FINAL REPORT

in connection with

MED-ERMIS

(Mediterranean Environmental Reporting Monitoring and Information System)

MALTA

COVERING THE PERIOD
NOVEMBER 2000 TO NOVEMBER 2002

Prepared by the
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Executive Summary

This report outlines the work that has been carried so far as part of the MED-ERMIS (Malta) project between November 2000 and November 2002. The Sustainability Indicators – Malta Observatory (SI-MO) was established in November 2000 to meet the requirements of the MED-ERMIS (Malta) project. The Observatory's main remit was to conduct research and development work, and to disseminate information on Sustainability Indicators for Malta. SI-MO engaged research assistants, consultants and secretarial staff in order to assist in the execution of this project.

The activity of SI-MO was divided into seven work-packages, broadly on the lines set during the first MED-ERMIS held in Athens in November 2000, as follows:

Work-package 1. The identification of data collection and systematic reporting on environmental indicators for air, aquatic and terrestrial environments.

Work-package 2. The identification of agencies for collection of data, the examination of data and procedures for compiling indicators.

Work-package 3. The definition of needs and priorities for systematic monitoring and management of environmental quality and sustainable development in each country, identification of users and their specific requirements, and identification of changes and improvements required.

Work-package 4. Preparation of a network for the collection, storage, processing and dissemination of environmental and sustainable development data and information.

Work-package 5. Identification of roles and responsibilities of agencies for the compilation of sustainability indicators, and training of personnel.

Work-package 6. Preparation of an extensive literature review and dissemination of information on sustainability indicators.

Work-package 7. Definition of needs and priorities for systematic monitoring and management of environmental quality and sustainable development in Malta, principally by producing updated sustainability indicators based on the methodology devised by the Mediterranean Commission for Sustainable Development.

The output of SI-MO was very extensive and included reports on air quality, fresh water and wastewater, biodiversity and terrestrial and marine ecosystems, solid waste, territories and human settlements and economic activities. Studies were also carried out on the feasibility of constructing sustainability indicators for Malta, using the MCSD methodology.

SI-MO also prepared two studies on cross cutting issues, dealing with reporting requirements by the Maltese government in the field of the environment, and an assessment of environmental statistics collected by the National Office of Statistics.

In order to provide a set-up for an accessible domain for the collection, storage, processing and dissemination of relevant data, a website dedicated to the work of SI-MO and to the MED-ERMIS project was developed.

SI-MO also organised a national conference on sustainability indicators. The conference discussed developments in the computation of indicators for Malta covering the following areas: Population and Society; Land and Areas; Economic Activities; Environment; Sustainable Development: Actors and Policies; and Cooperation in the Mediterranean. The aim of the conference was to present to the general public and to specialists in different fields some of the indicators that were computed for Malta.

The final phase of the MED-ERMIS project involved the computation of the 127 indicators based on the MCSD methodology (3 out of the 130 indicators were not applicable for Malta). This exercise was carried out in collaboration with the National Statistics Office. This work was disseminated as follows:

(a) a book was published with the data sheets for each of the 100 indicators, containing data and main trends over the 1995-2000 or 1995-2001 periods, and useful information about 27 indicators for which data could not be obtained.
(b) An interactive compact disc, with an accompanying manual, containing all the research output of SI-MO was produced and disseminated.
(c) A press conference was organised during which the press was briefed on the meaning and importance of these indicators.

Another initiative that SI-MO took in order to increase public awareness on issues of sustainable development and sustainability indicators is the production of a 25-minute fast moving video. This video was aimed at the general public and it explained the need for sustainable development is and how sustainability indicators can be used to gauge a country's performance in terms of sustainable development.

This two-year project was highly commended by the Maltese Government because it was the first project of its kind, where information on sustainability indictors was collected, analysed and published. Such information is useful for decision-making especially with regards to environmental issues. Furthermore, SI-MO offered the opportunity for cooperation between the public sector, the University of Malta and individuals specialised in different fields. This cooperation has long-term implications as the National Office of Statistics has agreed tol continue the work initiated by SI-MO. Another important output of the SI-MO project is the training of individuals in field of sustainability indicators. This training can now be used to help other countries compute their indicators.

1. INTRODUCTION

This report outlines the work that has been carried so far as part of the MED-ERMIS (Malta) project between November 2000 and November 2002. The report is one of the requested deliverables in the contract signed on 1st November 2000, between the University of Athens and the Islands and Small States Institute of the Foundation for International Studies, Malta.

