



Food and Agriculture
Organization of the
United Nations



Assessment and Monitoring of the
Fishery Resources and the Ecosystems
in the Straits of Sicily

MedSudMed

Report of the Thirteenth Meeting of the Coordination Committee

Rome, Italy, 16-17 April 2015

The conclusions and recommendations given in this and in other documents in the *Assessment and Monitoring of the Fishery Resources and Ecosystems in the Straits of Sicily* Project series are those considered appropriate at the time of preparation. They may be modified in the light of further knowledge gained in subsequent stages of the Project. The designations employed and the presentation of material in this publication do not imply the expression of any opinion on the part of FAO or MiPAAF or EU concerning the legal status of any country, territory, city or area, or concerning the determination of its frontiers or boundaries.

Preface

The Regional Project “Assessment and Monitoring of the Fishery Resources and the Ecosystems in the Straits of Sicily” (MedSudMed) is executed by the Food and Agriculture Organization of the United Nations (FAO) and funded by the Italian Ministry of Agriculture Food and Forestry Policies (MiPAAF). Since 2012 MedSudMed is cofounded by the Directorate General for Fisheries and Maritime Affairs of the European Commission (DG Mare). The Italian Regione Siciliana funded a project aimed at strengthening MedSudMed’s effectiveness on issues related to demersal resources, namely crustaceans for 30 months, starting from April 2011.

MedSudMed promotes scientific cooperation between research institutions of the four participating countries (Italy, Libya, Malta and Tunisia), for the continuous and dynamic assessment and monitoring of the state of the fisheries resources and the ecosystems in this area of the Mediterranean.

Research and training are supported to increase and use knowledge on fisheries ecology and ecosystems, and to create a regional network of expertise. Particular attention is given to the technical coordination of the research between the countries, which should contribute to the implementation of the Ecosystem Approach to Fisheries. Consideration is also given to the development of an appropriate tool for the management and processing of data related to fisheries and their ecosystems.

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GCP/RER/010/ITA Publications

MedSudMed Project publications are issued as series of Technical Documents (GCP/RER/010/ITA/MSM-TD-00) and Scientific Reports (GCP/RER/010/ITA/MSM/SR-00) related to meetings, missions and research organized by or conducted within the framework of the Project.

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For bibliographic purposes this document
should be cited as follows:

MedSudMed. 2015. Report of the Twelfth Meeting of the Coordination Committee. FAO-MiPAAF Assessment and Monitoring of the Fisheries Resources and Ecosystems in the Straits of Sicily. GCP/RER/010/ITA/MSM-TD-35. *MedSudMed Technical Documents*, No 35: 37 pp.

Preparation of this document

This document is the final version of the report of the Thirteenth Meeting of the Coordination Committee, organized by the FAO-MedSudMed Project (Assessment and Monitoring of the Fisheries Resources and the Ecosystems in the Straits of Sicily) held in Rome, Italy, from 16th to 17th April 2015.

Acknowledgements

The Italian Ministry for Agricultural, Food and Forestry Policies (MiPAAF), which provided kind hospitality and assistance in the organization of the meeting is gratefully acknowledged.

MedSudMed

Report of the Thirteenth Meeting of the Coordination Committee, Rome, Italy, 16-17 April 2015.

MedSudMed Technical Documents. No.35. GCP/RER/010/ITA/MSM-TD-35, Rome, 2015: 37 pp.

ABSTRACT

The Thirteenth meeting of the MedSudMed Coordination Committee was held in Rome, Italy, on 16th – 17th April 2015. It was attended by representatives from the countries participating in the Project (Italy, Malta and Tunisia), representatives of the Italian Donor (Ministry for Agriculture, Food and Forestry Policies, MiPAAF), of the FAO GFCM Secretariat, of the FAO AdriaMed, CopeMed II and EastMed Projects, as well as staff of the MedSudMed Project. A brief remind was made on the Project objectives and activities and a presentation of the activities implemented for the MedSudMed components during the inter-session period was made.

The proposed work plan for the next period was discussed and approved. It focuses on the same priorities of standardizing approaches, increasing scientific knowledge on fishery resources and ecosystems, strengthening national expertise and regional cooperation. The belief that continuing the Project can only bring success and be beneficial for each of the participating countries was affirmed.

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Report of the 12th Meeting of the MedSudMed Coordination Committee

Rome, Italy, 16th - 17th April 2015

Opening of the meeting and election of the Chairperson (Agenda Item n. 1)

1. The 13th meeting of the MedSudMed Coordination Committee was held in Rome, Italy, 16th - 17th April 2015.
2. The meeting was attended by representatives of the Donor, the Italian Ministry of Agriculture, Food and Forestry Policies (MiPAAF), representatives from the countries participating in the Project (Italy, Malta and Tunisia), staff of FAO-Fisheries and Aquaculture Resources Use and Conservation Division (FAO FIRF), representatives of other FAO Regional Projects (AdriaMed, CopeMed II and EastMed), the FAO General Fisheries Commission for the Mediterranean (GFCM) Secretariat, as well as the staff of the FAO MedSudMed Project.
3. The Director of the General Directorate of Maritime Fisheries and Aquaculture of MiPAAF, Mr Riccardo Rigillo, welcomed the Committee members and expressed his honour at having the Committee members gathered in Italy in occasion of the thirteenth MedSudMed Coordination Committee meeting. He recalled the importance of fisheries and cooperation in general and referred to MedSudMed as a project that had strengthened cooperation in the area. The Project played, and is playing, a role that is creating a bridge between the south and north Mediterranean. He underlined that, where shared stocks are concerned, cooperation is fundamental and several steps can still be taken in the framework of MedSudMed and at GFCM level to cope with the challenge of fisheries management in the Mediterranean. In this context, MedSudMed is called on to take a key role, as demonstrated in past years, to feed discussion on the management of fisheries in the south – central Mediterranean. He hoped that the two days of the meeting would be instrumental in defining steps towards decisions for fisheries management in the area. He also expressed the desire to see full involvement of all the institutions participating in MedSudMed resumed in the near future, and that participation of the Marine Biology Research Centre of Tajura (Tripoli, Libya, MBRC) in Project activities may start again soon.
4. The Project Coordinator, Mr Enrico Arneri, took the floor and thanked the Italian authorities for hosting the meeting. He welcomed the Delegations to the city of Rome and thanked the participating countries for their strong commitment and involvement at scientific and administrative level, which has resulted in the Project's achievements. He also informed the meeting on the absence of the delegation from Libya. He had received a communication from the Director of the MBRC, Libya, Mr Hisham Ghmati, which was read to the participants. The Director of MBRC deeply regretted not being able to participate in the Coordination Committee.

5. Mr Mauro Bertelletti, Senior Officer of MiPAAF, was elected as Chair for this session of the MedSudMed Coordination Committee, he welcomed the participants to Rome. He underlined the recent results of MedSudMed in feeding the work of the GFCM on fisheries management in the Mediterranean. He recalled that one of the case studies chosen by the GFCM to initiate discussion on fisheries management was the MedSudMed Project area. He then referred to the most recent 17th meeting of the GFCM SAC, during which the role of FAO Mediterranean Projects, including MedSudMed, was widely acknowledged, recalling that this appreciation of the work carried out by the Project was an important step towards the vision of sub-regionalisation policy to be adopted by the GFCM.
6. The Representative of the FAO-Fisheries and Aquaculture Resources Use and Conservation Division (FAO FIRF), Mr Pedro De Barros, thanked the Donors for their continued support to MedSudMed and the FAO Regional Projects in general. He also thanked the countries, which are the real contributors to the success of MedSudMed. He reiterated the importance of MedSudMed for the Fisheries Department. He recalled that one of the mandates of FAO is to support countries in improving their national capacity and that the MedSudMed Project is fundamental in providing this kind of support. Since its inception, MedSudMed has worked for the countries and with the countries in identifying and addressing emerging priorities. He underlined that the role of FAO FIRF is to support the work of the Project from a technical point of view. FIRF is now looking at the evolution of MedSudMed, which went from being merely a scientific support Project to a more complex Project that the countries are steering year by year, as a good example that could be exported to other areas. He underlined that the real success of the Project lies mainly in the joint, cooperative attitude that has been established in the area.
7. The Committee members echoed the appreciation expressed by the FAO representative in thanking the MedSudMed Project for its work. They also thanked the Italian administration for hosting the meeting. The Committee then expressed the hope that full collaboration with the Marine Biology Research Centre in Tajura (Libya) would be resumed in the near future.
8. The Project Coordinator informed the Meeting that a set of documents prepared by the Project staff had been made available on line for the participants at the URL: http://www.faomedsudmed.org/doc_temp/cc13/CC13_documents.html. A printed copy of the documents was also distributed to each delegation.

Adoption of the Agenda (Agenda Item n. 2)

9. The Agenda was presented to the Coordination Committee. The Chair invited the participants to offer any comments. The Agenda was adopted with no changes.

Report on the Project's Progress (Agenda Item n.3)

10. The Project Fisheries Monitoring Expert, Mr Luca Ceriola, introduced this agenda item and the document "Report on Project progress", in which the main activities carried out by MedSudMed from May 2014 to April 2015 are described. The activities carried out correspond to the work programme and recommendations of the 12th Meeting of the MedSudMed Coordination Committee.
11. Where the intersessional activities are concerned, the Project presented them grouped into four main components: 1) Cooperative research programmes and working groups; 2) National capacity development; 3) Regional cooperation; 4) Project communication. In relation to cooperative research and working groups (WG), the meeting was informed that the Project had focused on planning field work, promoting discussion on emerging issues and priorities on fisheries between national experts, joint data analysis, as well as discussing management strategies for fisheries exploiting shared resources in the Project area, following the identification of this as a priority during the 38th GFCM plenary session in May 2014.
12. The MedSudMed WG on Demersal Fisheries Resources (WG-DEM) held its annual meeting in September 2014, which focused on: i) the appraisal of the state of *Parapenaeus longirostris* and *Merluccius merluccius* stocks and relative fisheries in the Project area; ii) the socio-economic data and data collection systems for *P. longirostris* and *M. merluccius* fisheries in the Project area; iii) technical discussion in support of fisheries management in the south-central Mediterranean for demersal fisheries; iv) knowledge and state of small scale fisheries in the Project area; v) fishing technology. The development of a management plan for fisheries exploiting *P. longirostris* and *M. merluccius* in the south-central Mediterranean Sea was discussed at the WG keeping in mind the proposal for recommendations for fisheries management presented during the 38th GFCM session.
13. An *ad hoc* meeting was held in November 2014 to make further progress in the assessment of the stock dynamics and fisheries of *P. longirostris* and *M. merluccius*, the work already initiated during WG-DEM was finalised. Stock assessments of these two species were finalised; data, method and assumptions used were reviewed; the results obtained and robustness of analysis were discussed as well as possible improvements. The assessments were then presented and discussed at the GFCM SAC WG on demersals and endorsed by the GFCM SAC Sub Committee for Stock Assessment.
14. Two technical meetings were organised involving all fisheries stakeholders from the participating countries, one in Malta on 24th-26th June 2014 and the second in Tunisia, 17th-18th March 2015. Representatives of fisheries associations, fisheries administrations and scientists attended, the aim was to contribute to the development process of an internationally agreed multi-annual management plan for fisheries targeting *P. longirostris*, *M. merluccius* and associated species in the south-central Mediterranean Sea. Knowledge was shared, gaps were identified and potential

management strategies were discussed. The overall approach and milestones for a fisheries management plan were discussed. Knowledge gaps and a roadmap for future activities were identified. Options for possible management strategies and methods for assessing their impact on a biological and economic level were discussed.

