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# SIGNIFICANCE OF PURPOSE-SPECIFIC COLLABORATIVE CAPACITY - THE HUMAN RESOURCE ASPECT: CASE OF LAW ENFORCEMENT IN MARINE ENVIRONMENT PROTECTION IN SRI LANKA

<sup>1</sup>S. U. Lanka Prasada , Prof. (Mrs.) R. Lalitha S. Fernando<sup>1</sup>, Dr. B. J. H. Arachchige<sup>1</sup> and Dr Kokila Konasinghe<sup>2</sup>

<sup>1</sup>University of Sri Jayewardenepura, <sup>2</sup>University of Colombo Shri lanka

# ABSTRACT

Collaborative arrangements are established for a specific purpose. Yet the existing studies in collaborative capacity neglect the purpose-specific collaborative capacity which is relevant to the purpose of the collaboration, creating a theoretical gap in the literature. The paper focuses on explaining the significance of the human resource aspect of purpose-specific collaborative capacity in the context of law enforcement in marine environment protection in Sri Lanka.

The case study method in qualitative approach was used in the research. The representatives from five public agencies mandated with marine environment protection in Sri Lanka were selected through purposive sampling and primary data were collected from March to September 2014, through in-depth interviews. The themes were identified through coding and content analysis was used to explain the significance of human resource aspect in purpose-specific collaborative capacity.

Findings of the research revealed that purpose-specific collaborative capacity is a significant factor which should be incorporated in the concept collaborative capacity. In the context of law enforcement in marine environment protection, the purpose-specific collaborative capacity encompasses two perspectives; maritime capacity and law enforcement capacity; and the human resource aspect of both perspectives could be explained in five identified themes; legitimacy, operational, technical, logistic, and training and development.

Keywords:. Interagency collaboration, collaborative capacity, law enforcement, marine environment

# INTRODUCTION

The collaborative capacity has been identified as a critical factor in interagency collaboration and many researchers have stressed the significance of collaborative capacity in interagency collaboration, yet there is dearth of research focusing different aspects of collaborative capacity (Weber et al., 2007; Thomas, Hocevar and Jansen, 2006; Thomas et.al., 2008; Bardach, 2001; Huxham, 1993; Gray, 1985). Even the limited studies available on collaborative capacity focus

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on the capacity needed to manage the collaborative mechanism (Bardach 1998; Foster-Fishman et al., 2001; Imperial 2005; Weber, Lovrich, and Gaffney 2007; Nowell and Foster-Fishman 2011; Lai 2011; Cheng and Sturtevant, 2011; Emerson, Nabatchi, and Balogh 2011; Hocevar, Jansen, and Thomas 2011), and the capacity needed for the intended purpose of collaboration - the 'purpose-specific collaborative capacity', inclusive of the human resource aspect has not been investigated and explained. The preliminary study reveals that the responsibility for marine environment protection in Sri Lanka is vested with several public agencies sans a collaborative mechanism. Each agency is vested with many responsibilities relevant to their respective mandated area and the law enforcement is one of the responsibilities vested with them, and there is lack of resources at the agency level to facilitate law enforcement in marine environment protection. This unique scenario warrants an empirical investigation, to ascertain the significance of human resource aspect of purpose-specific collaborative capacity during pre-collaborative stage, in the context of law enforcement in marine environment protection in Sri Lanka.

# THEORETICAL BACKGROUND AND LITERATURE REVIEW

The theoretical background relevant to the research encompasses definition of interagency collaboration, conceptualizing collaboration, definition of collaborative capacity and the existing scope research in collaborative capacity.

# **Definition of Interagency Collaboration**

According to Bardach (1998, p 8) collaboration is "any joint activity by two or more agencies working together that is intended to increase public value by their working together rather than separately". The literature revealed the existence of several definitions for collaboration, but the deferent versions of definitions collectively imply that collaboration is a well-defined joint activity by two or more agencies that is formed to achieve common goals, more mutual benefits or / and public value in the intended purpose of forming the collaboration (Mattessich and Monsey 1992, p 11; Huxham 1996, p 1; Bardach 1998, p 8).

# **Conceptualizing Collaboration**

Scholars have conceptualized collaboration as a phased-framework consisting continuum of stages (Gray 1989, p 57; Gray and Wood 1991; Ansell and Gash 2007, p 550; Bryson et. al. 2006, p 44). Though authors have utilized different terminology in many such phased-frameworks, these findings imply that collaboration encompasses three primary phases; pre-collaboration or potential collaboration stage, collaboration implementation or process stage and outcome stage. The literature review revealed that the necessity exist to undertake more studies in the pre-collaborative stage of interagency collaboration (Spekkink and Boons 2015, p 1;

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Weber, Lovrich, and Gaffney 2007, p 216; Badarch 1998, p 53; Mattessich and Monsey 1992, p 40).

# Definition of Collaborative Capacity and the Purpose-specific Aspect

Scholars have emphasis the significance of human resource capacity in interagency collaboration stating that; the relationships between individual participants in collaborations are often fundamental to getting things done (Huxham 2000, p 341; Huxham and Vangen 2005, p 74); collaboration is deeply dependent on the skills of officials and managers (O'Leary & Vij 2012, p 515); member capacity is critical and collaborative capacity is greatly influenced by the existing skills / knowledge and attitudes of members (Foster-Fishman et al. 2001, p 243). Thomas et al. (2006, p 2) define collaborative capacity as "the ability of organizations to enter into, develop, and sustain inter-organizational systems in pursuit of collective outcomes" and Gazley (2008), defines organizational capacity to collaborate as the "ability of a member to secure the human, technological, political, or other necessary resources that allow it to participate in collaborative activities". Hence, based on the definition of Gazley (2008), the human resource aspect of 'purpose-specific collaborative capacity', is defined, as "the ability of an organization to secure and sustain, the human resources requirement specifically needed for the intended purpose of the collaboration", and it excludes the collaborative capacity needed for the management of the collaboration.

#### Existing Scope and Focus of Research in Collaborative Capacity

The definition of collaborative capacity primarily concern about the ability of an organization to enter and sustain in inter-organizational systems and ability of an organization to secure the resources to participate in collaborative activities. But the focus of existing research in collaborative capacity confine to the ability of managing and interacting in collaborations. Bardach (1998, pp 20-21) proposes the "craftsmanship theory" in interagency collaborative capacity (ICC), which encompasses two components; objective component and subjective component; and the subjective component mainly refers to the relevant individuals' expectations of others' availability and competency for the particular collaborative task. The author has comeup with the concept of "platforming" to explain the development of interagency collaborative capacity, and equates it to building a house, and proposed ten building blocks. The each block itself a collaborative capacity and each capacity provides the platform to develop the next capacity sequentially (Bardach 2001, p 152). Foster-Fishman et al. (2001) have identified four levels of collaborative capacity encompassing; member capacity, relational capacity, organizational capacity and program capacity. The authors have identified critical elements of collaborative capacity and according to authors the critical elements associated with member capacity in collaboration extends to three areas; core skills and knowledge, core attitudes motivation and access to member capacity; and the strategies for building member capacity

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incorporates; understanding current member capacity, the diversity of member competencies, enhancing current member capacities, engage in incentives management, foster positive intergroup understanding, build diverse membership and support diversity (Foster-Fishman et al., 2001, pp 243-246).

