

## DRAFT DOCUMENT ON REGIONAL PROJECTS IN THE BLACK SEA

**Bayram ÖZTÜRK**

**GFCM Consultant**

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### 1. INTRODUCTION:

The Black Sea is one of the world's most isolated seas from the major oceans, and the largest anoxic body of water on the planet (87% of its volume is anoxic). It is surrounded by Bulgaria, Georgia, Romania, Russian Federation, Turkey and Ukraine (see Figure 1).



**Figure 1.** Map of the Black Sea region.

The Black Sea's biodiversity clearly reflects its geological history, namely, brakish water fauna known as Caspian relics, cold water species, Atlanto-Mediterranean species and alien species (Öztürk and Öztürk, 2005).

Actually, 80% of the total fauna of the Black Sea are of Mediterranean origin. Some of these Mediterranean settlers are pelagic migrant species and their stocks are quite important in terms of fishing yields.

Most important commercial fish species are anchovy, horse mackerel, bluefish, bonito, sprat and some demersal species such as turbot, whiting, Rapa whelk, mussel and baby clam. In recent years, due to various anthropogenic reasons, the most important commercial fish such as turbot, bluefin tuna, mackerel, swordfish and sturgeons stocks were decreasing. Anchovy is the largest marine resource in the Black Sea and it is believed that the stock of Black Sea anchovy is still being exploited above the level of sustainability (Barros, 2011). Ye and Cochrone (2011) reported that the Mediterranean and Black Sea (Area 37) had 50 % of the fish stocks overfished.

Since most important commercial stocks were depleted in the Black Sea, a regional project similar to those FAO Regional Projects covering various Mediterranean sub-regions should be planned and implemented for the sake of sustainability of the entire Black Sea. This project could depart from the needs already identified by the GFCM Working Group on the Black Sea and build upon ongoing positive cooperation between GFCM and FAO Regional Projects. For the time being, it could be of some use to review the most important ten relevant regional projects ongoing in the Black Sea for a short evaluation and identification of potential connections with the proposed Black Sea project. Most relevant projects are described separately.

## **2. SOME REGIONAL PROJECTS IN THE BLACK SEA:**

The regional projects which have been selected for short evaluation in this document are regarded as being most relevant in view of the identification of of potential connections with the proposed Black Sea project. The chosen listing does not imply any difference in terms of importance or relevance

### **2.1. PERSEUS (Policy-Oriented Marine Environmental Reserach in The Southern European Seas):**

Leaded by HCMR, Greece, funded by the EU FP7, the project PERSEUS aims to identify the interacting patterns of natural and human-derived pressures on the Mediterranean and Black Seas, assess their impact on marine ecosystems and using the objectives and principles put forward in the Marine Strategy Framework Directive (MSFD) as a vehicle, to design an effective and innovative research governance framework based on sound scientific knowledge.

Well-coordinated scientific research and socio-economic analysis will be applied from basin to coastal scales. New tools will be developed in order to evaluate the current environmental status, by way of combining monitoring and modelling capabilities. Along these lines, and based on the same principles, existing observational systems at basin and sub-basin scale will be upgraded and extended. In addition, PERSEUS will develop a concept of an innovative, small research vessel, aiming to serve as a scientific survey tool, especially for very shallow areas, where the currently available research vessels are either expensive and/or inadequate.

In support of reaching Good Environmental Status (GES), PERSEUS will develop a scenario-based framework for future implementation of adaptive policies and management schemes. The project will promote principles and objectives outlined in the MSFD throughout the Mediterranean and Black Sea basins and beyond.

The EU maritime policy objectives, as outlined in the Marine Strategy Framework Directive (MSFD) highlight the significance of protecting and preserving the marine environment, which in effect helps towards the promotion of more sustainable uses of the seas, while simultaneously conserving the marine ecosystems.

The oceans offer many opportunities for economic growth, however, coastal development and other human activities such as tourism, recreational activities and maritime transport, have exerted increasing pressures on the oceans and generated a range of threats to the marine environment. These threats have inevitably jeopardized the future uses of the marine ecosystem's goods and services.