15. The Project also explored the possibility to carry out an inventory catalogue of fishing gears currently in use in the south-central Mediterranean Sea. Where small-scale fisheries (SSF) are concerned, the Project dedicated one session of the WG-DEM to reviewing the current knowledge and status of small-scale fisheries in the Project area; their dynamics and interaction with other fisheries were also dealt with. It was agreed to prepare a contribution containing current information on SSF in the south-central Mediterranean Sea to be presented during the second GFCM regional conference on SSF.
16. The Meeting was then informed on Project activities regarding small pelagic fisheries resources. Particular importance was given to enlarging and consolidating the group of researchers involved in studies on small pelagic fish and the annual MedSudMed Working Group on Small Pelagic Fishery Resources was held. The experts from the participating countries shared and explored properties of existing data on pelagic stocks with particular focus on eggs and larvae; preliminary maps were produced identifying areas in which early life stages of *Engraulis encrasicolus* and *Sardinella aurita* are concentrated. They also initiated a joint exercise to standardise the methods used to process acoustic data for the estimation of small pelagic biomass at sea; other priority issues were identified in order to address them jointly.
17. The Committee was reminded that MedSudMed is dedicated to supporting national capacity development, mainly through training courses following specific requests by the participating institutes. Several such activities were planned and carried out, including a training courses on the use of ATrIS (AdriaMed Trawl Information System, Tunisia, 17th-20th March 2015), the statistical environment R (FAO HQ, Rome, 26th-30th January 2015), on planning and implementing the ecosystem approach to fisheries management (FAO HQ, Rome, 22nd-23rd September 2014).
18. The Project staff recalled that MedSudMed sought synergies and is cooperating with the GFCM and its sub-committees; the other FAO Regional Projects, as well as other relevant Mediterranean fisheries-related entities. Collaboration was sought with the MedSea-LME Project for the implementation of selectivity trials at sea to assess the impact of different mesh sizes in the codends of bottom trawl surveys. The survey was carried out from 22nd-30th March 2015; data processing has been started.
19. In the framework of the FAO decentralisation process, MedSudMed is reinforcing collaboration with the FAO offices for North African (FAO SNE) and Near East (RNE); cooperation with FAO Oman was strengthened. The Project prepared a proposal to develop a version of ATrIS (AdriaMed Trawl Information System) suited to the recent and historical geo-referenced fisheries data in Oman: OTrIS (Oman Trawl Information System). The OTrIS project was signed in February 2014 and will run for

18 months. Two technical missions were organized in Muscat (Oman, 24th – 29th May 2014 and 5th – 11th December 2015), as well as two training exercises/workshops to further develop the package.

20. The Committee members received the information on the work done by the Project positively, recognising adherence to the expected outputs of the previous Coordination Committee meeting.
21. The Chair, Mr Bertelletti, acknowledged the activities presented. In particular, he noted that most of the activities presented serve to foster discussion on fisheries management; he underlined the importance of including stakeholders in the discussion and the research work, such as the identification of nursery and spawning areas in support of the decision making process.
22. The representative of Tunisia, Mr Othman Jarboui, recalled the important work carried out by the Project in pursuing the standardisation of methodologies in the region. He reiterated the importance for his country of the inter-ship comparison planned in the last two years between the Italian Research Vessel Dallaporta and the Tunisian Research Vessel Hannibal for acoustic surveys. The inter-ship comparison had been postponed for technical reasons; however he expressed the wish to see this activity performed and finalised in the coming year. He then acknowledged the joint effort made by all the research institutions of the Project area to collect samples of *Coryphaena hippurus* and looked forward to seeing the results.
23. The representative from Italy, Mr Angelo Bonanno, reiterated the important role played by MedSudMed in pursuing standardisation in the region. He recalled that although the inter-ship comparison at sea had not been performed, over the past year the experts had succeeded in standardising the scientific protocols used in processing acoustic data. This joint exercise carried out during the Working Group on Small Pelagics provided a complete, standardised and comparable subset of data. He informed the meeting that this result was presented at the last MEDIAS (European Mediterranean coordinated survey on small pelagics) annual coordination meeting (Spain, 2015): accordingly he reiterated the key support that MedSudMed provides in involving experts in the MEDIAS programme and that, in general, the FAO Regional Projects can play in promoting the standardisation of scientific protocols at sea in Mediterranean.
24. The Maltese Representative, Ms Roberta Mifsud, welcomed the work and efforts made under the umbrella of the MedSudMed Project during the intersession period, especially the work on joint management plans for shared stocks of demersal species in the central Mediterranean. She stressed that this work had only been possible thanks to the collaborative network built up over the years, cooperating in the framework of MedSudMed, together with other work prepared even before there was the official programme for shared management plans. In this context, it is important to note the opportunity MedSudMed has given to fishers to participate in this work from the beginning. She looked forward to continuing in this direction, especially under the umbrella of MedSudMed, which provides platform necessary to create a network

between all countries involved as well as a platform on which joint activities can be drafted, taking the highly necessary sub-regional perspective into account.

25. Another aspect of MedSudMed's work that is important to Malta is capacity development. While efforts towards improving technical skills can be made locally, the available expertise can only be improved by collaborating with experts from outside the country, especially with those working in the area exploited by Maltese fisheries. In this perspective, she expressed trust in the MedSudMed Project to provide the ideal platform for Malta to continue cultivating its technical skills. In this regard, Ms Mifsud acknowledged the importance of the training course on the "R" system, which Malta is making use of in order to facilitate preparation and checking of data.
26. The representative of Tunisia, Mr Hechmi Missaoui thanked the Project for the work done and for providing the possibility to hold joint technical discussion at sub-regional level. He reiterated the importance of work on shared stocks and on fisheries management. He also stressed the importance of work on species and fisheries that are also relevant at national level, such as shellfish, sardines, horse mackerel, as well as work on standardised methods for biological studies. In this view, he also mentioned the efforts made to date and those still to be put in place to explore and apply both direct and indirect methods for biomass and/or stock assessment of small pelagics. The Project should further strengthen this work in order to cope with emerging priorities at national and sub-regional level.
27. The Representative of the GFCM Secretariat, Ms Pilar Hernandez, thanked the MedSudMed Project and MiPAAF for organising and hosting the meeting. Ms Hernandez acknowledged the amount and quality of the work done by the Project. She also acknowledged the important role that MedSudMed is playing in the area, recognising its efforts in broadening its scope towards support to the countries in fisheries management. All the activities of the Project focused well on addressing the needs of the countries as well as supporting the GFCM, its annual work plan and its Framework Programme 2013-2018. On behalf of the GFCM Secretariat, she also reiterated the importance of the FAO Mediterranean Projects; they are continuing to foster technical work in the Mediterranean in support of the GFCM in fisheries management. Referring to the presentation, she highlighted some key points: the inclusion of stakeholders in discussion on fisheries management, the continued work to provide joint stock assessment and the persistent effort toward the standardisation of methodologies in the area. She also underlined the importance that the Project is giving to activities related to small pelagics, which are one of the target resources of the GFCM. She concluded by reminding the countries of the importance of ensuring at national level appropriate participation in GFCM related events.

FAO General Fisheries Commission for the Mediterranean (GFCM) work plan for the next intersession period (Agenda item n.5)

28. Ms Pilar Hernandez, from the GFCM Secretariat, introduced the GFCM SAC work plan for 2015-2016. At the outset, she clarified that this plan had just been endorsed by the SAC at its annual session (FAO HQ, Rome, 24th – 27th March 2015) and was now due to be submitted to the Commission at its 39th Session (May 2015, Milan, Italy) for consideration and endorsement. Ms Hernandez presented activities planned under four different thematic categories, consistent with the current reference framework of the SAC: information and statistics, socio-economics, environment and stock assessment. She stressed in particular the synergies between the SAC work plan and the valuable work carried out by the MedSudMed Project which could continue to providing sound support to the SAC throughout the next intersessional period. In conclusion, she also mentioned the meetings scheduled to take place in the framework of SAC, depending on the availability of funds and subsequent to the endorsement by the Commission at its 39th Session.
29. The Committee thanked Ms Hernandez for the presentation and pointed out the strategic role of the collaboration between MedSudMed and the GFCM. They looked forward to strengthening this cooperation further, with the objective of providing additional contributions to the development of the SAC and GFCM work plans.
30. Regarding the SAC activities on small pelagics, and in particular the workshop on age reading for small pelagic species, the MedSudMed Project Coordinator informed the participants on the preliminary results of the AdriaMed Study Group on the inter-calibration of otolith readings held in Split (Croatia) 8th -10th April 2015. The results of the meeting will feed the GFCM workshop and the experience accrued by the Adriatic experts will be made available to the workshop.
31. Regarding the programme on eels, the representative of Tunisia, Mr Missaoui, stressed the importance of this species for his country. He reiterated that although this stock is shared among all the Mediterranean countries, there are still differences in the rules on its management. He then expressed the hope to receive support from MedSudMed in the activities foreseen in the framework of the GFCM programme.
32. On the subject of the preparation of a case study within the framework of MedSudMed on the forthcoming GFCM Regional Conference on Small Scale Fisheries, discussion was held on possible examples. The representative of Italy, Mr Fiorentino, informed the Committee that in the western part of Sicily (e.g. Trapani and Egadi islands), Italy, there are several examples of interaction between small scale fisheries and other users of fisheries resources: SSF and Marine Protected Areas (MPAs), SSF and tourist areas, SSF organised in fisheries organisations (Italian CO.GE.P.A., Consorzio di Indirizzo, Coordinamento e Gestione tra Imprese della Piccola Pesca Artigianale). The representative of Malta, Ms Mifsud, reiterated the possibility of finding such examples linked to small scale fisheries in Malta too. In this context, the marine spatial approach adopted in the island could be taken as a good example. The

representative from Tunisia, Mr Jarboui, informed the participants that two possible case studies had already been identified in Tunisia: Kerkenna Island and the interaction between coastal lagoon fisheries and small scale fisheries. After some discussion, the meeting concurred that, besides the national case studies that each country could present, a joint proposal prepared in the framework of MedSudMed should be proposed. The sub-regional proposal to be submitted to the GFCM Secretariat should put forward a comparative approach among the three countries thus contributing to the discussion on small scale fisheries with regional insight.