Hocevar et al. (2011, p 2) have developed an inter-organizational collaborative capacity model which contains five domains; process and strategy, structure, lateral processes, incentives and reward systems and people. The domain people refer to the individual collaborative capabilities such as the attitudes, skills, knowledge, and behaviours of individual organizational members that impact the organization's ability to collaborate. Cheng and Sturtevant (2011) have inductively derived a framework for assessing collaborative capacities, and it encompasses six arenas of collaborative action; organizing, learning, deciding, acting, evaluating, and legitimizing, and within each arena the capacities expressed through three levels; individuals, organizations and networks. O'Leary et al. (2012, p 7) propose the skill set of successful collaborator which incorporates; individual attributes, interpersonal skills, group process skills, strategic leadership skills, and substantive/technical expertise. According to Lai (2011, pp 3-6) organizational collaborative capacity in pandemic control incorporates two types of resources; hard and soft resources, and soft resources refers to knowledge, skills, expertise, and capacity of flexibility and adaptability. The literature on collaborative capacity reveals that human resource capacity has been incorporated as a constituent of collaborative capacity, but the primary focus had been the management of the collaboration effort (Foster-Fishman et al. 2001; Cheng and Sturtevant, 2011; O'Leary et al., 2012; Hocevar et al., 2011; Bardach 1998; O'Leary and Vij 2012, p 512).

# **RESEARCH PROBLEM**

The research problem is illustrated in two perspectives; one is in the perspective of interagency collaboration; the other is in the human resource capacity perspective of collaborative capacity. The literature review reveals that there is lack of research on potential collaborations and more studies are needed in pre-collaborative phase in view of complex relationships likely to exist in interagency collaboration (Badarch (1998, p 53); (Weber et.al., 2007, p 216). The systematic review of top five peer-reviewed academic journals in the field of public affairs from year 2000 to 2009, had found that only six studies or 2.3% of researches had been related to capacity (Varda et al., 2012, p 567). Krane and Lu (2012, p 19) have emphasized significance of examining collaborative public management in countries outside the United States and Europe to determine the general factors and context-specific factors. These findings imply the dearth of research in collaboration, focusing; potential collaboration; different contexts; and different countries.

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According to 'O'Leary and Vij (2012, p 516) the field of collaboration suffers from blind spots concerning theoretical diversity and fragmentation and lacks depth. Similarly a vast majority of the current public management literature on collaboration focuses on organizations and networks, but not on the individuals who collaborate ('O'Leary, et al., 2012, p 12). The literature focuses on many aspects of collaborative capacity such as; framework for assessing collaborative capacities (Cheng and Sturtevant, 2011); ascertaining skill set of successful collaborator (O'Leary et al., 2012); assessing different factors that contribute an organization's capacity to collaborate (Hocevar et al., 2011); managerial craftsmen for building collaborative capacity (Bardach 1998); networking capacity (Agranoff and McGuire, 1998); developmental processes for effective inter-organizational collaborative capacity (Bardach, 2001); and dimensions of capacity in local social service delivery (Bryan 2011); but almost all the elements in conceptual frameworks of such researches focus only the collaborative capacity needs for the management of the collaboration. These factors reveals that collaborative capacity specific to the particular purpose of the collaboration had not been investigated deeply during pre-collaboration stage, to understand and explain the purpose-specific collaborative capacity and the significance in acquiring and sustaining those capacities, which are critical in achieving the objectives of the collaboration during the implementation stage.

# **OBJECTIVE OF THE RESEARCH**

The objective of research was to investigate the human resource aspect of 'purpose-specific collaborative capacity' in the context of law enforcement in marine environment protection in Sri Lanka in the pre-collaboration stage, to answer two questions:

- a) Why the concept collaborative capacity should encompass human resource aspect of purpose-specific collaborative capacity is significant in collaborations?
- b) How the human resource aspect of purpose-specific collaborative capacity is constituted?

#### **RESEARCH CONTEXT**

The law enforcement in marine environment protection in Sri Lanka was selected for the research due to the existence of several mandated public agencies, which are entrusted with responsibility of marine environment protection.

# **Public Agencies Involved in Marine Environment Protection**

The mandate for marine environment protection in Sri Lanka, inclusive of the law enforcement aspect is divided and vested with three public agencies, Coast Conservation and Coastal Resource Management Department (CCCRMD), Marine Environment Protection Authority (MEPA) and Department of Fisheries and Aquatic Resources (DFAR), as illustrated in Table 1.

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In addition to these three public agencies which are directly vested with the mandate for marine environment protection, Sri Lanka Navy (SLN) and Sri Lanka Coast Guard (SLCG) play a supportive role in law enforcement aspect of marine environment protection.

# Table 1: Summary of Legislations on Marine Environment Protection, Mandated Provisions and Authorities Responsible

Legislation	Provisions	Authority	
Coast Conservation and	Survey of the coastal zone and the	Coast Conservation	
Coastal Resource	preparation of a Coastal Zone	and Coastal	
Management Act No. 57	Management Plan, and to regulate	Resource	
of 1981 (as amended by	and control development	Management	
Act No. 64 of 1988)	activities within the coastal zone.	Department	
		(CCCRMD)	
Marine Pollution	Prevention, control and reduction Marine		
Prevention Act No. 35	of pollution in territorial waters of	Environment	
of 2008	Sri Lanka or any other maritime	Protection	
	zone, and coastal zone.	Authority (MEPA)	
Fisheries and Aquatic	Provide for the management,	Department of	
Resources Act, No. 2 of	regulation, conservation and	Fisheries &	
1996	development of fisheries and	Aquatic Resources	
	aquatic resources in Sri Lanka	(DFAR)	

Source: Adopted from judges and environmental law: A handbook for the judiciary in Sri Lanka, (De Mel 2009, pp 28-31)

# Geographical Scope and Features of Coastal Belt of Sri Lanka

The geographical scope applicable to marine environment protection extends up to exclusive economic zone (EEZ), encompassing a vast sea area of 517,000 km<sup>2</sup> which is 7.8 times the land area of Sri Lanka, coastline of 1,620 kms, and five international harbours (Samaranayake, 2007). According to Ministry of Fisheries and Aquatic Resources Development (2014) the coastal zone contains; 26 major fisheries harbours; 58 boat anchorages; 193 improved landing centres; 890 minor fish landing centres; a fishing fleet of 51,127 boats of different sizes, and marine fishing household population of 824,680; and five sea ports. These statistical data shows the nature of

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activities in relevant area and the extent of responsibility coming under the scope of marine environment protection in Sri Lanka.