2. SETTING UP OF SI-MO

2.2 Administration

In order to meet the requirements of the MED-ERMIS (Malta) project, the Sustainability Indicators – Malta Observatory (SI-MO) was established in November 2000, with Professor Lino Briguglio as Director. Mr. Kevin Mercieca and Ms Rachel Portelli were Coordinators of Phase 1 and Phase 2 of the project, respectively.

The Observatory's main remit was to conduct research and development work, and to disseminate information on Sustainability Indicators for Malta. SI-MO engaged research assistants, consultants and secretarial staff in order to assist in the execution of this project.

Administratively, SI-MO was set up as a special programme of the Islands and Small States Institute of the Foundation for International Studies of the University of Malta. An office was rented and used as the SI-MO administrative centre, located within the building of the Foundation for International Studies, in Valletta. The office of SI-MO was equipped with the necessary furniture and computer hardware. SI-MO also created a small library for use by SI-MO staff and other researchers.

2.2 Objectives

The objectives of SI-MO were the following:

- To identify requirements for data collection and systematic reporting in Malta for environmental indicators for the air, aquatic (inland and marine waters) and terrestrial environment.
- To assess the data collection system in Malta and agencies involved, regarding adequacy, reliability and capability for collection, storage, processing and retrieval.
- To define needs and priorities for systematic monitoring and management relating to sustainable development in Malta, principally by producing updated sustainability

indicators based on the methodology devised by the Mediterranean Commission for Sustainable Development.

- To prepare proposals for establishing a cost effective and sustainable network for the collection, storage, processing and dissemination of sustainable development data and information.
- To identify roles and responsibilities of participating agencies and recommend the establishment of new monitoring and data collection capacity as needed.

2.3 Strategy

SIMO aimed to achieve its goals by adopting the following general strategy:

(a) Participating in the MED-ERMIS two-year project.

(b) Setting up and fully equip an office for the eventual development into a fully-fledged National sustainability indicator observatory.

(c) Working towards enlisting the cooperation and support of the main stakeholders on matters related to Sustainability Indicators.

(d) Conduct research and disseminate information on Sustainability Indicators.

(e) Keep regular contact with external organisations working on this subject, in particular the various Mediterranean observatories.

3. TECHNICAL SUPPORT

3.1 The Technical Advisory Committee (TAC)

One of the first actions taken, as part of the MED-ERMIS project, was the appointment of a Technical Advisory Committee (TAC) with a wide range of expertise on the subject of Sustainability Indicators. The main function of the members of the TAC was to assist SI-MO in the execution of the MED-ERMIS project, in their own personal capacities. The TAC consisted of 20 members, including the Director and Coordinator of SI-MO. The list of TAC members is given in Annex 1. Minutes of the TAC meetings were kept and made available to members of TAC and other persons associated with SI-MO. They are also posted on the internet in the SI-MO website (www.um.edu.mt/itoff/si-mo).

3.2 The Steering Committee

During the first meeting of the TAC it was decided to set up a Steering Committee for the MED-ERMIS (Malta) project, representing the various organisations that could contribute towards the building of capacity for the development of Sustainability Indicators for Malta.

The following organisations appointed representatives to sit on the Steering Committee:

- The University of Malta
- The Planning Authority
- The Central Office of Statistics
- The Environment Protection Department
- The Malta Information Technology and Training Services in the Office of the Prime Minister.
- The Malta Resources Authority

The Steering Committee was instrumental in fostering cooperation between the institutions involved in the development of Sustainability Indicators, with SI-MO as the coordinating agency.

During its first meeting, the Steering Committee agreed that the National Office of Statistics was best placed to coordinate data collection and data processing, and that SI-MO could be instrumental in developing indicators based on this data. The collaboration between SI-MO and the National Statistics Office was therefore considered essential. The idea that SI-MO could be the technical arm of Malta's Commission for Sustainable Development, which was set up in 2002, in terms of the new Environment Protection Act, was also mooted.

4. WORK-PACKAGES

The activity of SI-MO was divided into seven Work-packages in two phases, as follows:

PHASE I

Work-package 1. The identification of data collection and systematic reporting on environmental indicators for air, aquatic and terrestrial environments.

Work-package 2. The identification of agencies for collection of data, the examination of data and procedures for compiling indicators.

Work-package 3. The definition of needs and priorities for systematic monitoring and management of environmental quality and sustainable development in each country, identification of users and their specific requirements, and identification of changes and improvements required.

Work-package 4. Preparation of a network for the collection, storage, processing and dissemination of environmental and sustainable development data and information.

PHASE II

Work-package 5. Identification of roles and responsibilities of agencies for the compilation of sustainability indicators, and training of personnel.

