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The Role of Severn Estuary Partnership in Emerging Marine Planning in England and Wales

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LIST OF ABBREVIATIONS

ASERA ASSOCIATION OF SEVERN ESTUARY RELEVANT AUTHORITIES

AONB AREA OF OUTSTANDING NATURAL BEAUTY

CP   COASTAL PARTNERSHIP

ICZM INTEGRATED COASTAL ZONE MANAGEMENT

MCCA   MARINE AND COASTAL ACCESS ACT

MFP   MARINE PLANNING FRAMEWORK

MMO   MARINE MANAGEMENT ORGANIZATION

MNCZ MARINE NATURE CONSERVATION ZONES

MPS MARINE POLICY STATEMENT

MSP   MARINE SPATIAL PLANNING

NG   NETWORK GOVERNANCE

SE   SEVERN ESTUARY

SEP   SEVERN ESTUARY PARTNERSHIP

SEMP SEVERN ESTUARY MARINE PLANNING

SPA SPECIAL PROTECTION AREA

SAC SPECIAL AREAS OF CONSERVATION

UKNMPF UNITED KINGDOM MARINE PLANNING FRAMEWORK

WG WELSH GOVERNMENT

WNMP WALES NATIONAL MARINE PLAN

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ABSTRACT

Over the period of two decades, integrated coastal management has been changed quite extensively in UK. Before the formal initiative of marine spatial planning at national level, there was a non-statutory approach to coastal management. The non-statutory approach to coastal management was based on cooperation of various coastal stakeholders through coastal partnerships. On the other hand, emerging marine spatial planning under devolved administrations of UK has an impact on the working of non-statutory coastal partnerships. In this research, the case-study of Severn Estuary Partnership has been taken in order to study the effects of developing marine spatial planning in England and Wales upon Severn Estuary Partnership. Therefore to position Severn Estuary Partnership in this newly developed marine planning process in England and Wales, this research has used the conceptual framework of network governance. Under the network governance conceptual framework, five organizational properties have been used to analyze the importance of Severn Estuary Partnership in Severn estuary region. This research has argued that even with the currently in-process marine planning in England and Wales, there is a slight shift and 'new focus' of SEP has been developed. This statutory marine planning process actually has strengthened the facilitator role of SEP because statutory organizations in England and Wales responsible for marine planning rely on SEP to take their view forward to the Severn Estuary stakeholders.

CHAPTER 1: INTRODUCTION

Coastal partnerships in the UK are formed from various governmental bodies, local authorities and private sector organizations (Stojanovic and Barker, 2008). The coastal partnerships are known by various terminologies such as coastal partnerships, fora or networks. Nevertheless, their approach is more or less similar—i.e. integrated management of the coast through coordinated actions and equitable solutions (Stojanovic and Barker, 2008). The growth of coastal partnerships in the UK began in the early 1990s due to the Estuaries Initiatives[1] programme to develop an estuary management plan. The core objective of coastal partnerships is to bring together all relevant and concerned estuary stakeholders to exchange and agree on common management of a particular estuary. This facilitator role of coastal partnerships remained intact until 2009. In 2009, the UK national government passed the Marine and Coastal Access Act (MCAA), which set the statutory basis for marine management of Britain's inshore and offshore coastal management. Moreover, MCAA also set the bases for the establishment of marine management organization (MMO), a licensing system and marine nature conservation zones (MNZs). However, a significant development in UK marine planning was started with the Marine Policy Statement (MPS) in 2011. This policy statement provided a 'high level policy context' for national and sub-national marine plans. The MPS is a national framework for preparing marine-related plans in Wales, England, Scotland and Northern Ireland. The objectives of the Marine Policy Statement are promoting sustainable economic development, mitigating climate change and ocean acidification, and enhancing societal benefits of the marine areas.

This study is an attempt to develop the relationship between the UK's developing marine planning and coastal partnerships through the conceptual framework of network governance. In this regard, a case study of the Severn Estuary Partnership (SEP) has been undertaken. The marine planning process of England and Wales holds significant importance for the Severn estuary, as the estuary lies between two different planning systems—i.e. England and Wales. The SEP is an independent initiative established in 1995 by local authorities. The SEP stakeholders are from both the Welsh and the English side of the estuary.

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[1] Estuaries Initiatives was an English Nature (now Environmental Agency) programme started in 1992 which aimed to raise estuary awareness, seeking an integrated approach to estuary management and encouraging sustainable development (Knowles and Myatt-Bell, 2008).

So far, the academic literature over coastal partnerships' role in wider marine planning framework is quite ambiguous (Ballinger, 2009; Fletcher, 2007; Fletcher et al., 2013; Jones and Burgess 2005; McGlashan, 2003; Stojanovic and Barker, 2008). Moreover, the academic debate over coastal partnerships is divided: some argue that these initiatives have weak status in the wider yet developing marine planning. This is because of unstable funding and lack of formal recognition on a national level (Fletcher, 2007; Fletcher et al. 2013; Hoare, 2002; McKenna & Cooper, 2006). On the other hand, some argue that coastal partnerships have brought about collaboration and elements of long-term planning. For example, through empirical research, Stojanovic and Ballinger (2009) have provided a comparative analysis of four UK initiatives, including Essex Estuaries, Ceredigion Coast, Severn Estuary and Chichester Harbour. They summarized in their results that coastal partnerships have transformed coastal management and 'promoting long term, collaborative, participatory and ecologically sustainable approaches' (Stojanovic and Ballinger 2009, p. 61). Moreover, coastal partnerships in the UK provide a platform for stakeholders' engagement while highlighting the issues—i.e. a 'politically elegant way of coalescing interests groups around issues in that place' (Stojanovic and Ballinger, p. 61, 2009). Nevertheless, quite recently, the development of the national marine planning in the UK raises questions about the usefulness of the coastal partnerships, especially once the marine plans from devolved administrations are in place (Fletcher et al., 2013).

Therefore, this research has taken the later view of the scholarly debate—i.e. it aims to contribute to the academic debate regarding the usefulness of coastal partnerships in developing marine planning process. In this regard, a case study of the Severn Estuary Partnership (SEP) has been undertaken, utilizing the network governance framework. The methodology to collect data is based upon semi-structured interviews with key statutory organizations responsible for marine planning in England and Wales.

Rationale of the research

The following paragraphs describe the basis for the rationale of the research.

The study explains why marine spatial planning has been perceived as a most suitable approach to regulate seas instead of an individualistic sectoral approach. Additionally, it looks at how an integration and participatory approach is a most important element of marine spatial planning.

Secondly, the emergence of marine planning in the UK is discussed, along with how it has set the legal basis for integrated marine and coastal zone management. Moreover, what does that mean for Severn Estuary marine planning?

Thirdly, the Severn estuary (SE) region and Severn Estuary Partnership (SEP) are briefly introduced. The study examines why the SEP is suitable for this study, considering how England and Wales' marine planning frameworks have taken the shape of a network to achieve integrated marine planning for the Severn estuary region. Hence to achieve this goal, the SEP plays a significant role in the SE region in terms of stakeholder engagement.

Marine spatial planning

The United Nations Educational, Scientific and Cultural Organization (UNESCO) initiative on marine spatial planning (MSP) has described MSP in very concise yet clear terms:

> Marine spatial planning (MSP) is a process of analyzing and allocating parts of three-dimensional marine spaces (or ecosystems) to specific uses or objectives, to achieve ecological, economic, and social objectives that are usually specified through a political process (Marine Spatial Planning Initiative, UNESCO)

The concept of MSP has developed quite recently, mainly due to growing concerns over climate change and degradation of the environment. MSP has been identified as a promising way to achieve simultaneously social, economic and environmental objectives similar to land-use planning, through more 'rational and scientifically-based organization of three dimensional ocean space' (Douvere 2008, p.766). Moreover, two main factors have been identified which indicate the need for a holistic approach towards seas. Firstly, MSP recognises the increased human activity in seas—i.e. sea sprawl and increasing demands for ocean space. Previously, activities related to the sea were mostly based on a single sector approach. For example, the United Nations Convention on Law of the Sea (UNCLOS) has provided a framework for the allocation of the ocean space. Similarly, the International Maritime Organization (IMO) has provided a delineation for sea pollution. Furthermore, the EU directives on conservation of birds and habitats have also provided the bases for European marine conservation for birds. Hence these single sector approaches lack consideration of the policies and plans of other users of the sea that may be conflicting or compatible (Douvere, 2010). The second most significant factor in the MSP approach is the integrated ecosystem-based management of marine areas in a

comprehensive and coordinated approach (Douvere, 2008). Therefore, MSP provides a plan based on the current and future approach to marine space.

In the UK, since the 1990s, marine spatial planning and its implementation has been largely based on local and regional coastal initiatives in the form of integrated coastal zone management (ICZM) (Stojanovic, 2008). As mentioned above, those initiatives usually rely on the voluntary participation of private, government and civil stakeholders. The main goal of these bottom-up initiatives is to provide 'multi-stakeholder approaches to marine planning and management' (Stojanovic, 2008). However, ICZM in the UK has changed significantly due to the establishment of MCAA. The voluntary approach towards ICZM has become more institutionalized as it is now superseded by the UK's national marine planning. The Marine and Coastal Access Act sets out a new approach towards marine management through an 'ecosystem-based plan-led system for marine activities' (Fletcher 2013, p.2). This act is considered a major landmark in the UK's MSP, which instituted changes including creation of the MMO, streamlining of the marine licensing system, environmentally focused inshore fisheries and conservation authorities, access to marine data and information, and supported coastal and estuary management (Government UK, 2009). This act was supplemented by greater policy articulation in the form of the Marine Policy Statement, which has been adopted by three devolved governments: Northern Ireland, the Welsh Assembly and the Scottish Government in 2011. The adaptation of the MPS places a statutory obligation on devolved administrations to develop marine plans under their own marine planning arrangements and mechanisms (Fletcher, 2013).

With regard to the Severn estuary, the estuary comes under the marine planning framework of England and Wales. The following table explains the marine planning process around the Severn estuary.

Table 1: Marine planning around the Severn estuary

Marine Spatial Planning Framework	England	Wales
Marine plan areas	11	All Welsh waters
Responsible authority	Marine Management Organization (MMO)	Welsh National Ministers

Severn Estuary Region		
Relevant marine plans	Southwest Marine Inshore Marine Plan	Welsh National Marine Plan

In order to develop marine plans, England and Wales have adopted different approaches. As described in the table, the Welsh Government (WG) has decided to produce a single Wales National Marine Plan (WNMP) which will cover all Welsh inshore and offshore marine areas. On the other side, English seas are split into 11 marine areas. The authority responsible for producing marine plans in England is the MMO, while in Wales, the Welsh Ministers are the marine planning authority for Welsh inshore and offshore areas.

Severn estuary region and Severn Estuary Partnership

To briefly introduce the SE region, the Severn estuary is the largest estuary in the UK. It has a 353 km long coastline and has the second highest tidal range in the world after the Bay of Fundy, Canada (SEP, 2012). The Severn estuary is well known in Britain for its multiple uses. The estuary is designated for nature conservation and the protection of international migratory birds and fish. It also comes under the Ramsar site (SEP, 2012). Moreover, it holds a position as a special protection area (SPA) under the EU birds directive and as a special area of conservation (SAC) under the EU habitats directive (Green and Smith 2009, p.4). There are a number of large ports on the Severn estuary, including the major ports of Bristol, Cardiff, Newport and Port Talbot, which handle around 20 million tons of cargo annually including dry and liquid bulk (Port Freight Statistics Report, 2015). The Severn estuary has a tidal range of 50 feet: therefore it is considered a potential site for the construction of tidal lagoons (SEP, 2012). Currently, the proposal for a Swansea tidal lagoon is under consideration in the Swansea and Cardiff coastal areas. Additionally, the Severn estuary region is known for its leisure and recreation industry, especially recreational boating activities (ASERA, 2015).

While considering these multiple uses of the estuary and the recent upsurge in marine planning in the UK, the question is how to facilitate the successful implementation of strategic marine plans (England and Wales) in the SE region. In this regard, the Severn Estuary Partnership plays an important role within the marine planning framework of the SE region. The partnership is led by local authorities and statutory agencies to work together to promote a

sustainable approach to the planning and management of the estuary (SEP, 2012). There are more than 60 coastal partnerships around the UK coast and most of them have 20 years of experience in coastal management (Stojanovic and Barker, 2008). These coastal partnerships come in a variety of arrangements to bring together interested stakeholders to promote the sustainable management of coastal areas, estuaries and firths (Stojanovic and Barker, 2008). Therefore, a recently imposed statutory obligation to develop marine plans in England (the southwest marine plan is concerned with the SE) and Wales (WNMP) requires the concerned authorities to engage relevant stakeholders as part of the marine planning process, whereas, when it comes to the SE region, the SEP is considered the main point of contact for local stakeholders.

Research question

The research question is derived from the network governance theoretical framework. Under this theoretical framework (Chapter 3), two levels of analysis have been described using the Provan et al. (2007) two perspective analyses of network governance. The two level of analysis are based upon the network level and the organizational level. In this study, the main research question is derived from the organizational level of analysis—i.e. it seeks to analyse the facilitator role of the Severn Estuary Partnership due to the developing marine planning process in Wales and England.

Level of analysis	Main research question	Sub-question
Organizational level→ SEP	How has the SEP facilitator role shift with the developing marine planning process in England and Wales?	Does the SEP serve as a gatekeeper between the MMO, WG and Severn estuary relevant stakeholders?

The added value of this research

The research undertaken for this study has added value for further study of coastal partnerships. In the short term, the intermediate results of this study will be helpful for further research on the role of other coastal partnerships in the wider governance framework setting. Secondly, it will help in understanding the current status of the marine planning in Wales and

England with regard to the Severn estuary region and how those developing frameworks have modified the working of the SEP. Thirdly, this study has conceptualized UK marine planning under the network governance framework. This could further apply to other coastal partnerships and marine planning systems in other countries, especially within Europe. This study could help in providing a different discourse on the coastal partnerships under the network governance conceptual framework. In the longer term, the results of this research could inform current academic debates about the work of coastal partnerships.

