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**PROBLEM - SOLVING APPROACH ON EFFECTIVENESS EVALUATION  
OF SOFT LAW ENVIRONMENT REGIME IN SOUTH CHINA SEA**

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**ABSTRACT**

*This paper focuses on the effectiveness of soft law regimes on marine environment protection in South China Sea (SCS) consisted of mainly EASAP 1994, SDS-SEA 2003 and DOC 2002 among ASEAN-China. This study employs one-fold approach of problem solving in analyzing the regional marine environment regimes. The findings show that before and after the regime, creation achieves the minimum level of success on the marine environment issues. It indicates that the regional marine environment regimes are not effective in tackling the issues of the marine environment in the SCS and it is unsuccessful to comply with the effectiveness criteria in achieving desired outcomes of what it meant to achieve.*

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**Keywords:** Soft Law, regime effectiveness, marine environment, Problem-solving approach, South China Sea (SCS)

**INTRODUCTION**

The South China Sea (hereafter SCS) is one of the richest and most biologically diverse marine ecosystems in the world (Johnston, 1982). Since several past years, it has turned out to be gradually clear that the SCS is affected by grave environmental harms. Dokken (2001) states that it “need(s) to be solved by the surrounding states in cooperation”. It goes without saying that any cooperation will not only improve the environmental situation but also contribute towards regional economic prosperity and peace, particularly the cooperation offers an opportunity for less developed and developing countries to enhance their collective capacity in every sphere. The trans-boundary nature of environmental problems requires states and people across boundaries to cooperate and deal with the problems in a coordinated manner.

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Since many years the present day soft regional marine environment regimes in the SCS has risen many questions in regards with its effectiveness to achieve its objectives. Some scholars and academics point out that it is because of the mechanisms that are insufficient in coping with issues as whole in the SCS (Hong, 2010). They have suggested and proposed ideas to establish comprehensive legally binding mechanisms on marine environment protection.

#### RESEARCH METHODOLOGY

This paper review the existing cooperation and proposed mechanisms by various scholars, and will therefore, intend to evaluate the effectiveness on the implementation of soft law regional framework on marine environment cooperation in the SCS in the form of qualitative case studies. The purpose of a qualitative case study is to investigate and research the soft law regional marine environment cooperation regime. This study proposes the effective implementation mechanism within the ambit of the soft law regime on marine environment protection and will further strengthen the comprehensive soft law cooperation framework among China-ASEAN states in order to deal with marine environment threats in the SCS.

FIGURE-1  
THE SOUTH CHINA SEA LAYOUT



Source: Energy Information and the South China Sea Region by the Energy Information Administration

### **THE SOFT LAW**

Soft law mechanism has originated in numerous structures, and the perspective appears to be developing in the present day global legal system (Wellens & Borchardt, 1989; Handl, Reisman, Simma, Dupuy & Chinkin, 1988). It is argued that though soft law has given birth to enormous volumes of doctrinal discussion, but has stopped short in giving any approved definition of the term.

According to McNair (quoted in Hoof, 1983:187), the soft law was initially simplified and entitled as “traditional stage in the development of norms where their content is vague and their scope imprecise”. According to Gold (1983:443), the main component of soft law examination is “an expectation that the states accepting these instruments will take their content seriously and will give them some measure of respect”. There are more than one definitions to describe the soft law and norms that provide prospect that countries will yield in its entirety, which indicates that countries will respect social values stated in norm (Carlson, 1984). Soft law constitutes in non-mandatory contract, recommendation or resolution that can be issued by states, global entities and NGOs (Lawrence, 2014). It relates to the global rules that are purposely non-mandatory in nature nonetheless quiet relates to legal relevance placed in “the twilight between law and politics” (Thurer, 2000). Soft law is also characterised as lingering category, “realm of soft law begins when the legal measures are weakened as well one or more of the dimensions of obligation, precision and delegation” (Abbott & Snidal, 2000). Soft international law concerns to settlements or codes that are intended to impact individual countries to respect certain rules or integrate them into national law (Christians, 2007).

### **REGIME AND THE SOFT LAW**

There are several definitions placed by the various social sciences authors to define the concept of the regime. However, the most common and consensual definition formulated by Krasner (1983:2), states that “regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations”. According to this definition, it can be characterised that regimes are a certain grade of institutionalization that are not only a set of rules. However, some scholars criticize this

definition as it does not clarify the idea of regime. This is because it merely provides a new term to characterize an international organization (Haggard & Simmons, 1987; Rittberger, & Mayer, 1993). This is clear when taking a closer look into some international regimes on collective level, it can be seen that some of them are somewhat effective while other institutional frameworks are completely absent or weakens any case (Vogler, 2000).

