



Nature Trust (Malta)

Postal Address: P.O. Box 9, Valletta VLT1000, Malta

Offices: Wied Ghollieqa Environmental Centre,
I/o Car Park 1, University of Malta, Msida, Malta

Tel / Fax: +356 2131 3150

Email: info@naturetrustmalta.org

Web: www.naturetrustmalta.org

Monday, 15th September 2014

Nature Trust Malta in partnership with WWF is hereby issuing a call for tenders for GIS consultancy (Data Collection and Mapping) as per below details. Tenders are to be sent through an email titled NTM tender for GIS Consultancy MedTrends Project to info@naturetrustmalta.org by not later than Friday 26th September at 12 noon. Late submissions will not be considered. Prices are to be quoted in Euro and have to include VAT.

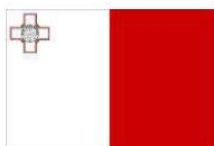
For any further information please contact

Nature Trust Malta

Executive President

Mr Vincent Attard

Tel: +356 9942 2086



(Med Programme – Cohesion Policy 2007 - 2013)

Europe in the Mediterranean

This project is part-financed by the European Union
European Regional Development Fund (ERDF)

Co-financing rate: 85% EU Funds; 15% National Funds
Investing in your future



Future Trends in the Mediterranean Sea

QUOTE REQUEST MODULE

Project Title:	
Legal Name of the organization/Consultant:	
Full name of Consultant/Organisation:	
Address (postal):	
Contact telephone numbers/ e-mail:	
Country:	
Start of contract activities:	1 st October 2014
End of contract activities:	15 th June 2015
Total Quote in Euro including VAT:	
Other Comments:	

Terms of Reference

Background:

The Mediterranean Sea is one of the most dynamic, sensitive and unique ecosystems on the planet, but it is also one of the most threatened. Depleted fish stocks, endangered species and habitats, as well as pollution problems are just some of the many challenges facing the Mediterranean Sea. Unfortunately, we know that many of these challenges will be compounded by the effects of climate change – causing increasing threat to sensitive habitats and ecosystems in the coming years. To add to existing problems, there is now an increasing competition for the use of the sea. Oil and gas, energy cables and pipelines are being projected at many places on the sea floor while shipping routes, boat traffic, fisheries, tourism and other human activities may already be affecting the same areas. More and new competing interests are anticipated in the near or longer term future, including military and security needs, a growing aquaculture industry, wind and wave power generation, energy transmission lines, submarine communication cables, as well as sand and gravel extraction, all combined with a growing need for areas partially or completely protected from commercial and other activities.

Current planning and management approaches are not only insufficient when it comes to dealing with existing threats and challenges facing the region, they are often completely inadequate when it comes to addressing and anticipating future threats and challenges. Marine policy as well as marine legislation has in many countries been developed over the years in an ad hoc and fragmented way, with each sector being addressed individually on an “as needs” basis, sometimes in response to a major emergency or a new demand. This has created a patchwork of marine-related legislations that is now proving insufficient to deal with the increasingly complex problems that face the Mediterranean Sea and its many users. Many countries are now feeling the need to review their present array of policies and legislations to ensure a better coordination and integration.

Summary of the issue:

The MedTrends project, inspired from the 2010 WWF report “Future trends in the Baltic Sea”¹ was approved by Programme Med 2007-2013 on April 9 2014 and will last 12 months (up to the end of May 2015). With the support of the European Regional Development Fund, the project: “will illustrate and will map the most likely integrated scenarios of marine economic growth at a transnational level in Med-EU countries for the next 20 years”.

To reach this purpose, the project partners will need to gather data in the Mediterranean from all the concerned regional, national, and international organizations and develop GIS maps of the current status and future trends of the main economic sectors in order to highlight potentially conflicting uses that may hinder the achievement of Good Environmental Status (GES) of EU marine waters, the main goal of the EU Marine Strategy Framework Directive, to be achieved by 2020. The potential conflicts of human activities at sea will be put into the perspective of the 10% Marine Protected Areas target set for the Mediterranean.

Project area

The MedTrends project covers the whole EU part of the Mediterranean Sea, however the specific geographical area for the present consultancy (hereinafter referred to as the project area) will be the Maltese coastal and, where possible, territorial waters.

Nonetheless, the consultant will also be expected to provide support for the development of regional (EU part of the Mediterranean Sea) maps (that will be carried out by a Regional GIS coordinator).