Structure of the thesis

The remainder of the thesis is presented in four chapters.

Chapter 2 will critically discuss the background of coastal management in UK and provides the overall view of coastal partnership. This chapter will also discuss the geographical characteristics of Severn estuary and the introduction of SEP in detail.

Chapter 3 will set out the conceptual framework of the study by defining the network governance, discussing the various forms of network governance and the two levels of analysis from the network perspective.

Chapter 4 will explain and justify the choices made regarding the methodology, the philosophical approach of the study, the research strategy, the research design, data collection, data analysis, the limitations of the research methods and ethical considerations.

Chapter 5 will provide the analyses of the data collected. First it will discuss the developing marine planning in England and Wales. Then it will discuss the five organizational properties defined in conceptual framework in detail with regard to SEP.

Chapter 6 will summarise the analyses chapter and provide the answers to the questions posed in introduction. Recommendations will also be given in the chapter.

CHAPTER 2: BACKGROUND OF THE STUDY

This chapter is divided into two main sections. The first section discusses the background of coastal management in the UK and the process of institutional restructuring which fosters a voluntarily approach to coastal management. The first section is further divided into two parts. The first part discusses the background—i.e. policy evolution in coastal management—while the second part provides an overview of coastal partnerships in the UK. It further discusses the working of partnerships from international to local level coastal partnerships operating within the UK. Moreover, it explains the different types of coastal partnership and, within these partnerships, the variations in organizational structure. The second section of this chapter discusses the physical characteristics of the Severn estuary, introducing the Severn Estuary Partnership and the evolution of the institutional setting around the estuary.

1) UK's policy evolution in coastal management

The evolution of marine and coastal management in the UK has gone through many stages of institutional reform and various shifts in coastal management approach. These institutional changes were the result of internal governmental organizational restructuring as well as external, which includes an international up-surge in eco-system and environmental management and sustainable development. In terms of a shift in approach, initially marine spatial planning in the UK was referred to as coastal management. From the late 1960s to the end of the 1980s, the approach to coastal management in the UK was largely equated with a conservation approach (Ballinger, 1999). This conservation approach included nature and landscape protection. Especially after WWII, national concerns were stimulated due to unplanned development near coasts, which also impacted the environment around the coast. However, no significant initiative was undertaken with regard to specific coastal management. Instead, matters relevant to coasts were superseded by landscape protection and development planning (Ballinger, 1999).

Within the institutional setting of the UK, there was a shift from a traditional and technocratic approach to a more holistic and greener approach. The environmental management

sector in the UK underwent significant changes. In terms of its administrative response to environmental and coastal management, the key change was the transfer of responsibilities for coastal management from the Department of the Environment[2] (DoE) to the Ministry of Agriculture, Fisheries and Food[3] (MAFF). Another major change was with the establishment of the Environment Select Committee in 1979. The main task of this committee was 'to examine the expenditure, administration and policy of DoE' (Ballinger 1999, p.509). However, with the establishment of this committee, parliament was introduced to a varied and emerging range of environmental matters. Moreover, it also exerted pressure on parliament through public debates on environmental matters. This in turn produced new institutional bodies including the Ministerial Committee on the Environment; an environmental policy review group; a governmental panel on sustainable development; a UK roundtable on sustainable development and an advisory committee on business and environment. However, the workings of these institutional bodies largely remained criticized.

The most explicit reform in coastal management was started with the House of Commons Environment Select Committee report on coastal zone protection and planning (1992), which highlighted the inadequacies of organizational, policy and planning frameworks for coastal management. This report received a welcome response from the government and selective recommendations were accepted. These were the definition of the coastal zone, stating that the coastal zone should be treated as one integrated unit (Ballinger, 1999); environmental duties on port and harbours; and establishment of a coastal zone unit to oversee coastal zone policies. However, other recommendations relevant to the broadened scope of regional coastal groups—the governmental review of organizations to reduce duplication of responsibilities and the notion that responsibility for marine pollution should be invested in one lead body—were not accepted by the national government. However, this report was the starting point of the UK's voluntary approach to ICZM.

In connection with this, another report from the Department of the Environment and the Welsh office's planning document on coastal planning was also published in 1992 (Coastal Planning, 1992). This document provided guidelines for policy development to local authorities in England and Wales. Again, this policy document also implicitly required local authorities to

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[2] The Department of Environment has now turned into the Department of Environment, Food and Rural Affairs (Defra).
[3] MAFF was dissolved in 2002 and its responsibilities have merged with those of the Defra.

integrate coastal planning into the ongoing land use development plans. Another important landmark for UK coastal management came from English Nature's[4] 'Estuaries Initiatives' (English Nature, 1992). The estuaries initiative led to the establishment of coastal partnerships in the UK, especially in England. Through the estuaries initiative, estuary-wide management plans were promoted and considered as the 'first attempt to get to grips with the issues facing estuaries' (Morris 2007, p.26). The initiative also had a budget of 250,000 pounds sterling per annum for five years (Morris, 2007) to initiate the process of estuary management planning. Therefore, to develop estuary management plans, a number of estuary partnerships were developed. In the early 90s, the main purpose of these partnerships was to consult stakeholders around estuaries in England. Usually a project officer was assigned for the management of this initiative. After that, they went to the possible stakeholders and groups around the estuary to invite them to become involved in specific coastal initiatives (Morris, 2008, p.26). The main funding for these initiatives/partnerships came from English Nature. The initiative also required that the estuary management plans be funded by a partnership of local stakeholders, which included local authorities, water companies, port authorities and major industries. However, the estuaries initiative was later cut short of funding for three years; consequently it ceased permanently. As a result, estuary management plans face implementation difficulty and have to secure funding from various sources. They have therefore started reaching out to relevant EU estuary projects.

However, during the consultation process surrounding stakeholders' engagement in management plans, many lessons were learnt. Many of the stakeholders were not in agreement with the 'consensus-building process' and 'failed to gain ownership' (Morris 2008, p.28). However, on the other hand, these consultation processes united stakeholders in opposition. Although these estuary partnerships faced a multitude of problems, they often provided the first forum for local authorities and key stakeholders to talk to one another and therefore, in this regard, they were considered successful facilitators. Many of the coastal initiatives also ceased to exist because only the estuary management plan was required of them; however, others survived due to the physical and strategic nature of the estuary, and because stakeholders perceived the

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[4] English Nature was the UK governmental body responsible for the conservation programme from 1991 to 2006. It was merged with two other bodies (the Countryside Commission and the rural development service of Defra) to form Natural England in 2006.

need for such facilitator organizations (e.g. Solent Partnership, Thames Estuary Partnership and Severn Estuary Partnership). The following section will provide an overview of the coastal partnerships and their work in the UK.

Coastal partnerships in the UK: an overview

Since the early 1990s, over 60 coastal partnerships have been developed around the UK. As mentioned in the previous section, in the early 90s, English Nature's 'Estuaries Initiatives' and Scottish National Heritage's 'Focus on Firth' started to develop non-statutory participatory coastal management programmes (Fletcher 2002, p.232). However, many of the coastal partnerships kept on working after the termination of funding from 'Estuaries Initiatives'. The strategies or plans produced by these coastal partnerships were 'entirely voluntary and dependent upon the political will of stakeholders for successful implementation' (Fletcher 2007, p.607). In other words, coastal partnerships provided an important mechanism to bring various stakeholders together to work towards integrated coastal management. These partnerships work closely with 'coastal communities to foster a sense of ownership and stewardship over the coastal environment and its resources' (Stojanovic and Barker 2008, p.345). There is a variety of coastal initiatives around the UK, based on their distinct geographical location. Table 2 highlights the range of groups, extending from international networks to those at the regional and local level (Fletcher, 2002).

Table 2: Types of coastal group operating within the UK (source: Fletcher, 2002)

Type of voluntary coastal group	Description	Examples
International	Functions mainly limited to networking and international lobbying	The Coastal Union (EUCC)
National: governmental	Functions to enhance co-ordination at the national level	English Coastal Forum; Welsh Coastal Forum
National: non-governmental	National networking and training; limited lobbying role	CoastNet, National Coasts and Estuaries Advisory Group (NCEAG)
Regional sea	Functions to bring together those with an interest in offshore resource conservation and use	Irish Sea Forum

Regional/local single sector	Facilitates information sharing, resource management and policy formulation in the distinct sector	SCOPAC (location: south of England; function: coastal defence); Severn estuary conservation group (function: conservation)
CPs (regional/local multi-sector)	Functions to share information, and generate and implement policy on the basis of sustainable multiple use of resources	Severn Estuary Partnership; Dorset Coast Forum; Solent Forum

Another driving force behind coastal partnerships in the UK is the European Commission influence on the coastal management framework. In the context of ICZM, the EC recommends that member states should promote bottom-up initiatives in the integrated management of the coastal zone and its resources (European Commission, 2002). There are a number of EC recommendations which implicitly encourage member states to involve stakeholders in all levels of spatial planning. For example, the EC joint statement on wildlife interest encourages stakeholder engagement early on in the process (European Commission, 2002). Therefore, stakeholders relevant to wildlife and nature around the estuary also need to be included in the marine planning process. In this respect, the UK government issued a commitment to full stakeholder involvement in coastal and marine planning (Fletcher, 2007). Therefore, there are various implicit ways at the governmental level and European Commission directives that encouraged coastal partnerships to continue working even when they were facing funding problems. Many of the coastal partnerships in the UK acquired project funding: for example, the Severn Estuary Partnership worked on the DeltaNet project (INTERREG IVC) and IMCORE with INTERREG IVB funding.

There is variation within the working of local coastal partnerships and coastal groups. A number of coastal partnerships are more sectoral i.e. flood and coastal defense, conservations groups: these include coastal groups or management scheme groups for European marine sites. The Severn estuary region holds a number of European marine sites, including special protection areas (SPA) and special conservation areas (SCA). Therefore, it is subject to a number of management groups other than the SEP to manage activities around the Severn estuary. The coastal groups and other European marine site groups relevant to the Severn estuary are

explained in detail in the third section. The table below explains the voluntary coastal group and partnership types.

Table 3. Coastal groups and partnerships types (source: Stojanovic and Barker, 2008)

Coastal initiatives	Categories defined by the English coastal partnership working group
Coastal partnership (CP)	Coastal (including estuary) partnership or forum bringing together all sectors to advocate sustainable management of a coastal area based on ICM principles.
Area of outstanding natural beauty (AONB) / Heritage coast (HC)	AONB/HC is a partnership or initiative set up to manage a designated landscape in a coastal zone.
European marine site (EMS)	EMS is an initiative set up to prepare and implement an EMS management for the designated special protection area / special area of conservation.
Marine National Park (MNP) / Voluntary Marine nature reserve (VMNR)	MNP or VMNR is set up to manage or protect an offshore park, reserve or protected area.
Coastal group (CG)	Coastal groups assist the production of shoreline management plans (SMPs) for flood and coastal erosion risk management.
Other similar initiative	A variety of other initiatives include local strategies for the coast and ad hoc partnerships based on topics such as beach care, litter or marine wildlife.

Additionally, coastal partnerships follow various types of organizational structure. The three most common organizational structures are forum based, steering group and topic group (Fletcher, 2003). A forum based coastal partnership usually meets once or twice a year and is

generally open to the public; it has a larger membership than the other two types of organizational structure. The number of stakeholders involved in this forum is usually between 80 and 300. Steering groups usually involve a committee of 10 to 25 members. They are involved in the daily operation of the partnership. However, a project officer has financial control and undertakes the strategic management of the coastal partnership. The last organization structure is the topic group. These groups are basically set up to address a number of issues around the estuary. Their size is varied, but usually involves 10 to 15 members and is composed of individuals with a shared common interest (Fletcher, 2003). A topic group, as explained by Fletcher (2003), is formed to address a specific issue for a specific location.

Various academic researches on coastal partnerships show the importance of these partnerships in filling the gap between government and local level stakeholders. Coastal partnerships are formed to provide opportunities to various coastal stakeholders to share their views and concerns related to marine management. These partnerships have remained successful in filling the vacuum in strategic level coastal policy and are considered as the main stimulus for integrated coastal management at a sub-national level (Fletcher, 2003). Studies (Fletcher, 2003; Stojanovic and Barker, 2008) show that, in the UK, coastal partnerships hold significant importance in developing area based strategies, which is helpful in an integrated coastal management process, although the strategies are not legally binding.

These partnerships are considered as the way forward in UK coastal management, especially on a sub-national level. With regard to their working efficiency, the coastal partnerships are supported and are made up of interested stakeholders. Therefore, the representation of stakeholders within coastal partnerships is of particular importance. Stakeholders within a coastal partnership represent their constituency and its related interests; therefore, the plans developed within a coastal partnership are considerably influenced by stakeholders and their constituency. The active participation of stakeholders in the coastal partnership decision making process is also the very basis of an integrated coastal management process.

Various achievements and uses of coastal initiatives have been acknowledged in scholarly discussion. Those benefits of coastal partnerships are measured according to soft evidences at the local policy management level. These benefits include changes in the approach

towards policy making through the involvement of local stakeholders. With this in mind, Stojanovic and Ballinger (2009) provided nine mechanisms and processes of coastal partnerships, extracted from EU ICZM principles. These nine mechanisms and processes are comprehensive, participatory, co-operative, contingent, precautionary, long term, incremental, focused and adaptive approaches to coastal initiatives. Stojanovic and Barker (2008) presented similar benefits of coastal partnerships. They defined these benefits on the basis of 'improved governance', 'changes in attitudes and understanding that they create', and 'on the ground actions which they deliver that contribute to coastal sustainability'. However, they concluded that coastal partnerships will hold a marginal role unless they are embedded within the evolving institutional framework. This point is discussed in Chapter 5 through the results obtained from interviews, and while applying the conceptual framework developed in Chapter 2.

2) SEVERN ESTUARY

This second section of this chapter will look in the physical and geographical feathers of the Severn estuary. This section will also discuss the establishment of Severn Estuary Partnership and institutional setting around Severn estuary.

