

A SUSTAINABLE DEVELOPMENT STRATEGY FOR THE MALTESE ISLANDS

2007-2016

Proposed by the



**National Commission
for Sustainable Development**

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DEVELOPMENT STRATEGY
FOR THE
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**National Commission for Sustainable Development
20th December 2006**

This proposed Sustainable Development Strategy for the Maltese Islands was adopted by the National Commission for Sustainable Development on 13 November 2006, in terms of Article 8 (7f) of the Environment Protection Act (Chapter 435 of the Laws of Malta). It is being submitted by the Commission to the Cabinet of Ministers for possible endorsement by the Government of Malta.

This document does not necessarily reflect the views of the Government of Malta.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	5
Objective and Mandate	5
Sustainability is a Two-way Street	6
Implementing the Strategy	6
Layout	7
Priority Areas	7
1. INTRODUCTION	9
1.1 The Process of Drafting the Strategy	9
1.2 The Mandate	9
1.3 The Main Benefits of a Sustainable Development Strategy	11
1.4 The Criteria Underpinning the Strategy	11
1.5 Layout of the Document	11
2. UNDERLYING PRINCIPLES	12
2.1 The Overarching Vision and Goal	12
2.2 Sustainability is Multifaceted	12
2.3 The Democratic Dimension: Participation is Necessary	12
2.4 Social Responsibility and the Ethical Dimension	13
2.5 The Political Dimension: Integrative Legislation and Policy	13
2.6 The International and Regional Dimensions	14
3. THE PROPOSED STRATEGY FOR MALTA	15
3.1 Managing the Environment and Resources	15
3.2 Promoting Sustainable Economic Development	35
3.3 Fostering Sustainable Communities	47
3.4 Cross-cutting Strategic Issues	58
4. IMPLEMENTING THE STRATEGY	63
4.1 Institutionalising the Development of the Strategy	63
4.2 Identifying Responsibilities and Structures	63
4.3 Setting Targets, Monitoring and Evaluation	65
4.4 Devising Participatory Schemes	65
4.5 Collaboration between the Public and Private Sectors	67
4.6 Coordinating and Funding the Strategy	68
5. THE WAY AHEAD	69
5.1 Revising the Strategy	69
5.2 Ongoing Consultation	69
6. THE PRIORITIES	71
APPENDIX 1: PRIORITY STRATEGIC DIRECTIONS	73

EXECUTIVE SUMMARY

The process of drafting the National Strategy for Sustainable Development was initiated during the 5th meeting of Malta's National Commission for Sustainable Development (NCSD), held on 9 December 2002, when the Commission appointed a Task Force to oversee the preparation of a National Strategy for Sustainable Development, consisting of an overarching vision and principles, listing the aspirations of Government, civil society and the private sector in this regard, and outlining methods of implementation, taking into account Malta's capacities and constraints. This decision was taken in line with the functions of the Commission, as listed in Article 8(7) of the Environmental Protection Act (Act XX 2001). The Task Force met soon after it was appointed and set in motion a consultative process to prepare the National Strategy for Sustainable Development.¹

In March 2006, the National Commission for Sustainable Development appointed a second Task Force, in order to update the original draft of the National Strategy for Sustainable Development, published in July 2004, by incorporating suggestions put forward by various organisations and individuals that were consulted during 2004 and 2005 and by government ministries, departments and public sector agencies that were consulted in March 2006. That version was published in April 2006,² and presented for discussion at a National Conference on Sustainable Development, held on 22 April 2006 at the Mediterranean Conference Centre. A third draft of the Sustainable Development Strategy for the Maltese Islands was drawn up to incorporate suggestions put forward during the April 2006 Conference. Following a second round of consultation with government departments and other public sector agencies, a fourth draft (the current document) was prepared by a third Task Force appointed by the Commission for Sustainable Development and presented to the Commission on 13 November 2006. The Commission adopted this document and decided to submit it to the Cabinet of Ministers for possible endorsement by the Government of Malta

This proposed Strategy represents the views of the NCSD and does not necessarily reflect the views of the Government of Malta.

Objective and Mandate

The objective of drawing up a National Strategy for Sustainable Development was first established in the aftermath of the United Nations Conference on Environment and Development (UNCED), when the Maltese Government, together with the governments of other nations, committed itself to adopt such a Strategy so as to "build upon and harmonise the various sectoral, economic, social and environmental policies and plans that are operating in the country" and to "ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations." Governments also agreed that the Strategy should "be developed through the widest possible participation" and that it should be "based on a thorough assessment of the current situation and initiatives" (Agenda 21, Chapter 8, paragraph 8.7).

In September 2000, some 150 Heads of State, including Malta, signed the Millennium Declaration and reaffirmed their support for the principles of sustainable development and Agenda 21. They also agreed on the Millennium Development Goals, including the need to "integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources." (Millennium Development Goal 7).

¹ See http://home.um.edu.mt/islands/ncsd/analysis_public_consultation.pdf

² http://home.um.edu.mt/islands/ncsd/draftstrategydocument_2006.pdf

This activity at UN level prompted the European Union to prepare its own Strategy for Sustainable Development³ in 2001, which was renewed in June 2006. The EU Strategy contains targets and actions on seven key priority challenges, and outlines guiding principles for sustainable development. The Malta Strategy builds upon and is informed by the Sustainable Development Strategy of the EU.

In addition, as a result of its accession to the EU, Malta has embarked on wide-ranging reforms in various sectors, produced national strategic documents in key areas, transposed EU directives in line with the *acquis communautaire*, upgraded its environmental legislation, and bound itself to adopt measures which are strategically aimed at achieving sustainable development goals. Malta's Strategy is also in line with the Mediterranean Strategy for Sustainable Development.⁴

These commitments, among others, have imposed an obligation and a mandate for Malta to adopt a sustainable development strategy. Malta has, following UNCED, undertaken various actions which can be considered conducive to sustainable development. These were however not couched within an overarching sustainable development strategy. This Strategy is intended to satisfy this need. It is the result of the dedicated work of members of the National Commission for Sustainable Development, particularly those forming part of the task forces appointed by the Commission, and also draws on extensive public consultation. It contains an overarching vision and related principles, reflecting the aspirations of the people as expressed in the consultation process. It sets targets and related performance indicators in line with such aspirations and with national commitments, and outlines methods of implementation taking into account Malta's capacities and constraints.

This proposed Strategy for Sustainable Development reinforces the strategic vision identified in key Malta Government policy documents, including the *National Reform Programme* and the *Draft National Strategic Reference Framework*.

Sustainability is a Two-way Street

In various parts of this document, civil society participation is encouraged. Such participation should not be taken to imply armchair criticism, but involvement in the pursuit of sustainable development goals. While it is the Government's responsibility to officially formulate, fund and implement the national sustainable development strategy, there is an equal responsibility placed on individuals, constituted bodies and civil society in general to play their part in supporting initiatives that foster sustainable development, as a way of achieving a better quality of life for current and future generations. This may involve changes in the way individuals conduct their life, but social responsibility is central to the concept of sustainable development.

Implementing the Strategy

The success of this Strategy will lie in its implementation. A prerequisite for successful implementation is an Action Plan relating to the strategic directions, particularly the priority ones. The Action Plan needs to include specific indicators, budget allocations and time frames, thus rendering it amenable to regular monitoring. This Strategy should be undertaken once the priority strategic directions are approved by the Government.

³ "A sustainable Europe for a Better World: A European Union Strategy for Sustainable Development" COM (2001) 264 final.

⁴ See <http://www.planbleu.org/actualite/uk/MediterraneanStrategySustainableDevelopment.html>

Layout

This report is organised in six chapters. Chapter 1 describes how the Strategy was drawn up and the criteria underpinning it. Chapter 2 explains the overarching vision underpinning the Strategy, referring to the various dimensions of sustainable development. Chapter 3, which presents the Strategy, is structured in four sections, covering the environmental, economic and social pillars of sustainable development, as well as cross-cutting issues. Chapter 4 deals with the implementation of the Strategy. Chapter 5 presents suggestions for the way forward, with a reminder that the Strategy is an ongoing process requiring periodic revisions. The final chapter lists the priority areas, accompanied by indicators and targets.

The focal point of this document is Chapter 3, which, as stated, contains the proposed Strategy, under the following four main headings:

- (1) managing the environment and resources;
- (2) promoting sustainable economic development;
- (3) fostering sustainable communities; and
- (4) cross-cutting strategic issues.

A number of strategic directions are proposed with regard to each heading. These strategic directions are only accompanied by indicators or targets in cases where priority areas are identified, and are intended to serve as guideposts for the attainment of sustainable development goals in the long term. The priority areas, on the other hand, are to be interpreted as an undertaking by Government to attain the targets indicated within the time frames indicated.

Priority Areas

The document identifies 20 priority areas, which were given major importance during the consultation process and which the NCSD considered as warranting foremost attention for the attainment of sustainable development goals in Malta. These priority areas are accompanied by indicators and targets. They are considered to have a direct positive effect on society as a whole, in that they improve the quality of life of the population, are in line with sustainable development goals and could be used to gauge whether Malta is moving towards or away from sustainability. The priority strategic directions so identified are the following:

The Environment

1. *Climate Change*. Take steps to reduce greenhouse gas emissions through transport policy and an energy policy that seeks to promote environmental protection, competitiveness and security of supplies and, as a result, decouple the rate of growth of GHG emissions from economic growth.
2. *Air Quality*. Take remedial action to control emissions of air pollutants (ambient levels of particulate matter, sulphur dioxide, carbon monoxide, benzene, lead, ozone, heavy metals and nitrogen oxides), and achieve compliance with European standards.
3. *Nature and Biodiversity*. Halt loss of biodiversity by 2010, and achieve management of protected areas by 2008.
4. *Freshwater*. Adopt a policy with the aim of ensuring the utilisation of water resources in a manner that is environmentally and economically sustainable, while safeguarding the water needs of the population, and of the agricultural, commercial and industrial sectors, and achieve good quantitative status by 2015.
5. *Seawater*. Sustain compliance with the Bathing Water Directive and achieve compliance with Barcelona Convention standards.
6. *Wastes*. Prevent and minimise waste by achieving EU waste-related objectives and targets, reviewing Malta's Waste Management Strategy by 2007.

7. *Land use.* Protect, maintain and improve the urban and rural environment and, through the planning system, protect the open countryside from uses, particularly residences, which can be more appropriately located in urban areas.
8. *Transport.* Reduce car ownership rates to the EU average by 2014. Attain 1995 bus patronage levels by 2014 (40 million passengers).

The Economy

9. *Economic Growth.* Adopt policy measures so that the growth of GDP per capita in real terms occurs at a rate which will enable the Maltese economy to converge towards the EU average.
10. *Employment.* Create employment opportunities to generate income and improve the quality of life of the population, taking into consideration environmental and social impacts and adopt policy measures so that the ratio of total employment to the working-age population in Malta converges with the EU average and reaches at least 57 per cent by 2010.
11. *Labour productivity.* Adopt policy measures to increase average labour productivity at a rate of 1 per cent per annum over the EU average by 2010, while attempting to balance wages, taxation and productivity, in collaboration with the social partners.

Society

12. *Poverty reduction.* Reduce or, at least contain, the current level of 15 per cent of the population at risk of poverty and decrease the ratio of population aged over 65 at risk of poverty from 20 per cent to 15 per cent, by 2010.
13. *Labour force participation of women.* Adopt policy measures so that the labour force participation rate of women increases to 40.7 per cent by 2010.
14. *Health.* Decrease the ratio of overweight/obese population in line with the EU average by 2010 by, amongst other things, enhancing the focus on healthy living and prevention, in order to reduce the need for curative care.
15. *Education.* Continue to adopt measures to decrease the early school leavers rate to 35 per cent by 2010

Cross Cutting Issues

16. *Spatial development plan.* By 2010, draw up an integrated spatial development plan to take forward the National Strategy for Sustainable Development, with the participation of major stakeholders.
17. *Economic Instruments.* By 2008, draw up a strategy to enhance the use of economic instruments, such as charges, taxes, subsidies, deposit refund schemes, and trading schemes to apply the polluter pays principle and to promote sustainable development in Malta.
18. *Enforcement.* By 2008, put in place an audit of enforcement arrangements to assess the adequacy of the current mechanisms and to promote integration of responsibilities and reduction of overlaps.

Implementation

19. *Institutional setup.* By 2008, put in place a permanent structure, appropriately staffed and funded, to monitor and review the National Strategy for Sustainable Development on an ongoing basis, under the auspices of the National Commission for Sustainable Development, and hold an annual Conference with the participation of major stakeholders to critically evaluate progress relating to the Strategy.
20. *Sustainability indicators.* By 2008, establish and fund an entity responsible for compiling and evaluating sustainability indicators. This entity should work closely with the National Commission for Sustainable Development and the National Statistics Office.

1. INTRODUCTION

1.1 The Process of Drafting the Strategy

The process of drafting the National Strategy for Sustainable Development was initiated during the 5th meeting of Malta's National Commission for Sustainable Development (NCSD), held on 9 December 2002, when the Commission appointed a Task Force⁵ to oversee the preparation of a National Strategy for Sustainable Development, consisting of an overarching vision and principles, listing the aspirations of government, civil society and the private sector in this regard, and outlining methods of implementation, taking into account Malta's capacities and constraints. This decision was taken in line with the functions of the Commission, as listed in Article 8(7) of the Environmental Protection Act (Act XX 2001). The Task Force met soon after it was appointed and set in motion a consultative process to prepare the National Strategy for Sustainable Development.⁶

In March 2006 the National Commission for Sustainable Development appointed a second Task Force⁷, to update the original draft of the National Strategy for Sustainable Development, published in July 2004⁸ by incorporating suggestions put forward by various organisations and individuals that were consulted during 2004 and 2005 and by government ministries, departments and public sector agencies that were consulted in March 2006. That version was published in April 2006⁹ and was presented for discussion at a National Conference on Sustainable Development, held on 22 April 2006 at the Mediterranean Conference Centre.¹⁰ A third draft of a Sustainable Development Strategy for the Maltese Islands was drawn up to incorporate suggestions put forward during the April 2006 Conference. Following a second round of consultation with government departments and other public sector agencies, a fourth draft (the current document) was prepared by a third Task Force¹¹ appointed by the Commission for Sustainable Development and was presented to the Commission on 13 November 2006. The Commission adopted this document in terms of Article 8 (7f) of the Environment Protection Act (Chapter 435 of the Laws of Malta) and decided to submit it to the Cabinet of Ministers for possible endorsement by the Government of Malta.

1.2 The Mandate

With the setting up of the National Commission for Sustainable Development in 2002, in terms of the Environment Protection Act (2001), Malta took the first steps to develop a National Strategy for Sustainable Development. The NCSD's main remit is to advocate national sustainable development across all sectors, to review progress in the achievement of such sustainable development and to build consensus on action needed to achieve further progress. The NCSD is also charged with identifying relevant processes or policies which may undermine sustainable development, and with proposing alternative processes or policies for adoption by the Government. One of the specific

⁵ The Task Force was composed of Lino Briguglio, as coordinator, Godwin Cassar, Marguerite Camilleri, Victor Axiak and Ray Cachia Zammit

⁶ See http://home.um.edu.mt/islands/ncsd/analysis_public_consultation.pdf.

⁷ The second task force was composed of Lino Briguglio, as coordinator, Godwin Cassar, Marguerite Camilleri, Paul Pace, Martin Spiteri and Marisa Scerri.

⁸ See <http://home.um.edu.mt/islands/ncsd/draftstrategydocument.pdf>

⁹ http://home.um.edu.mt/islands/ncsd/draftstrategydocument_2006.pdf

¹⁰ See http://home.um.edu.mt/islands/ncsd/conference_report_22-04-06.pdf

¹¹ The third task force was composed of Lino Briguglio as coordinator, Godwin Cassar and Marguerite Camilleri.

tasks of the Commission is “to prepare a National Strategy for Sustainable Development” (Chapter 435 of the Laws of Malta, Article 8).

The objective of drawing up a National Strategy for Sustainable Development was first established in the aftermath of the United Nations Conference on Environment and Development (UNCED), when the Maltese Government, together with the governments of other nations, committed itself to adopt such a strategy so as to “build upon and harmonise the various sectoral, economic, social and environmental policies and plans that are operating in the country” and to “ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations.” Governments agreed also that the strategy should “be developed through the widest possible participation” and that it should be “based on a thorough assessment of the current situation and initiatives” (Agenda 21, Chapter 8, paragraph 8.7).

In September 2000, some 150 Heads of State, including Malta, signed the Millennium Declaration and reaffirmed their support for the principles of sustainable development and Agenda 21. They also agreed on the Millennium Development Goals, including the need to “integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources” (Millennium Development Goal 7).¹²

This activity at UN level prompted the European Union to prepare its own Strategy for Sustainable Development¹³ in 2001, which was renewed in June 2006. The EU Strategy contains targets and actions on seven key priority challenges and outlines guiding principles for sustainable development.¹⁴ The Malta Strategy builds upon and is informed by the EU Sustainable Development Strategy.

In addition, as a result of its accession to the EU, Malta has embarked on wide-ranging reforms in various sectors, produced national strategic documents in key areas, transposed EU directives in line with the *acquis communautaire*, upgraded its environmental legislation, and bound itself to adopt measures which are strategically aimed at achieving sustainable development goals.

These commitments, among others, have imposed an obligation on and a mandate for Malta to adopt a National Strategy for Sustainable Development. Malta has, following UNCED, undertaken various actions which can be considered conducive to sustainable development¹⁵ but these were not couched within an overarching sustainable development strategy. The Strategy contained in this document is intended to satisfy this need.

¹² See <http://www.un.org/millenniumgoals/>

¹³ “A sustainable Europe for a Better World: A European Union Strategy for Sustainable Development” COM (2001) 264 final.

¹⁴ The seven priorities emerging out of the renewed EU Strategy are:

- Climate change and clean energy
- Sustainable transport
- Public health
- Sustainable production and consumption
- Conservation and Management of natural resources
- Social inclusion, demography and migration
- Global poverty and sustainable development challenges.

¹⁵ See Report submitted by the Government of Malta to the World Summit on Sustainable Development (2002). http://home.um.edu.mt/islands/Malta_WSSD.pdf

1.3 The Main Benefits of a Sustainable Development Strategy

The main advantage of drawing up a National Strategy for Sustainable Development is that such a strategy informs policy-making agents across different sectors. It also provides a framework for a systematic approach within an institutionalised process of consultation and consensus building.

The National Strategy for Sustainable Development should serve as a guide in prioritising actions that are undertaken by all members of society to ensure the prudent use and management of resources in a way that meets the needs of the present without compromising the needs of future generations, thus contributing to a better life for everyone. The Strategy addresses social, economic and environmental concerns in a coherent manner and permits policy makers to assign relative priorities to these three pillars of sustainable development. It affords an opportunity for identifying specific initiatives and for committing authorities towards their implementation within defined time frames. The extensive public consultation exercise that was carried out enriched the process by encouraging participatory schemes, and the exercise was an educational experience in itself for the participants and facilitators.

1.4 The Criteria Underpinning the Strategy

The criteria on which the Strategy was based are similar to those set out by the United Nations Department for Economic and Social Affairs¹⁶ namely that the Strategy should:

- seek to integrate economic, social and environmental considerations;
- be inter-sectoral and multilayered;
- have a long-run perspective and an ethical dimension with regard to future generations;
- be developed on the basis of broad participation and generate a feeling of ownership by stakeholders;
- be backed by strong political commitment;
- serve to develop capacity and itself generate an enabling environment;
- promote the development of monitoring and assessment procedures;
- foster an educative process and a sustainable development culture;
- be coherent, in that there should be a balance between the funding potential and strategy priorities; and
- be anchored in sound technical and economic analysis.