Work-package 6. Preparation of an extensive literature review and dissemination of information on sustainability indicators.

Work-package 7. Definition of needs and priorities for systematic monitoring and management of environmental quality and sustainable development in Malta, principally by producing updated sustainability indicators based on the methodology devised by the Mediterranean Commission for Sustainable Development.

4.1 Work-Package 1

Work-package One (WP1), related to the identification of data collection and systematic reporting on environmental indicators for air, aquatic and terrestrial environments.

The initial work on this package involved the production of a paper, written by Professor Briguglio and Mr. Kevin Mercieca, which was disseminated to members of the Technical Advisory Committee and discussed during meetings of the Committee.

SI-MO also commissioned expert consultants to prepare studies on various topics related to particular areas of environmental concern. The consultants were selected on the basis of their expertise. The consultants are shown in the following table, and they were produced reports on the areas indicated in the table.

Theme	**Consultant**
Review of Legislative Implications and Legal Obligations of Malta with regard to Sustainable Development	Simone Borg
Air Quality Sustainability Indicators	Adrian Mallia
Fresh Water and Waste Water Sustainability Indicators	Rachel Portelli
Biodiversity & Ecosystems – Terrestrial & Marine Sustainability Indicators	Darrin Stevens
Solid waste Sustainability Indicators	Kevin Mercieca
Territories and Human Settlements Sustainability Indicators	Saviour Formosa
Economic Activities Sustainability Indicators	Michelle Borg

The studies consisted of (a) discussion on concepts and methodology with regard to the Sustainability Indicators as developed by the Mediterranean Commission for Sustainable Development (MCSD), and other organisations notably the OECD, the UN and other organisations; (b) proposals as to which indicators would be suitable for Malta (c) classification of the indicators according to the ease or difficulty of obtaining data for their computation in Malta; and (d) suggestions as to how computation possibilities could be improved.

The studies were peer-reviewed and when completed. They were discussed during the TAC meetings, and posted on the SI-MO website.

4.2 Work-Package 2

Work on Package Two (WP2), which related to the identification of agencies for collection of data, the examination of data and procedures for compiling indicators involved the setting up of the Steering Committee, made up of major stakeholders, as explained above. During the Steering Committee meeting, it was decided that the National Statistics Office (NSO) was the best-positioned institution in Malta to act as depository of sustainability indicator statistics, and from where all the information of the indicators was to be disseminated.

The NSO was also identified as that institution capable of continuing with the collection of data for sustainability indicators when the MED-ERMIS project was to come to an end in November 2002. The NSO accepted to adopt this role.

Other institutions, notably the Malta Environmental and Planning Authority were also considered as important institutions in this regard, since they could be instrumental in procuring essential data. SI-MO managed to enlist the support of these institutions, and many of the consultants engaged by SI-MO worked within these institutions.

4.2 Work-Package 3

The objective of Work-Package 3 was to define needs and priorities for systematic monitoring and management of environmental quality and sustainable development in Malta principally by producing updated sustainability indicators based on the methodology devised by the Mediterranean Commission for Sustainable Development.

4.2.1 *Thematic studies*

In order to ensure that the objectives of WP3 were met SI-MO commissioned further studies

on the basis of the work carried as part of Work-package 1. Reports were drawn up on the following themes:

- Water
- Air Quality
- Bio-Diversity
- Population and Society
- Air Quality
- Wastes
- Social and Cultural Aspects

The individual studies were intended to assess the feasibility of constructing sustainability indicators for Malta, to evaluate the importance of the themes under review for Malta, and to assess the availability of data. When they were completed, these studies were posted on the SI-MO website and discussed during TAC meetings. These reports showed that about 100 indicators, based on the MCSD methodology, could be computed for Malta.

4.2.2 Studies on cross cutting issues

In addition, SI-MO commissioned two studies on cross cutting issues, dealing with (1) Reporting requirements by the Maltese government in the field of the environment, (2) An assessment of environmental statistics collected by the National Office of Statistics. Again, these studies were posted on the SI-MO website and discussed during TAC meetings.

4.3 Work-Package 4

The objective of WP4 was to prepare proposals for establishing a network for the collection, storage, processing and dissemination of environmental and sustainable development data and information.

4.3.1 Collaboration with major stakeholders

In order to ensure ongoing cooperation between institutions which were to be involved in the network for the collection, storage, processing and dissemination of environmental and sustainable development data, the Director and the coordinator of SI-MO had various meetings with the Director of the National Office of Statistics, Mr Alfred Camilleri. The National Statistics Office formally expressed its willingness to collaborate with SI-MO in order to prepare the way for an institutional framework within which Sustainability Indicators could be produced on an ongoing basis.