Geographical characteristics of the Severn estuary

The Severn estuary is renowned in Britain for its multiple uses. The estuary has been designated an area for nature conservation and for the protection of international migratory birds and fish. Moreover, the Severn estuary is a recognised Ramsar site (a wetland of international importance). It is home to migratory birds in winter. Therefore it is designated a special protection area (SPA) according to the EU conservation of birds directive (2009/147/EC). Additionally, it is a special area of conservation under the EU habitats directive (92/43/EC), as the estuary contains important habitats which are threatened within the European context (Knowles and Myatt-Bell, 2001). There are a number of large ports on the estuary, including the major ports of Bristol, Cardiff, Newport and Port Talbot, which handle around 20 million tonnes of cargo annually, including dry and liquid bulk (Port Freight Statistics Report, 2015). The Severn estuary has a tidal range of 50 feet; therefore it is considered a potential site for the construction of tidal lagoons: a proposal for a Swansea tidal lagoon is now under consideration for the Swansea and Cardiff coastal area. The Severn estuary is also known for its leisure and

recreational industry—for example, recreational boating activities (ASERA, 2015). The characteristics of the Severn estuary are as follows;

Table 4: Characteristics of the Severn estuary (source: Zahra, 2016)

	Characteristics		Length of the coast, included in the SEP area	tidal range	Management issues
	Physical	Human			
Severn estuary	Estuary	Mainly rural areas, but majors cities attached to it—e.g. Cardiff, Bristol and Newport. Human population: 1,039,000	353km[5]	Barry: 10m Avonmouth: 14m	Maintaining special protection area; dredging and port operations; coastal development; recreational boating on Severn estuary

Severn Estuary Partnership (SEP)

Various factors have been documented regarding the creation of the Severn Estuary Partnership. When in the early 80s the UK government initially decided to build the barrage on the Severn estuary, it generated concern in various local and national organizations (Ballinger and Stojanovic, 2010). Hence it was realized that a common platform should be developed to facilitate sharing and working together. The idea for the common platform gained support when

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[5] State of the Severn estuary report (available from http://www.severnestuary.net/sep/publications/SOSER.pdf)

the South Glamorgan[6] economics department attended the Les Esturiales meeting in France (Knowles and Myatt-Bell, 2001). Les Esturiales is a European partnership formed in 1990, of regional authorities and municipalities with responsibility for the sustainable management of several European estuaries (Severn Estuary, 2012). The 1993 *Les Esturiales* charter identifies the unique and distinctive characteristics of estuaries around Europe. It highlights the wide range of inter-related coastal problems and stress that 'the need for management group to encourage a partnership of all those with an interest in the estuary, including ports, commercials and recreational interests, local authorities and government departments and agencies' (Knowles and Myatt-Bell 2001, p.145). In 1992, recommendations from English Nature's Estuaries Initiatives were also published: these recommendations called for estuary management plans around all English coasts. Therefore, the formation of the Severn Estuary Partnership is primarily the result of these two recommendations. Several local authorities, including South Glamorgan County Council, took the lead role and formed a partnership with Avon County Council, the countryside council for Wales, the National Rivers Authority and Cardiff University (Knowles and Myatt-Bell, 2001). The Severn Estuary Partnership is hosted by Cardiff University. It has an estuary-wide remit, making it a cross-border coastal partnership. The partnership includes a wide variety of organizations and individuals who have declared their interest in the sustainable development of the Severn estuary (DeltaNet, 2011). Figure 1 shows the organizational boundaries of the SEP and the local authorities fall within the boundary.

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[6] South Glamorgan was reorganized under the local government act of 1972 and the administration was sub-divided into the Vale of Glamorgan and Cardiff Council.
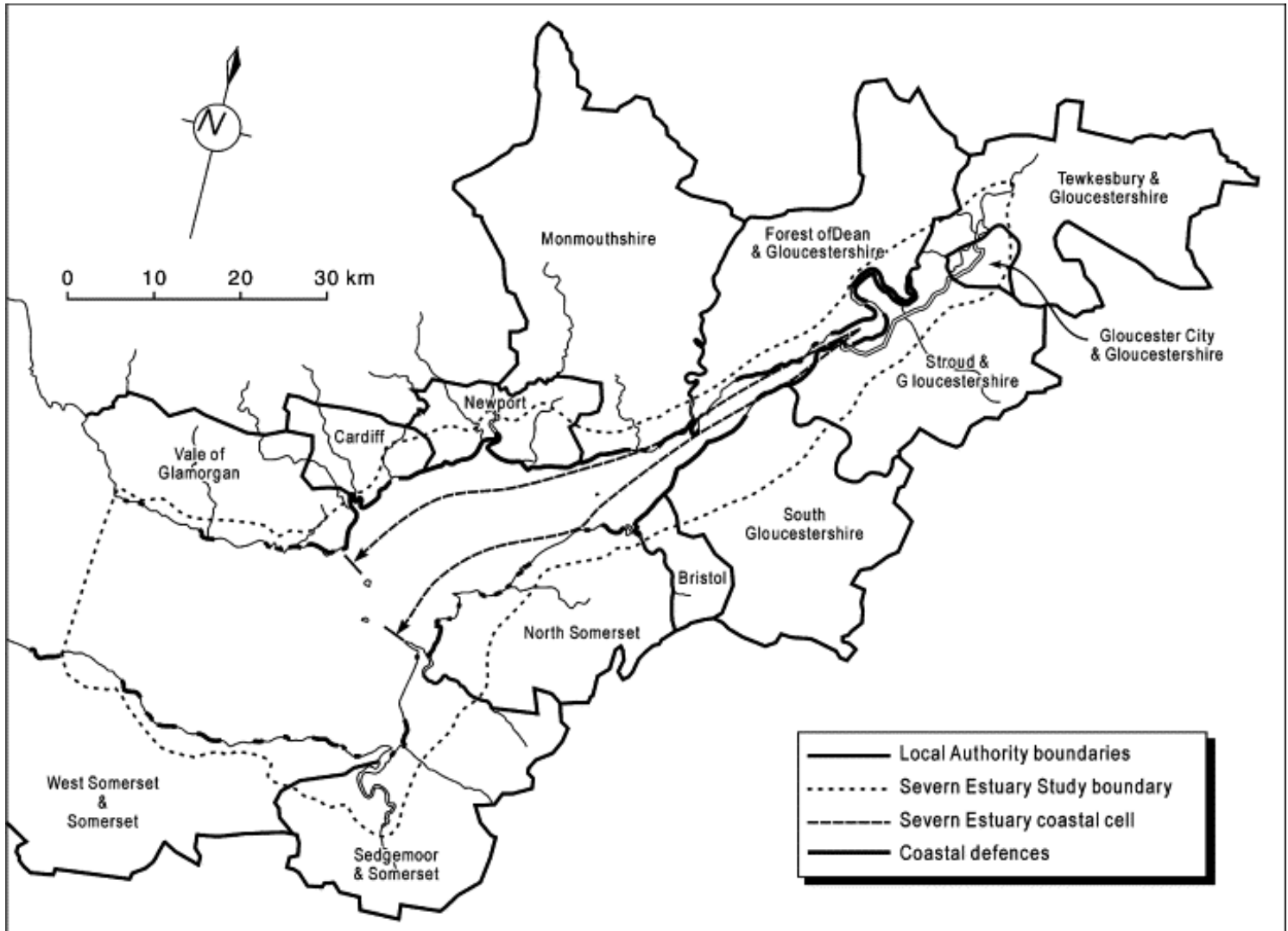
Figure `1: SEP organizational boundary (source: Hoare, 2001)

In Figure1, the local authorities involved with SEP have been shown. The local authorities from English side of the estuary are; Gloucestershire County Council, Gloucester City Council, Somerset Council, South Gloucestershire Council, Bristol City Council and Stroud District Council are involved with the SEP. On the Welsh side, Cardiff Council, Newport City Council, Forest of Dean District Council and Monmouthshire City Council are involved with SEP. Apart from local councils and authorities regional agencies For example Environmental Agency (England), Natural England and Natural Resource Wales are also involved with SEP. These are the main funding partners of the SEP, but SEP has a very broad remit and is also involved with various non-statutory organizations.

The SEP encourages an integrated and co-ordinated approach among its stakeholders towards the planning of the Seven Estuary. The aim of the SEP, according to its business plan (2006–2009), is 'to bring together all those involved in the development, management and use of the estuary within a framework which encourages the integration of their interests and responsibilities to achieve common objectives' (SEP business plan 2006, p.1). It maintains a diverse number of roles around the estuary, which include core services (Coastal Partnership Network, 2011). The core services of the SEP include: 1) stakeholder engagement; 2) provision of network opportunities; 3) facilitation of diverse issues around the Severn estuary; 4) promotion of collaborative working; 5) provision of a central point of contact for local authorities around the estuary; and 6) informing coastal and maritime planning, policy, legislation and strategy. It has maintained a neutral position among its stakeholder representation—i.e. it does not represent a particular set of interests or stakeholders. The working of the SEP involves a diverse number of stakeholders, from local councils to the national government of Wales and Defra, from ports and harbours to the private sector; it also includes environmental and recreational groups. The organizational structure of the SEP is shown in Figure 2.
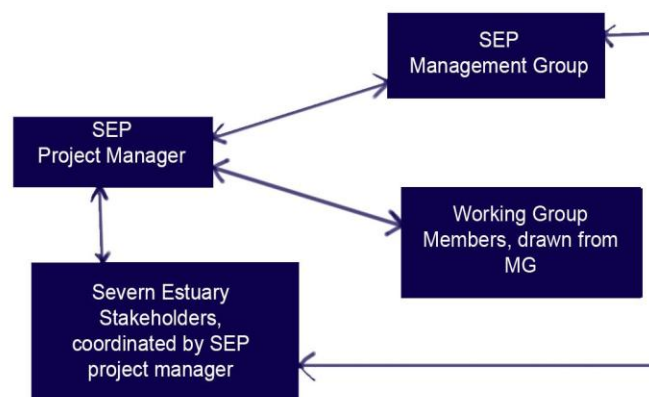

Figure 2: Organizational structure of SEP (Modified from Knowles and Myatt-Bell, 2001)

The SEP's organizational structure is based upon a management group and an SEP project officer. The SEP management group is comprised of the funding partners and plays an important role in deciding the future course of the partnership. The management group (MG) is

comprised of local authorities (as mentioned above) and non-departmental public body representatives—for example, the Natural England, Environmental Agency and Natural Resource Wales. The project manager is the main administrative person in the SEP and usually holds the position for 12 to 24 months. The project manager is accountable to the management group in terms of the operational working of the SEP. The project officer also maintains communication and consulting links with every organizational body in the estuary region. Additionally, the coordination and dissemination of information is the responsibility of the project manager. The process of dissemination of information to estuary-wide stakeholders encourages various non-governmental stakeholders to join the partnership through a formal membership process. Therefore, the SEP management group changes often. The SEP working group is drawn from the MG and works closely with the project officer. Members of the working group usually provide advice, and commit time and resources to certain projects. Working group members usually hold a full time post in their respective organizations in addition to their work with the working group, which is draw from the management group of the various projects.

Institutional setting around Severn Estuary

The institutional setting around Severn estuary has been evolved quite a lot since the establishment of SEP in 1995. Even after the marine planning process begin n national level, two new regional institutional has been emerged (i.e. MMO and WG) in order develop national level marine plans in respective devolved administrations. The table below shows the roles and responsibilities of the major organizations involved in management of the Severn estuary. Table 7 describes the organizational setting before the national marine planning process began in the UK (Knowles, and Myatt-Bell, 2001).

Table 5: Institutional setting around Severn estuary region (Source: Knowles and Myatt-Bell 2002, p.140)

Organizational settings around the Severn estuary	Roles and responsibilities
National	
Crown Estate Commission	National foreshore and seabed is the property of the Crown. The estate owns about 50% of the Severn estuary foreshore.

Ministry of Agriculture, Fisheries and Food	Conservation of fish stocks in UK waters, shoreline management, dumping at sea and coastal environmental quality.
National Assembly for Wales	Wide range of statutory responsibilities, including water adjacent to the coast of Wales.
Regional (England and Wales)	
Environmental Agency	Pollution control and water quality management, flood defence management, fisheries management.
Water companies	Ensure adequate water resources are available to meet consumer demands, effluent treatment.
English Nature	Government's statutory advisor on nature conservation in England.
Countryside council for Wales	Statutory adviser on nature conservation, landscape and access in Wales
CADW/English Heritage	Responsibility for marine archaeology and historic wrecks.
Wales and England's Sport Council, tourist boards	
Government Office for the South West	
Local	
NGO conservation interests	Valuable role in coastal management through site management and acquisition.
Local government (county councils / district councils / unitary authorities)	Preparation of local development plans to guide and control physical development of land.
Port and harbour authorities	Maintenance of channels to dock entrances by dredging, commercial interest in markets, navigation aid.

Severn Estuary coastal cell groups	Development of shoreline management plans.[7]
Private landowners	Coastal defences, drainage and conservation of their land.
Drainage boards	Drainage and water resources.

The above table presents the statutory and non-statutory organizations around the Severn estuary and their responsibilities around the estuary up to 2001. The various agencies and organizations relevant to the Severn estuary region have been divided into national, regional and local level agencies. However, there have been certain changes in the institutional structure since 2001. On the national level, MAFF was merged with the Department of Environment, Food and Rural Affairs (Defra) in 2001. Defra is responsible for British government policy in a number of sectors, including biodiversity, conservation, food, agriculture, air quality and marine policy. Defra has key partnerships which assist in implementing a number of policies. With regard to marine planning, Defra's key partners are the Environmental Agency, Natural England and the Marine Management Organization on the regional level. The National Assembly for Wales is responsible for producing a marine plan for Welsh water (including the Severn estuary). At the regional level of institutional settings, in England especially the MMO has been developed. The MMO is the main organizational body for producing marine plans for English waters; this therefore includes the English side of the Severn estuary. Another major change at the regional level is the merger of English Nature with Natural England (NE). Formed in 2006, Natural England is a non-departmental public body and is independent of government, formed by merging English Nature, the Countryside Agency and the Rural Development Service (a functional transfer from Defra). The responsibilities of NE include designating areas of outstanding natural beauty, sites of special scientific interest, and wildlife and habitat conservation. The agency is also responsible for providing grants to numerous schemes and frameworks relevant to nature conservation. Hence, NE is also implicitly involved in the Severn estuary region for the protection of nature. On the Welsh side, Natural Resource Wales (NWS) has been developed at the regional level. It was formed in 2013 with the merger of the

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[7] Shoreline management plans provides a strategic framework for decisions relating to the management of coastal defences along the specified lengths of coast.