Recent work on international regimes has been driven by theory. Regime are also capable of changing the power and independence of a hegemonic power. Followers of the functional theory think that regimes can change interest calculation by constituting property rights, providing the actors with information and changing the design of transaction costs. Other influences can be the change of ideas about the legitimacy and value of techniques, the embedding of the states into higher-level networks, the altering of the relation between international with domestic policies through the enhancement of political or administrative capacities of governmental and non-governmental organizations within the states. The regimes itself will then be the unit of analysis and the study will focus on its special characteristics, the rules, principles and norms, which gives it its shape. One way to describe regime is to distribute it into three different possibility based on “what purpose they had, when they were created, whether being strategic, adaptive or symbolic” (Vogler, 2000). In terms of environmental regimes, they are mostly an adaptive character which are created based on new developments in the world economy level or international political changes. Another way to describe a regime is to rank it in a form of four different regimes of non-existent, tacit, dead-letter, and full-blown regimes, depending whether the formality and convergence of expectation is high or low.

#### **SOFT LAW REGIONAL MARINE ENVIRONMENT REGIMES IN SCS**

There is no centralized regional legally binding framework over the SCS. Gradually the role of soft law regime on the marine environment protection in the SCS has emerged with the realization and changing circumstance contributed the member states to took measures to protect the sea marine environment. Though it was very challenging to create the legal regime in the presence of territorial disputes among China-ASEAN as regime creation is more difficult than regime maintenance (Krasner, 1983). In this context, major

initiatives are under taken based on Soft Law Regime developed with the help of UNEP such as EASAP 1994, DOC 2002 and SDS-SEA 2003.

**a) East Asian Seas Action Plan 1994 (EASAP 1994):** EASAP 1994 is a part of UNEP's globally managed regional seas programme. Initiatives were undertaken since late 1970s to prepare the Action Plan, which was then adopted by an intergovernmental meeting of the five founding members of ASEAN: Philippines, Malaysia, Singapore, Indonesia, and Thailand. In 1994, China, Australia, Viet Nam, Republic of Korea, and Cambodia joined the Action Plan, making it a real EASAP for the first time in 1996 (Chen, 2005). The argument always come from the legal experts and many scholars that the relevance of international law and United Nations Convention on the Law of the Seas (UNCLOS) leaves uncertainty when deals with the sovereignty and maritime claims issues. That occurs due to no provisions made in the 1982 under UNCLOS that specially deal and address the SCS issues relating to sovereignty and overlapping maritime (Beckman, 2007). These circumstances ultimately provide way forward for ASEAN-China to sit and create consensus on the several issues in the SCS. Finally on 2002 they adopts the Declaration of the conduct of the parties.

**b) Declaration of Conduct 2002 (DOC 2002):** The scope of declaration of DOC 2002 does not only address the sovereignty issues, at the same time the declaration is equally important to achieve and reserve the exsiting living and non-living resources to shield the marine environment in the SCS (Beckman, 2007). DOC 2002 is a non-binding regime which builds confidence in the regional member states and open the door for member states to enhance cooperation on the non-traditional issue in the SCS.

**c) Declaration of Regional Cooperation of Sustainable Development Strategy of Seas of East Asia (SDS-SEA 2003):** The SDS-SEA is a non-binding informational document that was implemented in 2003 by the Putrajaya Declaration of Regional Cooperation–the Partner States–with the environmental management corporations for the Seas of East Asia (Song & Zou, 2016).

#### **THE EFFECTIVENESS OF REGIMES**

The central question when analysing soft regimes – which is also one of the central questions of the study – is the one related to their

effectiveness when a regime has been formed. This is important to see if it follows its objectives with the mechanisms enacted by the contracting parties. This is not only the goals of working approaches and mechanisms of the regimes occupied together with the institutional framework that defines the scenarios, but also the restrictions underlying the work of regime. It is therefore can be concluded that if a regime is successful and effective, it then can be clarified and consistent with various factors and with different methods and different approaches.