# **Challenges in Marine Environment Protection**

The vast geographical extent of 517,000 km<sup>2</sup>, concentration of industries and hive of human activities, existence of major international shipping lane south of Sri Lanka, show the massive task entrusted to these stakeholder agencies. The compliance of applicable laws in marine environment protection is essential to fulfill this mammoth task, which requires immense efforts, resources and professional expertise in all mandated agencies. Though all mandated agencies operate in the same geographical area, a collaboration mechanism does not exist for marine environment protection.

# **RESEARCH METHODOLOGY**

## **Research Strategy**

The qualitative strategy of inquiry was selected for the research. Since the study investigated a contemporary phenomenon in-depth within its real-life context, and the research questions focused on 'how' and 'why' aspects of the problem, the multiple case study method was adopted in the research (Yin 2009). The scope of the research was confined to the human resource aspect of 'purpose-specific collaborative capacity' in the context of law enforcement in marine environment protection, and excludes the collaborative capacity needs for the management of the collaboration. Keeping in-line with the definition of Gazley (2008), the human resource aspect of 'purpose-specific collaborative capacity', for the research is defined, as "the ability of an organization to provide, the human resources requirement specifically needed for the intended purpose of the collaboration.

# **Conceptual Approach**

Since literature on collaborative capacity is very limited, no such dominance theories could be traced in the literature. Some authors have utilized Network Theory whilst many authors have not mentioned about adoption of specific theory. Hence the Craftsmanship Theory which was developed by Bardach (1998) was adopted to in the research, According to Bardach (1998, p 270) the interagency collaborative capacity is developmental and it involves *platforming* which is a sequence of developmental steps, and each step represents an achievement in its own right as well as creates the potential for moving to the next step (Bardach 1998, p 305). It provides facility to divide the development processes into sequential phases and then assign these phases labels that conflate description and explanation (Bardach 1998, p 275).

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The preliminary study reveals that the purpose-specific collaborative capacity of public organizations, in the context of law enforcement in marine environment protection in Sri Lanka, is primarily formed through two perspectives; and one is the maritime capacity which is essential to maintain the presence in the vast sea area and the other is the capacity in law enforcement process. Sri Lanka Navy (SLN) possesses the best maritime capacity inclusive of human resource aspect, to maintain presence in the vast sea area and engage in many diverse law enforcement actions such as marine environment protection, prevention of drug and human trafficking, prevention of illegal fishing, prevention of piracy at sea. Hence the primary functions of SLN; operations, technical, logistics, and training and development (SLN, 2014) were taken as guideline to investigate and establish the significance of purpose-specific collaborative capacity as well as its constituents. Similarly, the law enforcement process includes the functions legitimacy, surveillance, detection, investigation, apprehension and initiating legal action, and these aspects were also considered in identifying the significance of purpose-specific collaborative capacity the (Judges and Environmental Law, 2009)

## Method of Data Collection and Analysis

The population of the study consists of public agencies involved in marine environment protection in Sri Lanka; Marine Environment Protection Authority (MEPA); Department of Fisheries and Aquatic Resources (DFAR); Coast Conservation and Coastal Resource Management Department (CCCRMD); Sri Lanka Navy (SLN); and Sri Lanka Coast Guard (SLCG). The sample comprised of representatives of each stakeholder public agency, selected from higher hierarchical levels through purposive sampling. The data for the research were collected from both primary and secondary sources. Primary data were collected from March to September 2014, along two perspectives; the maritime capacity and the law enforcement capacity in law. The data were collected through in-depth interviews from 20 respondents occupying higher level positions in five public agencies. Semi-structured questionnaire was utilized to facilitate the flexibility in interviews. The secondary data were obtained through documentary review of relevant legislations, regulations international conventions, and published reports. The content analyses based on identified themes were used to investigate and explain why the purpose-specific collaborative capacity is significance and how it is constituted in the context of law enforcement in marine environment protection in Sri Lanka (Yin, 2009). The trustworthiness of the research was ensured through reliability procedures and triangulation methods.

# **Trustworthiness of the Research**

Reliability of the study was ensured through; checking of transcript to avoid mistakes in the transcriptions and continuous comparing of data with codes. The validity was established

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through; triangulating the data gathered from different participants and documents; establishing themes and member-checking by referring the themes back to participants to obtain the endorsement.

# DATA ANALYSES AND DISCUSSION

The data analysis clearly established the existence of two main perspectives in human resource aspect of purpose-specific collaborative capacity of individual capacity; one is the maritime perspective which provides the platform needed to launch law enforcement operations at sea; the other is the law enforcement perspective. These two purpose-specific perspectives were investigated through five emerged themes; legitimacy, operational, technical, logistic, and training and development; to explain the significance of human resource aspect of purpose-specific collaborative capacity. The data analysis and findings are illustrated under each theme, encompassing both the maritime and law enforcement perspectives.

# Legitimacy

# **Capacity in Legitimacy - Maritime Perspective**

The maritime functions of Sri Lanka for commercial purposes are governed by Merchant Shipping Act (1971), the amended Act (1988) and regulations under sections 126 and 321 of the Act (2013). The approval of Director Merchant Shipping is required to own and operate ships in Sri Lanka, as well as to employ officers and seamen onboard such ships, and according to the regulations under sections 126 and 321 of the Act (2013), all such personnel should possess the required professional competency certificates of applicable categories and levels, and it is strictly prohibited to operate ships without such personnel with professional competencies. This Act is not applicable for certain categories of organizations such as Sri Lanka Navy (SLN) and the government entities, if their maritime functions are not for commercial purposes. SLN possess a very comprehensive own system inclusive of regulations and instruction in par with international standard, to own and operate ships, whilst no other legislation exists in Sri Lanka to cover the other state agencies (Legal Officer SLN, 2014). These facts imply the significance of having legitimate and standardized professional competencies and experiences to facilitate the government entities to build the human resource aspect of maritime capacity and operate ships safely.