The Director of SIMO also had meetings with the Permanent Secretary of the Ministry for the Environment, with the Director of the Planning Authority, Mr Godwin Cassar and the Director of the Environmental Protection Department, Mr Vince Gauci, for this purpose. These meetings proved to be very useful, and the institutions concerned expressed considerable interest in the work of SI-MO.

4.3.2 SI-MO website

In order to provide a set-up for an accessible domain for the collection, storage, processing and dissemination of relevant data, a website dedicated to the work of SI-MO and to the MED-ERMIS project was developed. The address of the website is: **www.um.edu.mt/intoff/si-mo**.

In addition to information about the activities of SI-MO and the MED-ERMIS project, the website contains valuable technical information about sustainability indicators and links to a number of websites on the subject.

Technical material, including data, is made available online on this website.

4.4 Work-Package 5

In order to achieve the objective of WP5, that is to identify roles and responsibilities of agencies for the compilation of sustainability indicators, and training of personnel, SI-MO continued to build its relationship with the National Statistics Office.

SI-MO signed an agreement with the NSO determining how sustainability indicators for Malta are to be compiled, assessed and reported. The NSO agreed to adopt the indicators and give them the official stamp once they were peer reviewed and assessed by NSO officials. SI-MO and NSO collaborated in the training of expertise towards this end.

4.5 Work-Package 6

The requirements of work-package 6 were largely met through the organisation of a national conference on sustainability indicators, and the preparation of an extensive literature review that was placed on the SI-MO website.

4.5.1 National Conference on Sustainability Indicators

SI-MO organized a conference on sustainability indicators for Malta that was held on Tuesday

11th June 2002 at the New Dolmen Hotel, Qawra. The conference discussed developments in the computation of 130 MCSD indicators for Malta, covering Population and Society; Land and Areas; Economic Activities; Environment; Sustainable Development: Actors and Policies; and Cooperation in the Mediterranean. The aim of the conference was to present to the general public and to specialists in different fields some of the indicators that were computed for Malta. Besides requiring the feedback from different people SI-MO wanted to create an awareness of the work it was doing.

During the conference, the Honourable Tonio Borg, Minister for Home Affairs and the Environment expressed his satisfaction with this initiative, stating that the government supported the production of such indicators, since this was in line with Agenda 21. He spoke at length about the need for sustainability indicators, and why it is useful to monitor development in Malta and assess its sustainability.

The Maltese focal point of the European Environment Agency, Mr. Louis Vella, was also present at the conference. He described the EEA's role in support of the production of sustainability indicators.

Mr. Alfred Camilleri, the Director of the National Statistics Office, described the environmental indicators the NSO were currently computing, referring to the collaboration between the NSO and SI-MO in this regard.

Professor Lino Briguglio explained SI-MO's role in computing the indicators and stated that this was only possible with the cooperation of many people. He explained that the National Statistics Office is supervising the work produced by SI-MO and eventually the indicators will be passed on to the NSO.

Rachel Portelli explained that the MCSD/MAP indicators are divided into 6 chapters. Within each of these chapters there are several themes covering various aspects relevant to the overall topic. She explained that there are 130 indicators in the MCSD List and said that the purpose of the conference was to discuss the methodology used in the computation of the indicators, their suitability or otherwise to Malta and possibly to recommend new indicators that are specific to the Maltese Islands. Following this presentation some of the consultants engaged by SI-MO gave a presentation of the indicators they computed. The floor was then opened for a general discussion. Following this, the public was divided into 5 workshops, where about 25 indicators were discussed according to the subject. Each group had a coordinator that gave a presentation of the group's discussion.

The main findings of the conference were that (a) sustainability indicators are important to assess whether Malta is moving towards or away from sustainable development; (b) there is a lack of data in certain areas, and often, where data is available this is not compiled in a systematic and consistent manner; (c) the main role of SI-MO is to help bring people with different expertise together to compute sustainability indicators that require information from different disciplines.

4.6 Work-Package 7

This package involved the definition of needs and priorities for systematic monitoring and management of environmental quality and sustainable development in Malta, principally by producing updated sustainability indicators based on the methodology devised by the Mediterranean Commission for Sustainable Development (MCSD).

An important decision taken by TAC was that the second phase of SI-MO's work was to evaluate the 130 MCSD indicators, to update the 50 or so indicators already computed for Malta and to produce data to compute additional ones.

