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WORLD MARITIME UNIVERSITY
Malmö, Sweden

**IMPLEMENTATION AND ENFORCEMENT OF
THE ISM CODE IN THE ETHIOPIAN
MARITIME SAFETY ADMINISTRATION**

By

LIDYA KASSAHUN BELETE
The Federal Democratic Republic of Ethiopia

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirements for the award of the degree of

**MASTER OF SCIENCE
IN
MARITIME AFFAIRS**

(MARITIME LAW AND POLICY)

2018

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):

A handwritten signature in black ink, appearing to be 'Aref Fakhry', written over a horizontal line.

(Date):

24 September 2018

Supervised by:

Associate Professor Dr. Aref Fakhry

Supervisor's affiliation:

Maritime Law and Policy Specialization

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Lidya Kassahun BELETE

24 September 2018

ABSTRACT

Title of Dissertation: **Implementation and Enforcement of the ISM Code in the Ethiopian Maritime Safety Administration**

Degree: **Master of Science**

“Safety First!” as it is always said, Safety is a primary concern in any human activity. Shipping one of the most dangerous industries in the world demands the establishment and implementation of safety rules, regulations and standards. Before the ISM Code was adopted and came into effect, the maritime industry experienced catastrophic disasters which resulted in loss of life and property. The myth of huge marine casualties triggered maritime safety rules, regulations and standards at international level. International maritime safety standards are meant to create uniformity in safety rules and regulations.

International Maritime Organization (IMO), a specialized United Nations Agency adopted the International Convention for the Safety of life at Sea (SOLAS) Convention and other international instruments dealing with maritime safety and security. The ISM Code was adopted in 1993 and made part of the SOLAS Convention-Chapter IX-Management for the Safe Operation of Ships in 1994.

The ISM Code is established for the purpose of ensuring safety in the maritime industry and the protection of the environment, particularly the marine environment through the establishment of Safety Management System (SMS) Certification, Verification and Audit.

Ethiopia is an IMO member state and party to the amended SOLAS Convention. In implementing the ISM Code Ethiopia has established maritime safety administration under its national maritime administration. The Ethiopian maritime administration is furnished with policy, legal and institutional frameworks for its implementation and enforcement of the ISM Code. This dissertation mainly deals with the requirements of the ISM Code, its ways of implementation in general and the Ethiopian case in particular. The challenges faced by the Ethiopian maritime safety administration in its implementation and enforcement of the ISM Code are also identified with suggested solutions.

KEYWORDS: Maritime Administration, Maritime Safety Administration, The ISM Code, Safety Management System, Implementation and Enforcement, Certification, Verification, Audit

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LIST OF ABBREVIATIONS

ABS	American Bureau of Shipping
AFS	International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001
BUNKER	International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001
COLREG	Convention on the International Regulations for Preventing Collisions at Sea, 1972
COM	Council of Ministers
CSO	Company Security Officer
DOC	Document of Compliance
DP	Designated Person
EMAA	Ethiopian Maritime Affairs Authority
ESL	Ethiopian Shipping Lines
ESLSE	Ethiopian Shipping and Logistics Service Enterprise
EU	European Union
FDRE	Federal Democratic Republic of Ethiopia
HF	House of Federation
HNS	International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996
HPR	House of Peoples' Representative
IACS	International Association of Classification Societies
ICS	International Chamber of Shipping

ICT	Information and Communications Technology
ILO	International Labour Organization
IMLI	IMO International Maritime Law Institute
IMO	International Maritime Organization
IMSAS	IMO Member State Audit Scheme
ISM Code	International Management Code for the Safe Operation of Ships and Pollution Prevention, 2015
ISO	International Organization for Standardization
ISPS	International Ship and Port Facility Security
IT	Information Technology
ITM	International Tanker Management
LL	International Convention on Load Lines, 1966
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973/1978
MLC	Maritime Labour Convention
MOFA	Ministry of Foreign Affairs
MOLSA	Ministry of Labour and Social Affairs
MOT	Ministry of Transport
MOU	Memorandum of Understanding
MSC	Maritime Safety Committee
NGO	Non-Government Organizations
P&I	Protection and Indemnity
PSC	Port State Control
RO-RO	Roll-on/Roll-off
ROs	Recognized Organizations

SMC	Safety Management Certificate
SMS	Safety Management System
SOLAS	International Convention for the Safety of Life at Sea, 1974, as amended
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended
SUA	Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation, 1988
UK	United Kingdom
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea, 1982
UNTC	United Nation Treaty Collection
US	United States
USD	United States Dollar
VIMSAS	IMO Voluntary Member State Audit Scheme

Introduction

The International Management Code for the Safe Operation of Ships and Pollution Prevention (ISM Code) adopted by the International Maritime Organization (IMO) in 1993 is established with the objectives to ensure safety in the shipping industry, prevent damage and loss to human life, property and the global environment in general and the marine environment in particular. The ISM Code is made part of Chapter IX of the International Convention for the Safety of Life at Sea (SOLAS), “Management for the safe operation of ships”, on May 24, 1994 (Grđinic, 2015; IMO, 2015; ICS, n.d.).

Safety is a matter of primary concern in the shipping industry. Shipping is an international business and it is one the most dangerous (Gold, et al., 2003). About 90% of world trade is undertaken by seaborne trade or shipping (Ceyhun, 2014; UNCTAD, 2017; ICS, n.d.). The dangerous nature of the shipping industry calls for effective safety rules and regulations. Such rules and regulations have generally derived from marine casualties which have claimed life and property including: the Titanic catastrophe occurred on April 10, 1912 that gave rise to an international conference resulted in the adoption of SOLAS Convention in 1913 by the IMO; the Torrey Canyon large tanker disaster, caused the establishment of the IMO Legal Committee hence the adoption of International Instruments dealing with pollution, liability and compensation such as IMO International Convention for the Prevention of Pollution from Ships (MARPOL), 1973; the Achille Lauro, hijacking of passenger ship, resulted in the IMO Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA), 1988 (Grđinic, 2015; IMO^a, n.d.).

The development of rules and regulations dealing with maritime safety after the incident of marine casualties shows a remedial approach which serves a deterrence purpose and the adoption of preventive rules. The development and adoption of SOLAS Convention, especially its Chapter IX-The ISM Code, is a remarkable indicator for the need to follow the preventive approach towards maritime safety (Bhattacharya, 2011; IMO^a, n.d.).

The ISM Code is meant to establish a Safety Management System (SMS) applicable by shipping companies in their shore-based and shipboard management. IMO a specialized

agency of the United Nations (UN) for maritime and shipping matters, through its member states deals with safety and security in shipping and protection of the environment. Ethiopia, an IMO member state and party to the amended SOLAS Convention has established a Maritime Safety Administration and is implementing the ISM Code on its fleet.

The objective of this dissertation is to give insight on the Ethiopian maritime safety administration in its implementation of the ISM Code. The dissertation looks into the Ethiopian maritime safety administration in light of the ISM Code and its requirements. Firstly, review is made on maritime safety administration, the ISM Code and its implementing mechanisms in general, and the Ethiopian case in particular. Secondly, the challenges of the Ethiopian maritime safety administration in implementing the ISM Code are identified with the possible solutions thereto.

The methodology used for this dissertation is qualitative methodology of research. The qualitative research methodology is used in describing and analyzing the data collected both from primary and secondary sources of data. The primary data is based on interviews conducted on selected participants, and secondary data based on literature review on books, journal articles and websites. The permission to collect data (Research Ethics Protocol) has been given by the Research Ethics Committee of World Maritime University (WMU). Accordingly, the data collection and processing is done in an ethical way. The interview questions, information sheet, consent form, and the WMU research ethics committee protocol are attached as annex to the dissertation.

The ISM Code is being implemented in the Ethiopian maritime safety administration since 1998. However, the status of the ISM Code implementation, its effectiveness, the challenges in its implementation process and their solutions are seldom researched. On the other hand, safety is a very crucial and sensitive matter in the maritime industry. How the maritime industry operates in light of international maritime safety standards has implications on lives, property and the environment. The number of safety related problems and incidents in the operation of Ethiopian flag ships are high. Parallel with its implications on life and property, this affects the operation of ships, especially relative to

the fleet size of Ethiopian flag vessels, and the developing economy of the country which is highly dependent on seaborne trade.

The implementation of the ISM Code in the Ethiopian maritime administration should therefore be studied on, its status, challenges, and solutions need to be identified and worked on. For these purposes, this dissertation assesses maritime safety administration in light of the ISM Code. The policy, legal and institutional requirements in compliance with the ISM Code in principle and their implementation in the Ethiopian maritime safety administration are discussed. Compliance of the Ethiopian maritime safety administration with the requirements of the ISM Code in establishing national policy, legal and institutional framework is discussed. Focusing on the legal aspect, national policy, legislations and institutions in the implementation of the ISM Code are dealt with. Challenges of the Ethiopian maritime safety administration in its implementation of the ISM Code are identified with suggested solutions.

Chapter One

MARITIME SAFETY ADMINISTRATION

Maritime safety has technical or operational and human elements. Maritime safety rules, regulations and standards are meant to deal with these elements of maritime safety. Maritime safety has both public and private law aspects. With respect to public law, maritime safety is mostly regulatory in nature, and it has private law aspects related to liability for damage or injury and compensation. Maritime safety is also related to the protection of the environment (Mukherjee, 2013).

In English, Safety in its meaning contains the essence of both safety and security.¹ Based on this, maritime safety is about safe operation of ships and protection from dangers of the sea whereas maritime security refers to intended and illegal deeds targeting ships. In spite of the distinction in meaning that may be given for maritime safety and security, they are meant to serve common purposes, the protection of life at sea, property, and the marine environment from pollution (Gold, et al., 2003; Grdinic, 2015).

The role of a maritime safety administration is to implement international and national maritime safety rules and regulations through national legislations and maritime policies to enhance safety and efficiency of maritime activities. As per many international conventions, certain responsibilities of maritime administrations can be delegated to Recognized Organizations (ROs). The role of maritime administrations in appointing authorized ROs is of vital importance, that is to ascertain the capacity of ROs in terms of infrastructure, resources and expertise. Another important factor in relation to ROs is the oversight mechanism. Flag, coastal and port states play essential roles with respect to

¹ Safety means the condition of being protected from or unlikely to cause danger, risk, or injury (Oxford Dictionaries, n.d.; Gove,1993).

maritime safety administration, by implementing maritime safety rules and regulations. Flag states as they are responsible for the registration of ships which require them to make sure the ships flying their flag are in compliance with international and national maritime rules and regulations including those related to maritime safety administration. Ports states through Port State Control (PSC) are responsible as well to control that ships which call their ports fulfill all the requirements applicable to which maritime safety rules and regulations are part. Coastal states enforce international rules and regulations in territorial sea and prevent and control pollution in territorial sea. Foreign vessels exercising the right of innocent passage should observe legislations of coastal states on safety of navigation including sea lanes and traffic, and protection of the marine environment (Anderson, 1998).

The Federal Democratic Republic of Ethiopia (FDRE) is an Eastern African country in the Horn of Africa. Its total area 1,104,300km². From the total area 104,300km² is covered by water. Ethiopia has a population of 100 Million (World Atlas, 2018; as cited by Belete, 2018). Ethiopia is located west of Somalia. North of Kenya, bound by Sudan on the west and Eritrea on the North. Ethiopia is located west of the Indian Ocean (Goth, 2015; as cited by Belete, 2018). Ethiopia became a landlocked state after Eritrea's secession in 1993 (Vrancken, et al., 2017). However, Ethiopia is a maritime nation engaged in the shipping industry through the port of Djibouti based on bilateral agreement pursuant to its rights under international law (Vrancken, et al., 2017; Endalcachew, 2015). Efforts are also being made to use ports of neighbouring states Kenya, Somaliland ²and Sudan. A recent tripartite agreement entitled Ethiopia to a 19% stake in the port of Berbera, Somaliland (Mooney, 2018). In relation to Sudan, there is a Memorandum of Understanding (MOU) between Ethiopia and Sudan on joint development of port signed in 2016 (Interview with P5, 2018). An agreement is reached for Ethiopia to take stake in Sudan's largest sea gateway port (Maasho, 2018). With respect to Eritrea, as a result of the recent development between the two countries, agreement is reached to develop

² Somaliland is a self-declared state of the former British Somaliland declared its unilateral independence from Somalia in 1991. Though Somaliland fulfilled all conditions of statehood, it is still internationally not recognized as an independent state. This causes legal and political difficulties in Somaliland's international relation or diplomacy (Social Research and Development Institute, 2013; Lewis, 2002; Brendon & Ash, 2017).

ports on Eritrea's Red Sea coast and to reconstruct roads connecting Ethiopia to Eritrea's ports (Fick, 2018; Interview with P5, 2018). Following the agreement an Ethiopian flag ship docked in Eritrea for the first time after 20 years (Punch, 2018).

