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SIPAM2006: THE DEVELOPMENT STRATEGY

FAO MedFisis SIPAM Team

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EXECUTIVE SUMMARY

The SIPAM “review and re-development” project started in January 2006. A multidisciplinary (aquaculture, system design and development, data management, regional coordination, information and communication) and international (Rome and Tunis) team was set up in the framework of the FAO MedFisis Regional Programme in close coordination with the SIPAM Regional Centre.

The team started its activities with a thorough review of SIPAM’s history and an in-depth analysis of the current situation. SIPAM potential for development was assessed together with the needs and expectations of SIPAM’s final users and beneficiaries. On the basis of this assessment, an implementation strategy based on four pillars (user centred design, advanced technology tools, empowered human network, quality and exhaustive information) was defined and a preliminary work plan was agreed.

SIPAM National Coordinators were contacted by the SIPAM team in order to actively involve them in the “review and re-development” activities. National Coordinators were invited to review and update the national information available on the old system and to indicate, through the answers provided to a questionnaire, the national priorities for the new phase of SIPAM and particularly for the information and communication component.

Unfortunately, although the new terms of reference for the National Coordinators were approved at the last SIPAM meeting in June 2005, SIPAM member countries have not yet undertaken the necessary steps to put them in practice. The contributions to SIPAM by the National Coordinators still depend on their personal (often voluntary) commitment. Lack of institutional mandate and/or of operational resources have been identified as common elements among the different member countries. Communications with some National Coordinators have not been easy, the requested

updates of the SIPAM databases have been received by less than 1/3 of the member countries, the replies to the questionnaire have been received by 2/3 of the countries.

Considering that the revitalisation initiative has reached its midterm, urgent decisions at national level are required in order to raise the level of national contributions to SIPAM in terms of quality, quantity and continuity. Strengthening the link between the CAQ representative and the SIPAM National Coordinator in each member country could possibly help to mobilise the necessary resources.

A preliminary conceptual design of the functionalities of SIPAM2006 has been completed and is presented in this document. A framework for the harmonisation of aquaculture production statistics with FAO FIDI official statistics is currently being finalised. A proposal for reallocating the roles and responsibilities of the SIPAM human network in terms of data contribution procedures and quality assurance has been outlined in the document. This new organisational framework aims at empowering the National Coordinator role in terms of visibility, authoritativeness and professionalism. SIPAM2006 has also been provided with a Communication Strategy (illustrated in the document) that actively involves the whole Mediterranean aquaculture community.

Last but not least, in view of the possible handing over of the reviewed, re-developed and consolidated SIPAM to the GFCM, decisions should be taken by the member countries on the aquaculture environments (marine, brackish, freshwater) and geographic areas (Mediterranean sea, Atlantic ocean, Red sea) to be covered by SIPAM data and information.

Through this document, the overall SIPAM2006 design and implementation framework and the relevant “big” questions are brought to the attention of the CAQ representatives for comments, discussion and decisions.

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PREFACE

This paper outlines the proposed strategy and the operational approach for revitalising SIPAM, the aquaculture information system for the Mediterranean (hereafter called SIPAM2006 for easier understanding). The SIPAM “review and re-development exercise” is a follow up to the recommendations made by the CAQ in Alexandria (June 2004) and confirmed at the 29th GFCM session (February 2005), when the Commission endorsed the recommendations made by the experts and confirmed the commitment of supporting SIPAM by also securing financial resources (the background of the revitalization process is reported in detail in Appendix 1).

This document is only a preliminary release of the overall implementation strategy purposively prepared for the 5th meeting of the CAQ. It will be constantly updated throughout the development process of SIPAM2006 by including all the forthcoming modifications and adjustments.

The purpose of this briefing document is twofold: firstly, to inform the CAQ on the expected outcomes of this working project, on the initial arrangement and on the progress so far achieved and, secondly, to seek assistance in receiving adequate answers to important questions that arose during the initial implementation phase. Members of this Committee are invited to comment on the remarks provided and urged to examine certain situations and provide their views accordingly. Their feedback will definitely help the smooth development of the system and increase the prospect of success, in view of the fact that the “review and re-development exercise” aims also at evaluating SIPAM cost effectiveness to serve as the GFCM Statistical and Information System on Aquaculture.

The approach proposed, anticipated to the SIPAM National Coordinators at the Split meeting in June 2005, is based on the knowledge and experience gained by the whole SIPAM consortium (FAO, Regional Centre, Member Countries, end-users, etc.) in using SIPAM for about 10 years reinforced by new human and financial resources and more advanced technology available nowadays. The convergent contributions of these different components can provide a solid ground for revitalising the information management tool as well as the “human network” whose performance in later years was below the expectations.

1. SIPAM2006 IMPLEMENTATION STRATEGY

In reaffirming the role of SIPAM as an information tool for supporting aquaculture analysis and planning in the Mediterranean, due attention must be paid to the functioning and management of the database component with the objective of providing users with interrelated information. However, in order to make available the information required by the stakeholders, while it is fundamental that databases are interrelated, consistent and robust, it is also important that SIPAM users become more conscious and supportive of the need for appropriate data collection mechanisms and data management processes. National commitment to provide data must be strongly reinforced and adequately supported by the member countries. A mechanism to monitor the state of the system, evaluate changes and needs, and adjust objectives must also be in place.

1.1. THE OVERALL OBJECTIVE OF THE REVIEW AND RE-DEVELOPMENT EXERCISE OF SIPAM

Improve the availability and circulation of high-quality aquaculture information and data at regional level in the Mediterranean. Facilitate sustainable aquaculture policies planning, implementation and monitoring. Increase mutual knowledge among aquaculture stakeholders in the different countries and promote initiatives for cooperation.

The associated strategy for this exercise is based on four main considerations:

- SIPAM must be user-oriented (reflect needs and expectations of the users in terms of functionalities) and be user-friendly

- SIPAM must be re-designed on the basis of the most advanced Internet technology tools
- SIPAM must widen its “human network” of qualified users beyond the National Coordinators; in this respect the role of the National Coordinator must be reconsidered
- Information available through SIPAM should allow effective aquaculture diagnosis, analysis and planning both at national and regional level

1.2. EXPECTED RESULTS

- A positive and collaborative working climate is established with the National Coordinators
- SIPAM2006 is designed and implemented reflecting the needs and the expectations of the regional aquaculture stakeholder
- National data on the “old SIPAM” are completed in order to be ready for migrating into the “new system” a complete, updated and consistent data set for all countries
- SIPAM aquaculture production statistics are unified with FAO FIDI statistics
- Training and learning tools are made available to the National Coordinators in order to allow them to better familiarise with the new system and to promote it towards the National Stakeholders
- SIPAM2006 working prototype is completed and presented at the next SIPAM meeting.

1.3. TOOLS

- Participatory design
- Review and completion of the SIPAM databases
- Harmonisation of SIPAM production statistics with FIDI
- Most advanced Internet technology tools

1.4. ACTORS AND ROLES

- **FAO MedFisis SIPAM¹ team**, role: overall coordination, system design and implementation, revision of the SIPAM databases data models, design and implementation of the information and communication components, analysis of the data available in the old SIPAM, clearance of data sent by NCs during the revitalisation process.
- **SIPAM Regional Centre**, role: support to coordination, to system design and implementation, to the revision of the SIPAM db data models, and design of the information and communication components, as well as analysis of data available in the old SIPAM and clearance of data sent by NCs during the revitalisation process.
- **National Coordinators**, role: verification and completion of the “old SIPAM,” data support to the design of the new SIPAM functionalities , testing the new system, and preparing the launching of SIPAM2006.

¹ The FAO MedFisis SIPAM Team, whenever mentioned in the text is intended to be replaced by the GFCM Aquaculture Team in the future

1.5. ACTIONS

- Revise and update the “old SIPAM” databases in collaboration with the National Coordinators.
- Harmonisation of SIPAM production statistics (contents, definitions and data flow) with FAO FIDI official statistics.
- Revision of the data models of the SIPAM databases.
- Design of the SIPAM2006 databases and their functionalities
- Implementation of SIPAM2006, databases, information architecture and IT system.
- Migration of available data sets into the new system.
- Preparation of documentation and training tools.
- Presentation of a working prototype of SIPAM2006.
- Invitations to the National Coordinators to prepare the revision and update of the databases on SIPAM2006.

1.6. ASSUMPTIONS

- SIPAM Member countries establish in due time the new functions of National Coordinators.
- National Coordinators update the different databases, following the time schedule and the deadlines established by the FAO MedFisis SIPAM team.
- National Coordinators actively respond to the invitation to participate in the design and implementation of SIPAM2006.

2. THE IMMEDIATE OBJECTIVES

- Providing a timely, effective and easy access tool for the management and exchange of aquaculture-related data and information among all Mediterranean aquaculture stakeholders.
- Revitalising and expanding the SIPAM “human network”.
 - Secure the commitment of National Coordinators and support them in establishing their new functions and involving national stakeholders
 - Raise awareness of the new SIPAM and its new functionalities among regional aquaculture stakeholders
 - Encourage visits to the system and information contribution
 - Influence decision makers to better support the national coordinators
- Building up an effective multi-stakeholder and multi-directional flow of aquaculture information :
 - National ---> Regional
 - Regional ---> National
 - National ---> National

3. KEY SIPAM STAKEHOLDER GROUPS

- National Coordinators
- National decision makers (central government bodies, advisors)
- Technical and research institutions
- Producers, potential producers and investors
- Suppliers
- Aquaculture Industry Associations
- Traders
- NGOs
- Local decision makers (local authorities, advisors)
- International organisations
- General public

4. PRELIMINARY ACTION AND RELEVANT ISSUES IDENTIFIED

4.1. SIPAM PORTAL

A message has been displayed on the SIPAM site, announcing the revitalisation process, and the temporary closure of the databases under revision. This is intended to be an important signal for all SIPAM stakeholders and National Coordinators, informing them that the review and redevelopment process has started.

4.2. NATIONAL COORDINATORS

The FAO MedFisis SIPAM team contacted the National Coordinators in order to re-establish effective communication connections among the main actors involved in the “review and re-development exercise”. The National Coordinators’ contact list was therefore checked directly with them and updated. Of the 16 National Coordinators, only one never answered the messages sent out by the FAO MedFisis team in Rome.