When considering the negotiations method of East Asian Seas action plan regime – such as DOC 2002 and SDS-SEA and 2003 regimes in the context of the marine environment – they are often said to be the basis of an environmental cooperation. We can often see that the difficulties of a soft regime might encounter in its work after its establishment. If, for example, a state opposes a certain rule, which restricts its sovereignty but is overruled by the other actors, it is likely that this state will find it more attractive to abate these restrictions later (Buck, 1998). Therefore, it is essential to take care that in a negotiation every player of a cooperation game has a certain payoff so that he can identify himself with the soft regime and can have the feeling that he bargained more than he traded away (Morrow, 1994). The best example are marine environmental negotiations. Though all parties have to take some actions to reduce the pollution emissions of their production factories, the payoff for all involved parties articulated by an interacting environment, health and economic benefits for the population. These problems will be improved if all players would play their role properly. Therefore, the aim of every negotiation has to create an incentive for the states that can lead to the cooperation and the right decision to yield. This could be an example of possible change in actions of the all players' losses, gains or expenses. Sometimes it is better for a state to raise the incentives for another state by taking over some of the costs he will have. This is because the result- cooperation in a given field will still be more useful with the extra cost than if there would be no cooperation at all.

With regards to the questions of what now exactly makes regime effective – how can we measure regime effectiveness, and is it even possible to measure it in absolute terms – the answers will be related to those discussions if a regime is effective and successful that can be differed widely among different analysts of a regime. One person sees

as a success because the regime helps to make a progress to a certain extent or a certain aspect. On the contrary, another person sees a failure because the regime didn't meet the expectations the participants have when it is created. Analysis has been occupied for the last decade to measure regime effectiveness in some way. As a result, there are several different approaches to face the problem analytically. This study will elaborate this discussion based on the phenomena in the next section and will then formulate suitable methods and theories to measure the effectiveness of the soft law regional marine environment regimes in the SCS.

#### **PROBLEM - SOLVING APPROACH ON REGIME EFFECTIVENESS**

The question remains unclear of how we can measure the effectiveness and significance of the regional soft regime. Young (1991) describes effectiveness as a measure of the role of social institutions in shaping or modelling behaviour in international society. According to Young, the effectiveness of regime can be described by the contributions of a clear purpose of regime that is made to solve the problems. They were formed depending on what background you have and where you start. Effectiveness can be analysed differently and crucial points can be realized in different features of the soft regional regime. Regime can be seen effective if it is succeeded to make member behave differently of when the regime was not created. Analysts often ask several concrete questions to assess their effectiveness. A question can be, for example, if the operation of the soft regional marine environment regime solves or deteriorates the problem existed. Other questions can aim at the participation of the states or implementation within their domestic jurisdiction. When asking these question, the issue of their effectiveness become a matter of degree rather than an absolute answer that a regime is effective or not. This is not only the institutional work can change or influence behaviour, but also the distribution of power in the international system.

One way of assessing the effectiveness is the "problem-solving approach" (Young, 1999:4). This approach has obvious advantage that it is applicable when observing the problem existed before and after the instalment of the regime. In this sense, it can be said that if the problem at hand of the regime is successfully lessen, it can be perceived effective. This approach focuses on proofs and facts of a

problem. It is, therefore, can be considered very objective. With problem-solving approach, the significance of a problem will be created with the combination of efforts between the states with other parties to tackle the problem in any thinkable means. It is therefore sometimes difficult to connect a successful result with the work of the regime directly (Stendahl-Rechardt, 1996).

#### **ANALYSIS OF EVALUATION OF THE EFFECTIVENESS OF SOFT LAW REGIMES IN SCS**

The analysis based on problem-solving approach is found to be the best way to apply the objective test to measure the effectiveness of the regime. This approach allows me to gain an insight view of comparison of the condition of the marine environment in the SCS before and after the formation of soft law regional regimes of EASAP 1994, DOC 2002 and SDS-SEA 2003-2015.

***Situations before Regimes:*** The SCS marine environment has been highly degrade since decades because of several factors particularly most of the population living in surrounding states of the SCS and their dependency is on the marine sea resources. The marine environment is at risk specifically the main problem that was involved by the land-based causes of pollution which threaten the semi-closed sea the pollutants mostly discharged by major rivers in the SCS (Johnston, 1982). These include transportations busiest shipping lane in the world that accelerate and intense industrialization as well as the environmental warming including water pollution such as a million tons of waste water is dispensed into the SCS every year. The rising of sea temperatures also the effects of huge tourism that have negative impacts directly on the ecological balance of these rich natural resources (Dang, 2014). Moreover, human undertakings on land are also a main danger to the well-being and efficiency of the marine environment since several years. It is about 80 per cent of all marine pollution – e.g. sewage disposal – produced by human activities on land disposed to rivers and coastal waters; inadequately treated waters from industries; sediment mobilization; urban storm-water run-off; and also discharging of waste metals and persistent organic pollutants. Fishing and shipping activities from sea-based actions also need consideration to diminish leaking oil, transmission of species and marine waste (UNEP Report, 173, 2000).