1.5 Layout of the Document

This report is organised in six chapters. Chapter 2, which follows this introduction, explains the overarching vision underpinning the Strategy, referring to the various dimensions of sustainable development. Chapter 3, which presents the Strategy, is structured in four sections, covering the environmental, economic and social pillars of sustainable development, as well as cross-cutting issues. Chapter 4 deals with the implementation of the Strategy. Chapter 5 proposes a way forward, with a reminder that the Strategy is an ongoing process requiring periodic revisions. The final chapter lists the priority areas, accompanied by performance indicators and targets.

¹⁶ UN DESA (2002). "Guidance in Preparing National Sustainable Development Strategies," available at http://www.un.org/esa/sustdev/publications/nsds_guidance.pdf

2. UNDERLYING PRINCIPLES

2.1 The Overarching Vision and Goal

The National Strategy for Sustainable Development is primarily aimed at improving the quality of life of all members of society, promoting convergence between the interests of different sectors and layers of society and between the interests of current and future generations.

2.2 Sustainability is Multifaceted

Sustainable development must be based on a multifaceted approach, covering environmental, economic and social concerns, since the quality of life is dependent on these factors considered together and not in isolation from one another. This holistic approach requires a long-term view of development, rather than one based on short term economic gains. It assigns major importance to the integrity of nature and biodiversity, as well as to the eradication of poverty, the removal of social injustice and other factors that work against human welfare of current and future generations. For this reason, economic development must be planned and executed within a framework that respects environmental capacity constraints and conservation priorities.

It should be emphasised that sustainable development cannot be compatible with economic stagnation and retardation – the word “development” itself suggests improvements, including material ones. It is for this reason that, in this document, the need for economic development is given due importance, emphasising the point that sustainable development is not just an environmental issue, but a multidimensional and multifaceted one. However, while it is recognised that sustainable development objectives need to take into account economic realities, it is likewise recognised that to date, in spite of remarkable efforts towards environmental protection, such constraints have often excessively shifted the national priority towards economic requirements. The Strategy drawn up in this document acknowledges this reality.

Furthermore it sets as a top national priority the need to improve our quality of life and of the environment, in an effort to safeguard the long-term prospects of economic growth and social well-being.

2.3 The Democratic Dimension: Participation is Necessary

Directly or indirectly, all members of society are potentially affected by decisions related to sustainable development. Public participation in decision-making is therefore an essential feature of sustainable development. Principle 10 of the Rio Declaration states that sustainable development issues are best handled with the participation of all citizens concerned, and that these should have the information and opportunity to be able to participate in decision-making processes, including judicial redress.

Agenda 21 emphasises the need for enabling the participation of major groups. More recently, the World Summit on Sustainable Development (WSSD) Johannesburg Declaration recognised the importance of a broad-based commitment to public participation in policy-formulation, decision-making and implementation at all levels. In this regard, Malta has signed the UNECE Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters and, following accession to the EU, has adopted the EU directives relevant to this convention, namely Directive 2003/4/ and 2003/35.

Public participation is important for two principal reasons. First, public participation is a good in its own right, empowering people both individually and collectively and reducing social exclusion and alienation. Second, decisions taken through participatory processes are sounder because they are based on a broader spectrum of knowledge and are easier to implement because they are owned by a wider group of people.

2.4 Social Responsibility and the Ethical Dimension

While it is the Government's responsibility to officially formulate, fund and implement a national Sustainable Development Strategy, there is an equal responsibility placed on individuals, constituted bodies and civil society in general to play their part in supporting initiatives that foster sustainable development, as a way of achieving a better quality of life for current and future generations. This may involve changes in the way individuals conduct their lives, but social responsibility is central to the concept of sustainable development.

Sustainability has a strong ethical dimension and can be considered as a value to be upheld. In this regard, the issue of responsibility towards future generations takes centre stage – this aspect of sustainable development was an important component of the most widely used definition of sustainable development, as proposed by the Brundtland Commission in 1987, which states that sustainable development is the improvement in the quality of life of current generations without compromising that of future ones.

There are also ethical considerations relating to science and technology, since these have major impacts on sustainability. It is important that scientific and technological developments have the improvement of quality of life as a central aim.

Ethics also have an important role in the promotion and sharing of knowledge and in the participation of stakeholders in the process. The association between sustainable development and matters such as information, transparency and participation is also ethically based, as noted above.

The keyword with regard to the ethical dimension of sustainable development is "responsibility" and this pertains to environmental quality, political matters, use of economic resources, education, culture, intergenerational concerns and international affairs.

2.5 The Political Dimension: Integrative Legislation and Policy

The political dimension of sustainable development relates to the need for strong political commitment from all layers of authority, including Government and local authorities. It is therefore important that those in authority recognise the benefits of sustainable development and take steps to promote it.

The multifaceted nature of sustainable development requires cooperation and effective linkages between the different government departments and parastatal organisations at national and local level. In this context, the National Commission for Sustainable Development is a useful and important vehicle for co-operation and effective interface, both at the national and local level, between the various Government entities.

The political dimension is also relevant because the process of sustainable development requires consensus-building on the ways in which natural and economic resources are to be utilised. Sustainable development is primarily a political process since it is based on constant negotiation

between the various individuals and groups that have different interests with regard to the use of resources.

The process also involves subsidiarity – a principle associated with the decentralisation of power and the provision of an enabling environment, including material assistance to the decentralised units, in order to achieve sustainable development objectives.

In general, sustainable development requires a good legal foundation to ensure protection of the environment, to promote macroeconomic stability, to safeguard the welfare of vulnerable groups and to cater for the interests of future generations. Moreover, achieving the desired results requires an integrated approach.

2.6 The International and Regional Dimensions

Agenda 21 created a new development model, endorsed by the 2002 World Summit on Sustainable Development (WSSD), aimed at preparing the world for the challenges of the 21st century. It placed the primary, though not exclusive, responsibility on national governments, which were expected to adopt national strategies, plans, policies and processes conducive to sustainable development, in order to secure the well-being of current and future generations.

The international commitments of states to promote sustainable development at the regional and international levels emanate from ethical and mutual interest considerations. The ethical obligations stem from the concept of human solidarity. Actions by one state that place a burden on other states or that disregard the plights of other states work against such solidarity. This is one important reason why collaboration is necessary, and should also be an underlying reason for countries, Malta included, which form part of the donor country group within the United Nations to accept international commitments, including those proposed at UNCED and the WSSD, even when such commitments do not produce material gains to the donor countries. Another ethical consideration is that Planet Earth has a limited capacity to deal with negative environmental, economic and social impacts, and collective responsibility is therefore called for.

The 'mutual interest' consideration is associated with the fact that many sustainable development problems are not confined within the borders of nation-states. Obvious examples are climate change, which has an international dimension, and air and sea pollution, which generally have regional impacts. There are also economic aspects of sustainable development connected with trade and aid, which have clear regional and international mutual interest dimensions.

There are many international and regional arrangements for coordination and co-operation including the United Nations, the European Union and the Mediterranean Commission for Sustainable Development, within which Malta operates at the international and regional level. These have developed and promulgated their own sustainable development strategies and plans, and member countries have an obligation to abide by the commitments which they undertake within such organisations.

3. THE PROPOSED STRATEGY FOR MALTA

This chapter presents the National Strategy for Sustainable Development adopted by Malta, with reference to the environmental, economic and social dimensions. These three pillars of sustainable development are interrelated and action in this regard should be integrated. In this Chapter, the three dimensions are treated separately, in different sections, for the purpose of exposition only. There are a number of cross-cutting issues which cannot easily be categorised under any one dimension, and these are considered separately in the last section of the chapter.

A number of strategic directions are proposed with regard to each heading. These strategic directions are intended to serve as guideposts for the attainment of sustainable development goals in the longer term, are only accompanied by indicators or targets in cases where priority areas are identified. The priority areas, on the other hand, are to be interpreted as an undertaking by Government to attain the targets within the time frames indicated.

This proposed Strategy for Sustainable Development reinforces the strategic vision identified in key Malta Government policy documents, including the *National Reform Programme* and the *Draft National Strategic Reference Framework*.

3.1 Managing the Environment and Resources

3.1.1 The Main Environmental Challenges

Malta's environmental challenges have been systematically assessed in a number of official reports including the *State of the Environment Report* (1998, 2002 and 2005) and *Malta's National Report to the World Summit on Sustainable Development* (2002). On the basis of these reports and following an extensive consultation process in connection with the drawing up of this Strategy, the following environmental challenges facing Malta were identified:

- Air quality and climate change
- Energy-efficiency and renewable energy resources
- Biodiversity
- Freshwater
- Wastes
- Marine and coastal environment
- Land use
- Transport
- Natural and technological risks
- Leisure and the environment

3.1.2 Air Quality and Climate Change

The quality of Malta's air should be completely safe for human health and able to support biodiversity. In addition, human activities should have the smallest possible impact on climate and on global life-supporting systems (including the ozone layer). The significant improvement in data availability since 1998 has allowed a thorough quantitative assessment of air quality over the Maltese Islands. Parallel work on determining emissions, the drawing up of a greenhouse gas inventory, as well as observation of transboundary pollution, have provided a detailed identification of sources and their relative importance, providing a sound information base for policy.

Electricity generation and transport are the major contributors to air pollution in Malta. In recent years, greenhouse gas emissions have increased due to the increased demand for electrical energy and the growth in private car ownership. This has resulted in atmospheric pollution by particulates, ozone, sulphur oxides, nitrogen oxides, and volatile organic compounds including benzene and lead.

A shift to better-quality and lower-sulphur fuels was made in 2004 and leaded petrol was phased out in January 2003. Results from the national air monitoring programme indicate that the two main air pollutants of concern are particulate matter and ozone, while nitrogen oxides and sulphur dioxide also pose challenges. The main anthropogenic sources of particulate matter are transport and electricity generation, as well as quarrying and construction activities. As a user of ozone-depleting substances (ODSs), Malta also contributes to dispersion in the environment of these substances.

The challenge in this area is to attain EU air quality standards while ensuring efficient production and use of energy, as well as a cost effective transport system. Measures designed to encourage energy end-use efficiency, to use renewable sources of energy and to restrict overall vehicle use, including the provision of a high-quality public transport as well as traffic management measures, will be conducive towards this end.

Furthermore, support for the use of alternative fuels such as biodiesel should be continued. Government has already introduced financial incentives to promote biofuels, through the exemption from excise duty of the biomass content in biodiesel.. The biodiesel produced in Malta originates from waste cooking oil, and waste collection programmes have been established. Targets for the use of biofuels in road transport have also been set. A balance needs to be found between the costs of introducing alternative fuels and the benefits of reduction in use of conventional fuels.

Landfills have been a source of air pollution for many years. The rehabilitation of old landfills and the proper engineering of new ones are expected to resolve the negative impacts associated with past operating practices of Malta's landfills.

Mitigation and adaptation issues and the political and economic aspects of climate change need to be properly addressed as these involve significant economic costs and may impact heavily on Malta's development. Adaptation to rising global surface temperatures and the anticipated consequential rise in sea level need to feature in future development strategies. In particular, future development strategies should consider the impacts of climate change on coastal areas in terms of risks to settlements and human safety, commercial activities and habitats.

Main strategic directions with regard to air quality and climate change:

- Promote the adoption of new technologies, including mandating use of catalytic converters, to affect significant cut-backs in vehicle emissions.
- Take steps to reduce greenhouse gas emissions through an energy policy which seeks to promote environmental protection, competitiveness and security of supplies, and as a result decouple the rate of growth of energy demand from economic growth.
- Take remedial action to control emissions of air pollutants (ambient levels of particulate matter, sulphur dioxide, carbon monoxide, benzene, lead, ozone, heavy metals and nitrogen oxides) and achieve compliance with European standards.
- Encourage people to make use of public transport or to adopt car-pooling practices in order to reduce vehicle emissions.
- Introduce smaller buses on certain public transport routes.
- Require the construction industry to reduce generation of fine dust particles.
- Continue to monitor landfills for air pollution and take remedial action as required.
- Continue to monitor transboundary pollution and take remedial action as required.
- Develop a hazard map for coastal areas prone to erosion and flooding.
- Take action to reduce Malta's vulnerability to Climate Change.

3.1.3 Energy-efficiency and Renewable Energy Resources.

Energy efficiency and the use of renewable energy sources (RES) can be economically and environmentally advantageous. RES are not extensively used in Malta, although they may have immediate local application. Solar water heating could offset a substantial proportion of annual generation of electricity, avoiding emissions of CO₂. Generation of electricity using photovoltaics (PV) is currently limited to a small number of specialised applications. The use of photovoltaics will, in practice, be determined by economic factors (the cost of panels and associated equipment), the extent to which these systems can be connected to the electricity grid, and the associated feed-in tariff established, including any support measures for renewable electricity. Various incentives and support measures could speed up market penetration.

Market forces on their own may not spur the use of RES, and government intervention in the form of subsidies or other incentives is required to encourage investors to develop these sources of energy and to encourage consumers to use them. It is important, however, to ensure that the use of RES does not pose unduly high fiscal burdens.

In 2005, the Government of Malta introduced a series of measures to support electricity generation from RES. These include financial incentives in the form of grants on the capital costs of photovoltaic installations and micro-wind generation systems by domestic households. A net metering arrangement and purchase by Enemalta at established tariffs of excess electricity generated from small-scale PV systems have also been introduced. In addition, grants on the capital cost of solar thermal water heaters installed by domestic consumers and other financial incentives related to meter installation charges for new domestic consumers installing such systems have been established. The Government has also published a draft *Renewable Energy Policy for Malta*, with the three key objectives of promoting RES, improving the quality of life and providing support facilities and services in a holistic manner.

Further reductions in CO₂ emissions are likely to be attained through the construction of energy-efficient buildings and the use of small combined heat and power plants by industry, the introduction of energy-efficient electric motors and drives, the proper dimensioning of air-conditioning units and attendant ducting, and further use of energy-saving lamps. Emissions could also be reduced through improvements in electricity generation and use, as discussed in the previous section. Such reductions could also be attained through fuel pricing as part of an energy

policy, and through making available alternative sources such as Biodiesel, Liquid Petroleum Gas (LPG) and Compressed Natural Gas (CNG). The use of energy from animal waste and oil waste is also being studied and reviewed by Government.

Efficiency in government electricity usage should be very visible so as to encourage private users to change their own behaviour with regard to electricity usage, as well as to curb light pollution. Such visibility includes more efficient street lighting and luminous devices used in road safety signs. Floodlighting of public buildings could also be reduced late at night. Government departments should adopt energy-efficient lighting and air-conditioning in order to lead by example. Energy-saving pilot projects by the Housing Authority should be encouraged.

Main strategic directions with regard to energy-saving and renewable resources

- Adopt a national energy policy that seeks to improve efficiency in electricity generation and to promote a secure, competitively priced, and environmentally sound energy supply,
- Put in place an integrated approach, supported by a nationwide educational campaign, to promote energy efficiency and conservation by users.
- Carry out an energy audit of street lighting and propose measures to promote efficiency in lighting
- Step up funding for research to improve knowledge on local materials and conditions in building for energy efficiency and in the use of renewable energy sources
- Adopt building regulations that would include design requirements relating to thermal efficiency.
- Direct more development permit applicants to adopt energy efficiency measures.
- Promote the introduction and use of renewable energy sources through support mechanisms and other appropriate measures.
- Promote energy audits and energy-efficiency improvements in commercial and industrial establishments.
- Heighten water conservation methods to reduce dependency on reverse osmosis plants.

3.1.4 Freshwater

Water in the Maltese Islands remains a scarce and basic resource and is under intense pressure from competing users. While traditional problems associated with the lack of availability of supply have been addressed mainly through significant investment in desalination plants, this has been achieved at a high cost. Furthermore, new challenges emerge as more information becomes available from studies carried out on environmental impacts. It is likely that modern technological progress will chart the way towards higher levels of efficiency in the use of water resources.

The fair allocation of water resources is considered to be a major priority that needs to be addressed throughout the decision-making process. Water demand and supply need to be managed on a geographical basis, especially in areas where second class water requirements take precedence.

The integrated management of water resources at water catchment district level is considered to be crucial. Available water resources should be fairly allocated to the different stakeholders while taking into account sectoral requirements in terms of quality and quantity. Such an exercise would require a sound regulatory system and a clear policy, backed by legislation, that sets priorities for water use and lays the foundations for the sustainable management of water resources. In this context, Malta will have to eliminate wasteful practices and move towards the conjunctive use of groundwater with other non-conventional sources such as desalination, treated sewage effluent and stormwater. Stakeholders' requirements, the relative supply costs and the benefits accrued, as well as the value of the externalities generated by the use of water, need to be carefully assessed.

The quality and integrity of groundwater bodies in the Maltese Islands are currently at risk mainly from over-exploitation (including uncontrolled private abstraction of groundwater), leading to increased salinity, and from contamination by excess nitrates (mainly from agriculture) and other pollutants. Information on and awareness of the importance of groundwater and the risks posed to its integrity by over-exploitation and pollution need to be more widely disseminated. The 'polluter pays principle', as well as the EU Environmental Liability Directive provisions, need to be more extensively used and enforced.

Investment in stormwater management and flood relief are key priorities for the Maltese Islands. The installation of stormwater catchment facilities will allow this source of freshwater to be utilised for a wide variety of purposes, reducing the strain on the current freshwater resources.

Furthermore, road and land development have often failed to recognise the importance of maintaining natural aquifer recharge. Legislative changes introduced in 2000 with the establishment of the Malta Resources Authority involved the separation of the regulatory and operational responsibilities previously carried out by the Water Services Corporation. This has led to a clear distinction of regulatory and operational roles between the regulator and the utility agency, thus promoting an improvement in the level of services provided, to the consumers as well as better regulation of the sector.

Drinking water quality standards have improved during the past three years as a result of infrastructural improvements which allow a more uniform blending of groundwater with desalinated water throughout the Maltese Islands. Further improvement is foreseen as the Water Services Corporation plans to upgrade its desalination facilities in an endeavour to improve product quality and energy efficiency. The introduction of a better-regulated system for groundwater abstraction, together with enforcement of environmental measures to improve the qualitative standards of groundwater supplies, is also envisaged.

In recent years, the Water Services Corporation has also stepped up its water conservation efforts and has reduced losses from the distribution network. Better use of harvested rainwater and treated sewage effluent is envisaged in the coming years, while further measures and incentives to store stormwater run-off in urban/semi-urban areas will be considered.

Potable water quality needs to be improved in order to reach EU standards and the present plans of the Water Services Corporation and of the Malta Resources Authority to achieve this aim need to be fully implemented in a sustainable manner. Through EU Structural Funds, measures and projects are underway to improve drinking water quality. At the same time, conservation measures related to water produced through sewage treatment, controlled abstraction of groundwater, the better use of cisterns and wells, and the cleaning of existing dams and building of new ones in strategic locations need to be encouraged through the enforcement of existing legislation, a more effective consumer education programmes and, possibly, economic incentives and disincentives. Measures to store rainwater, including the use of disused quarries, need to be explored. Valley beds need to be cleared from unauthorised interventions in order to allow for the safe collection of water; however, the ecological value of valleys must be recognised in addition to their water transport function, and the haphazard clearing of valleys should be prohibited.

As well as supplying potable water for human use, freshwater also sustains a variety of perennial springs and small water bodies which, in turn, support a variety of species. Such freshwater ecosystems are extremely threatened by the combined effects of habitat loss and by the lack of water availability, resulting from anthropogenic activities and recurring episodes of drought. These freshwater habitats need to be very carefully managed and all efforts should be made to safeguard them before they are completely lost. To this end, the importance of such measures will be

reflected in the implementation of the Water Catchment Management Plan under the national legislation transposing the Water Framework Directive.

Around 14.3Mm³/year of treated sewage effluent are expected to be available for re-use in Malta and Gozo during the next five years. As a signatory to the Barcelona Convention, Malta is committed to treat all wastewater before discharging at sea, and is thus planning to set up three new sewage treatment plants: one in Gozo and two in Malta. The treatment plant in Gozo and that in the north of Malta are expected to be operational by 2008.