A first finding was that some National Coordinators do not frequently check their mailbox. As e-mail is the quickest, time saving and cheapest way of communicating and circulating documents and files among the components of a working group, it is suggested that the efficiency of the e-mailing connections is improved. In the future, SIPAM2006 will allow users to manage high capacity mailboxes, however it is suggested that, during the re-development phase, National Coordinators regularly check currently available e-mail facilities and provide timely feedback to incoming calls for support and action.

4.3. DATA UPDATE AND COMPLETION

Considering the limited project duration, the FAO MedFisis team and the Regional Centre proposed to work in parallel on the design of SIPAM2006 and on the update and completion of data on the old SIPAM. The FAO MedFisis team called for an effort aimed at reviewing and updating specific databases according to a precise timetable.

The process started with 2 DBs *Production Centres* and *Suppliers*. A letter was sent to the NCs in early March, inviting them to check, complete and updated their records by April 20th.

The second call concerned the 3 DBs related to research and development (*Aquaculture Experts*, *Research Institutions*, *R&D programmes*).

During the update, the DBs were temporarily hidden on the web site. After clearance of data by the SIPAM team, the DBs would have been re-opened only for those countries which had updated and completed their records.

At the moment of writing this report (10th May, 2006), 5 National Coordinators have sent some updated records to the Regional Centre in Tunis. Two sets of data were not sent according to the SIPAM format, and could not be transferred directly into the databases.

In general, despite some records being added, checked and updated, most records are still not complete and lack some of the important basic information stakeholders are looking for.

Unless the level of national contributions is raised in terms of quality, quantity and continuity, risk of incompleteness of the information available and of failure to deliver the expected information services will remain high.

It could be a matter of actual availability of data due to the lack of an adequate institutional mandate as well as a question of means and resources to carry out the data collection, organisation and submission activities. In this respect, Member countries should ensure that appointed National Coordinators are in a condition to complete their tasks.

4.4. HARMONISATION OF AQUACULTURE PRODUCTION STATISTICS WITH FAO FIDI OFFICIAL STATISTICS

Various meetings have been held with FAO Fishery Information, Data and Statistics Unit (FIDI) to harmonize the structure, formats and terminology between the SIPAM and the FIDI data and to better synchronize the data collection, release and aggregation methodologies of both systems. Further technical meetings will be held, taking into account the importance of standardizing the existing complementarities between the two data sources, but also to appreciate the different scopes and approaches of the two systems.

During the initial discussions on this harmonisation, two issues concerning the relevancy of SIPAM data with the mission of the GFCM were raised:

- Culture environment (freshwater, brackish water, marine)
- Culture areas in SIPAM member countries (Mediterranean and Black sea, Atlantic Ocean, Red Sea)

4.5. QUESTIONNAIRE

In March 2006, a questionnaire was prepared by the FAO SIPAM MedFisis Team and sent to the National Coordinators in order to:

- start interacting with the SIPAM National Coordinators on specific SIPAM revitalisation issues,
- get their views on the current national scenarios of SIPAM and on possible prospects,
- discuss possible approaches and potential action for improving the effectiveness of the SIPAM revitalization process at national and regional level.

The FAO MedFisis SIPAM Team received replies of Morocco, Algeria, Croatia, Egypt, Albania, Cyprus, Tunisia, Italy, Lebanon and Turkey.

As 10 (63%) SIPAM member countries out of 16 replied, the views of the majority of SIPAM members have been expressed on the proposed issues, and the results of the questionnaire can be considered representative of the positions of the network.

The results of the questionnaire (see appendix 5) are being taken into high consideration in the design of the components of SIPAM2006.

Concerning the replies provided to the questionnaire, two issues relevant to the components of SIPAM2006 need to be raised to the CAQ:

- Market information
- Advertising facilities.

5. SIPAM2006 SYSTEM DESIGN OVERVIEW

The design of SIPAM2006 is an ongoing process. The overall structure has been outlined and the main functionalities have been identified. However, the detailed design has just started and the operational aspects are being decided in progress. For this reason this document should be considered a first version. It will be integrated with more information and further releases will be made available to all the interested parties. The already-decided time schedule for the implementation indicates the following milestones:

- delivery of a working prototype of SIPAM2006 by November 2006,
- presentation and scrutiny of the prototype at the SIPAM meeting 2006,
- integration of the outcomes of the SIPAM meeting into the system and its presentation at the 31st GFCM session in January 2007.

6. SIPAM2006 COMPONENTS

It must be clearly stated that the level of the implementation of some of the components hereafter listed will be in function of the financial and operational resources available.

- **Suite of DataBases;** the eight existing databases (*Production statistics, directory of Suppliers, Production centres, Experts, Research institutions, Research and development projects, associated Bibliography and Fish health*) will be initially revised and completed in collaboration with the National Coordinators and then re-organised in terms of structure, functionalities and content in order to make them more user oriented and better provide diagnosis, analysis and planning support.
- **Information and Communication Window;** this will be the editorial area of the portal and will include the News section, the e-magazine (articles, reports, reviews), the notice board and the “Query Box”, a tool for helping users to formulate a request for data and information to the system on the basis of pre-defined options and retrieve the relevant information in specific user-friendly formats.
- **Dossiers and Fora (active knowledge);** this will be the interactive part of the SIPAM portal. Users will be able to access or make available thematic documents, participate in discussions, contact other experts. It will be organised in “subject rooms”, each room will have a moderator/editor and deal with a specific issue. The following are some of the possible issues that will be dealt with (given names are only indicative):
 - NASO (Responsibility FIRI)
 - E-Magazine (Responsibility SIPAM Communication Expert)
 - Production quality standards and related issues
 - How to construct a National SIPAM Intranet (Computer Specialist Regional Centre)
 - Regional Codification and Thesaurus harmonization (SIPAM Aquaculture experts)
 - why not a semi-serious issue such as - Mediterranean fish cooking recipes.

- **SIPAM Library;** a virtual Documentation Centre where it will be possible to post and retrieve all documentation, maps, photos, etc., relevant to aquaculture in the Mediterranean.
- **Dynamic Links and Connections;** SIPAM will make available in an organised manner dynamic links to other portals relevant to aquaculture.
- **Private SIPAM Reserved Area;** it will be a “restricted access” working space accessible only to the National Coordinators, Regional Centre Staff, and FAO GFCM. It will allow document transfer and sharing, managing e-mail addresses and mailing lists, making available training modules, participating in discussions. It will be managed by the SIPAM GFCM team.
- **Facility for designing and implementing “personal” web site;** SIPAM2006 will be equipped with “easy-to-use” software tools which, under special circumstances, would enable particular users to create, publish and manage “national”, “institutional” or “sectoral” made-to-measure web sites. The Regional Centre will train and support particular users in this web-editing activity and the resulting web sites will be available within SIPAM with a dedicated address (e.g. www.seabassinstitute.faosipam.org). The National Coordinators will decide when and to whom to make available this functionality.
- **GIS Functionalities;** SIPAM2006 will also provide a way to plot on maps the geographical localization of database content that can be geo-referenced such as Production Centres, Institutions, Suppliers, etc. This support is believed to greatly improve the use by and the interest from the users. Maps showing where Suppliers and Production Centres are located, for example, may help to take decisions.
- **Market data;** SIPAM2006 will also tentatively make available on monthly/quarterly basis the prices of aquaculture products in the main marketplaces of the region.

7. SIPAM2006 USERS, RESPONSIBILITIES AND PRIVILEGES

7.1. THE SIPAM “HUMAN NETWORK” IS THE KEY TO ENABLE HIGH-QUALITY INFORMATION SHARING AND EXCHANGE

During recent years the contribution by National Coordinators to SIPAM has declined in terms of quality and continuity. It has been said that their level of efficiency has been largely dependent upon the personal commitment of each of them, that they were lacking an institutional mandate, a clear management structure and adequate means to carry out their activities. What was originally conceived and implemented as a coordinating role and an active and committed membership for the development and management of SIPAM has gradually shifted into a mere information gatherer and data entry operator.

This has caused a series of problems. First of all, SIPAM has lost national reference points capable of contacting people, building partnerships, promoting SIPAM with authority at various levels and, in turn, obtaining good and up-to-date information; secondly, NCs have been left in isolation only with the obsessive task of mechanically providing information which has resulted in an unrewarding task, loss of interest and frustration.

SIPAM2006 is being re-developed with the aim of providing Mediterranean aquaculture stakeholders with a powerful tool for sharing information and better managing aquaculture development but, as experience demonstrates, SIPAM risks not fulfilling its potential if adequate efforts are not made to strengthen and mobilise its “human component”.

SIPAM2006 will emphasize the mechanisms of the “community of practice” aiming at reinforcing information exchanges and collaboration among Mediterranean aquaculture stakeholders sharing common professional interests. This would necessitate widening the SIPAM

public and opening the system to the direct contribution by all the interested Mediterranean aquaculture stakeholders.

In this respect, roles and responsibilities needs to be reallocated. The **role** of the National Coordinator must be re-converted evolving from pure data management to be more concentrated on the promotion of SIPAM at national level and on the managerial aspects of the system and of the national network of stakeholders. National Coordinators will act as national “aquaculture community managers”. For this, SIPAM2006 has foreseen a series of tools to make the National Coordinator role more professional, easier and attractive, and the SIPAM GFCM team and the Regional Centre will continue to provide the necessary support to them

In addition, National Coordinators should be provided with a clear mandate by the country and given strong institutional and operational support that would make their position in their own countries more authoritative, prominent and visible.

7.2. SIPAM2006 DATA CONTRIBUTION PROCEDURES AND QUALITY ASSURANCE

National Coordinators will be able to extend the authorization for submitting and managing data concerning Institutions, Research Projects, Production Centres, Suppliers, and Experts to selected entities in their countries. Data submitted by the authorized entities will be checked and validated by the National Coordinators before being publicly available in SIPAM. However, in case of delegation of authority, a special warning and discharge of responsibility will be made clearly visible.

Those National Coordinators who request it, will be assisted in developing and making available their Home Page or their virtual national aquaculture working space.

Statistical and any other sensitive data will be submitted directly or under the direct supervision and authority of the National Coordinator. These data will undergo routine quality control by the Regional Centre for completeness, consistency, validity and coherence with standard formats before being published. National Coordinators will be alerted to any discrepancy identified and invited to correct it.