Development of the Project's Programme for the next period (Agenda Item 4)

33. The MedSudMed Project Coordinator, Mr Arneri, introduced the document "Project Future Implementation". The Committee was reminded that the final work plan would take into account the recommendations emerging from this Committee meeting, the priorities expressed by the countries on each activity and the Project's budget availability.
34. The Meeting was informed that the Project would continue to promote and support the development of a common view on the management of fisheries. In particular, in synergy with the GFCM, most of the technical work in the medium term would focus on supporting the development of a management plan for fisheries exploiting *P. longirostris* and *M. merluccius* in the Project area.
35. Where socio-economic data collection is concerned, the Project will provide technical support and training to plan and perform the collection of fisheries related data. In particular, support for the collection of socio-economic data for Tunisian fisheries exploiting *P. longirostris* and *M. merluccius* is foreseen. In addition, options for a pilot action for socio-economic data collection on selected areas/sectors of small scale fisheries in Tunisia will be explored.
36. Spatial based fisheries management strategies call for accurate information on sensitive areas for target species and the use of geo-referenced fisheries independent data. To provide further insights into this issue, the Project will continue to support the organization of the MedSudMed Study Group for the joint processing of survey data. The Study Group will focus on the standardisation and joint processing of historical bottom trawl survey data for the identification of nurseries and spawning areas for the key target species *P. longirostris* and *M. merluccius* and for other demersal species in the entire MedSudMed area.
37. On the issue of fisheries management planning, the Project will continue to provide technical assistance towards the definition of an internationally-agreed multiannual management plan for the *P. longirostris* and *M. merluccius* fisheries and to promote multi-stakeholder discussion on this issue. Further meetings are foreseen involving scientific community and representatives of fisheries' administrations and fisheries' associations of participating countries. The objective is to continue fostering a

participatory approach and the sharing of views, data and information among fisheries stakeholders.

38. The Project will continue to support common and collaborative discussion on fishing technology, considering its relevance for the characterisation of fisheries exploiting *P. longirostris* and *M. merluccius*, in terms of bycatch reduction and the overall importance of the high variety of fishing gears that are currently used in the region. In this context, the preparation of a catalogue on fishing gears in the south-central Mediterranean Sea is foreseen. This and other key issues will be dealt with in the annual MedSudMed Working Group on Demersal Fisheries Resources, scheduled for September 2015.
39. Where small pelagic resources are concerned, the Project will continue the joint processing of samples and data collected during the MedSudMed cooperative surveys at sea, as well as pursuing the standardisation of data collection and processing. In this context the Study Group for the joint processing of small pelagic data (acoustic and eggs and larvae) will be organised. Given the nature of small pelagic stocks and the ongoing cooperation between experts from Tunisia and Algeria on acoustic studies of small pelagic fish, the possibility of inviting expert/s from Algeria to the MedSudMed technical meetings will be explored in collaboration with CopeMed II. The objective would be to broaden the technical discussion on target species, spatial distribution of stocks, eggs and larvae data and the technical support.
40. MedSudMed will continue to support activities that aim to identify possible shared stocks of pelagic fish species in the Project area. In this view, options will be explored to expand studies carried out at national level on morphometry, micro-chemical composition of the otoliths, tropho-dynamics, genetic comparison. *Ad hoc* activities will also be scheduled on selected species: Horse mackerels, *Trachurus mediterraneus*, *T. trachurus* and *T. picturatus*. The annual MedSudMed Working Group on Small Pelagic Fishery Resources is expected to take place in the second half of 2015.
41. To ensure the proper dissemination of the results of joint activities and studies, the Project will provide further technical support for the preparation of scientific and technical documents and the presentation of results in international fora.
42. Transversal to the activities mentioned will be the implementation of training activities to be coordinated and harmonized among the Projects which operate in the Mediterranean. One training exercise on the use of the environment for statistical analysis “R” will be organised in cooperation with the other FAO FIRF Mediterranean Projects. Furthermore, existing cooperation with other FAO Regional Projects will continue to be encouraged; the indications provided during the internal coordination meetings among Projects will also be taken into consideration. As well as actively collaborating with the GFCM and with other regional initiatives.

43. Taking into account the geographic coverage of the two Projects, specific activities will be organised in cooperation with CopeMed II, these include working groups and study groups. The definition of stock boundaries, joint stock assessment, fisheries and assessment of *Coryphaena hippurus* and socio-economic impact of management measures shall be among the subjects of joint MedSudMed-CopeMed II meetings.
44. At the end of the presentation the Chair opened the discussion. The Committee members appreciated the work plan proposed and provided further comments.
45. The Project Coordinator recalled the issues raised by Mr Hisham Ghmati, Director of the MBRC in his message to the Committee.
46. Mr Ghmati expressed the wish to see the administrative difficulties encountered recently in involving experts from the MBRC in the Project activities overcome in the coming period. To deal with this issue, the Committee agreed on the importance of planning Project activities in advance so as to have enough time to complete the administrative procedures necessary to ensure the participation of all MedSudMed experts.
47. Interest in further contributing to the Project activities was reiterated by the Director of the MBRC. In this respect, and in particular for small pelagics, he expressed the wish to see the joint processing of 2010 acoustic data resumed and completed. He also pointed out the importance for MBRC staff of participating in all the future MedSudMed training activities, as training will be the only option for MBRC staff to develop expertise and contribute more and more to the implementation of national and regional scientific activities.
48. The representative of Malta, Ms Mifsud, commented positively on the work plan proposed. With regards to the socio-economic activities planned in Tunisia, she informed the participants that a new economist is now working at the Maltese Department of Fisheries and Aquaculture within the Ministry for Sustainable Development, the Ecosystem and Climate Changes, offering the possibility of collaboration in this context.
49. The representative of Tunisia, Mr Jarboui, while acknowledging the work carried out so far by the Working Group on Demersal Fisheries Resources on *Merluccius merluccius* and *Parapenaeus longirostris*, highlighted that time had come to begin similar work on other species. He therefore proposed widening the discussion of the Working Group to include Aristeidae shrimps and *Mullus* species, for which data are available even if they do not cover all aspects of fisheries.
50. The representative of Malta, Ms Mifsud, supported this proposal.
51. Recalling the importance of elasmobranchs and the activities planned on these species and included in the SAC preliminary work plan, Mr Jarboui proposed the creation of a specific MedSudMed Working Group on elasmobranchs.

52. The representative of Italy, Mr Fiorentino, welcomed the proposal of creating a Working Group on elasmobranchs and recommended focusing on demersal species for which a consolidated time series of survey data is available.
53. He also echoed the importance of widening the scope of the Working Group on Demersals to include additional species for stock appraisal. He underlined the challenge that the stock assessment for additional species would bring to the Working Group as the assumptions on shared stocks may not be fully confirmed for all species considered.
54. After some discussion, the Committee agreed on the establishment of a Working Group dealing with demersal elasmobranchs. The GFCM Secretariat representative, reminded the participants to use any information gathered by the work on elasmobranchs carried out so far in the Mediterranean, and invited the future Working Group to acknowledge the priorities set for this group of species in the GFCM work plan.
55. The Committee welcomed the option of increasing the number of species for which joint stock assessment is carried out. In this view, the issue of the occurrence of shared stock when selecting the species to be assessed was also dealt with: i.e. Aristeidae shrimps may be considered fully shared stocks; on the other side evidence shows that *Mullus* spp. from the African and Sicily-Maltese shelves probably have to be considered and treated as separate stocks. The WG-Dem will ensure that the proper approach and sharing of data is adopted case by case.
56. On the subject of small pelagics, the representative of Italy, Mr Bonanno, recalled the joint surveys at sea carried out in Libya in 2008 and 2010. The joint processing of 2008 data has been completed whilst that regarding 2010 data has been started but then slowed down. He reiterated the importance, as underlined by the Libyan colleagues in the message sent to the Coordination meeting, of finalising the joint analysis and preparing a full report.
57. The Committee acknowledged the importance of the joint surveys carried out in Libyan waters, as they are the only surveys carried out in the area in recent years. Accordingly, every effort should be made by MedSudMed to promote and support the finalisation of joint data processing and reporting. This activity was considered of the utmost importance to fill both a gap in knowledge on small pelagic species and to continue fostering capacity development on acoustic data analysis.
58. Where small pelagic species are concerned, the representatives of Tunisia reiterated the importance of broadening the number of target species considered. In particular they pointed out the need to develop activities on *Trachurus* and *Scomber* spp. as both these species are important commercial species in Tunisia. In this regard Mr Bonanno informed the Committee that data on the spatial distribution of *Trachurus* spp. are regularly gathered during acoustic surveys and for two years (2008 and 2010) they have been collected covering the entire MedSudMed area.

59. The importance of starting joint activities on *Trachurus* and *Scomber* spp. was widely acknowledged by the Committee. Accordingly the proposal presented by the Project to hold *ad hoc* discussions on this species during the Working Group on Small Pelagics or during an *ad hoc* meeting was welcomed. Some discussion ensued on whether to open the Working Group on *Trachurus* to both small pelagics and demersal experts. The Committee concurred that to begin discussion and properly plan joint activities on such benthic-pelagic species, advantage should be taken of all expertise available in the area, whether it is from experts on demersal and/or small pelagic species.
60. Regarding ichthyoplankton data, Mr Bonanno informed the Committee that joint data analysis is ongoing and several interesting results are emerging. He therefore recalled that one of the main goals of the MedSudMed Working Group on Small Pelagics is to improve scientific knowledge on the distribution and abundance of small pelagic species and on the main factors affecting them. To achieve this objective, the publication of results of joint activities in technical document series and in peer reviewed journals is necessary. Accordingly, Mr Bonanno suggested concentrating on joint efforts in the preparation of contributions for a special issue of a selected peer reviewed journal dedicated to marine ecosystems and living resources in the south central Mediterranean Sea.
61. The Committee, while acknowledging the importance of publishing the results of joint work, underlined the amount of work necessary to put together contribution papers for a scientific journal. Accordingly, it requested the Small Pelagic WG and MedSudMed to explore the best possible options to ensure the widest dissemination of the results achieved.
62. The representative of Malta, Ms Mifsud, reiterated the relatively low importance of small pelagic fisheries for Malta. She then informed the participants that, during the last meeting of MEDIAS, the Maltese authorities offered Italy the possibility to perform the survey in GSA 15, including the Maltese FMZ (fisheries management zone), as part of their national data collection programme. To ensure the execution of the survey, the necessary authorization and support to the survey would be provided by the Maltese administration upon request.
63. Regarding the MedSudMed component on capacity development, the representatives of Tunisia, Malta and Libya expressed interest in training activities on stock assessment. In particular, the training should focus on existing stock assessment packages. The proposal to host the training in Tunisia so as to facilitate the participation of young scientists from Libya was also formulated. The Committee welcomed the proposal and agreed to include this training activity in the MedSudMed work plan for the forthcoming period. In addition, the Committee welcomed the possibility to continue the capacity development programme on the use of R.