The MSFD has adopted a regional seas approach, which is especially appropriate with respect to the Mediterranean and Black Seas, together representing the Southern European Seas (SES). The Mediterranean and Black Sea are unique and evolve rapidly, with large interannual to decadal variability and abrupt fluctuations, thus they are generally accepted to possess certain unique qualities. In fact, their semi-enclosed nature, coupled with their smaller inertia compared to large oceans, makes them more sensitive to natural variations which are mainly connected to global and regional climate change. Overall, the interaction of these natural pressures, coupled with the exponential increase in human activities around the coasts, has made the SES even more vulnerable and sensitive, especially as the population along the SES coasts has expanded exponentially over the past century. Furthermore, coastal urbanisation, industrialisation and touristic exploitation, intensive agriculture, riverine and atmospheric inputs and overfishing can only count as few among the many anthropogenic forcings impinging on the SES, thereby, putting their integrity at stake.

PERSEUS, through an innovative combination of natural and socio-economic science, aims to design an effective and resourceful research governance framework, based upon newly collected, sound scientific knowledge in order to promote better governance and achieve Good Environmental Status across the Southern European Seas (SES). The project aims to assess the current environmental status of the Mediterranean and the Black Seas, in a coherent and integrated manner, filling the existing scientific knowledge gaps and then design and support an ecosystem-based approach to management so that the EU goal of Clean Seas by 2020 can become a reality, while conserving the surrounding marine environment.

## **2.2. CoCoNET (Towards Coast to Coast Networks of the Marine Protected Areas Coupled With Sea-Based Wind Farm Energy Potential):**

Led by CNR, Italy, funded by the EU FP7, CoCoNET project has two main themes: the first one is to identify prospective networks of existing or potential MPAs in the Mediterranean and the Black Seas, shifting from a local perspective (centered on single MPAs) to the regional level (network of MPAs) and finally the basin scale (network of networks). The identification of the physical and biological connections among MPAs will elucidate the patterns and processes of biodiversity distribution. Measures to improve protection schemes will be suggested, based on maintaining effective exchanges (biological and hydrological) between protected areas. The national coastal focus of existing MPAs will be widened to both off shore and deep sea habitats, incorporating them into the networks through examination of current legislation, to find legal solutions to set up transboundary MPAs. The second one is to explore where Offshore Wind Farms (OWF) might be established, producing an enriched wind atlas both for the

Mediterranean and the Black Seas. OWF locations will avoid too sensitive habitats but the possibility for them to act as stepping-stones through MPAs, without interfering much with human activities, will be evaluated.

Socio-economic studies employing ecosystem services valuation methods to develop sustainable approaches for both MPA and OWF development will also be carried out, to complement the ecological and technological parts of the project, so as to provide guidelines to design, manage and monitor networks of MPAs and OWF.

Two pilot projects (one in the Mediterranean Sea and one in the Black Sea) will test in the field the assumptions of theoretical approaches, based on previous knowledge, to find emerging properties in what we already know, in the light of the needs of the project.

## **2.1. Project Objectives**

The Project will identify groups of putatively interconnected MPAs in the Mediterranean and the Black Seas, shifting from local (single MPA) to regional (Networks of MPAs) and basin (network of networks) scales. The identification of physical and biological connections with clear the processes that govern patterns of biodiversity distribution. This will enhance policies of effective environmental management, also to ascertain if the existing MPAs are sufficient for ecological networking and to suggest how to design further protection schemes based on effective exchanges between protected areas. The coastal focus will be widened to off shore and deep sea habitats, comprising them in MPAs Networks. These activities will also individuate areas where Offshore Wind Farms might become established, avoiding too sensitive habitats but acting as stepping stones through MPAs. Socioeconomic studies will integrate to knowledge-based environmental management aiming at both environmental protection (MPAs) and clean energy production (OWF). Current legislations are crucial to provide guidelines to find legal solutions to problems on the use of maritime space. Two pilot project (one in the Mediterranean Sea and one in the Black Sea) will test in the field the assumptions of theoretical approaches. The Project covers a high number of countries and involves researchers covering a vast array of subjects, developing a timely holistic approach and integrating the Mediterranean and Black Seas scientific communities through intense collective activities and a strong communication line with stakeholders and the public at large.

The project will produce the guidelines to design, manage and monitor network of MPAs, and an enriched wind atlas for both the Mediterranean and the Black Seas, creating a permanent network of excellent researchers (e.g. with summer schools) that will work together also in the future, making their expertise available to their countries and to the European Union.