Once the projected sewage treatment plants are operational, the country should have significant quantities of second-class water. While not suitable for human consumption, this water may be suitable for other purposes. Other uses should be explored, especially for those sectors and activities with heavy water consumption. In this regard, projects that require large quantities of water to sustain them need to be carefully assessed for their impact on the water supply. Since sewage is increasingly being seen as a water resource, it must also be protected against contamination from hazardous industrial and other effluents.

Main strategic directions with regard to freshwater:

- Adopt a policy with the aim of ensuring the utilisation of the nation's water resources in a manner that is environmentally and economically sustainable.
- Allow the natural biodiversity of surface water eco-systems to be sustained and to flourish, and achieve good ecological status for inland surface waters by 2015 in line with the Water Framework Directive.
- Ensure a reliable and good-quality supply of potable water in accordance with international water quality standards.
- Reduce and prevent further pollution of waters with the aim of achieving good status of all water bodies by 2015 in line with the Water Framework Directive.
- Establish and operate comprehensive monitoring networks for all water bodies in the Maltese Islands in order to reliably assess the achievement of 'good status' objectives in these bodies.
- Encourage initiatives for the adoption of water efficiency and conservation measures.
- Introduce effective catchment management and design roads so as to maximise the channelling of water towards reservoirs.
- Improve public awareness on the environmental, social and economic value of water.
- Strengthen and enforce regulatory measures with regard to illegal abstraction.
- Encourage the recycling of non-potable sources of water for secondary use.
- Assess projects that require large quantities of water in order to ascertain that they do not unduly create water supply shortages.
- Optimise the use of second-class water particularly in those sectors that make heavy use of water.

3.1.5 Biodiversity

Though small in size, the Maltese Islands and their territorial waters support a variety of habitats and significant biodiversity which are still not adequately recognised as an environmental asset to be protected and sustained. Loss of biodiversity, i.e. the irreversible loss of species and eco-systems, can have very damaging effects on various aspects of a nation's development. A number of endemic and sub-endemic species are not only of scientific importance but are also of evolutionary and biogeographical interest, being relics of past Mediterranean flora and fauna. Over the years, not enough commitment has been shown to protect such biodiversity, leading to rapid habitat loss and uncontrolled exploitation of wildlife. This has meant that unique and important habitats such as wetlands, sand dunes and woodlands have disappeared or are on the verge of disappearing. Furthermore, some elements of Malta's biodiversity have a wider regional and global importance, and as such are protected under international legislation.

Extinction and loss of species has been documented since 1998 by the State of the Environment Reports. In spite of the introduction of substantial legal protection for important habitats during the last 15 years, effective protection has lagged behind. Effective conservation requires the allocation of financial, physical and human resources to enable management, including short- and long-term monitoring. Moreover, in situ and ex situ conservation is urgently required (e.g. propagation, habitat restoration, containment, control or eradication of invasive alien species and reintroduction of indigenous species).

In spite of efforts to protect and manage indigenous biodiversity, most threatened species and the majority of endemic species, remain under threat from human-mediated activities (such as over-exploitation, illegal capture and killing, land development and introduction of alien species) and from the consequences of such activities (such as loss and degradation of habitats, pollution, disruption of food webs, erosion and eutrophication) that lead to undesirable changes in eco-systems. The dwindling areas of garigue, sand dunes and cliff faces are some examples of habitats that are endangered. Due to the state of such habitats, even certain recreational activities, such as off-roading, camping and abseiling, need to be better regulated. The state of knowledge of local biota is still poor and resources for the implementation and enforcement of existing regulations have still not reached the required levels. The biodiversity monitoring programme is still rudimentary and under-funded.

Exploitation, whether illegal or unregulated, of a number of wildlife species and communities is still ongoing (and, in some cases, possibly increasing), mainly through hunting, trapping and fishing. The currently available data on such activities are not sufficient and not sufficiently reliable to permit a thorough assessment of the impact of such exploitation on the local biodiversity. This issue should be addressed as an immediate priority.

Land reclamation in sensitive ecological areas should be prohibited and the re-use of abandoned fields encouraged. This needs to be linked to the promotion of land stewardship, establishment of ecological corridors and organic farming.

The uncontrolled introduction of alien species into local eco-systems continues to be of serious concern. An increasing number of such species are establishing themselves in the wild, with adverse effects on the local eco-systems. It is widely documented globally that human-mediated activities, namely trade and tourism, facilitate the introduction and transfer of such species into new environments. Once alien species are introduced, either deliberately or accidentally, into the environment, they can establish themselves. In certain cases, alien species start to compete with native species, in which case they become invasive and could become the dominant species. Invasive alien species involve and affect a wide range of social, ecological and economic activities and can also affect public health. To prevent these impacts, a strategy to control existent alien species and to prevent the further introduction of alien invasive species, should be drawn up.

Genetically modified organisms (GMOs) can be considered as alien species and the regulation of GMOs should be included in any policy and/or legislation on alien species. Malta's official policy is that applications to deliberately release or place on the market GMOs are assessed and evaluated on a case-by-case basis and by means of a thorough scientific assessment. Support should be given to research and development to predict and prevent invasive behaviour of alien species and GMOs before they are released into the environment. The Cartagena Protocol on Biosafety should be ratified and implemented in order to control transboundary movements of GMOs with the aim of providing a comprehensive and holistic approach to the conservation of biological diversity, the sustainable use of natural resources and the fair and equitable sharing of benefits deriving from the use of genetic resources.

In order to comply with the EU nature protection *acquis*, Malta has designated an extensive network of Special Areas of Conservation, of which 31 are of international importance and which amount to a respectable 12.5 per cent of the national territory in terms of land area. The total area of protected terrestrial habitat on the Maltese Islands relative to the total surface area compares favourably to the EU average. Additional efforts should now be made so that rare or scientifically important eco-systems not yet protected, as well as representative examples of more widespread habitats such as marine eco-systems, are afforded legal protection.

Natural areas which are declared protected need to be monitored and managed in accordance with adopted management plans, the more so since this is also a legal obligation. Management plans have already been adopted for some of the sites, and others are in the pipeline. Monitoring work has been undertaken and policy provisions are being drawn up to ensure that the EU Directives are adhered to. Nonetheless, the process of agreeing on management plans for protected areas will have to be significantly accelerated in order to meet Malta's national and international obligations.

A commendable development in the management and administration of protected areas is the involvement of NGOs. NGOs or other suitable bodies should be entrusted with the management of protected areas in partnership with other stakeholders, according to the official management plans, and should have their activities monitored. In addition, a nature wardening or ranger service should be set up as soon as possible, and fines should be increased for infringement of particular regulations so as to provide an effective deterrent.

In order to protect the richness of local biodiversity, a National Biodiversity Strategy for Malta, based on the aims of the Convention of Biological Diversity, is being drawn up. These aims include the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the utilisation of genetic resources.

Finally, a nation-wide pro-biodiversity and pro-environment awareness campaign is urgently required to better publicise the rich biodiversity of the Islands as an important component of Malta's heritage.. Local communities are not sufficiently aware of the intrinsic value of local biodiversity and of the role that it plays in maintaining life support systems and ensuring quality of life. Such a campaign should be aimed at all the various stakeholders. Moreover, local environmental issues should be included in school curricula in order to educate students of all ages and to raise their awareness of the opportunities offered by and threats faced by local biodiversity.

Main strategic directions with regard to nature and biodiversity:

- Monitor and protect all rare and/or threatened endemic species and their habitats, as well as other locally occurring species of international importance, and take active measures for their conservation and restoration.
- Designate additional habitats for protection (including marine areas), based on sound scientific information, in order to protect these habitats from incompatible development.
- Draw up and implement the required management plans for Special Areas of Conservation.
- Draw up a National Biodiversity Strategy for Malta based on the aims of the Convention of Biological Diversity.
- Fulfil all obligations under existing international environmental treaties concerning biodiversity and equip local agencies responsible for implementing these treaties with the necessary resources, personnel and administrative machinery to enforce legislation.
- Set up a nature wardening service and introduce or increase fines for infringement of particular regulations, so as to provide an effective deterrent.
- Adopt an official policy on the introduction and eradication of alien species (including genetically modified organisms).
- Promote and fund research to gain a better understanding of local biodiversity, including the establishment and funding of a national inventory/database of biodiversity.
- Devise schemes to improve awareness on the richness of local biodiversity.
- Ratify and implement the Cartagena Protocol on Biosafety.
- Discourage land reclamation in ecologically sensitive areas and encourage re-use of abandoned fields.
- Encourage organic farming, thereby reducing use of pesticides.
- Promote the use of ecological corridors.
- Promote awareness that biodiversity is an economic resource of value to tourism, and that is enjoyed by tourists and the local population alike.

3.1.6 Wastes

As a Member State of the European Union, Malta is bound to contribute to the development of, as well as follow, Community policy on waste. In addition, waste management must take place according to the waste hierarchy, which gives top priority to waste prevention and minimisation and considers landfilling as the least desirable option. Special precautions must be taken for the control of priority waste streams, in particular hazardous waste. Malta is also bound to implement producer responsibility in the fields of packaging, electrical waste and electronic equipment and end-of-life vehicles, amongst others. On these waste streams, Malta is bound to reach recycling and recovery targets.

The current waste management scenario poses several threats to the environment, mainly due to the heavy dependency on landfills. Landfilling is a very land-intensive option, a reality that is especially problematic in Malta given the small land area. When landfills are not properly managed significant environmental problems ensue, including negative visual impact, emissions of toxic gases from spontaneous combustion of waste, leachate generation, vermin, odours, and groundwater and marine contamination. In addition, potential risks to human health cannot be excluded. A Solid Waste Management Strategy for the Maltese Islands was set in motion in October 2001, which is currently being updated. This Strategy put in place an integrated approach to waste management which, amongst other things involves a reduction in the quantity of waste and an increase in recycling and composting.

The objective of the 2001 strategy was that by 2005, the necessary legislative and physical infrastructure to manage waste would be developed. An important outcome of this strategy was that in 2004, Government closed the landfills at Maghtab in Malta and Il-Qortin in Gozo and started the process for their rehabilitation. In the meantime, waste disposal started being carried out in an engineered landfill that is designed and regulated in a way that minimises potential impacts on

human health and the environment. The Sant' Antnin Waste Treatment Plant is to be upgraded in order to improve the waste management process. An awareness and educational campaign involving stakeholders is also being carried out. The time has probably come to evaluate the introduction of waste-to-energy plants, which would go a long way to solving the waste problem apart from getting value out of the waste. In the long-term, landfilling should only be used as a last resort.

Significant progress has also been registered in the area of incineration of wastes, particularly hazardous wastes. A number of non-compliant incinerators have been closed down. A new incinerator, compliant with EU incineration legislation, has been developed at the Malta Abattoir, while the incinerator at the Gozo Abattoir has been upgraded. Plans are in place for the upgrading or replacement of other incinerators. Lack of progress has been registered on the closing down of the St Luke's clinical waste incinerator, which should be closed down at the earliest opportunity. It is intended to upgrade the abattoir incinerator to process clinical and other hazardous waste.

Bring-in sites have been established in a number of Local Councils. Eventually such bring-in sites will be located in all Local Councils. With the commissioning of civic amenity sites, which are to be set up in five locations, waste separation at source will be given a big boost. Waste separation at source should be further promoted and this should include the collection of cooking oils for recycling.

Programmes aimed at promoting good waste management practices within homes, industries, hotels, restaurants, schools and other institutions are being implemented. The aim is to reduce waste and to dispose of it in a manner that is acceptable to the facility receiving it, thereby safeguarding human health and the environment.

The initiation of separation at source from households has yielded a high percentage of recoverable material and has generated new interest within the business sector. Initiatives based on "producer responsibility" and the "polluter pays principle" are currently being planned. A sufficiently large market for recycled products has yet to be developed in order to ensure the economic viability of collecting materials. The waste collection service needs to be reviewed in order to cater for the possibility of source separation.

Construction and demolition waste, such as building rubble, can potentially be a resource but is not currently appreciated for its recycling or re-use value and is often dumped. Incentives to recycle stone and disincentives associated with the use of new stone should be explored.

Hazardous waste disposal in Malta remains problematic. The country lacks specialised facilities for the destruction or treatment of most hazardous waste streams. A significant effort is being made to export such waste to suitable facilities abroad. However prohibitively high costs render such exports difficult. Over the past years Malta has developed an efficient consignment note system which makes it obligatory for anyone transporting hazardous wastes to register the movement with the regulatory agency. This enables the regulator to take stock of hazardous waste generation in Malta, as well as to ensure that such waste is managed or stored in an environmentally acceptable manner.

With regard to liquid waste in Malta, the sewerage system currently directs most of the effluents into the marine environment, resulting in microbial and chemical pollution, degradation of marine flora and fauna and eutrophication, as well as in health threats to bathers and divers. The implementation of the Sewerage Master Plan for Malta and Gozo has set in motion a process to develop the necessary sewage treatment infrastructure for treating wastewater before it is discharged into the sea. This is in line with the Urban Waste Water Treatment Directive. The sewage treatment plants and adjoining transmission infrastructure will serve to enhance the coastal water quality of the Maltese islands, in line with international and national standards and

legislation. Moreover, the re-use of water that is to be treated at plants needs to be assessed so that this resource is not wasted. Its use will depend on its chemical and microbiological quality. An encouraging development is that works have started on the treatment plants in Gozo and in the north of Malta. Planning processes for the plant in the south of Malta are in hand following its relocation in view of the Smart City development.

The setting up of additional sewage treatment plants will necessarily lead to the production of much bigger volumes of activated sludge. Therefore, there is an urgent need to identify suitable disposal options, and to invest in treatment facilities capable of adequately dealing with such activated sludge. Marine discharges of sewage treatment sludge will be discontinued as they cannot be permitted under environmental norms.

The National Action Plan for the Protection of the Marine Environment from Land-based Activities (referred to later on in Section 3.1.7) deals specifically with the releases of specific marine contaminants and liquid wastes into the marine environment. In particular, it sets out Environmental Limit Values and Environmental Quality Standards which need to be implemented in order to protect our marine resources.

Malta has continued to improve its administrative capacity in regulating waste management activities and operations, particularly by means of training its existing human resources working on this area. However, further improvement in this regard is still needed, especially in terms of providing additional resources for regulation.

Main strategic directions with regard to wastes:

- Prevent and minimise waste by achieving EU waste-related targets, reviewing Malta's Waste Management Strategy by 2007.
- Establish waste management systems for hazardous (including pharmaceutical) and non-hazardous wastes.
- Commission the sewage treatment plants and find ways to use the treated water.
- Close all non-compliant incinerators and replace incineration plants in hospitals by non-burn technology.
- Introduce economic instruments, such as additional deposit refund schemes, conducive to improved waste management practices.
- Increase the number of bring-in sites and introduce additional facilities, such as civic amenity sites, which will help to increase waste separation at source.
- Develop facilities for the separate collection of wastes by Local Councils.
- Upgrade the present sewerage system to decrease to a minimum the current rates of failure of some coastal pumping stations, as well as of Malta's major sewage outfall at Wied Ghammieg.
- Incentivise the construction industry to reduce demolition and construction waste.
- Develop a nationwide educational campaign aimed primarily at waste reduction.

3.1.7 Marine and Coastal Environment

As would be expected in a small island state, Malta's long-term economic and social development is directly linked to the wise use of coastal and marine resources. Although many coastal areas are popular recreational areas, there is a lack of appreciation of the value of the marine environment and its resources. There is still a gross imbalance between the income generated through the utilisation of marine resources, including the use made of them by the tourism industry, and the funds allocated to protect them. Any efforts to economise on environmental management are bound to be counterproductive.

There has been a general improvement in the level of environmental monitoring of coastal water quality, but baseline information about the current environmental quality, biodiversity and eco-system functioning of our coastal and marine eco-systems is well below the level which would be required to ensure their proper conservation and wise management. There is therefore an urgent need to address this issue in a more coherent manner through improved coordination and funding for information gathering, as outlined in the Water Framework Directive.

Only one marine site has been designated as a marine protected area (the area between Rđum Majjiesa and Ras ir-Raheb). Other sites, such as the area around Comino, should be considered as potential marine protected areas, and should be designated as a matter of priority in line with official guidelines.

There are several areas of potential concern in the marine and coastal environment that still need to be fully understood and satisfactorily addressed. These include pollutants in sediments, the occurrence of harmful algal blooms, overfishing (including spearfishing using underwater equipment), and the environmental impacts of the marine disposal of solid waste; intensive coastal fish-farming and tuna penning, and shoreline erosion. The effects of fish-farming and tuna-penning need to be further studied so that the evidence gathered can serve as a guide for possible future granting of permits. Spearfishing using underwater equipment should be banned.

The enjoyment of coastal areas depends on their accessibility. Some areas are not accessible due to land ownership issues, and many, especially those rocky or cliff-faced coastal areas of major scenic and natural value, are not accessible due to hunting and trapping activities. Measures need to be taken so that access to the coast is ensured, regardless of whether the land is private or is owned by Government. In furtherance of this requirement, the Malta Tourism Authority is including all coastal areas of the Maltese Islands as tourism zones in their own right, with a view to sustainable, long-term product development for the tourism industry, which also has a high impact on Maltese residents' quality of life.

While Section 3.1.6 deals more specifically with the environmental impact of liquid and solid waste, it is opportune within this section to reiterate the potential environmental impact of direct or indirect marine discharges of untreated sewage and industrial effluents. Most local industries discharge their wastewater into the public sewers under legislative controls. Unfortunately, the level of compliance with such controls is still low. Effective enforcement of discharge controls over any land-based activity (including inland activities) which could act as diffuse sources of marine discharges of contaminants should be given priority over the next few years. This will ensure that the current governmental plans to stop the discharge of all untreated sewage into the sea, in line with EU targets will result in the desired improvement in the quality of our coastal and marine environments. As indicated in previous sections, treated sewage effluent should now be considered as an additional water resource, since almost 80 per cent of potable water ends up in the sewerage network. By 2010, all sewerage will be treated to tertiary levels, i.e. good for irrigation and bathing. Further treatment and polishing should be considered for recharge.

As a contracting party to the Barcelona Convention, Malta signed and ratified the revised Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (LBS Protocol) which covers watersheds on the landward side of the Mediterranean. Further to the Protocol, the Contracting Parties to the Barcelona Convention adopted and are currently in the process of implementing a Strategic Action Programme to address Pollution from Land-based Activities (SAP/MED). Within this framework, Malta has recently formulated its National Action Plan (NAP) for the reduction and elimination of land-based pollution. Malta's goals under this NAP are to (i) protect human health; (ii) reduce the degradation of the marine environment; (iii) remediate degraded areas; (iv) promote the conservation and sustainable use of coastal and marine resources; and (v) maintain the productive capacity and biodiversity of the marine environment.

A key objective of the NAP is to eliminate, by the year 2025, discharges of contaminants from point sources, in conformity with the LBS Protocol. Progress in achieving this objective will be assessed in 2010, by which time a reduction of 30 to 50 per cent (depending on the targeted contaminant) in the contaminants' releases or emissions is expected to be reached. These reductions are to be achieved through a number of sectoral plans, pollution reduction programmes, emission limit values and environmental quality standards for specific marine pollutants (including mercury, cadmium, lead, specific organohalogens, waste lubricating oils and other hazardous materials).

The sustainability of using our marine environmental resources will depend on the extent to which such a NAP is implemented over the next few years. The NAP is intended to be a comprehensive management and policy framework to assist Government, industry and all other stakeholders to prioritise their sustainable development requirements and to mobilise political and financial support. As such, it is essential that the various components of the NAP are integrated within existing or planned policy structures, foremost amongst these the National Strategy for Sustainable Development. Subsequently, the feasibility of setting up a NAP Management Team within the NCSD should be seriously considered. This team will be responsible for monitoring the implementation of the NAP and for coordinating the range of activities and actions which would need to be undertaken by the various identified entities within the framework of the NAP.