64. Regarding the request put forward by the Libyan representatives on a training exercise/workshop on fishing technology, the Committee agreed in principle on the proposal but requested further investigations by the Project with the Director of MBRC on the objective of the proposed workshop.
65. The Committee acknowledged the joint activities proposed by CopeMed II. To optimise such activities, synergies shall be sought during the forthcoming CopeMed II Coordination Committee.
66. After thorough discussion and comments provided on the content of Document CC/13/03, the Committee agreed on the programme of activities proposed and suggestions made by the participants for the coming period; some specific elements were pointed out with reference to some activities and related outputs. The activities will be carried out according to budget availability. In particular, the Committee stressed the importance of the following activities:
- Continue pursuing specific technical work and discussion on management plans in central southern Mediterranean including *ad hoc* meetings with the participation of all fisheries stakeholders;
 - Continue the support for the standardization of demersal trawl data;
 - Initiate the process for the stock assessment of Aristeidae shrimps and red mullet and/or red striped mullets, including the issue of stock boundaries, in addition to update of the currently assessed species;
 - Organise a socio-economic survey and related training in Tunisia for fisheries exploiting *P. longirostris* and *M. merluccius* fisheries and explore options for SSF socio-economic data collection;
 - Support discussion on SSF including developing a joint case study on SSF to be presented at the GFCM Regional Conference;
 - Continue the support for the standardisation of small pelagic data collection and analysis, both acoustic and ichthyoplanktonic;
 - Support the discussion on stock boundaries and stock identification for small pelagics;
 - Initiate *ad hoc* activities on selected benthopelagic species such as *Trachurus* spp., pelagic species *Scomber* spp., and shellfish;
 - Cooperation with CopeMed II on *Coryphaena hippurus*;
 - Establish the MedSudMed Working Group on elasmobranchs;
 - Continue technical support to experts from MBRC for the development of technical capacity and finalise joint data processing and reporting;
 - Explore the best options to disseminate the results of joint activities through the preparation of scientific and/or technical documents;
 - Continue providing training on topics discussed during the meeting.

Other matters (Agenda item n.6)

67. Delegates and Meeting participants wished to express their thanks to the Italian authorities for the hospitality provided.

Date and venue of the next Coordination Committee meeting (Agenda item 7)

68. Upon the kind invitation of the Malta delegation, the next Meeting of the MedSudMed Coordination Committee will be held in Malta. The date and venue will be proposed in due time by the Project. This proposal was welcomed by the Meeting participants.

69. The report was adopted on the 17th April 2015.

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Annotated Agenda

1. Opening of the meeting and election of the Chairperson

2. Adoption of the Agenda

3. Report on the Project's progress

The main activities and the Project's outputs will be presented and reviewed. Information will be given on the activities of the MedSudMed Working Groups, the on-going cooperative research work, the training sessions, the technical work in support of fishery management and the relations and cooperation of the Project at Mediterranean level.

4. FAO General fisheries commission for the Mediterranean (GFCM) work plan for the next intersession period

The scientific and technical activities foreseen in the FAO GFCM work plan for 2015 will be presented. Discussion on how the activities foreseen by the Project are integrated and will contribute to the First GFCM Framework Programme (2013-2018) will be held.

5. Development of the Project's Programme for the next period

The work plan of the Project will be outlined and discussed. Topics to be dealt with are those pertaining to the ongoing research programmes, the training activities and the joint activities directed towards national capacity development and the preparatory work towards joint fishery management decisions in the Project area. Particular attention will be given to the follow-up of the MedSudMed Working Groups activities and priorities, and to the technical support for the development of harmonised fishery management strategies. The international cooperation, the relationship with other projects, the relationship with the Donors, with the FAO GFCM and other topics brought forth by the Committee will be discussed. The Committee will be asked to provide the Project with an appraisal and orientation of the programme presented and/or any other contributions.

6. Other matters

7. Date and venue of the next Coordination Committee meeting

List of Documents

FAO-MedSudMed: CC13/01	Provisional annotated agenda
FAO-MedSudMed: CC13/02	Report on Project's Progress (April 2014 – March 2015)
FAO-MedSudMed: CC13/03	Development of the Project's Programme
FAO-MedSudMed: CC13/Info01	Provisional list of participants
FAO-MedSudMed: CC13/Info02	Report of the Twelfth Meeting of the Coordination Committee. <i>MedSudMed Technical Documents N.34</i>
FAO-MedSudMed: CC13/Info03	MedSudMed Working Group on Demersal Fisheries Resources in the south-central Mediterranean Sea (FAO HQ, Rome, 22-26 September 2014) – Meeting memorandum
FAO-MedSudMed: CC13/Info04	MedSudMed <i>Ad hoc</i> meeting for the joint assessment of demersal fisheries resources in the south-central Mediterranean Sea (FAO HQ, Rome, 11-13 November 2014) – Meeting memorandum
FAO-MedSudMed: CC13/Info05	Stock Assessment Forms on Demersal Fisheries Resources, namely <i>Parapenaeus longirostris</i> . Presented at the GFCM-SAC – Working Group on Stock Assessment on Demersal Species (Rome, 25-28 November 2014)
FAO-MedSudMed: CC13/Info06	Stock Assessment Forms on Demersal Fisheries Resources, namely <i>Merluccius merluccius</i> . Presented at the GFCM-SAC – Working Group on Stock Assessment on Demersal Species (Rome, 25-28 November 2014)
FAO-MedSudMed: CC13/Info07	- Deep-water rose shrimps, European hake and related fisheries in the MedSudMed Project area (Malta, 24-26 June 2014) - MedSudMed technical meeting in support of Deep-water rose shrimp and European hake fisheries management in the south-central Mediterranean Sea (Tunisia, 17-18 March 2015)
FAO-MedSudMed: CC13/Info08	MedSudMed Working Group on Small Pelagic Fishery Resources in the south-central Mediterranean Sea (Tunis, Tunisia 01-04 December 2014 – Meeting memorandum
FAO-MedSudMed: CC13/Info09	- Major activities of the FAO Regional Projects. Documents presented at the GFCM 38 th Annual Session (FAO HQ, Rome, 19 - 24 May 2014) - Major activities of the FAO Regional Projects. Documents presented at the GFCM-SAC 17th session (FAO HQ, Rome, 24-27 March 2015)
FAO-MedSudMed: CC13/Info10	List of Documents

Report on the Project's Progress (May 2014 – April 2015)

Introduction

This paper provides an overview of the main activities carried out by the Project MedSudMed between May 2014 and March 2015, including meetings, training, research activities and technical assistance provided to the participating countries, as well as the cooperation established with the FAO General Fisheries Commission for the Mediterranean (FAO GFCM), its Scientific Advisory Committee (SAC) and Sub-Committees and other relevant institutions. The work programme and recommendations of the 12th meeting of the MedSudMed Coordination Committee (Tunis, Tunisia, 14-16 April 2014; CC/12/info 02) were implemented.

The activities carried out during the inter-committee period comply with the methodological framework of the Project and its mandate for the current phase. To some extent, the work plan in the intersessional period was affected by the political situation in the region that sometimes resulted in changes to the schedule and calendar of activities. This report details the main outputs of the Project activities and the results achieved with direct reference to the following Project Objectives:

- 1) Support the scientific standardization of the methodologies applied in the relevant studies related to fishery resources and to the relationships between fishery resources and biotic and abiotic factors;
- 2) Improve the scientific knowledge on fishery resources and their ecosystem in the Project area through the finalization of the research activities program;
- 3) Strengthen the national expertise through on-the-job training and working groups, and support the national research institutions in enhancing scientific expertise;
- 4) Strengthen and support scientific cooperation between the different experts and institutions involved in the Project activities;
- 5) Strengthen the technical and scientific cooperation at Mediterranean level, among the participating countries and between the Project, the FAO General Fisheries Commission for the Mediterranean (FAO GFCM) and other FAO Regional Projects.

The activities presented are grouped according to four main components, as follows, which may cover one or more of the Project Objectives:

1. Cooperative research programmes and working groups;
2. National capacity development;
3. Regional cooperation;
4. Project communication.

1. Cooperative research programmes and Working Groups

In 2014 the Project implemented a series of activities dealing with field work and data processing methodology.

The Project, in close cooperation with the participating research institutes, initiated implementation of the work plan for the medium and long term activities identified during the 11th MedSudMed Coordination Committee (Malta, April 2013). The work plan was also in agreement with the conclusions of the FAO independent evaluation and Project mandate.

1.1. MedSudMed Component on Demersal Resources

During the inter-committee period, the work carried out within this Project component focused on planning field work, promoting discussion on emerging issues and priorities on fisheries between national experts, joint data analysis, finalisation of technical reports and technical documents. In addition, specific work was developed to promote discussion among participating countries in support of the definition of agreed management strategies for fisheries exploiting shared resources in the Project area as follow up to the priority that emerged during the 38th GFCM plenary session (FAO HQ, Rome, 20-24 May 2014). In this context, synergies were sought with the GFCM, which will be the final forum for discussion on fisheries management.

Working Group on Demersal Fisheries Resources (WG-DEM)

The Project organised the annual meeting of the MedSudMed Working Group on Demersal Fisheries Resources (WG-DEM). The meeting was held on 22-26 September 2014 at FAO HQ, Rome. The WG-DEM was attended by 10 researchers from the research institutes involved in the Project. The meeting focused on: i) the appraisal of the state of *Parapenaeus longirostris* and *Merluccius merluccius* stocks and fisheries in the MedSudMed Project area; ii) the socio-economic data and data collection systems for *P. longirostris* and *M. merluccius* fisheries in the MedSudMed Project area; iii) the technical discussion in support of fisheries management in the south-central Mediterranean for demersal fisheries; iv) knowledge and state of small scale fisheries in the Project area; v) fishing technology. Regarding the *P. longirostris* and *M. merluccius* stock assessment, data from Italy, Malta and Tunisia were shared and the best approaches to run a joint exercise were identified. Experts agreed to run both analytical and global models to provide the best possible technical advice on the stock status of *P. longirostris* and *M. merluccius* in the south-central Mediterranean Sea. Preliminary runs of the assessment models were performed, and an additional meeting for the finalisation of the Stock Assessment Forms was agreed. Specific consideration was also given to the issues raised by the Scientific Advisory Committee (SAC) of the GFCM for 2014-15 referring to the adoption of *ad hoc* management measures in the south-central Mediterranean Sea. In this view, technical discussion was held on i) the proposal for recommendations for fisheries management presented during the 38th GFCM session; and ii) the development of a management plan of fisheries exploiting *P. longirostris* and *M. merluccius* in the south-central Mediterranean Sea (CC/13/Info 03).