4.6.1 Computation of indicators

The computation of sustainability SI-MO commissioned 16 consultants to compute Sustainability Indicators for Malta, based on the MCSD methodology, for the period 1995-2001. The consultants were also asked to produce data sheets with commentary for each indicator, explaining the data sources, the usefulness and meaning of each indicator and other relevant information. A sample data sheet is shown in Annex

The consultants were mostly experts employed with the Malta Environment and Planning Authority, the National Statistics Office (NSO), the Malta Resources Authority (MRA), and the Ministry of Agriculture and Fisheries (MFA).

It was agreed that this exercise was to be carried out in collaboration with the National Statistics Office to avoid duplicating the work that NSO was already doing. This was discussed in detail with NSO officials and it was agreed that NSO would be involved in the coordination of the second phase of the SI-MO project. The agreement was officially signed by Prof L. Briguglio, Director of SI-MO and Mr Alfred Camilleri, Director of the NSO.

4.6.2 Completion of work and dissemination of Information

This work on the computation of the Sustainability Indicators using the MCSD methodology was completed in August 2002, and the output was disseminated as follows:

(d) A book was published with the data sheets for each of the 100 indicators which could be computed for Malta indicator, with the main trends and other information. The book also contained information about the 27 other indicators for which data could not be obtained. A copy of the book is annexed to this report.

(e) A compact disc containing all the research output of SI-MO was produced and disseminated. This user-friendly, animated and interactive CD, was intended to disseminate information on sustainability indicators and educating the public on this matter. The CD was accompanied by a user manual. A copy of the CD and the user manual are annexed to this report.

(f) A press conference was organised on 20 November 2002, with the participation of the Malta Government Parliamentary Secretary responsible for environment and Planning. During this conference the press were briefed on the meaning and importance of these indicators. Details of the press conference were published in the press and in the National Office of Statistics website http://www.nso.gov.mt/cosnews/news02/news12902.htm.

5. SUSTAINABILITY INDICATORS FOR MALTA

As stated, the culmination of Phase 2 of the project was work-package 7 which involved the computation of the 130 sustainability indicators for Malta based on the MCSD methodology. A plan of action was drawn up to for Phase 2, aimed at computing as many indicators as possible, updated to 2000 or 2001. Various consultants were appointed according to their specialization. Each was assigned a set of indicators (classified by subject). The terms of reference for these assignments were the following:

- For each indicator each consultant had to complete a data information sheet (copy attached)
- The consultants had to update those indicators that were already computed for Malta up to the year 2000 or latest year for which data is available
- They also had to compute those indicators that have not yet been computed for Malta but are computable for 1995 (or earlier, if available) up to the year 2000 or latest year for which data is available
- In addition they had to indicate those indicators for which data could not be obtained or which were not applicable for Malta.

- The deadline for submission of the first draft was 15 March 2002. The first draft was to be reviewed by SI-MO and the final draft completed by June 2002.

The table below lists the consultants commissioned to compute the MCSD indicators for Malta. The table also shows which indicators where computed for Malta up to 1995 and which were not.

Indicator no.	Theme	Responsible consultant	Available in MCSD List	Not computed for Malta	Not Applicable to Malta
1	Demography	Joslyn Magro	✓		
2	Demography	Joslyn Magro National Statistics Office	✓		
3	Standard of Life	Joslyn Magro National Statistics Office	✓		
4	Standard of Life	Joslyn Magro National Statistics Office		X	
5	Standard of Life	Joslyn Magro National Statistics Office	✓		
6	Culture & Education	Joslyn Magro National Statistics Office	✓		
7	Culture & Education	Joslyn Magro National Statistics Office	✓		
8	Culture & Education	Joslyn Magro National Statistics Office	✓		
9	Culture & Education	Joslyn Magro National Statistics Office		X	
10	Culture & Education	Joslyn Magro National Statistics Office	·	X	
11	Health	Joslyn Magro National Statistics Office	✓		
12	Health	Joslyn Magro National Statistics Office	✓		
13	Health	John Mangion Malta Resources Authority	✓		
14	Consumption & Production	George Said National Statistics Office	✓		
15	Consumption & Production	Joslyn Magro National Statistics Office	✓		
16	Consumption & Production	Joslyn Magro National Statistics Office	✓		
17	Consumption & Production	Joslyn Magro National Statistics Office		X	
18	Urban Systems	Saviour Formosa Malta Environment and Planning Authority	✓		
19	Urban Systems	Saviour Formosa Malta Environment and Planning Authority		X	
20	Urban Systems	Saviour Formosa Malta Environment and Planning Authority	✓		