Due to the heavy oil tanker traffic in the Central Mediterranean, Malta faces a high risk of oil spills which can cause pollution and threaten marine life and coastal waters. An environmental hazards and contingency plan is urgently required to deal with these issues. Moreover, maritime traffic by small boats also needs to be properly managed so as to reduce its potential impact on the marine environment. There is currently evidence to prove that such traffic is a major source of pollution by petroleum hydrocarbons, as well as of disturbance of benthic life. Furthermore, there is an urgent need to formulate and enforce proper legislative controls in order to ensure minimal environmental impact of anti-fouling agents.

Main strategic directions with regard to coastal and marine environment:

- Achieve good ecological status for coastal waters and good chemical status of marine waters by 2015 in compliance with the Water Framework Directive (LN194/2004).
- Implement the National Action Plan for the Protection of the Marine Environment from Land-Based Activities including the adoption of its Sectoral Plans, Environmental Quality Standards, Emission Limit Values and Pollution Reduction Programmes for specific marine contaminants.
- Rigorously monitor the quality of coastal and marine waters and protect them from pollution so as to render them safe for human health, to satisfy the requirements for human use, both by residents and by visitors, and to allow the natural biodiversity of marine eco-systems and habitats to be sustained and to flourish.
- Take steps to improve information regarding the state of the marine environment, and assign more resources to allow for more extensive monitoring programmes.
- Develop a framework for policy integration for the coast and adjacent marine environment.
- Strengthen and extend a system of marine protected areas.
- Enhance capacity-building within government agencies, including management and enforcement personnel.
- Ensure that the new Structure Plan and the applicable Local Plans and planning policies comprehensively address the issue of coastal management so that any new coastal development is sustainable.
- Take steps to make the coast more accessible to the public.
- Allocate environmental wardens specifically for marine and coastal areas.
- Enact legislation to ban spearfishing that makes use of underwater equipment.

3.1.8 Land Use

Efficient and prudent use of land and sea is a determining factor in the future economic and social development of Malta given the high population density, the competing demands from various sectors including increased use of private transport, the increase in tourism infrastructure, the demand for new housing, space requirements for industry, the extensive quarrying, the land-intensive waste disposal and shipping and maritime activities. In addition, the Maltese countryside as well as the historical built-up areas constitute unique, aesthetic, natural, cultural and historical features that need to be conserved.

The strategy document that deals with land-use issues in Malta is the *Structure Plan*. This is currently being revised. Seven approved local plans, which provide Malta-wide coverage, apply the Structure Plan policies at the local level.

While a conservative estimate of residential capacity in 2002 indicates an over-supply of some 98,000 residential units being available within current land allocations for housing, current trends suggest a strong demand for new dwelling units (including second homes) over the new Structure Plan period. Despite an increase in the number of households, there is a mismatch of supply and real 'need', and a significant proportion of dwellings remain vacant.

Incentives need to be put in place so that vacant buildings are put on the market. Although rent laws have been liberalised, the market has not brought about a noticeable shift in consumer preferences in favour of rental as against purchase of dwellings. In order to avoid urban sprawl, more efficient use of land has to be encouraged. This points to the need for a study on the possibility of allowing higher buildings in very limited locations. Without compromising the character of urban conservation areas, redevelopment of built-up areas should be encouraged to further reduce pressure on undeveloped areas.

Urban development and regeneration projects need to be sustainable in terms of economic, social and environment aspects. The Structure Plan review exercise should ensure that these concerns are addressed. Particular sensitivity should be shown to the less intensively urbanised areas in Malta and to the whole island of Gozo, where tourism as an economic activity is intrinsically tied to visitors' experience of the balance between the rural and urban environment, and where over-development and over-urbanisation would have a negative and irreversible impact on the attractiveness of the destination, apart from the more direct environmental impacts.

In order to promote efficient use of space for industrial purposes, sectoral benchmark typologies of commercial/industrial units and employment densities need to be developed. Incentives should then be provided to industry to keep within the established benchmarks. Industry that provides high value-added activities and high employment densities should be encouraged.

The number of licensed vehicles in Malta has increased dramatically during the past 10 years. In 2006 there were about 270,000 licensed vehicles using just over 2,000 km of road. Buses, once a major transport provider, now account for only 12 per cent of all trips in Malta. However, the public transport service remains a key means of transport for the over one million visitors per year, with over 85 per cent of tourists making use of it during their stay on the Maltese Islands. The lack of coordination in the transport sector and the inability to contain the growth of vehicles or to manage their use is recognised as a major issue. Congestion, noise and air pollution caused by private transport are also of concern. This matter is further treated in Section 3.1.9.

Quarrying activity, although necessary for the construction industry, causes major environmental damage through land degradation and dust pollution. Large quantities of inert waste are also produced, which compounds the waste management problem.

Incentives should be provided so that good stone that is quarried on site and excavated material from construction, especially on large projects, can be used instead of being dumped. Moreover, recycling of materials from demolished buildings should also be encouraged through the application of the polluter pays principle.

Tourism infrastructure has grown rapidly over the years, giving rise to an excess supply of beds with consequent impacts on fragile environments particularly in coastal locations. The conclusions of the carrying capacity study carried out by the Malta Tourism Authority (MTA) need to be translated into policy actions. Activities with high environmental impacts should as far as possible be channelled to sites which are already degraded.

Built and natural heritage make an essential contribution to quality of life, giving context and coherence to the present while acknowledging the contribution of the past. Malta's heritage is varied and rich in many aspects and requires immediate attention and significant investment. Efforts are currently underway to draw up a plan for the valorisation of the Maltese Islands' cultural heritage through the drafting of a Cultural Heritage Strategy by the Superintendence for Cultural Heritage. Furthermore, the role of Heritage Malta in the conservation, management, and interpretation of a significant number of key heritage sites and museums is a further important step towards a higher appreciation of our rich cultural heritage by locals and visitors alike. Several initiatives by the Ministry for Tourism and Culture, a number of which involve the direct participation of heritage NGOs, are being implemented or planned. The Ministry is also finalising its renewed Culture Policy. Limited resources remain the main obstacle towards ensuring the timely and efficient restoration and rehabilitation of the vast inventory of cultural heritage assets, including fortifications. In this regard, it is desirable to make use of EU Structural Funds to restore and rehabilitate Malta's historic fabric. Potential synergies with the tourism industry and other private sector/non-governmental operators need to be explored in order to ensure a maximisation of potential in this regard, without putting in jeopardy the integrity, conservation or public accessibility of these same assets.

It should be appreciated that built heritage provides a sense of belonging to the residents, who take pride in their built and natural surroundings (especially where these have conservation status). For this reason, the upgrading of environmental quality at the local level should be given major importance.

Awareness campaigns relating to the impacts of current construction practices should be undertaken. All parties that have an interest in the construction industry, including architects, developers, contractors and occupiers of buildings, should be made more accountable for the damage caused to the neighbourhood of construction sites.

Agriculture makes only a modest contribution to GDP, but it is very important to sustain this sector for the preservation of the rural character of the countryside and to sustain food security. Agriculture also has a major impact on the general experience of Malta and Gozo acquired by tourists, as well as providing a number of high value-added products based on traditional techniques and practices. Although land reclamation can provide the space for more agricultural activity, areas which are environmentally sensitive should not be selected for reclamation. Improper agricultural practices, including lack of integrated pest management, disposal of waste and uncontrolled use of fertilisers, need to be addressed.

Land for waste management purposes should be allocated for preferred waste management activities. The feasibility of land reclamation at sea needs to be studied for a number of reasons, including as a waste management measure.

Main strategic directions with regard to land-use:

- Adopt measures to protect, maintain and improve the urban and rural environment and, through the planning system, protect the open countryside from uses, particularly residences, which can be more appropriately located in urban areas.
- Promote renewal incentives to make the best use of the existing urban fabric and reverse urban decline, particularly in historic cores, specifically through strategic economic and social planning which addresses the physical, economic, social and environmental issues in an integrated manner, while encouraging the use of vacant property.
- Maintain and improve Malta's built heritage and historic resources, wherever possible through the participation of civil society and the private sector.
- Manage the built environment so as to ensure the best possible quality of life, with minimal risks to human health, and the fostering of the cultural and social identity of our settlements.
- Promote stewardship of the rural, urban, coastal and marine environment and channel urban development into existing development areas.
- Revitalise existing town centres, making them more viable, improve the efficiency of use of industrial areas, and upgrade the quality of other employment areas.
- Ensure closer integration of transport and land use planning so as to increase the use and efficiency of public transport rather than increased reliance on private cars.
- Promote higher residential densities and mixed uses close to existing town centres and public transport routes so as to reduce the need for travel.
- Require the construction industry to adopt measures for the sustainable use of stone and resources and reduce noise and dust pollution impacts on residential amenity.
- Introduce incentives for the re-use of materials retrieved from demolished buildings.
- Introduce incentives to encourage the use of vacant buildings.
- Ensure that land reclamation does not take place in environmentally sensitive areas.
- Devise measures that encourage tourism development to fully respect the environment and promote initiatives that strengthen its synergies with the cultural and environmental sectors.
- Engage all interested parties within the construction industry in an awareness-raising exercise of the damage caused by construction activities and put in place incentives that promote good practice in the construction industry.

3.1.9 Promoting a Sustainable Transport System

An efficient and safe transport system is an essential element of a Sustainable Development Strategy. In this regard, an integrated transport strategy encompassing sustainable mobility is required, which takes into consideration efficiency in transporting people, the protection of the environment, the promotion of public health and safety, and social inclusion.

Such a strategy should also take into consideration the great importance that public transport has for the tourism industry. Policies for tourist zones should tackle the seasonality issue, long waiting times and long delays generated in the peak months because of the large number of tourists making use of public transport.

Transport by land, water and air plays an important role in nurturing sustainable communities, whose activities rely on transport. Transport also has significant socio-environmental implications related to pollution, traffic congestion and social exclusion. There is also an increasing awareness of the health risks associated with transport, suggesting an increased urgency for action to reduce these risks. The integration of environment and health dimensions into transport policies is necessary for achieving sustainability and reducing the disease burden. The introduction of environment-friendly buses, such as electric buses, will contribute towards a healthier environment. Such initiatives must be based on an efficient and reliable public transport service that aims to attract a larger share of users, including tourists.

The negative impacts caused by various transport sectors require to be weighed against the benefits derived from these sectors. For example, while Malta needs to safeguard the environment, it must ensure at the same time that it supports investment in the local air transport industry. It must be taken into account that Malta is an island state, located on the periphery of Europe, with economic activity that is highly dependent on imports, exports and tourism. Air transport is thus vital for the further economic development of Malta and for its integration within the European Union, and is also recognised by a number of important industrial sectors (such as electronics, pharmaceuticals and fisheries) as indispensable for their survival.

Land-use and transport planning need to be integrated to promote a sustainable transport system. This is especially so in Malta, where territory size is very small. An important requirement in this regard is that land-use activities be located in such a way as to reduce the need for travel or such that travel can be carried out by transport modes with reduced environmental impacts. Furthermore, bands of concentrated activities need to be established along main thoroughfares and at major nodes/interchanges which can be best served by good public transport links. A scheme for Green Travel Plans should be created and adopted by employers, schools and hospitals in order to reduce peak hour traffic congestion.

The over-dependence on private car use should be reduced by, among other things, improving the public transport system to render it more responsive to the needs of the public. In this regard, timetabling frequency, reliability and information through user-friendly maps, bus-tracking systems and timetables need to be improved. The introduction of night bus services, connecting the more popular night activity areas to the main population areas, would also be conducive to this end. Public transport could be rendered more attractive by rationalising the road network, by producing good urban design, and by introducing bus lanes and traffic lights that give priority to public transport modes. In the longer term, the country may consider developing a national form of fast inland transport that represents an attractive and cost-efficient alternative to private car use.

Incentives should be introduced to render more attractive the purchase of low-polluting cars, while disincentives should be put in place to discourage demand for cars that pollute more, such as old models. Road safety measures addressing issues of road design, user behaviour and motor vehicle technologies should be adopted in order to reduce the number of injuries and fatalities on the roads and in an attempt to improve the roadside environment for all users, including pedestrians and cyclists. With regard to road safety, it is important to reduce or altogether ban traffic of heavy vehicles from residential areas, and to introduce effective traffic calming measures to ensure that traffic is diverted from more sensitive areas. Economic instruments are also important in effectively implementing a transport policy. It is useful to refer to good practices in other EU Member States in order to improve the local transport sector and to introduce innovative methods of reducing traffic congestion.

The use of water transport services should be encouraged and initiatives should be taken to re-introduce ferry services, particularly within the Grand Harbour area. Moreover, the links between Malta and Gozo should be safeguarded. There should thus be full support for plans intended to enhance such links; at the same time, the characteristics of both islands should be maintained and any development that destroys these characteristics should not be encouraged.

Main strategic directions with regard to transport:

- Reduce car ownership rates to the EU average by 2014 and Regain the 1995 bus patronage levels (40 million passengers) by 2014.
- Upgrade public transport and promote its use.
- Devise methods to reduce over-dependence on private car use and the need to travel, and to encourage more use of public transport, and adopt a car restraint policy to restrict cars in town centres where the impact of traffic and congestion is greatest.
- Promote more efficient use of parking, introducing maximum parking standards for new developments, especially in employment areas.
- Enhance enforcement and use the latest technology and appropriate penalties to ensure that offenders do not hinder the strategy.
- Carry out a detailed study on commuting in Malta to establish critical routes and peak times of traffic and to develop alternative transport alternatives.
- Adopt a road safety strategy to decrease injuries and fatalities on the roads.
- Ensure that air transport development is sustained in such a manner that recognises its linkages to local economic and social development are recognised.
- In the longer term , consider the creation of a national form of fast inland transport that represents an attractive and cost-effective alternative to private car use.
- Integrate transport policy with other policy areas such as social issues, tourism, employment, health and environmental policies.
- Organise an educational campaign that informs citizens about the impact of unsustainable transport and about what can be done to promote transport sustainability.

3.1.10 Natural and Technological Risks

Apart from the long-term risks associated with climate change, such as the predicted rise in the sea level, there are other risks unrelated to climate change which could cause serious damage to the country. One of these relates to oil spills. Although no major oil spill has ever reached Malta's coastline, the Central Mediterranean is an area with relatively high maritime traffic and the associated risks of incidents are high. The area around Malta and the Sicilian Straits is one of the most oil-polluted regions in the Mediterranean, and this is mostly due to illegal discharges of bilge oil.

A major oil spill incident in Malta's territorial waters would have dramatic short- and medium-term repercussions on the Maltese economy. The potential negative impact which such an eventuality would have on the tourism industry clearly illustrates the urgency of this matter. The 2002 *State of the Environment Report* reviewed Malta's state of preparedness in case of such accidents. The major difficulties identified were institutional in nature, and were associated with a fragmentary and sectorial approach to responding to marine spill accidents, as well as to a lack of expertise. The full implementation of the National Marine Pollution Contingency Plan through a Cabinet decision or, better still, through an Act of Parliament, should be given priority.

Besides marine spills, other technological and natural risks to environmental quality and to quality of life are recognised. These include radioactive and non-radioactive radiation, fire and explosions, occupational hazards, flooding and others. Some of these risks could be more properly managed through improved public education and awareness. Others would require proper contingency planning and constant vigilance.

Another major natural hazard in Malta relates to flash floods. In the past, these have disrupted and damaged infrastructure and negatively affected the country's economy and environmental assets (both built and natural), resulting in hardship to the people living in the affected areas. Although action in this regard has already been taken in a number of areas, such as Qormi, and further

action is planned at Burmarrad, there is scope to explore the use of valley systems for flood relief and water storage within a context of ecological conservation.

One major and tangible improvement in Malta's state of preparedness against such risks was the setting up of the Civil Protection Department. In its relatively short history, this department has proved to be a reliable institution which is currently manned by a highly-motivated, well-trained and reasonably well equipped staff. There is a real need for constant upgrading of this department's facilities and for continued training of its staff. In addition, further efforts should be made to ensure that its operations in the event of incidents, emergencies and disasters fully complement the operations of the Armed Forces, the Malta Police and other relevant authorities.

Main strategic directions with regard to natural and technological risks:

- Explore the use of valley systems for flood relief and water storage within a context of ecological conservation.
- Promote awareness among policy-makers and all the parties concerned of the dramatic short and medium term repercussions on Malta's economy of a major oil spill incident in Malta's territorial waters.
- Ensure that the National Marine Pollution Contingency Plan is readily implementable at all times.
- Put in place further measures to ensure that the operations of the Civil Protection Department fully complement those of the Armed Forces, the Malta Police and the relevant environmental authorities.

3.1.11 Leisure and the Environment

For many people, the meaning of good environmental quality relates to cleanliness and aesthetics in their immediate surroundings and in the places where they enjoy their leisure, including beaches. Lack of maintenance and upkeep, dust and unsightly structures are obvious and visible factors which impinge negatively on the enjoyment of the environment. In this regard, the newly enacted regulations on littering are welcome and should be fully enforced.

Noise and light pollution are additional nuisances that reduce the level of enjoyment. In Malta, there are very few places where people can fully enjoy the natural environment without noise or light intrusion. Certain outdoor entertainment areas, such as beaches, can also lose their appeal if there is loud music and heavy traffic in the vicinity. Areas that are quiet (both in terms of noise and light) have health enhancement values attached to them which should be safeguarded. In this regard, the proposal of Dark Sky Heritage areas in the Gozo and Comino Local Plan should be applied to other areas of Malta and Gozo, including coastal areas.

In line with the Noise Directive, Malta needs to adopt a policy that safeguards existing low background environmental noise and to identify and reduce noise levels where they are excessive. Apart from drawing up 'strategic noise maps' for major roads, airport and agglomerations (these maps will be used to assess the number of people annoyed and sleep-disturbed respectively throughout Malta), an important measure will be the drawing up of action plans to reduce noise where necessary and to maintain environmental noise quality where it is good, and to develop a long-term noise control strategy.

Places that combine leisure with enjoyment of the natural environment can be a source of improved health and accessibility to such places should therefore be improved. Due to hunting and trapping practices and other issues connected to ownership, the enjoyment of the countryside is often seriously impaired with negative impacts also impinging on the tourism industry. It is therefore desirable that public footpaths be identified in the countryside and that false claims to land titles be checked. Paths that have been illegally closed to the public should be opened.

An integrated approach to landscape management, taking into account cultural, natural and ethnological aspects and making interpretative centres and amenities available to local residents and tourists, should be encouraged. The planned utilisation of the Rural Development Funds for this purpose, during the new EU programming period 2007-2013, is a step in the right direction. Furthermore, the Malta Tourism Authority has already launched a number of interpreted walking paths both in Malta and in Gozo, and an extension of this initiative should be encouraged.

Main strategic directions with regard to the enjoyment of the environment:

- Implement and fully enforce the new littering regulations.
- Draw up and implement a policy that addresses the issue of noise pollution within the context of the Noise Directive.
- Draw up and implement a policy that addresses the issue of light pollution.
- Draw up and implement a dust-control policy.
- Adopt a nationwide public footpath policy which delineates paths that the public can use.
- Take effective action against illegal and abusive practices that hinder the public's access to the countryside and encourage interpretation initiatives that increase public awareness and appreciation of the landscape.

3.2 Promoting Sustainable Economic Development

3.2.1 Malta's Main Economic Challenges

The end objective of economic activity is to promote improvement in the quality of life. This cannot be achieved without the creation of appropriate employment opportunities to generate a satisfactory level of income for the population. Actions towards this end should be carried out in the context of sustainability, which calls for a long-term view of development, taking into consideration environmental and social impacts.

The major long-term challenges that the Maltese economy is likely to face are the following:

1. Given that Malta depends heavily on exports of goods and services for job creation, and given that globalisation is leading to further exposure to international competition, there is a constant need to step up Malta's productivity to improve its competitiveness in terms of price and quality, and to develop new areas of competitive advantage.
2. Given Malta's fragile eco-systems and high population density, it is likely that environmental and social considerations will pose heightened challenges to economic activity.
3. The Maltese population is bound to age significantly over the next twenty years, with the number of persons of working age per pensioner dropping from just under four to slightly above two. This will create a heavy demand on resources allocated for social welfare, giving rise to increasing pressure on public finance.