Ad hoc meeting for the joint assessment of demersal fisheries resources in the south-central Mediterranean Sea

Considerable effort was made by the Project and the research institutes in the south-central Mediterranean Sea to progress toward the appraisal of the state of main fisheries target species. To further progress in the assessment of the stock dynamic and fisheries of *Parapenaeus longirostris* and *Merluccius merluccius*, an *ad hoc* meeting was organised by

the Project. The meeting was held at FAO HQ, Rome, on 11-13 November 2014 to finalise the work already initiated during the MedSudMed Working Group on Demersal Fisheries Resources (September 2014). During the meeting, the preliminary stock assessments of these two species were presented. Data, method and assumptions used were reviewed. The results obtained and robustness of analysis were discussed. Options to further improve the analysis were agreed on. To take the best possible advantage of the data set available, the participants agreed to finalise the stock assessment of the two species by applying both, analytical (extended survivors analysis) and global (Schaefer and Fox) models. The assessment produced were presented and discussed at the meeting of the Working Groups on Demersals of the Scientific Advisory Committee (SAC-WG) of the FAO General Fisheries commission for the Mediterranean Sea (GFCM) and endorsed by the GFCM Sub Committee of Stock Assessment (GFCM HQ, Rome, Italy, Montenegro 4-6 February 2015 (CC/13/Info 04, CC/13/Info 05, CC/13/Info 06).

Identification of nurseries and spawning grounds

The identification of sensitive areas like nursery and spawning grounds is essential for the implementation of management measures aimed at reducing the impact of fishing on vulnerable stages of species' life cycle and their ecosystems. Great importance has been given by the Project over time to the identification of nurseries and spawning grounds in the south-central Mediterranean Sea. Further progress was made in this respect, taking advantage of the outcome of the inter-calibration exercise at sea of bottom trawl surveys carried out in July 2011. In 2013, survey data gathered throughout the MedSudMed area were standardised, pooled together and jointly processed. As a result, distribution maps of adults and juveniles of *Merluccius merluccius* in the south-central Mediterranean Sea were produced, thus providing further data in support of informed fisheries management.

Technical discussion in support of fisheries management

In 2010 the MedSudMed Coordination Committee (Italy, May 2010), following successful cooperation established at scientific level, underlined the important role that the Project may have in promoting and supporting the technical discussion on the harmonisation of management strategies in the Project area (south-central Mediterranean Sea). The development of internationally agreed tools like multi-annual plans for managing fisheries exploiting shared resources was raised at GFCM level and assumed increasing importance in recent years. In 2013 sub-regional case studies to develop fisheries management plans were identified by the GFCM. To develop the case studies, synergies between GFCM and FAO Mediterranean Fisheries Projects were sought. Regarding the MedSudMed Project area, the discussion to develop a fisheries management plan for fisheries exploiting *P. longirostris* and *M. merluccius* began within the Project framework. During the 38th session of the GFCM (May 2014) the role of MedSudMed in contributing to address technical issues relevant for the definition of fisheries management strategies was further highlighted.

With the objective of promoting a participatory approach, disseminating scientific data and discussion outputs, MedSudMed organised two technical meetings involving all fisheries stakeholders from all participating countries: St. Julian, Malta 24-26 June 2014, Tunis, 17-18 March 2015. Representatives of fisheries associations, fisheries administrations and scientists from Italy, Libya, Malta and Tunisia joined the meetings. The overall objective of the

meetings was to contribute to the process of developing an internationally agreed multi-annual management plan for fisheries targeting *P. longirostris*, *M. merluccius* and associated species in the south-central Mediterranean Sea in line with the conclusions of the 37th and 38th plenary sessions of the FAO General Fisheries Commission for the Mediterranean (GFCM, Croatia May 2013 and Italy, May 2014 respectively). The meetings were an occasion to review data, knowledge and processes for information sharing in the south-central Mediterranean and identify gaps that may hamper the development of harmonised fisheries management. The meetings provided an opportunity for fisheries stakeholders to share information and knowledge, to compare experience and to identify priorities among all the MedSudMed participating countries. The meetings also provided the possibility to discuss potential management strategies to be outlined in a multi-annual management plan. In particular, the participants agreed on the possibility to apply simulation models to test the possible biological and economic implication of selected management measures (CC/13/Info 03). The outcome of the meeting was also used in preparation of and to feed the discussion during the GFCM follow-up workshop on the implementation of management measures in selected case studies in the Mediterranean (Rome, Italy, 2-3 February 2015).

Fishing technology

The joint stock assessment of *Parapenaeus longirostris* and *Merluccius merluccius* in the south-central Mediterranean Sea highlighted the need to improve the fisheries exploitation pattern and reduce the capture of juveniles of the two species to achieve a sustainable exploitation level. In this context, the importance of outlining the characteristics of fishing gears currently used for bottom trawling and for demersal fisheries generally at sub-regional and regional level was raised both during the 16th session of the SAC (Malta, 17-20 March 2014) and the 12th MedSudMed Coordination Committee (Tunisia, 14-16 April 2014). To cope with this emerging issue, the Project explored the possibility of carrying out an inventory catalogue of fishing gears currently in use in the south-central Mediterranean Sea. An overview of gears used at national level was provided by national experts during the MedSudMed Working Group on Demersal Fisheries Resources (FAO HQ, Rome, 22-26 September 2014). On that occasion the steps necessary to collate information on fishing gears in use in Tunisia, Libya, Malta and Italy were discussed and agreed on.

Support to discussion on small scale fisheries

Considerable attention has been devoted to small scale fisheries (SSF) at global and Mediterranean level in recent years. SSF in the Mediterranean Sea account for more than 80% of commercial fishing fleets in terms of number of fishing units and employees. In 2013, to stimulate discussion and raise awareness on the importance of SSF at regional level, the GFCM organised the first regional symposium on SSF (Malta, December 2013) with the support of the FAO Regional Projects. As follow up of the meeting, the 12th Coordination Committee meeting recommended that MedSudMed explore the possibility to plan joint actions for the appraisal of SSF, with the final goal of providing technical and scientific information in support of fisheries management. In this view, the Project dedicated one session of the Working Group on Demersal Fisheries Resources (FAO HQ, Rome, 22-26 September 2014) to reviewing current knowledge and status of small-scale fisheries (SSFs) in the south-central Mediterranean. SSFs dynamics and interactions with other fisheries were also dealt with. During the discussion, the WG-DEM agreed to prepare a contribution

document depicting the current information on SSF in the south-central Mediterranean Sea. The contribution will be presented during the second GFCM regional conference on SSF (CC/13/Info 03).

1.2. MedSudMed Component on Small Pelagic fish

As for the previous years and following the requests formulated during the 11th and 12th MedSudMed Coordination Committee meetings (April 2013, April 2014), efforts were made by the Project to pursue the improvement of expertise on small pelagic fisheries resources and the harmonisation of methodologies for data collection at sea, as well as in monitoring areas not regularly covered by national surveys targeting small pelagic fishery resources.

Working Group on Small Pelagic Fishery Resources

In the inter-committee period, particular importance was given to enlarging and consolidating the group of researchers involved in studies on small pelagic fish. In this framework, the annual MedSudMed Working Group on Small Pelagic Fishery Resources (WG-SP) was organised in Tunis, Tunisia, on 01-04 December 2014. During the meeting national experts: i) reviewed and discussed the results of the joint activities carried out on small pelagic fish in the participating countries in the last year; ii) reviewed the existing data on pelagic stocks with particular focus on eggs and larvae; iii) carried out a joint exercise to standardise the methods used to process acoustic data for the estimation of small pelagic biomass at sea; iv) produced preliminary maps of areas of concentration for early life stages of *Engraulis encrasicolus* and *Sardinella aurita* in the entire Project area (Italy, south-Sicily, Libya, Malta and Tunisia) ; iv) agreed on a series of technical and scientific document to be jointly developed and published under the series of *MedSudMed Technical Documents* and scientific journals; v) identified priority issues on small pelagic fisheries and fisheries resources to be jointly addressed in the framework of the Project activities (CC/13/Info 08).

Joint surveys at sea

According to the recommendations of the 11th and 12th meeting of its Coordination Committee, the Project was called on to support the implementation of joint surveys at sea. In this respect, the organisation of an inter-ship comparison for acoustic surveys involving the Tunisian and Italian research vessels, R/V Hannibal and R/V Dallaporta was foreseen for summer 2014. The technical aspects concerning the sampling scheme and the dates of the work at sea were discussed and agreed on. The administrative procedures to provide the necessary authorisation for the surveys were also initiated. However, due to the unforeseeable unavailability of research vessels, the inter-ship comparison was postponed.

2. National Capacity development and training

During the intersessional period, considerable effort was dedicated to supporting the national capacity development, mainly through training courses following specific requests of the participating institutes. The courses were an opportunity to strengthen scientific collaboration and to exchange competencies between institutes, as they involved scientists belonging to the network that has been created and consolidated by the Project. Some of the training courses allowed for joint processing of survey data and aimed not only at enhancing capacity

development but also at producing scientific information directly related to the Project activities. Moreover MedSudMed, in cooperation with the other FAO Projects in the Mediterranean and GFCM, is seeking synergies on common training activities to broaden the perspective of the actions planned and provide wider group of young Mediterranean experts with the possibility to develop harmonised skills and to discuss issues of common interest.

In this context, the following training activities have been carried out and/or supported:

- MedSea LME-AdriaMed-MedSudMed-EastMed-CopeMed Training and Planning Workshop on the Ecosystem Approach to Fisheries and Aquaculture (EAF/EAA) FAO-HQs, Rome, Italy 22-26 September
- MedSudMed - Training course on Introduction to the “R” system, FAO HQ, Rome, Italy, 26-30 January 2015
- Training on the use of ATrIS, AdriaMed Trawl Information System (Tunisia, 15-19 March 2015), a database to store, retrieve and handle trawl survey data and produce standardised outputs ready to be used for resource mapping and appraisal.