Countryside Council for Wales, the Environmental Agency Wales and the Forestry Commission Wales. NRW is responsible for numerous types of regulatory regime in which marine licensing and the waste industry (storage, treatment and disposal) for Welsh waters are included. Hence NRW is also involved in the Welsh side of the Severn estuary. The agency also contributes to SEP funding. Lastly, on a local level, much of the institutional setting remains the same.

The next chapter of the thesis will discussed the conceptual framework developed to analysed the shift in working of SEP due to national marine process began in devolved administrations.

CHAPTER 3: CONCEPTUAL FRAMEWORK EXTRACTED FROM NETWORK GOVERNANCE

The main purpose of this chapter is to explain what network governance is and how it is helpful in positioning the SEP within the wider developing marine planning set-up. This chapter elaborates on selective components of network governance theory to develop a suitable framework for the analysis in Chapter 5 and the methodology framework in Chapter 4. Those selective components are mainly extracted from Proven and Kenis (2008) articulation of network governance, in which a view of governance of the organizational network has been proposed.

This chapter is divided into two main parts. The first part of the chapter is based upon a general discussion of network governance, which consists of a definition of the network governance theory; a comparison of network governance with other similar governance paradigms (resource governance and adaptive governance); and the use of network governance in various academic disciplines. The second part of the chapter is based upon developing the conceptual framework for this research study. The second section is sub-divided further into two parts: the first part will explain the three forms of network governance which are useful in setting the basis for identifying which form of network governance is most relevant to the research questions posed in Chapter 1; the second part explains the two analysis perspective within network governance. At the end of this chapter, the conceptual framework is developed.

Defining network governance

The basic understanding of network governance, according to Provan and Kenis (2008), is based on 'two relatively vague and slippery' concepts—i.e. network and governance. The terms network and governance both have many interpretations. The notion of governance can 'refer to non-hierarchical attempts of governments in order to bring coordination between public and private interests, actions and resources'; meanwhile, network is 'a notion equally popular and can enter into various other conceptual constellations' (Torfing 2005, p. 306)—for example, communication networks, social networks or professional networks. However, network governance is a particular type of network and a particular form of governance where various actors or groups are involved to collaborate on particular policy implementation (Torfing, 2005). The network can be based upon groups of three or more autonomous organizations. Therefore, in this research, the network is based upon the Severn estuary stakeholders who come together to

form the SEP to collaborate on integrated coastal management, thus forming a non-hierarchical network.

A definition of network governance has been extracted from Torfing (2005) who described network governance in various points and these points have combined to 'capture the essence of that which is commonly referred to by the notion of governance networks' (Torfing 2005, p. 307). Hence network governance is defined as;

> *The network governance defined as the formation of relatively interdependent actors, but operationally autonomous entities. The interaction among actors is based upon achieving specific goals through negotiations and deliberations in a relatively institutionalized framework setting where knowledge, norms and values are articulated, having the element of self-regulating competence and demonstrating a particular stake in networking. The actors involved must have the capacity and resources to contribute and competencies to value other actors involved.*

The significance of the network governance conceptual framework in delivering public services has been agreed by various public management scholars (Herranz, 2007; Klijn and Koppenjan, 2012). This is due to the fragmentation of power where 'many public policies and programmes cannot be administered and delivered by a single agency but are rather often coordinated by multiagency agreements, partnerships, collaborative and networks involving both governmental and non-governmental organizations' (Herranz 2007, p.2). Moreover, the application of network governance in analysis of the Severn Estuary Partnership is considered suitable due to its structural embeddedness with all the SE stakeholders in the SE region. Furthermore, while using the selective forms of network governance, it has been observed that NG has the capacity to articulate complex systems at the public or organizational level of administration, where increasing fragmentation of authority has been observed.

Other similar governance frameworks have been developed which also try to simplify the management of natural resources, such as resource governance and adaptive governance regimes (Bodin and Crona, 2009; Pahl-Wostl, 2009). The resource governance regime revolves around the natural resource in focus—for example, how to prevent and sustain natural resources in complex institutional settings (Pahl-Wostl, 2009; Perreault, 2006). The resource governance

regime mostly revolves around technological infrastructure and other human artefacts (Pahl-Wostl, 2009). Secondly, adaptive governance is based upon the adaptation capacity of the stakeholders at times of abrupt change within a certain system. It mostly deals with the adaptation capacity and management of the systems, quite similar to transition management (Folke, 2005); hence it comes under a different type of theoretical paradigm. Moreover, the adaptive governance framework implicitly focuses on a certain network adapting to change, which is not the focus of this study. This study is focused upon the organizational level of management, where the SEP is already in place and the main purpose of this and similar partnerships is to provide an integrated approach to coastal management of marine planning in the SE region, hence avoiding any sudden changes to the marine planning process.

The two above mentioned governance regimes provide the backdrop for a wider governance level of ecosystem management, but they are not appropriate for a framework to provide the organizational level of management. Both the above mentioned governance regimes explain more at an abstract level of management, but this often involves the interactions of various actors, whether for capacity development or managing a particular resource. However, in the network governance framework, the particular focus is upon the stakeholders' involvement and forming a network governance where that particular network will be governed under the mutually constructed organization, or where the network is formed such that each member of the network is connected with any other member of the network, or where there is a highly centralized network in which members of the network are connected through one organization and not independently.

Additionally, even in the resource governance regime and adaptive governance, the involvement of stakeholders in shaping and designing policies is implicitly acknowledged but there is a lack of explanation as to how which that can be done. In Figure 1, the process of ecosystem management under the resource governance regime also shows stakeholder networking around the resource, while network governance provides a similar framework, making such a stakeholder network govern through organizational settings (see Figure 3 below).
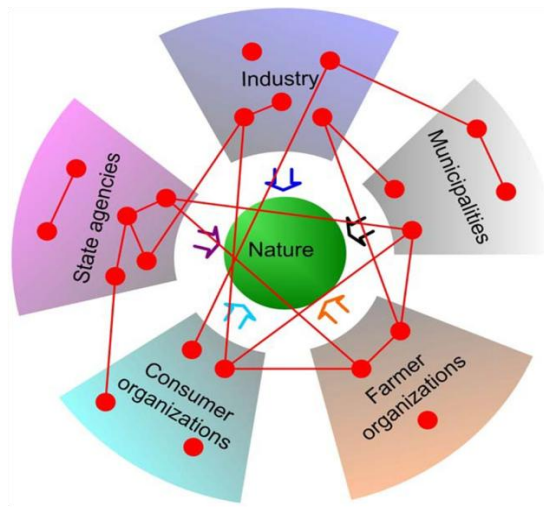
Figure 3. Resource governance regime and network governance (Source: Bodin and Crona, 2009)

Figure 3 represents the different sectors of society which are connected through natural resources. The red dots represent the organizations or persons in each sector and their relational connection with other organizations or persons in other sectors through common resource management.

The literature on NG is now quite extensive. Initially, it was limited to the organizational field of study—i.e. more relevant to corporate business studies—but it now spans other disciplines, which include, but are not limited to, healthcare, strategic management, public administration, communications, sociology and political debates (Proven and Fish, 2007; Sørensen and Torfing, 2016). To date, network governance has mostly been mentioned in terms of market, state and organizational settings due to the requirement for interconnectivity in these fields. Network governance has also entered into academic debates about environmental management, climate adaptation and urban planning processes, including ecosystem services and low carbon transmissions (Ernstson et al., 2010; Juhola and Westerhoff, 2011; Khan, 2013; Lutt et al., 2012; Robin and Pattison, 2011). On the other hand, much of the literature on network governance is dedicated to the simplification, development and evolution of network governance theory (Bevir and Rhodes, 2006; Jones et al., 1997; Klijn and Koppenjan, 2012; Torfing, 2005) and this scholarly literature has been used to develop the conceptual framework of this study.

However, NG has been developed into a fully-fledged theoretical concept (Klijn and Koppenjan, 2012). The metaphoric elasticity of network governance—i.e. its capacity to fit into various disciplines while choosing the selective components of the conceptual framework—is also applicable in political aspects, where formal governmental institutions are absent but governance is nevertheless required. This is true of this study, where informal networking of local governmental authorities is required for integrated marine planning and the need to connect with local stakeholders or members of society.

Forms of network governance

In order to answer the research question—i.e. to analyse the role shift of the SEP with the developing marine planning framework around the Severn estuary—it is important to understand what kind of network is formed around the Severn estuary. In this respect, three forms of network governance have been taken from Proven and Keith's (2008) article 'Modes of network governance: Structure, management and effectiveness'.

Provan and Keith (2008) describe two distinct forms of network governance—i.e. any network 'may or may not be brokered' (p.233). The 'not brokered' network includes any small or large network completely governed by the organizations that comprise the network, and every organization in that network will interact with every other organization: governance of this network is known as shared governance. On the other hand, a network can be highly brokered in its governance and this can occur within or be caused by one organization: that network can be called a highly centralized network. The second distinction regarding network governance is based upon the brokered network. In this form of network governance, the focus is on whether the network is participant governed or externally governed. In participant governed networks, the network is governed by the participants themselves (again shared). In externally governed networks, a single organization takes the role of the lead organization; this type of governance is more similar to a top-down approach. Another form of brokered network is the network administrative organization (NAO). This form of governance is developed 'voluntarily by network members or mandated as part of the network formation process' (Provan and Keith 2008, p.236). The figure below illustrates these three forms of network governance.
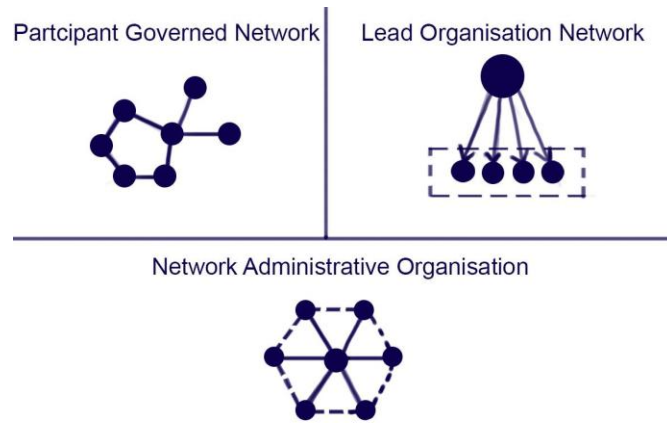
Figure 4: Three forms of network governance (source: Zahra, 2016)

As shown in Figure 4, the participant governed network is governed by network members themselves with no separate or unique governance authority. This form of governance is highly decentralized and shared among its members, whereas the lead organization network can be highly centralized and often has a top-down approach in public policy fields. This form of network governance often bears the cost of network administration and supplies the funding. A network administrative organization (NAO) develops through the members of the network. In the NAO, members of the network still interact with one another (the dotted line represents their links with each other), but the NAO is basically a network broker 'which plays the key role in coordinating and sustaining the network' (Provan and Kenis 2008, p.236). An NAO can consist of a single individual or in the form of a formal organization comprising a project manager and other operating staff. The latter form is 'used as a mechanism for enhancing the network legitimacy; dealing with unique and complex network-level problems and issues; reducing the complexity of shared governance' (Proven and Keith 2008, p.236). Such an administrative body is usually established locally for the purpose of accomplishing particular goals. Therefore, in this study, the third form of network governance has been identified with the Severn Estuary Partnership, since the SEP is a voluntary initiative by local councils around the Severn estuary but holds a separate administrative entity. Therefore, the Severn Estuary Partnership is an NAO.
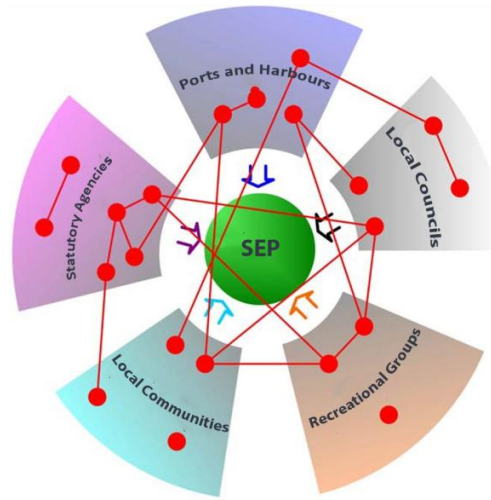
Figure 5: SEP as a network administrative organization (Modified from Bodin and Crona, 2009)

The above figure presents the SEP as a network administrative organization with connections between all Severn estuary stakeholders—i.e. the SEP plays a centralized role, but these stakeholders are also connected directly with each other. Identification of the SEP as an NAO form of network governance is helpful in next part of this work, which will determine the research dimension within network governance that has been taken into consideration and so develop the conceptual framework of this research study.

Two dimensions within network governance and the conceptual framework

Proven et al. (2007) agreed that 'theorizing about networks can generally be thought of as coming from two different but complementary perspectives' (p.482). These two perspectives are an organizational level of analysis and a network level of analysis—i.e. the view from an individual organization in the network and the view from the network as a whole (Proven et al., 2007). In terms of the organizational level of analysis, this is concerned with explaining and simplifying to what extent an organization is embedded in the network. In order to measure organizational embeddedness, six organizational properties have been introduced which are explained below whereas network level of analyses is based upon the 'collectivities' and 'connections' between the organizations forming the network (Proven et al., 2007). However, the

network level of analysis is not the focus of this study; therefore, it has not been discussed in terms of network evaluation.

The two levels of analysis are complementary: they are both therefore essential for understanding the network governance. Moreover, it is important to understand how an individual organization or stakeholder is connected to the overall network. Under the two perspective analysis, the organizational dimension has been taken as the main framework to study the structural embeddedness of the SEP (as an organization) among its stakeholders. The network in this study is the Severn estuary marine planning network (SEMPN). Organizational and network analyses are further broken down into four types of research area, as described in Table 6.