Ethiopia is a federal state. Its government is structured between federal and regional state governments, two city administrations under the federal government and 9 regional governments. The Ethiopian constitution empowers the federal government on maritime and shipping matters (Federal Negarit Gazeta, 1995; as cited by Belete, 2018). Based on the state structure, the Ministry of Transport (MOT) regulates maritime and shipping affairs (Federal Negarit Gazeta, 2010; as cited by Belete, 2018). Under the MOT, the Ethiopian Maritime Affairs Authority (EMAA) is established as the Ethiopian maritime administration organ to deal with maritime and shipping matters (Federal Negarit Gazeta, 2007; as cited by Belete, 2018). EMAA works in cooperation with other government and non-government organs. For the factual reason that Ethiopia is currently a landlocked state, it has a flag state role, not able to exercise coastal and port state roles and functions (Interview with P2, 2018).

1.1. Policy Framework

States through their policies guide the activities of different sectors under their jurisdiction. In the development of national policies related to the sectors of government under their jurisdiction, states incorporate international rules, regulations and standards (Rasmussen, 2016).

Maritime safety elements include: safety of the vessel, crew and cargo, as well as the conservation and protection of the environment especially, the marine environment. Hence maritime safety and environmental protection policy would focus on the promotion and enhancement of safety at sea, prevention of human injury or loss of life and protection of the marine environment. Safety and environmental protection policy in shipping primarily deals with: the reduction or elimination of incidents or marine casualties for the safe operation of ships; risk assessment on ships, human power and the environment and their adequate safeguards; compliance with applicable rules and regulations;

capacity building with respect to safety and environmental protection arena, verification through audits of the implementation and enforcement of the applicable policy and rules and regulations (Evergreen Marine Corporation, 2010).

In line with international maritime rules, regulations and standards, the Ethiopian government has formulated maritime policies. The Ethiopian maritime administration led by EMAA set policy objectives related to maritime safety administration. EMMA's policy objective is mainly, through quality maritime and shipping services which give due regard for safety, security and protection of the environment, especially the marine environment, enable the maritime industry to contribute to the development of the country. The EMAA policy statement shows that safety and protection of the maritime environment are of primary concern in the maritime administration of Ethiopia (EMAA, 2018; as cited by Belete, 2018).

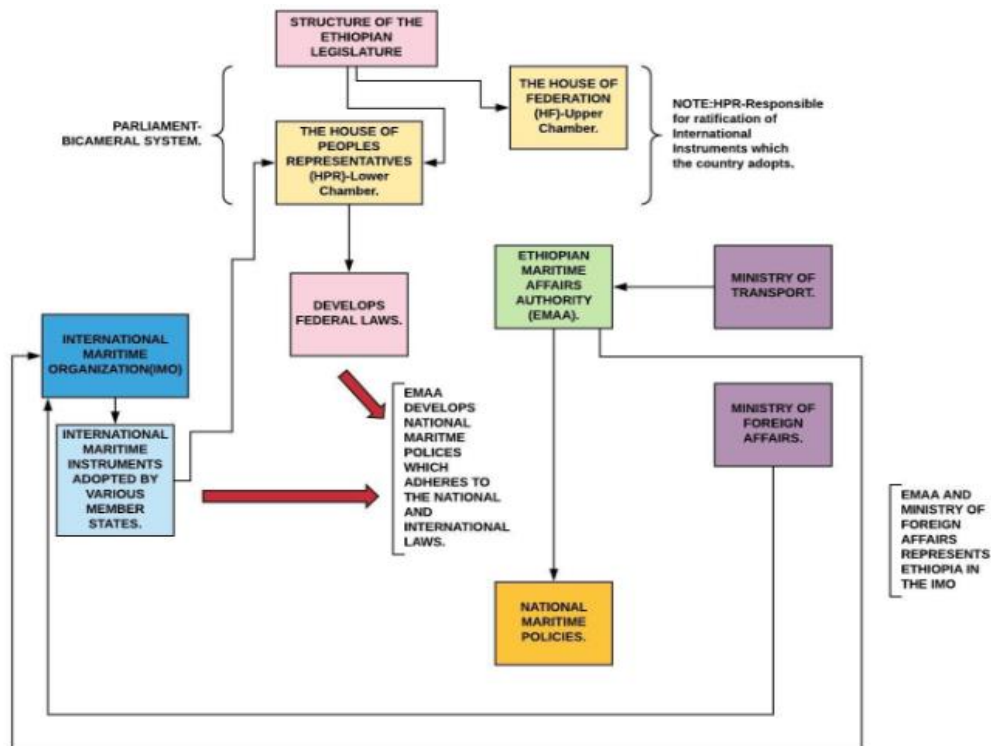


Figure 1: Policy Framework of the FDRE

Source: Drawn by Belete, L. (2018).

1.2. Legal Framework

The United Nations Convention on the Law of the Sea, 1982 (UNCLOS), known as the umbrella Convention or the Constitution of the Law of the Sea establishes a general framework for the law of the sea (Anderson, 2003). Under the UN system two specialized agencies, namely, IMO and International Labour Organization (ILO), play an important role in standardization of maritime safety rules (Attard, 2016). Major international instruments on maritime safety and protection of the marine environment developed and established by the IMO mainly deal with ships, shipping companies and seafarers. Conventions dealing with ships include: SOLAS, 1974; MARPOL, 1973/1978; Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972; International Convention on Load Lines (LL), 1966; the International Ship and Port Facility Security Code (ISPS), 2002. In relation to shipping companies: ISM Code, 1993, and pertaining to seafarers International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978/1995/2010; ILO Maritime Labour Convention (MLC), 2006, which replaced the ILO 147 Merchant Shipping (Minimum Standards) Convention, 1976 and consolidates more than 68 international maritime labour standards (Attard, 2016; International Chamber of Shipping, 2017).

The SOLAS Convention together with its amendments is the most significant and overarching international instrument dealing with the safety of merchant ships. The first SOLAS Convention was adopted in 1914 by the initiative of the British government and by thirteen states but it never entered into force. In 1929 the second SOLAS Convention was adopted by eighteen states and entered into force for states which acceded to it. In 1948 and 1960 SOLAS Convention was again revised and the 1960's version was subjected to several amendments: in 1968, 1969, 1971, and 1973. In 1974, SOLAS was again revised and entered into force since May 25, 1980. Subjected to many more amendments and this is probably the reason why it is called SOLAS 1974, as amended. There are two amendment Protocols for SOLAS 1974, the 1978 Protocol adopted at the International Conference on Tanker Safety and Pollution Prevention, entered into force

in May 1981, and the 1988 Protocol resulting from the International Conference on the Harmonized system of Survey and Certification held on November 1988 and entered into force in February 2000 (Grdinic, 2015). SOLAS 1974 incorporated the tacit acceptance procedure, which provides for the entry into force of amendments on a specified date, unless, objections to the amendment are expressed from an agreed number of states before the specified date. SOLAS Convention as of today has 14 Chapters with Annexes of certificates, resolutions and recommendations providing for general obligations, procedural provisions such as, amendment procedure etc. SOLAS Chapter IX is on Management for the Safe Operation of Ships (IMO, 2015; 2018).

The purpose of SOLAS Convention is to set threshold requirements for construction, equipment and operation of ships in consideration of safety. Flag states have the duty to ensure that ships that fly their flag adhere to the requirements provided under SOLAS by way of certification proving compliance. There is a mechanism of PSC which enables party states to SOLAS Convention to verify vessels, their equipments and operation, of other party states in light of the requirements of SOLAS Convention (IMO, 2013).

Maritime law exists at national and international levels. Domestic laws dealing with maritime issues may be different from country to country or in different jurisdictions. They may take different statutory forms such as, maritime code, merchant marine act, merchant shipping act etc. The purpose of establishing national laws applicable in relation to maritime safety administration is to implement maritime safety standards set by international maritime safety rules and regulations. States under their national laws are expected to sufficiently address and establish effective regulation for maritime safety administration including protection of the maritime and the marine environment (Qiurong, 2001).

EMAA as an executive organ of the Ethiopian government undertakes to execute national and international maritime obligations of the country and protect the national interest of Ethiopia (Federal Negarit Gazeta, 2007).

Ethiopia a founding member of the United Nations (UN) since 1945 signed UNCLOS in December 1982 (UN, 2018). Ethiopia is also an IMO member state since 1975, and party

to different IMO instruments, the 1974 SOLAS Convention as amended and its Protocol of 1978 is one³ (EMAA, 2018). Ethiopia acceded to SOLAS on July 18 1985, entered into force on 18 October 1985 (UN^b, 2018). Ethiopia has also ratified other IMO instruments and as it is accessed from the website of EMAA in February, 2018 the list includes: STCW 1978 as amended, MARPOL 1973/78, COLREG 1972, LL, 1966 as amended by the Protocol of 1978, SUA, 1988, International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (HNS), International Convention on Tonnage Measurement of Ships 1969, International Convention on the Control of Harmful Anti-fouling Systems on Ships 2001 (AFS), International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 (BUNKER). MLC, 2006 is under ratification process (EMAA, 2018).

Incorporation of international instruments into the national law of Ethiopia involves ratification by the legislature and execution by the executive (Federal Negarit Gazeta, 1995; as cited by Belete, 2018).⁴ Related to maritime and shipping matters, MOT together with the Ministry of Foreign Affairs (MOFA) negotiate and sign international maritime agreements (Federal Negarit Gazeta, 2010; as cited by Belete, 2018).⁵

After international maritime agreements are signed, should be ratified by the parliament. Next to ratification by the parliament is enactment of the ratified international agreements as Proclamation, an act by the legislature of Ethiopia (Federal Negarit Gazeta, 1995;

³ Ethiopia has not ratified the 1988 Protocol to the SOLAS Convention but EMAA sent an Explanatory Note for the ratification process to the Ministry of Foreign Affairs a year ago. It is a work in progress (Interview with P2, 2018; IMO^b, n.d.).

⁴ Article 51 (8) of the FDRE Constitution provides the power to negotiate and ratify international agreements to the federal government. Accordingly, pursuant to Article 55 (12) of the FDRE Constitution, the federal legislative organ, the HPR, is given the mandate to ratify international agreements concluded by the executive. The Council of Ministers (COM), the highest executive organ in the country as per Article 72 (1), ensures the implementation of federal laws and decisions adopted by the HPR, Article 77 (1) (Federal Negarit Gazeta, 1995).

⁵ Article 15 (3) of proclamation on the definition of powers and duties of the FDRE executive organs empowers the Ministry of Foreign Affairs to negotiate and sign international agreements in consultation with the concerned organs, usually the specific ministries. The Ministry of Transport which regulates maritime and transport services of the country (Article 23 (1) (d)) has the mandate to enter into contracts and international agreements in accordance with the applicable law (Article 10 (1) (f)) (Federal Negarit Gazeta, 2010).

Gedecho, 1993; as cited by Belete, 2018; Interview with P5, 2018).⁶ After national laws (Proclamations) are issued by the parliament, Council of Ministers (COM), the head of all executive organs in the country, issues Regulations with further details enabling the specific executive organ EMAA to function effectively and efficiently (Federal Negarit Gazeta, 1995; as cited by Belete, 2018).⁷ EMAA further issues Directives subject to approval by the Ministry of Transport dealing with specific issues under its administration (Federal Negarit Gazeta, 2007; as cited by Belete, 2018). The major national maritime laws of Ethiopia include: Maritime Code of Ethiopia, 1960; MOT Proclamation No. 691, 2010; EMAA establishment Proclamation No. 549, 2007; Commercial Code of Ethiopia, 1960; Registration of Ships COM Regulations No. 1, 1996; Labour Proclamation No.377, 2003.

1.3. Institutional Framework

The purpose of the ISM Code is to develop and maintain a safety system in the shipping industry. To make this purpose a reality, there are many factors to consider, and among other things the most important factors include commitments and values of stakeholders. The safety management of ships undertaken by responsible organs, ashore and on board, requires a systematic approach. The mandatory application of the ISM Code is therefore to ensure compliance with rules and regulations related to the safe operation of ships and protection of the environment which is possible through the effective implementation and enforcement of these rules and regulations by Administrations and all stakeholders in the shipping industry (IMO^b, 2017).⁸

⁶The FDRE Constitution by Article 55 (2) b & c and (12) has given the power of legislation on inter-state and foreign trade and sea transport and ratify international agreements. The FDRE President proclaims in Negarit Gazeta laws and international agreements approved by the HPR in accordance with the constitution (Article 71 (2)) (Federal Negarit Gazeta, 1995).