## **2.3. MISIS (Marine Strategy Framework Directive Guiding Improvements in the Black Sea in Monitoring System):**

Funded by EC DG ENV, the MISIS project has been initiated as an integral part of the overall on-going process of harmonization of policies of EU-member and EU non-member states in the Black Sea region. Also, being supported by the respective Ministries of Environment of the beneficiary countries (Bulgaria, Romania and Turkey), the Project will directly assist the step-wise implementation of the MSFD and WFD in Bulgaria and Romania. The project is led by NIMRD, Romania.

The specific objectives of the project are: to improve availability and quality of chemical and biological data to be provided for integrated assessments of the Black Sea state of environment, including pressures and impacts; to increase number and size of protected areas in the Black Sea as well as to increase their

degree of protection and to enhance public awareness in environmental issues. The overall goal of the Project Consortium is to support efforts to protect and restore the environmental quality and sustainability of the Black Sea.

The additional specific objectives of this project are: To improve availability and quality of chemical and biological data to provide for integrated assessments of the Black Sea state of environment, including pressures and impacts (in line with Annex I and III of the MSFD) ;To increase number and size of protected areas in the Black Sea as well as to increase their degree of protection; To enhance stakeholders participation and public awareness on environmental issues. To improving regional cooperation and agreements implementation for the protection of the Black Sea, in particular, the Convention on the Protection of the Black Sea against Pollution (the Bucharest Convention), focusing on the alignment of partner countries' policies and strategies sensu MSFD and WFD; To development of national integrated monitoring programs in line with the MSFD and WFD; To improved research and increase in knowledge on the state of the Black Sea and common understanding of GES toward development of environmental targets in a harmonised approach; To strengthened capacities of relevant organizations for monitoring (focus on biodiversity, habitats) in the Black Sea (via training and other capacity building measures) taking into consideration the requirements of the MSFD and WFD;To strengthened capacities of relevant organizations to identify, designate, and manage protected areas; To development of new protected areas;To improved stakeholders involvement and public awareness.

#### **2.4. CREAM (Coordinating Research in Support to Application of Ecosystem Approach to Fisheries and Management Advice in the Mediterranean and Black Sea)**

CREAM project is led by IAMZ-CIHEAM and funded by EU FP7. The project will establish an effective collaboration network among key role players in Mediterranean and Black Sea fisheries research and management. The participants in the project include national research institutes from Mediterranean and Black Sea countries with a long history and active participation in fisheries research and assessment, who provide advice to national, regional and international fisheries management organisms. The project will seek the active collaboration of regional and international fisheries management organisms as external participants in the project, in order to identify the gaps (in terms of data, knowledge, training, coordination) which hamper at present the full application of the Ecosystem Approach in the management of Mediterranean and Black Sea fisheries.

The project will have a strong training and capacity building component in order to help harmonize data collection and methodologies used in fisheries assessment and management in the Mediterranean and Black Sea. The project will serve to establish the guidelines for the application of the Ecosystem Approach to Fisheries in the Mediterranean and Black Sea, both in EU member states and third countries.

Coordinating research in support to application of EAF (Ecosystem Approach to Fisheries) and management advice in the Mediterranean and Black Seas

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## **2.5. COMFISH (Communication on Fisheries)**

ComFish aims to identify important fisheries topics with long term impacts and ascertain whether scientific results have been properly communicated to fisheries stakeholders. If yes, why and how was this done? If not, then the question must be answered which communication needs must be addressed. What are the related challenges, needed actions and possible solutions?

Europe's seas are larger than its land area but most EU citizens are unaware of the nature and importance of their marine environment. There are numerous human-derived threats to all sorts of sea life, and consequently to our possibilities to keep exploiting the seas as we have done in the past. Solid waste for instance, and especially plastic marine litter, is one of the unexpected and often invisible factors that are accelerating the degradation and decline of fisheries and coastal ecosystems.

### **2.5.1. Objective**

The objectives of the project are to increase dissemination of scientific knowledge on fisheries related research (i.e. ecosystem approach to fisheries management, fisheries management and governance) and to explore innovative mechanisms to improve communication between stakeholders: scientists, fishing industry, policy makers, interest groupings and the society at large, including the media.