All this calls for a stable and resilient macroeconomic set-up where the burdens of external and fiscal deficits are minimised. The situation also calls for increased investment in human capital, including promotion of entrepreneurial skills, enhanced knowledge and innovation efforts, and upgrades in the scientific infrastructure in order to step up innovation, research and development, and increasing participation of women in the labour market. Above all, it calls for improved efficiency in the public sector.

An important requisite in this regard is that wages and productivity be balanced and that market-oriented policies towards resource allocation, based on fair competition considerations, be promoted. Care should, however, be taken to ensure that increases in productivity do not occur at the expense of occupational health and safety.

Such policies would enhance export competitiveness and attract investment. It should be realised that economic strategies based on improving the country's productive efficiency could create win-win situations whereby the economy would be in a better position to improve competitiveness, generate increased real income per capita and, at the same time, reduce environmental impacts, since efficiency requires and gives rise to improved use of resources.

In certain areas of the economy, such as the tourism sector, the introduction of environmental management systems within the operational structure of enterprises should lead to an improved quality of service, together with improved profitability arising from sustainable reductions of operational costs. Incentives for the take-up of such initiatives, including the appropriate take-up of EU funds, should therefore be encouraged.

The social partners should be aware of the importance of these challenges and should agree, within the Malta Council for Economic and Social Development, on appropriate strategies to meet them.. Strategies that promote the efficient use of resources could be effective instruments towards the promotion of sustainable economic development.

Main strategic directions conducive towards economic sustainability:

- Adopt policy measures so that the growth of GDP per capita in real terms occurs at a rate which will enable the Maltese economy to converge towards the EU average.
- Create employment opportunities to generate income and improve the quality of life of the population, taking into consideration environmental and social impacts, and adopt policy measures so that the ratio of total employment to the working-age population in Malta converges with the EU average and reaches at least 57 per cent by 2010.
- Adopt policy measures to increase average labour productivity at a rate of 1 per cent per annum over the EU average by 2010, while attempting to balance wages and productivity, in collaboration with the social partners.
- Provide further training and retraining to improve the employability of unemployed persons, a large proportion of whom are unskilled.
- Increase investment in human capital, knowledge and innovation efforts, and in the scientific infrastructure in order to step up innovation, research and development, and promote the take-up of innovative measures within the entrepreneurial environment, particularly in terms of resource management systems.
- Align educational institutions and training programmes with sectors that are targeted by Malta for further development.
- Encourage economic diversification at sector level as well as at enterprise level to reduce the country's vulnerability on specific sector and/or few players.
- Improve efficiency in the public sector.
- Promote market-oriented policies towards resource allocation based on fair competition considerations, taking into account environmental concerns.
- Promote export competitiveness and investment attractiveness through appropriate policies supported by promotional campaigns.
- Consolidate public finances so as to achieve, in the medium term, a balanced budgetary position, net of one-offs and temporary measures, over the business cycle.

3.2.2 Promoting Sustainable Consumption and Production Patterns

Production and consumption are important economic activities, but they can have negative impacts on the environment. Such impacts may limit future production and consumption possibilities. Such activities therefore need to be sustainably carried out to ensure that they have a positive impact on human welfare in the long run. Sustainability of production and consumption can be promoted if such activities (i) do not unduly deplete non-renewable resources, (ii) use renewable resources sustainably, in a manner that allows enough time for regeneration, (iii) do not create toxic materials and pollution, (iv) do not generate waste, profligatory throw-away products, and in-built obsolescence, (v) do not give rise to undue balance of payments imbalances, and (vi) take into account the interests of future generations.

The first four requisites are mostly environmental concerns. In general, consumption and production should be eco-efficient by de-coupling them, as much as possible, from environmental damage through improved management, technology and utilisation of resources. This approach would be beneficial for producers and consumers alike, since it reduces the cost per unit and, at the same time, minimises the negative impacts on the environment.

In this regard, reference is made to the benefits that would accrue to society if it adopts the "Factor Four" concept which calls for a fourfold growth in resource productivity. Such a development would improve human welfare, with less stress on the natural environment. In this regard Government, as a main purchaser of goods and services, should lead the way in reviewing its procurement procedure so that sustainability is given due consideration in assessing tenders, in line with the EU Sustainable Development Strategy.

The fifth and sixth requisites are mostly economic and focus on the need to match our ability to produce with our desire to consume. From the external perspective, excessive consumption should be restrained so as to maintain the level of imports within the bounds of the economy's export capabilities.

Production of goods that could make use of alternative material or processes that reduce the impact on the environment should be subject to eco-contribution, in order to encourage the shift towards alternative production and consumption patterns.

From the intergenerational perspective, current consumption patterns should allow sufficient saving for investment to sustain the economic capital stock of future generations. This also refers to the stock of public debt left to future generations, which should be sustainable. Government's attempt to gradually reduce the debt to GDP ratio as from 2006 is therefore commendable.

In addition, given the population-ageing phenomenon, it is important to encourage sufficient saving so as to enable society to meet the future income requirements of the larger inactive section of the population.

Main strategic directions with regard to sustainable consumption and production patterns:

- Promote consumption and production patterns that economise on the use of non-renewable resources, minimise waste and pollution, and allow enough time for regeneration of renewable resources.
- Promote eco-efficiency and attempt to step up productivity in the use of resources.
- Maintain the level of imports within the bounds of the economy's export capabilities.
- Encourage sufficient saving for investment to sustain the economic capital stock of future generations.
- Widen eco-contribution on polluting products that could be substituted by other environment-friendly ones.
- Review the government procurement system in order to place emphasis on the sustainability aspect of products and services purchased by Government, and green 50 per cent of government expenditure by 2009.
- Promote registration to the EU Ecolabel scheme, the Eco Management and Audit Scheme (EMAS) or ISO 14001.
- Initiate a nationwide educational campaign targeting consumption sustainability.

3.2.3 Reliance on Market Forces and Fair Trading

Sustainable development calls for economic efficiency and social fairness in the use of natural, physical and human resources, so that inputs can be converted into outputs at the lowest possible economic, social and environmental cost.

In many instances, the market mechanism can be conducive towards this end. Reliance on market forces would also promote international competitiveness, something that is crucial for the further development of the Maltese economy, given that the economy depends heavily on exports of goods and services.

Contrary to what is commonly thought, international competitiveness is also called for with regard to domestically oriented production, since this competes with substitutes which could be imported. However, there are many instances where the market (a) needs to be guided, (b) has to be controlled, and (c) should not be relied upon.

The market is to be guided in the provision of merit goods, such as education and health, which should not be left to market forces alone, since these should be available to all members of society, irrespective of income. In such cases, free or subsidised distribution may be warranted to ensure that such services reach those who need them. A system of safety-net welfare support should also be in place. Such systems exist in Malta. Care should however be taken to avoid abuse in this regard

Given that sole reliance on market forces will not guarantee the provision of certain essential goods and services, such as affordable housing and medical care, government intervention may be called for in this regard. In addition, investment in human resources, as well as in related training and research activities, should not be left entirely to the workings of the market, in the light of the possible incidence of market failure.

Market regulation is needed to avoid abuse by suppliers, especially abuse arising from market domination and concerted practices. In such cases, unbridled market forces can lead to situations where private profit will work against social well-being. To avoid this pitfall, fair competition legislation must be put in place, as is the case in Malta, and must be suitably enforced. Such legislation can be complemented by a campaign fostering corporate social responsibility.

Market failure occurs in the case of public goods and services, such as many environmental services, where property rights are not well defined and where externalities are substantial. In such cases the market cannot be relied upon to allocate resources to their best use. Valuation techniques and economic instruments should be utilised in such instances, in order to, among other things, rationalise the use of resources and internalise external costs. Although these techniques and instruments are used in Malta, there is potential for their increased use.

In this regard, regulatory authorities have a major role to play in ensuring that public goods and services are provided efficiently to all members of society irrespective of income. While recognising the need for regulation in the case of market failure or natural monopolies, it is important to ensure that goods and services are provided efficiently and that any undue bureaucracy on the part of the regulators is eliminated, so that avenues for redress can be accessed as efficiently and as quickly as possible. In implementing the regulatory role, transparency, accountability, fairness, efficiency and customer care should be given the utmost importance.

Main strategic directions with regard to reliance on market forces and fair trading:

- Further promote international competitiveness by encouraging efficient use of resources through the operation of market mechanisms.
- Promote foreign direct investment by providing appropriate incentives, taking into account the EU state aid rules.
- In the case of merit goods such as education and health, take further steps to ensure that these are accessible to those who need them while, at the same time taking steps to control abuse.
- Further enforce fair competition legislation so as to control abuse arising from market domination and concerted practices, and undertake a campaign to enhance consumer awareness in this regard.
- When the market mechanism fails to operate, step up the use of economic instruments and valuation techniques in an attempt to internalise costs.
- Promote a culture of corporate social responsibility by major firms.
- Ensure that excessive bureaucracy is curtailed in regulatory activities so that avenues for redress are accessed as efficiently and as quickly as possible.

3.2.4 Promoting Innovation, Science and Technology

In today's globalised world, countries need to develop a knowledge-based economy and to build a capacity base of scientific research and development. These measures should be oriented towards innovation in order to enhance competitiveness and to acquire new knowledge regarding materials, products and processes, as well as services, conducive towards sustainable development. Malta's innovation potential is currently weak when compared to the other EU Member States. A significant number of Malta-based larger SMEs rely on their parent foreign companies for their design and product innovation. Innovation and research are an essential component in order to improve Malta's competitiveness. Maltese enterprises therefore need technical and financial support to develop innovation in their production.

Reference is made here to the concept of "ecological modernisation" which seeks structural change at the macro-economic level aimed at minimising the impact on the environment possibly through less reliance on resource-intensive industries and reorienting towards service- and knowledge-intensive industries.

This calls for measures aimed at improving the general framework conditions for research and innovation. Towards this end, the interactions between researchers, educational institutions and users of research output should be improved. In addition, the international links between researchers in Malta and those abroad should be strengthened so as to develop collaborative networks. Such links would also be conducive to creating the critical mass necessary to make research in Malta viable.

The setting up of an entity, possibly within Malta Enterprise or the Malta Council for Science and Technology (MCST), with the aim of providing stakeholders with technological and/or organisational innovation support when they need it, would be a step in the right direction. Such an entity would explicitly help Maltese industry exploit design to help create innovative products and services that people want to buy, as well as making manufacturing processes more efficient and therefore more competitive.

Local science and technology expertise and research should be utilised to the full, and applied research and development by local researchers should be better supported to produce specific solutions tailored to Malta's particular environment. A dedicated government funding line should focus on Environmental Science and Technology and applied R&D within the National Research Programme currently run by MCST. The research also needs to focus on indicators, monitoring and evaluation of progress in achieving sustainability targets. It is important that the local Science and Technology base and capacity is strengthened. Science and Technology has a critical role in the service of sustainable development, both in terms of supplying tools and solutions as well as generating new applications that can lead to improved quality of life and economic advantage.

Funding for innovation, scientific research and technological development is as crucial as investing in public health, education and well-being. Through innovation, science and technology, one is able to transform data and information into useful knowledge, and to subsequently enable effective, useful and cost-effective actions and solutions. The main targets of innovation, science and technology in sustainable development should be to ensure better use of scarce resources (natural and human) through integrated resource management and to conserve them for future generations, to exploit emerging economic opportunities opened up through Science and Technology and to develop sustainable development skills and related job opportunities.

Developing the national Science and Technology base is a necessary prerequisite for achieving sustainable development goals with a focus on cleaner, sustainable and more efficient technologies (such as renewable energy technologies, and energy efficiency of electrical and electronic equipment), and on making available tools for achieving sustainable development (such as

observation networks, knowledge networks and decision support systems). In addition, Science and Technology could enable the optimised use of natural resources (such as through recycling applications), the conservation and sustainable use of genetic resources for food and agriculture and improvements in agricultural production in a safe and sustainable manner, by providing technological solutions to improve yields without increasing costs on the environment and public health.

Ongoing research is important to enhance available information with respect to the environment. The benefits, however, can accrue to other sectors. An important thrust in innovation policy should be to seek to match existing indigenous capacity and knowledge with modern Science and Technology to bring about improvements in (i) agriculture and fisheries (targeting greater productivity), (ii) industry (such as by lowering greenhouse gas emissions, making operations more effective), (iii) housing (mainly by improving practices for household energy efficiency), (iv) infrastructure (by providing alternative energy technology solutions), and (v) communications (by promoting knowledge networks and especially through the use of our IT resources in activities targeting the addition of value to knowledge in the preparation of innovative applications and the supply of more efficient services).

All this requires training of human resources and upgrading of skills. There is a lack of graduates in science and technology areas. Moreover, women need to be encouraged to take up studies in these areas since they still constitute a low percentage of graduates in science and technology-related subjects. In order to encourage more students to take up such studies, it is important to raise public awareness of the importance of science and technology, and to foster effective local community participation in order to avoid the domination of the growth process in the country by outside technology and know-how. There is also the need for greater involvement of SMEs in this regard.

The *National Strategic Plan for Research and Innovation 2007-2010*, endorsed by Cabinet, is a major step forward in setting a vision and enabling frameworks for building and sustaining research and innovation in Malta. Government financing and State intervention over the period of this Strategy will focus on four strategic areas: (a) environment and energy resources, (b) ICT, (c) value-added manufacturing and services, and (d) health and biotechnology.

Main strategic directions associated with innovation, science and technology:

- Improve capacity in government departments and entities by assigning a percentage of the budget of such entities to research and innovation.
- Encourage transparent mechanisms in public procurement to encourage and reward research and innovation.
- Encourage business to involve itself and to foster innovation.
- Improve the dynamics and interactions between researchers, educational institutions and the users of research output.
- Improve the legal and economic framework for the development of Venture Capital and Public-Private Partnerships, and set up and sustain a National Research Programme as exists in other EU Member States.
- Maximise use of EU funding for research and development, and promote and fund research to help industry develop innovative products and processes.
- Phase in an increase in Malta's Government Expenditure on Research and Development to reach 0.75 per cent of GDP by 2010.
- Strengthen the local Science and Technology base and related capacity through the development of a specific government funding line focused on Environmental Science and Technology and applied Research and Development within the National Research Programme currently run by MCST.

3.2.5 Sustainable Agriculture, Rural Development and Fishing

Maltese agriculture is characterised by small fragmented holdings and by low and irregular rainfall. The recent opening of the domestic market to increased international competition is likely to render certain types of agricultural products less profitable. A high population density with associated land scarcity has also led to a high opportunity cost of farmland. These negative factors, compounded by climate change, could give rise to abandonment of agricultural land, which would then lead to increased soil erosion, with consequent land degradation and undesirable changes in the landscape. Safeguarding agriculture is therefore crucial.

The farming community has always constituted an important component of Malta's social structure, contributing to the maintenance and enhancement of Malta's rural environment and landscape and, indirectly, to Malta's tourism industry. The provision of a holistic national water conservation programme is essential so as to assure the long-term sustainability of the sector.

In recent decades, the agricultural sector has experienced a continuous decline in its share of GDP as well as in employment generation, mainly due to an increase in the manufacturing and tourism sectors. Given inherent constraints associated with small holding size and fragmentation, complete reliance on the market mechanism is not likely to stall or reverse this trend. Towards this end, the Maltese Government has adopted a Rural Development Programme plus a Special Market Policy Programme for Maltese Agriculture to specifically support the rural sector for a specific time period. These programmes allow farmers, as providers of environmental public goods, to apply for financial assistance.

Conditional to assistance, however, is the observation of a number of environmentally orientated EU directives, particularly the Nitrates Directive and the Water Framework Directive. Besides conforming with environmentally beneficial approaches, conservation of Malta's rurality can also provide fresh food to the local population, as well as retaining an aesthetically pleasing landscape that is, for all intents and purposes, the remaining green lung of the country and which also complements tourism. Initiatives in agro-tourism, as well as the development of authentic local products, should be encouraged.

However, a monitoring system needs to be in place to assess the extent of pesticide drift in valleys, protected sites and areas of intensive agriculture. This is necessary both for reasons of health risks and in establishing the basis for the encouragement of organic farming.

Without farmers' intervention, the provision of public goods – in particular the range of environmental and cultural goods such as biodiversity, the preservation of the rural heritage and areas of high landscape value – and the externalities arising from farming activities will not be realised. Farmers' intervention also has the added benefit of keeping in check a number of undesirable effects associated with farmland abandonment, particularly soil erosion and dilapidated rubble walls. The abandonment of cultivated areas may also lead to further intrusion by building development on Malta's ever-decreasing agricultural area. Land under agricultural use has diminished to about one-third of the islands' total land area, and agriculture and its associated benefits command its continued existence.

Fishing in Malta is seasonal, since the main commercial species are migratory. Although Malta is surrounded by the sea, fisheries generate only limited income and employment, a situation which exacerbated by the dwindling catches in the Central Mediterranean. As a result, the share of GDP contributed by this sector has remained small. Fishing vessels tend to be small and multipurpose. In recent years, there has been a rapid development in aquaculture fish production, most of which is exported.

Malta has negotiated an arrangement with the EU that allows management of a 25-mile fisheries zone around the coast for conservation purposes. The aim is to promote sustainable fishing within this zone. Consequently, only vessels below 12 metres in length are allowed to fish in this zone, thus limiting fishing activities to small-scale coastal fishing which does the least harm to the natural environment. In addition, the number of fishing permits is limited and will not exceed current numbers.

Aquaculture operations need to be better managed in order to mitigate their negative environmental effects. A clear policy is required that regulates tuna farming from the aspect of the sustainability of this fishing stock.

The arguments in favour of government intervention applicable to agriculture also apply to fisheries, since this sector also provides public goods which contribute to the culture of the Maltese Islands and which could serve as tourist attractions.

In order to bring about the changes required in the agricultural and fisheries sectors, the provision of education to the operators is important.

Main strategic directions with regard to the agriculture and fisheries sectors:

- Encourage farmers and fishermen to, as far as possible, achieve financial viability of their enterprises, through improved competitiveness using environmentally sustainable methods.
- Remunerate farmers and fishermen, through correlated EU measures, to compensate for their multifunctional roles, particularly the supply of environmental public goods.
- Assist farmers and fishermen to upgrade and modernise their technology and equipment in an environment where resource sustainability, particularly the provision of water, is assured.
- Implement a monitoring system to assess the extent of pesticide drift in valleys, protected sites and areas of intensive agriculture. This is necessary both for reasons of health risks as well as for establishing the basis for encouraging organic farming.
- Encourage initiatives in agro-tourism and promote the development of authentic local products.

3.2.6 Curbing the Damage of Construction and Quarrying

Contrary to popular opinion, construction and quarrying are relatively small sectors in the Maltese economy, directly contributing only about 5 per cent to GDP. These industries however have considerable inter-industry linkages and therefore generate income and employment in other sectors of the economy.

The major problem with construction and quarrying is that these activities are associated with environmental damage and undesirable practices. They tend to produce a large amount of inert waste and create noise pollution. They also generate a large quantity of dust which has negative aesthetic, environmental and health impacts. Most contractors do not clean their building sites on a regular basis, and tend to leave building material strewn all over the site and in the immediate surroundings, thus creating a shabby environment and destabilising whole neighbourhoods. In some cases, developers, contractors and private owners leave construction sites partly finished for an unduly long time. To make matters worse, some contractors often disregard building and traffic regulations. Some quarry owners even operate without the necessary permits.

Construction activity needs to be closely monitored in order to mitigate such negative environmental impacts. Moreover, incentives should be provided for initiatives which seek to re-use lower quality stone or stone which has become part of the waste stream. There is a dire need of

enhanced enforcement in order to reduce the destabilising effects on the neighbourhood caused by construction activities by, amongst other things, requiring developers to clean up and remove loose stones from the vicinity of building sites (on a daily basis and not merely after the building is completed), to place safe and aesthetically acceptable hoardings around buildings under construction, to control the noise emitted from construction machinery and to reduce dust emissions. Improved construction site management regulations are urgently required.