This situation before the regimes clearly indicates that the condition of the marine environment in the SCS was deteriorated. This is the main reason which attracted the focus of researchers to study the environmental situation in the SCS which turns arguments of the obligation for cooperation in the region.

**Situations after Regime:** In this context, major initiatives are under taken based on non-binding regional regime developed such as EASAP 1994, DOC 2002 and SDS-SEA 2003.

**a) Asian Seas Action Plan 1994 (EASAP 1994):** The situation after regime analysis deals with situation after the East Asian Seas action plan 1981, 1994-2012 (COBSEA) was adopted. This analysis begins with the objectives which was formally stated as: The Action Plan had four major components: environmental assessment; environmental management; financial arrangements; and, institutional arrangements; all of which were meant to be mutually reinforcing (Action Plan, 1983).

In this statement, the question to be considered is that whether the regime has achieved its objectives of the action plan and has these objectives met the regime. In most simple way to look at this question is the member states' agreeing to set the objectives to address the problem. The proposed activities are all about scientific issues and in the action plan realizing is conducted in the forms of research and analysis designs in order to provide accurate assessment mechanism of the environmental damage in the SCS. In this regards, there are several projects carried out after the Action Plan adopted until 1990. Nine projects were funded to implement the Action Plan (See Fig 1. List of projects from 1981-1990). Six of these projects were conducted mainly to address pollution problems. The three of them focused on oil pollution and the other three dealt with other related issues of pollution.

**FIGURE-1**  
**INITIAL PROJECTS UNDER EASAP (1981-1990)**

Project Title	Leading Country	Environmental Fund	Trust Fund	Co-Financing
Cooperative Research on Oil and Oil dispersant Toxicity in the East Asian Region	Malaysia	\$96,807	\$33,769	\$ 9,841
Study of Coral Resources and the Effects of Pollutants and Other Destructive Factors on Coral Commitments and Related Fisheries in the East Asian Seas Region	Philippines	\$87,229	\$54,422	\$ 40,000
Study on Maritime Meteorological Phenomena and Oceanographic Features of the East Asian Seas	Thailand	\$ 54,964	\$ 83,809	\$ 28,800
Survey and Monitoring of Oil Pollution and Development of National Coordinating Mechanisms for the Management and Establishment of a Regional Data Exchange system	Indonesia	\$ 37,571	\$ 80,809	\$ 40,000
Assessment of Concentration Levels and Trends of Non-Oil Pollutants and Their Effects of Non-Oil Pollutants and their Effects on the Marine Environment in the East Asian Seas Region	Philippines	\$ 34,744	\$ 57,607	\$80,000
Implementation of a Technical and Scientific Support Programme for Oil Spill Contingency Planning	Indonesia	\$ 14,272	\$ 17,000	\$ 20,000
Cooperative Study into the Cleaning-up of Urban Rivers	Singapore	\$ 5,217	\$ 5,217	\$ 10,000
Development of Management Plans for Endangered Coastal and Marine Living Resources in East Asia: Training Phase	Malaysia	\$ 59,000	\$ 34,000	\$ 220,000
Agreement of the Land-Based Urban, Industrial, Agricultural Sources of Pollution, Their Environmental Impact and Development of Recommendation for Possible Control Measures	Singapore	\$52,000	\$ 22,000	\$ 27,332

Source: EAS/RCU, Bangkok Thailand

However, it is interesting to note that early projects tend to be small in size due to the limited funding sources (Chen, 2005). And almost all of the project activities were related to studying, surveying, researching or assessing the status of problems.