Table 6. Four types of research analysis in network governance (source: Proven et al. 2007, p.483)

Input Focus in Network Governance	Outcome Focus in Network Governance	
Independent variable	Dependent variable	
	Individual organizations	Collectivities of organizations
Organizational variables	1) Impact of organizations on other organizations through dyadic interactions	2) Impact of individual organizations on a network
Relational or network variables	3) Impact of network on individual organizations	4) Whole network and network level interactions

The independent variables in Table 6 are the organization and the network itself. However, the dependent variable is the individual organization or collectivities of organizations in the network. The above mentioned four types of research are illustrated in the figure below.
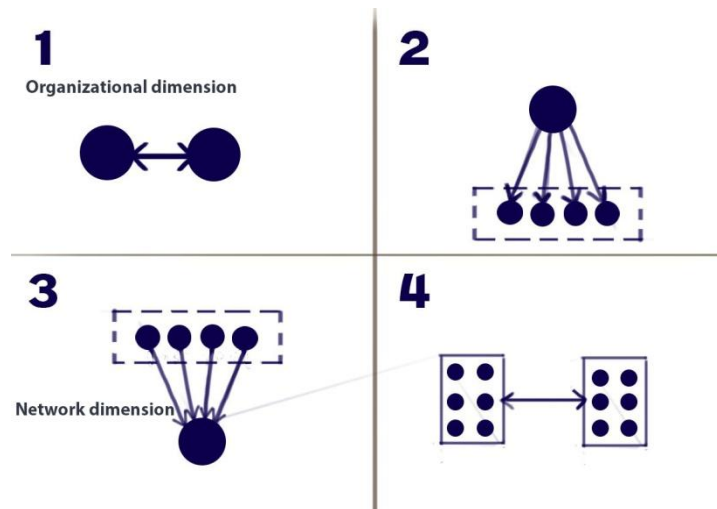
Figure 6: Illustration of four types of research in network governance (source: Zahra, 2016)

In Figure 4, the four sections are explained as follows: (1) the attributes and characteristics of one organization and its relationship with other organizations; (2) the impact of one organization on the network—i.e. how an individual organization affects the outcomes of the network. This is also similar to a lead organization network. The third and fourth sections illustrate the network level of research—i.e. (3) impact of network level structures and processes on an individual organization, which could be from the network or outside the network; and (4) interactions between two different networks and impact of multi-level actions and structures on network outcomes. Therefore, this study has taken the first research dimension to study the impact of the Severn Estuary Partnership on SEMPN. The following section will further elaborate on this dimension of research and introduce the six organizational properties to measure the impact.

Impact of individual organization on other organizations

The focus of organizational research is on the relationships between organizations in the network and such relationships will also determine that what kind of network is it—i.e. a participant governed network, a lead organization governed network or a network administrator governed network (Proven et al., 2007). The aim of organizational analysis is to explain how the involvement of an individual or organization in the network affects its actions and outcomes (Proven et al., 2007). Therefore, these particular analyses will look into the particular organization and its positional embeddedness in the network. Therefore, in this study, two outcomes are expected in terms of analysing the SEP: a) considering the forms of governance, to

establish the current form of governance of the SEP; b) to ascertain how the position of the SEP has changed over time.

In order to identify the position of the organization within the network, Proven et al. (2007) provide organizational properties which can be measured and which have been used in this research. The explanation of these properties has been taken from Proven at el. (2007, p. 484).

- *In-degree and out degree centrality.* Does an organization occupy a central or more peripheral role in the network? The in-degree ascertains the assets (resources, information and clients) coming into the organization), while the out-degree clarifies to what extent information is sent out and how many clients leave the organizations in the network.

- *Closeness centrality.* Is an organization in a structural position to spread assets such as information or knowledge that might reside in any organization in the network? The closeness centrality is based on whether the organization is connected directly with other members of the network

- *Betweenness centrality.* Does an organization serve as a gatekeeper within the network? This looks at maintaining the intermediary links between organizations that are not directly connected.

- *Multiplexity.* What is the strength of the relationships an organization maintains with network partners, based on the number of links (e.g. research ties, joint programmes or shared personnel)?

- *Cliques.* Cliques are clusters of three or more organizations connected to one another. Therefore, at the organization level, an organization's connectedness to a clique may affect organizational outcomes through the ways in which an organization is connected through dyads (a dyad is defined as a connection consisting of two organizations).

In order to identify the shifting role of the SEP, the above mentioned six organizational properties will provide the analytical tool and these five properties will be used to analyse the interviews in Chapter 5.

Conceptual framework

      The figure below illustrates the conceptual framework process.
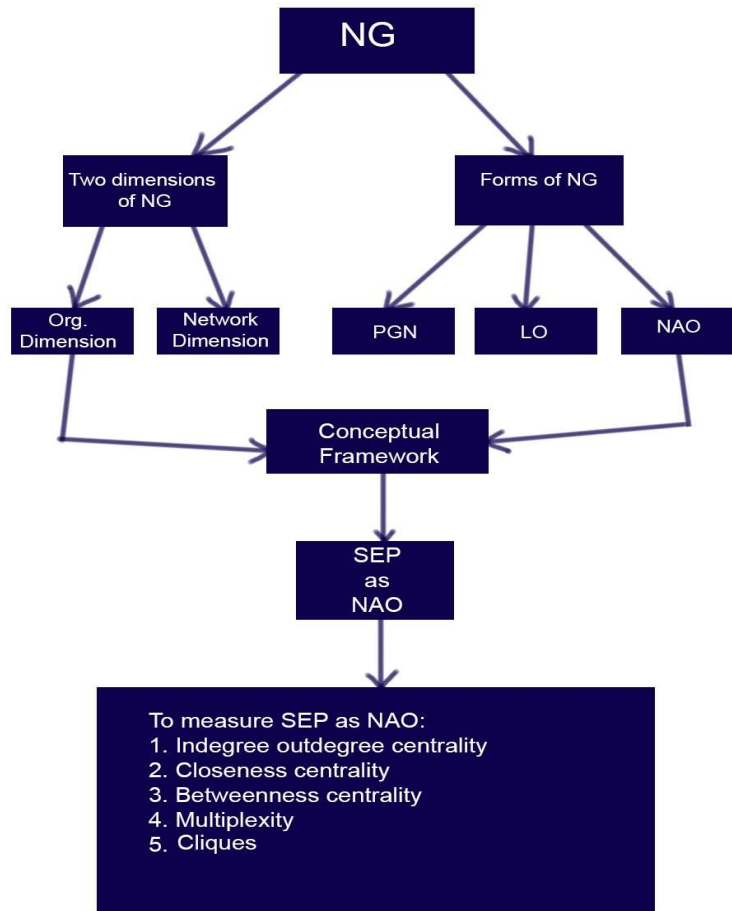
Figure 7: Process of developing conceptual framework from NG (source; Zahra, 2016)

      So far, two main components of network governance have been discussed, these being the three forms of network governance and the two perspective analyses of network governance. Under the forms of network governance, NAO has been identified as most fitting to the Severn Estuary Partnership. In the two perspectives analysis, the two network governance dimensions has been explained, which are organizational and network levels of analysis. Under these dimensions, four research types have been identified: 1) the impact of an organization on other organizations in the network; 2) the impact of an individual organization on the network as a whole; 3) the impact of the network on an individual organization; and 4) the impact of the

whole network on another network. Of these four research types within NG, the first dimension has been selected and identified as most suitable to answer the research question. The third section described the six properties used to measure the impact of an individual organization on other organizations in the network, these being in-degree and out-degree centrality, closeness centrality, betweenness centrality, multiplexity, broker relationships and cliques.

CHAPTER 4: METHODOLOGY

This chapter will address the methodological choices made for the study of the SEP from the two perspectives analysis of network governance. This chapter first explains the philosophical standing of the research: this section will be based on explaining, specifying and categorizing the research in terms of philosophical standing—i.e. epistemology and ontological considerations. The second part of the chapter will discuss and justify the research strategy and research design for studying the organizational characteristics of the SEP under the disciplined-configurative approach, a case study approach taken from Herry (2000), and the selection of the case study. Third, it will explain the research methods selected to collect data (semi-structured interviews, grey literature and official SEP documents). The fourth section will explain the data analysis technique—i.e. codification, while the last section of the chapter will elaborate on the limitations of the data collection methods and ethical considerations.

Philosophical approach of the study

i)   Exploration of the nature of the relationship between network governance theory and the SEP is based on a deductive approach—i.e. key points have been taken from the network governance theoretical framework, which are the two perspectives analysis (organizational and network level) and the conceptual framework has been developed to reframe the role shift of the SEP as a coastal partnership.

ii)   The deductive process in this study is based upon the following steps taken from Bryman (2016):

Introduction → Research question → Conceptual framework → Hypothesis → Data collection → Data analysis → Results/Discussion → Conclusion

The deductive process within the terms of this research is as follows:

Selected NG concepts → Research question—i.e. to analyse the role shift → Semi-structured interviews/grey literature (published SEP reports, plans, strategies, Welsh marine and English official docs, and relevant academic discussions over CPs) → codification and categorization of data → Results → Discussion of results from data analysis → Answer the research question.

iii)   The philosophical standing of this research considers the research paradigm, which is based on three philosophical approaches—ontology, epistemology and methodology—which are defined in the following table 7.

Table 7: The philosophical approach of this research

Research Paradigms	Research Linkage
Ontological considerations (i.e. nature of reality) → Two approaches (i.e. objectivism and constructionist approach).	This research has a constructionist approach as the SEP has been taken as a coastal partnership, which is conceptualized as a negotiated partnership by various Severn estuary stakeholders in order to work towards the common ICZM goals.
Epistemological considerations (i.e. concerned with acceptable knowledge in the discipline). This is further divided into positivism (natural science-based method of studying social reality) and interpretivism (which requires grasping the subjective meaning of social reality).	Regarding the epistemological considerations of this research, it is based upon an interpretivist approach, where the focus of this study is to analyse the role shift of the SEP within the conceptual framework of network governance, thus giving SE marine planning the subjective meaning.
Methodology is concerned with what research methods will be applied to collect data and then which techniques will be used to interpret the collected data and the choice of method.	Semi-structured interviews have been conducted in order to collect data. However, semi-structured interviews are not considered enough to support and answers the questions posed. Therefore, secondary data have also been considered in terms of analysis.

Research strategy

This research uses a qualitative research strategy. As discussed earlier, the research strategy is based upon the question of a role shift in the SEP and the conceptual framework of network governance (i.e. a deductive approach). Again, it is recognized that although the results extracted from the study are expected to be two-fold, in one way it will test the NG conceptual

framework, which is explored in Chapter 2, and will explicitly answer the research questions. Moreover, the following section will provide the justification for choosing a case study approach, while looking at the relationship between the theory and a case study research design.

Research design

The research design basically provides the framework for the collection of data and analysis of the data (Bryman, 2016). This research encompasses a single embedded case study design. The choice of a discipline-configurative case study design (Eckstein, 2000) will be discussed in detail.

Disciplined–configurative study

The research design of this study is based upon a disciplined-configurative study—i.e. the interpretation of the case study should derive from theories (Eckstein, 2000). The logic behind this argument is that 'when theories cannot be derived from case interpretations, such interpretations should be derived from theories' (Eckstein 2000, p.134). This strategy has also been applied in this study: an in-depth analysis of the SEP might not provide rich results compared to when the conceptual framework of network governance is applied. Therefore, the conceptual framework of network governance will guide the analysis in the next chapter. However, it is also not compulsory that the results of this research answer the questions posed in terms of the developed network governance framework; rather, there is the possibility that during the analysis new information is discovered which may not necessarily conform to the conceptual framework under discussion. However, that could also be taken in a positive sense, that results also depict the neglected areas of the network governance when applied in the context of coastal partnerships and further research could be considered in such a respect. Therefore, the application of network governance can also have a feedback effect on the theorizing.

Selection of case study

The first reason for the selection of the Severn Estuary Partnership is based on the researcher's personal experience of working with the SEP. That could also be taken as the starting point for this research. The SEP is a small organization, yet it has developed strong links among various Severn estuary stakeholders over the past two decades. This research examines the developing marine planning process around the Severn estuary and how this has brought

about change in the working of the SEP, and thus analyses the role shift with the SEP. There are a number of scholarly debates which mention the positive influence of self-developed coastal initiatives and their positive outcomes; however, there is little research in terms of the wider theoretical and empirical outcomes of these initiatives. Those scholarly researches are based upon empirical analyses. However, none of them has applied or taken the perspective of considering these initiatives under the network governance framework. Therefore, with the application of the network governance conceptual framework, this research will provide novel results, thus strengthening the position of coastal partnerships in developing marine planning processes. However, this research has undertaken the in-depth study of the Severn Estuary Partnership within the wider framework of developing marine planning in Wales and England. The SEP holds has representation from local authorities in both England and Wales. As explained in Chapter 1, the marine planning approach differs in Wales and England, which has implications for the Severn estuary region as well as for the Severn Estuary Partnership. Therefore, the SEP outreach is cross-border in nature, which makes it unique yet challenging in terms of the management and engagement of stakeholders from both sides of the estuary. Additionally, as the SEP is a cross-border partnership, it is important to note that the results derived from this case study may be more suitable to apply to coastal partnerships which have cross-border management and stakeholder engagement—for example, the Solway Firth coastal partnership, which comes under the Scottish coast and the English coast.

To approach the diverse and changing marine planning process in England and Wales, the conceptual framework of network governance will serve as the backdrop to this study. Moreover, elements of longitudinal design have also been incorporated in order to detect changes in the working of the Severn Estuary Partnership. This will be done through archival information and changes in the various governmental bodies, which have implications for marine planning both in England and in Wales. In terms of longitudinal design, the starting point will be the year of the SEP establishment, which was 1995 (SEP, 2012). The research analysis will be divided into two main periods, based on the formal initiative of marine planning from the UK national government. Therefore, the analysis will be divided into two main parts: the first part is from 1995 to 2009—i.e. starting from the period of the SEP establishment and ending in 2009, when the Marine and Coastal Access Act was passed; the second part will focus on after the formal marine planning initiative, from 2009 to 2016.