The restoration of quarries is to be encouraged and incentives should be provided. The practice of rehabilitating disused quarries by using them for disposal of inert waste is expected to drastically reduce the negative visual impacts of extractive works on the environment. Studies on alternative extractive techniques to replace traditional ones are currently being carried out with a view to minimising negative environmental impacts, while making available for extraction a considerable volume of minerals that is currently inaccessible by traditional quarrying methods.

Enforcement is also necessary to ensure the use of well maintained construction vehicles with appropriate and secure cover of building materials, and driven by suitably trained personnel.

Education and training for persons involved in this industry should contribute to the development of improved work and safety practices as well as to foster an understanding of the negative environmental, aesthetic and health impacts of these industries.

Main strategic directions with regard to the construction industry:

- Enhance enforcement and monitoring to reduce the destabilising effects on society of construction and quarrying activities.
- Impose short deadlines for finishing buildings so as not to leave structures in 'shell form' for more than a specified number of months.
- Provide incentives for quarry owners to encourage them to bind themselves to implement a restoration plan for the quarry they operate.
- Conserve mineral resources by minimising waste and promoting the reduction and re-use of building material and the proper disposal of building waste in approved sites.
- Provide incentives for the use of lower quality stone and the re-use of stone which has become part of the waste stream.
- Implement regulations on the economic operations of quarries to ensure acceptable environmental impacts, conservation of the resource, safety standards and fair competition in the sector.
- Promote education and training for the persons working in the construction and quarrying sector, to promote improved work and safety practices as well as to foster an understanding of the negative environmental, aesthetic and health impacts of these industries.

3.2.7 Sustainable Manufacturing

In recent years, manufacturing has contributed about 20 per cent to GDP, and has generated considerable income, employment and foreign exchange. Both the export-oriented and the domestically-oriented segments of the industry face intense competition from abroad. An ever-present problem associated with the manufacturing sector is that some establishments within it cause environmental damage, mostly due to inefficient material handling, limited use of cleaner technologies and production methods that give rise to polluting emissions and discharges. Such cases need to be addressed.

On a broader front, it is important to encourage energy-efficiency and industrial waste minimisation, in line with the draft Environmental Technologies Action Plan. It is also crucial to

promote a culture of innovation and R&D in this sector. Various steps have already been taken in this regard, including the establishment of the Malta Council for Science and Technology, Malta Enterprise, the Innovation Relay Centre, the Malta Standards Authority, the Cleaner Technology Centre, the Business Incubation Centre and the launching of a Technology Venture Fund. However, other measures need to be taken so as to ensure that products manufactured in Malta, whether designed locally (currently only a fraction of products) or elsewhere, compete effectively in European and world markets not solely on the basis not only of price, but also of quality and eco-friendliness. It is, however, important that concrete actions be taken to enhance Malta's manufacturing industry by developing a holistic strategy of product development activities, technologies and methodologies.

A skilled labour force is an important requisite for competitiveness. Training and re-training of employees and prospective employees should be undertaken both by private industry and also directly by, or with assistance from, Government. Competitiveness also needs to be addressed at the technical level and a suitable structure needs to be set up to address this issue. A Competitiveness Council, with representatives from the private and public sector reporting to the Malta Council for Economic and Social Development (MCESD), would be a useful structure.

The development of clustering potential between local enterprise and foreign direct investors across the value chain should be actively explored. The subsequent stage would be to devise measures that develop synergies between clusters in order to increase the competitiveness of the country, particularly by improving factor condition and access to appropriate markets.

Government can provide incentives and advice to assist the manufacturing industry in energy and water efficiency, as well as to actively engage in research and development of innovation in both products and processes. In all this, efforts should be made to focus on key sectors which maximise the use of Malta's core competences and which have an attractive long-term market.

The main strategic directions for the manufacturing sector:

- Take further measures to enhance competitiveness in the manufacturing sector, and develop a competitiveness strategy in this regard.
- Focus efforts on key sectors which maximise the use of Malta's core competences and which have an attractive long-term market.
- Encourage participation in the EU Eco-labelling scheme to ensure that products meet the requirements and standards set by the scheme.
- Further promote the usage of environmental management and audit systems such as the EU Eco-Management and Audit Scheme (EMAS) or ISO 14001.
- Enhance existing training schemes and set up new ones to help industry develop and update its expertise on methodologies and technologies relevant to sustainable development, including design and cleaner production technology.
- Set up a technical competitiveness council, comprised of members from the public and private sectors, reporting directly to the MCESD.
- Devise measures aimed at developing clustering potential between local enterprise and foreign direct investors across the value chain.
- Devise measures that develop synergies between clusters to increase competitiveness.
- Provide advice and incentives to assist the manufacturing industry in energy conservation, water recycling and active engagement in research and development of innovation in both products and processes.
- In line with the 6th EU Environment Action Programme, introduce an Integrated Product Policy approach to promote the greening of products and processes through the promotion of intelligent product design that reduces environmental impacts of products from their conception to the end of their useful life.
- Promote the use of ICT as an enabling technology to improve manufacturing businesses through process planning, decision support systems and collaborative design.

3.2.8 Promoting Sustainable Tourism

Tourism is one of the most important economic activities in Malta. In recent years it has directly contributed about 15 per cent to GDP, with relatively high inter-industry linkages and multiplier effects. It also generates considerable foreign exchange inflows and provides employment for about 8 per cent of the gainfully occupied population within the accommodation and catering sectors alone, with many more in occupations associated with tourism.

The relatively large inflow of tourists, amounting to about 8 per cent of resident population equivalent, coupled with the high population density and fragile eco-systems, exerts major pressure on the physical environment and the cultural heritage. Some of the negative effects of tourism relate to overcrowding of beaches and places of cultural interest, demand for land for accommodation and recreational facilities (especially mostly in coastal areas), traffic congestion, production of solid and liquid waste, and demand for scarce resources such as water.

The Ministry for Tourism and Culture will shortly publish a Tourism Policy for the Maltese Islands. This policy will reflect the renewed EU Tourism Policy which aims at improving the competitiveness of the European tourism industry and creating more and better jobs through the sustainable growth of tourism in Europe. Malta's Tourism Policy will also highlight the challenge of growth and jobs as per the Lisbon Strategy. The Ministry is also working on a National Tourism Plan. This Plan will include a number of milestones that must be implemented by different stakeholders in order to reach the objectives set out in the tourism policy.

The Malta Tourism Authority is developing its strategic plan, which takes into account the Tourism Policy for the Maltese Islands and the National Tourism Plan. The MTA strategic plan is based on the concept of sustainability, ensuring that tourism development respects the limitations posed by environmental, socio-cultural and economic constraints. For this reason, tourism promotion cannot focus on volumes of tourist departures at the expense of the tourism product itself, but must focus rather on sustaining and enhancing the value of tourism for the economy. Recognising the tourism/population carrying capacity set by the natural constraints of an island economy with a high population density and no natural resources, local tourism policy should focus on sustaining the industry within the boundaries of such constraints. The policy should address issues such as tourism seasonality, increasing value added per tourist night, niche marketing and promotion of special interest groups, and the further promotion of local content in the tourism product.

Marketing Malta as an eco-tourism, agri-tourism, health tourism and religious tourism venue could also reduce the seasonality problems, through lowering the impact by spreading tourist inflow over different seasons. Other forms of low-impact tourism should be encouraged in view of the limitations of Malta's carrying capacity as a small island. To this effect and with the aim of further reducing seasonality, the Malta Tourism Authority has identified the following seven marketing segments for particular attention, namely: meetings, incentives, conferences and events business (MICE), tour-operating business, sports, Gozo-based holidays, history and culture, and English language learning.

The main tourist areas have also been identified. The Malta Tourism Authority will ensure that these tourist zones meet tourists' needs according to the segments mentioned above. An increase in tourism in the shoulder months would reduce pressure on the infrastructure during the summer months in terms of energy consumed, roads, traffic, visits to cultural sites and the rural areas.

Development in the tourism industry should be in line with the characteristics of Malta as an island state. In this regard, it is important to bear in mind that any proposals for tourism development should respect the character of the Maltese Islands.

Tourism operators must be made aware of possible negative effects emanating from the industry. Incentives should be provided to encourage tourism operators to adopt a greener approach in their daily operations. New tourism developments that create excessive pressure on the environment should be avoided.

Ongoing research is required to establish what resources are used, what environmental resources are expended and how much local content is incorporated in different tourism products and services. This knowledge would help the local tourism policy makers identify which tourism activities are more sustainable in the local economy.

Domestic tourism, particularly between Malta and Gozo, generates income and employment and should therefore be actively supported.

Local Councils in localities within which major tourism infrastructure is situated and which are heavily visited by tourists are currently assisted primarily in kind, and mostly through major infrastructural works and assignment of workers. Local Councils should take an active role in applying for EU funding for the development of particular projects such as training for the local community, projects related to urban development and town-twinning initiatives. Funding opportunities range from the EU Structural Funds to other direct funding programmes such as URBAN, LEADER, Interreg and LIFE.

Main strategic directions for tourism:

- Improve the contribution of tourism to the economy by devising schemes to increase per capita expenditure on local content by incoming tourists.
- Channel investment towards resource-efficient segments and to less resource-costly areas (environmentally, economically and socially) areas so as to ensure optimal use of resources.
- Improve the quality of service offered to tourists and, in general, upgrade Malta's tourism product, thereby delivering value and customer satisfaction.
- Stabilise summer inflow of tourists below saturation levels and try to redirect any surplus inflows to off-peak periods.
- Implement programmes to exploit Malta's unique cultural tourist attractions.
- Improve facilities relating to domestic tourism.
- Local Councils should take an active role in applying for EU funding for the development of particular projects.

3.2.9 Linking Infrastructural Needs to Sustainable Development

The physical infrastructure, mainly that related to transport, water, telecommunications and energy, is a necessary prerequisite for economic development. Infrastructural services should be provided efficiently, with minimal negative impacts on the environment, and should be conducive to sustainable production and consumption.

Given Malta's limited land area and its high population density, it is important to limit the environmental footprint of infrastructural developments and to avoid duplication whenever possible. In this regard, guidance should be offered to contractors when works are to be carried out in sensitive areas, and mitigation measures that have been agreed upon when permits are issued should be strictly adhered to.

In addition, appropriate measures should be taken to ensure that infrastructural developments are in line with adaptation strategies and plans with regard to the possible effects of climate change, including sea level rise.

Main strategic directions with regard to the physical infrastructure:

- Whenever possible, base physical infrastructure development on qualitative improvements rather than on physical expansion, so as not to put more pressure on the environment.
- Take advantage of the existing infrastructure rather than duplicate it; if new infrastructure is needed, attention should be given to structures that deliver cross-cutting benefits.
- Organise guidance schemes for developers and contractors when infrastructural works are to be carried out in sensitive areas
- Take steps to enforce mitigation measures associated with the permits.
- Take appropriate measures to ensure that infrastructural developments are in line with adaptation strategies and plans with regard to the possible effects of climate change, including sea level rise.

3.3 Fostering Sustainable Communities

Social sustainability is a concept which is based on a number of cross-cutting issues that involve various categories of persons, including those who, for whatever reason, are considered to be at risk of poverty and social exclusion. The complexity of the matter calls for an integrated multi-policy approach that traverses social protection, health, and education issues. For this reason, Malta's *National Action Plan on Social Inclusion* adopts an integrated approach with the primary aim of enhancing the socio-economic and well-being prospects of disadvantaged and vulnerable people. In this document, however, social cohesion, public health and education are being presented and discussed separately for exposition purposes only.

3.3.1 Promoting Social Cohesion

Social sustainability requires intragenerational and intergenerational equity, which in turn calls for the identification and acknowledgement of the differences that exist between individuals, social groups and generations. Such differences need to be addressed through policies and actions aimed at reducing the various forms of poverty and social inequality with a view to enhancing the social inclusion of the most disadvantaged and vulnerable persons, notably children, women, unemployed persons, older people and persons with a disability.

Social sustainability also requires human development and empowerment with social protection, health and education playing a central role in improving human capacities. It also calls for social integration and cohesion, involving social support, safety and mutual understanding, and the development of networks and social norms that facilitate and promote the effective functioning of society.

In Malta, income is fairly evenly distributed among the population and regional differences in employment rates are not marked. However, pockets of multiple disadvantages do exist. Around 15 per cent of the total population, more or less equally distributed between males and females, are considered to be living at risk of poverty since their income is below 60 per cent of the national equivalised income median. The households that are at the highest risk of falling below the poverty threshold are those composed of a single parent with at least one dependent child (see *Structural Indicators for Poverty and Social Exclusion* (2002), and *Census of Population and Housing*, 1995 both published by NSO).

Malta's policy and efforts towards reducing poverty and social exclusion follow the European Union's strategy on Social Inclusion. The focal points are:

- Facilitating participation in employment;
- Promoting access to resources, rights, services and goods;

- Preventing the risk of exclusion;
- Helping the most vulnerable; and
- Mobilisation of actors.

There are various issues that impinge on social cohesion in Malta. Among the most important are those relating to (a) older persons, (b) gender equality (c) immigration, (d) affordable housing and (e) the role of employee unions.

Older persons

In the interest of social sustainability, the 60+ cohorts that constitute a significant proportion of the Maltese population should be accorded due consideration. The national policy framework needs to face up to the challenges posed by an ageing population where a longer life expectancy, coupled with declining birth rates, is likely to continue increasing the number and proportion of persons attaining retirement age and living well beyond.

Notwithstanding their age, older persons can make an important contribution to society and should therefore have their skills and competencies acknowledged as a national resource. They should be given the opportunity to choose between working beyond the statutory retirement age or otherwise. Many older people already provide a very valuable contribution to society, mostly within the family setting where grandparents act as carers for their young grandchildren while the parents go out to work. Many older persons are active within voluntary organisations and thus still contribute to society through their experience and skills. These valuable contributions contrast with the perception that older persons are mere consumers of national resources such as social security pensions and health services.

Old people's health care as well as their income security need to be safeguarded in order to ensure that they remain active and socially integrated for as long as possible. Access to quality health care services together with an adequate and sustainable pension system which guarantees that the income of pensioners does not fall below the poverty line are important and essential provisions for ensuring that older people live in dignity as physically, socially and economically independent and integrated citizens.

Gender equality

Another major issue related to social sustainability is gender equality. Together with other European countries, Malta is adopting a number of strategies including gender mainstreaming in social protection and social inclusion and gender equality in employment to promote stable and quality employment for all women and men who are capable of working. Policies are being developed to promote reconciliation of work and family life, including a wider provision of care facilities for children and other dependent persons. Notwithstanding the efforts being made by Malta in this area, promoting equality between men and women is not an easy task as this ultimately requires a culture shift coupled with practical and innovative approaches. The Equality for Men and Women Act (2003) has provided the legal framework to eliminate discrimination on the basis of gender in a number of areas including employment, education and vocational guidance, discriminatory advertising for employment and sexual harassment at the workplace. The role of the National Commission for the Promotion of Equality is to work towards the elimination of discrimination between men and women and to take measures to promote equality in all areas.

Flexible working arrangements are required to help men and women achieve a healthy work-life balance. Such family-friendly measures as paid parental leave and optional reduced hours contribute towards the achievement of such a balance. Science and technology can facilitate the introduction and adoption of such family-friendly work methods as flexi-time and teleworking. At a time when Malta is trying to increase female labour force participation, the availability of affordable

and accessible day care centres should encourage more women to seek and take up gainful employment.

Immigration

Another issue that concerns social sustainability is the influx of irregular immigrants that Malta has witnessed over the past few years. The relatively large number of irregular immigrants reaching Malta in open boats from neighbouring African shores is creating logistic, economic and social problems, particularly because of the country's small land-size and high population density. This situation may at times give rise to apprehension that could ultimately undermine the country's efforts and initiatives to integrate those immigrants who are granted refugee or humanitarian protection status, thus becoming eligible to remain in Malta.

Migration can be a positive phenomenon if it satisfies the aspirations of the migrant and responds to the needs and expectations of the host society. Successful integration thus requires educational and cultural programmes that can help immigrants and their host society understand the social and cultural differences that exist between them and that can bring about greater reciprocal acceptance. Language programmes, insight into the culture and traditions of the host society, and information about rights and obligations are all initiatives that can facilitate the effective integration of immigrants. Furthermore, migrants who are legally resident in Malta can be better integrated if they are offered work opportunities. By taking up legal employment, migrants would not only be enhancing their prospects for socio-economic integration but would also be contributing to the host country's economy. Maltese society therefore ultimately stands to benefit economically, socially and culturally through the effective integration of migrants into its labour force.

Affordable housing

An economic issue which could impinge on social cohesion relates to property prices and how these relate to wage rates. The ever-increasing discrepancy between average income and property prices is making it difficult for low-income persons and young couples to buy a residence with a view to settling down and setting up a family. The situation is exacerbated by the shortage of low rent property on the private property market.

In order to increase the availability of affordable housing, it is important to continue implementing current plans to construct new residential units for sale at a subsidised rate or for rent to those in need of decent and affordable housing. The construction of more sheltered housing units for elderly and disabled persons should also be implemented and the policy of renting out blocks of flats from the private sector and allocating them for social housing purposes be further developed. Other appropriate policies in this regard relate to the promotion of shared ownership schemes whereby those who cannot afford the full acquisition of their residence are given the opportunity for its part-ownership. Improvement in the management of government-owned residential units could also be conducive to a more equitable relocation among those in need of social housing. Schemes for the renovation of substandard vacant housing should also be strengthened.

The role of employee unions

Although trade unions are mainly economic agents, they have an important role to play in fostering social sustainability. They can create divisions between social classes. Conversely, they can promote social cohesion. Along with other social partners, unions can help reduce poverty, promote social partnership in economic managements and foster gender equality. With regard to gender equality unions could, for instance, take a leading role by, among other things, appointing a gender focal point within their organisations with the role of overseeing gender issues in union negotiations with employers and challenging negative and stereotypical attitudes and assumptions regarding equal opportunities for women and men. Unions can also undertake research to identify

best practices for women-friendly employment. In acknowledging, supporting and encouraging employee unions' valid contribution towards the promotion of social cohesion, Malta would be endorsing its commitment to mobilise all actors with a view to reducing the risk of poverty and enhancing social inclusion.

Main strategic directions with regard to social cohesion:

- Reduce the various forms of poverty and social inequality with a view to enhancing the social inclusion of the most disadvantaged and vulnerable persons.
- Reduce, or at least contain, the current level of 15 per cent of the population at risk of poverty and decrease the ratio of population aged over 65 at risk of poverty from 20 per cent to 15 per cent, by 2010.
- Recognise older persons as a resource and promote their socio-economic participation and inclusion through adequate and sustainable pensions and access to quality health services.
- Sustain current schemes and introduce innovative ones to facilitate and encourage greater participation by women in the labour market, with the aim of increasing such participation to 40.7 per cent by 2010.
- Acknowledge the benefits that can be secured through the effective management of immigration, and implement integration programmes that facilitate the inclusion of immigrants while taking into consideration the constraints posed by Malta's land-size and population density.
- Increase the availability of affordable housing.
- Mobilise all actors, including trade unions, with a view to promoting social cohesion.

3.3.2 Strengthening Public Health

Public health care is a major requisite for the promotion of a good quality of life. It is therefore important to ensure a social and physical environment which improves, promotes and protects public health. The development of an updated national public health policy to build on the existing *Health Vision 2000* published in 1995 is therefore desirable. It is widely recognised that good health depends also on a multitude of factors outside the health care sector, and conducting Health Impact Assessments (HIAs) is an effective means to ensure that health is taken into consideration when designing and executing policies in other areas. A National Environmental Health Action Plan to include child-specific actions is currently being finalised in consultation with the various stakeholders.

The Maltese population currently exhibits a relatively high health status. In a national health interview survey conducted in 2002, a relatively high proportion of respondents (73 per cent) stated they were in good or very good health. Life expectancy at birth in 2003 was 80.43 years for women and 76.39 years for men.