During the first decade of the implementation of the Action Plan, regional coordination and cooperation on project activities were limited, mainly due to limited financial resources. The available financial resources were too thinly distributed over too many activities. As a result, projects conceived as being regional were implemented at the national level with only the leadcountry carrying out the project activities with marginal participation of institutions and experts from other countries in the region. In other words, countries were drawn in only for meetings and workshops during the implementation of these projects, but scientific or operational activities were not undertaken collectively (Chen, 2005). In 1994, China, Australia, Viet Nam, Republic of Korea, and Cambodia joined the Action Plan, making it a real EASAP for the first time in 1996 (Chen, 2005).

The revised Action Plan was with long term and short term strategies 1994-2009, which is composed of five components: scientific activities; environmental management; implementation;

institutional arrangements and financial arrangements. Among the five components, sound environmental management is the centerpiece of the Action Plan, which is based on the principles of Chapter 17 (agenda 21 of UNCED 1992. The agenda states that the integrated management shall follow the footings of the UNCED criteria, the employment of the marine and coastal management and sustainable development strategies and actions programs and plans at suitable Levels). It was expected that data produced by scientific activities would provide direct inputs to environmental management programs designated to protect and properly cope with the coastal and marine environment. Therefore, eighteen projects implemented were taken place from 1993-1998 (see Fig 2. List of projects from 1993-1998).

**FIGURE-2**  
**PROJECTS UNDER EASAP (1994-1998)**

Proposing of Leading Country	Project Title	Environmental Fund	Trust Fund	Other Sources
Thailand	Component 1-the Oceanographic Features of the East Asian Seas Region-Development of Oil Spills Trajectory Models		\$ 60,000	
	Component 2-Survey and monitoring Oil Pollution in the East Asian Seas Region			
Philippines	Quality Assurance for Non-Oil pollution Monitoring			
Malaysia	Conservation and Sustainable Development for the East Asian Seas			
	Programme of Action to Control Land-Based Sources of Pollution in the East Asian Seas Region	\$ 25,000		\$ 31,566
Malaysia	Coastal Resources Management plan Project for the East Asian Sea Region			
	Enhancement of the Public Awareness and Participation on Environmental Issues Related to Coastal Marine Areas in the East Asian Seas	\$ 98,000		
Thailand	Workshop on the Biological Effects of Pollutants	\$ 40,000	\$ 20,000	
EAS/RCU	Study of the Evaluation of the Percentage Contribution of Coastal Activities to the GNP	Cancelled		
IMO	Feasibility Study on a Comprehensive preparedness and Responses Plan to Oil and Chemical Spills, Integrating National, Sub-regional and Regional Plans	\$ 30,000		
UNEP/ROAP	Training Workshops on Biological Effects of Pollutants: East Asian Seas Region	\$ 62,900	\$ 15,000	
Australia	Development of training Materials for Integrated Coastal Zone Management	\$ 80,000	\$ 15,000	
Malaysia, Thailand and Vietnam	Integrated Management of watersheds in relation to the Management and Conservations Coastal and Marine (Nearshores) Areas of the East Asian Seas Region	\$ 469,000		
UNEP	Valuation of Environmental and Natural Resources with Particular References to Coastal and Marine Ecosystem			\$ 75,000
Philippines	East Asian Regional Symposium/Workshop on Small Cetaceans			\$ 44,500
Cambodia	Capacity building programme for protection and Management of Marine and Coastal Areas of the Kingdom of the Cambodia			
Malaysia	Ecological Consequences of Land-Based Oil discharges into Coastal and Marine Areas of the East Asian Seas.			\$ 80,000
EAS/RCU	International Coral Initiative Regional Workshop for the East Asian Seas			\$ 120,000

Source: EAS/RCU, Bangkok Thailand Source: EAS/RCU, Bangkok Thailand

The implementation of the Action Plan became more diversified with a variety of projects, activities and funding during 1993-1998. All eighteen projects were concluded in 1998: a few were terminated due to the failure to secure additional funding (Chen, 2005). The reason that coordinating body faced many obstacles in terms of effective implementation. It faced delays in activities such as monitoring and supervision in which the most obvious issue was the lowest contributions the richest country to the East Asian Seas Trust Fund e.g. Singapore (Chen, 2005). However, greatest annual financial contribution to the Trust Fund (EASTF). Upon joining the Action Plan, China pledged US\$15,000 to the EASTF. Two years later China unilaterally decided to increase its contribution to this fund by doubling its original commitment, to \$US30, 000 per annum starting from 1996 (Li, 2009) that shows the contribution of the member states in US\$ in action plan Trust fund (see Fig. 3 below). China's intent to build mutual confidence and trust with the ASEAN countries is demonstrated in the statement made by the Head of Chinese Delegation.