Research methods

The research design of this study is based upon semi-structured interviews and analysis of official SEP business reports and documents. The choice of semi-structured interviews instead of structured interviews is because it provides sufficient flexibility to approach different respondents differently while still covering the same areas of data collection. In connection with this study, the selection of interviewees is based upon their organization's level of the linkage with the SEP. The closer the interviewee organization's connection and work with the SEP, the more chance there is of gaining better insights into the partnership. However, as this study examines various stakeholders' dependence on the SEP, so preference for interviewees will be given to governmental officials, as this will provide more useful and relevant insights into the governance instruments working with non-statutory partnerships. Secondly, it is also been considered that interviews with the management staff of the SEP will be beneficial in providing their view of the partnership working with the governmental authorities.

Collection of data

The data collection method is based on two categories—i.e. primary data and secondary data. The primary data derive from interviews with the three main statutory authorities responsible for marine planning in the Severn estuary region. The data were collected through semi-structured interviews conducted with the SEP chairman, two interviewees from the MMO, one interviewee from the Welsh government (marine officer, fisheries division), one interview with an official from Natural Resource Wales, who is also on the management committee of the SEP and one interview with Natural England official. Interviews were conducted in April and May and start of June 2016. Secondary data for the research derive from three types of document: grey literature from the MMO, their south-west marine plan, and the Welsh government consultations over the Welsh National Marine Plan (WNMP). Other relevant documents include the coastal handbook, the SEP Strategy 2001 and the SEP Business Plan (2001-2006) (2010–2016). Moreover, various governmental websites were consulted to identify changes in the marine planning process. Analysis of the SEP strategy as elaborated in the business plan will provide an understanding of the SEP working over the period in question and how the SEP role has altered.

The second method for collecting data in this research is the analysis of annual reports of SEP management meetings and other stakeholder management reports. In this regard, the SEP strategy for the Severn estuary region holds significant importance. The SEP strategy is based upon principles of sustainable management and development of the Severn estuary region. The first official strategy was published in 2001 and, recently, this strategy has been under review. Therefore, the 2001 SEP strategy and the reviewed strategy will provide quite significant insights for analysing the concepts of sustainability governance.

Semi-structured interviews

Semi-structured interviews were conducted with a Welsh government official, along with two interviewees from the Marine Management Organization and one from the Severn Estuary Partnership. The main goal of the interviews was to get the interviewees' point of view regarding partnership working with SEP. Some interviews were carried out face to face and some were conducted over the telephone. In the interviews, questions were asked concerning their opinion of stakeholder engagement in marine planning through the SEP. With three of the interviewees (Welsh government official and MMO representatives), questions were asked about the Welsh and English side of marine planning consultation around the Severn estuary region, how often they consulted the SEP, and if they were also members of the SEP management group. The interviewees also elaborated on matters concerning their organization's objectives and the aims of the stakeholder engagement. Secondly, in one interview, the SEP was referred to as a strategy. This is because when the SEP established in 1995, it was first called the Severn estuary strategy by its stakeholders and members. Therefore, this provides the researcher with an opportunity to better understand the mechanism of stakeholder engagement. With regard to the Severn Estuary Partnership, a questionnaire was designed to gather opinions on stakeholder engagement.

Data analysis

The analysis of data in this research is based on manually giving codes to the transcribed interviews. These codes were based upon the conceptual framework discussed in Chapter 2—i.e. the six organizational characteristics derived from the organizational level analysis under network governance. The process of data analysis first describes the coding categories with regard to the SEP at the organizational level in network governance. The six elements to measure organizational characteristics—as discussed in Chapter 2—are as follows.

1. **In-degree centrality and out-degree centrality.** In-degree centrality looks at how many new stakeholders are coming to the SEP, while out-degree centrality considers how many stakeholders are inactive or have left the SEP.

2. **Closeness centrality.** Shortest path for communication of stakeholder with the SEP.

3. **Betweenness centrality.** The SEP as a gatekeeper between two stakeholders.

4. **Multiplexity.** Number of joint programmes held within the SEP.

5. **Cliques.** Clusters of three and more organizations contained within the SEP.

The above mentioned elements have been analysed in the transcribed interviews. The process of data analysis is as follows.

Process of data analysis

The process of data analysis is based upon coding, as described above. The interviews were first transcribed into a text word document; then, using NVivo—software to analyse the qualitative research data—the transcribed text was introduced into the software and the text given codes (as shown in the figure below). The codes are consistent with the six above mentioned organizational properties. Each interview was individually read in the software and suitable text selected and coded using the aforementioned codes. In NVivo software, the code selection is called selective text, and the codes which are mentioned above in the table are called nodes.

When the text is selected, the software provides the option of code selection; then, in that code selection, it gives two more options—i.e. code selection at the existing node and code selection at a new node. Moreover, it is important to mention that the six nodes defined in the software were not explicitly visible in the text, but using the description of these nodes from the table above facilitated the analysis of the interviews. Furthermore, those six nodes were repeated in the interviews and, where appropriate, a new node was created—for example, in the interview text, one interviewee emphasized the SEP as a facilitator. Therefore, this was taken under the SEP centrality as a new node. Additionally, due to the limitation in visual analysis of the data, the relationship of the SEP with two interviewees' organizations is explained diagrammatically (Figure 3).

In the figure below, the selection of the text in the form of code selection and the allocation of the node (code category) is explained.
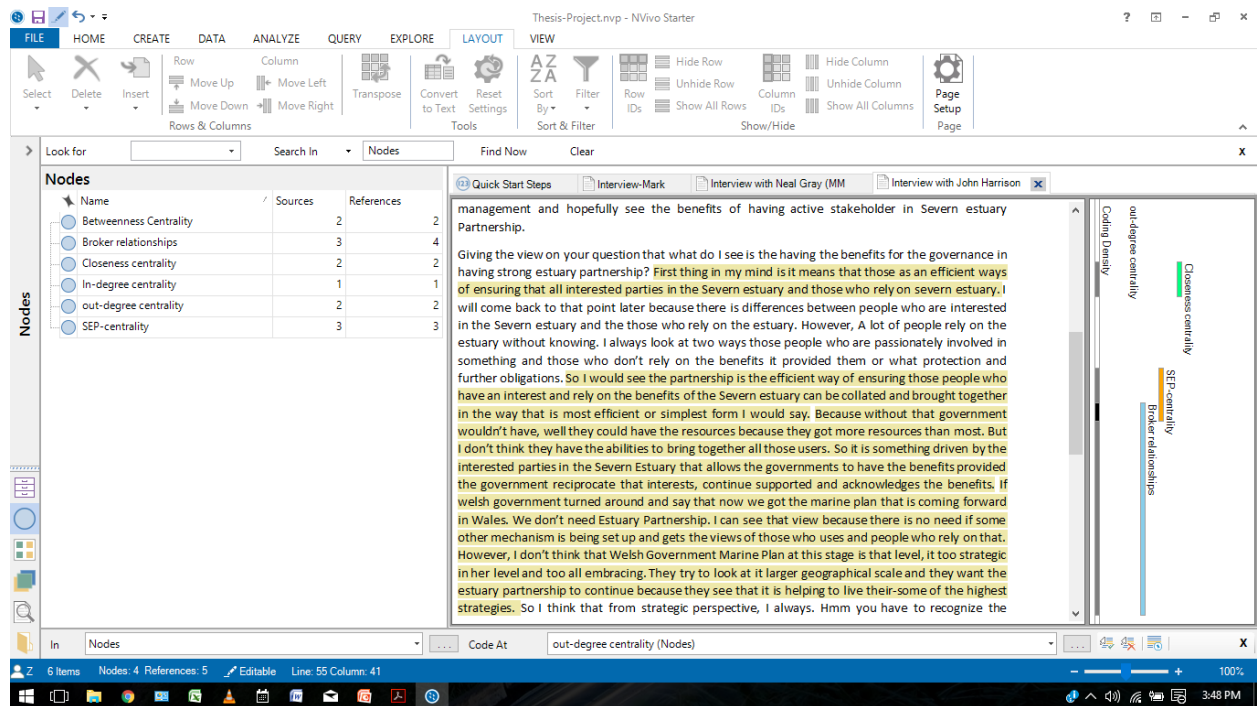

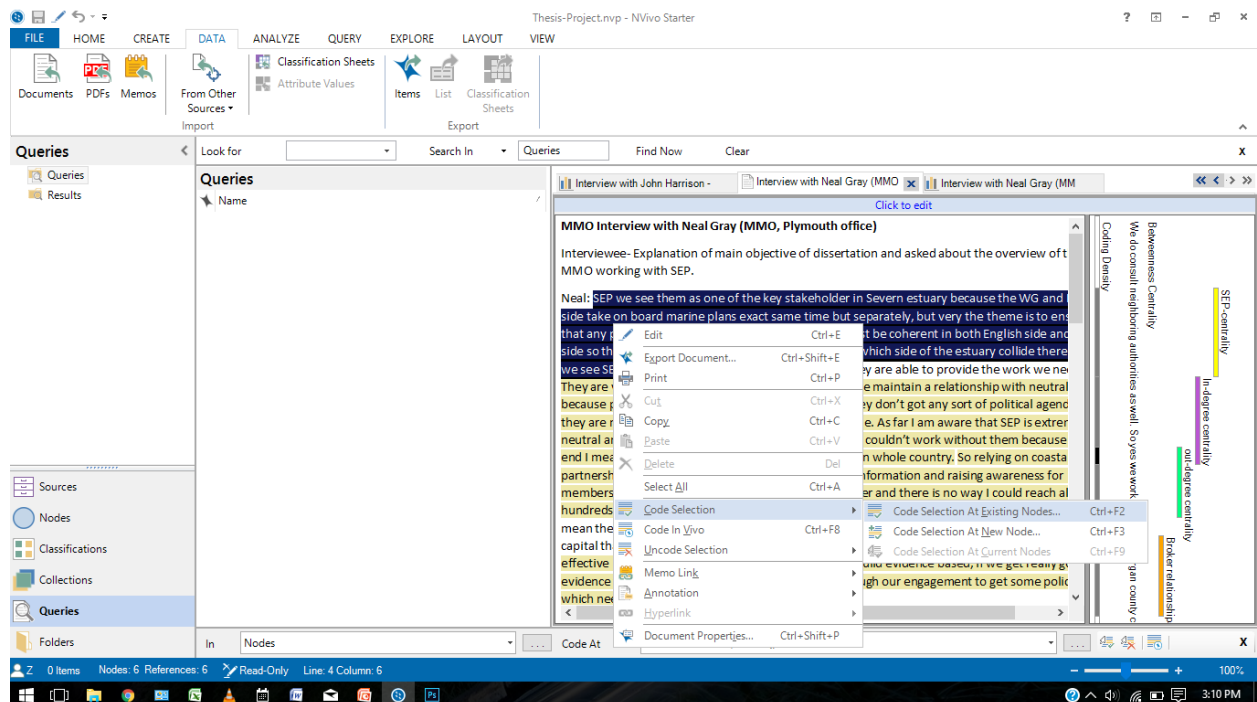Figure 8: Six nodes have been created (see left side of diagram)

Figure 9: Explanation of code selection in NVivo

Using the above method, all interviews were given nodes (the six properties of the organizational analysis). Therefore, using the results derived from the interviews and secondary sources, the empirical data were analysed. This analysis is presented in Chapter 4.

Limitations of the research methodology

In terms of the research method and the semi-structured interviews, there were certain limitations which the researcher had to face. One of the main limitations was the location of the interviewee. For example, for some interviewees, face to face interviews were not possible because of the distant location, as their office was based in Scotland. That was the case with an interviewee from the MMO and another official whose office was in Plymouth. Therefore, interviews with these two officials were conducted over the phone. Additionally, the time constraint was a key factor during the process of data collection—due to various interviewee commitments, they were not able to allocate sufficient time to the researcher. Most of the interviewees preferred interviews over the phone. The scale of the research—i.e. a single case study—might limit the generalizability of the outcomes of this research in the sense that the analysis is based upon the two different marine planning processes of Wales and England.

Ethical considerations

This study considered all the ethical issues relevant to data collection and no harm was caused to the interview participants. With regard to the semi-structured interviews, all participants were informed in advance and asked for their permission for the researcher to record the conversation in order to analyse the information later. Interview participants were also informed that if they chose not to answer any question and that would not affect the interview process.

CHAPTER 5: ANALYSES

The first section of this chapter has discussed the developing marine planning framework in England and Wales. The section also identified the necessary stages of the marine planning process both in England and Wales which requires the stakeholder engagement. Second section of the chapter has used the five organizational properties identified in chapter 2 to analyze the shifted in Severn Estuary Partnership working due to emerging marine planning on both sides of the estuary.

Emerging marine planning in England and Wales

Marine planning in UK holds two main components; first Marine and Coastal Access Act (2009), this act actually sets the bases to developed marine plans for UK inshore and offshore sea areas. Secondly, in order to develop framework for preparing marine plans and taking decisions affecting the marine environment, Marine Policy Statement has been introduced in 2011. The devolved administrations of Scotland, Ireland and Wales have jointly adopted the Marine Policy Statement (MPS 2011, p. 3). This policy statement basically provides high level policy objectives in which marine plans will be develop, implemented, monitored or even amended. It will also ensure that there is proper consistency in marine planning across UK marine areas (MPS 2011, p.3). Furthermore MPS will 'supports and facilitates the formulation of marine plans' based on these objectives; the promotion of sustainable economic development; mitigation between climate change and ocean acidification; and promotion of the societal benefits of marine areas. It also sets marine authorization systems, such as marine licensing. This policy statement requires that 'all marine plans must be in conformity with MPS in effect in the marine plan area, unless relevant considerations indicated otherwise' (MPS 2011, p.4)

To comply with the Marine Policy Statement, England identified its marine areas into 11 marine plan areas. In connection with this, England has published its east inshore and east offshore marine plans, which cover the eastern coastal areas of England. On the other hand, the Welsh government is in the process of developing single Welsh National Marine Plan which covers all of Wales' coastal areas. In Wales, Welsh ministers are the marine planning authority for Welsh inshore and offshore areas.