News, papers, articles, documents, notices, etc., could be directly posted in the SIPAM by the system stakeholders. National Coordinators and/or SIPAM GFCM team and/or Regional Centre Staff will decide on publishing or rejecting them as appropriate.

Data provided and submitted by UN Organizations, the GFCM and the EC will be integrated in SIPAM by the Regional Centre and/or by the SIPAM GFCM team.

Other complementary data necessary for the completeness and efficiency of the system, or that fall outside the SIPAM geographical coverage will be entered and maintained by the Regional Centre (i.e.; addresses of FishBase/ICLARM, EC, Regional Projects in other countries, etc.).

Any data and information managed within a National Intranet or “Private area” will be under the complete responsibility of the National Coordinators (content, users, contributors, access, passwords, domains, security, E_mail, etc.).

Implementing the above skeleton calls for a rigid assignment of tasks and roles, authorizations and privileges. See appendix 4 for more information.

8. SIPAM2006 COMMUNICATION STRATEGY

8.1. EXPECTED RESULTS OF THE COMMUNICATION STRATEGY

- Stakeholders’ expectations and needs identified and met.
- A positive and collaborative working climate is established with the National Coordinators

- National mailing lists are rapidly (by October 2006) set up by the National Coordinators.
- All National Coordinators actively participate in the preparation of editorial plans for the information products.
- Contributions (news items, articles, notices) are regularly posted on the Portal by stakeholders of all the 16 countries.
- Publication of items or products increases the usage of the web site in terms of number of visits and quantity of information downloaded.
- SIPAM2006 is adequately launched and promoted in all the countries.

8.2. TOOLS

- **SIPAM2006 editorial section (SIPAM WIRE?).** The web portal will include a News Service, an e-magazine with thematic articles and a notice board. SIPAM stakeholders will be able to post news items that will be cleared by the GFCM team and made available on the portal.
- **SIPAM_News_Alert (SIPAM Connect?).** It will be a simple e-mail message occasionally sent to all the mailing list members announcing new services available on the Portal, news items and information objects published on the Portal, calling for contributions to specific issues, proposing surveys etc..
- **SIPAM_e-magazine (SIPAM Gazette?).** This will be a more structured publication than the News Alert. It will include full thematic articles. It will be disseminated to the members of the mailing list in electronic format (PDF file).
- **Mailing list.** This will be created in strict collaboration with the National Coordinators. They will be in charge of collecting e-mail addresses of national aquaculture stakeholders and making them available to the SIPAM information expert who will centrally manage the list and its use.
- **Targeted communications to stakeholders.** They will be prepared by the FAO MedFisis SIPAM team in coordination with the SIPAM Regional Coordinator. They will be focused on specific issues and targeted to getting specific responses by well identified categories of SIPAM stakeholders (e.g. a questionnaire, a request for advice on the communication strategy, a call for contributions, a mailing campaign for the involvement of national stakeholders).
- **Portal Usage Tracking Tool.** A tool will be integrated in the Portal in order to regularly monitor its usage. The results will be analysed to evaluate the overall quality and impact of SIPAM.

8.3. ACTORS AND ROLES

- **National Coordinators.** As decided at the 8th SIPAM Meeting, role of the National Coordinators should evolve from that of national data manager into that of a member of an editorial board of a virtual magazine with responsibility for the content and quality of the site and for its promotion at national level.
- **Information expert.** He/she will design the above-mentioned information products, organise and manage their implementation in strict coordination with the National Coordinators, with the Regional Centre, with the FAO MedFisis project, FAO FIRI and the GFCM Secretariat.
- He/she will design, in collaboration with the National Coordinators, an appropriate National SIPAM promotion strategy based on the adaptation of the above mentioned tools to the specific national context.

- **National Aquaculture Stakeholders.** They will receive SIPAM information products and will be invited and encouraged to use the SIPAM Information Services posting news, notices making available information resources.

8.4. ACTIONS

- Sharing the SIPAM communication strategy with the National Coordinators and integrating their evaluations and feedback.
- Building up a first release of the SIPAM mailing list in collaboration with the National Coordinators
- Designing a preliminary editorial plan for the SIPAM e-magazine (GAZETTE) including a draft format, sharing it with the National Coordinators and integrating their comments.
- Collecting contributions and preparing the first issue of the e-magazine before summer holidays. Two other issues will be produced in autumn and winter.
- Designing the SIPAM news service and implementing a preliminary release.
- Launching of SIPAM2006 and supporting to the National Coordinators in the promotion of SIPAM2006 at national level

8.5. ASSUMPTIONS

- SIPAM Member countries establish in due time the new functions of National Coordinators.
- National Coordinators actively respond to the invitation to participate in the design and implementation of the national strategy for the promotion of SIPAM and collaborate in implementing editorial plans for information products.

9. CONCLUSIONS AND REMARKS

Unless the level of national contributions is raised in terms of quality, quantity and continuity, the risk of the information available being incomplete and of failure to deliver the expected information services will remain high. In this respect, the following points should be highlighted:

- The level of national contributions should not continue to remain dependent upon the personal commitment (often on a voluntary basis) of each National Coordinator.
- SIPAM participating Member countries should confirm the appointment of their National Coordinators, or appoint new ones, on the basis of the new approved terms of references.
- The SIPAM National Coordinators should be endowed with an institutional mandate and provided with adequate means at national level to carry out their activities in line with the new Terms of Reference.

Concerning the data completion and update, two questions concerning the relevancy of SIPAM data with the mission of the GFCM have been raised:

- Should SIPAM cover all aquaculture or only brackish water and marine aquaculture?
- Should SIPAM cover the overall national aquaculture for countries bordering seas other than the Mediterranean or focus on Mediterranean aquaculture?

Concerning the replies provided in the questionnaire, two questions have to be raised to the CAQ:

- It is generally possible for the National Coordinators to make available market data through SIPAM. Would CAQ endorse the setting up of such additional and much required information service?
- Concerning the financial sustainability of SIPAM, National Coordinators would support the implementation of mechanisms, such as advertising for specific categories (e.g. suppliers), to generate a financial flow that could make the whole initiative more sustainable. Would CAQ be in favour of this?

APPENDIX 1 – THE BACKGROUND

Following the outcome of an internal review of SIPAM and the recommendations made during the 27th (2003) and 28th (2004) GFCM Sessions, the CAQ Secretariat organized an external evaluation of SIPAM, in the framework of the full evaluation of the whole CAQ activities. The evaluation report was presented and discussed at the **Ad Hoc Meeting of Experts on the External Evaluation of the CAQ and its Networks** organised in Rome on the **29-30 March 2004**. The main strengths and weaknesses of SIPAM highlighted in the evaluation report can be summarized as follows:

Strengths	Weaknesses
Original concept was sound.	Opportunities provided have not been fully exploited, yet.
A significant “human network” has been established, trained and supported.	Limited involvement of the stakeholders and inadequate commitment by the countries.
Coordination by the regional office.	Vague internal management structure and no clear terms of reference for the staff. Decline in staff enthusiasm because of funding difficulties
Valuable regional sets of data collected and made available.	Submission of incomplete and unvalidated information by some countries.
Statistical data are potentially more detailed and more frequently available than FAO FIDI official statistics.	Discrepancy between SIPAM statistical data and the FAO FIDI data. Not used as tool for diagnosis and analysis at national and regional level.
--	Liaison between SIPAM and the other operating CAQ networks inadequate

The **recommendations** provided to the CAQ by the experts include, among others:

- Ask the GFCM to provide the utmost support for SIPAM because it is a significant asset that will enhance the future development and management of responsible aquaculture in the Mediterranean; this implies strong commitment by member countries and the provision of financial support on a regional and national basis.
- However, if a much higher level of national support cannot be urgently agreed, suggest that GFCM should terminate SIPAM activities as soon as possible rather than continue an activity which shows promise but fails to deliver. This action should be regarded as a last resort.
- Prepare and agree on written terms of reference for the Regional and National Coordinators and establish an up-to-date and clear operational structure for SIPAM.
- Through the GFCM, ask member countries to nominate National Coordinators that are committed to the objectives of SIPAM.
- Through GFCM, ask each member country to set up an efficient national SIPAM network and provide their National Coordinators with an adequate budget that covers both national duties and travel to regional SIPAM meetings.
- Ask National Coordinators to supply information on a more frequent basis and seek national government support to do so.

At the **29th GFCM session**, in February 2005, the Commission endorsed the recommendations made by the experts and confirmed the commitment in supporting SIPAM.

The Terms of Reference of the SIPAM National Coordinators were presented, discussed and approved at the **8th SIPAM Annual Meeting**, in Split, Croatia, June 21-23 2005. The possible ways of revitalizing SIPAM in order to meet new requirements were discussed.

It was decided that the conceptual and system-development tasks would be the responsibility of the Mediterranean Fishery Statistics and Information System (MedFisis) project. The SIPAM Regional Centre would also participate in the development of the new system taking into account the new organisational strategy, and full participation from the SIPAM countries would also be expected.

The following action was also agreed:

- The GFCM Secretariat would promote the establishment of the new functions of National Coordinators to the SIPAM Member countries to, and would seek clear recognition and full support of concerned GFCM Members.
- SIPAM would be re-developed around a modern web-based system that would allow remote data entry within a controlled environment. This would allow the National Coordinator authorize selected entities in the country to enter or manage the data (institutions, private sector organizations, ministries, etc.). It was agreed that national reports and production statistics would remain the direct responsibility of the National Coordinators.
- The harmonization of the production statistics with FAO FIDI would be implemented.
- The role of the National Coordinators would be changed to be more concentrated on managerial aspects of the system and on the development of tools and strategies to promote SIPAM at the national level and its use as a tool for planning and monitoring.

It was also recommended that, within the national structure, the **relationship between the SIPAM National Coordinator and the CAQ representative should be clarified and strengthened.**

As follow up to the decision made at the 8th SIPAM Annual Meeting, the MedFisis regional project (FAO Marine Resources Service) — in cooperation with the Inland Water Resources and Aquaculture Service, the SIPAM Regional Centre and the GFCM Secretariat — completed the establishment of the FAO MedFisis SIPAM team² in February 2006, including an Aquaculture Expert, a System Designer, a System Developer and an Information and Communications Expert. The team initiated the review and re-development exercise of SIPAM in January 2006.