⁷ On the basis of Article 77 (13) COM issues regulations pursuant to the executive powers vested in it by the HPR (Federal Negarit Gazeta, 1995).

⁸ IMO General Assembly Resolution Number A.1118(30), Revised Guidelines on the Implementation of the International Safety Management (ISM) Code by Administrations, adopted on 6 December 2017 (IMO^b, 2017).

As the legal framework for maritime safety administration exists at the national and international levels, responsible bodies or stakeholders in maritime safety administration are established at national and international levels as well. Stakeholders in the maritime safety administration involve in different capacities such as, regulatory, service providing, commercial entities etc. (Qiuorong, 2001). Stakeholders in the shipping industry are interrelated having their own distinct role. These include: Regulators or Governments; Public; Media; Non-Governmental Organizations (NGOs) and Academia; Local and Indigenous communities; Investors; Banks and Insurers; Suppliers and Business Partners; Classification Societies; Sustainable Shipping Coalitions; Customers (Retailers, Manufacturers, Cargo Owners); Ports, Terminals and Seaways; Shipbuilders; Maritime Sector Associations; Shipowners, Charterers, and Operators; Employees; Unions etc. (Qiuorong, 2001; Strandberg Consulting, 2014).

At the global level IMO and ILO set the international regulatory framework for the maritime industry in general and maritime safety administration in particular which member states should observe in their respective administrations (Anderson, 2003).

Stakeholders directly involved in the Ethiopian maritime safety administration include: MOT, EMAA, Under the MOT a National Shipping Enterprise, Ethiopian Shipping and Logistics Services Enterprise (ESLSE)⁹ working together with EMAA and two maritime training institutes, one under the National Shipping Enterprise and the other within a government owned university (Federal Negarit Gazeta, 2007).

⁹ ESLSE is the only public shipping enterprise in the country owned by the government (Federal Negarit Gazeta, 2011).

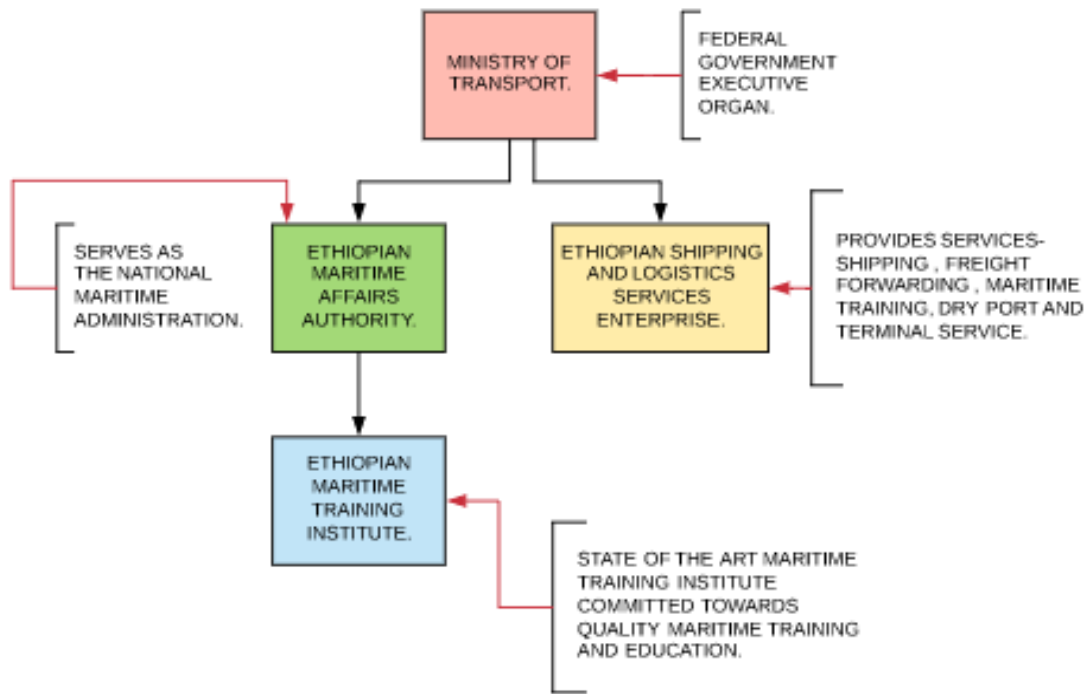


Figure 2: Institutional Framework

Source: Drawn by Belete, L. (2018).

Maritime Safety Administration is one of the Directorates under EMMA and the institutions affiliated to the Administration includes maritime and other technical training institutions, ship's operator (ESLSE), medical centers and also Ministry of Labour and Social Affairs (MOLSA). MOLSA together with the other stakeholders concerned deals with seafarers living and working conditions. As ship manager/operator ESLSE employees seafarers in observance of the FDRE Labour Proclamation No. 377/2003 on occupational safety, health and working environment issues (Interview with P1, 2018).

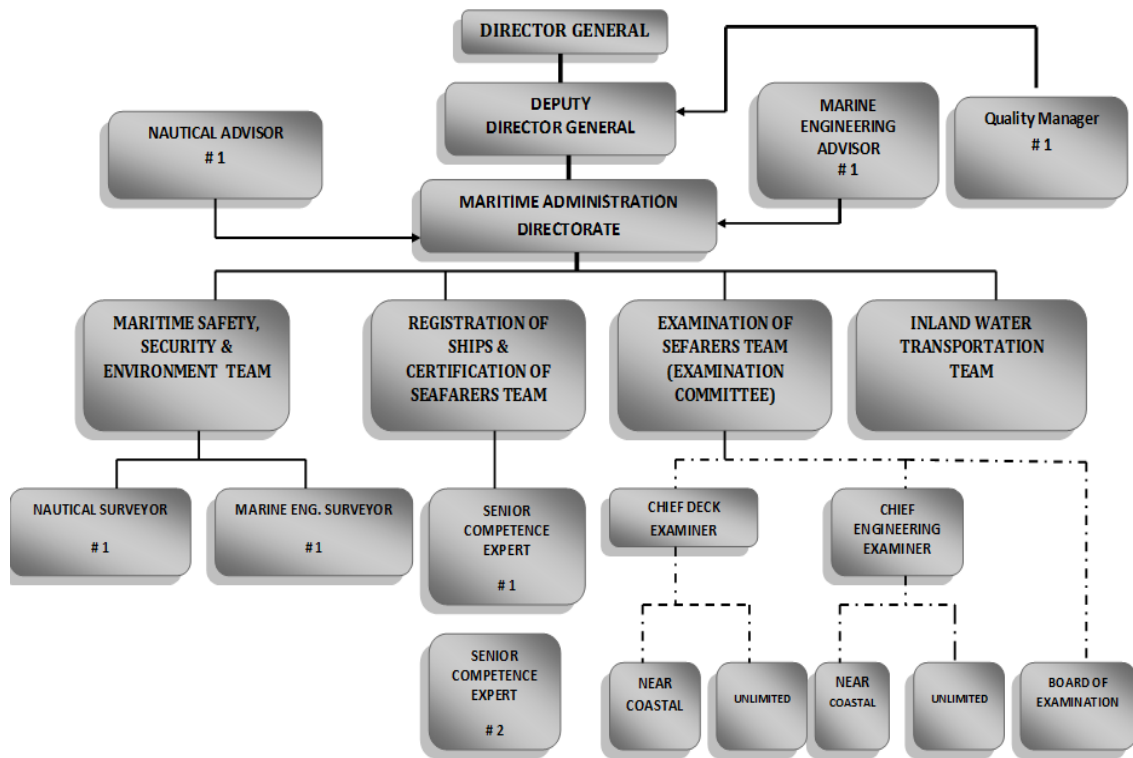


Figure 3: EMAA Structure

Source: EMAA Maritime Administration Directorate (2018).

In chapter one, maritime safety administration; policy, legal, and institutional framework for maritime safety administration in general, and the case in Ethiopia are discussed. In chapter two, sections 2 the ISM Code, 2.1. its background, content, and 2.2. objectives; 2.3. the role of: flag state administrations, 2.4. ROs, 2.5. other states authorized by administration, 2.6. shipowners under their 2.6.1. Shore-based, 2.6.2. shipboard and 2.6.3. environmental management, in the implementation of the ISM Code in general and the Ethiopian case in particular will be dealt with.

Chapter Two

THE ISM CODE

2.1. Background and Content

The 1987 incident of the Herald of Free Enterprise passenger ferry occurred after the ferry left the port Zeebrugge of Belgium for the English port of Dover. The ferry sank because of water inrush as the cargo door was open. The incident caused the loss of 190 lives. Inquiries made after this major incident revealed the major cause for the incident was deficiencies in management of all levels, ashore and onboard. This implied the need for guidelines directing officers, crew onboard vessel and management ashore on safety management and prevention of pollution followed by inspections and verifications to secure compliance (Mejia, n.d.; Anderson, 2003).

In response to this mounting concern about poor management standards in shipping, IMO issued several Resolutions which finally led to the adoption of the ISM Code. Resolution A.596 (15), 1987 adopted "Safety of Passenger Ro-Ro" applied to passenger ferries. Further developing on this IMO Resolution A.647(16), 1989 "Guidelines on management for the safe operation of ships and for pollution prevention" applied to all ships aiming at the establishment, enforcement and implementation and evaluation of safety and pollution prevention principles and objectives under safety and pollution prevention policy. Subsequent reviews by the IMO on the guideline adopted in 1989 were made by Resolution A.680(17), 1991 (Anderson, 2003; IMO^b, 2018).

In 1993 Resolution A.741(18) with annex-the ISM Code was adopted. When it was first adopted, the ISM Code was non-binding recommendation but later due to its significance on safety and pollution prevention and the need for strict compliance, it was made mandatory by

its inclusion into SOLAS Convention, as an amendment there to, creating a new chapter-Chapter IX “Management for the safe operation of ships”, ISM Code on May 24, 1994. SOLAS Convention is made up of six regulations, its third regulation requires companies and ships to comply with the requirements of the ISM Code. It has entered into force through the tacit amendment procedure and has two phases of implementation. Phase one implementation was made effective as of July 1, 1998 on passenger ships, high-speed craft over 500 gross tonnage, oil tankers, chemical tankers, gas carriers and bulk carriers. Whereas Phase two implementation is effective starting from July 1, 2002 to other cargo ships and mobile offshore drilling units of 500 gross tonnage and above (Anderson, 2003; IMO^b, 2018). The ISM Code has a number of amendment resolutions as indicated in the following Table 1.

Table 1: Amendment Resolutions of the ISM Code

	Resolution No.	Date of adoption	Entry into force
Document	A.741(18)	04-11-1993	01-07-1998
Revokes	A.680(17)	06-11-1991	-
Amended by	MSC/Res.104(73)	05-12-2000	01-07-2002
Amended by	MSC/Res. 179(79)	10-12-2004	01-07-2006
Amended by	MSC/Res.195(80)	20-05-2005	01-01-2009
Amended by	MSC/Res.273(85)	01-01-2010	01-07-2010
Amended by	MSC/Res.353(92)	21-06-2013	01-01-2015

Source: ISM-Code International Safety Management Code (Resolution A.741(18)) (2017).

Alongside the ISM Code Guideline on the implementation of the ISM Code was developed by resolution A.788(19) to guide flag state administrations in their implementation of the ISM Code. the guideline is meant to create uniformity or standardization in the way the ISM Code is implemented by flag states through verification and certification. Specifically, to verify whether the SMS of a shipping company is in compliance with the ISM Code, and if the requirements are fulfilled to issue Document of Compliance (DOC) and Safety Management Certificate (SMC) (Anderson, 2003; IMO^b, 2018).

Guidelines on implementation of the International Safety Management (ISM) Code by Administrations adopted by resolution A.788(19) later revised and replaced by resolution A.913(22) in November 2001. Further revision of the Guidelines on implementation of the International Safety Management (ISM) Code by Administrations was adopted by resolution A.1022(26) in December 2009, revoking resolution A.913(22), effective from 1 July 2010. Later Revised Guidelines on the Implementation of the International Safety Management (ISM) Code by Administrations were adopted by resolution A.1071(28) in December 2013 effective from 1 July 2014, repealing A.1022(26). The latest version of Revised Guidelines on the Implementation of the International Safety Management (ISM) Code by Administrations Resolution A.1118(30) was adopted on 6 December 2017 (IMO^b, 2018).