Ocean-wide ecosystems are difficult to assess, as populations can be widely distributed, are frequently migratory, and can be affected by environmental conditions such as water temperature and current patterns. Nevertheless, Myers and Worm estimated in 2003 that the biomass of large predatory fish has been depleted by at least 90% compared to pre-industrial levels. Unless urgent action is taken, certain commercial fish stocks are thought to disappear in the coming decades, along with the livelihoods of millions of often poor people, who depend of fish for food and jobs. Instead of mining the world's marine environment and running it down as a result of pollution and mismanagement, humanity needs to re-commit and re-engage on the challenge of healthy seas and oceans.

### **2.5.2. Common Fisheries Policy**

The Common Fisheries Policy (CFP) was launched in 1970, by the six founding members of the European Community to provide a common market in fish. All subsequent members of the EU have accepted the CFP principle of equal access to fishing grounds. In 1983 total allowable catches (TACs), species quotas and minimum net sizes, were introduced in an attempt to curb over-fishing. Negotiations on TAC species quotas have taken place every year in December. In light of severely reduced fish stocks the EU has, since 1992, consistently ordered all national fleets to reduce their fishing effort.

In 2008, as a result of stock recovery, North Sea cod catches were increased by 11%. Similarly, in December 2009, fishing quotas for a minority of species were cautiously increased, but the majority of species quotas were reduced by 20-25%. In 2009, for the first time, Members of the EU Parliament (MEPs) played an equal role in CFP negotiations with national fisheries ministers, but MEPs still had no say in deciding TAC species quotas. The EU is now reviewing the entire CFP and hopes to propose a major reform by 2013.

The current fisheries management policies are based on the available knowledge of individual species. However, not only one species of fish, but the whole ecosystem is of importance for a good management and therefore an ecosystem approach in fisheries management needs also to be considered. To obtain a better understanding of declining fisheries, scientists have begun to look to history for answers regarding how much exploitation aquatic species have been subjected to over time, and what un-depleted population levels may really have been.

## **2.6. ODEMM (Ecosystem based Marine Management)**

The Marine Strategy Framework Directive deals with the implementation of an ecosystem approach to marine environmental management, and the Habitats Directive contributes to the protection of representative habitats. Human activities may have a severe impact on marine ecosystems. Therefore it is important that conduct and management of such activities (including fisheries, dredging etc.) are carried out in a way that supports the objectives of the Marine Strategy and the Habitat Directive. The challenge here is to investigate and quantitatively evaluate, specify and propose options and actions for a gradual transition from the current fragmented management of these activities (e.g. fish stock based regime for fisheries management) to a mature integrated management, including strategies for the implementation of the ecosystem approach at regional level, reconciling short-term economic objectives with long-term ecosystem sustainability objectives.

### **2.6.1. Project Objectives**

The overall aim of the ODEMM project is to develop a set of fully-costed ecosystem management options that would deliver the objectives of the Marine Strategy Framework Directive, the Habitats Directive, the European Commission Blue Book and the Guidelines for the Integrated Approach to Maritime Policy. The key objective is to produce scientifically-based operational procedures that allow for a step by step transition from the current fragmented system to fully integrated management.

Major steps forward in methodology and knowledge base related to sustainable management and regional governance of the European marine environment will be made in this project.

These will be published in journal articles, and through a series of technical reports or electronic newsletters and briefings. In addition to this a number of key results or expected outputs as reports of the 'Current State of Knowledge on the Sustainability of European Seas'; Web-based model of cost-benefit appraisal across the four study regions; An accessible web-based guide to the toolkit for marine management scenario evaluations; A costed implementation plan documented in the report 'Ecosystem-Based Marine Management –A Practical Implementation Plan: Getting There from Where We Are Now' and ODEMM regional roadshow disseminating the major outputs from the project –the implementation plan and evaluation too .