² The FAO MedFisis SIPAM Team, whenever mentioned in the text is intended to be replaced by the GFCM Aquaculture Team in the future

APPENDIX 2 – TERMS OF REFERENCE OF THE SIPAM NATIONAL COORDINATOR**TERMS OF REFERENCE OF THE SIPAM NATIONAL COORDINATOR as approved at the 8th SIPAM Annual Meeting in June 2005.**

Recognizing each government's commitment to SIPAM within the *aegis* of the General Fisheries Commission for the Mediterranean (GFCM), and the full support of his/her supervisors, the duties of SIPAM National Coordinator shall include (but not be confined to):

- The National Coordinator is representing his/her country in SIPAM.
- In close collaboration with the SIPAM Regional Centre and in coordination with other CAQ Networks Focal Points, be responsible for all SIPAM activities in his/her country.
- Elaborate through national workshops or other means such as sub-offices, projects and initiatives on aquaculture to be submitted to the SIPAM Network.
- In conjunction with the SIPAM Regional Centre, prepare annual national SIPAM work programmes in coordination with other national aquaculture bodies.
- Prepare and submit annual draft budgets for all national SIPAM activities, including essential national and international travel, for government funding.
- Be responsible for the regular and timely transmission of data and information to the SIPAM Regional Centre also required for the updating of the SIPAM web pages.
- Attend regional SIPAM meetings.
- Assist the SIPAM Regional Centre in identifying and soliciting potential non-governmental and private sources of funding to support the SIPAM Network and activities.
- Fully publicize the existence and value of the information contained in the SIPAM website to the private sector and within his/her government, as well as in relevant institutions such as universities and provide guidance in the use of the SIPAM website.
- On a continuing basis, suggest ways in which SIPAM can be improved.
- Conduct continuous internal evaluation of the efficacy of information dispersal by SIPAM on a national level in order to improve future services.
- Assist in the promotion and success of SIPAM in any other way as shall be requested, from time to time, by the SIPAM Regional Coordinator and by the GFCM Secretariat.

APPENDIX 3- WORKPLAN/GANTT CHART

- Activity 1: Revision and update of the databases on the “old SIPAM” by the National Coordinators. March – September 2006
- Activity 2: Harmonisation of SIPAM production statistics with FAO FIDI official statistics. Reporting. March – June 2006
- Activity 3: Revision of the data models of the SIPAM databases. May 2006
- Activity 4: design of the databases and of the functionalities of SIPAM2006. May 2006
- Activity 5: Implementation of SIPAM2006, databases, information architecture and IT system. June– November 2006
- Activity 6: Design of the SIPAM communication strategy and sharing with the National Coordinators. Integration of their evaluations and feedback will. May- June 2006
- Activity 7: Design of a preliminary editorial plan for the first issue of the SIPAM e-magazine (GAZETTE?) including the draft format and making it available to NCs for comments and contributions. June 2006
- Activity 8: Building up of the SIPAM mailing list in collaboration with the NCs. June – July 2006
- Activity 9: Design and implementation of the SIPAM2006 news service in collaboration with the National Coordinators. September– October 2006.
- Activity 10: Preparing and disseminating three issues of the e-magazine. Summer, autumn and winter 2006.
- Activity 11: Preparation of documentation and training tools. October-November 2006)
- Activity 12: Migration of available data sets into the new system. November 2006.
- Activity 13: Launching of SIPAM2006 and support to the National Coordinators in the promotion of SIPAM2006 at national level. November 2006-January 2007.

	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan
Activity 1	■	■	■	■	■	■	■				
Activity 2	■	■		■							
Activity 3			■								
Activity 4			■								
Activity 5			■	■	■	■	■	■	■		
Activity 6			■	■							
Activity 7			■	■							
Activity 8			■	■	■						
Activity 9							■	■			
Activity 10					■				■		■
Activity 11								■	■		
Activity 12									■		
Activity 13									■	■	■

APPENDIX 4 - USER PROFILES: AUTHORIZATIONS AND PRIVILEGES

[The following table is just indicative. The final authorizations and privileges scheme will be settled and put into effect only at the end of the development]

- The System Administrator will be assigned complete authority (*****) throughout the whole development and management process and will be responsible for the assignment of hierarchical levels, functions and authorizations.
- Regional Centre Staff and the FAO MedFisis team (later the GFCM SIPAM team) will have the next highest authority in the Network (****)
- National Coordinators will have high authority, the highest for his/her own country(***). They will be able to authorize national Partners and select users to provide entities to be posted in SIPAM. The National Coordinators, managing national home pages to promote SIPAM at the national level, will be authorized to set up the whole scale of their access. National Coordinators will also hold all the lower authorities.
- SIPAM National Partners will have medium authority(**). They will be able to participate actively in their national SIPAM Extranet managed by their National Coordinators and will be authorized to provide data in the DataBase of their concern (Institutions, Research and Development Projects, Production Centres). They may also access the database and download retrieved records in clear format (DOC, Excel, etc.) and will be able to access and participate in one or more Dossiers. They will also be assisted in developing their own Extranet Web page and will participate in creating special user groups and mailing lists. They will have access to Private Areas managed by their National Coordinators. National Partners will also hold all the lower authorities.
- Registered Users will have limited authority (*). In the case of Suppliers, Experts, etc., they will be able to update their address site directly in SIPAM. In the case of articles, photos, magazines, and similar, providers will be able to insert their technical or other material directly in the Information Kiosk. (Submission protocols are mentioned in section 4). They will receive, whenever available, information, news, events, etc., at their "home" mail address, as well as other briefing material provided systematically to SIPAM by affiliated or partner institutions or individuals. They will also have the same authorities as below, but retrieved material can be delivered at home or posted in a given personal site.
- General public will have no authority level. General Public will have access to the Read & Search only mode and will be able to retrieve formatted information. No access authorization is foreseen.

APPENDIX 5 – REPORT ON THE RESULTS OF THE FIRST SIPAM QUESTIONNAIRE, MARCH – APRIL 2006

Introduction

In March 2006, a questionnaire has been prepared by the FAO SIPAM MedFisis Team in order to:

- start interacting with the SIPAM National Coordinators on specific SIPAM revitalisation issues,
- get their views on the current national scenarios of SIPAM and on possible prospects,
- discuss possible approaches and potential actions for improving the effectiveness of the SIPAM revitalization process at national and regional level.

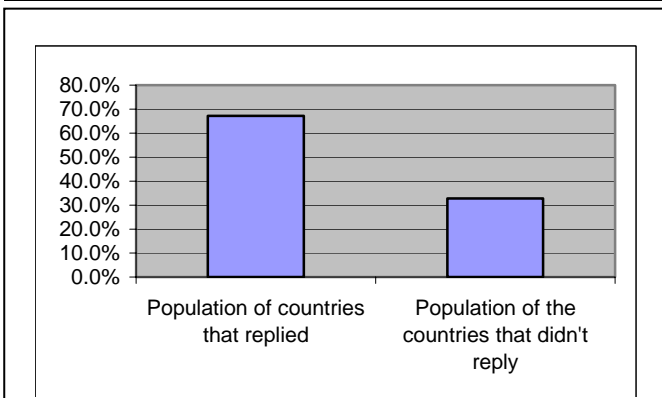
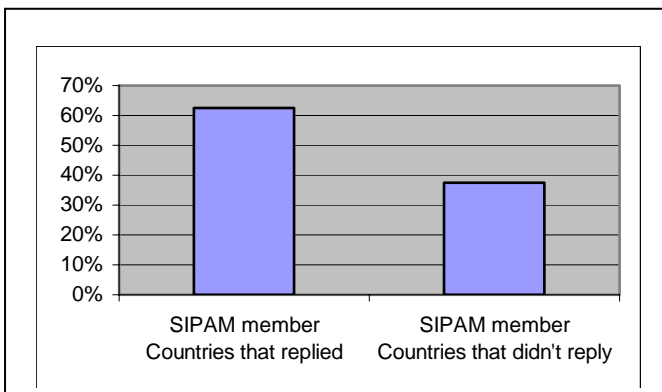
The questionnaire was first sent by e-mail to all the National Coordinators on the 13th of March with the request of filling it in and sending it back by fax by the 20th of March. An automatic version of the Questionnaire easier to fill in and to be sent back by e-mail was then sent on the 17th of March 2006 with the indication of the same deadline (20th of March).

By the deadline of the 20th of March the FAO SIPAM MedFisis Team received the replies of Morocco, Algeria, Croatia, Egypt, Albania. Before the end of March Cyprus also replied and the Tunisian reply was collected during a visit to the National Coordinator. Seven countries in total, only one EU member country, one EU pre-accession country, four North African countries and Albania. In April, following the solicitations made, Italy, Lebanon and Turkey replied.

The following analysis is based on the results available on April, 30th, 2006.

1. OUTLOOK OF THE REPLIES RECEIVED

1.1 Replies, Countries, and their Population



Considering that 10 SIPAM member countries out of 16 (63%) replied, it is justified to affirm that the views of the majority of SIPAM members have been expressed on the proposed issues and that, overall, the results of the questionnaire could be considered representative of the positions of the network. In addition, comparing the replies received with the population of the SIPAM member countries (source UN World Population prospect (2004 revision)) the figure obtained is encouraging as the population of the countries that replied is the 67,2 % of the total population of the 16 member countries. However, knowing that Mediterranean countries cannot be considered homogeneous, mostly from the “development level” point of view, and that this lack of homogeneity is particularly relevant for the aquaculture sector (it concerns policies, tools,