Content of ISM Code may be summarized as: Definitions of terms used in the code; Part A Implementation of the code; Part B Certification and Verification, and Appendix (IMO, 2015).

2.2. Objectives

The ISM Code is established with the objectives to ensure safety in the shipping industry, prevent damage and loss to human life, property and the global environment in general and the marine environment in particular (IMO, 2015). These objectives of the ISM Code are to be fulfilled through SMS, which shipping companies are required to establish, follow and maintain, with the objectives to:

- Provide for safe practices in ship operation and a safe working environment;
- Assess all identified risks to its ships, personnel and the environment and establish appropriate safeguards; and
- Continuously improve safety-management skills of personnel ashore and aboard ships, including preparing for emergencies related both to safety and environmental protection (IMO, 2015).

2.3. Flag State Administrations

UNCLOS Article 94 provides for the general rights and obligations of Flag states. It requires flag states to take all the necessary measures to ensure safety at sea and secure observance to applicable international regulations, procedures and practices by taking all the necessary steps. These safety measures are related to ships, their manning, and operation. UNCLOS Article 91 further states that there must be established a genuine link between the flag state and ship and flag states are mandated to set conditions for registration and nationality of ships under their flag (UN^a, 1982; Attard, 2016).

The amended SOLAS Convention made mandatory the provisions of the ISM Code through the incorporation of the ISM Code under SOLAS Convention Chapter IX-The ISM Code. Under the ISM Code, flag state administrations are responsible to ensure the implementation and enforcement of the provisions of the ISM Code. Once a state party ratified the amended SOLAS Convention, it has the duty to comply with it including its Chapter IX-the ISM Code, by incorporating it into its national legal system, issuing national enforcing laws and establishing effective implementation mechanisms. In cases of conflict between national/domestic law of states and the ISM Code-SOLAS Chapter IX, the ISM code, part of an international convention should prevail, otherwise the state would be in breach of an international convention. Non-compliance by flag states with the ISM Code and its obligations there in amounts to breach of its international obligations and commitments, which has serious implications and consequences on maritime safety

and protection of the maritime and the marine environment which is a major global concern (Liang, 2000).

Flag states are responsible to implement the requirements of the ISM Code related to SMS on ships flying their flag and the shore-based companies operating ships. Flag states in verification of compliance with the ISM Code, issue, renew, and withdraw SMCs for ships under their flag and DOCs for companies operating under their authority. Whenever it is necessary they issue Interim Documents of Compliance and Interim Safety Management Certificates as well. IMO adopted resolutions in guiding the implementation of the ISM Code which flag state administrations should comply with. These resolutions are under continuous amendment, the revised version A.1071(28) adopted in December 2013 and effective from 1 July 2014 is revoked by Resolution A.1118(30) was adopted on 6 December 2017, Revised Guidelines on the Implementation of the ISM Code by Administrations (IMO^a, 2018; IMO^b, 2018).

The powers and duties of EMAA are stated under Article 6 of its establishment Proclamation. EMAA carries out ship registration and certification activities in accordance with the applicable national and international rules and regulations. Ethiopia has a national or closed ship registry system (Federal Negarit Gazeta, 2007). The registration of ships is governed by COM Regulation No. 1/1996. In implementing the ISM Code, EMAA is responsible for the issuance of DOC for shipping companies, Private shipping companies are not currently operating in Ethiopia and there is operating one national shipping enterprise ESLSE, and SMC for ships registered under the Ethiopian Flag. EMAA is responsible for verifications and audit provided under the ISM Code. Whereas EMAA is discharging its duty with respect to human element, training and certification of seafarers etc., it has delegated technical and operational part of its obligations for a Recognized Organization (Interview with P1, 2018).

2.4. Recognized Organizations (ROs)

Flag states may charge Recognized Organizations to perform on their behalf for verification or audit and certification under the ISM Code as per the ISM Code (Maritime

International Secretariat Services Limited, 2003). Accordingly, EMAA has authorized American Bureau of Shipping (ABS) to undertake the certification and the external audit on its behalf. ABS is an International Association of Classification Societies(IACS) member, ship classification organization or RO. ABS is authorized not only in relation to ISM Code obligations but also for other flag state obligations including certification and audit under international instruments such as statutory certificates. ABS carries out external audit on all the Ethiopian flag vessels and the head office of ESLSE and certifies or renews issued certificates, DOC for the ESLSE and SMC for the vessels (Interview with P2, 2018).

ABS conducts the external audit every year and renews the DOC and SMSs thereafter. EMAA authorized ABS taking into consideration its capacity in terms of manpower and other resources and for the main reason that safety cannot be compromised. EMAA makes sure that it authorizes only to IACS member ROs to ensure quality service in its maritime safety administration and directs and verifies their activity in line with the company's responsibilities under the ISM Code. Before ABS Ethiopian fleet was under the management of other IACS member ROs such as Lloyd's Class, German Lloyd etc. ABS takes care of both the class and statutory certificates of Ethiopian flag ships (Interview with P2, 2018).

2.5. Other States Authorized by Administrations

Flag state administrations, when they find it necessary, may request other contracting states to issue on their behalf certificates required under the ISM Code. The ISM Code under its Part B-Certification and Verification, provides that flag state administrations may request another contracting government to SOLAS to issue, verify, renew and withdraw DOC, SMC, Interim Document of Compliance and Interim Safety Management Certificate (IMO, 2015). This is not a practice in Ethiopia (Interview with P1, 2018).

2.6. Shipowners/Operators

The ISM Code Part A Section 1, 1.4 requires shipowners and operators, under their responsibility for its implementation, to establish, develop and maintain safety management systems dealing with safety, protection of the environment, and pollution prevention. Safety management systems provide for areas of responsibility and authority, and developing management skills of onboard and onshore workers (IMO, 2015). Shipowners and operators as it is stated under the ISM Code are primarily responsible for compliance with the ISM Code (ISM Code Part A section 1, 1.1, 1.1.2) (IMO, 2015).¹⁰ Under the ISM Code Part A Section 1, 1.4, companies are responsible to develop and effect safety and environmental protection policy, procedures and instructions for the safe operation of vessels and protection of the marine environment in line with the ISM Code and other applicable international and national rules and regulations. Crew of the companies should be conversant with the SMS and all other applicable procedures and instructions for the safe operation of ships. Companies are responsible to establish procedures for internal audits and management reviews and ensure their effective implementation. In order to fulfill their duties and responsibilities under the ISM Code, shipping companies need to establish and operate shore-based and shipboard management. Shipping companies must also establish environmental management through their shore-based and shipboard management (Anderson, 2003; IMO, 2015).

2.6.1. Shore-based Management

Under the ISM Code, shipowners and operators are required to establish both shipboard and shore-based management. The shore-based management is primarily responsible for the development of safety and environmental policies to ascertain implementation and enforcement of applicable international, and national or flag state rules and regulations

¹⁰ SOLAS Chapter IX, Regulation 3 (1) requires shipping companies and ships to comply with the requirements of the ISM Code, and it provides for the mandatory application of the provisions of the ISM Code (IMO, 2013).

related to safety and environmental protections. It should also establish levels of authority and lines of communication between and with one another shore and shipboard workforce (IMO^a, 2018). Accordingly, ESLSE has developed a policy manual based on the ISM Code which comprises the safety and environmental protection of the company (ESLSE SMS Policy Manual, 2018).

Shore-based management must determine and develop procedures for tackling emergencies; major shipboard operations; checking crucial systems regularly; planned and preventive maintenance; reporting accidents, incidents, injuries and near misses; remedial and precautionary measures; internal audits and management reviews (Bhattacharya, 2009). ESLSE has developed manuals on operation procedure, emergency handling, safety and health and other required procedures as part of its SMS for its both shore-based and shipboard management (ESLSE SMS Policy & Procedure Manual, 2018). ESLSE conducts internal safety audits onboard and ashore within the time framework provided by the ISM Code, and management review to take timely corrective action on deficiencies found. ESLSE developed SMS policy implementation procedures which provide for management review and master review as required by the ISM Code (Interview with P2, 2018).

Shore-based management has the duty to ensure the availability of sufficient resources and other necessary support through quality and efficient shore-based management. It handles commercial operations of: charter; Liaison between charterers and ship management; purchases, sales and lay-up; cargo procurement; loading and discharging requirements; optimum utilization. All shore-based management operations have cost implications including: Compliance with safety and pollution prevention procedures; Procurement and utilization of resources; Purchasing bunkers; Optimum maintenance program; Purchasing stores, provisions and spares; and Insurance - Optimum operation to avoid underutilization. Based on the management responsibilities of shore-based management, a standard shore-based management would have sections of: Safety & Quality – Designated Person (DP); Operations; Technical; Crew; Administration / HR / Sr. Management; Chartering; Marine Training; IT (Cyber Security) (International Safety Management Code - ISM, 2018).

The ESLSE SMS as stated earlier has a safety system including environmental protection as per the ISM Code. However, quality management system is not established in ESLSE. Besides, there is no safety and quality department in the ESLSE shipping sector other than DP/Company Security Officer (CSO), office composed of only 2 permanent staff members, DP/CSO and office assistant. ESLSE Information and Communications Technology (ICT) Department is in charge of Corporate Information Technology (IT) related issues including cyber security under corporate service sector. But the IT level in ESLSE shipping service sector may not be significant and no company strategy for cyber security except minor IT infrastructure security in a very limited manner. In ESLSE shipping service sector, there is one web-based commercial application in use between commercial department office, finance & accounts department and shipping agents based on ESLSE's trade roots, Europe, Far East, Gulf/Middle East and Indian sub-continent area in limited scale, which may be susceptible for cyber-attack (Interview with P1, 2018).

Among new developments of the ISM Code is the ship owner or operator responsibility to designate a person or persons (DP) responsible to monitor safety and environmental protection or pollution prevention in the operation of each and every vessels of ship owner and operating companies. Designated persons serve as a bridge or link between management of company ashore and onboard (IMO, 2015). ESLSE has assigned a qualified DP to carry out the obligations assigned under the ISM Code and the SMS of the company (Interview with P2, 2018).

2.6.2. Shipboard Management

Together with the shore-based management, the shipboard management constituted of the master and the crew are responsible for the safe operation of ships and pollution prevention. The shipboard management of vessels through safety management system, which guides the daily and detailed operation of ships, and other applicable rules and regulations has the duty to ensure safety and protection of the environment in the operation of ships (IMO, 2015).

The ISM Code separately and clearly provides for the responsibility and authority of masters which the shipowner/operating company should distinctly establish and document. Pursuant to the ISM Code, masters are responsible for:

- Implementing the safety and environmental-protection policy of the Company;
- Motivating the crew in the observation of that policy;
- Issuing appropriate orders and instructions in a clear and simple manner;
- Verifying that specified requirements are observed; and
- Reviewing the SMS and reporting its deficiencies to the shore-based management (IMO, 2015).

Shipowner/operating companies under their SMS are responsible to make certain the existence of an apparent provision/statement affirming the master's authority that he/she has the prevailing authority and responsibility as far as decisions related to safety and pollution prevention are concerned. This was not the case before the introduction of the ISM Code. The master, whenever necessary, is in charge of asking for help from company's shore-based management (IMO, 2015). ESLSE under its SMS has clearly incorporated all the responsibilities of masters including the overriding authority of the master as far as safety and pollution prevention are concerned. The SMS provides for detailed procedures for Master Review and Reporting to management ashore (ESLSE SMS Policy & Procedure Manual, 2018).

2.6.3. Environmental Management

Protection of the marine environment and Pollution prevention is one of the major purposes of establishment of the ISM Code. A safe and secure marine environment must be a policy objective for shipping companies. The ISM Code clearly provides that shipping companies should establish, implement and maintain safety and environmental protection policy in their shore-based and shipboard management (ISM Code Section 1, 1.4; 2) (IMO, 2015). The safety and environmental protection policy is meant to achieve

the objectives of the ISM code which are mainly related to ensuring safety at sea, prevention of human injury or loss of life, and protection of the environment, in particular the marine environment, and avert damage to and loss of property (Kongsvik, et al., 2014).

ESLSE has set safety and environmental protection policy as part of its SMS aimed at achieving the objectives of the ISM Code. The safety and environmental protection policy of ESLSE incorporates:

- Create a healthy and safe ship operation and working conditions;
- Prevent personal injury, loss of life, damage to property and the environment;
- Develop a safe and pollution free ship operating practices;
- Develop a sense of personal responsibility and "just culture" with respect to safety and protection of the environment;
- Utilize risk management system as part of the Safety Management System to assess shipboard operational risks, develop and implement safeguards against all identified risks (ESLSE SMS Policy & Procedure Manual, 2018).