## **2.7. KNOW SEAS (Knowledge –Based Sustainable Management For Europe's Seas)**

The Knowledge-based Sustainable Management for Europe's Seas (KnowSeas) project is supported by the European Commission under the Environment (including climate change) Theme of the 7th Framework Programme for Research and Technological Development. The

### **2.7.1. Project Objectives**

Europe's four regional seas (Baltic, Black, Mediterranean and NE Atlantic) have suffered severe environmental degradation due to human pressure. Existing measures to manage pressures have proven inadequate and the EU Member States have recently responded by adopting a new policy (Blue Book

for Maritime Policy) and environmental legislation (Marine Strategy Framework Directive). These instruments rely on the Ecosystem Approach, a management paradigm that encompasses humans and the supporting ecosystem. But the science base for this approach needs strengthening and practical tools must be developed and tested for policy implementation. In particular, criteria for assessing costs and benefits of management actions are poorly developed in the complex marine environment where multiple uses and management conflicts are common. There is a strong need for a “joined up” systems approach between natural and social science that delivers the knowledge base to support management for sustainable seas.

The overall objective of the project is to provide a comprehensive scientific knowledge base and practical guidance for the application of the Ecosystem Approach to the sustainable development of Europe’s regional seas. This will increase the evidence base available for decision makers and facilitate the practical implementation of the Ecosystem Approach, currently seen by some stakeholders as confusing and nebulous. It will be delivered through a series of specific sub-objectives that lead to a scientifically based suite of tools to assist policy makers and regulators with the practical application of the Ecosystem Approach. It is also expected to deliver high quality scientific outputs that advance our understanding of coupled

The KnowSeas consortium brings together key natural and social scientists with unique experience of the marine environment. The project team has developed a new approach of Decision Space Analysis to investigate mismatches of scale between human drivers and the consequences to the marine environment. KnowSeas will work at the two geographical scales envisaged for new EU policy: the Regional Sea Scale and Member State Economic Exclusive Zones (EEZs). Core teams examining and modeling the causes and consequences of ecosystem change, costs and benefits, and institutional and social aspects, will interact with cross cutting case studies in the regional seas in order to develop a systems approach.

## **2.8. SEAS-ERA (Towards Integrated Marine Research Strategy and Programmes)**

SEAS-ERA is a project funded by the EU FP7 ERA-NET Scheme. SEAS-ERA is a partnership of the leading Marine RTD Funding Organizations in 18 countries. In addition, a range of observers are associated with the project. SEAS-ERA aims at coordinating the national and regional RTD activities.

### **2.8.1. Project Objectives**

SEAS-ERA aims at embracing marine and maritime research in its entirety, overarching the previous initiatives which only targeted a given area or basin and, therefore, constituting a stable and durable structure for empowering and strengthening marine research all across Europe. Some of the objectives to be attained such as; Improve co-operation and co-ordination and promote harmonisation of national/regional research programmes to strengthen them, bridging possible gaps and avoiding duplications; this will significantly contribute to the setting up of a European Marine and Maritime Research Agenda. In this point SEAS-ERA is mainly aimed at developing a stable European overarching operational structure for implementing this Agenda. Fostering synergies at regional and pan-European level, mobilising competitive and non- competitive funds for research in a more coordinated way, through common programs and joint calls, so as to reach a critical mass to address major cross-thematic marine and maritime research challenges. Moreover, SEAS-ERA will be a step forward towards achievement of the Joint Programming concept that promotes the efficiency of funding returns by avoiding fragmentation and enhancing cooperation between Member States research programmes. Propose a plan for a better and sustainable use of the existing Marine Research Infrastructures (MRIs). In



summary, SEAS-ERA will constitute a platform for developing a European integrated policy oriented structure to promote knowledge and expertise in any sea related area; the overarching element of SEAS-ERA, its ambition to embrace the whole spectrum of marine and maritime research, makes it an open forum for knowledge sharing, a real arena where all the sea related knowledge can meet.

## **2.9. SRCSSMBSF (Strengthening the regional capacity to support the sustainable management of the Black Sea fisheries)**

### **2.9.1. Project objectives**

Project objectives are; Harmonization of methods and tools to assess the present state of fish stocks by scientific surveys, holistic models ,Alignment of the common methods for sampling, processing and interpretation data from fisheries and stock assessment using analytic models;Awareness of the fishery organizations and decision–makers from national fisheries regarding the need to use in the management strategies of the advice from research and joint-regional stock assessment.