Embracing the sincere and cooperative attitude, China cooperative with all the countries and positively take part in the various actions taken for the environmental protection of our region – for the end of making contributions to the marine environmental protection of this region while still promoting ASEAN 's cooperation through UNEP. Later since the adoption of the New Direction Strategy of Action plan (EASAP, 2008-2012), the new direction is consisting of regional cooperation, issues on strategic and emerging, information management, and national capacity building. After this new direction – based on the COBSEA website – there were few projects has been conducted in 2011.

**FIGURE-3**  
**LEVEL OF CONTRIBUTIONS OF THE COUNTRIES TO THE EASTF (US\$)**

State	1981	1994	2003
Australia		15	20
Cambodia		5 (for 1995)	5
China		15	30
Indonesia	30	33	20
Korea			15
Malaysia	17	18.7	18.7
Philippines	19	20.9	25
Singapore	1	1.1	10
Thailand	19	20.9	20.9
Viet Nam		7 (for 1995)	7
<b>Total</b>	<b>86</b>	<b>136.6</b>	<b>171.6</b>

Source: Cobsea 2009 Review Report

China is expected to involve in leading on the subsequent project i.e. MEAs (Marine Pollution-Related Multilateral Environment Agreement signed and adopted in Guangzhou, China in June 2008). These projects allow COBSEA to clarify capacity of building needs and provide available solutions that make the implementation of MEA more effective, particularly in member countries (COBSEA, report, 2009). At the workshop in Philippines in 2009, Dr. Elik Adler – the COBSEA coordinator – confirmed that marine litter programs have been actively implemented in his organization. This includes the workshops, meetings establishing of databases, monitoring guidelines, producing and developing the publication such as providing overviews of regional marine litter through the brochures and posters (Broder & Dycke, 2014). However, after his declaration, there is no further development has been announced. COBSEA had been inactive relatively since the implementation to the new strategic direction document 2008. This is apparently because of an amalgamation of inadequate funding, competition for professional proficiency, member state inertia, and other related factors.

The incapability of identifying regional significances and shared marine environmental issues in the region was possibly the main factor causing the failure to mobilize strong governmental financial support to the Action plan (Broder & Dycke, 2014). Thus the implementation of the action plan 1994 with a new direction strategy COBSEA has been inactive because of professional expertise, insufficient funding, member state matters and other issues which ultimately have not made any much difference in improving the overall marine environment regional Maritime Cooperation in the South (Broder & Dycke, 2014).

**b) Declaration of Conduct 2002 (DOC 2002):** The argument always come from the legal experts and many scholars that the relevance of international law United Nations Convention on the Law of the Sea (UNCLOS) leaves uncertainty when deals with the sovereignty and maritime claims issues due to no provisions made in the 1982 under UNCLOS that specially deal and address the SCS issues relating to sovereignty and overlapping maritime (Beckman, 2007). These circumstances ultimately provide way forward for ASEAN-China to sit and create consensus on the several issues in the SCS, finally they adopted the 2002 Declaration of the conduct of the parties.

The scope of declaration of DOC 2002 does not only address the

sovereignty issues but equally important to achieve and reserve the existing living and non-living resources to shield the marine environment in the SCS (Beckman, 2007). DOC 2002 is a non-binding regime which builds confidence in the regional member states and open the door for member states to enhance cooperation on the non-traditional issue in the SCS in follow up later. It was first time that there was regional level of the accord successfully took place between ASEAN-China reach on consensus to reduce the political conflict on the territorial claims in the SCS. They come up with the DOC 2002 in the SCS which was signed and adopted by the member states resting the foundation for cooperative activities agreed to be carried out at bilateral or multilateral level among ASEAN-China member states until the of peaceful settlement of the dispute .