In this chapter, discussion is made on the ISM Code, its background, content and objectives; the role of: flag state administrations, ROs, shipowners under their shore-based, shipboard and environmental management, in the implementation of the ISM Code in general and the Ethiopian case in particular will be dealt with. The next chapter focuses on the implementation mechanisms of the ISM Code. These implementation mechanisms include SMS; Certification; Regulatory Framework: Audit and Verifications, PSC, Duty to comply, and Marine Insurance Claims and Accident Trends. Discussion is made on the general principles of the implementation mechanisms and their implementation under the Ethiopian maritime safety administration system.

Chapter Three

IMPLEMENTATION MECHANISMS

The ISM Code is divided into two parts: Part A, titled “Implementation,” and Part B, titled “Certification and Verification.” Part A provides for implementation mechanisms, systems, and responsible organs through which the ISM Code can be made effective. These include:

- A Safety Management System (SMS);
- Safety and environmental protection policy;
- Emergency plans, measures and reports;
- Documentation;
- Verification systems, and stakeholders: Administrations; Recognized Organizations; shipping companies: shore-based and shipboard management including DPs, Master, Crew etc. (IMO, 2015; International Safety Management Code - ISM, 2018).

The certification and verification systems under Part B require the Administrations to issue: a DOC for shipping companies which fulfill the requirements, and a SMC for ships certifying that the shipboard management of ships are in compliance with the applicable Safety Management System (IMO, 2015). The ISM Code established ways by which the responsible organs fulfill their duties. This dissertation discusses in sections 3.1. SMS; 3.2. Certification by flag states or ROs; 3.3. Regulatory framework: 3.3.1. Audit and verifications by flag states or ROs, 3.3.2. PSC by port states, 3.3.3. Duty to comply with the ISM Code requirements, and 3.4. Marine insurance claims and accident trends related to the ISM Code.

3.1. Safety Management System

Safety Management System is an organized, specific and overarching process for controlling safety risks through management processes and tools. An SMS involves established ways of evaluation and measurement of safety management operations at organizational level aiming at continued progress and development (National Safety Council, 2018). More specifically, an SMS should entail:

- Preventing and controlling safety threats, accidents, injuries by way of developing planning and evaluation systems;
- Creating awareness and raising the level of competence on safety management for stakeholders in safety management systems and encourage their active engagement;
- Raising levels of safety management systems functioning, effectiveness and efficiency through planning and evaluation to identify failures, deficiencies and drawbacks, and solutions thereto (National Safety Council, 2018).

The ISM Code provides for the establishment on a compulsory basis of an SMS, which has to be followed by shipowner/operating companies. This is because there exists a strong relationship between the global safety rules and regulations, on the one hand, and safety management systems with specific application, on the other (Safety4sea, 2017).

Pursuant to the ISM Code Part A Section 1, 1.4, shipping companies should establish SMS. Every Company should develop, implement and maintain a SMS which includes the following functional requirements:

1. a safety and environmental-protection policy;
2. instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation;

3. defined levels of authority and lines of communication between, and amongst, shore and shipboard personnel;
4. procedures for reporting accidents and non- conformities with the provisions of this Code;
5. procedures to prepare for and respond to emergency situations; and
6. procedures for internal audits and management reviews. (IMO, 2015).

Starting from the first phase of the ISM Code implementation, the ESLSE has developed an SMS which deals with the company's operations both ashore and on board, in line with the ISM Code. The ESLSE SMS was issued for the first time in November, 1997 and it is under continuous revision and update. It is last updated in January, 2018. The ESLSE SMS is composed of two parts: SMS Policy Manual dealing with policy issues, and SMS Procedure Manual setting procedural rules applicable on shipboard and shore-based management (ESLSE SMS, 2018).

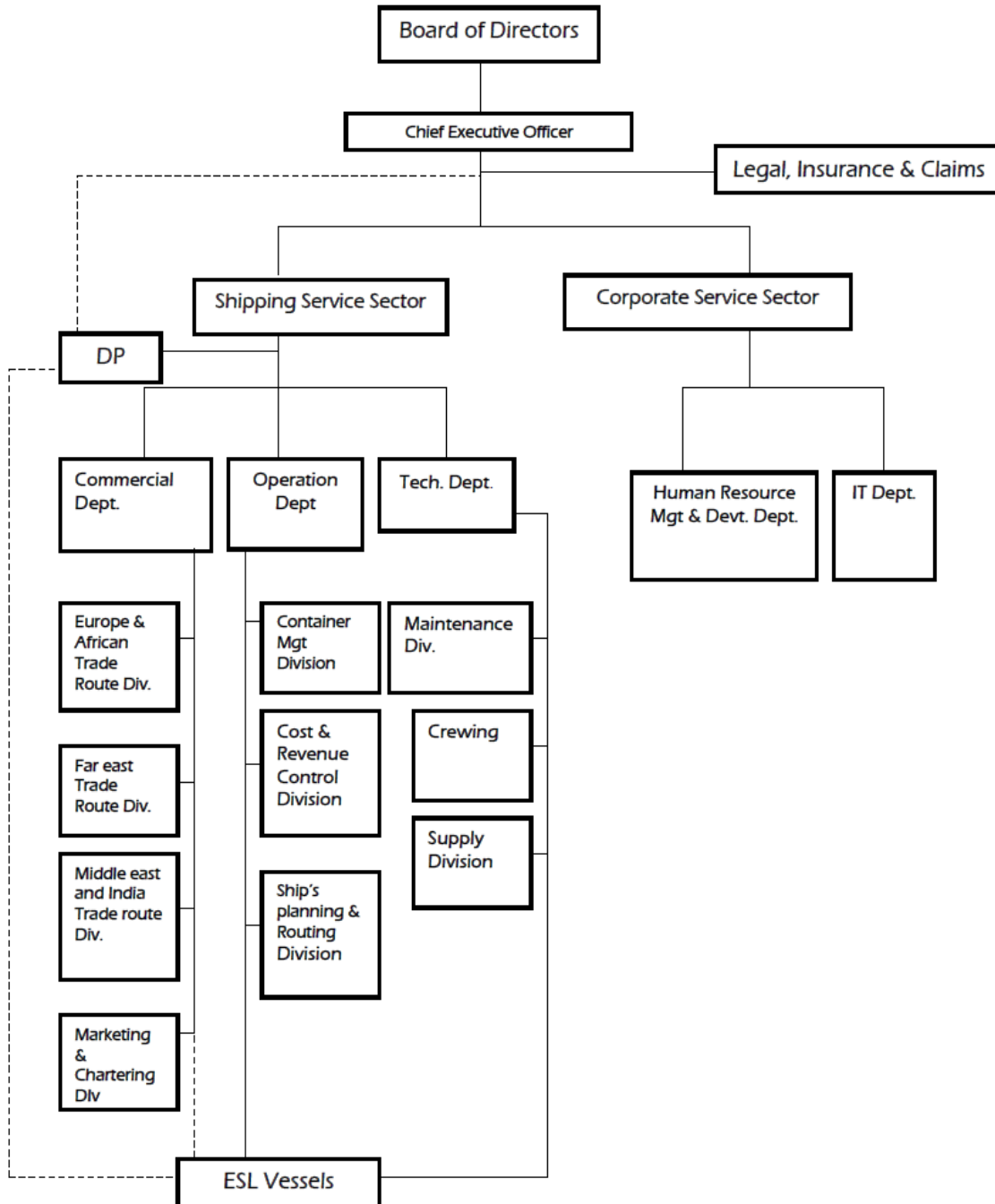


Figure 4: ESLSE Organizational Structure in Relation to SMS

Source: SMS Operating Procedure Manual (2018).

ESLSE Policy Manual covers:

- ESLSE Safety and Environment Protection Policy
- Objectives of ESLSE, Implementation Tools and Implementers
- Drug and Alcohol Abuse Policy
- Training Policy
- Media Policy
- Energy Conservation Policy
- Smoking Policy
- Under Keel Clearance & Air Draft Policy

The ESLSE Procedure Manual is consisted of the list in the following table.

Table 2: ESLSE SMS Procedure Manual Content

	Manual Description	Applicability
1	SMS Policy Manual	Company and Shipboard
2	SMS Operating Procedure Manual	Company and Shipboard
3	SMS Shipboard Work Instructions “Navigation Manual”	Company and Shipboard
4	SMS Shipboard Work Instructions “Port & Cargo Operation Manual”	Company and Shipboard
5	SMS Shipboard Work Instructions “Engine Room Operation Manual”	Company and Shipboard
6	SMS Shipboard Work Instructions “Maintenance, Inspection & Material Handling Manual”	Company and Shipboard
7	SMS Shipboard Work Instructions “Safety & Health Manual”	Company and Shipboard

8	SMS Shipboard Work Instructions “Training, Communication & Documentation manual”	Company and Shipboard
9	SMS Shipboard Work Instructions “Emergency Handling Manual”	Company and Shipboard
10	Forms Registers (Deck, Engine & General)	Company and Shipboard
11	Shipboard Job Description (Seafarers)	Shipboard
12	Shipboard Risk Assessment and Management	Company and Shipboard
13	SMS “Company Communication & Documentation manual”	Company

Source: Safety Management System Policy Manual (for all ESL vessels) (2018).

3.2. Certification

SOLAS Chapter IX Regulation 3 (2) requires ships to be operated by shipping companies holding DOC as per Regulation 4, which provides for the requirements to issue DOC for shipping companies and SMC for ships.

Certification is one of the implementing mechanisms provided for under the ISM Code. Administrations or ROs acting on behalf of administrations are called upon to issue:

- Document of Compliance (DOC) for shipping companies which fulfill the requirements under the ISM Code;
- Safety Management Certificate (SMC) for ships for the shipboard management of ships in compliance with the applicable Safety Management System;
- Interim Documents of Compliance and
- Interim Safety Management Certificates may also be issued for cases specified under the ISM Code (ISM Code Part B Section 13, 13.2, 13.7, 14, 2015) (IMO, 2015).

Prior to starting operations, shipping companies need to be certified by the administration or RO concerned. Administrations or ROs before they issue DOC, they must verify SMS of the company applying for certification. In verifying the SMS, administration or RO concerned must check whether the SMS of the company is in compliance with the requirements of the ISM Code, and the SMS serves to fulfill the objectives of the ISM Code. The DOC is issued on the basis of the type of ships and is valid only for ship types clearly indicated on the DOC. If a company needs to add other ship types than those already indicated on the DOC, issued after initial verification, another separate verification has to be made with respect to the ship types to be added ensuring the company's ability to comply with the requirements of the ISM Code applicable to the specific ship type, as provided under regulation IX/1 of the SOLAS Convention. The DOC indicates that the SMS of the company is in line with the ISM Code and the SMS applied on board ship of at least one ship of each ship type operated by company at least for three months (Credez, n.d.; IMO, 2015).

A DOC is valid for five years subject to verifications within the validity periods as provided by the ISM Code. In cases of major failure by the company to comply with the requirements of the ISM Code or when verification is not made before the end of the effective period of the DOC as prescribed by the ISM Code, within three months before or after the anniversary date, the DOC can be withdrawn by the Administration or RO which issued it. When a DOC is withdrawn, all related Safety Management Certificates and Interim Safety Management Certificates should also be withdrawn. The ISM Code provides that DOC should be carried on board as a proof of compliance with the ISM Code and for the purposes of verification by Administrations/ROs or PSC (Credez, n.d.; IMO, 2015).

SMC is issued by Administrations/ROs for companies comply with the ISM Code. This compliance is to be ascertained based on DOC which are issued as proof of compliance of shipping companies with the ISM Code through the SMS. SMC should be withdrawn by the Administration or RO which issued it, in cases of major failure by the company to comply with the requirements of the ISM Code or when intermediate verification is not

made at least once, between the second and third anniversary date of the SMC (Par Olivier Credoz, n.d.; IMO, 2015).