Overall goal of the consultancy

The consultant will contribute to collect data and will be responsible to organise and analyse data on existing and future trends of the main marine economic sectors and uses in the project area and will produce GIS maps for each of the selected sectors both at national and regional level and at current and future scenarios. The consultant will work under the general supervision of Nature Trust Malta (NTM) and will be also subject to the technical supervision and coordination from the regional GIS consultant appointed by WWF-France.

¹ <http://wwf.panda.org/?194764/Future-trends-in-the-Baltic-Sea>

1. Objective of the consultancy

The objective of the consultancy is to illustrate through GIS maps the current status and the most significant trends and growth indicators for selected economic sectors/uses in the project area. Potential sectors may include the following*:

1. Existing and future Marine Protected Areas
2. Offshore wind energy
3. Oil and Gas
4. Maritime transport
5. Tourism
6. Sand and gravel extraction and dredging
7. Commercial fisheries
8. Aquaculture
9. Pollution
10. Agricultural runoff
11. Military areas
12. Anthropogenic coastal developments (% of artificial coastline)**The list is provisional as a final list of sectors hasn't been produced yet. However it won't vary greatly from the above.*

Each sector will be analysed individually for the project area (the Maltese marine waters) and then cumulative sector maps will be produced.

The consultant will also provide support to the regional GIS coordinator in the development of regional sectors and cumulative maps.

2. Activities of the consultancy

The consultant is asked to accomplish the following tasks:

1. Data gathering/collection

The consultant shall actively contribute to the data gathering phase. Based on his/her knowledge of the project area and the key stakeholders he/she will contribute to the search for relevant data and to formulate requests to the relevant authorities/institutions that might be able to provide further useful information for the project. To facilitate this work, WWF will produce a preliminary document to identify relevant sectors and stakeholders. The preliminary document will also identify sources of information, including leading experts that could/should be contacted, for each sector and country.

2. Data Organization and management

The consultant will develop a computerised GIS (ideally using ESRI ArcGIS or Quantum GIS) including:

- Baseline data
- Historical data

The data should be reliable, verifiable, updated and accompanied by appropriate “meta data” (information on the methodology used to collect the data, limitations of the data, etc.).

3. The consultant will collect the data and will store them in a readily accessible online server or platform that will be provided by the project. The consultant will be responsible to organise the metadata, and to adopt the necessary measures in order to comply with the geodatabase structure (developed by regional GIS coordinator in consultation with NTM) and other requirements set by the regional GIS coordinator.

4. Data analysis

Although the consultant will not have the responsibility of developing the trends for each sector, he/she might be required to perform data analysis through GIS modelling tools if required by the project.

5. GIS mapping

The consultant will produce a sets of maps for the Maltese coastal (and where possible territorial) waters. The map should comply with the requirements and the templates set by the regional coordinator. Furthermore the consultant will be responsible to provide the necessary shapefiles and data to the regional coordinator in order to produce regional maps.

6. Meetings and travels

The consultant may be required to participate to regional coordination meetings (transport, food and accommodation costs will be provided by the project).

3. Deliverables

The final outputs of the consultancy will be the following*:

- A brief GIS and data analyses methodological report in Word format. The report should contain at least the following main sections:
 - An introduction explaining the background methodology;
 - One methodological explanation for each sector/analysis;
- A Geographical information system including data on the different sectors of the study and other relevant data, organised in a geodatabase according to the standards set by the regional GIS coordinator.

- The set of maps, of the Maltese marine waters, should include: the current status of each of the selected economic sectors, the trends for each sector, other analyses carried out (if applicable) and the cumulative map including all sectors. The maps should be provided both in electronic format including the original project (.mxd or .ggs) and layer files (.lyr) and in editable PDF. Additional formats may be required for the WebGIS viewer.
- Each deliverable will be revised by the NTM project team and approved by the MPA Programme Manager.

**Further activities might be required according to the project's needs. Additional activities and budget changes will require approval from NTM.*

4. Timeframe

The expected start of the consultancy will be from the 1st October 2014. The expected end of the consultancy will be 15th June 2015. The timeframe might be subject to minor variations according to the project's requirements.

The expected commitment of the consultant will be approximately 70 man/days, to be distributed according to the project's needs along the total duration of the assignment.

5. Required qualifications

The following skills and qualifications are essential:

- Demonstrated GIS education, academic and professional background on the use of ArcGIS
- Previous GIS experience in similar sector mapping projects
- Fluency in oral and written English