# **Capacity in Legitimacy - Law Enforcement Perspective**

The landward boundary of the geographical area relevant to marine environment protection extends to 300 meters landwards from the mean high water line of the coast under normal circumstances (*Coast Conservation and Coastal Resource Management Act No. 57, 1981*); and

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the seaward boundary extends to 200 nautical miles seawards from the baseline on the coast (*Maritime Zones Law No. 22*, 1976, s5). The authorized officers of mandated agencies operate collectively within this vast geographical area encompassing 517,000 km<sup>2</sup>. The authorized officers of mandated agencies are vested with authority and powers to engage in law enforcement actions and processes in their respective mandated functions such as; to stop, search, seize and apprehend boats and gear when engage in illegal fishing activities (DFAR Act 1996, s 46); to survey, investigate, and demolish unauthorized structures in the coastal zone in case of illegal development activities (CCCRMD Act 1981, ss 26 & 31); to detain, investigate, seize, apprehend ships and offenders in case of incidents involving marine pollution (MEPA Act 2008, ss 10-13); (SLCG Act 2009, s 5).

The study also revealed that certain mandated agencies had delegated law enforcement authority and powers to officers of other agencies, to obtain their services in law enforcement activities. The Department of Fisheries and Aquatic Resources delegates the powers to naval personnel above the rank of petty officer to function as authorized officers (DFAR Act 1996, s 66). Similarly the Marine Environment Protection Authority (MEPA) empowers any member of armed forces to act as authorized officers when the authority is given in writing (MEPA Act 2008, ss 10-13). The Coast Guard Act (2009, s4), empowers its officers with certain law enforcement functions, related to marine environment protection, but they have not been incorporated as authorized officers in respective Acts of any of the mandated agencies (DFAR Act, 1996; MEPA Act, 2008; CCCRMD Act, 1981 and 1998). The personnel in mandated agencies operate in the same geographical area, and possibilities exist for the offenders commit multiple illegal activities coming under the purview different agencies simultaneously. For an example, if a fishing vessel utilizes illegal fishing methods and engage in dumping of ship's oily waste in to the sea simultaneously, an authorized officer of DFAR is unable to take action on dumping of waste, whilst officers of MEPA is unable to take action on illegal fishing. These factors emphasis the significant of having the necessary legitimate authority and powers with mandated agencies, as well as the delegated authority and powers with the supporting agencies, in order to facilitate effective and efficient enforcement laws in marine environment protection.

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Туре	Type of Patrol Vessel	Nos.	Type of Deployment
		Available	
	Offshore Patrol Vessel	05	Deployed for long
	Fast Missile Vessel	02	duration patrolling in
	Fast Gun Boats	15	territorial sea and EEZ
Sri Lanka Navy	Fast Attack Craft	Over 45	Deployed for patrolling
	Coastal Patrol Craft	Over 20	within territorial waters
	Inshore Patrol Craft	Over 75	Patrolling very close to
	Fiberglass Dinghies	Over 200	the coast and landing
Sri Lanka Coast	Fast Attack Craft	10	Patrolling very close to
Guard (SLCG)	Inshore Patrol Craft	05	coast / territorial waters
Coast			
Conservation			
and Coastal	Nil	Nil	Nil
Resource	1111	1111	1111
Management			
Department			
Marine			
Environment	Nil	Nil	Nil
Protection	1111		
Authority			
Department of			
Fisheries &	Nil	Nil	Nil
Aquatic	1111	1111	1111
Resources			

# Table 2: Comparison of Ships and Craft in Stakeholder Agencies

Source: From complexities in organizational capacity in interagency collaboration: The case of law enforcement in marine environment protection in Sri Lanka (Lanka-Prasada 2014, p 43)

# **Operational Capacity - Maritime Perspective**

The Table 2 (Lanka-Prasada 2014, p 43) illustrates the comparison of fleet units in mandated agencies and type of deployment and, it shows that only Sri Lanka Navy and Sri Lanka Coast Guard have such capacities, and navy possesses the largest fleet of ships and craft exceeding 300 whilst none of the other agencies possess ships/craft. According to Director General Operations

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of the Navy, (2014, pers. Comm., 05 April) maritime operations require professionally competent and experienced personnel to navigate ship and craft at sea and according to Navy's Director General Personnel (2014, pers. Comm., 08 April) navy possesses the personnel with professional capacity to operate ships. The regulations under Merchant Shipping Act of Sri Lanka (2013, s5) specifies the professional competency qualifications, in different categories at three different levels that are required to operate ships at sea. The three levels have been defined as; management level (master, chief mate, chief engineer officer and second engineer officer); operational level (navigational watch keeping officer, engineering watch keeping officer, electrotechnical officer and radio operator); support level (able seafarer deck, able seafarer engine, electro-technical rating& watch keeping rating). The process in obtaining these competencies involve passing of relevant professional examinations and gaining of varying amounts of sea experiences in between examinations (Merchant Shipping Act Regulations 2013, ss 6-11). The data collected from stakeholder agencies reveals that except the navy and coast guard, none of the other agencies possess maritime professionals to operate ships and craft (Operations Manager MEPA 2014, pers. Comm., 05 April; Director DFAR 2014, pers. Comm., 26 April; Director General (CCCRMD 2014, pers. Comm., 30 April). These factors emphasis the significant of having professionally competent personnel in mandated agencies as well as the supporting agencies to build the maritime capacity and operate ships and maintain the presence at sea to facilitate effective and efficient enforcement of laws in marine environment protection.

# **Operational Capacity - Law Enforcement Perspective**

The capacity in law enforcement perspective was captured in three emerged themes; knowledge in marine environment; law enforcement process; and field experiences in marine environment protection.

a) Knowledge in Marine Environment Protection: According to the comments made by officials of respective agencies, the personnel in mandated public agencies should have the knowledge about marine environment protection encompassing; all applicable legislations, regulations, authority, powers, international laws and conventions; Sri Lanka's marine and ecosystem including mangroves, coral reefs, biodiversity, marine reserves; coastal fishing and prohibited fishing methods etc; types of marine pollutions, main contributing sources of pollution, investigation process; coastal zone management plan (CZMP), development work in coastal zone, commercial activities such as mining etc. (Director DFAR 2014, pers. Comm., 26 April; Operations Manager MEPA 2014, pers. Comm., 05 April; Director General CCD 2014, pers. Comm., 30 April). Since all agencies operate in a vast geographical area, this knowledge should encompass the subject matters entrusted to own agency as well as the subject matters of

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other agencies involved, to facilitate collaboration in law enforcement. This aspect is particularly critical in the case of naval and coast guard personnel, as with their dominating maritime capacity and presence at sea in the vast geographical area, they are able to extend the needed service in law enforcement activities to the mandated agencies.