In case of ESLSE, as it is discussed under the ROs subtopic, certification and verification of Ethiopian flag vessels is delegated to the ABS RO. Currently, ESLSE owns 11 vessels, including 9 cargo vessels and 2 oil tanker vessels. The DOC and SMS of ESLSE apply to the 9 cargo vessels. The two oil tanker vessels are outsourced to International Tanker Management Company (ITM) for technical and crewing management and the DOC and SMS of ITM, which is in line with the ISM Code and other oil industry requirements, apply to the 2 vessels. However, the two ESLSE vessels are under Ethiopian flag and ABS RO. The ESLSE SMS incorporates time chartering which enables it to run time-chartered vessels. However, so far ESLSE is using its own vessels and voyage-chartered vessels and has not used its SMS on time-chartered vessels. The major issue in relation to hiring time-chartered vessels is that time-chartered vessels may have different flag and this would have implication on the applicable SMS, DOC and SMC. The applicable SMS, DOC and SMC on time-chartered vessels depends on the flag they are registered. Certification and audits under the ISM Code are statutory requirements pursuant to SOLAS Chapter I, Annex 1, Part A; SOLAS Chapter IX, Regulations 3 and 4; ISM Code Part B, Sections 13-15 (IMO, 2013; 2015; Interview with P1 & P3, 2018).

3.3. Regulatory Framework

3.3.1. Audit and Verifications

There are two types of Audits under the ISM Code: internal and external (ISM Code Part A Section 12; Part B Section 13) (IMO, 2015). Internal Audit is conducted by the company through its own or hired qualified personnel on its vessels and management ashore with in 12 months interval, with possible extension for a maximum of 3 months in exceptional cases, to verify the safety and pollution prevention activities of the company in light of the ISM Code. Related to internal audit, there are management review and master review. Pursuant to ISM Code Part A Section 12, 12.3, 12.6, 12.7, the company should evaluate the effectiveness of its SMS. Deficiencies need to be identified and measures should be

taken to rectify them. The Master should periodically review the deficiencies of the ISM Code and report to shore-based management ¹¹(ISM Code Part A, section 12, 2015) (IMO, 2015).

External Verifications and Audit are related to certification process under the ISM Code. Before DOC for companies and SMC for ships are issued, verifications should be effected at the request of the company concerned, Administration or RO recognized by the Administration or by another contracting government to SOLAS Convention (ISM Code Part B, section 13, 13.4, 13.8) (IMO, 2015). The verification which has to be made before the issuance of DOC and SMC involves: interim verification; initial verification; annual or intermediate verification; renewal verification; and additional verification. The verifications incorporate audit of the safety management system of shipping companies' shore-based and shipboard management (ISM Code, Part A, section 12, 12.1) (IMO, 2015). The Audit aims at verifying whether company SMS is in compliance with the ISM Code and it gives effect to the objectives of the ISM Code. The audit procedure follows steps which apply to all verifications. However, the scope of the audits may be different dependent upon the type of verification. i.e. the scope of audits for interim and additional verification may be different from the scope of audits for initial, annual, intermediate and renewal verifications (IMO^b, 2017).¹²

Compliance with the ISM Code should be verified through statutory and classification records relevant to the actions taken by the Company to ensure that compliance with mandatory rules and regulations is maintained. In this regard, administrations should ensure that companies have and are able to produce statutory and classification records to auditors whenever necessary and the records may be examined to substantiate their authenticity and veracity (IACS, 2011).

Statutory records are records related to statutory requirements for ships which need to be complied with and records of compliance there to are kept as a proof. The statutory records kept by shipping companies engaged in international voyages are related to the

¹¹ ISM Code Part A, Section 5, 5.1, 5.

¹² Ibid., footnote number 8, Page No.

the most important and applicable international conventions: SOLAS; MARPOL; LL Convention etc. Whereas classification records are records to show compliance with standards issued by classification societies. Classification rules are established with respect to standardizing and measuring structural and technical status of ships (IACS, 2011). Classification rules are not meant to be code, and classification certificate issued by classification societies is used for insurance or commercial purposes (Mejia, 2005). Classification certificates do not guarantee safety of life and property at sea or seaworthiness of vessels since classification societies, which issue them, cannot control or regulate the manning and operation of vessels, other than the survey they conduct to assign class which helps shipowners to get good Insurance terms. Classification societies and classification are given recognition under SOLAS and the 1988 protocol to the LL Convention (IACS, 2011).

ESLSE conducts internal audit within the time framework based on its established procedures. ESLSE SMS Management Review is conducted annually on regular basis with the necessary monitoring and follow up to rectify the deficiencies identified. Master SMS Review is carried out by ESLSE vessel masters and reported to the shore-based management to take the necessary measures. In relation to external audit with respect to ESLSE ABS on behalf of EMAA carries out external or third party audit every year on the company's head office/management ashore and vessels. The purpose of the external audit is issue or renew the certificates, DOC and SMC ABS also carries out external audit related to other requirements such as statutory certificates and class surveys (Interview with P1 and P2, 2018).

3.3.2. Port State Control

Port State Control is the inspection by the port state on vessels calling at its port or internal waters to ensure and control compliance with applicable rules and regulations. Under the ISM Code port states through PSC inspection inspect the safety management system of ships in light of the ISM Code which is established to provide an international standard for the safe management and operation of ships and for pollution prevention

(ISM Code Part B, section 13, 13.6) (IMO, 2015). The SMS of vessels should be up to date and accurately covering all the operations of vessels including emergency systems such as, firefighting and life-saving appliances. PSC Inspection involves checking on maintenance system of vessels, crew competence and welfare (UK P&I Club, 1998).

Deficiencies under the ISM Code identified through PSC inspection may be related to failure of the SMS itself or problems related to SMS's implementation. Port states are authorized to take measures in cases of deficiency, depending on the deficiency level, including ship detention where there are major and repeated deficiencies which require immediate rectification. PSC detentions may also relate to deficiencies under other applicable rules and regulations, international conventions (SOLAS Chapter IX Regulation 4 (2) ISM Code Part B, section 13, 13.6) (IMO, 1997; 2015; UK P&I Club., 1998)

Port states through PSC ensure compliance with the ISM Code. Vessels calling ports of other states than their flag state, are subject to inspection by port states, and should be able to produce DOC and SMC including SMS, its effective implementation. Port state inspection involves inspection of the conditions of vessels and its equipments, competence of crew with respect to safety and environmental protection. Where vessels are not in compliance with the ISM Code and any other applicable rules and regulations, they may get detained. In contrast with arrest, Port state detentions are upon the decision of the PSC officer and is before consideration of the merit by court of law or judge, and with limited possibilities of appeal. Port state detention may take time until the deficiencies get solution which has cost implications related to expenses for port state detention. Further, port state detentions are reported to Flag states and Classification Societies and displayed on MOU's website where the vessels belong which entail serious commercial impacts (IMO, 2000; Gard, 1999).

The Ethiopian fleet operates in different PSC MOU areas.¹³ ESLSE's plan under its SMS is to work effectively and efficiently in compliance with the applicable safety and

¹³ Regional agreements on Port State Control - Memoranda of Understanding. Globally, there are 9 PSC MOU. The US Coast Guard is also considered as a PSC regime (Butt, et al., n.d.; IMO, 2000).

environmental protection rules and regulations, controlling deficiencies and attaining zero detention rate for its fleet (ESLSE SMS Policy Manual, 2018). Ethiopia is part of the Indian Ocean MOU (Indian Ocean MOU, 2017). However, because of the current landlocked geographical situation of the country, it is unable to exercise PSC responsibilities. As part of the Indian Ocean MOU, Ethiopia participates through its maritime administration in workshops organized under the Indian Ocean MOU which builds the capacity of its flag state administration in relation to PSC on ships under its flag (Interview with P2, 2018).

In relation to Ethiopian PSC records, Ethiopian flag ships under Paris MOU report are listed with no detention for the years between 2013-2015. However, Ethiopian flag was not included in the Paris MOU White, Gray and Black Lists because number of inspections on Ethiopian flag ships over the three years, 2013-2015, do not meet the minimum of 30 set by Paris MOU (Paris MOU, 2015). Under Tokyo MOU for the 3 years between 2014-2016, there was no record of detention on Ethiopian flag ships. In 2017, there were 2 detentions. From the total number of deficiencies under Tokyo MOU for the year 2017, ISM related deficiencies were 1987 accounting for 2.61 % of the total deficiency by different deficiency categories (Tokyo MOU, 2017).

As per the 2017 annual report of Indian Ocean MOU ISM related were recorded to be 432 accounting for 3.30 % of the total deficiency by different deficiency categories. Between the years 2015-2017, there was one Ethiopian flag ship detained (Indian Ocean MOU, 2017).

Table 3: Summary of PSC Inspection on Ethiopian Flag Vessels for the years 2015-2017

Year	Total No. of PSC Inspections	Total No. of Deficiencies	No. of SOLAS-Related Deficiencies	Percentage of SOLAS-Related Deficiencies	No. of Detentions
2015	16	42	28	67%	0
2016	7	25	21	84%	0
2017	17	90	65	72.2%	3
2018 Jan-Aug	13	22	16	72.7%	0

Source: ESLSE PSC Inspection Record (2018).

The table above shows the total number of deficiencies identified by PSC inspections on Ethiopian flag vessels between the years 2015-2017. The PSC statistics on Ethiopian flag ships might give a partial view on the safety conformity the Ethiopian flag vessels. The PSC inspection statistics given above includes all PSC inspections on Ethiopian flag vessels in different PSC MOU regions over the period mentioned. A great majority of the deficiencies investigated by PSC inspection on the Ethiopian vessels over the period under consideration are related to SOLAS Convention. This implies that safety related deficiencies are higher on Ethiopian flag vessels and that safety needs to be given attention and priority by the ship operator ESLSE and the Flag State administration EMAA (ESLSE, 2018).

3.3.3. Duty to Comply

The issue of liability under the ISM Code arises with non-compliance with the ISM Code requirements. When a company does not secure DOC and SMC, it amounts to non-compliance with the ISM Code, and implies the absence of an effective safety management system. Noncompliance may also be caused where the company fails to

effectively implement the SMS. In relation to registration and operation of ships, being ISM compliant vessel fulfilling all the requirements of the ISM Code, certification and verification and audit, has become dominant practice in that flag states of ISM non-compliant vessels would get their reputation negatively affected. In addition to bad reputation, vessels flying the flag of those countries with bad reputation would face strict inspections at foreign ports. Non-ISM compliant vessels under PSC inspections, if not detained would at least be warned and may not be able to enter some ports in the European Union (EU) and the United States (US). PSC inspection detentions affect cargo interests as detention by port states delays the sailing of vessels which transport cargoes of different cargo interests (Liang, 2000).

The shipowner or any other person or organization operating a ship is responsible for compliance with duties and responsibilities under the ISM Code (ISM Code Part A, Section 1, 1.1, 1.1.2) (IMO, 2015). As per Part A, section 3, 3.1 of the ISM Code, the shipowner can authorize the operation of the ship to a third party. In cases where the management of vessels is delegated to a third-party ship management company, the shipowner remains liable to third parties as the ship management company acts in the capacity of agent. The ISM Code states that ship management companies have the duty to fulfill all the duties and responsibilities required by the ISM Code. The shipowner and ship management company may agree to the effect that the shipowner is indemnified from liability to third parties in cases of noncompliance with the ISM Code by the ship management company (Liang, 2000). In cases where the shipowner fully delegates the management of a ship to a third party company, the ISM Code requires the shipowner to report the full name and details of such entity to the flag state administration concerned (IMO, 2015).

With respect to marine insurance, because the ISM Code is incorporated into the domestic law of party states to the amended SOLAS Convention, it would be unlawful for insurance companies to ensure non-ISM certified ships for example a breach of warranty of legality under Marine Insurance Act (MIA), 1906 in English law or an unaccepted risk

¹⁴ (Liang, 2000). For cases of noncompliance or deficiencies with the ISM Code, the shipowner would face higher liability, which has implications on insurance cover and the shipowner's rights and entitlements such as, limitation of liability (Liang, 2000).

ESLSE is implementing the ISM Code through its SMS there by fulfilling its national and international obligations in relation to safety and the protection of the marine environment. The ISM Code is a mandatory requirement in that vessels which are not compliant with would not be able to operate in international waters. Detailed discussion is made under the sub topic on the role of flag states¹⁵ (Interview with P2, 2018).

3.4. Marine Insurance Claims and Accident Trends

Maritime transport accounts for about 90% of total world trade which makes administration of safety in the maritime industry crucial (Ceyhun, 2014). Reports show that there is a decrease in the number of marine casualties and total shipping losses year by year (Butt, et al., n.d.; Primorac & Parunov, 2016; Allianz Global Corporate & Specialty, 2018). This improvement is mainly the result of establishment and effective implementation of international and national maritime safety rules and regulations (Butt, et al., n.d.). Nevertheless, there is a lot to be done in relation to maritime safety administrations especially on the disparity in the number of marine casualties and losses based on region and vessel type (Allianz Global Corporate & Specialty, 2016).