3. Regional cooperation

As indicated in the last meetings of the Coordination Committee and by the FAO Independent Evaluation, the Project strengthened liaisons with the Donors (MiPAAF and EU-DG-MARE) and intensified the communication flow with them. In the intersessional period, a series of coordination meetings were held at the MiPAAF headquarters. The opportunity was taken during the GFCM 38th session (May 2014), and other informal meetings were held to discuss and coordinate with the EU-DG-MARE staff for the presentation of new grant applications for additional funds and for the proposal of a single FAO Mediterranean Programme under the coordination of FAO-FIRF. The liaison with the Donors lead to: i) strengthened coordination; ii) improved information flow; iii) more efficient planning of Project funding; iv) illustration of the draft of the document outlining the main features of the future Mediterranean Programme.

In the intersession period, progress was made in the preparation of a common programme for fisheries in the Mediterranean Sea under which the MedSudMed Project, as well as all the other FAO Mediterranean Projects, namely AdriaMed, EastMed and CopeMed II, would converge. On 21st May 2014 during the 38th session of the FAO General Fisheries Commission for the Mediterranean (GFCM), the FAO Fisheries and Aquaculture Department-Fisheries and Aquaculture Resources Use and Conservation Division (FIR) illustrated the concept note for the creation of a FAO-FIRF common programme for fisheries in the Mediterranean Sea to the GFCM Member countries. In July 2014, FAO FIRF prepared a complete draft proposal “*Scientific and Institutional Cooperation to Support Responsible Fisheries Management in the Mediterranean Sea*” and circulated it to the Mediterranean countries for comments, suggestions and feedback. In March 2015 during the 17th session of the GFCM Scientific Advisory Committee (SAC, 24-27 March 2015), FAO-FIRF informed that the proposal is under major revision and a new proposal will be circulated shortly to the countries.

The reinforcement of regional cooperation was encouraged by the Project through the participation of regional experts in several workshops, training exercises, meetings, seminars and conferences organised in the Mediterranean area. Relations were constantly maintained with the researchers and the institutes of the MedSudMed area for the discussion of the Project's activities, planning and organization of the working groups and comments on the publications produced. Several informal meetings with national experts and focal points were held through the year to preliminarily discuss technical issues and plan possible activities.

In order to strengthen international and regional cooperation, the Project operated closely with the FAO Regional Projects AdriaMed, CopeMed II, EastMed, and Med-Sea Large Marine Ecosystem (MedSea-LME). In particular, the Project interacted closely with AdriaMed¹, with support provided on technical issues and administrative matters. In this view, the Project also participated in the 15th and 16th AdriaMed Coordination Committee meeting (Italy, March, 2014; April 2015); ii) AdriaMed Working Group on small pelagic and demersal fisheries resources (Italy, June and October 2014 respectively) iii) AdriaMed Working Group on Small Scale Fisheries (Croatia, December 2014).

Cooperation was also established with the FAO Project CopeMed II to optimise the use of human and financial resources. In addition, several coordination meetings were also held with the other FAO Regional Projects AdriaMed, CopeMed II and EastMed throughout the year (the last being in February 2015) to consolidate and develop common activities. Furthermore, the Project participated in the Coordination Committee meeting of EastMed (FAO HQs, Rome, 6-7 May 2014), where additional synergies were identified.

Cooperative actions were carried out with “MedSea Large Marine Ecosystem (MedSea-LME)” Project on topics of common interest and executed by FAO-FIRF. MedSudMed co-organized with MedSea-LME and the other FAO Mediterranean Projects, the “MedSea LME-AdriaMed-MedSudMed-EastMed-CopeMed Training and Planning Workshop on the Ecosystem Approach to Fisheries and Aquaculture (EAF/EAA)” at FAO-HQ, Rome, Italy, 22-26 September 2014 FAO-HQs, Rome, Italy. During the session, issues of relevant interest at national level concerning the implementation of the EAF/EAA in the preparation of fisheries management plans according to the Ecosystem Approach to Fisheries and Aquaculture were dealt with; 3 scientists and 2 fisheries managers from Tunisia were trained.

A meeting for the presentation and discussion of the outcomes of an analysis assessing the legal framework for the implementation of an Ecosystem Approach to Fisheries and Aquaculture (EAF/EAA) in Tunisia was organized with the involvement of the General Directorate of Fisheries and Aquaculture of Tunisia (DGPA, 19th March 2015).

In addition, MedSudMed intensified collaboration with MedSea-LME in the preparatory phase of the selectivity trials at sea to be carried out in the Gulf of Gabès (south-Tunisia). For the preparation of this experimental work at sea, two missions were organised in July and September 2014. The missions aimed at verifying the conformity of the equipment with the requirements for the survey implementation. The equipment included: four cod-ends with different mesh size (40 mm squared, diamond 20, 40 and 50 mm stretched mesh size) and the mounting system to ensure quick assemblage. The mission also aimed to provide training to

¹ Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea

the INSTM team in La Goulette on the material and methods to be used during the experiment at sea. The experimental survey was conducted in Tunisia in cooperation with the Institut National des Sciences et Technologies de la Mer (INSTM) and the Direction General de la Peche (DGPA) of Tunisia 22nd March – 2nd April 2015. The survey was carried out using commercial fishing vessels for catch comparison for assessing the impact of the 40 mm squared and 50 mm diamond mesh size cod-ends in bottom trawl fisheries in the Gulf of Gabès with respect to the traditional mesh size, diamond 40 mm stretched.

In the framework of the FAO decentralisation process, MedSudMed is reinforcing collaboration with the FAO offices for north African (FAO SNE) and Near East (RNE) by: i) liaising periodically; ii) supporting joint initiatives on fisheries; and iii) sharing information on the activities and results of the Project. Strong cooperation with FAO Oman was established. In this framework, following a request from the Director General of the Fisheries Department, Ministry of Agriculture and Fisheries Wealth, Sultanate of Oman, the Project staff prepared a proposal to develop a version of ATrIS (AdriaMed Trawl Information System) suited to the recent and historical geo-referenced fisheries data in Oman: OTrIS. The OTrIS project was signed in February 2014 and will run for 18 months. Two technical missions, involving Project staff, were organized in Oman, (May and December 2014) and two trainings/workshops were organized to identify, define the characteristics of the new package, according to the needs of the Oman Fisheries Research Institute and initiate the training on the use of the new application. During the missions the survey data gathered through time in Oman from scientific surveys at sea were reviewed and discussion was held to develop OTrIS.

Cooperation was further sustained with the GFCM and the GFCM Subsidiary bodies (CC/13/info 09). Several informal coordination meetings were held with the GFCM Secretariat staff back to back to FAO GFCM events, in order to strengthen collaboration and to find synergies. Among others the following meetings were held:

- Preparatory meeting with the GFCM Secretariat on the Follow-up workshop on the implementation of management measures in selected case studies in the Mediterranean (GFCM HQ, Rome, Italy 2-3 February 2015);
- Preparatory meeting with GFCM CAQ on the SAC intersessional meeting on management plans for the small pelagic fishery in the Adriatic Sea (GFCM HQ, Rome, Italy 28-29 November 2014).

MedSudMed continued to support the activities of the GFCM by providing scientific contributions for discussion and by participating and funding the participation of experts in GFCM meetings. Due to the overlap in geographical areas covered by MedSudMed and CopeMed II, the two Projects agreed to coordinate the support to the participation of national scientists in the meetings organised by the GFCM. Overall, MedSudMed supported the participation of about 40 experts to the following 14 meetings held in the intersession period (CC/13/Info 09).

- General Fisheries Commission for the Mediterranean - Extraordinary Session 7-9 April 2014 Athens, Greece and FAO HQ, Rome, Italy
- General Fisheries Commission for the Mediterranean - 38th session 19-24 May 2014
- GFCM-Committee on Compliance (CoC) - 8th Session FAO HQ, Rome, Italy 19-24 May 2014
- GFCM-Committee on Administration and Finance (CAF) -5th Session FAO HQ, Rome, Italy 19-24 May 2014
- EIFAAC/GFCM/ICES Working Group on Eels (WGEEL) GFCM HQ, Rome, Italy 3-7 November 2014
- GFCM-MedSuit Regional Workshop GFCM HQ, Rome, Italy 6-7 November 2014
- GFCM Working groups on stock assessment of demersal and small pelagic species (including assessment of red coral populations) GFCM HQ, Rome, Italy 24-27 November 2014
- GFCM-SAC intersessional meeting on management plans for the small pelagic fishery in the Adriatic Sea GFCM HQ, Rome, Italy 28-29 November 2014,
- GFCM-Workshop on the implementation of the DCRF in the Mediterranean and the Black Sea, Madrid, Spain 15-16 December 2014
- GFCM-Intersessional meeting of the Compliance Committee (CoC) (including a session on legislation), FAO HQ, Rome, Italy 29-30 January 2015
- GFCM-Follow-up workshop on the implementation of management measures in selected case studies in the Mediterranean, GFCM HQ, Rome, Italy 2-3 February 2015
- GFCM-SAC subcommittee on Economic and Social Sciences (SCESS) - 15th Session GFCM HQ, Rome, Italy 4-5 February 2015
- GFCM-SAC subcommittee on Stock Assessment (SCSA) - 16th Session GFCM HQ, Rome, Italy 4-5 February 2015
- GFCM-Scientific Advisory Committee (SAC) - 17th Session FAO HQ, Rome, Italy 24-27 March 2015

4. Project Communication

4.1. Web site (<http://www.faomedsudmed.org>)

Since its publication, the Project's website has been continually updated. A general description of the MedSudMed Project is available, as well as information on the recent or forthcoming events organized by the Project, links to the Research Institutes participating in the Project, the Mediterranean Regional Projects or to sites regarding GIS, databanks and Research Institutions. The specific section describing the main activities carried out in the framework of the Project is being renewed. In this context the Project continued the adaptation of its web pages into Italian and Arabic.

The list of Technical Documents available on the Project web site has been updated and more than 20 MedSudMed Technical Documents are now available as .pdf files. Over the last year, an average number of 1050 pages were visited each month and around 490 documents are downloaded from the site each month.