**b)** Law Enforcement Process in Marine Environment Protection: The law enforcement process involves, surveillance, detection, apprehension, investigation, evidence processing, and initiating legal action. These enforcement processes are inter-connected, and it is essential to follow correct procedures and process in all stages to facilitate effective prosecution of offenders, during the final stage of the law enforcement process (Legal Officer MEPA 2014, pers. Comm., 08 April), and it also involved preparation of inspection reports and analytical reports, which requires sound knowledge and experiences (Judges and Environmental Law 2009, p 126).

c)Field Experiences in Marine Environment Protection: The personnel in mandated public agencies should have practical field experiences in respective areas, because the law enforcement process involved practical identifications gear and processes such as; prohibited fishing methods, prohibited fishing equipment, protected species etc.; the process involved in taking samples for future actions; adoption of the correct procedures, inclusive of appropriate preservation of the samples; and making notes on observations and making reports (Judges and Environmental Law 2009, p 129). The data analysis shows that the members of mandated public agencies possess good theoretical knowledge, experiences and law enforcement process about the subjects coming under their own agency, but do not possess knowledge on functions of other agencies. Since the mandated agencies do not have the maritime fleet units, they are unable to utilize their expertise at sea. On the other hand, though personnel in the navy and coast guard are at sea, they do not possess adequate subject knowledge relevant to mandated public agencies, and experiences in law enforcement process (Director General Operations SLN 2014, pers. Comm., 05 April). This is a complex situation; personnel with adequate knowledge and experiences about the mandated functions remain ashore due to unavailability of maritime fleet units; whilst the navy and coast guard personnel maintain dominance presence at sea without adequate knowledge and experiences on functions related to marine environment protection.

These factors emphasis the significance of personnel in mandated agencies having professional competency inclusive of knowledge, processes and experiences in law enforcement by the as well as the supporting agencies, to build the law enforcement capacity in operations to facilitate effective and efficient enforcement of laws in marine environment protection.

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# **Technical Capacity - Maritime Perspective**

Since none of the agencies except navy and coast guard has the maritime capacity, the technical capacity was investigated through navy and coast guard. A fleet consists of variety of ships and craft, fitted with different types of engines ranging from small outboard motors (OBMs) to large inboard engines, and each ship contains main engines, auxiliary engines, propulsion systems, pumps, electric motors, electrical and electronic equipment and many other sophisticated systems (LankaPrasada, 2014). According to Director General Engineering of Navy (2014, pers. Comm., 05 April) the repair and maintenance work is a huge task and it consists of precise maintenance schedules at every 50 / 100 / 250 / 500 / 1000 running hours, as well as annual docking and it is essential to possess qualified, skilled, competent and experienced technical staff, both in ships and shore workshops, to affect maintenance work. The repair and maintenance work involves many different types of spare parts for different types of machinery, brands and models, shore-based workshops with necessary gear and machinery in all berthing locations, as well as highly skilled and experienced technical personnel in both ships and shorebased workshops. Since many types of machinery are involved, it is necessary to have skilled and experienced personnel in the fields of marine engineering, electrical, electronic and shipwright, as well as sub-specializations in different types of engines and machinery. The Table 4 illustrates that only the navy possesses adequate shore-based, qualified, skilled and experienced staff to attend ships' maintenance schedules, and none of the other agencies has such skilled technical staff. The maintenance work of ships is such a mammoth and complex task, involving similar complex set of professional technical staff, and it is impossible for the other small mandated agencies to possess such staff. These facts show that repair and maintenance works are highly complicated and it is necessary to possess professionally competent, skilled and experienced personnel in many different categories and skills to build the technical capacity of maritime perspective.

## Table 4: Summary of Shore-based Maritime Support Capacity in Stakeholders

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Agency	Shore-based Maritime Support Facilities inclusive of personnel	
	Operational, Technical and Logistic support	
	03 Large shore-based maritime facilities in Colombo, Galle, &	
Sri Lanka	Trincomalee with facilities for berthing, docking, repair and	
Navy	maintenance, large workshops, and logistic support.	
	05 Medium size shore-based maritime facilities in Kalpitiya,	
	Talaimannar, Karainagar, Kankasanthurai and Tangalle with	
	facilities for berthing, slipping, maintenance, and logistics.	
Sri Lanka		
Coast Guard	02 Small bases with limited shore-based facilities	
02 Sman bases with minited shore-based rachities		
~		
Coast		
Conservation	Nil	
Department		
Marine		
Environment	Nil	
Protection		
Authority		
Department of		
Fisheries &	Only Maritime Communication Facilities	
Aquatic		
Resources		

Source: Complexities in organizational capacity in interagency collaboration: Case of law enforcement in marine environment protection in Sri Lanka (Prasada 2014, p 45)

# **Technical Capacity - Law Enforcement Perspective**

The technical capacity required for law enforcement includes technical expertise necessary for preparation of scientific reports such as inspection reports and analytical reports. The inspection reports contain the observations made and evidence gathered at the site, such as the taking measurements, collection of samples etc. The analytical reports highlight the violations, compliance or to provide explanations, including measurement of physical parameters such as; strength of sound in decibel for noise pollution; ambient air quality standard in air pollution; biological oxygen demand (BOD), chemical oxygen demand (COD) and Ph value in water pollution (Judges and Environmental Law 2009, p 127). Preparation of such reports required specific technical knowledge and correct procedures. The interview data reveal that the

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members of mandated agencies possess good technical knowledge and experiences relevant to the subjects relevant to the own agency, but not the functions of other agencies (Deputy Director 2014, pers. Comm., 26 April; Operations Manager MEPA 2014, pers. Comm., 08 April). Since mandated agencies do not have maritime fleet units, they are unable to utilize the own expertise at sea, whilst the navy and coast guard which dominance the sea in surveillance do not possess staff with required technical knowledge and experiences about the subjects coming under the mandated public agencies (Director Operations SLN 2014, pers. Comm., 05 April). These facts establish that the law enforcement involved technical capacity and it is significant to possess professionally competent, skilled and experienced personnel in many different categories and skills to build the technical capacity of law enforcement perspective.

# **Logistic Capacity - Maritime Perspective**

According to Director General Logistics at navy headquarters (2014, pers. Comm., 05 April), providing logistic support includes supplying of marine engineering, electrical and electronic spare parts for many different types of ships, brands and models, as well as other logistic requirements such as fuel, fresh water, rations etc., at ship berthing locations covering the entire coast. Supplying of spare parts for many different type and models of ships and machinery encompasses a complex ordering and purchasing process, through local and foreign sources, and it involves huge inventories containing many different varieties of spare parts, as it is essential to supply correct spare part, in right quantity, at the right place and at the right time to facilitate smooth maintenance work. These facts reveals that providing shore-based logistic support including the supplying of such a number of different spare parts of different models is a highly complex process, and the significance of having the structure, process and highly competent and experienced logistic staff with different skills to build the logistic capacity of maritime perspective.