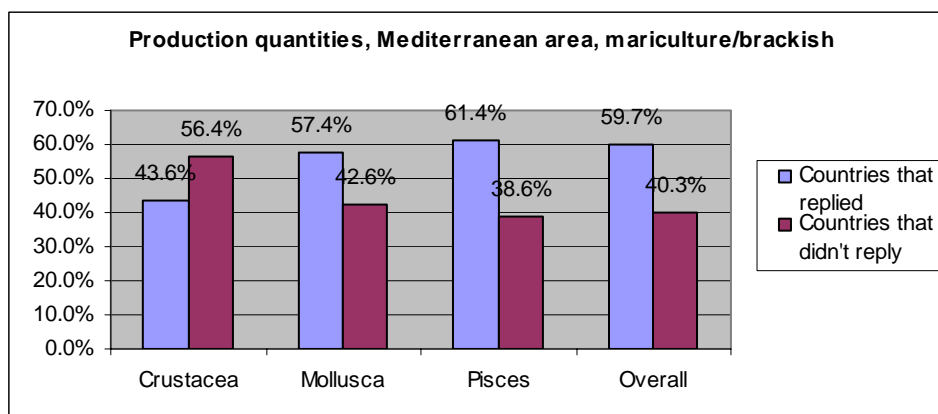
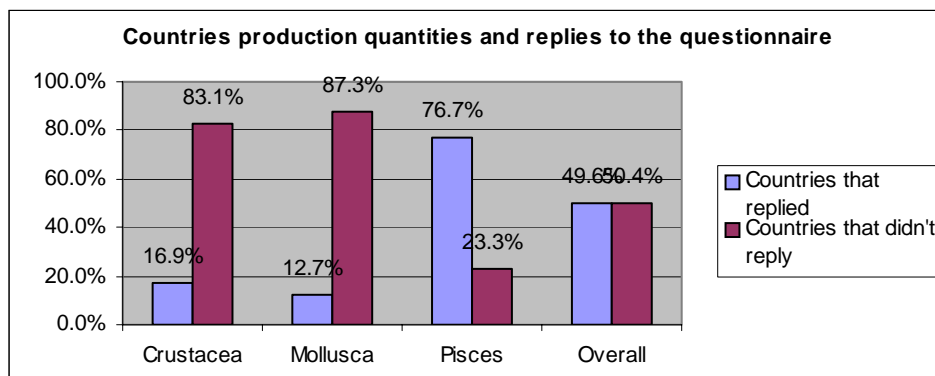
available expertise, technology, access to markets) it would makes sense to evaluate the “reply rate” of the two main groups of SIPAM member countries considering their position towards the EU: EU countries (6 countries, 38% of the total), and non EU countries (10 countries, 63 % of the total). On this basis the 80% of the replies received are from non-EU countries, and the 20% from EU countries. Considering the replies received in the first 15 days, 86 % were from non-EU countries, this figure decreased to 80% after 45 days and various solicitations (replies from EU countries increased from 14% to 20%).

It looks like as if some countries have more burdens to an active participation to SIPAM than others. Operationally, the lack of replies from some countries cannot be attributed to a problem of lack of resources or of weak organisation as the time needed to reply would have hardly overcome 30 minutes and all the National Coordinators have at their disposal a pc connected to the internet. That said, it is possible to consider these results as an indicator of the national interest towards SIPAM. What could be the reason for the low rate of interest of some countries? And what could be the reason for the high rate of interest of other countries? Our interpretation of the root causes of this would privilege the expectations each country has on the participation to SIPAM .

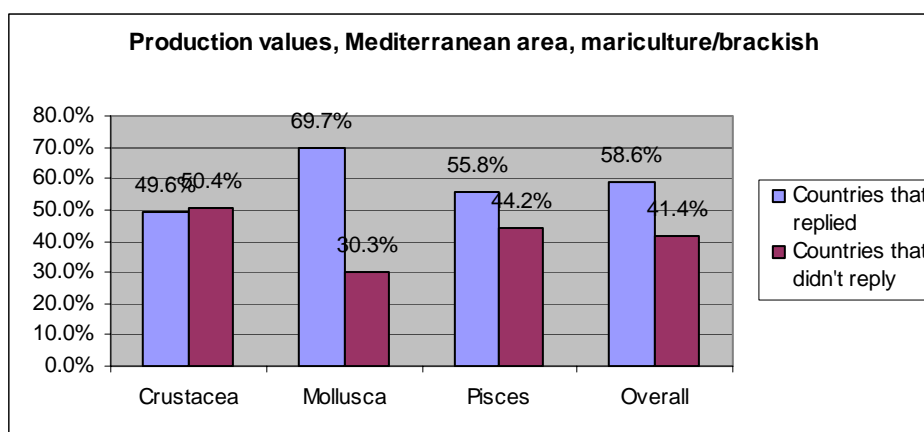
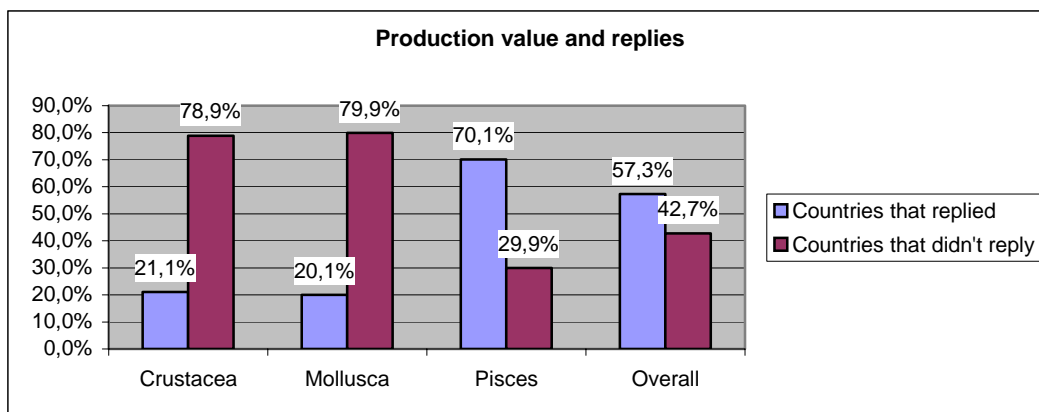
1.2 Replies and Aquaculture Production of the SIPAM member countries

Considering the SIPAM member countries in terms of aquaculture production (source FishStat Plus), the total **2004 production quantity** of the countries that replied to the questionnaire is under the 50% threshold. Actually, only the 49.6% of the total production quantity is represented by the replies received.

The percentage of the 2004 fishes production for the countries that replied is 76,7% but their mollusks production is only 12,7% of the total of the 16 and the crustacean production quantity is 16,9% of the total. Certainly the large scale production of mollusks and crustaceans is mostly a specialization of France and Spain that have not replied yet.



Considering the **value of the aquaculture production** of the 16 SIPAM member countries, the value of the production of the countries that replied to the questionnaire is 57.3% of the total (source Fishstat data for 2004). The percentage of the fishes production value for the countries that replied is 70,1% of the total production value of the 16 countries, their mollusks production value is 20,1% of the total value of the 16 and their crustaceans production quantity is 21,1% of the total value. Respectively, 78,9% of the production value of the crustacean, 79,9 % of the production value of the mollusks and only 29,9% of the fish production value of the SIPAM area is not represented by the results of the questionnaire.

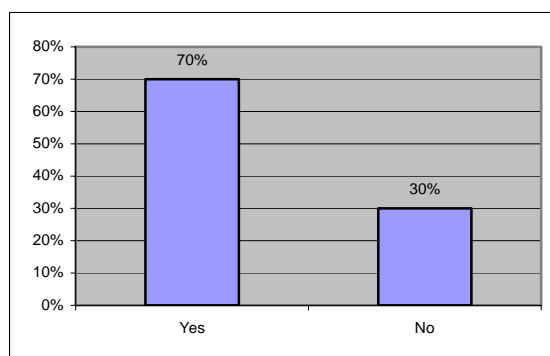


However, restricting the spatial range of aquaculture production data to the production of the Mediterranean areas of the countries bordering more than one sea and limiting the production sectors only to the marine and brackish water aquaculture (more in line with the scopes of GFCM), the replies received represent 59.7% of the total production quantities of the 16 SIPAM countries and 58,6% of their total production value.

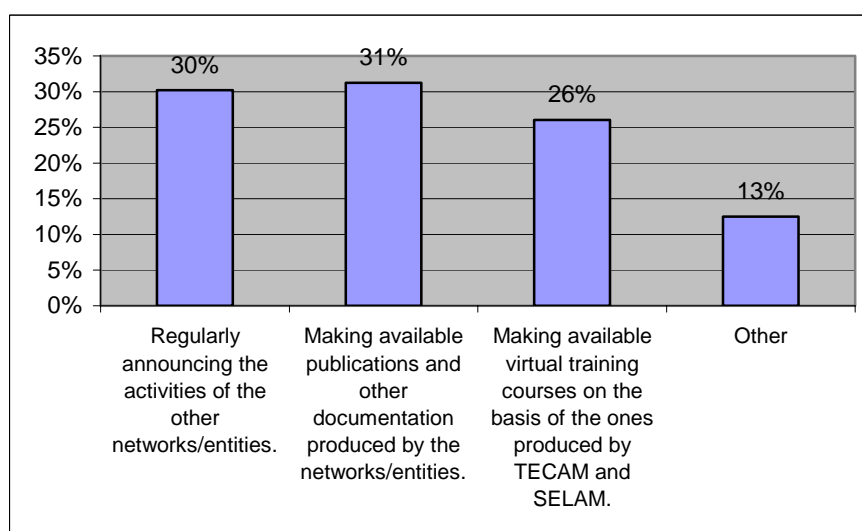
2. QUESTIONNAIRE RESULTS

2.1 SYNERGIES

2.1.1. In your opinion, would your country's aquaculture experts benefit from SIPAM offering wider and deeper synergies and coordination with the other CAQ networks and GFCM entities (e.g. TECAM , SELAM and EAM)?



2.1.2. How would you suggest to put in place potential synergies?



Other possibilities indicated by the National Coordinators include in order of ranking:

- To elaborate aquaculture studies through the joint expertise of the networks with the aim of putting in practice an holistic approach to aquaculture. *Italy*
- To provide access to information on the European Regulation on aquaculture. *Algeria*
- To give more possibilities to NCs to exchange opinions among them on how to improve SIPAM. *Albania*
- To start up common activities/events in relation to statistics, dissemination of information, capacity building and training. *Lebanon*
- Other FAO and CIHEAM activities. *Turkey*

2.1.3. Would you suggest other sources of information on aquaculture at national and/or regional level in the Mediterranean that could be useful to make accessible through SIPAM?

- National and Regional calendar of events related to aquaculture. *Algeria*.
- Market tendencies. *Morocco*.
- Access to national statistics. *Croatia*
- Information of associations of Producers, research institutes and Universities. *Italy*

- Private sector (Farmers' or growers' associations, traders, input suppliers and equipment manufacturers) and national information systems. *Lebanon*
- National information systems and list of aquaculture actors participating to events. *Albania*.
- Producers organizations and other organized groups of stakeholders. *Cyprus*
- List of aquaculture actors participating to events. *Egypt*

The suggestions received cover four main dimensions:

- List of national and regional events and of their participants
- Market tendencies
- National aquaculture information systems
- Information from the private sectors and other stakeholder organizations (NGOs, Consumer Associations...)