In the milestone document, five voluntary cooperative activities and four confidence building measures were set out. One of the five cooperative activities includes marine environment protection and scientific research added in the cooperative measure which provides legal cover to the marine environment protection cooperation activities in the SCS in order to protect its marine environment (DOC 2002). Thus, the inclusion of the marine environment protection cooperation member states further repeats the marine environment cooperation retro on marine environment issues. Not long after that, the guidelines for the DOC implementation was adopted by ASEAN-China. These guidelines mention that “progress of the implementation of the agreed activities and projects under the DOC 2002 shall be reported annually to the ASEAN-China Ministerial Meeting (PMC)” (Guidelines, 2011). The JWG of ASEAN-China commenced implementing yearly work strategies. Allegedly, four working groups assigned the functions of confidence building assignments on marine scientific, search and rescue in fighting against transnational crimes, and finally marine environment protection respectively. Moreover, it is urged to further step forward the complete implementation of the DOC in its totality to reserve regional harmony and stability for promoting joint trust, negotiation and cooperation in the SCS. It would be possible through the meetings of the regular organising senior official of the ASEAN-China member states under the Plan of Action for the Joint Declaration on ASEAN-China Strategic Partnership for Peace and Prosperity on the DOC implementation (Plan of Action 2016-2020). The parties has been carried in annual meeting of JWG stated that “entirely declared

the constructive development on the execution of the DOC since 2012. In the meeting, it was noted that the parties agreed on three senior officials' gatherings and three of JWG on the DOC implementation, framed and successfully performed the work plan in 2012, approved the mitigation cooperation, ecological marine, disaster prevention and other arenas, and upheld good motion in DOC implementing via negotiation and collaboration. The work plan of 2013-2014 for the DOC implementation was also approved by the meeting (The Joint working group 9th meeting held in (2013) reported China's Ministry of Foreign Affairs).

In another press release of the meeting conducted by Thailand's Ministry of Foreign Affairs stated that the 2013-2014, Work Plan on the implementation of the DOC has been revised and the ministry is open to welcome new cooperation activities in order to reassure the comprehensive and effective execution of the DOC. This includes discovering the possibility of directing search and rescue activities, organizing a hotline channel for communication, conducting seminars, arranging workshop on the issues of marine environment, as well as conducting a photo exhibition with the theme of 'Maritime Cooperation' to promote the Cultural Exchange of ASEAN-China (The Joint working group 10th ASEAN-China meeting held in (2014) reported China's Ministry of Foreign Affairs).

**Declaration of Regional Cooperation of Sustainable Development Strategy of Seas of East Asia (SDS-SEA 2003):** In 2003, there was new change took place seen in Asian states approach towards the sustainable development of Seas of East Asian. These Asian member states adopted the Sustainable development targets of the World Summit via signing the SDS-SEA 2003 (The Putrajaya Declaration of regional Cooperation on the Sustainable development Strategy on Seas of East Asian 2003 signed by China, Malaysia, Cambodia, Vietnam, Brunei Darussalam, Philippines, Republic of Korea and Democratic People's Republic of Korea, Japan, Indonesia, Singapore and Thailand). It is a non-binding commitment towards the sustainable development that was implemented in 2003 by the Putrajaya Declaration of Regional Cooperation – the Partner States – with the environmental management corporations for the Seas of East Asia (Song & Zou, 2016).

The SDS-SEA regime is providing guiding principle to implement the objectives of the other international regimes in the Seas

of East Asian with the help of regional and national management mechanisms such as through member states, and non-state organisations participation. In other words, regime implementation of its objectives depends on the two mechanism one member states voluntary actions to implement the objectives of the regime and other with the help of international organisation (SDS-SEA, 2003). In 2006, the 70% of the implementation of the objectives of the SDS-SEA regime task has been handed over to the PEMSEA organization. Its task involved the regional stakeholders in both of state and non-state members appears to notify the classified threats to the development of environment and sustainability of the region (PEMSEA, Accomplishment report, 2011-2013).

In context of the financial funds to PEMSEA, the implementation of the SDS-SEA regime objectives completely depends on the PEMSEA financial mechanism. The other name of the mechanism is the Regional Partnership Fund contributed by voluntary aids from nations, international organizations, individuals and other bodies. The figures of PEMSEA financial sources for the first phase (1994-1999) received on core funding of US\$8 million, and the second phase (1999-2006) obtained the amount of US\$16.2 million with the average of US\$2 million a year. It is considered to be relatively modest but necessary amount considering what has been achieved region wide (PEMSEA, Regional, Review, 2003-2015). Following year PEMSEA completed 2014 on sound financial footing with the signing of an implementing Partner Agreement with the UNDP and the startup of a new project of five-year regional GEF on scaling up the employment of the SDS-SEA. Mainly to the GEF grant, which is restricted to approved project activities over the next five years, the total assets of the organization grew from US\$ 2.5 million to US\$ 12.56 million during 2014. In the reports, the PEMSEA is identified as it “moves into a phase of scaling up the implementation of SDS-SEA” (PEMSEA, Accomplishment report 2014-2015:38). Country and non-country partners, university and non-government entities are the principal actors that need to be engaged in the process.