However, statistics show that circulatory disease is the leading cause of death, accounting for 44 per cent of all deaths. Cancers currently account for 24 per cent of deaths, with lung cancer being the commonest form for men (7.6 per cent of all deaths) and breast cancer as the commonest form for women (4.4 per cent of all deaths). The reported prevalence of smoking was 30 per cent in men and 17.6 per cent in women. It is for this reason that Malta was the second European country to ban smoking in all public places.

Obesity is a serious problem in Malta, with a very low proportion of the population having a self-reported normal BMI (32 per cent of men, 45 per cent of women). This will be the main public health target for action in the coming years. The strategy to combat obesity, thereby reducing diabetes and heart disease, will focus on promoting healthy eating lifestyles as well as on

encouraging exercise. In this regard, appropriate planning to promote cultivation and consumption of healthy foods and to provide facilities for exercise is required.

Mental health is another important issue in this regard. It is important that action be taken to promote safer and healthier stress-free environments as part of the overall strategy towards promoting mental health. This will also be done in conjunction with workplaces and schools.

The health care sector consists of the public health care and the private health care systems. The statutory system is publicly financed through taxation and is free at the point of use, offering a highly comprehensive basket of services to all the population. Private health care is funded by voluntary health insurance and out-of-pocket payment. However, both public and private services are costly and are becoming increasingly so. This is compounded by the fact that the Maltese population is an ageing one.

The public's greater expectations with regard to health services are placing heavy demands on public finance, resulting in a public health sector that is continuously experiencing funding shortfalls. In common with any health system, it is becoming increasingly difficult for Government to supply the necessary resources to match spiralling demands and costs, this notwithstanding the fact that between 1993 and 2002, recurrent expenditure for health and long-term care in the public sector increased by 71 per cent. These challenges are not unique to Malta and are being faced ubiquitously across Europe.

The main challenges include:

- increased demand for health services as a result of the ageing population, resulting in over-crowding of hospital facilities;
- increased demand for long-term care by the elderly population, resulting in waiting lists for access to long-term facilities;
- increased demand for high-tech surgical procedures, especially by elderly persons with degenerative conditions such as osteo-arthritis and cataracts, resulting in long waiting lists for these elective procedures;
- increased costs of medicines and medical devices;
- staffing shortages that may be accentuated as demand for services continues to increase and finances are limited; and
- re-orienting priorities towards strengthening primary and community service in order to further develop preventive care.

Malta's accession to the European Union has given health professionals easier access to the health care market overseas. It has also bestowed certain rights on patients. This scenario continues to place further pressure on the financing and human resourcing of the health care sector. Furthermore, it should be recognised that the difficulties being faced now are set to increase as a result of the changing demographic situation over the coming two decades.

In order to better address these challenges an open policy dialogue involving all key stakeholders in determining priorities for public health is being established. Good industrial relations are necessary for the promotion of sustainable development with shared commitment from all partners.

Community services should be further developed in order to allow patients, especially older people, to be integrated into their community as soon as and whenever possible. The concept of active ageing should be promoted as it is beneficial both for the elderly person as well as for the strengthening of economic social being.

Main strategic directions with regard to health:

- Involve all stakeholders, including health care workers and patients, in health care policy development.
- Finalise an updated National Environmental Health Action Plan.
- Take steps to ensure sustainability of the public health services by introducing changes to the mechanism of health care funding in order to render it sufficient and sustainable.
- Introduce higher efficiency gains coupled with accountability and transparency, for public resource utilisation in the health services.
- Enhance social inclusion by improving access to rights and services by persons with mental health problems.
- Tackle the problem of obesity by enhancing the focus on healthy eating and exercise.
- Support the development of preventive activities in relation to diabetes, circulatory diseases and cancer.
- Continue to develop community services, particularly for elderly persons, so as to keep them healthy, active and socially integrated for as long as possible.
- Provide further support for NGOs and Self-help Groups to become important stakeholders in health care schemes, including community nursing services and palliative care.

3.3.3 Education for Sustainable Development

Education is central to the issue of sustainability. Sustainable development requires that values, skills and competencies be enhanced through better education so that people are empowered to participate in the various decision-making processes that ultimately affect their quality of life and the prospects of future generations. Education for sustainable development involves awareness-raising to generate an appreciation of values conducive to a more sustainable lifestyle, which will ultimately result in a commitment to action. According to UNESCO, the objective of such education is "the promotion of values and ethics through education at different levels in order to make an impact on people's lifestyles and behaviour and help to build a sustainable future."

In Malta, the education landscape is currently under reform so as to ensure quality education for all. The reform document published by the Ministry of Education in 2005, entitled *For All Children to Succeed*, addresses the issues of the governance of the education system and of the autonomy and decentralisation of State schools. State schools are being networked to form Colleges, driven by collaborative and competitive commitment which can play a vital role in securing better education systems and schools. In accordance with Government's declared programme, the Education Division will be restructured into two distinct yet complementary juridical entities: a regulatory body and a service provider. The shift from centralisation to decentralisation necessitates that schools network together. This will empower schools further in that they will be able to take decisions that suit the needs of their students. Schools will become more autonomous, operating within a stipulated, agreed framework which also ensures accountability. The thrust of the reform is to involve schools in initiatives towards developing a culture of decision-making, shifting the focus away from solely transmitting information to facilitating participatory learning.

Two important educational challenges in Malta relate to early school leaving and illiteracy rates. It is important to give priority attention to these problems.

Basic literacy skills on their own, however, will not promote sustainable societies. Basic literacy programmes need to be complemented by acquisition of skills, values and perspectives that encourage and support public participation and decision making. In fact, Government has invested heavily not only in school programmes but also in the setting up of programmes that target particular groups and/or specific literacy difficulties.

Education for sustainable development is a lifelong process starting from early childhood, progressing to higher and adult education, and eventually going beyond formal education. While Malta already has a high participation rate of children attending kindergarten, child care services for children aged between 0 and 3 years are steadily growing, mainly in relation to the increase in female labour force participation. The need for a policy framework in the area of early childhood education and care is strongly acknowledged and in 2006, the Ministry of Education will be publishing a policy document in this regard. It is also crucial that each and every child attends school and is given the educational entitlement that can provide him/her with opportunities for development, growth and success. Early school leaving needs to be avoided at all costs. The document "School Attendance Improvement" (Ministry of Education, Youth and Employment, 2005) specifically addressed absenteeism and made a number of recommendations at school and at community levels, so as to ensure that maximum effort is made to guarantee the right education for each and every child.

Education for sustainable development should be permeated by experience of life and work beyond the classroom. Educators play an important role in facilitating this process and in encouraging dialogue among pupils and students and the authorities, civil society and the world of work. In this way, education for sustainable development presents an opportunity for education to overcome its isolation vis-à-vis society. This makes the provision of career guidance an imperative service for every citizen. Malta's challenge is now to develop updated, dynamic and motivating career guidance services for all those individuals who would like to enter the labour market. Lifelong learning should aim at becoming a basic element embedded in any individual's lifestyle. The concept of education for sustainable development has to infiltrate all educational programmes at all levels, including vocational education, training for educators, and continuing education for professionals and decision makers.

A society that is committed to sustainable development broadens its concept of environmental education, an area that should be elaborated and complemented by other fields of education in an integrative approach towards sustainable development. Over the past decade, the incidence of environmental topics and the range of issues related to the Maltese environment have increased significantly in the Curriculum. Social Studies and Science are the subjects through which environmental education is tackled at primary level. However, there is a lack of textbooks featuring Malta's environments and biota.

At secondary level, issues related to sustainable development are also included in Home Economics, Design and Technology Education, and Environmental Studies (a combination of elements of geography, social studies and history). Cross-curricular themes, such as Education for Democratic Citizenship and Human Rights Education, also expose students to different dimensions of sustainable development.

At post-secondary level Environmental Science is offered at Intermediate Level but not at Advanced Level. The University of Malta now also offers several courses related to the environment, within various faculties. The next step in the development of this area will be to eventually offer a first degree in environmental science. In addition, research relating to sustainable development that is carried out by post-graduate students at university needs to be made more easily accessible to the public.

Education for sustainable development in Malta needs to be improved, particularly because the approach tends to be one of providing environmental information and the fostering of pro-sustainability values is not always given due importance in educational programmes. There is need for a holistic framework that provides students with a continuous sustainable development experience spanning all educational levels, otherwise aspirations for specialisation in this field will be greatly impaired. Although the basic directions have already been outlined, Malta now faces the challenge of developing a clear Education for Sustainable Development Policy that would address

the educational needs of the formal, non-formal and informal sectors. All members of society, including students, are being encouraged to adopt environment-friendly measures, such as the use of recycled paper and energy-saving devices. Moreover, environmental educational projects are being encouraged with some schools working towards certification as green schools. The concept of green leaders that has been adopted in Government departments is therefore also being gradually introduced within the school system.

At the formal level, there is the urgent need for an unequivocal policy about environmental education in the National Minimum Curriculum that would also address vocational education and training and ensure an approach that fosters pro-sustainability values rather than just the provision of environmental information.

A welcome initiative in the formal sector was the introduction of the EkoSkola programme. This international programme encourages students to adopt an active role in the environmental management of their school. Principles related to sustainable development are systematically woven into the school's management policy and internalised within the ethos of the whole school community.

Education is closely linked to training. Training is distinct from education in that it is often specific to a particular job or work setting. The Employment and Training Corporation (ETC) offers a variety of courses to ensure both the acquisition of skills and the retraining of workers. Against this scenario, a key challenge is the further collaboration and cooperation of all service providers with a view to seamless service provision.

Communities, families, the media and NGOs are important actors in raising public awareness on sustainable development. The upgraded Maltese television education channel serves as an important tool for disseminating information and promoting awareness about various issues among the general public. The non-formal educational sector bears part of the responsibility for delivering the right skills relating to sustainable development. This sector (e.g. nature centres, NGOs, public health educators and agricultural extension agents) and the informal educational sector (e.g. local television, newspapers and radio) must work in cooperation with the formal educational sector in the interest of people of all ages and walks of life. The implementation of a policy that provides for the setting up of youth empowerment centres is a concrete measure for delivering non-formal education to local communities. Malta now faces the challenge of extending the spectrum of individuals participating in non-formal educational programmes.

Maltese lifestyles include many time-honoured strategies that optimise the use of the limited and fragile resources of a small island. Educational programmes should explore and make known this body of indigenous knowledge and use it to revive those sustainable strategies that were historically developed within the Maltese context. The promotion of a better understanding of archaeological and historical sites among the general public can play a significant role in this process. Education is also central to improving the quality of life as it raises the economic status of families and improves the educational attainment of the next generation.

Main strategic directions with regard to education for sustainable development:

- Continue to implement the recommendations made in the *School Attendance Improvement Report* with a view to decreasing the early school-leavers rate to 35 per cent by 2010.
- Initiate the process to draft a clear national policy about education for sustainable development that is reflected within the National Minimum Curriculum.
- Adopt measures so that all sectors of the population can benefit from formal, informal and non-formal education for sustainable development.
- Continue to develop and implement reforms that integrate education for sustainable development themes across the Curriculum.
- Promote lifelong educational programmes that focus on enabling meaningful learning experiences that foster sustainable behaviour in educational institutions, the workplace, families and communities.
- Increase cooperation and partnerships among members of the educational community and other stakeholders, including the private sector.
- Promote a mentality favouring a change in values towards more sustainable lifestyles.
- Continue to develop and implement an ongoing and holistic environmental education framework in the formal education sector, particularly through the provision of environmental science at post-secondary and undergraduate levels.
- Promote research in environmental education to ensure the effectiveness of education for sustainable development programmes.

3.3.4 Promoting Stakeholder and Major Group Participation in Decision-Making

Malta has gradually been adopting a culture of ongoing public consultation with all stakeholders and a commitment to research when it comes to the development of policies and implementation of programmes. The Aarhus Convention, to which Malta is a signatory, emphasises the importance of public participation and access to information. A firm step forward with regard to public participation in decision- and policy-making was taken in 1992, with the enactment of the Development Planning and the Environmental Protection Acts (and their subsidiary legislation). These Acts put in place Malta's first formal procedures for public participation in various procedures including Environmental Impact Assessments. The website of the Malta Environment and Planning Authority (MEPA) has made environmental planning more accessible, while third party appeals offer the opportunity for legal redress and could be extended to cover environmental permits and licences.

Major lobbies, such as trade unions, industry and commerce, are heavily involved in national policy-making, particularly through the Malta Council for Economic and Social Development (MCESD). The Council involves major stakeholders in the promotion of social dialogue and consensus on a national level and operates in a tripartite framework, with Government, employers and unions as social partners. The Council also incorporates a forum for civil society, primarily NGOs.

Consultation on Government policy and new legislation has sometimes been achieved through the publication of white papers. However, broadly speaking, most government Ministries and agencies have yet to find ways to effectively involve the general public. Moreover, despite the relative progress achieved in land-use planning and other fields, a number of questions arise concerning the effectiveness of current practice:

- Published reports, although widely disseminated, are still inaccessible to the general public due to their highly technical and scientific nature.

- The right type and amount of up-to-date information is not always reaching the people who want to use it, and most people are unaware of their rights to information. Some public sector agencies are sometimes unwilling to share information. The role of the media is central in this regard.
- There is a direct link between participation and representation. Decision-making boards often do not include members who are accountable to independent civil society groups.
- Numbers involved in formal public participation exercises remain low, and participants generally represent particular lobbies or government departments, rather than members of the lay public who often bear the burden of development.

The involvement of Local Councils and especially local communities in sustainable development decisions is very important. Government can assist local communities by providing in-kind support to local voluntary associations. Furthermore, at a more formal level, Government needs to consider NGOs as important social partners. The economic, social and moral relevance of NGOs should not be underestimated, as such organisations are highly concerned about transparency and accountability. They feel strongly about whether the contributions that they put forward in consultation exercises are actually followed up in due course.

Everyone has a role to play in the promotion of sustainable development. Civil society representation and participation should take place at all levels of decision-making. Representatives of civil society bodies, nominated by their own entities, should sit on the boards of national institutions such as the Malta Environment and Planning Authority (MEPA), the Malta Council for Economic and Social Development (MCESD), the Malta Resources Authority (MRA) and the Malta Transport Authority (MTA). The MCESD should incorporate the issues of environment and sustainable development as one of its pillars. However, before embarking on any of the foregoing recommendations, non-governmental organisations should be regulated by law.

The media has an important role to play in this regard by empowering people to participate in decisions relating to sustainable development. Likewise, political parties should use their media to raise awareness of the need for sustainable development, without politicising the issue.

Main strategic directions with regard to stakeholder participation:

- Promote effective public participation in the decision-making process relating to sustainable development by ensuring that civil society representation and participation is present through all stages of decision-making.
- Devise educational schemes that enable people to acquire the necessary skills to democratically and effectively participate in decisions concerning sustainable development.
- Provide opportunities for stakeholders to be involved directly in the design, implementation and monitoring of strategies associated with sustainable development, thus promoting a sense of ownership among stakeholders and securing their commitment to take the necessary action.
- Strengthen the capacity of Local Councils to support and encourage public participation in decision-making.
- Promote awareness among members of the media about their important role in empowering people to participate in decisions relating to sustainable development.

3.3.5 Raising Public Awareness

Education, communication and information dissemination can help communities identify important issues, recognise problems, acknowledge opportunities and devise solutions. Better awareness enables people to make responsible and informed choices about their attitudes, behaviour and lifestyle.

The culture of open consultation which, in Malta, has been consolidated in recent years, has helped to heighten awareness about issues relating to sustainable development. Moreover, the consultation process makes all those involved in policy development more aware of their responsibility to promote social solidarity among current and future generations.

Recent years have witnessed a significant increase in media contributions concerning sustainable development, with various television and radio programmes focusing on environmental issues. There has also been a proliferation of adverts and billboards targeting the promotion of environmental awareness. An internet search on the Maltese environment and sustainability issues will yield a vast array of websites on the topic, including MEPA's award-winning website. Moreover, the former Environment Protection Department issued numerous leaflets, posters and books of educational value.

During the past ten years there has been growing interest in environmental NGOs. In the year 2000, a total of 63,718 persons became members of NGOs – a substantial increase of around 30 per cent over the previous four years. Notwithstanding these developments, there is still a clear need for a consolidated and integrated approach at national level to raise public awareness regarding the need for sustainable development. There is also a need to shift the emphasis from environmental protection to sustainability and to focus more on an approach that can bring about a change in culture and values rather than mainly on the dissemination of scientific information.

Main strategic directions with regard to raising public awareness:

- Promote awareness of the need for a holistic strategy that integrates the various macro and micro aspects of sustainable development.
- Promote an understanding of environmental and scientific issues by presenting the relative information in such a way that the general public can clearly understand the extent and implications of the issues involved .

3.4 Cross-cutting Strategic Issues

3.4.1 The Need for Integrated Planning

Issues of sustainable development can be significantly influenced by the regulation and planning of land use, since most human activity and relevant natural processes take place on land. The ways in which land is used are linked to environmental change on many different levels. Air quality, the water cycle, biological diversity, transport, and the production and use of energy are all spatially related. The success of policies in these fields greatly depends on decisions about land use.

Spatial processes are of major relevance to sustainable development, as the three pillars of sustainability (economic, social, and environmental) are closely interlinked. Spatial planning can support sustainable development by promoting efficiency in the use of energy, transport and natural resources through the proper location of new development, encouraging the most effective use of already developed areas, protecting and enhancing the natural and built environment, and integrating social and economic goals.

It is therefore recommended that an Integrated Spatial Development Plan (ISDP) be prepared to take the vision forward and to set up key objectives for sustainable development. This document would elaborate upon these objectives and would translate them into concrete actions linked to measurable targets and carried out by identified agencies.

In this way, the ISDP would, within a broad interactive process, inform the development of strategies and programmes of various public agencies and service providers. It would also take account of existing strategies and programmes, assess and test them for compatibility with other strategies and programmes, and reshape them to meet the objectives of the National Strategy for Sustainable Development.

An Integrated Spatial Development Plan would provide the necessary vision and policy framework to guide the future path of change, and could thereby influence future investment decisions in all sectors.

Main strategic directions with regard to integrated planning:

- By 2010, draw up an Integrated Spatial Development Plan to take forward the Sustainable Development Strategy, with the participation of major stakeholders.
- Develop links between the National Strategy for Sustainable Development and other national strategies so as to ensure coherence between all strategies.

3.4.2 Developing Procedures for Monitoring: Indicators and Target Setting

Chapter 7 of Agenda 21 calls for the development of indicators of sustainable development to provide a solid basis for decision-making at all levels and to contribute to a self-regulating sustainability of integrated environment and development systems. Sustainability indicators cover a wide array of issues related to sustainable development, including population trends, education, health, economic activities, land use, major environmental concerns, actors and policies promoting sustainable development, and international and regional cooperation.

Sustainability indicators have a number of functions, including (1) identifying weaknesses or shortcomings in matters associated with sustainable development, (2) facilitating management, and (3) setting targets and objectives. These three functions are, of course, interrelated. A small number of indicators – the so-called Headline Indicators – can also be used to inform the public of

progress relating to the main priorities identified in the National Strategy for Sustainable Development.

By measuring and monitoring the trends in these indicators, a country can chart its progress towards sustainability goals such as reduction in air pollution, better water quality and reduced waste generation.

The first attempt to compute sustainability indicators for Malta was carried out in 1997, by the then Planning Authority, as an aid to the development of land-use planning policies. More recently, in 2002, the Sustainability Indicators-Malta Observatory (SI-MO) of the University of Malta, in collaboration with the National Statistics Office, compiled 100 sustainability indicators from the list proposed by the Mediterranean Commission for Sustainable Development. Between 2000 and 2002, the development of sustainability indicators was one of the activities undertaken within the CAMP - Malta project that focused on the north-western part of the island.

Main strategic direction with regard to sustainability indicators:

- Devise arrangements to construct, on an ongoing basis, a set of sustainability indicators, to be developed in close liaison with the National Statistics Office, to cater for Malta's specific needs and at the same time to satisfy the international and regional reporting obligations of Malta.