Given the main categories of SIPAM actors (Regional Centre and FAO MedFisis Team, National Coordinators, national stakeholders and international organizations), the following information management approach for SIPAM2006 could put in practice the inputs received:

National Coordinators proactively collect national information on events, market tendencies, initiatives and issues concerning the private sector, research institutions and other national stakeholders and make them available on SIPAM in collaboration with the Regional Centre and the FAO MedFisis Team. This could be done also providing the national stakeholders with the possibilities of entering information directly in the system and validating it before publishing.

Access to the National Information system through SIPAM will be available through links.

Regional Information should be proactively collected and published by all the actors: NCs, RC and FAO Team.

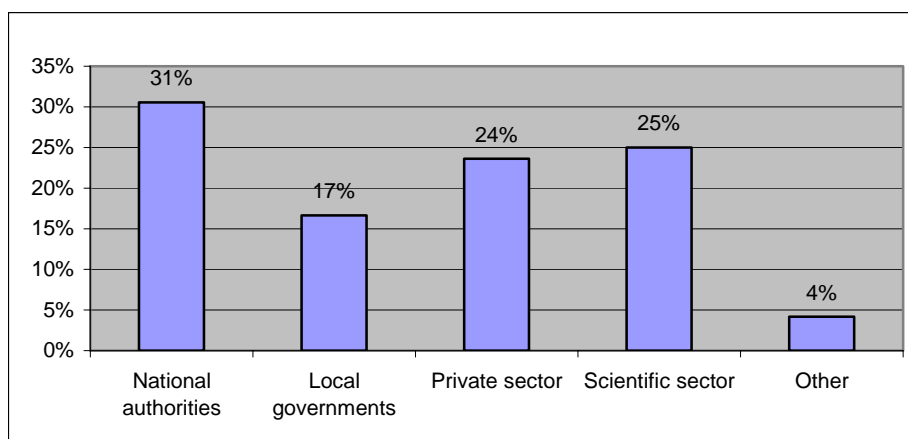
2.2 NATIONAL NETWORKS

2.2.1. Taking into consideration the specific situation of your country, which category of aquaculture stakeholders could better benefit of the SIPAM information services?

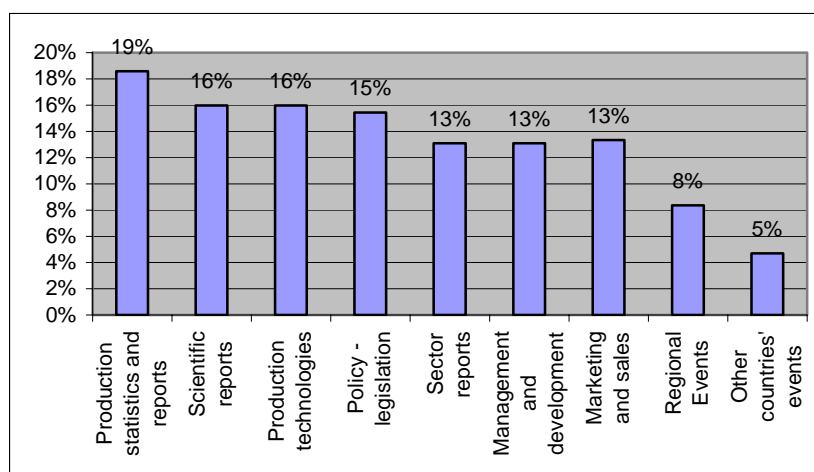
It is quite obvious that the National Authorities resulted as the main beneficiaries of the SIPAM information services. Promoting aquaculture at national level is mostly a policy making issue, in this sense SIPAM is expected to be an effective decision and planning support system. The scientific sector and the private sector resulted at the same level. SIPAM is expected also to support them as the "users" of the policies. Local authorities lag behind in third position. It is a little bit strange as they should be the ones in charge of implementing the policies decided at central level and they would probably need tools and support for this task, especially in the southern and eastern Mediterranean countries.

The other possibilities indicated by the National Coordinators includes in order of ranking:

- The European Commission
- NGOs



2.2.2. What kind of regional information on aquaculture would be preferable to make available to the national stakeholders in order to help your country "to be better equipped to deal with and respond to changes, emerging challenges and new technologies in the sector"?

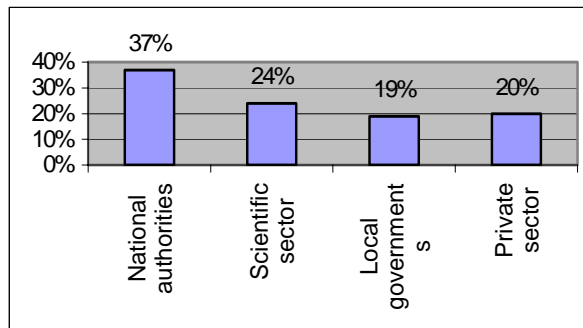


In line with the replies to question number 2.2.1, these results show a clear indication of the tools needed by the main SIPAM user categories. Policy making and planning tools are deemed the more useful, in second position scientific information tools and in third position the more operational plant management tools. It is somehow strange to notice that although in question 3 NCs seemed quite interested in having wide visibility on aquaculture events, now this interest seems to be a little bit lower, mainly on the other countries' events.

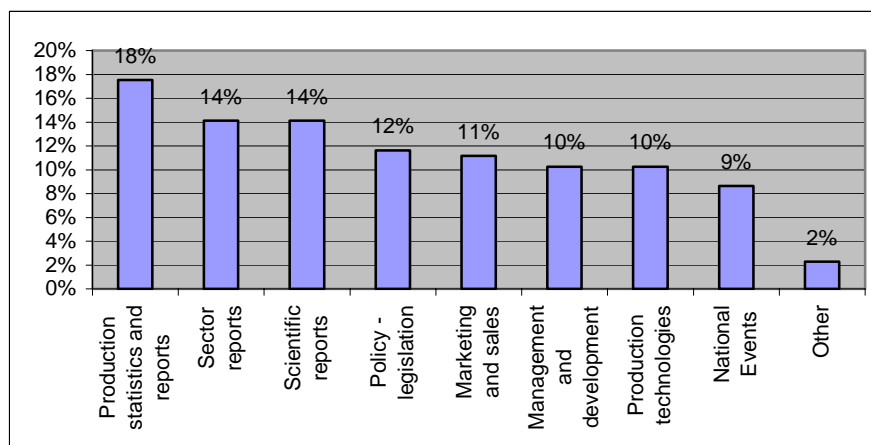
2.2.3. Considering the reverse "information flow", the one from the countries to SIPAM, which category of aquaculture stakeholders, in your opinion, could better benefit from an improved visibility at regional level?

Always the National Authorities in first place. The results of this question reveal a strong need of greater visibility at regional level for the National Authorities. Possibly it is intended, and not only by the southern and eastern Mediterranean countries, as an "active visibility"- having access to a regional "forum" where information is exchanged and countries' experience is compared. The scientific sector is in second position but much behind and the private sector and the local governments are in third position. The fact that the scientific and private sector are lagging behind could be on one side motivated by the fact that other channels and fora already exist for international visibility of this kind of organizations but it could also witness the fact that, in the

perception of the NCs, the private and scientific sectors' visibility is a consequence of the visibility of the national authorities. This reflect very well the organizational arrangements of SIPAM, in which the NCs are in charge of providing visibility to the other national stakeholders. However this situation could also be the consequence of a low "internationalization interest" in the national scientific and economic sectors. Another category of stakeholders indicated by the NCs, although not indicated in the graphic, is the NGOs. It totalized 1% of the preferences.



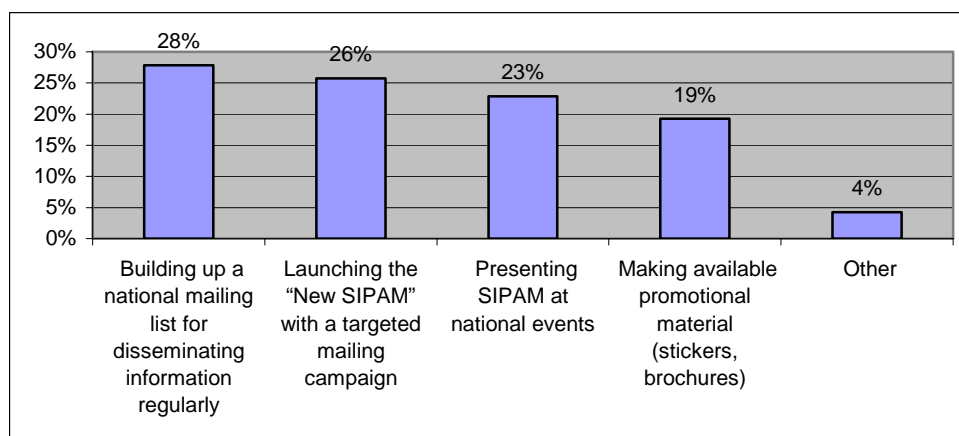
2.2.4. What kind of national information related to your country would be preferable to be circulated regionally?



The focus is always on the production statistics and report. However comparing the results for this question with the results of question number 5, there is a comparable interest in getting and providing information on all the points suggested except for production technologies (countries seem much more interested in getting this information than providing it) and sector reports (countries seem more interested in providing than in getting information). Concerning the other options indicated by the NCs, it is worth mentioning:

- Calls for exchange of know how and new technologies on specific issues. *Lebanon*
- Social/economic aspects. Interactions of aquaculture areas with other sectors. *Albania*

2.2.5. What kind of tool/initiative could better support Marketing SIPAM at national level?



These results should be taken into account in the design of the initiatives for the launching and promoting SIPAM2006.