However, after having PEMSEA institutional and financial support system in the SDS-SEA implementation in the SCS. According to the Broder and Dycke (2014), even after SDS-SEA 2003, regime having institutional framework but the PEMSEA is modest in accomplishments of the goals thus the member of the SCS was



unsuccessful in creating an effective regional organization and their cooperation tends to be entirely generally unsuccessful.

#### **DISCUSSION AND CONCLUSION**

In this study, the research finding problem-solving approach has found that after marine environment cooperation regime formation changes doesn't seem to be successful to prevent and protect most significant components of the marine environment ecosystem as well as the coastal harms over the several past years. The East Asian Seas' region that has grieved from an accumulative amount of threats specifically from natural disasters such as flooding, Tsunamis, tropical cyclones, and earthquakes (Climate Change, Final Report, 2010). This can be seen that, the future predictions for this issues are doom and upsurge in extreme weather events, mainly distressing the coastal sources. Moreover, the probable impacts of these disasters are growing with a rising of coastal density of population that creating devastating conditions several current reports on environment suggests (Climate Change, Final Report, 2010).

As stated by Hui (2016), even though several measures has been taken to prevent over all damage to marine environment by carried out several unilateral projects by China to protect and restore the coral reefs via artificial cultivation by CBCGDF (Chinese Academy of Sciences and China Biodiversity Conservation and Green Development Foundation) in the SCS. These programs consider to be time consuming projects as well lengthy and difficult process to cultivate the coral reefs under bare rocks in the Sea water via using hands. It is stated that coral reefs were formed over centuries in the SCS, damage to coral reefs not only decrease in the overall marine environment natural habitat but also open the remain reefs threat from typhoons and sea waves (Lin, 2016). Above in depth analysing about the regime problem-solving effectiveness, it draws clear scenario of before and after evaluation of the regime effectiveness. When looking at the SCS marine environment regime, I come to realize of what is the most likely to have happened to the SCS before the soft law regional marine environment cooperation regime were established. In above discussion based on the projects and programs, it shows that the cooperation took place at multilateral level under the international organizations are somehow successful in creating achieving data and to begin scientific training programs consensus and building

confidence among member states. In the SCS, however, it achieved partial success in implementing projects on marine environment protection, yet with several loopholes and weaknesses. Thus the condition of the marine environment has not much improved unlike after the soft regional regime East Asian Seas action plans regime, 1994-2012, DOC 2002 and SDS-SEA 2003-2015. The cooperation started purely under the umbrella of the regional SCS member states framework in which member states somehow successfully giving the priority to the marine environment agenda in the SCS. Several commitments started after the formation of the soft regional regime between ASEAN-China in the shape of projects and programs under bilateral level, but when looking at the problem-solving success level to solve the problem at bottom level to address the marine environment issues in the SCS, which this paper relied on the described reports, views, opinions and statements of the concerned authorities of ASEAN-China the member states clearly unsuccessful to convert the regime commitments into practice effectively on the ground level to prevent the damage to environment in the SCS.

To sum up, according to the problem-solving method on this present situation both before and after the regime creation minimum level of success has been achieved on the marine environment issues which is to the extent of the soft law regional regimes objectives and its implementation. However, it leaves us somehow at a loss as it is not absolutely clear even after long years of cooperation among the SCS member states on marine environment protection it is still doubtful whether all three regimes objectives activities have achieved actual goal to improve marine environment in the SCS. The facts which are also widely acknowledged and indicated regularly by the scientists as well as academics that there is a dire need to do more to enhance the cooperation regime in order to take practical measures to protect and prevent the devastating marine ecological system of the SCS. Thus, the results of this research clearly show that the soft regional marine environment regimes are not effective in tackling the issues of the marine environment in the SCS. It is unsuccessful to comply with the effectiveness criteria in achieving desired outcomes what it meant to achieve. However, analysis on the effectiveness of soft law regional marine environment regimes in those waters has relatively given less focus. Though the marine environment protection in the shape of soft law cooperative mechanism does take place in the SCS waters.

Therefore, this research will fill this gap by studying the effectiveness of the soft law regional marine environment regime particularly for the main regimes of EASAP 1994, DOC 2002 and SDS-SEA 2003 with the hope to identify the most effective regime.

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