labour standards concerning work in inland navigation have been devised,[174] whereas such standards have been established in a comprehensive manner for maritime navigation with the adoption of the MLC, 2006 and for fishing vessels with the Work in Fishing Convention, 2007 (No. 188).

At the regional level, the ASEAN framework of declarations on social protection and transition from informal to formal employment are general political statements which offer little guidance for the implementation of the principles enshrined therein. At the level of the MRB, the 1995 Mekong River Agreement and the Quadripartite Agreement focus primarily on improving navigation (safety of navigation, regulation of water flow, removal of obstacles) to facilitate commercial activities and connectivity between the riparian countries and do not address labour issues, which fall within the realm of national legislation.

At the national level, inland navigation is not a government priority. As a result, none of the concerned countries have adopted specific and comprehensive regulations to set labour standards and regulate working conditions on board inland waterway vessels. In the absence of comprehensive sectoral standards, general labour standards have been applied to inland waterway vessels. Needless to say, that these standards, which were primarily designed to govern labour relationships in onshore establishments and workplaces, are not adapted to the reality and circumstances of inland navigation. Furthermore, this is compounded by the fact that workers employed on board inland waterway vessels lack social and legal status, as, unlike seafarers or fishers, their activity is not recognized as a professional occupation *per se*. This situation, in turn, impedes their ability to organise and form labour unions and to negotiate collective labour agreements.

After years of neglect of the inland navigation sector in the study area, it comes as no surprise that very few information is available about working conditions (work agreements, working hours, wages, accommodation and food, social protection) and workers employed on board inland waterway vessels (number, age, education, nationalities, migrant workers). This lack of information contributes to

[173] USAID. 2020. *Labour Abuse Complaint Mechanisms in Thailand*. Research Report. USAID Thailand Counter Trafficking in Persons, at pp. 13-14.
[174] Hours of Work (Inland Navigation) Recommendation, 1920 (No. 8)

marginalize the sector and to prevent improvement of labour standards on board inland waterway vessels. Conduct of field studies would help understand the global labour situation better, determine the rate of informal employment, and identify major labour issues that need to be addressed as a priority in the sector. This could also be an opportunity to promote harmonisation of labour standards applicable to inland waterway vessels operating in the Mekong River system and encourage the establishment of inter-agency cooperative mechanisms, both at the national and regional levels, to ensure appropriate level of compliance with applicable labour standards. For the time being, inspections of inland waterway vessels at the national level, where they exist, are conducted by maritime authorities and focus exclusively on vessel safety and seaworthiness.

If no comprehensive international minimum labour standards have been developed for inland waterway vessels, such standards have been drawn up for seagoing vessels and fishing vessels, and have been incorporated into international law as reflected in the MLC, 2006 and C.188, respectively. Countries like Thailand, which have ratified both the MLC, 2006 and C.188, and have enacted implementing legislation, are well placed to examine to what extent and which national provisions could be adapted to suit the inland navigation context.