The other options indicated by the National Coordinators includes in order of ranking:

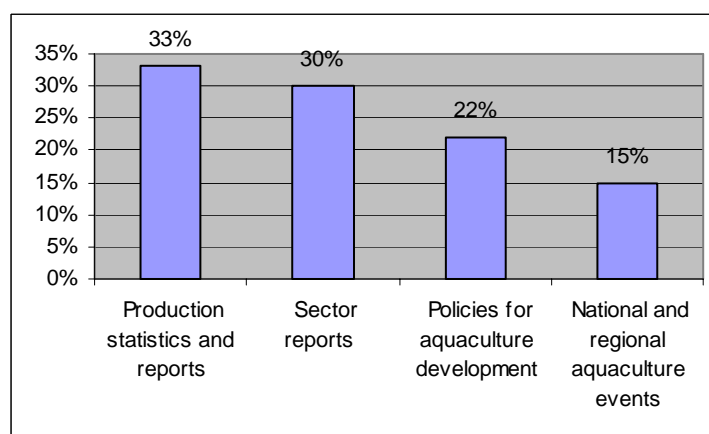
- Building up a national team that would help and support the NC in fulfilling his duties and responsibility especially due to the fact of severe lack of statistics related to the sector in the forms and frequency needed by SIPAM. *Lebanon*
- Supporting the NC in strengthening relationships with policy makers at national and local level. *Albania*
- Personal education on new network systems. *Turkey*

2.3. THEMATIC PRIORITIES

What would be, in your opinion, the priority themes to be privileged in a regional multidirectional flow of information on aquaculture issues, trends and directions at stake in the Mediterranean? Please find below four groups of potential aquaculture themes.

The results of this section will provide a solid foundation for the SIPAM2006 Communication Strategy and for the editorial plan of the SIPAM News section

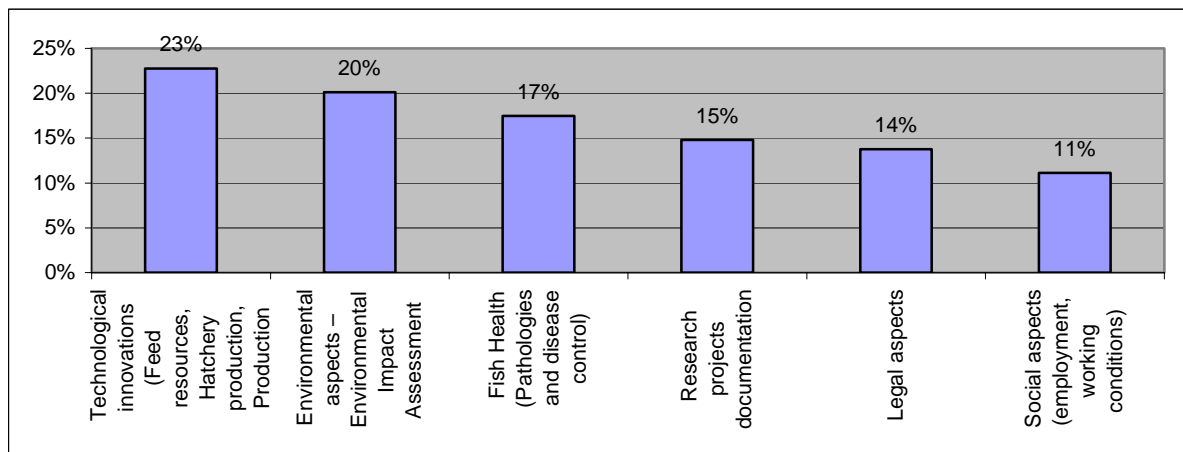
2.3.1 Overall



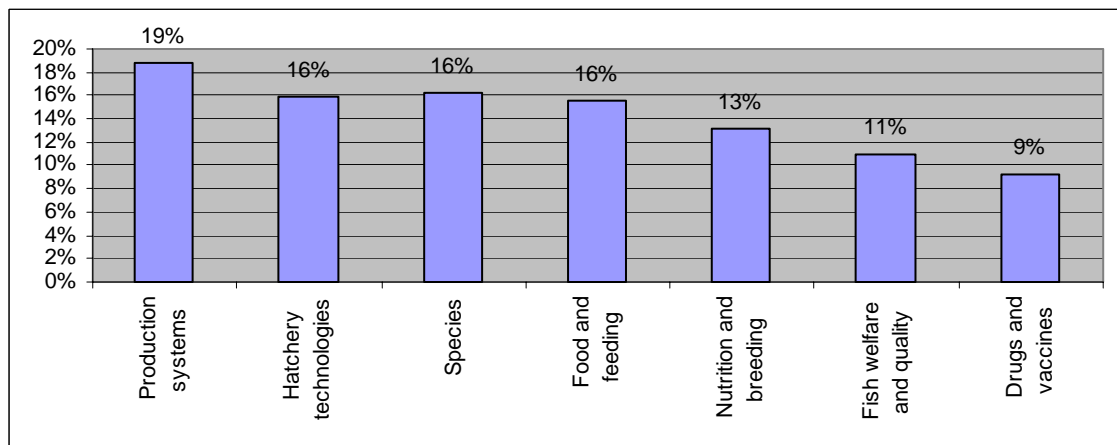
In addition to the suggested replies, the NCs indicated two other options:

- Training programmes. *Albania*
- EU implementation of aquaculture. *Turkey*

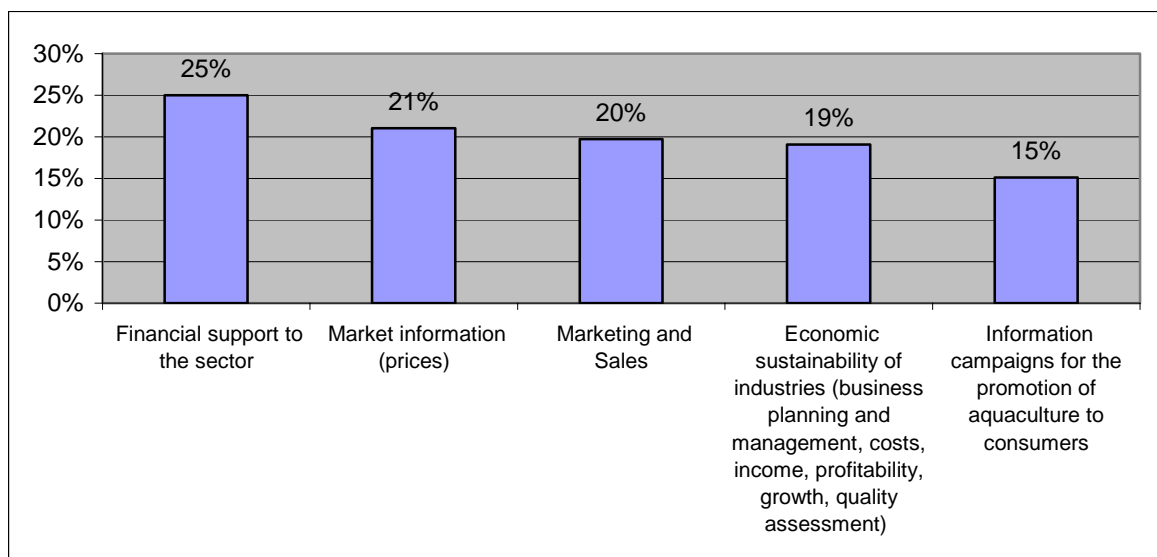
2.3.2. Research and Development



2.3.3. Products

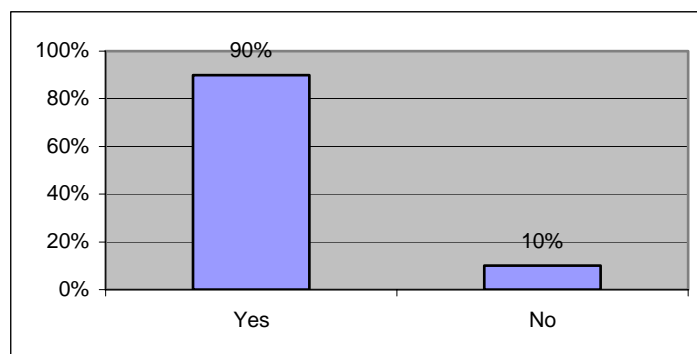


2.3.4. Economic aspects

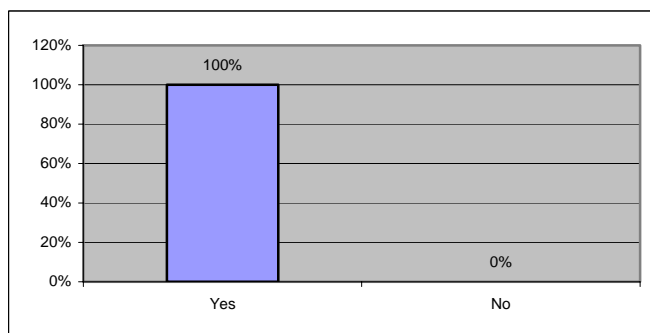


2.4. DATA COLLECTION

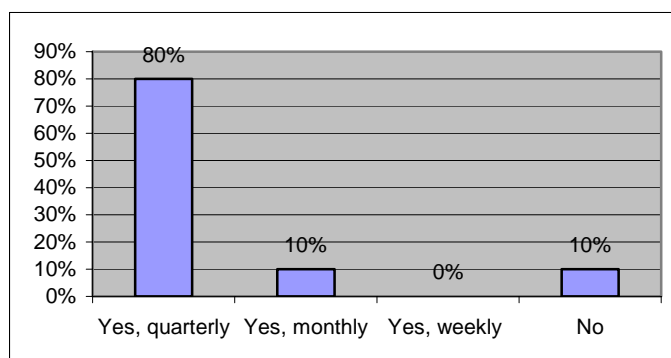
2.4.1. Considering the much known constraints on data collection at national level. Would an improved visibility of SIPAM at national level be beneficial to facilitate the collection?



2.4.2. Considering market data, would you deem important to have them available for all the region?

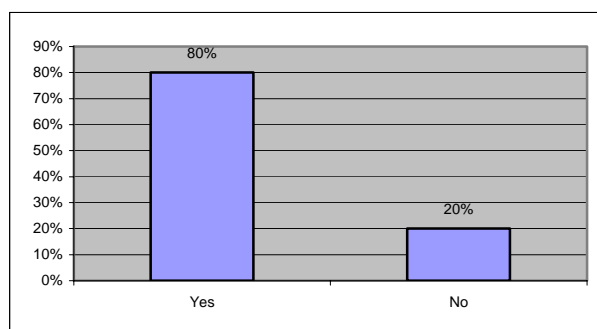


2.4.3. Considering market data related to your country, are they accessible? Could it be possible to get them published on SIPAM?