Some of the activities are; exchange of good practices in the fields of methods and tools to assess the present state of fish stocks by scientific surveys, holistic models; Strengthening the joint knowledge and information base needed to alignment of the common methods for sampling, processing and interpretation data from fisheries and stock assessment using analytic models; Promote of stronger integration and development of research, awareness and scientific partnerships in the fields of monitoring, control, protection and management of the Black Sea ecosystem and its living resources; Project information and communications activities; Project management and coordination activities. Meetings of specialists in assessment from the Black Sea coastal countries; Working visits and trainings of specialists; A best-practice guideline for stock assessment using scientific surveys realised in the national languages of partners and English (a guideline and standardized protocol which include the sampling gear (feature and handling), the design of the survey, the information collected, and the management of the data as far as the common standard analysis of the data);Manual of protocols on international methodology for sampling, samples processing, analysing and discussions of data and results, fishery statistics, stocks assessment by analytical models; Report on state of the Black Sea Fisheries; Management Plan for Black Sea Fisheries; Inventories of the national authorities, focal points, scientists and non-governmental organizations concerned with fisheries and awareness materials.

## **2.10. REEFS (Research and Restoration of the Essential Filters of the Sea)**

REEFS is an International initiative of Black Sea countries in support of improving the marine environment and increasing marine biodiversity.

### **2.10.1. Project objectives**

The objectives of REEFS are; strengthening the joint knowledge and information base needed for application of artificial reefs to address the organic pollution in the maritime ecosystem of the Black Sea Basin; Supporting policy makers in defining contemporary strategies, action plans and internal measures for recovering of marine resources, allowing sustained Black Sea fishing in the future and significantly boosting progress towards improving the marine environment of the Black Sea

The REEFS project is designed to contribute to a number of international strategic initiatives by adding a practical and active approach towards restoration of the essential filters of the sea.

Main Activities are Artificial reefs advocacy – to provide detailed research and analysis of the legislative and institutional framework in each partner country with respect to the artificial reefs application in the Black Sea Basin, Feasibility studies and methodology – to involve marine scientists from the riparian Black Sea countries in mutual studies aimed to define the ecosystem situation, and identify opportunities for artificial reefs settlement – thus defining possible successful outcomes and assessing the range of costs and benefits associated with artificial reefs-like innovations in the Black Sea Basin, Training the common knowledge base will be suited for special training of adults in order to introduce joint integrative policies and measures such as artificial reefs development as a practical way of helping the sea life to survive, Visibility – to raise information and awareness levels with regards to marine biodiversity threat and opportunities, project objectives, activities and results, as well as to guarantee high degree of the transparency in the usage of EU funds.

Besides that, several projects has been lauched in the Black Sea and somehow related with fishing other marine living resources. For example, a project called SOCIOEC is a collaborative project which has received funding from the European Union under the Seventh Framework Programme of Cooperation (FP7; Food, Agriculture and Fisheries).The consortium comprises both stakeholders representative of the fishing sector and experts from three key academic disciplines of fisheries sciences (ecology, economics and social sciences).

SOCIOEC aims to perform a comprehensive analysis of the wide range of current and emerging management measures in the current Common Fisheries Policy (CFP). It will develop possible new future measures to be introduced in order to achieve a more profitable and efficient fishing sector that provides sustainable employment, support society's aims, and contributes to societal well being.

SOCIOEC specifically targets the failures of the CFP and works with the people involved in fisheries to prevent future failures. Unfortunately only one partner is exist from the Black Sea areas .

Several reports , grey literature , meting documents , thesis , results of the workshop are exist for the Black Sea but most of them is not relevant with fishing sciences , quality of some of those papers are not credible. European Commision (JRC) published every year as Scientific, Technical and Economic Committee for fisheires (STECF), Scientific and Policy Reports also contains Black Sea fisheries and Assesment of the stocks. This report is most relevant information for the management of the fisheries of the Black Sea.

Among the examined projects, directly focused fisheries namely CREAM, COMFISH, REEF and. However, CREAM is more consantrated to the Mediterranean Sea. Again, Comfish aslo concentrated more in Baltic and North Sea region and only Bulgaria is a partner. Reef project is important in terms of application, experiments and legislation artificial reefs in the Black Sea. SRCSSMBSF is contains several action such as report of state of the Black Sea fisheries, management plan for black sea fisheries etc.

Nevertheless, outputs of the above mentioned large projects should be followed and utilize in term of living resources management in the Black Sea.