4.2. Technical Documents

The MedSudMed Publications are issued as series of Technical Documents (GCP/RER/010/ITA/MSM-TD-00) and of Scientific Reports (GCP/RER/010/ITA/MSM-SR-00) related to meetings and research organised or conducted within the framework of the Project. The MedSudMed Technical Documents are included in the ASFA (Aquatic Sciences and Fisheries Abstracts) database. The most recent Project publications are also disseminated through the Project's mailing list. One technical document and two scientific reports related to meetings and specific research activities promoted by the Project were finalised and published:

- MedSudMed Working Group on Demersal Fisheries Resources in the south-central Mediterranean Sea (Tunis, Tunisia, 23-27 September 2013). GCP/RER/010/ITA/MSM-SR-5. *MedSudMed Scientific Reports*. No 3: 21 pp.
- MedSudMed Working Group on Small Pelagic Fishery Resources in the south-central Mediterranean Sea (FAO HQ, Rome, Italy 31 January – 01 February 2013). GCP/RER/010/ITA/MSM-SR-6. *MedSudMed Scientific Reports*, 4: 21 pp.
- MedSudMed. 2012. Report of the Twelfth Meeting of the Coordination Committee. FAO-MiPAAF Assessment and Monitoring of the Fisheries Resources and Ecosystems in the Straits of Sicily. GCP/RER/010/ITA/MSM-TD-34. *MedSudMed Technical Documents*, No 34: 37 pp.

Development of the Project's Programme

Introduction

The aim of this document is to provide the Coordination Committee (CC) members with elements for discussion on the MedSudMed Project Work Programme for the coming year.

The MedSudMed Project has been operative since April 2001 with an initial mandate of 5 years (MedSudMed phase I). During the 5th MedSudMed Coordination Committee meeting (2006), the Committee reviewed the conclusions and recommendations made by the Project's Mid-term Review and recommended a four-year extension period from 2006 to 2010 (MedSudMed II phase). Following a technical review conducted in 2009, the Italian Donor, the Ministry of Agriculture Food and Forestry Policies (MiPAAF), confirmed the extension of its financial support to the Project activities until December 2012. Additional funds were also provided to MedSudMed (2011-2013) by the Regione Siciliana (Italy) to carry out specific actions on crustaceans. Since 2012 the Project has been co-funded by the Directorate General for Fisheries and Maritime Affairs of the European Commission (EU-DG Mare). Current NTE of the project is 31st December 2015. The possibility of further extension is under discussion with both Donors MiPAAF and EU-DGMARE.

The activities proposed in this document take into account the objectives and results achieved so far and the recommendations received during the 12th Coordination Committee meeting (14-16 April 2014, Tunis, Tunisia), the indications from the countries during a series of informal meetings held with the national staff and with the National Focal Points, and indications raised by the Project's Working Groups throughout the intersessional period. The scientific cooperation established within the framework of the FAO General Fisheries Commission for the Mediterranean (GFCM) is also considered. In addition, some of the activities take into account the indications provided by the FAO External Evaluation of the Project carried out March-June 2012 by an independent FAO team.

All the activities planned are integrated and will contribute to the development of the GFCM Framework Programme (2013-2018), and in particular to the Work Programmes 1, 2, 3 and 4.

The final work plan will take into due account the recommendations of the 13th Coordination Committee meeting, in accordance with the priorities expressed by the countries on each activity and directly linked to the Project's budget availability.

WORK PLAN

For the coming period the Project, in collaboration with the participating institutions, will focus its attention on research activities in support of fisheries management, the filling of scientific gaps on fisheries, fisheries resources and the ecosystem, the finalisation of pending publications and the training component.

In order to facilitate the presentation of the work plan for the next 12 months, all the activities are organized into five main themes:

- a. Demersal fisheries resources;
- b. Small pelagic fisheries resources;
- c. Training and national capacity development;
- d. Web site and information system;
- e. Regional cooperation.

Moreover, efforts have been made in coordination with the participating countries, all the FAO Regional Projects operating in the Mediterranean and the GFCM, to draft a tentative common calendar of activities, in order to avoid any overlap, to find synergies and strengthen the coordination among the activities carried out. Synergy with the FAO Project CopeMed II will also be sought in this respect.

Some of the activities included in this work plan overlap with those of the previous programme of work, as they were initiated during the intersessional period and are currently in progress.

a) Demersal fisheries resources

In the coming period, effort will be devoted by the Project to promote and support the development of a common view on the management of fisheries resources. In particular, in synergy with the GFCM, most of the technical work in the medium term shall focus on supporting the development of a management plan for fisheries exploiting *Parapenaeus longirostris* and *Merluccius merluccius* in the south-central Mediterranean Sea.

- Socio-economic data collection

The Project will provide technical support to the participating research institutions to plan and put in place the collection of fisheries related data. The activity will broaden the knowledge base on fisheries in support of discussion for fisheries management. Taking into account the ongoing discussion for the development of an *ad hoc* management plan, particular attention will be paid to fisheries targeting Deep-water rose shrimp (*Parapenaeus longirostris*) and European hake (*Merluccius merluccius*). As follow up to the discussion held during the MedSudMed Working Group on Demersal Fisheries Resources, the Project will foster the integration of data on commercial catch and effort with socio-economic data and with information on fishing technology. With this objective in mind, the Project plans the implementation of socio-economic data collection in Tunisia on a pilot scale on specific fisheries, e.g. on demersal fisheries targeting *Parapenaeus longirostris* and *Merluccius merluccius*. In parallel the Project, together with the DGPA will investigate the possibility to implement a data collection programme covering a selected small scale fisheries segment, and/or on a selected sub-region. The programme will include a capacity development component, data collection in the field and, in the short term, the estimation of selected indicators to describe the main socio-economic features for the selected fisheries. Overall, these activities will contribute to providing the tools for planning and managing national

capture fisheries and will support the country regarding the GFCM recommendation on data collection (according to the DCRF and the Recommendation GFCM/33/2009/3).

- Joint processing of survey data

The discussion on possible implications of spatial based fisheries management strategies calls for accurate information on sensitive areas for target species and the use of geo-referenced fisheries independent data. To contribute to the discussion, the Project will continue to support the organization of the MedSudMed Study Group for the joint processing of survey data. The objectives of the Study Group meeting will be: i) to progress in the standardisation and joint analysis of historical survey data; ii) to progress in the identification of nurseries and spawning grounds for fisheries target species *M. merluccius* and *P. longirostris*; iii) to provide standardised data for integrating commercial catch in stock assessment exercises. During the meeting, possible options to further improve and facilitate the sharing and circulation of fisheries data and of packages for data analysis will also be discussed. The possibility to carry out the meeting back-to-back with the Working Group on Demersal Species will be considered.

- Progress on the identification of shared stocks

The identification of stock boundaries is essential to plan resource appraisal studies and fisheries management properly. This is particularly relevant in areas characterised by fishing fleets operating on a long distance basis or where fishing grounds are shared between several fishing fleets like the south-central Mediterranean Sea. The Project will continue to support activities to identify connections between stocks of demersal fisheries resources in the south-central Mediterranean Sea. As follow up to the discussion held during the MedSudMed Working Group on Demersal Fisheries Resources on the importance of increasing the number of species jointly assessed in the south-central Mediterranean Sea, the need to improve definitions of the stock boundaries of *Mullus* species, *M. barbatus* and *M. surmuletus* in the Project area was indicated as priority. The stock units of several demersal species including *Mullus* spp. were investigated through a multidisciplinary approach in the framework of the STOCKMED Project². MedSudMed will explore the possibility to expand the methodological approach used in the framework of STOCKMED so as to cover the entire south-central Mediterranean and provide more accurate information on *Mullus* spp. stock boundaries. In this respect, MedSudMed will coordinate information flow and sharing of data and samples among national research institutions to ensure the widest possible spatial coverage of the studies planned. The results of this activity will support the GFCM-SAC SCSA “Workshop on benchmarks to estimate growth and maturity parameters in *Mullus barbatus*”, planned in the SAC 2015 work plan.

- Technical discussion in support of fisheries management planning

In 2013 sub-regional case studies for developing fisheries management plans in the Mediterranean were identified by the GFCM. Based on information available, the fisheries

² The Stockmed Project “Stock units: Identification of distinct biological units (stock units) for different fish and shellfish species and among different GFCM-GSA” is one component of the MAREA Project “Mediterranean hAlieutic Resources Evaluation and Advice”, <http://mareaproject.net/contracts/10/overview>

exploiting *P. longirostris* and *M. merluccius* were identified as case study for the south-central Mediterranean Sea. Synergies between MedSudMed and the GFCM were sought to progress towards the development of this issue. During the 38th session of the GFCM (May 2014) the role of MedSudMed in contributing to address technical issues relevant for the definition of fisheries management strategies was further highlighted. As follow up, multi-stakeholder and technical discussions were initiated within the Project framework involving fishers, fisheries administrations and experts (Malta, data June 2014 and Tunisia, 15-16 March 2015, and FAO HQ, 22-26 September 2014.). The Project will continue to provide technical assistance for the definition of internationally agreed multiannual management plans for the selected fisheries and to promote multi-stakeholder discussion on this issue. MedsudMed foresees the organisation of a meeting with the involvement of both the scientific community and representatives of fisheries' administrations and fisheries' associations of participating countries. The objective would be to further promote a participatory approach and the sharing of views, data and information among fisheries stakeholders of all the MedSudMed participating countries.

- Joint discussion on fishing technology

As follow up to the indications received during 12th MedSudMed Coordination Committee (Tunisia, 14-16 April 2014) and the 16th SAC meeting (Malta, 17-21 March 2014), and considering its relevance for the characterisation of fisheries exploiting *P. longirostris* and *M. merluccius* and in terms of bycatch reduction, the Project will continue to support joint discussion on fishing technology. The discussion will be influential in: i) providing an overview of knowledge on fishing gears in use in the MedSudMed area and of their main characteristics, and ii) establishing the basis for the preparation of a review document on fishing gears in the Mediterranean Sea. An agenda item of the MedSudMed Working Group on Demersal Fisheries Resources will be devoted to this issue.

- Joint discussion on small scale fisheries

In 2014 the Project promoted joint discussion on small-scale fisheries (SSF). The discussion focused on existing knowledge and state of SSF in MedSudMed countries and on the contents of the Regional Conference on Small Scale Fisheries in Mediterranean to be held in the first half of 2016. In the forthcoming period, MedSudMed will continue to promote discussion on SSF and to foster the development of a sub-regional case study to be presented as contribution document to the Second Regional Symposium on SSF. An agenda item of the MedSudMed Working Group on Demersal Fisheries Resources will be devoted to this issue.