# Logistic Capacity - Law Enforcement Perspective

Logistic support for law enforcement function does not involve many activities and the main concern is providing required resources for investigations purposes and preparation of inspection and analytical reports. The law enforcement aspect also extends to taking pollution mitigation action in the case of oil pollutions and in such instances the pollution mitigation actions include the timely supply of pollution containing floating booms, which requires certain competencies. Hence the necessity of skilled staff for logistic aspect is not critical as maritime aspect and the mandated agencies have the staff to facilitate the supply of necessary equipment (Director DFAR 2014, pers. Comm., 26 April; Operations Manager MEPA 2014, pers. Comm., 05 April; Director General CCD 2014, pers. Comm., 30 April).

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# **Training and Development Capacity - Maritime Perspective**

The professionally qualified officers and sailors in the fields of deck and engineering (marine, electrical, electronic and shipwright) are required to operate and maintain fleet units. The naval training consists of separate training programmes for officers, senior sailors and junior sailors and those training programmes are further divided and sub divided into different branches, different levels and different skills and the personnel are specialized in their respective fields. Navy possesses a separate directorate to plan and implement the maritime training requirement of all naval personnel through well-established own training institutes and instructors, to instill the required professional competency (Director Training SLN 2014, pers. Comm., 05 April), whilst Department of Coast Guard has limited facilities for training and development (Director General SLCG 2014, pers. Comm., 08 April). The Merchant Shipping Act (1971, 1988 & 2013) also emphasis the significance of providing required qualifications through continuous training and development process during different stages, to obtain the competency at required levels. The study revealed that none of other stakeholder organizations except the Navy and the Coast Guard has the capacity in structure and process to provide maritime training, and as a result these agencies are unable to provide maritime training (Director DFAR 2014, pers. Comm., 26 April; Operations Manager MEPA 2014, pers. Comm., 05 April; Director General CCD 2014, pers. Comm., 30 April). These factors emphasis the significant of having a well-established training and development capacity to build the professionally competent personnel of different categories, levels and skills to facilitate the smooth functioning of operations, technical and logistic aspects of maritime capacity.

#### **Training and Development Capacity - Law Enforcement Perspective**

The training and development in law enforcement encompasses two aspects; one is training and development relevant to the mandated functions and the other is the law enforcement process. The training on mandated functions provides exposure and knowledge on new developments in the field and leads to enhancement of professional knowledge of members in mandated agencies. The law enforcement process is consists of interrelated phases and it is important record all necessary evidences in each phase of the process. Since possibilities exist for authorized officers to make mistakes during different stages of law enforcement process, it is important to assess each law enforcement action in previous instances to identify the weaknesses and send feedbacks as a continuous process to make remedial measures and improve standards of law enforcement process to prevent reoccurrence of same mistake (Legal Officer MEPA 2014, pers. Comm., 08 April; Legal Officer DFAR 2014, pers. Comm., 26 April). The study reveals that mandated agencies provide limited training and development facilities for their staff locally and in foreign countries, and a comprehensive training and development process as well as an assessment and feedback system of law enforcement actions do not exist in mandated agencies (Director DFAR

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2014, pers. Comm., 26 April; Operations Manager MEPA 2014, pers. Comm., 05 April). The navy has its own training institutes, but subjects of marine environment protection are not included in any of the training schedules (Director Training Navy 2014, pers. Comm., 05 April). The mandated agencies provide limited training on marine environment protection intermittently for naval and coast guard personnel in ships, but the benefit of such training is not sustainable, due to navy's policy of transferring naval personnel among naval units annually, depriving the services of such personnel even with limited training (Director Personnel Navy 2014, pers. Comm., 06 April). These facts show the significance of having a continuous training and development process in the law enforcement aspect to facilitate the updating of the knowledge of personnel in relevant public agencies to facilitate the building of their capacities in the law enforcement aspect of marine environment protection.

# DISCUSSION

# **Overview of the Purpose-specific Collaborative Capacity**

The analysis of data revealed the existence of two distinguishable perspectives which forms the purpose-specific collaborative capacity; maritime capacity and law enforcement capacity. The law enforcement activities in marine environment protection spreads in a vast sea area extending up to the exclusive economic zone (EEZ) and such law enforcement operations are carried out by mandated agencies in isolation at sea, far away from the coast. The agencies need maritime platform to maintain the presence in the area and law enforcement capacity to implement law enforcement process which takes place interrelated phases of legitimacy, surveillance, detection, and apprehension. The study revealed that the three mandated agencies possess the capacity in law enforcement in their respective mandated area, but do not possess the maritime capacity. On the other hand the supporting agencies, namely Sri Lanka Navy and the Coast Guard possess the maritime capacity, but lack the law enforcement capacity. This critical situation implies the necessity of a collaborative effort to facilitate the law enforcement in marine environment protection, and the necessity of having both capacities collectively to facilitate the law enforcement in marine environment protection. Hence this combined capacity provides the purpose-specific collaborative capacity which is significant for the specific purpose; that is the law enforcement in marine environment protection. The human resource aspect is a component of this purpose-specific collaborative capacity and it could explained through the five themes and relevant elements established by the study.

Similarly when the two capacities are analyzed, it was revealed that the maritime capacity provides the platform to maintain the presence in the mandated area and this in turn facilitate the

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law enforcement in the marine environment protection. This finding falls in-line with the "craftsmanship theory" in interagency collaborative capacity (ICC), which proposes the concept of "platforming" to explain the development of interagency collaborative capacity, and equates it to building blocks and each block itself a collaborative capacity and each capacity provides the platform to develop the next capacity (Bardach 2001, p 152). Similarly the subjective component of the model mainly refers to the relevant individuals' expectations of others' availability and competency for the particular collaborative task (Bardach 1998, pp 20-21). Hence it is evident that the "craftsmanship theory" strengthens the findings of the study. On the other hand, though there had been studies on collaborative capacity, all those studies focus on the capacity necessary to manage the collaborative mechanism and do not focus on the purpose-specific collaborative capacity (Bardach 1998; Foster-Fishman et al., 2001; Imperial 2005; Weber, Lovrich, and Gaffney 2007; Nowell and Foster-Fishman 2011; Lai 2011; Cheng and Sturtevant, 2011; Emerson, Nabatchi, and Balogh 2011; Hocevar, Jansen, and Thomas 2011). Hence the study has presented a new insight in the literature in by introducing the concept – purpose-specific collaborative capacity.