### **3. DISCUSSION**

SRCSSMBSF, CREAM, COMFISH and REEF Projects were fisheries projects for the Black Sea. Only CREAM Project, however, involves all Black Sea riparian countries as Bulgaria, Georgia, Romania,

Russia, Turkey, and Ukraine. Even COMFISH is directly focused on fishing activities, but unfortunately only Bulgaria is a beneficiary for this project. All fisheries related projects will be completed in 2013 or 2014. This means that a new subregional large project should be implemented in 2014 and thereafter.

Other projects are either focused on the Mediterranean Sea or both the Black and Mediterranean Sea, and not directly focused on the fisheries and fishing communities in the basin. List of the projects, acronyms, beneficiaries and website are given in Table 1.

**Table 1.** Projects involving the Black Sea countries

Name in short	Duration	Fund	Black Sea partners					
			BU	GE	RO	RU	TU	UK
PERSEUS	2012-2015	EU FP7	x	x	x	x	x	x
CoCoNet	2012-2016	EU FP7	x	x	x	x	x	x
MISIS	2012-2014	EC DG ENV	x		x		x	
CREAM	2011-2014	EU FP7	x	x	x	x	x	x
SEAS-ERA	2010-2014	EU FP7 ERA-NET Scheme	x	x	x		x	x
KnowSeas	2009-2013	EU FP7 RTD	x				x	
ODEMM	2010-2013	EU FP7	x		x		x	x
ComFish	2012-2015	EU FP7 Cooperation – Food, Agriculture and Fisheries, and Biotechnology	x					
REEFS	2012-2014 (24 mo)	EU (European Neighbourhood and Partnership Instrument)	x	x	x		x	x
SRCSSMBSF	2011-2013 (24 mo)	EU (European Neighborhood and Partnership Instrument and the Instrument for Pre-Accession Assistance)	x		x		x	x

One of the significant matters highlighted by the information evaluated is that regional projects are not distributed evenly. Most of the projects are geographically in the western part of the Black Sea. Bulgaria is participating all projects, while Turkey, Romania, Ukraine, and Georgia are participating most of them, and Russia participates only 3 regional projects related to fisheries in the Black Sea.

Two big projects, namely Perseus and CoCoNet, also involve the Mediterranean Sea. These projects are also of environmental significance due to their focus on MSFD and Marine Protected Areas in the Black Sea. Still, it is good to underline that GFCM is already working on the both objectives (contributing to

achieving a good environmental status in the Mediterranean Sea and facilitating the establishment of protected areas).

Another peculiarity of the regional projects examined is that they are all funded by EU, not by the riparian countries. This is due to lack of interest, and perhaps political will, in the riparian countries. Turkey, for example, being the biggest fishing country in the region, should make more effort in executing or financing regional projects in the Black Sea with a focus on sustainable fisheries.

That said, how we can integrate all these projects with GFCM activities or projects in the Black Sea? This question is crucial.

For the moment, there is no example project in the Black Sea executed under GFCM umbrella, while other FAO Regional Projects such as Copemed, Adriamed or Eastmed i have been carried out with very positive outcomes. These outcomes and lessons learned could be readily transferred to the Black Sea. In this connection, it is worth recalling that the GFCM took the lead a few years ago in launching such an initiative. This ultimately led to the proposal of the“Black Sea Fish Project” on strengthening cooperation in the Black Sea. Nonetheless, at the last session of GFCM SAC held in Rome in April it was reiterated that an ad hoc regional project should be launched on the basis of those needs already identified by the GFCM Working Group on the Black Sea. To this end, a stakeholder consultation workshop would be needed so that all stakeholders, in addition to representatives of riparian countries, could provide their feedback.

#### **4. References**

Barros, P. (2011) Mediterranean and Black Sea. Review of the state of world marine fishery resources. FAO, Fisheries and Aquaculture Technical Paper, 569:

GFCM. (2008) Thirty-Second Session. Strengtning Cooperation in the Black Sea.

Öztürk, B., Öztürk, A.A. (2005) Biodiversity in the Black Sea: Threats and Future. In: Mankind and the Oceans. United Nations University Press, pp.155- 172.

Ye, Y., Cochrane, K. (2011) Review of the state of world marine fishery resources. FAO, Fisheries and Aquaculture Technical Paper, Rome, No: 569, 32p.