The graph by Allianz shows that shipping losses declined by 16% in 2016 compared to 2015. Moreover, shipping losses decreased by 50% over the last ten years. This implies that efforts made towards maritime safety and environmental protection in the last decade became fruitful (Allianz Global Corporate & Specialty^a, 2017).

As already seen, the ISM Code requires the establishment of a SMS by shipping companies which extensively deals with safety and protection of the environment.¹⁶

¹⁴ For example, compliance with the requirements of the ISM Code are made part of Shipowners' Liability Insurance Rules (Mattson, 1998; Shen, 1999; Vladimir, 2009; Shipowners' Club, 2015).

¹⁵ Chapter 2, Section 2.3, Flag State Administrations.

¹⁶ Discussed in Chapter 3, Section 3.1, SMS.

Following the major catastrophic accidents in the maritime industry, the implementation of SMS became quintessential which resulted in the ISM Code. The ISM Code helped to establish a safety system which directly relates to marine casualties or accidents and their cause (Kongsvik, et al., 2014)¹⁷.

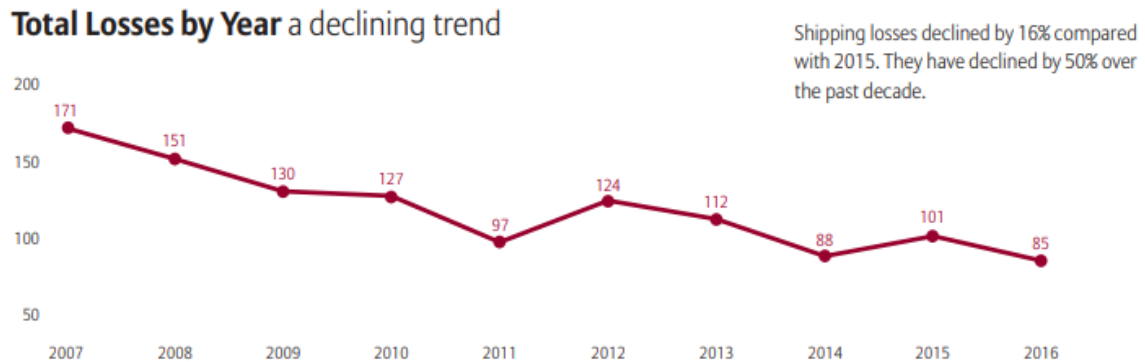


Figure 5: Total Losses by Year (2007-2016)

Source: (Allianz Global Corporate & Specialty^b, (2017).



Figure 6: Main Causes of Major Insurance Claims

¹⁷ Introduction, Chapter 2 Section 2.1., ISM Code Background and Content.

Source: International Safety Management Code - ISM, (2018).

The above figure shows that main causes of major insurance claims in the shipping industry. For instance, human factor or error accounts for about 49% of the main causes of major insurance claims which the SMS deals with by providing for detailed technical and procedural rules and regulations that must be followed in the operation of ships. The ISM Code also set standards with respect to technical or mechanical specification and usage of machineries and equipments on ships (ISM Code, Part A Section 1, 1.4, 2018) (IMO, 2005; IMO, 2015).

The implementation of the ISM Code helped ESLSE in changing the orientation of people concerned on safety and the number of accidents has dramatically decreased since the introduction of the ISM Code. The ISM Code enabled accident reporting system under SMSs that whenever accident occurs, it is properly investigated, analyzed, its basic root and immediate causes are identified and compiled in report. Furthermore, the accident report and the lessons learned are dispatched in order to avoid the recurrence of the same accident. This accident reporting system helps to avoid similar occurrences in the future (Interview with P1&P4, 2018).

Table 4: Premium and Claim Records in USD pertaining to P&I cover for the years between 2011-2017

Policy No.	Policy Years	Claim Record	Premium Paid	Premiums returned	Loss Ratio %
	2011	935,000.00	1,818,629.00	--	51.4
	2012	910,026.00	1,638,992.00	--	55.5
	2013	1,207,699.00	1,722,722.00	--	70.1
	2014	1,300,739.00	1,923,731.00	(192,373)	75.1
	2015	981,107.00	1,456,713.00	(145671)	74.8
	2016	623,963.00	1,016,067.00	--	61.4
	2017	768,296.00	978,770.00	--	78.5
TOTAL		6,726,830.00	10,217,580.00	(338,044)	65.8

Source: ESLSE Premium and Claim Records (2017).

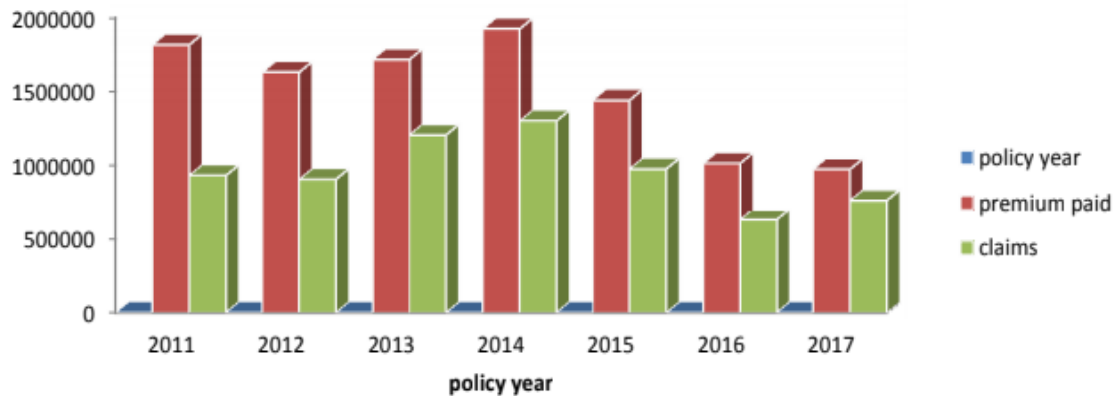


Figure 7: Premium and Claim Records

Source: ESLSE Premium and Claim Records (2017).

It can be noted from the above graph that the loss ratio ranging from 51.4 to 78.5¹⁸ relatively indicates that there are smooth claim records and no catastrophic incidents in the last seven consecutive policy years. Throughout the consecutive policy years indicated in the graph the gap between premiums paid and claims records have been continuously decreasing. This portrays that ESLSE's claim experiences have been good and encouraging. In view of this record coupled with P & I Club's collective financial results enjoyed in 2014 and 2015 policy years, the Club's Board of Directors passed resolution of a 10% return of premium paid for Protection and Indemnity (P&I) covers respectively (ESLSE P&I class premium records, 2018).¹⁹ The establishment of SMS helped ESLSE's shipboard and shore-based management in safe operation of ships and prevention of accidents or incidents (Interview with P1&P4, 2018).

Implementation mechanisms of the ISM Code, SMS; Certification; Regulatory Framework: Audit and Verifications, PSC, Liability, and Marine Insurance Claims and

¹⁸ The loss ratio is taken from the table on Premium and Claim Records in United States Dollar (USD) pertaining to P&I cover for the years between 2011-2017 and is calculated by dividing incurred losses to the earned premiums (Chapman, 2018).

¹⁹ Steamship P&I Club insured all the ESLSE vessels for third party and Freight, Demurrage and Defence (FD&D). Whereas the Ethiopian Insurance Corporation (EIC) together with a re-insurer insured the Hull and Machinery of Ethiopian flag ships (Interview with P4, 2018).

Accident Trends are discussed in chapter 3. These implementation mechanisms require the involvement of flag state administrations, port states, and shipowners and operators. In implementing the ISM Code there are challenges faced by the implementers. These challenges vary based on the particular implementers and other factors. Chapter four discusses the challenges faced by the Ethiopian maritime safety administration in its implementation of the ISM Code and the solutions suggested.

Chapter Four

CHALLENGES IN THE IMPLEMENTATION OF THE ISM CODE IN THE ETHIOPIAN MARITIME SAFETY ADMINISTRATION AND PROPOSED SOLUTIONS

Implementation and enforcement of the ISM Code was started in ESLSE in 1997 in preparation to comply with the mandatory requirements for oil tankers entered into force in July 1998, Phase I of the ISM Code implementation, and it is about 20 years time. The ISM Code is being implemented both ashore and onboard Ethiopian Flag ships. EMAA as a responsible flag state maritime administration is regulating the implementation of the ISM Code by fulfilling its flag state duties. As it is stated earlier EMAA has delegated to ABS RO the certification and external audit under the ISM Code. So far, the report EMAA receive from ABS shows that ESLSE is implementing the ISM Code through its SMS there by fulfilling its international obligation. The DP, the Master responsibility and authority, the resources and personnel as required by the ISM Code are being carried out properly, emergency preparedness requirements are complied with through SMS, reports, analysis of non-conformities, accident and hazardous occurrences, master review and management reviews are being carried out within the time framework. ESLSE is performing well in maintenance of ships and equipment, and documentation. Whenever accidents that cause damage to vessels and injury or loss of human life occur, should be reported to EMAA. EMAA has prepared a format for this purpose and this requirement is being complied with by ESLSE through its shore-based and shipboard management (Interview with P1 & P2, 2018).

In maritime safety administration in general and implementation of the ISM Code in particular, there are challenges the Ethiopian maritime administration is facing. Among these challenges the major ones are discussed in the following part.

In relation to Internal Audit under the ISM Code to be carried by shipping companies, EMEA has noticed instances where ESLSE fails to carry out internal audit within the 12 months period. Based on the reasons for noncompliance and when it finds it appropriate EMEA gives extension for a maximum of three months in line with the ISM Code. For instance, in the year 2017, internal audit was not conducted on 2 vessels and EMEA emphasized the need to conduct internal audit within the required time frame work to the management of ESLSE and an extension of maximum three months period was given (Interview with P2, 2018).

As it is stated under the ISM Code shipping companies should comply with the requirement of internal audit within the time framework set. This helps the company in its safety administration to ensure safety and prevent pollution.

EMEA has faced capacity limitation to fulfill its flag state responsibility. It is carrying out its responsibility related to the human element especially seafarers training and certification as it has the human resource for this purpose. However, when it comes to technical responsibilities, it has limitation of qualified technical personnel. The reason for this was stated to be the smaller fleet size of Ethiopian flag. That is it may not be feasible in terms of cost for the administration to train human power on technical ship management. For this reason, EMEA has delegated its obligation on certification and external audit to ABS. The delegation is not a problem by itself as the delegated RO is a qualified IACS member and has the necessary resources to carry out its delegated obligation. However, there should be ISM Code implementation guide by the side of EMEA as a flag state administration to support, and a verification system to control applicable on the ship operator as well as the RO. There should not be full reliance on the RO.

There should be established directives to deal with legal issues that may possibly arise based on the ISM Code and other applicable rules and regulations. This may help in awareness creation of EMEA personnel, especially the legal department in understanding and applying the ISM Code and other relevant international rules and regulations.

In cases where technical issues arise between EMEA and the delegated RO, ESLSE is serving to bridge the gap through its technical experts in order to explain or respond to questions on technical matters of ships related to certification and external audit. In order to solve this issue, EMEA has requested the Prime Minister Office for the employment of qualified senior experts in shipping on special arrangement and on contract basis. The request has got a positive response and EMEA has employed senior experts in the area on a temporary basis. However, as the experts are employed on a temporary arrangement and may not be always available as they are engaged in other activities. This shows that, it is difficult for EMEA to attract senior qualified experts in the maritime sector because of the incentive system of the authority under the government civil service administration which is generally low (Interview with P1 & P2, 2018).

Generally, qualified human power in the maritime sector is low in Ethiopia. Maritime education and training should be given due attention by the government and the incentive system for human power in the maritime field should be made encouraging in order to attract qualified maritime professionals and decrease the turnover.

Due to the amalgamation with Ethiopian Dry Ports Enterprise and Maritime and Transit Services Enterprise, ESLSE which was the former Ethiopian Shipping Lines (ESL) has now management body and staff composed of representatives from these sectors. ESLSE has now four sectors: shipping sector, freight forwarding sector, port and terminal sector and corporate sector. The activities of the shipping sector are interlinked with the activities of the other sectors in ESLSE, and all management members and staff of ESLSE need to be aware of safety and environmental protection in general and the ISM Code in particular. As a solution to the problem of lack of awareness, ESLSE is planning and conducting training on the ISM Code and other instruments on safety to its management and staff in collaboration with ROs (Interview with P2, 2018).

Appreciating the existing, more efforts are needed to raise the awareness of the management and staff of both EMEA and ESLSE to the required level.