21	Urban Systems	Saviour Formosa Malta Environment and Planning Authority		X	
22	Rural areas	n/a			n/a
23	Rural areas	Sonia Vella Ministry of Agriculture and Fishing		X	
24	Forests	n/a			n/a
25	Forests	Sonia Vella Ministry of Agriculture and Fishing		X	
26	Forests	Sonia Vella Ministry of Agriculture and Fishing		X	
27	Littoral	Saviour Formosa Malta Environment and Planning Authority		X	
28	Littoral	Saviour Formosa Malta Environment and Planning Authority		X	
29	Littoral	Prassede Grech Malta Environment and Planning Authority		X	
30	Littoral	Saviour Formosa Malta Environment and Planning Authority	✓		
31	Littoral	Saviour Formosa Malta Environment and Planning Authority	✓		
32	Littoral	Prassede Grech Malta Environment and Planning Authority		X	
33	Littoral	Saviour Formosa Malta Environment and Planning Authority	✓		
34	Sea	Prassede Grech Malta Environment and Planning Authority		X	
35	Sea	Prassede Grech Malta Environment and Planning Authority		X	
36	Sea	Prassede Grech Malta Environment and Planning Authority		X	
37	Sea	Prassede Grech Malta Environment and Planning Authority		X	
38	Sea	Prassede Grech Malta Environment and Planning Authority		X	
39	Sea	Prassede Grech Malta Environment and Planning Authority		X	
40	Sea	Prassede Grech Malta Environment and Planning Authority		X	
41	Sea	Prassede Grech Malta Environment and Planning Authority		X	
42	Sea	Prassede Grech Malta Environment and Planning Authority		X	
43	Global economy	George Said National Statistics Office	✓		
44	Global economy	George Said National Statistics Office	✓		
45	Global economy	George Said National Statistics Office	✓		
46	Global economy	George Said National Statistics Office		X	
47	Global economy	George Said National Statistics Office	✓		
48	Global economy	George Said	✓		

		National Statistics Office			
49	Global economy	Joslyn Magro National Statistics Office	✓		
50	Agriculture	Sonia Vella Ministry of Agriculture and Fishing		X	
51	Agriculture	Sonia Vella Ministry of Agriculture and Fishing	✓		
52	Agriculture	Sonia Vella Ministry of Agriculture and Fishing	✓		
53	Agriculture	Sonia Vella Ministry of Agriculture and Fishing		X	
54	Agriculture	Sonia Vella Ministry of Agriculture and Fishing	✓		
55	Agriculture	Sonia Vella Ministry of Agriculture and Fishing		X	
56	Agriculture	Sonia Vella Ministry of Agriculture and Fishing	✓		
57	Agriculture	Sonia Vella Ministry of Agriculture and Fishing		X	
58	Fisheries & aquaculture	Michelle Borg Malta Environment and Planning Authority		X	
59	Fisheries & aquaculture	Michelle Borg Malta Environment and Planning Authority	✓		
60	Fisheries & aquaculture	Michelle Borg Malta Environment and Planning Authority	✓		
61	Fisheries & aquaculture	Michelle Borg Malta Environment and Planning Authority	✓		
62	Fisheries & aquaculture	Michelle Borg Malta Environment and Planning Authority		X	
63	Mines & industry	Joseph Gauci Malta Environment and Planning Authority		X	
64	Mines & industry	Joseph Gauci Malta Environment and Planning Authority		X	
65	Mines & industry	Joseph Gauci Malta Environment and Planning Authority		X	
66	Services & Commerce	Michelle Borg Malta Environment and Planning Authority		X	
67	Services & Commerce	Michelle Borg Malta Environment and Planning Authority		X	
68	Services & Commerce	Michelle Borg Malta Environment and Planning Authority		X	
69	Energy	George Said National Statistics Office	✓		
70	Energy	George Said National Statistics Office	✓		
71	Energy	George Said National Statistics Office	✓		
72	Transports	George Said National Statistics Office	✓		
73	Transports	George Said National Statistics Office	✓		
74	Transports	George Said	✓		