- MedSudMed Working Group on Demersal Fisheries Resources

The Project will organize the annual MedSudMed Working Group on Demersal Fisheries Resources. The meeting will be tentatively held in September 2015. During the meeting attention will be paid to:

- continued support for the appraisal of the stock status of *Parapenaeus longirostris* and *Merluccius merluccius* and progress in the stock assessment of *Mullus barbatus* and/or *M. surmuletus*;

- continuing discussion on the integration of socio-economic data in the appraisal of fisheries status;
- the harmonisation of fisheries management in the south-central Mediterranean Sea;
- fostering cooperative discussion on fishing technology for the preparation of a review document on fishing gears in the Mediterranean Sea;
- the possibility to monitor cartilaginous fish taking advantage of on-going national and international initiatives.
- facilitating discussion on small scale fisheries to define a case study to be developed and presented during the Second Regional Symposium on SSF (Algeria, 2016);
- identifying priorities and plan future common joint research activities;

b) Small pelagic fisheries resources

- Study Group on the joint processing of acoustic and ichthyoplankton data

The Project will continue to support participating countries in the process of data sharing and joint processing. A large quantity of data has been gathered in the last years on the abundance and distribution of early life stage (i.e. eggs and larvae) and adults of small pelagic fish in different areas of the south-central Mediterranean Sea. The MedSudMed WG-SP (FAO HQs, March 2014) initiated the joint processing of such data to produce a preliminary description of the distribution and abundance of different life stages of small pelagics. To further continue the process and consolidate the results achieved, a Study Group for the joint processing of acoustic and ichthyoplankton (SG-JDP) data was organised (Tunisia, 1-2 December 2014). In 2015 the Project will organise a second meeting of the SG-JDP to: i) advance in the use of acoustic data for the estimation of small pelagic fish biomass at sea; ii) continue the joint processing of ichthyoplankton to define spawning areas and areas of concentration of fish larvae; and iii) progress in the preparation of documents to be published in the series of MedSudMed Technical Documents and in the peer reviewed scientific literature. The SG will be tentatively organized in the first half of 2015. Given the nature of small pelagic stocks and the ongoing cooperation between experts from Tunisia and Algeria concerning acoustic studies of small pelagic fisheries, the possibility to invite expert/s from Algeria to the Working Group will be explored in collaboration with CoPeMedII. The objective would be to broaden the technical discussion on fisheries resources (target species, stock spatial distribution, eggs and larvae data) and the technical support to surveys at sea. Synergies with CopeMed II will be sought on this issue.

- Finalisation of reports for MedSudMed cooperative oceanographic surveys

The Project, MedSudMed will provide general coordination, advice and resources to develop technical and scientific documents on small pelagics on the basis of the results of the data processing and statistical analysis jointly carried out. The activity will be instrumental to ensure the widest possible dissemination of outputs achieved in describing the spatial distribution and abundance of small pelagics and environmental factors affecting them.

- Joint surveys at sea

The Project will continue to pursue the standardization of data collection and processing in the south-central Mediterranean Sea. Great attention has been given by MedSudMed to

specific actions on small pelagic fisheries resources and to the standardisation of surveys at sea and survey data processing for such species. As follow up to the discussion held during the WG-SP (FAO HQs, January 2013 and March 2014), options will be explored to facilitate the implementation of acoustic and/or ichthyoplankton survey in Tunisian waters.

- Identification of shared stocks

The Project will continue to support the activities that aim at the identification of possible shared stocks of pelagic fish species in the south-central Mediterranean Sea. As follow up to the discussion held during the MedSudMed Working Group on Small Pelagic Fisheries Resources (WG-SP, WG-SP, FAO HQs, March 2014 – CC/12/Info 08), the need to define the occurrence of possible stock sub-units of selected species in the Project area was pointed out. Emphasis will be given to the possibility to combine various methods to discriminate population and stocks units, e.g. studies on fish morphometry, genetics, otolith microchemistry and amino acid content. In this view, the Project will coordinate *ad hoc* sampling of sardine and anchovy among the research institutions participating in the Project to confirm and further expand the results obtained in previous national studies on morphometry (body and otolith), microchemistry composition of the otoliths (bulk and surface analysis), tropho-dynamic, genetic comparison.

- *Ad hoc* activities on selected species

Horse mackerels, *Trachurus mediterraneus*, *T. trachurus* and *T. picturatus*, are frequent in the commercial catch in the entire south-central Mediterranean Sea. For small pelagic fisheries in Tunisia and Libya, *Trachurus* spp. are among the main target species. According to their importance for fisheries, studies in the Project area have been conducted on horse mackerels at national level. During the last MedSudMed Working Group on Small Pelagic Fisheries Resources (Tunis, 01-04 December 2014, CC/13/Info 08) the need to plan and coordinate activities focused on this group of species emerged as well. Accordingly, MedSudMed will promote an inventory of existing data on *Trachurus mediterraneus*, *T. trachurus* and *T. picturatus* as starting point for planning joint activities and studies. One point of the agenda of the MedSudMed Working Group on Small Pelagic Fisheries Resources will be dedicated to this resource.

- Working Group on small pelagic fisheries resources

The annual MedSudMed Working Group on Small Pelagic Fishery Resources (WG-SP) is tentatively planned to take place in the second semester of 2015. According to the conclusions of the previous meetings (FAO HQs, March 2014), the WG-SP will aim to:

- Review the work carried out by the Study Group on the joint processing of acoustic and ichthyoplankton data;
- Progress in the preparation of joint technical and scientific documents;
- Initiate the joint discussion on multi/disciplinary studies *Trachurus* spp.;
- Explore options for fisheries resources appraisal (e.g. anchovies and sardines in GSA 16);
- Define priorities to be addressed to progress in the monitoring and appraisal of the state of small pelagic fish and fisheries.

The WG-SP will also be an occasion to consolidate and further expand the network of experts dealing with small pelagic species. In this view, and taking into account the collaboration already established in implementing surveys at sea, the possibility to enlarge the participation to experts from Algeria will be explored. In this regard, synergies with CopeMed II will be sought.

c) Training activities and national capacity development

The Project will continue to support the strengthening of national expertise through the implementation of specific activities. The Project will also continue to consider the full involvement of all the research institutes and scientists from the participating countries in the activities organised as a priority. The involvement of national administrations in the process of developing capacity and a common background/view on fisheries and marine resources will also be foreseen. The strengthening of the national capacity in terms of expertise will therefore be promoted through the support of specific research programmes that are coherent with the activities of the Project. Seminars and training activities will also be considered i) for the implementation of research activities, ii) to standardise scientific methodology and iii) to provide scientific institutions and administrations with tools and skills to discuss possible options for managing fisheries.

In particular, activities foreseen for the coming period could include:

- On-the-job training on fisheries socio-economic data collection and processing, in occasion of the socio-economic survey at sea in Tunisia and taking advantage of the work-plan adopted by the GFCM Sub-committee on Social and Economic Sciences.
- Trainings on statistical processing of data for stock assessment and population dynamics in collaboration with the FAO AdriaMed Project (e.g. on the software environment for statistical analysis “R”, training on models for small pelagic fish).
- On-the-job training on the processing of small pelagic data (acoustic and eggs and larvae);
- Training workshop on methods to measure fish larvae morphometry, small pelagic (e.g. *Engraulis encrasicolus* and *Sardinella aurita*) and demersal (e.g. *Mullus barbatus*) species;
- Specific training activities (e.g. on basic biology data gathering and interpretation) could be organised jointly with the other FAO Mediterranean Projects;

The organisation of *ad hoc* training programmes upon request of the participating institutes can be foreseen. Training activities, when possible, will be coordinated with the other FAO Regional Projects, in order to avoid duplication or overlapping of activities.

Wherever possible, and on the basis of budget availability, the Project will continue providing the equipment necessary to the institutes for the implementation of the Project activities.

d) Web site and information system

The contents of the MedSudMed portal (www.faomedsudmed.org), will be updated and reorganized based on the main Project components and areas of activity to group information more logically and improve access to areas of interest for website users. Following the reorganization of the MedSudMed portal, there will be the need to create new thematic

sections, according to the new structure, which will focus on specific subjects e.g. fishery resources; demersal crustaceans.

e) Strengthening the cooperation with the other FAO Mediterranean Projects and other initiatives in the region

The existing cooperation with other FAO Regional Projects (RP) such as the AdriaMed will continue and further collaboration with CopeMed II, and EastMed will be sought. In this context, the indications provided during the internal coordination meetings among Projects will be taken into consideration.

Areas of cooperation have been indicated for field work and socio-economic aspects of fisheries and training. The preparation of common informative material (leaflets, CD-rom, etc.) that can improve the visibility of the RPs in the Mediterranean Sea and in the international context is foreseen. To this extent, the preparation of a common technical manual for the collection of socio-economic data, based on the experience gained by the FAO Mediterranean Projects is foreseen. Training activities will be coordinated among all the Projects, in order to avoid duplication or overlapping. The participation of other Regional Project experts in training courses organized by MedSudMed will be foreseen and vice-versa.

Moreover, the Project will participate in the Coordination Committees of CopeMed (April 2015), EastMed (May 2015) where additional synergies will be identified.

Synergies are also sought with the Mediterranean Large Marine Ecosystem - MedSea LME Project³, In particular, synergies will be sought for: i) the processing of data collected during the selectivity trials at sea (March 2015) and for promoting the dissemination of results achieved; ii) the identification of training needs and priorities for mainstreaming the Ecosystem Approach to Fisheries into fisheries research and management.

Synergies with other international institutions and initiatives underway in the Mediterranean regarding fishery subjects of interest for the Project region will be sought for the sake of avoiding duplication of efforts and optimising the use of human and financial resources.

As already stated, training activities will be coordinated among all the Projects, in order to avoid overlapping. The participation of other Regional Projects' experts in training courses organized by MedSudMed will be foreseen as well as the contrary.

The Project will seek synergies with the FAO Regional and sub-regional offices in the Mediterranean and Near-East, region such as the Sub-regional Office for North Africa (SNE), Regional Office for North Africa and Near East (RNE) and FAO Oman. In this respect, the Project staff will finalize the Unilateral Trust Fund (UTF) Project with Sultanate of Oman "Oman Trawl Survey Information System". The UTF, based on the successful use of ATrIS, is providing the Sultanate of Oman with a tool to store, retrieve and handle survey data.

³ Sub-Component 3.2: Promote the Sustainable Use of Fisheries Resources in the Mediterranean through the application of the Ecosystem Approach to Fisheries -- Activity 3.2.1: Application of the Ecosystem Approach to Fisheries, for the identification of training needs and priorities for mainstreaming the Ecosystem Approach to Fisheries into fisheries research and management.

f) Strengthening the cooperation with the GFCM

In line with previous decisions of the Coordination Committees and with the recommendations that emerged from the Independent Evaluation carried out in 2012, the Project will continue to strengthen international and regional cooperation at Mediterranean level with the GFCM and its subsidiary bodies, (SAC, Sub Committees, Working Groups) supporting: i) the preparation of scientific contributions for GFCM events; ii) the participation of experts from the Project's participating institutes in GFCM events; and iii) countries to be compliant with the GFCM recommendations. Moreover the Project will act in synergy with, and will be part of, the GFCM framework programme for 2013-2018. Interactions with the GFCM will be further strengthened with the overall purpose of taking the best possible advantage of expertise available at sub-regional level, the lessons learnt and overall resources available.