ESLSE has no separate safety and quality department under its shipping sector other than the DP/CSO office. Furthermore, there is no quality management system

established. Safety is a matter of primary concern in the shipping industry because it significantly affects life, huge property interests and the environment (Interview with P1, 2018).

ESLSE as a ship owning and operating entity has obligations under national and international law to comply with safety standards. In view of these reasons and in the urging need for safety there should be established a safety and quality department under ESLSE's shipping sector and there should also be developed and implemented a quality management system to ensure that all the systems and procedures established under ESLSE's SMS are functioning effectively and efficiently.

In relation to PSC, number of safety related deficiencies identified between the years 2015-2017²⁰ are high and there are also detentions happening. This is a significant safety problem and related to the fleet size of the country detention of vessels have a significant implication on the overall shipping operation. ESLSE has established SMS and is working towards zero detention through its annual operation plan. The management of ESLSE and EMAA as a flag state administration should focus towards this goal because besides its commercial implications, it has effect on human life and property (Interview with P1, P2 & P3, 2018).

Both EMAA and ESLSE should work together to solve the deficiency problems of Ethiopian flag ships which is of a serious safety concern and also has commercial implications.

There were cases of non-renewal of certificates required under the ISM Code and now by notification system through ABS website to both EMAA and ESLSE, it is possible to follow certificates due to expire, planned audits etc. There is alerting system using changing notification colors (Interview with P2, 2018). EMAA and ESLSE need to cooperate with ABS to make in due time the required certification, verification and auditing.

²⁰ Discussion on Ethiopian flag ships PSC Record is made in section 3.3.2.

With respect to national laws applicable in the maritime industry, the Maritime Code of Ethiopia, 1960 was issued before the secession of Eritrea and it is now outdated, especially in some parts. The commercial part of the code is not a problem but its operational and safety related parts need updating. For this purpose, EMAA is proposing amendment legislations in the form of annexes to the House of Peoples' Representatives (HPR) with in its scope to cope with changes in international maritime law. EMAA is amending maritime legislations mostly through new Proclamations up on approval by the parliament but for laws that are published as directives, EMAA proposes amendments upon approval by Ministry of Transport.²¹ EMAA does this through its legal department which currently has two graduates from the IMO International Maritime Law Institute (IMLI). EMAA can propose the amendment of the maritime code in whole to Attorney General's Office subject to approval by the legislature (Interview with P4, 2018).

The outdated maritime code of the country needs replacement because it needs to be inline with international maritime rules, regulations and standards, and for convenience reason it is better to have a compiled comprehensive book than pieces of legislations.

Ethiopia is currently a landlocked state. In relation to this, the remoteness of the maritime administration EMAA, situated in the capital Addis Ababa, from where the vessels operate, Djibouti port, is more than 1,000 kms away. The road connecting the two states is of a very low quality and needs reconstruction. On the other side, a railway connecting Ethiopia and Djibouti has been constructed recently and started giving service. The issue for EMAA in relation to this is accessing ships physically for flag state inspection and audit is difficult. It carries out annual inspection and verification but random and continuous follow-up and monitoring is challenging to carry out. EMAA has recently established a branch office in Djibouti. The branch office has two core departments: maritime administration department and the logistics department. However, the only functioning department is the logistics department facilitating the logistics activity. Efforts are being made to enable the maritime administration department to start functioning.

²¹ EMAA proposes amendment legislations in the form of proclamations (Legislative Act) to the HPR through the Ministry of Transport. For amendment laws that are published as Directives (Executive Acts), EMAA proposes amendments to the Ministry of Transport (Federal Negarit Gazeta, 1/1995; 691/2010).

ESLSE has a well-established and operating branch office in Djibouti (Interview with P1&P2, 2018).

EMAA should make the maritime administration department of its Djibouti branch functional soon in order to solve its difficulties related to accessing the vessels for inspection and any other necessary activities. Moreover, there are bilateral and multilateral agreements which Ethiopia has already made or are in the making with neighboring coastal states on access to sea and port developments. These agreements enable the country to exercise its right to access the sea through neighboring nations under international law and pursue mutually beneficial arrangements. The Ethio-Djibouti Agreement is a good example and can be taken as a lesson among other African landlocked nations (Vrancken, et al., 2017). As a landlocked state with a large population, Ethiopia needs to give attention and work a lot towards developing its cooperation with neighbouring states on access to the sea and port development. This can significantly contribute to the development of the country's economy, especially its international trade development.

Chapter Five

CONCLUSION

The ISM Code is part of the amended SOLAS Convention Chapter IX, which provides for the mandatory application of the ISM Code. The ISM Code was adopted by the IMO after major marine casualties which claimed life and property. The purpose of establishment of the ISM Code is to ensure safety in shipping and protection of the environment in general and the marine environment in particular. State parties to the amended SOLAS Convention implement the ISM Code in their maritime safety administration. Maritime safety administrations of states establish policy, legal and institutional framework for the implementation of the ISM Code.

The ISM Code is divided into two parts: Part A, titled “Implementation,” and Part B, titled “Certification and Verification”. Shipping companies are required to develop, implement, maintain and update a SMS. The SMS must be in line with the ISM Code and is meant to serve the objectives of the ISM Code. they are also required to establish shore-based and shipboard management, in their implementation of the SMS, in charge of safe operation of ships and protection of the environment. Shipping companies are also required to undertake internal audit, and periodically review their SMS to identify deficiencies and take appropriate measures.

Flag state administrations or ROs carry out verification and external audit, and issue, renew, and withdraw when necessary DOC and SMC. Port states, through PSC inspection, verify and ensure compliance with the ISM Code. In compliance with the ISM Code causes marine accidents or casualties which result in marine insurance claims.

Ethiopia, an IMO member state and party to SOLAS Convention as amended, is implementing the ISM Code in its maritime safety administration since 1997. Ethiopia has

a national or closed ship registry. EMAA incharge of the maritime administration in the country implements or executes the flag state duties and responsibilities of the country. EMAA has authorized ABS RO for certification and external or third party audit.

ESLSE which is the national shipping enterprise in Ethiopia, owns and operates Ethiopian flag ships. ESLSE has established SMS which is being implemented in its shore-based and shipboard management. ESLSE SMS is comprised of two parts: SMS Policy Manual and SMS Procedure Manual. ESLSE SMS Policy Manual deals with policy issues including safety and environmental protection policy. ESLSE SMS Procedure Manual set procedures for shore-based and shipboard application. ESLSE undertakes internal audit and management review to evaluate the effectiveness of its SMS. Review by ship Masters is being undertaken by ESLSE ship masters to review the SMS and report its deficiencies to the shore-based management. Ethiopian maritime administration has not yet undergo the Voluntary IMO Member State Audit Scheme (VIMSAS) or IMO Member State Audit Scheme (IMSAS), but it is scheduled for the coming year. The implementation of the ISM Code and the establishment of SMS has a positive impact in the Ethiopian maritime safety administration. However, the Ethiopian maritime safety administration is facing challenges in its implementation of the ISM Code. the challenges are related to: the geographical situation of the country (landlocked); capacity limitation in relation to human resource and infrastructural development. Qualified human power in the maritime sector is low in the country caused and aggravated by the problem of lack of awareness about the sector.

In spite of the challenges, Ethiopia is a maritime nation owning and operation ships. Ethiopia has made and is negotiating bilateral and multilateral agreements with neighboring coastal states on access to sea and port developments. Responsible organs or stakeholders in the Ethiopian maritime safety administration need to work on the challenges faced by the maritime safety administration. This helps the shipping industry of the country which is the major means of transport for the country's foreign trade.

The work in this dissertation was challenged by time constraint and data collection, in accessing confidential documents, and other sources. Undergone through the

challenges, the dissertation is meant to contribute academically in giving insight about maritime safety administration, the ISM Code requirements, and ways of implementation in general and the Ethiopian case in particular. Furthermore, challenges of the Ethiopian maritime safety administration in the implementation of the ISM Code are identified with suggested solutions which can contribute pragmatically towards the improvement and development of the Ethiopian maritime safety administration in its compliance with the ISM Code.

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Appendices

Appendix 1 – WMU Research Ethics Committee Protocol



WMU Research Ethics Committee Protocol

Name of principal researcher:	Belete Lidya Kassahun.
Name(s) of any co-researcher(s):	–
Name of supervisor, if any:	Associate Professor Aref Fakhry.
Title of project:	"Implementation and Enforcement of the ISM Code in the Maritime Safety Administration of Ethiopia".
Is the research funded externally?	No.
If so, by which agency?	–
Where will the research be carried out?	By Correspondence.
How will the participants be recruited?	Based on their involvement in the subject matter of the research.
How many participants will take part?	Not more than five.
Will they be paid?	No.
If so, please supply details:	–
How will the research data be collected (by interview, by questionnaires, etc.)?	By Interview.
How will the research data be stored?	For data from interviews, it would be recorded and saved in a secure folder. Confidential official documents will also be saved in a secured folder.
How will the research data be disposed of?	Data from all sources will be deleted on 03 Nov. 2018.
Is a risk assessment necessary? If so, please attach	

Signature(s) of Researcher(s): 

Date: 7th. 12.2017

Signature of Supervisor: 

Date: 7th. 12.2017

Please attach:

- A copy of the research proposal
- A copy of any risk assessment
- A copy of the consent form to be given to participants
- A copy of the information sheet to be given to participants
- A copy of any item used to recruit participants

Appendix 2 – Information Sheet

I am a Master's student at World Maritime University (WMU) located in Malmö, Sweden. WMU is a university established by the International Maritime Organization (IMO), which is a specialized agency of the United Nations. My area of specialization is Maritime Law and Policy.

I am conducting this interview for the purpose of dissertation which I am writing in partial fulfillment of the requirements for the degree of Master of Science in Maritime Affairs. My dissertation is on "Implementation and Enforcement of the ISM Code in the Maritime Safety Administration of Ethiopia". The writing is aimed at researching the status of Implementation and Enforcement of the ISM Code in the Ethiopian Maritime Safety Administration, identifying the challenges faced by the Ethiopian Maritime Administration in the implementation and enforcement of the ISM Code, and proposing feasible and effective solutions.

The interview will be for forty (40) minutes, and the questions are broad allowing you the opportunity to express yourself on the subject matter without restriction. You may withdraw from the interview at any point.

Please note that data from interview will be held with maximum protection for confidence, stored securely and at the end of the research, all data collected from interview will be disposed of. Strict confidentiality will be observed, and your data will never be shared with anyone else.

Your participation in the interview is highly appreciated. Please feel free to contact me may you have any questions.

With Best Regards, Belete Lidya Kassahun,
Maritime Law and Policy Student
Email: w1701342@wmu.se
Cell Phone: +46 769036635
Fiskehamnsgatan 1, 211 18 Malmö, Sweden.

Appendix 3 – Consent to Interview

(Implementation and Enforcement of the ISM Code in the Maritime Safety Administration of Ethiopia)

(Belete Lidya Kassahun, MSc Student at World Maritime University)

This study involves the audio recording of your interview with the researcher. Neither your name nor any other identifying information will be associated with the audio recording or the transcript. Only the researcher will be able to listen to the recordings. The recordings will be transcribed by the researcher and erased once the transcriptions are checked for accuracy. Transcripts of your interview may be reproduced in whole or in part for use in presentations or written products that result from this study. Neither your name nor any other identifying information (such as your voice) will be used in presentations or in written products resulting from the study. By signing this form, I am allowing the researcher to record my interview as part of this research. I also understand that this consent for recording is effective until the following date: _____. On or before that date, the tapes will be destroyed.

Participant's Signature: _____ Date: _____

Appendix 4 – Interview Questions

Name of the Researcher: Belete Lidya Kassahun

Topic of Dissertation: Implementation and Enforcement of the ISM Code in the Maritime Safety Administration of Ethiopia

Questions for Interview

Please answer the following questions to the best of your knowledge and experience.

1. Please introduce yourself and your job qualification.
2. What is maritime safety administration and its relation with the ISM Code?
3. Why do we need the implementation and enforcement of the ISM Code in the Ethiopian maritime safety administration and what changes have you observed so far after the introduction of ISM Code in the Ethiopian maritime safety administration?
4. What do you think about ISM code implementation effectiveness, its current performance evaluation and awareness on its legal implications in ship operations?
5. What are the challenges faced by the Ethiopian maritime safety administration in the implementation and enforcement of the ISM Code?
6. What do you think are the possible solutions or way forwards to these challenges faced by the Ethiopian maritime safety administration in the implementation and enforcement of the ISM Code?