		National Statistics Office			
75	Transports	George Said National Statistics Office		X	
76	Tourism	Tony Ellul Malta Environment and Planning Authority	✓		
77	Tourism	Tony Ellul Malta Environment and Planning Authority		X	
78	Tourism	Tony Ellul Malta Environment and Planning Authority	✓		
79	Tourism	Tony Ellul Malta Environment and Planning Authority		X	
80	Tourism	Tony Ellul Malta Environment and Planning Authority	✓		
81	Tourism	Tony Ellul Malta Environment and Planning Authority	✓		
82	Tourism	Tony Ellul Malta Environment and Planning Authority		X	
83	Tourism	Tony Ellul Malta Environment and Planning Authority		X	
84	Fresh water	John Mangion Malta Resources Authority	✓		
85	Fresh water	John Mangion Malta Resources Authority	✓		
86	Fresh water	John Mangion Malta Resources Authority		X	
87	Fresh water	John Mangion Malta Resources Authority		X	
88	Fresh water	John Mangion Malta Resources Authority		X	
89	Fresh water	John Mangion Malta Resources Authority		X	
90	Fresh water	John Mangion Malta Resources Authority		X	
91	Fresh water	John Mangion Malta Resources Authority		X	
92	Soils & vegetation	Saviour Formosa Malta Environment and Planning Authority		X	
93	Soils & vegetation	Saviour Formosa Malta Environment and Planning Authority		X	
94	Soils & vegetation	Saviour Formosa Malta Environment and Planning Authority	✓		
95	Biodiversity	Darrin Stevens Malta Environment and Planning Authority		X	
96	Biodiversity	Darrin Stevens Malta Environment and Planning Authority		X	
97	Biodiversity	Michelle Borg Malta Environment and Planning Authority		X	
98	Biodiversity	Darrin Stevens Malta Environment and Planning Authority		X	
99	Biodiversity	Darrin Stevens Malta Environment and Planning Authority		X	
100	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	

101	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
102	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
103	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
104	Waste	Kevin Mercieca Malta Environment and Planning Authority		X	
105	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
106	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
107	Waste	Kevin Mercieca Malta Environment and Planning Authority		X	
108	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
109	Waste	Joe Sammut Ministry for Resources & Infrastructure		X	
110	Air Quality	Adrian Mallia Malta Environment and Planning Authority	✓		
111	Air Quality	Adrian Mallia Malta Environment and Planning Authority		X	
112	Air Quality	Adrian Mallia Malta Environment and Planning Authority		X	
113	Air Quality	Adrian Mallia Malta Environment and Planning Authority	✓		
114	Air Quality	Adrian Mallia Malta Environment and Planning Authority		X	
115	Air Quality	Adrian Mallia Malta Environment and Planning Authority		X	
116	Air Quality	Adrian Mallia Malta Environment and Planning Authority		X	
117	Air Quality	Adrian Mallia Malta Environment and Planning Authority		X	
118	Natural & Technological risks	Michelle Borg Malta Environment and Planning Authority		X	
119	Natural & Technological risks	Michelle Borg Malta Environment and Planning Authority		X	
120	Natural & Technological risks	Michelle Borg Malta Environment and Planning Authority	✓		
121	Natural & Technological risks	Michelle Borg Malta Environment and Planning Authority		X	
122	Actors of sustainable dev.	Michelle Borg Malta Environment and Planning Authority		X	
123	Actors of sustainable dev.	Michelle Borg Malta Environment and Planning Authority		X	
124	Actors of sustainable dev.	Michelle Borg Malta Environment and Planning Authority		X	
125	Sustainable dev. Policies	Michelle Borg Malta Environment and Planning Authority		X	

126	Sustainable dev. Policies	Michelle Borg Malta Environment and Planning Authority		X	
127	Sustainable dev. Policies	Michelle Borg Malta Environment and Planning Authority		X	
128	International trade	Michelle Borg Malta Environment and Planning Authority		X	
129	Med. Exchanges	Saviour Formosa Malta Environment and Planning Authority	✓		
130	Med. Co-operation in env.	Michelle Borg Malta Environment and Planning Authority		X	
		TOTAL	48	80	2

As a result of the work undertaken by SI-M0, 100 indicators were computed until 2000 or 2001, depending on the availability of data. The final output of this work is shown in Annex 4 to this report.

6. Production of a Video on Sustainability Indicators

Another initiative that SI-MO took in order to increase public awareness on issues of sustainable development and sustainability indicators is the production of a 25-minute fast moving video, with light touches of humour, and conveying the message that sustainable development should be taken very seriously and that progress or regress in this regard should be monitored and measured. This video was aimed at the general public and it explained the need for sustainable development is and how sustainability indicators can be used to gauge a country's performance in terms of sustainable development. Besides showing some of the indicators for Malta that were computed by SI-MO, the video also contained interviews with specialists from different fields. This video was presented at the Johannesburg World Summit on Sustainable Development in August 2002.