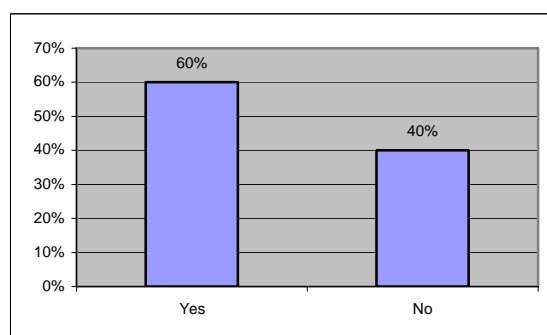


2.5. AQUACULTURE BIBLIOGRAPHIC DATA

2.5.1. Would it be possible for you to contribute to the identification and collection of the electronic version of these documents or of the information relevant to these documents in your country?



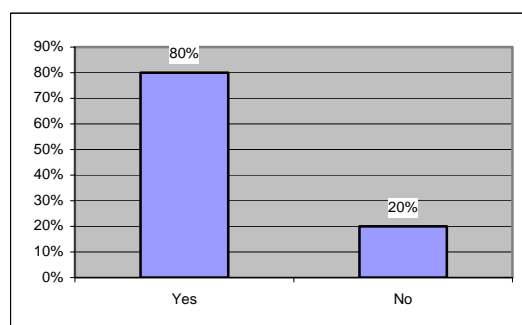
2.5.2. However there could be copyrights on some publications and/or articles, would this constitute a burden to the publication of the resource on SIPAM?



This result should be considered when reformulating the objectives of the Bibliography area of SIPAM and possibly also the Virtual library.

The FAO MedFisis SIPAM Team received a proposal from Algeria that aims at facilitating the assessment of the relevancy of the displayed documents for the potential users: the information resource should be referenced through metadata including Title, Producer, Date, Subject category (and possibly subject sub-category), Introductory summary (possibly the abstract), link to download the full document. A possibility to solve the “copyright issue” could be to provide access to the electronic version of the documents that are copyright free and easily available and, in case of copyright burden, just indicating the reference institution or contact person or virtual bookstore where the publication can be obtained.

2.5.3. Concerning funding of SIPAM, it has been suggested to implement mechanisms such as advertising for specific categories (private businesses) in order to generate a financial flow that could make the whole initiative more sustainable. Would you be in favour of this kind of initiatives?



Nevertheless, Italy and Algeria pointed out the potential difficulty of implementing this kind of services.

APPENDIX 6 - STAKEHOLDER ANALYSIS – USER REQUIREMENTS

Key SIPAM stakeholders groups

1. National Coordinators
2. National decision makers (government, advisors)
3. Technical and research institutions
4. Producers, potential producers and investors
5. Suppliers
6. Aquaculture Industry Associations
7. Traders
8. NGOs
9. Local decision makers (local authorities, advisors)
10. International organisations
11. General public

Stakeholder analysis – Current situation\background

- National Coordinators are generally weakly involved in SIPAM management. This is due to the frustration generated by having been involved and having operated mostly on voluntary basis, by lacking the much needed operational resources (time, human and financial resources), by the general climate of the network (low level of commitment, high level of complaint), by the very low quality of information that is currently retrievable from SIPAM, by the lack of a rewarding audience. Non EU SIPAM countries are very interested in the potentialities of SIPAM but frustrated by the unfulfilled expectations. For the EU countries coordinators SIPAM is not a priority, EU is the main source of initiatives for the promotion of aquaculture policies and tools. They have difficulties in identifying a concrete value added from SIPAM. Despite the undeniable existence of a common Mediterranean aquaculture framework (species, environment, markets), it is still difficult to identify a Mediterranean dimension of aquaculture development in terms of policies, implementation tools, research.
- All the other users are possibly aware of SIPAM existence but they are not frequent users of the information system. Lack of interest is generally motivated by the quality\quantity of information and services available through the system.

Stakeholder analysis – User requirements - How to better attract and empower each category? Through which services and functionalities?

1. National Coordinators –

How to empower their role?

- Through an improved “national” visibility (role of gateway to the regional aquaculture arena)
- Through an improved “international” visibility (a role of gateway to national aquaculture information and people),

- Enabling them to be catalysers of international public-public, private-private, scientific-scientific and public-private-scientific exchanges, partnerships and joint initiatives,
- Enabling them to be catalysers of integrated approaches to aquaculture initiatives (economic, social, environmental, scientific),

This could be done making them available tools, information and easily accessible services that they will proactively provide to the national stakeholders (this is mostly valid for southern and eastern Med countries but not exclusively):

- possibility of managing information/communication/networking tools (national mailing list, virtual national working environment and knowledge management system on aquaculture) for disseminating information in their countries and facilitating interactions among aquaculture stakeholders,
- access to high value added information resources and opportunities (capacity building, training, business opportunities, contacts, partnerships),
- international visibility tools (regional aquaculture contact list, regional news service on aquaculture, e-publications, web page editor),
- clear mandate, stronger institutional backup and resources for data and information collection.

Incentives to motivate the national coordinators of the northern Mediterranean countries should be better identified. In principle the role of national focal point for all the internationalisation processes in the Mediterranean area (outgoing and incoming from the point of view of the country) in the field of aquaculture research, of markets integration and products standardization (in view among others of the Euro-Mediterranean Free Trade Area (2010)) should be highly rewarding in terms of visibility and importance for the whole national aquaculture sector.

2. National decision makers –

They would mostly be empowered by having improved access to updated information on policies planning, implementation and management tools for the promotion of sustainable aquaculture, (e.g. the EU countries experiences):

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- aquaculture regulation,
- economic instruments,
- innovations (scientific reports and production technologies)
- awareness raising approaches (for the private sector, local authorities and communities),
- aquaculture products promotion and marketing campaigns (for the general public) (from the north of the Mediterranean but not exclusively),
- aquaculture products consumption patterns,
- market data and tendencies at regional level (they are supposed to have already national data),
- integration of social and environmental concerns in decision making,
- relevant experiences of implementation for all the above mentioned tools (from the north of the Mediterranean but not exclusively),
- capacity building tools and initiatives (TECAM, SELAM),

- possibility of getting in contact with other countries' decision makers (meetings, contacts).

Southern and eastern Mediterranean decision makers would mostly need this information and northern Mediterranean countries should preferably be the source.

3. Technical and research institutions –

Southern and Northern Mediterranean institutions would benefit gaining in “international” visibility, having the possibility to market the results of their researches, establishing contacts with potential financiers and synergies with other institutions operating in similar field. They would need the following information resources:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Available financial instruments,
- Contact List of national and regional aquaculture actors,
- Information on the latest developments and outcomes on the following aquaculture research and development themes (in order of priority according to the replies provided to the questionnaire):
 - Technological innovations (Feed resources, Hatchery production, Production techniques, Health)
 - Environmental aspects – Environmental Impact Assessment
 - Fish Health (Pathologies and disease control)
 - Research projects documentation
 - Legal aspects
 - Social aspects (employment, working conditions)

4. Producers –

They would benefit from having access to the following information and networking tools:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Access to more detailed market information (prices, trends), contacts with traders (e-marketplace?), (posting product offers?),
- Information on new practices and product innovations available, research results,
- Possibility of comparing products and prices, contacts with suppliers (e-marketplace?) (suppliers window/web page),
- Information on national regulation,
- Information on issues at stake (e.g. pathology) at regional level and possible solutions,
- Planning and management tools,
- Marketing and sales tools,
- Contact List of national and regional aquaculture actors.

5. Potential investors –

They would benefit from having access to the following information and networking tools:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Investment Opportunities
- Contact List of national and regional aquaculture actors

6. Potential producers –

They would benefit from having access to the following information and networking tools:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Information on national regulation,
- Available financial instruments,
- Planning tools for preparing investment proposals,
- Production systems and technologies,
- Innovations,
- Access to more detailed market information, marketing and sales tools,
- Contacts with investors (posting tentative proposals?)
- Contact List of national and regional aquaculture actors

7. Suppliers –

They would benefit from having access to the following information services and networking tools:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Visibility (possibility to use the News service, to publish their profile (available products, services, prices) on a web page and to write articles),
- Access to markets, contacts with clients (Window/web page or e-marketplace?),
- Contact List of national and regional aquaculture actors

8. Aquaculture Industry Associations –

They would benefit from having access to the following information services and networking tools:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Visibility (national and international),

- Tools and information to be made available to their members,
- Contact List of regional aquaculture actors (other countries' and regional Aquaculture Industry Associations among others).

9. Traders –

They would benefit from having access to the following information services and networking tools:

- National and regional aquaculture production and market trends, complete and correct SIPAM data (mostly production statistics and reports for all the countries) and more sophisticated analytical patterns,
- Access to more detailed market information (prices, trends), contacts with other traders (e-marketplace?), (posting product offers?)
- Access to opportunities, contact with producers (product offers)
- Contact List of national and regional aquaculture actors

10. NGOs –

They would benefit from having access to the following information services and networking tools:

- A window for promoting their positions and initiatives,
- A tool for evaluating the current aquaculture situation in the region,
- Aquaculture development impact on capture fisheries,
- Technological innovations and research results on the environmental and socio-economic impact of aquaculture,
- Contact List of national and regional aquaculture actors

11. Local decision makers –

- Southern Mediterranean local decision makers would need benefit from having access to information on the instruments for the implementation of aquaculture policies. These would include success stories, necessary tools for replication (guidelines), contacts with investors, access to capacity building initiatives, documents.
- Northern Mediterranean local decision makers would benefit from having access to information about technological innovations, possible aquaculture issues (environmental impact), tools and approaches to address them.

12. International entities (EC, regional bodies of the UN, CIHEAM and others) –

They would benefit from having access to the following information services and networking tools:

- A window for promoting their approaches, findings, initiatives, policies, tools.
- A tool for evaluating the current aquaculture situation in the region.

13. General public

It would benefit from having access to general and introductory information on aquaculture:

- For evaluating the current aquaculture situation in their country and in the region,
- For better understanding:
 - Environmental issues,
 - Socio economic benefits and issues (also impact of aquaculture on capture fisheries),
 - Consumption patterns,
 - Food safety issues,
 - Success stories.