## Constituents of the Purpose-specific Collaborative Capacity

The analysis of data revealed that the five themes of purpose-specific collaborative capacity; legitimacy, operational, technical, logistic, and training and development capacities explain the human resource aspect of purpose-specific collaborative capacity.

# Capacity in Legitimacy

The legitimacy in maritime perspective refers to the legitimate authority to own and operate ships and it also includes the regulations related to human resource aspect which comprises the different categories of professionals, competencies and experiences necessary to operate the maritime fleet units of different types. Though Merchant Shipping Act (1971) provides exceptions for the government agencies, the Act provides a comprehensive over view to the public agencies about the professional competencies and experiences necessary to operate fleet units. These findings imply the significance of a legitimate framework and the necessity of building maritime capacity in accordance with such legitimate framework to facilitate effective and efficient operation of maritime fleet units, and this can be considered as a purpose-specific capacity for maritime perspective which provides the platform for the specific purpose of law enforcement in marine environment protection.

The legitimacy in law enforcement refers to the legitimate authority for the mandated agencies, to engage in the law enforcement process within their respective mandated scope, inclusive of the authority and powers vested with the personnel in the agencies. The law enforcement process

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includes surveillance, detection, investigation, apprehension and initiating of legal action. The mandated agencies possess powers; to stop, search, seize and apprehend boats and gear when engage in illegal fishing activities (DFAR Act 1996, s 46); to survey, investigate, and demolish unauthorized structures in the coastal zone (CCCRMD Act 1981, ss 26 & 31); to detain, investigate, seize, apprehend ships and offenders involve in marine pollution (MEPA Act 2008, ss 10-13). Similarly the supporting agency Sri Lanka Coast Guard is vested with certain law enforcement powers such as prevention of illegal fishing in the coastal areas of Sri Lanka, as well as certain supporting role such as assisting the relevant authorities in prevention and control of marine pollution (SLCG Act No. 41, 2009). It was also revealed that the respective Acts of certain mandated agencies provide the powers to delegate the authority vested with them to another agency, and agencies such as Department of Fisheries and Aquatic Resources and Marine Pollution Prevention Authority (MEPA) have used this authority to delegate certain powers to the personnel in Sri Lanka Navy and armed services. These findings imply the significance of having a legitimate authority and the necessity of having the required authority and powers collectively to facilitate law enforcement operations at sea, and this can be considered as a purpose-specific capacity in the legitimacy perspective of law enforcement.

# **Operational Capacity**

The operational capacity in maritime perspective refers to the availability of ships and craft and professionally competent personnel of different categories with required competencies and experiences to operate the ships and craft of different types. The findings revealed that only the supporting agencies Sri Lanka Navy and the Coast Guard possess the ships and craft as well as the professionally competent and experienced personnel in the operations department to operate ship at sea. The mandated agencies directly responsible for law enforcement aspect of marine environment protection do not possess ships or the maritime professionals in three stipulated levels (management, operational and support) as well as the capacity to groom such professionals. These factors emphasis the significance of having a collaborative effort as well as the supporting agencies collectively, to operate ships and maintain presence at sea to facilitate effective and efficient enforcement of laws in marine environment protection. These facts imply that the human resource capacity in operational aspect of maritime capacity is a component of purpose-specific collaborative capacity for maritime perspective which provides the platform for the specific purpose of law enforcement in marine environment protection.

The operational capacity in law enforcement perspective refers to the necessity of professionally competent personnel, with knowledge and field experiences in marine environment protection to facilitate law enforcement in marine environment protection. The findings revealed that the

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personnel involved in law enforcement aspect of marine environment protection need to possess the capacity in three areas; the sound all-round knowledge about marine environment protection, the law enforcement process, and the field experiences in marine environment protection. The findings also revealed that personnel with adequate knowledge and experiences about the mandated functions in marine environment protection remain ashore due to non-availability of maritime professionals and fleet units; whilst the Navy and Coast Guard personnel maintain dominance presence at sea without adequate knowledge and experiences in law enforcement functions related to marine environment protection. Since all agencies operate in a vast common sea area and the possibilities exist for the delegation of authority amongst the agencies, the knowledge and experiences of involved personnel should encompass the mandated areas entrusted to own agency, as well as the mandated areas entrusted to other agencies, to facilitate the effective law enforcement through collaboration. In the absence of these capacities, it would be impossible to facilitate effective enforcement actions, which are carried out in isolation far away from the shore. These findings imply that the human resource capacity in operations aspect of law enforcement is a component of purpose-specific collaborative capacity and it is significant to have professionally competent and experienced personnel in agencies collectively, to facilitate law enforcement operations at sea, and this can be considered as a purpose-specific collaborative capacity in the operational perspective of law enforcement.

# **Technical Capacity**

The technical capacity in maritime perspective refers to the availability of maritime technical facilities and professionally competent technical personnel in different categories, competencies, skills and experiences necessary to operate and maintain ships and craft of different types. The machinery and technical equipment onboard ships encompass variety of types, models and brands, and the operation and maintenance aspects involve many different maintenance schedules at regular operating intervals, as well as breakdown repair work which could occur whilst operating at sea or in harbours. Similarly the technical fields include marine engineering, as well as electrical, electronic and shipwright engineering, and related sub-specializations in different types of engines and machinery. Hence the professionally competent and experienced technical personnel of different technical fields, sub-specializations and many different skills are essential to operate ships' machinery at sea, as well as to attend the ships' maintenance and repair work both onboard the ships and in the shore-based workshops. These facts imply that the human resource aspect of maritime capacity in the technical field is a component of purpose-specific collaborative capacity for maritime perspective which provides the platform for the specific purpose of law enforcement in marine environment protection.

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The technical capacity in law enforcement perspective refers to the availability of professionally competent personnel, with technical expertise and field experiences in marine environment protection to facilitate enforcement of laws in marine environment protection. The technical expertise is crucial in preparation of scientific reports such as inspection reports and analytical reports during the investigation phase of the law enforcement process as such reports play a significant role during the prosecution phase and other legal proceedings. Preparation of such reports required specific technical knowledge and the ability in adopting the laid down correct procedures. Since the possibilities exist for the delegation of authority amongst the agencies, the knowledge and experiences of involved personnel should encompass the mandated areas entrusted to own agency as well as the mandated areas entrusted to other agencies, to facilitate the effective enforcement actions through collaboration. These findings imply that the human resource capacity in technical aspect of law enforcement is a component of purpose-specific collaborative capacity which is specific to the law enforcement aspect of marine environment protection, and it is significant to have professionally competent and experienced personnel with technical expertise in the agencies collectively, to facilitate law enforcement operations at sea, and this can be considered as a purpose-specific collaborative capacity in the technical perspective of law enforcement.