There are various requirements in marine policy statement which indicates that marine planning authorities need to incorporate marine or coastal stakeholders in their marine plans' developing process. These requirements includes that 'in developing, monitoring and implementing a marine plan, the marine planning authority will work with a wide range of

planning and regulatory organizations with direct or indirect involvement in marine planning at national or individual marine plan areas', the policy statement also requires that 'marine plans should reflect and address, the range of activities occurring in and placing demands on the plan area'. Hence, these are the some of the requirements placed on marine planning authorities to consider while developing marine plans. These requirements basically indicate that no marine plan would be complete without stocktaking of issues and evidence from local or relevant stakeholders. Therefore, it is the requirement of marine policy statement to consult stakeholders in relevant marine plan area. Hence, MMO and WG are using the coastal partnerships which are operating in various coastal areas on England and Wales. In this regard, MMO and Welsh Government[8] is following 12-stage process on how marine plan should be develop. The Figure below exhibits the 12 stage process in England and Wales;

Figure 10: Stages of marine planning process (Source: Government of UK, 2014)

The above mentioned stages have been followed both in England and Wales in order to develop marine plans in respective coastal boundaries. The key to all stages of marine planning process is

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[8] although slightly different but almost all stages are identical

the stakeholder engagement. In terms of plan select area i.e. the first stage, 'MMO will consider how much information is available in the area' (Government of UK, 2014). In this regard, MMO explicitly mentioned that existing coastal partnerships or group of interested people and organizations' will be given due importance. In Wales, WG has formed the Welsh Government Stakeholder Reference Group (WGSRG). The WGSRG has been devised to provide the early engagement with stakeholders during the marine planning process and to advise Welsh Government to assist on marine planning process. Several organizations and associated are part of this reference group including two coastal partnerships as well which are Pembrokershire Coastal Forum and Severn Estuary Partnerships. This means that SEP will assist WG in various stages of WNMP development process. Additionally, all the sustainability appraisal stages of marine planning require stakeholder engagement.

Additionally Defra description for MMO marine planning process also states that 'no credible marine plan can be produce by the MMO in isolation. Marine plans should be on national, strategic and local goals and objectives for the plan area' (DEFRA 2011, p. 62). Therefore, it is statutory obligation on MMO to consult and engage with various local communities, academics, scientists, industry and other marine regulators in specific plan area. In this regard, DEFRA description of England marine planning process acknowledges the contribution of existing coastal partnership and suggested that 'wherever appropriate, the MMO should utilize the services of existing mechanism like these (coastal partnerships) in order to achieve economies of scale and most importantly, to benefits from the expertise, learning and experience which they can provide' (DEFRA 2011, p.63). In this regard, Severn Estuary Partnership is facilitating the MMO to engage with stakeholders in Severn estuary region through joint workshops. Hence, both marine planning regimes have considered engaging with SEP in order to connect with SE stakeholders. Therefore, to study that how has the SEP facilitator role increased the developing marine planning in both sides of the estuary, following organizational elements taken from network governance framework has been studied. The analysis has incorporated the useful insights from the interviewees during the data collection procedure.

Analysis SEP organizational properties
As mentioned in theoretical framework that in order to analyzed SEP in terms of developing marine planning process, five organizational properties has been identified and applied on MMO, WG and then their connection with SEP for stakeholder engagement. These organizational

properties are *in-degree and out-degree centrality, closeness centrality, betweenness centrality*, *Multiplexity and clique*. The detail analyses of each these properties has been applied on MMO and WG with Severn Estuary Partnership. It is also important to note that an analysis is not purely based on MMO-SEP-WG stakeholder engagement working relationship but it also identifies the significant relationship of the SEP with estuary wide statutory and non-statutory stakeholders.

1) In-degree and out-degree centrality of SEP

In network governance conceptual framework, the in-degree and out-degree centrality of network governance organization is based on the number of ties an organization maintains with other organizations. The calculation of in-degree centrality is based on the information, resources and clients coming into the organization (Provan et al. 2007, p.484). Therefore, in terms of marine planning process in England and Wales, both responsible authorities in England (MMO) and Wales (WG) are the new regional agencies which have contacted SEP. in this connection, official from MMO mentioned in interview that;

'*We see SEP as very important. They are in place and they are able to provide the work we need'.*

Severn Estuary Partnership has exhibits its intention to 'work closely and plan jointly for any plan areas covering the Severn estuary' (Strategic Business Plan 2011, p. 17). Therefore, in terms of in-degree centrality, two new organizations have joined the SEP in order to engage with SE stakeholders. The in-degree centrality of SEP is based upon the engagement of MMO and WG with SEP. Figure11 illustrates the in-degree centrality of SEP. It depicts that SEP is engaged with various stakeholder around estuary, forming the network level working relationship which number of Severn estuary stakeholders.
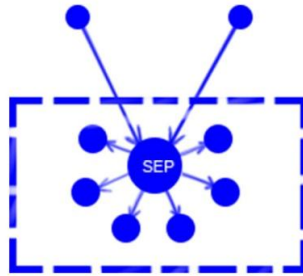
Figure 11: In-degree centrality of SEP (Source: Zahra, 2016)

Figure 11 illustrates the MMO and WAG as outside agencies, connected with SEP for stakeholder engagement process of marine plans. On the other hand, SEP already holds strong relational ties with number of non-statutory and statutory organizations. However, in terms of information or resources approaching SEP is not very visible in MMO-SEP-WG relationship except that two agencies have joined the SEP.

The out-degree centrality is based upon the resources, information and clients sent out to other organizations. However, the data collected from interviews hasn't informed much on out-degree centrality of SEP i.e. if any stakeholder has ceased to maintain contact with SEP on either regional or local level. In terms of developing marine process there is no organization that has stopped working with Severn Estuary Partnership instead as mentioned before two new; one regional and national level agency has joined SEP. Moreover as mentioned before, in terms of consultation process MMO will use the direct contacted to engage with stakeholders, but it will also used the third party sources to send out relevant information. However there is little evidence that exhibits that SEP has also used as out-degree centrality. There is probability that it when the marine planning process will develop further it, SEP would be used as out-degree centrality organization for MMO and WG.

2) **Closeness Centrality**

Closeness centrality of the organization is based on 'shortest path' i.e. an organization or agency maintains with other organizations in the network. This means that statutory agencies like MMO or WG 'way of connecting' with non-statutory organizations or agencies in Severn Estuary region. The question has been asked from interviewees about if they also maintain individual or

direct links with non-statutory stakeholders, other than SEP. The following responses have been recorded in this regard;

'Certainly I myself is an engagement officer and there is no way I could reach all of the hundred members each individually' (MMO official).

'Yes I can engage with stakeholder or local councils individually but that would be really difficult and it's like I have to find stakeholders or relevant person by myself. However, SEP already knows this in advance' (Natural Resource Wales official)

'Because without that (Partnership) government wouldn't have, well they could have the resources because they got more resources than most. But I don't think they have the abilities to bring together all those users. So it is something driven by the interested parties in the Severn Estuary that allows the governments to have the benefits provided the government reciprocate that interests, continue supported and acknowledges the benefits' (SEP Chairman)

Therefore, it has been deducted from interviews that MMO and WG way of connecting with Severn estuary stakeholders is only through SEP. MMO or WG could engage with stakeholders directly other than using SEP but it has been observed that reaching out large number of stakeholders simultaneously has been perceived difficult among interviewees. Hence they rely on Severn Estuary Partnership services for stakeholder engagement. The closeness centrality of the SEP, statutory agencies and non-statutory agencies has been explained in Figure 12;
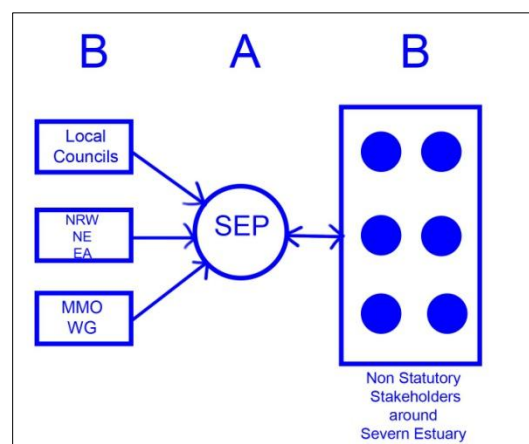

Figure 12: Direct connections between SEP and stakeholders (Source: Zahra, 2016)

Figure 12 exhibits the direct connection of SEP with statutory stakeholders (including MMO and WG) and non-statutory stakeholders i.e. A is connected with B through direct connections. Hence SEP is connected with statutory agencies in both England and Wales directly as well as it is also connected with non-statutory stakeholder of SE region as well. The direct connection of SEP is based on meetings, through SEP website, annual forum and Joint Advisory committee which include meetings with non-statutory organizations. In terms of SEP connections with statutory organizations are mostly based on management group meetings. Regarding Severn Estuary Partnership engagement, one of the interviewee from Natural Resource Wales official, who is also the member of SEP management group, said that;

'If I want to connect or require some information, I contact Lucy (SEP current project manager) through email. Let's say for coastal pollution, Lucy knows that which organizations in Severn estuary region are already working on this issue (Natural Resource Wales official, 2016)'

The analyses of closeness centrality of SEP i.e. the *'shortest path'* SEP maintained with SE stakeholders is evident through the figure 12. However, it has been concluded that because SEP maintains these direct links with SE stakeholders that's why MMO and WG get in touch with the partnership. This shows that SEP as a coastal partnership is a *'one stop shop'* for statutory agencies. Additionally, it exhibits the SEP as a facilitator organization has been considered especially among statutory agencies. Before the national marine planning process begins, SEP was a facilitator organization. However, since MMO and WG have also joined the SEP, it has increased it significant importance among statutory agencies.

3) 'Betweenness' centrality

'Betweenness' centrality of the organization in network governance is more similar with closeness centrality. However, in closeness centrality the focus is on the 'shortest path' of the organization, more explicitly on the *'direct and indirect links'* an organization maintained with other organizations in the network. In terms of betweenness centrality of the SEP, which could measure indirectly, MMO and WG have the statutory obligations to inform and work in partnership to ensure that both sides of the marine plans are consistent with each other. Moreover, Schedule 6 of the Marine and Coastal Access Act (2009) requires marine planning authorities to inform other relevant planning authorities as well. It states that

"A marine plan authority which decides to prepare a marine plan for a marine plan area must, before beginning to prepare the plan, give notice of its intention to do so to each of the related planning authorities.1) any marine plan authority whose marine planning region adjoins or is adjacent to the marine plan area;2)any local planning authority whose area adjoins or is adjacent to the marine plan area;3) any responsible regional authorities whose region adjoins or is adjacent to the marine plan area" (MCAA, 2009)

Therefore, in order to comply with MCAA (2009), MMO and WG have utilized the SEP to engage with each other as well as local statutory and non-statutory authorities in order to develop bring forward joint marine plan whereas, SEP has direct links with regional agencies and non-statutory agencies. However, MMO and WG have indirect relationship with SE stakeholders and through SEP.

Therefore, the direct connections of SEP with both sides of the types of stakeholder (non-statutory or statutory) the partnership also works as an intermediary organization as well. Data collected from semi-structured interviews, in which interviewee has implicitly acknowledges the central role of SEP

'the partnership is the efficient way of ensuring those people who have an interest and rely on the benefits of the Severn estuary can be collated and brought together'(SEP chairman, 2016).

During the interviews from the MMO official, it was realized that not only SEP maintains intermediary links between local authorities and non-statutory stakeholders but also among regional agencies as well. SEP basically helps both statutory agencies from England and Wales to coordinate their plans and policies in Severn estuary region. Official acknowledged that;

'SEP we see them as one of the key stakeholder in Severn estuary because the Welsh Government and English side take on board marine plans exact same time but separately, but very theme is to ensure that any policy we come forward in Severn estuary must be coherent in both English side and Welsh side. So there are no readily different policies depending which side of the estuary collide there on' (MMO official).

4) Multiplexity of SEP
The multiplexity of an organization in network governance is based on multiple connections an organization maintained with other organizations i.e. joint programs, referrals and shared

personal (Provan et al 2007, p. 484). In other words multiplexity is referred as the ability of an organization to be flexible and sustain itself with in the network i.e. if one connection is dissolved or has been finished then there should be other options which are available to connect. Multiplexity is considered as 'an indicator of strength and durability of an organization's links because they enable the connection between the organization and its linkage partner to be sustained even if one type of link is broken' (Provan and Kenis 2007, p.484).

In terms of marine planning process in Wales and England, SEP has facilitated the stakeholder engagement workshop between Welsh Government, Maine Management Organization (MMO) and estuary Wide stakeholders. This has been considered as one of the coordination services that SEP has provided in emerging marine planning process of England and Wales. The joint workshop was based on 'Wales and England Cross-border Marine Planning workshop'. The aim of the workshop was to discuss the approach to cross-border issues to inform marine planning compatibility and integration. However, on individual bases Welsh Government has been involved with Severn Estuary Partnership for collaborated projects. So far two projects have been delivered from SEP to Welsh Government to assist in developing marine planning process.

The first project was based on 'Evaluation of terrestrial plans to inform land-sea integration-Welsh Study 2015'. The study examines the extent and nature of coastal policy within the terrestrial planning policy in Wales and cross border areas (including Severn estuary) in order to evaluate the extent to which existing terrestrial effort is aligned with emerging marine planning policy. In connection with marine planning process, it is also statutory obligation on responsible marine planning authorities to consult land-use plans. Another significant project delivered by SEP in collaboration with Pembrokeshire Coastal Forum to Welsh Government (Marine and Fisheries Division) was 'Wales Coastal Directory Project 2015' also in terms of assisting marine planning process in Wales. The project 'undertook the review of Wales' coastal and marine networks and forums to aid Welsh Government with the dissemination of information related to the Welsh National Marine Plan (WNMP)' (Welsh Government, 2015). On the other hand, MMO hasn't approach SEP for any marine planning relevant 'advisory help'. However, as the south west marine plan in England is the process of taking evidence and issues relevant to areas. It has conducted number of workshops on different location. In which one of them (mentioned above) were through Severn Estuary Partnership. However, the information of other evidence

and issue stocktaking workshops has been disseminated through SEP to the relevant stakeholders. Other than that no combine initiative has been initiated so far.