7. CONCLUSION

The work of SI-MO as part of the MED-ERMIS project has helped to foster awareness about the need for sustainability indicators and promoted collaboration between the agencies with stake-holding interest in this matter. Such work has also developed a solid basis for the further development of a system of evaluation, storage and dissemination of data and information on sustainability indicators, and to establish a sustainability indicator reporting system in compliance with requirements of international organisations and conventions such the Barcelona Convention, the European Environmental Agency and the UN Commission for Sustainable Development.

This two-year project was highly commended by the Maltese Government because it was the first project of its kind, where information on sustainability indictors was collected and analysed and published, information that is useful for decision-making especially with regards to environmental issues. Furthermore, SI-MO offered the opportunity for cooperation between the public sector, the University of Malta and individuals specialised in different fields. This cooperation has long-term implications as the National Office of Statistics has agreed to continue to develop the work initiated by SI-MO. Another important output of the SI-MO project is the training of individuals in field of sustainability indicators. This training can now be used to help other countries compute their indicators.

ANNEXES:

1. The Members of the Technical Advisory Committee of SI-MO.
2. A sample Indicator Data Sheet
3. The CD and Manual on Sustainability Indicators for Malta
4. The Book with the Data Sheets duly filled in for 127 Sustainability Indicators for Malta

Annex 1

Members of the Technical Advisory Committee

Professor Lino Briguglio, Director (University of Malta)

Ms. Rachel Portelli, Coordinator (Malta Environment & Planning Authority)

Mr. Paul Mifsud (Ministry for Resources & Infrastructure)

Mr Kevin Mercieca (Malta Environment & Planning Authority)

Mr Gorg Cilia (Private Sector)

Dr Louise Farrugia (Ministry for Home Affairs & the Environment)

Dr Simone Borg (Ministry for Home Affairs & the Environment)

Mr Joseph Gauci (Malta Environment & Planning Authority)

Mr Sandro Lanfranco (University of Malta)

Ms Joslyn Magro (National Statistics Office)

Mr Alan Vella (Malta Environment & Planning Authority)

Ms Michelle Borg (Malta Environment & Planning Authority)

Ms Marguerite Camilleri (Malta Environment & Planning Authority)

Ms Marie Briguglio (Malta Environment & Planning Authority)

Mr Louis Cassar (Foundation for International Studies, University of Malta)

Mr Joe Magro Conti (Malta Environment & Planning Authority)

Mr Adrian Mallia (Malta Environment & Planning Authority)

Mr Darrin Stevens (Malta Environment & Planning Authority)

Mrs. Carmen Mifsud (Malta Environment & Planning Authority)

Mr. Saviour Formosa (Malta Environment & Planning Authority)

Annex 2

A Sample Indicator Data Sheet

NUMBER OF INDICATOR: TITLE OF INDICATOR		
CHAPTER	**THEME**	**CATEGORY**

1 - Comments on the definition of the indicator

(a) Is it clear enough?

(b) Is this indicator in use in your country?

(c) Do you have another definition in your country. If so which one?

2 - Calculation and monitoring of the indicator:

(a) Provide the values available for the indicator and the necessary data used for the calculation. (As many years as possible).

(b) Please specify the geographical place or the geographical level (Indicator have to be at the national level. If not please specify at which level. For example, coastal zone).

(c) Give the primary source(s) of data.

(d) Draw, if possible, the most relevant chart for this indicator (use the graph feature of EXCEL) with years on the horizontal axis and indicator value on the vertical axis.

3 - Availability of necessary data:

If the indicator and the necessary data are not available, please specify as following:

(a) Available in a short term (raw data already collected),

(b) Available in a medium-term (raw data not collected, but could be procured),

(c) Not (or never) available

4 - For those indicators that have been computed describe the pattern of change of the indicator over the period under review.

5 - List the Government Departments/Agencies & other entities contacted during the study (including names of the people that were contacted).

6 - This is an amplification of (2) above: If the indicator is already computed for Malta please give the following information pertaining to this indicator:

(a) Years for which the indicator was computed by UNEP

(b) State whether you have managed to update the indicator up to the year 2000. If not, give the last year for which indicator was computed by yourself.

(c) Any other comments (such as difficulties encountered) you deem appropriate.

7 - This is an amplification of (3) above: If the indicator is not available for Malta please give the following information:

(a) List the difficulties encountered in procuring the data

(b) Suggest ways as to how these difficulties can be overcome

(c) Any other comments you deem appropriate.

Annex 3

The CD and the CD User Manual

Annex 4

The Book containing the Data Sheets for 127 Indicators Based on the MCSD Methodology