

## MEDGOOS – BUILDING A STRONG REGIONAL PARTNERSHIP FOR OPERATIONAL OCEANOGRAPHY IN THE MEDITERRANEAN

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### Abstract

A sustained regional system for marine monitoring and forecasting needs an enduring collaboration among the neighbouring countries, supported by the willingness to share efforts, resources and knowledge. MedGOOS, the Mediterranean association of marine organisations, fosters institutional cooperation for the establishment of the Global Ocean Observing System (GOOS) in the region. A special emphasis is on the early dialogue between all the countries to ensure common ownership, and equal benefits and opportunities to all the riparian coastal peoples. MAMA, a 3-year thematic network project shared by leading marine research institutions from all the Mediterranean countries, is putting in place the institutional and scientific platform to establish operational oceanography in the region.

*Keywords : Operational oceanography; Ocean monitoring; Forecasting; Networking; Sustainable Development*

Throughout history the sea has played a crucial role in the socio-economic development of the Mediterranean region. Today the quest for environmental security, based on the concepts of sound ocean governance, sharing of knowledge and the sustained use of resources, is the precursor for prosperity, sustainability and peace. The importance of marine resources to our well-being calls for the sustainable use of the sea in both open and coastal domains. There is an ever increasing responsibility on the scientific community to provide accurate and routinely updated information for decision-making. Furthermore there is a recognition of the opportunities emerging from regional cooperation on marine research and monitoring for a sound ocean management policy in the Mediterranean.

The UN Convention on the Law of the Sea (UNCLOS) as well as the outcomes of the United Nations Conferences of Rio De Janeiro in 1992 (UNCED) and of Johannesburg in 2003 (WSSD), have prepared the legal and intergovernmental framework for cooperation among States for sustainable development. In the Mediterranean this has led to growing understanding that equitable sustainability is based on inter-sectorial and cross-border co-operation. North-North and North-South co-operation among Mediterranean countries is needed for the benefit of both developed and developing countries alike. Better co-ordination between the work of the Barcelona Convention bodies and the 27-nation Euro-Mediterranean Partnership is urged with the perspective of broadening the focus of the latter on environmental issues. Moreover the implementation of sustainable development requires improvements in the organisational, technological and human resource capabilities for environmental management. It builds on the applications of science to public policy needs, and the design of monitoring and assessment systems that secure a sustained development approach.

MedGOOS tackles these needs with a strong regional partnership. Sustained operational marine monitoring is planned for the benefit of a wide range of users. Applications and services are addressing the requirements of governments to enable an equitable and sustainable growth. The mission of MedGOOS is to facilitate the inter-institutional co-operation right from the planning and design stages, and considers the full regional scale involvement as a vital element for a durable and secured implementation of a marine monitoring system, based on existing assets and addressing national and regional needs. The regional dimension of the MedGOOS network is ramified at national level, thus involving a wide participation of stakeholders. This will improve the provision of data and information on the marine environment, integrated basin-wide, useful to policy makers in addition to scientists.

The MedGOOS members work as a coherent team in the region, and lead the promotion of GOOS in their respective countries. Their coordinating role as a national focal point, the establishment of links with the local scientific community, with relevant public authorities, environmental agencies, end-users and stakeholders, and the awareness activities provide a main thrust for the promotion of the Mediterranean GOOS. The members constitute an enabling asset to the future projection into long-term commitments at governmental level. Recently four new members joined MedGOOS which now counts 20 institutions from 17 countries.

National initiatives have established routine marine observations using automated systems in several shelf sea areas along the northern

perimeter of the basin. A number of RTD projects have in the last few years provided a framework for the regional networking of the marine scientific community to underpin research in operational oceanography. The Mediterranean Forecasting System Pilot Project – MFSP – [1] has started to develop and test the science base for the implementation of a Mediterranean ocean forecasting system. The ongoing project MFSTEP [2] (Mediterranean ocean Forecasting System: Towards Environmental Predictions) is a follow-up to MFSP that will integrate and extend the observing system, demonstrate the feasibility of regional and coastal scale forecasting in several Mediterranean areas, develop biochemical modelling and data assimilation towards environmental predictions, and start the development of end-user interfaces for the exploitation of the project products.

In 2002, the project MAMA - Mediterranean network to Assess and upgrade Monitoring and forecasting Activity in the region [3] was launched. The project is funded by the Programme, Energy, Environment and Sustainable Development, EC 5<sup>th</sup> Framework Programme. MAMA brings together a consortium of major marine institutions from all the Mediterranean countries. It is staging a concerted effort of all Mediterranean countries to put in place the institutional and scientific links for the regional platform that will enable the implementation of MedGOOS. MAMA is contributing to the initial phase of the EC-ESA initiative GMES - Global Monitoring for Environment and Security [4], pooling together the national scientific and technological resources. The specific aims of the project are to share experiences, transfer of expertise, and bring capacities in ocean monitoring and forecasting in the basin at a comparable level. The joint effort is planning the initial observing and forecasting system in the Mediterranean. Demonstration products and results are disseminated, national awareness campaigns are organized to build momentum towards long term commitments by governments. After the first 18 months several activities are well underway. The network is working in harmony and a strong partnership has been established. MAMA is pioneering the implementation of GOOS by an unprecedented endeavour and novel approach that will put the region at the forefront of ocean monitoring and forecasting. Further details can be found on the project website ([www.mama-net.org](http://www.mama-net.org)).

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### References

- 1-Pinardi N., Allen I., de Mey P., Korres G., Lascaratos A., Le Traon P.Y., Maillard C., Tziavos C., 2003. The Mediterranean Ocean Forecasting System: First phase of implementation (1998-2001), *Annales Geophysicae*, 25: 1-18.
- 2-Pinardi N., Auclair F., Cesarini C., Demirov E., Fonda-Umani S., Gianini M., Montanari G., Oddo P., Tonani M. and Zavatarelli M., 2001. Toward marine environmental predictions in the Mediterranean Sea coastal areas: a monitoring approach. In: Pinardi N. and Woods J. (eds.), *Ocean Forecasting: Conceptual basis and applications*, Springer-Verlag.
- 3-Vallerga S., Drago A. and the MAMA Consortium, 2002. MAMA – Towards a new paradigm for ocean monitoring in the Mediterranean, 3<sup>rd</sup> EuroGOOS Conference, December, Athens.
- 4-GMES Support Team, 2003. GMES Vision and Targets 2008, Information document for the 3<sup>rd</sup> GMES Forum.