Moreover in terms of Multiplexity of SEP itself, it has developed number of services since its formation. It provides two types of services so far i.e. co-ordination services and collaborative projects. The detail of coordination services and collaborative projects has been taken from SEP business plan (2006-2009).

The collaborated projects of SEP are based upon the estuary-based projects which require input from more than one organization/stakeholder other than SEP. In this connection, SEP has delivered number of projects from European Commission Interreg Programme. These are COASTATLANTIC Project (2003-2006), COREPOINT project (2004-2008), DeltaNet (2010-2013) and IMCORE (2008-2011). These projects have been accomplished through involvement of personnel from SE local authorities as well (SEP business plan 2006, p. 6).

The coordination services of the SEP are based upon the following initiatives;

- Joint Advisory Committee (JAC), the role of the JAC is based upon bringing individuals from local councils, statutory agencies and any interested person or organizations to contribute on estuary wide management matters and policies. The JAC used to have twice yearly meetings which are now decreased to one annual meeting.
- Severn Estuary Management group meetings-Quarterly, to review with the projects, advise on the service development and oversee the allocation of the resources
- Severn Estuary Forum- Annual forum, initiated in 2006 and main purpose of the forum is bring together estuary wide stakeholders and interested parties to share information and debate estuary related issues.
- Severn Estuary Gateway (SEG), access to estuary related websites. The Severn Estuary Gateway provide access to other coastal groups in Severn estuary. For example, ASERA and SECG.
- Who's Who Guide- Internet based directory of organizations

However, all these above mentioned service has been delivered among local councils and non-statutory stakeholders. Sep also maintain its communication services which are

Geographic information systems-Digital map resources, Severn Tidings Newsletter- Annual publication of the newsletter and E-news Bulletin-Monthly.

5) Cliques of SEP

Clique in the network governance framework refers to the 'clusters of three or more organizations connected to one another' (Provan et al.2007, p. 484). The calculation of clique is based on the connection between organization and such clusters. Furthermore Provan et al. (2007, p. 484) argued that organization's connectedness to a clique may affect organizational outcomes in ways that are different when the organization is connected through dyad[9]'. This mean that organization if connected with one or more cluster of various organizations would exhibits the level of organization's embeddedness in the relevant network. In terms of developing marine planning process on both sides of the estuary and MMO-SEP-WG working relationship also exhibits the formation of a new clique. However, SEP is more involved with Welsh Government in terms of helping in stocktaking evidence in Wales i.e. Welsh Coastal Directory as compared to MMO.

Additionally, in Wales side of marine planning process, SEP is the member of Marine Planning Stakeholder Reference Group (MPSRG). The role of MPSRG has been define as 'critical friend of the Welsh Government throughout the marine planning process' (Welsh Government, 2015). This reference group will 'act as conduit between the marine planning team and wider stakeholder network where appropriate and it will also communicate with stakeholder network when WG consult them and help us to engage where appropriate' (Welsh Government, 2015). Therefore, SEP is formally involved with Welsh side of marine planning. However it is significant to note that, due to variety of stakeholder which would be affected by marine planning process, both MMO and WG has develop working relationship with various actors as well. For example, Natural England (From England) and Natural Resource Wales (From Wales) are also the part of the marine planning process. In this regard, Interviewee from Natural England has mentioned that they are working with MMO in order to take their view forward;

'Because MMO is taking several marine plans simultaneously, like northwest marine plan and southwest marine plan, so they are responding to both together. We comment on south

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[9] In terms of organizational relations, dyad is defined as the relations between two organizations

west marine plan, so they lose comments on plans. This also leads to comments on all plans'
(Natural England Official).

Natural Resource Wales (from Wales) is also involved with marine planning process in Wales as well. The interviewee from NRW mentioned that;

'there is staff within Natural Resource Wales that is helping Welsh Government for Wales National Marine Plan' (Natural Resource Wales Official)'

However, in terms of SEP 'clique' connection, it maintains strong connection with Welsh government as compared to MMO. Until now, Welsh government and Marine Management Organization has worked together i.e. in formed one workshop, for joint planning and stocktaking of issues from Severn estuary region. This joint workshop has been conducted through SEP. Nevertheless it is only evidence that exhibits that WG, MMO and SEP has work together. Hence forming the new clique, in which SEP provided facilitation to both planning authorities. On the other hand, SEP is working with both marine planning authorities separately as well.

Apart from MMO and WG clique connection, SEP maintains its connection with several non-statutory advisory bodies in Severn estuary region. Additionally, SEP provides secretariat services to at least three groups which have an estuary-wide remit. These include Association of Severn Estuary Relevant Authorities (ASERA), Severn Estuary Coastal Group (SECG) and Bristol Channel Standing Environment Group (BCSEG). Therefore, SEP is connected with various clusters of organizations, making it important partnership in non-statutory Severn estuary institutional setting. Links between these non-statutory advisory groups and marine planning authorities are not still established, neither through SEP. However, due to number of statutory obligations on MMO and WG, there is a possibility that these non-advisory group would also involve in marine planning and most probably through SEP.

The next chapter will provide the conclusion and recommendations from the analysis of this chapter.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

The main objective of this thesis is to explore the facilitator role of Severn Estuary Partnership under the developing marine planning framework in England and Wales. In order to study the implications of developing marine planning in both sides of the estuary on Severn Estuary Partnership, the conceptual framework has been developed using the network governance theory. Network governance theory provides unique yet useful framework of analysis to study and evaluate organizations within any institutional settings whether it would be political institutional process or in business studies.

Under the network governance theory, two perspective analyses has been defined by Proven at el. (2007), i.e. network level of analysis and organizational level of analyses. Furthermore, in this research organizational level of analyses has been selected from network governance theoretical framework and applied on Severn Estuary Partnership. In this regard, conceptual framework has been developed in chapter 3 where SEP has been described as Network Administrative Organization among Severn estuary stakeholders. Therefore, to study SEP as a network administrative organization and how SEP facilitates the MMO and WG in process of developing marine planning framework, five organizational properties has been taken from network governance theoretical framework. These are *indegree and outdegree centrality, closeness centrality, betweennness centrality, Multiplexity and Cliques.*

All of the five mentioned organizational properties have provided unique insight to study the SEP facilitator role for MMO and WG. These five organizational properties have been applied in MMO-SEP-WG working relationship in Severn estuary marine planning process. Marine planning process in England has been divided into 11 marine plans areas and Severn estuary comes under the southwest marine plan area. The process of developing southwest marine plans has been started from the beginning of this year including stocktaking of issues and evidence through relevant stakeholder engagement. On the other hand, Welsh Government has decided to come up single national marine plan for all Welsh waters including Severn estuary. Severn estuary coastal boundary comes between England and Wales which holds two different marine plans. Therefore, when it comes to Severn estuary it is challenging for respective marine planning authorities in England and Wales to engage with both sides of the stakeholders. Therefore, both marine planning authorities i.e. MMO (England) and Welsh Government (Wales) are utilizing the non-statutory, voluntarily and independent coastal Partnership i.e.

Severn Estuary Partnership. This engagement process of MMO and WG with SEP is actually has been studied under the five organizational properties of network governance. The results indicate that this new yet emerging marine planning in England and Wales has actually strengthened the facilitator role of SEP in Severn estuary region and has provided new focus to the coastal partnership in terms of facilitation. The main research question and sub-question has been answered in following manner.

Main RQ- *How has the SEP facilitator role shift with the developing marine planning process in England and Wales?*

SEP facilitator role has been shifted with the developing marine planning process in following ways. First the SEP remit has been increased in Severn estuary region since the marine planning process began in England and Wales. This is due to the two new authorities, one regional level i.e. MMO from English side and one National i.e. Welsh side of organization has joined the SEP. This exhibit that SEP can play significant role in facilitating both marine planning authorities in their marine planning stakeholder engagement process due to already established contacts SEP maintains with other statutory and non-statutory organizations in Severn estuary region.

Secondly, emerging marine planning process has brought shift in SEP facilitator. Previously, SEP was working with statutory and non-statutory organizations in order to develop consistency to make sure that the approach to integrated coastal management has been adopted by all stakeholders. Before the initiation of marine planning on national level, the main task for SEP is to engage with various stakeholders of Severn estuary and has been involved in various EU projects as well. However with emerging national marine planning, SEP is facilitating marine planning authorities to stakeholder engagement in Severn estuary region. This has also increase the remit of SEP as well and brought shift in SEP focus as well. It is also significant to note that Severn Estuary Partnership established on the basis of providing non-statutory integrated approach among various stakeholders because there was no formal marine planning initiative on national level. Now that marine planning is emerging in both England and Wales, the shifted has been made in a sense that SEP is now engaged with marine planning authorities on national and regional level. This in turn has increased the significance of SEP in the region and could be considered as one of the benefits that voluntarily coastal partnerships can provide in future as well.

Sub-question- Does the SEP serve as a gatekeeper between the MMO, WG and Severn estuary relevant stakeholders?

So far, SEP has been considered as a significant coastal partnership to connect Marine Management Organization, Welsh Government and Severn estuary stakeholders. In terms of Welsh side of marine planning system, SEP is part of Welsh Government Stakeholder management group which will facilitates Welsh government to assist in developing Welsh National Marine Plan. Therefore, from Welsh side of marine planning SEP can be viewed as gatekeeper organization between Welsh Government and Severn estuary relevant stakeholders. However, from English side of marine planning, Although MMO is connected with Severn Estuary Partnership but Marine Management Organization is also working with other regional agencies as well. For example, Natural England. Secondly, similar to Welsh Government there is no stakeholder management group has been devise by MMO of which SEP is the member. So it would be concluded that SEP serves as the intermediary organization to the Welsh government part side of planning as compared to English Side of marine planning process. Secondly, there is link has been notice between Marine Management Organization and Welsh Government through SEP as well. Except for the one joint stakeholder engagement workshop held through Severn Estuary Partnership. To conclude, in terms of marine planning SEP can be considered as a potential stakeholder engagement coastal partnership in Severn estuary region.

Future Recommendations

This research is based on the argument that significance of coastal partnerships has been increased due to the emerging marine planning as a top-down approach. However, before that coastal partnerships were involved on local level of integrated coastal management. Therefore, it would be useful in terms of recommendation that further research can be considered on other voluntarily coastal partnerships in order study the shift that has been brought by national marine planning process. Secondly, as in this research only one case study of coastal partnership has been undertaken and applied organizational elements on Severn Estuary Partnership. It would be useful to apply this conceptual framework on other coastal partnerships as well, especially the one which are cross-border in nature within UK or outside UK. Additionally the conceptual framework developed in this research can also be apply on coastal partnerships which are operating within one national marine planning system as well.

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ANNEXES

Annexe1-Interview Data

Interview with John Harrison (SEP Chairman) (12-04-2016)

Interview with Neal Gray (MMO official) (24-04-2016)

Interview with Mark Stafford (Welsh Government- Fisheries Department) (09-05-2016)

Interview with Rhys Morgan (Natural Resource Wales official) (01-05-2016)

Interview with Mel Nicholas (MMO official) (18-04-2016)

Interview with Katie Clark (Natural England) (08-06-2016)

Annex2- List of Meetings/Events I participated during the internship and after the internship with Severn Estuary Partnership

- 4th Sep, 2015- (Natural England office, Temple Quay House, Bristol) Severn Estuary Strategy Workshop.
- 29th Sep, 2015- Severn Estuary 2015 Annual Forum (Arnolfini Gallery, Bristol), More than 120 participants attended the forum, including representatives from national, regional and local level of Severn estuary stakeholder. The theme of the forum was 'Celebrating Ten Years!'
- 20th Oct, 2015- (Gloucestershire county council, Gloucester) SEP quarterly Management Group Meeting.
- 26th Nov. 2015- ASERA Group Meeting (Cardiff Bay, Cardiff).
- 15th March 2016- Wales and England Cross-border Marine Planning Workshop (Norwegian Church, Cardiff).

Annex3- Selected Policy Documents as secondary data

Severn Estuary Partnership Strategy (2001).

Severn Estuary Strategic Business plan 2006-2009

Severn Estuary Strategic Business plan 2011- 2016

A Description of marine planning system for England

Welsh National Marine Plan (Initial Draft)

Annex4-Format for interview

Email request for meeting

Dear Mr/Ms,

I met you on the workshop hosted by the Severn Estuary Partnership for Welsh government and Marine Management organization last month and explained that I would be in touch to arrange an interview as part of my Master's degree dissertation's data collection. I am currently working on a dissertation entitled 'coastal Partnerships as tool of governance in promoting sustainable development: case study of Severn Estuary Partnership' at Cardiff University (February -June 2016). It would be very helpful for me if I could gather your views regarding the importance of partnership working for the Severn Estuary.

I quite understand if it is not convenient for you to meet with me at this time or that you do not wish to participate in an interview. However, I would be very grateful if you could make time to meet with me as your insights would contribute greatly to the data that I am able to collect.

I realize that you are very busy and so would aim to make the interview last for about 30 minutes.

I look forward to hearing from you

Many thanks,

Zahra Fatima

Questions for Semi-structured Interviews

Most of the semi-structured interviews were based upon the open ended questions as the purpose of conducting interview was to get to know the views of interviewees regarding the partnership working with Severn Estuary Partnership. However some of the general questions are as follow;

Introduction of the research topic

Q1- What is your background and current designation in the organization/agency?

Q2- What is nature of relationship between your organization and Severn Estuary Partnership?

Q3- (with MMO officials-English side) For southwest plan do you also consult Welsh Government (WG) for Severn estuary region?

Q4- In order to engage with stakeholders in Severn Estuary region, you consult SEP?

Q5- what are the other mechanisms to engage with stakeholders? Does your organization engage with stakeholder directly as well or do you rely on coastal partnerships?

Q6- How much it is important for you (organization) that coastal partnerships should be neutral?

Q7- Any particular views or input you want to make?