# **Logistic Capacity**

The logistic capacity in maritime perspective refers to the availability of maritime logistic facilities including ships maintenance, in ships berthing locations and the availability of professionally competent and experienced logistic personnel to support the maritime fleet units of different types. The logistic personnel should be competent in forecasting and supply of the right quantity of material requirements for ships at the right time, at the right location, through local and foreign sources and such materials include marine engineering, electrical and electronic spare parts for many different types of ships, brands and models, as well as other logistic requirements such as fuel, fresh water, rations etc., at ship berthing locations covering the entire coast. It is impossible to operate and maintain ships without such logistic support. Hence the professionally competent and experienced logistic personnel of different sub-specializations are essential to support the ships operations and maintenance work. These facts imply that the human resource aspect of maritime capacity in the logistic aspect is a component of purpose-specific collaborative capacity for maritime perspective which provides the platform for the specific purpose of law enforcement in marine environment protection. The logistic support and the capacity in law enforcement perspective refers to the ability of the staff to provide the necessary equipment to support law enforcement actions as and when required, and it is not critical as the capacity of the logistic personnel in maritime perspective.

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## **Training and Development Capacity**

The training and development capacity in maritime perspective refers to the ability of the organization in grooming professionally qualified personnel of different categories in the operational and technical fields to operate and maintain ships and craft. Grooming such personnel requires the necessary infrastructure, resources and lecturers and instructors with various qualifications and experiences in different fields such as operations, marine engineering, electrical, and electronic fields. In the absence of such infrastructure and qualified and experienced training staff, it would not be possible to groom the human resource requirement in maritime fields, and agencies require such qualified training staff to facilitate continuous training and development for the personnel in different maritime fields. These facts imply that the human resource capacity of maritime capacity for the maritime perspective which provides the platform for the specific purpose of law enforcement in maritime environment protection.

## **Training and Development Capacity - Law Enforcement Perspective**

The training and development in law enforcement encompasses training and development relevant to mandated functions and law enforcement process. The training on mandated functions provides exposure and knowledge on new developments in the field and leads to enhancement of professional knowledge of members in mandated agencies. The possibilities exist for authorized officers make mistakes during different stages of law enforcement process, and it is important to assess each law enforcement action to identify the weaknesses and make necessary measures to improve the standards of law enforcement process. These facts imply that the human resource capacity in the training and development aspect is a component of purpose-specific collaborative capacity in law enforcement perspective and it is significant to have an effective training and development process with regular upgrading to build the capacity of personnel involve in the law enforcement process.

# CONCLUSION

The geographical scope relevant to marine environment protection in Sri Lanka extends to a vast sea area of 517,000 km<sup>2</sup> which is 7.8 times the land area of Sri Lanka, and the public agencies need both maritime capacity and law enforcement capacity enforce the laws. But purpose-specific capacities of mandated agencies confine to either maritime capacity or law enforcement capacity and none of the agencies possesses both capacities, making the law enforcement a highly interdependent task which needs a collaborative mechanism. Similarly it is practically impossible for each mandated agency to operate independently in this vast geographical area, exclusively to facilitate the law enforcement role in the own mandated functions. Hence there is

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high potential to establish a collaborative mechanism to facilitate effective and efficient enforcement of applicable laws in marine environment protection.

## Significance of Purpose-specific Collaborative Capacity

# **Empirical Perspective**

The human resource aspect of purpose-specific collaborative capacity in potential collaboration is distinguishable in two perspectives; maritime perspective and law enforcement perspective. The study reveals that the mandated public agencies first need the maritime capacity to maintain the presence in this vast sea area and it provides the platform to implement the law enforcement process. The mandated agencies need this maritime platform during all the phases of law enforcement process; to maintain the surveillance, to detect the violations of laws, to carry out investigations, and to apprehend the offenders. Then the mandated agencies need law enforcement capacity along the identified functional elements to enforce the laws related to marine environment protection. These facts imply that the mandated public agencies should be able to address the human resource aspect of purpose-specific collaborative capacity and provide the needed professionally qualified, competent and experienced personnel in both maritime and law enforcement perspectives, and in the absence of both these capacities it would be impossible to accomplish the specific purpose of law enforcement in marine environment protection. Hence it can be concluded that, the purpose-specific collaborative capacity inclusive of human resource aspect is a critical and significant aspect of collaborative capacity which needs to be addressed during the pre-collaborative stage.

#### **Theoretical Perspective**

Scholars have emphasized the significance of human resource aspect of collaborative capacity in interagency collaboration (Huxham 2000, p 341; Huxham and Vangen 2005, p 74). Though the scholars state that the human resource capacity is greatly influenced by the existing skills, knowledge and attitudes of members (Foster-Fishman et al. 2001, p 243; O'Leary and Vij 2012, p 515; Thomas et al. 2006, p 2); such skills and knowledge confine to the capacity needed to manage the collaboration and do not encompass the purpose-specific aspect. The findings of the study revealed that the ability of organizations should be extended beyond the existing scope of capacity needed to manage the collaboration, and encompass the capacity which is specifically needed for the purpose of the collaboration, as without the purpose-specific collaboration. Hence it can be concluded that the collaborative capacity should encompass the capacity needed to manage the collaboration as well as the purpose-specific collaborative capacity which is specific to the purpose of the collaboration.

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# **Constituents of Purpose-specific Collaborative Capacity**

## **Empirical Perspective**

The findings firmly established that the human resource aspect of purpose-specific collaborative capacity in both maritime perspective and the law enforcement perspective in the context of marine environment protection could be explained along five identified themes namely; capacity in legitimacy, operational capacity, technical capacity, logistic capacity, and training and development capacity. It was also established that each theme consists of elements, which explain the capacity in human resource aspect within in the particular theme. Hence it can be concluded that the human resource aspect of purpose-specific collaborative capacity constituted with five established themes and the related elements which are specific to the purpose of law enforcement in marine environment protection.

#### **Theoretical Perspective**

The five established themes; capacity in legitimacy, operational capacity, technical capacity, logistic capacity, and training and development capacity and the related elements were identified based on the primary functions of the Sri Lanka Navy and these functions have been established and functioned in the Navy's organizational structure for many decades to build the maritime capacity. The same five themes with few additional elements could be utilized to investigate the law enforcement capacity. Hence it could be concluded that the themes; legitimacy, operational, technical, logistic, and training and development capacities, as suitable themes for in-depth studies to investigate and explain the human resource aspect of purpose-specific individual capacity. Since the collaborations are established for a specific purpose, the identified themes and elements of purpose-specific collaborative capacity in different contexts, and it would explore the potential for generalizability.

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