3.4.3 Promoting use of Economic Instruments

Economic (or market-based) instruments are intended to induce a response to financial incentives or costs, so as to reduce harmful activities or, conversely, to encourage beneficial ones. Because their aim is to internalise environmental externalities, economic instruments help to implement the Polluter Pays Principle. Moreover, because such instruments encourage rather than force actors to abide by standards and conditions, economic instruments are conducive to economically efficient solutions. Economic instruments also encourage innovation and may generate revenue. However, they must be used judiciously as they may give rise to socially inequitable solutions.

Economic instruments include emissions trading schemes, environmental taxes and charges, as well as subsidies. There are various examples of the application of such instruments in Malta to date. These include instruments in the transport sector (e.g. excise taxes on fuel, vehicle registration charges, annual vehicle licences, air/sea transport charges, refunds on electric cars, reduced registration on certain vehicles); in the field of energy (e.g. electricity charges, refunds on solar energy, photovoltaic panels, micro-wind and insulation, and the emissions trading scheme); in the field of water (e.g. water charges, effluent discharge permit fees, swimming pool charges); in the area of waste (e.g. the eco-contribution, waste disposal fees, deposit-refund schemes on various products including glass bottles and LPG bottles); and in the area of biodiversity (including hunting licence fees and off-roading licence fees).

There are also economic instruments applied in the development of land (e.g. development permit fees, parking contributions, encroachment charges, care and repair incentives, and refunds on property rehabilitation) and sea (e.g. bunkering charges, sea vessel registration, fish farm licences, berthing fees, tradable fishing permits), and environmental permit fees are foreseen.

Although several of these instruments may not have been originally introduced with environmental protection as the objective, they nonetheless serve as economic instruments for the environment. However, while the range of these instruments is wide, a strategic approach is lacking.

At both the EU and national levels, there exists a drive towards the use of economic instruments. The EU's revised *Sustainable Development Strategy* (2006), *Sixth Environmental Action Programme* (2001), the revised *Lisbon Strategy* (2006) and the *Environmental Technologies Action Plan* emphasise not only the use of economic instruments but also the removal of harmful subsidies. At the national level, the Environment Protection Act (1990) provides the legislative backdrop while the recently adopted National Reform Programme reinforces the drive for economic instruments.

Potential therefore exists for more strategic use of economic instruments in Malta. In many instances, the fees or tariffs charged are not effective and do not even cover administrative or production costs for environmental services. This is the case, for example, in the collection and disposal of household waste and sewage. Potential also exists for an improved system of environmental subsidies and an extension of the use of tradable permits and deposit refund schemes, and for removal of harmful subsidies.

Main strategic direction with regard to economic instruments:

- By 2008, draw up a strategy to enhance the use of economic instruments, such as charges, taxes, subsidies, deposit refund schemes, and trading schemes to apply the polluter pays principle and promote sustainable development in Malta.

3.4.4 Enforcement

The Malta Report on sustainable development submitted to the World Summit on Sustainable Development (2002) highlights various issues with regard to enforcement of legislation affecting the environment, particularly with respect to biological diversity, illegal extraction of water, marine and coastal zone management, disposal of lubricating oils, illegal tipping, polluting activities and land use.

There are various measures which can be considered in this regard, including verbal warnings and warning letters, negotiation, formal enforcement notices requiring the infringement to be removed or the nuisance to be abated, prosecution in court, suspension of operating licence, and direct action.

In certain situations, it might be more effective to encourage voluntary compliance and self-regulation, both in terms of achieving the desired results and of reducing staff complement and related costs. The Development Planning Act does provide a mechanism for voluntary disclosure, within which the applicant may seek sanctioning of an infringement. This principle could be adopted in environmental legislation since early notification and full cooperation by the offender is likely to minimise the harm to the environment.

Current procedures for enforcement are regulated by various legal enactments which assign responsibilities to a number of agencies. New management structures and reporting mechanisms are still being set up, and memoranda of understanding have been adopted to clarify roles and responsibilities where any overlaps occur. This momentum needs to be stepped up. Sustainable development is best achieved when the rules, roles and resolve of the key parties are clear and well-understood. Industry and government officers need unambiguous direction and well-understood procedures to ensure that the environment is protected.

Although new legislative acts are in place, there is no formally adopted policy approach concerning enforcement. Such guidelines are required to foster a corporate and community culture of positive action, consultation and co-operation with the regulators. This would help to check abuses in the

observance of the law, which tend to undermine the implementation of the strategy. Enforcement needs to be visible, proactive, reactive and efficient. Enforcement of existing legislation needs to be firmer.

In 2006 new littering regulations were introduced, adopting both a zero tolerance approach. There is room for enhancing the enforcement mechanism and for widening the remit of environmental wardens to also cover offences related to other forms of pollution.

It should be emphasised at this point that enforcement of existing laws goes beyond the punishment of offenders and is best achieved by conveying the message that the enforcement agencies have adequate resources and are seriously intent on carrying out their remit. In this regard, politicians need to disown patronage and clientelism when it comes to enforcement.

Main strategic directions with regard to enforcement:

- By 2007, put in place an audit of enforcement arrangements to assess the adequacy of the current enforcement mechanisms and to promote integration of responsibilities and reduction of overlaps.
- Introduce modern approaches for effective decision-making, legislation and policy, including firm but fair enforcement mechanisms, and regularly review and revise such approaches to ensure that they are effective and efficient.
- Improve capacity building to enhance enforcement.

3.4.5 Promoting International and Regional Co-operation

The aims of sustainability cannot be achieved through national efforts in isolation from other countries – global and regional cooperation is essential in this regard, particularly because many environmental, economic and social impacts are not confined to a nation's territory.

Malta's foreign policy recognises the need for participation in international sustainable development affairs and for the strengthening of relations with other countries regionally and globally.

This is evidenced by Malta's active participation in a number of international organisations such as the United Nations and its Specialised Agencies, the Commonwealth, the OSCE, the Council of Europe, the International Maritime Organisation (IMO), the World Intellectual Property Organisation (WIPO), the International Organisation for Standardisation (ISO) and the International Telecommunications Union (ITU).

The commitment of Malta to the ideals of the United Nations, particularly in the environmental sphere, is evident in the leading role played by Malta when, in 1967, it introduced the concept of the Common Heritage of Mankind with regard to the international sea-bed and ocean floor and subsoil. This concept led to the adoption of the 1982 United Nations Convention of the Law of the Sea and to the 1989 initiative on the Protection of Global Climate for present and future generations of humankind. Owing to its neutrality, Malta can actively promote values such as peace and justice, and can provide diplomatic solutions to different issues.

In 2002, Malta played an active role at the World Summit on Sustainable Development (WSSD) held in September of that year in Johannesburg. During the Summit, Malta was chosen to co-chair, with the Hungarian Delegation, the Central Group comprising all candidate countries to the EU. This permitted Malta to be one of the 13 negotiating countries that finalised the conclusions of the Summit.

At the regional level, Malta's active participation in a number of Mediterranean organisations, such as UNEP/MAP and the Mediterranean Commission for Sustainable Development, has as its main

objective the promotion of peace, stability and cooperation between neighbouring countries. An important initiative taken by Malta at the Mediterranean Forum held in Portugal in March 2002 was the proposal of the establishment of the Parliamentary Assembly for the Mediterranean, and the Forum decided that preparations should commence towards this end.

As an EU Member State, Malta has an important role to play in this regard, particularly within the Euro-Mediterranean Partnership process (referred to as the Barcelona Process), which is certainly the most important regional process that exists in the Mediterranean, as it brings together all of the European Union Member States and the non-member Mediterranean countries.

Malta participated actively in the compilation of sustainability indicators for the Mediterranean region and in the discussion relating to the United Nations system of sustainability indicators. This could permit the comparison of sustainable development data from Malta with that of other countries, in the context of a benchmarking process. This could also generate useful information for identifying weaknesses and success stories.

Main strategic directions with regard to international and regional co-operation:

- Continue to strengthen Malta's international and regional role by signing and ratifying conventions and regional environmental agreements dealing with environmental concerns.
- Promote public awareness about Malta's obligations with regard to international legal instruments and agreements for trans-boundary cooperation, and about the moral and material benefits that can be derived for Malta through such instruments and agreements.
- Contribute aid and technical assistance to the developing world, in a manner consonant with the resources of the country, and put in place a plan and an institutional set-up for overseas development aid.
- Co-operate with international organisations such as the NGOs in local capacity building by identifying, promoting and supporting activities in the area of sustainable management of environmental resources.
- Explore the possibility of collaborating with other countries, parties to regional or international sustainable development strategies, to put in place a benchmarking exercise with regard to the attainment of sustainable development goals.

4. IMPLEMENTING THE STRATEGY

4.1 Institutionalising the Development of the Strategy

It is important that the National Strategy for Sustainable Development be institutionalised and implemented as an ongoing process rather than as a one-off activity. For this reason, the Strategy needs to be coordinated, monitored, efficiently implemented and suitably promoted. In addition there is the need to incentivise and motivate people to adhere to the Strategy.

To this end, a permanent structure, appropriately staffed and funded, should be established to coordinate, monitor, revise and promote the National Strategy for Sustainable Development among all stakeholders. Such a structure should be placed under the direction of the National Commission for Sustainable Development, and should have a principal remit of:

- coordinating the activities of the NCSD;
- acting as a watchdog to ensure that legislation reflects the National Strategy for Sustainable Development objectives;
- ensuring that Government departments and other state bodies adequately undertake their share of implementing the Strategy;
- updating the Strategy as and when required, in accordance with other national strategies that are issued from time to time;
- informing all relevant bodies, public and private, about specific aspects of the Strategy so that these are incorporated in any new strategies that are prepared by such bodies;
- communicating with the public to promote participation and foster ownership of the Strategy;
- developing methods for evaluating and monitoring public- and private-sector activities;
- promoting society's responsibility towards future generations; and
- developing and fostering a culture conducive towards sustainable development.

Given that sustainable development is multi-sectoral and multi-levelled, it is also important to ensure coherence and to avoid duplication of effort in the implementation of the Strategy among the different sectors, layers and actors in government departments, the private sector and civil society.

Main measures regarding the institutionalising of the SD Strategy process:

- By 2008, put in place a permanent structure, appropriately staffed and funded, to monitor and review the National Sustainable Development Strategy on an ongoing basis, under the auspices of the National Commission for Sustainable Development.
- Devise measures to ensure coherence in the implementation of the strategy among the different sectors, players and actors in government departments, the private sector and civil society.
- Draw up a communications strategy actively involving the media, in order to keep the public informed of the objectives and strategy implementation of NCSD, and to promote public participation and foster ownership of the strategy among the public at large.

4.2 Identifying Responsibilities and Structures

The National Strategy for Sustainable Development should not be interpreted merely in terms of policies that Government must implement, but should be seen as the necessary framework for a coordinated and integrated national effort. The Strategy should be perceived as belonging to the country as a whole. As such, it must be actively and consistently projected as a collective undertaking that implies country-wide responsibilities. Ultimately, it must seek to influence lifestyles and bring about a change in individual behaviour. As there are many facets to sustainable development, the Strategy should serve as the critical unifying medium. The Strategy cannot be

perceived exclusively as a blueprint for environmental protection, a plan for economic development or a vehicle for social policy. Above all, it must be understood to be a medium and process where all these objectives are given due consideration and are pursued as legitimate aspirations that need to be addressed concurrently.

This premise is important in identifying responsibilities and specifying structures for implementing the Strategy. In this regard, it is important that decision-makers ensure coherence and policy integration in the economic, social and environmental fields; limit unwarranted overlap and avoid wasteful duplication of effort; emphasise accountability and develop monitoring mechanisms; strengthen national capacities for the implementation of the Strategy; and enhance transparency and public participation at all stages of the process.

The Strategic Environmental Assessment Regulations 2005 (LN 418 of 2005) are very important in this regard since they allocate responsibilities for the implementation of certain plans/programmes. They have the objective of providing a high level of protection of the environment and of inclusion of environmental considerations, with a view to promoting sustainable development.

The implementation of the Strategy, covering the period 2007 to 2016, should include within its perspective existing studies, plans and other initiatives that impinge upon the concept of sustainable development, in particular the proposed Integrated Spatial Development Plan and the Structure Plan (under the auspices of MEPA). For this reason, when drafting the Strategy, attention has been given to the thrust of existing plans and policies, assigning the operationalisation of the Strategy to the Integrated Spatial Development Plan (ISDP) that will form the link between the Strategy itself and the more sectorally based plans, such as the Structure Plan, as well as the plans and policies of agencies in other important sectors such as transport, tourism, energy and natural resources. Thus, the ISDP will provide a road map for the future. Indicating the manner in which the objectives of the National Strategy for Sustainable Development could be met.

Towards this end, it is important to put in place a policy framework and a concrete set of actions that will be implemented by identified agencies and that are linked to measurable targets. As such, the ISDP will serve as a guide to investment in all sectors of government. The National Commission for Sustainable Development should be the guiding and driving force behind the formulation, adoption and promotion of the National Strategy for Sustainable Development, and should have a key role in monitoring its implementation process. One of the identified critical considerations is not to duplicate structures and resources where suitable ones already exist. The implementation of the Strategy will be able to tap the considerable and varied technical expertise that already exists within MEPA, adequately strengthened as required.

The successful implementation of the National Strategy for Sustainable Development is directly related to the underlying Integrated Spatial Development Plan. The ISDP needs to include a wide range of public policy responses and should clearly indicate who is accountable for implementation and identify performance indicators to measure the success or otherwise of implementation. MEPA, which has recently acquired a wider role and functions, is best placed to undertake this task, acting on behalf of Government and the NCSD. Indeed, the Environment Protection Act gives MEPA this responsibility and lead role in Article 7(b)(ii) which specifically requires the Authority to establish long- and short-term objectives and strategies.

Main measures regarding the identification of responsibilities:

- Take steps to ensure coherence, limit unwarranted overlap, avoid wasteful duplication and enhance transparency at all stages of the implementation of the Sustainable Development Strategy.
- Entrust the key roles of guiding the formulation of the strategy and of monitoring the implementation process to the National Commission for Sustainable Development.
- Assign the tasks of spatial development planning to MEPA, which is best placed to undertake this task on behalf of Government.

4.3 Setting Targets, Monitoring and Evaluation

The effective monitoring of sustainable development strategies requires the compilation of appropriate indicators. Although sustainability indicators have been compiled for Malta, there are still a number of issues that need to be addressed, in particular regarding the institutional set-up.

At present, there is no state-funded body entrusted to develop sustainability indicators. The work carried out so far was funded from outside sources and carried out by a University Institute.

There is therefore the need to place the compilation of sustainability indicators on a more secure footing, with ongoing financial support, so that it can service the Government and stakeholders who wish to utilise such indicators.

Main measures regarding setting targets, monitoring and evaluation:

- By 2008, establish and fund an entity responsible for compiling and evaluating sustainability indicators. This entity should work closely with the National Commission for Sustainable Development and the National Statistics Office.
- Establish targets based on sustainability indicators for key sectors and use the indicators to assess the extent to which these targets are being reached.
- Set up a system of national reporting and monitoring relating to sustainability indicators and present findings in a manner that can be easily understood and interpreted.
- Hold an annual conference with the participation of major stakeholders to critically evaluate progress on the strategy, and present the conference report formally to the Prime Minister

4.4 Devising Participatory Schemes

Section 3.3.4 of this report outlines the strategy for improving public participation, based on promoting effective public participation across government sectors, promoting education that gives people skills for participating in decision-making, and strengthening the capacity of Local Councils to support these activities. This Strategy calls for putting in place participatory schemes towards its implementation.

The first step in the implementation of the Strategy should be an audit of public participation activities across Government and other agencies to assess whether participation exercises meet criteria related to accessibility, timing in the development or policy process, and follow-up and whether these address the needs of the most disadvantaged. Such an audit would establish whether participatory activities undertaken in the past had acceptable time-frames, good publicity, sufficient background information and suitable venues for their public meetings.

Participatory schemes planned for the future should provide administrative provisions related to access to redress. In addition, the language used during public meetings and in documentation,

including Environmental Impact Statements, should not constitute a barrier to effective participation.

In most cases, participatory exercises performed prior to the development of plans or policies are more effective since they allow greater public influence. Therefore this should also be assessed in the audit. Such an audit should also assess follow-up and the extent to which advice given prior to decision-making is made available to the public, since this motivates further participation. The participation audit should gauge the extent of accessibility for the least advantaged, also addressing issues such as the digital divide. It is increasingly being recognised that effective participation schemes take time, and the audit should address whether adequate time is being allocated in decision-making processes for such activities.

An important reform that needs to be undertaken for improving public participation in Malta relates to the need for all government agencies to revise their practices with respect to ensuring effective participation in public affairs. This could begin with the major players in each sector, as sometimes happens, but the wider public will also have to be involved. The public participation audit will be the first step in this process, recommending steps to be taken by the main agencies, with appropriate targets and deadlines. Progress should be registered in this regard now that the Strategic Environmental Assessment Directive has been transposed into Maltese legislation.

One of the aims of environmental education is to provide the public and NGOs with the necessary skills for participation in environmental decision-making. To this end, full knowledge of procedures, rights and duties, including the right to information, should be shared with citizens, through formal non-formal and informal environmental educational initiatives.

Local Councils, as the level of government closest to the people, are very well placed to provide the link between the public and central government institutions. Local Agenda 21 is an ideal medium for passing on the skills needed for participation. Local Councils will need additional training and resources in order to fulfil this role effectively. Each local council needs to be equipped to disseminate data and fulfil information and advisory roles for residents requesting information about projects, plans and policies affecting their area. The councils must ensure that their own decisions are taken transparently, using well-advertised public meetings to discuss major changes envisaged in the locality. Improved liaison between Local Councils, central government and government departments and agencies would enhance the Local Councils' ability to carry out their remit.

In raising awareness and training the public for participation, the Councils need to target local clubs and societies in order to build on existing social capital. Vulnerable groups, including the aged, single parents and youth, who are less likely to be involved in social activity of this type, should also be specifically targeted. It is important that these criteria are applied to schemes devised for the development and revision of the National Strategy for Sustainable Development itself.

Malta is a signatory to the Aarhus Convention. The obligations arising from this Convention should be clearly relayed to government departments and agencies in order to make environmental information more accessible to the people, thereby rendering public consultation more effective. ICT is a very useful tool in this regard, since it facilitates and speeds up participation.

Main measures regarding participatory schemes:

- Undertake an audit of participation schemes across government sectors and other agencies and review the degree of success of public involvement and response with these mechanisms.
- Take steps to strengthen the capacity of local councils to support public participation in decision-making, for example through Local Agenda 21 processes.
- Devise methods to ensure effective public participation in all stages associated with the development and revision of the Sustainable Development Strategy.
- Foster a better understanding among public-sector personnel of Malta's obligations under the Aarhus Convention.
- Ensure that ample time and resources are allotted for public participation during discussions of development plans and policies.

4.5 Collaboration between the Public and Private Sectors

Collaborative schemes between the public and private sectors (often called Public Private Partnerships) could enable state institutions to offer services more efficiently by utilising the entrepreneurial and innovative skills and other expertise normally associated with the private sector. The private sector could also participate by providing funding which could be profitably recouped. It is important to stress here that this should not mean that Government abandons its social and environmental responsibilities.

The *raison d'être* for such collaborative schemes is that the private sector is often more favourably placed in providing services efficiently due to the fact that it operates in a market-oriented setting and consequently has more freedom of action in its operation. Such schemes can be mutually beneficial to the public and private sectors, given that they are based on good faith and that the main objective is improvement in quality and delivery of the service. The main benefits for the public sector include cost savings, speedier delivery and increased possibilities for customisation. This should be beneficial to the final users of the services. As regards the private sector, the main benefit is the possibility of making profits in the services which are normally the domain of the public sector. Such a scheme also permits the private sector to have a more direct role in development.

An important requisite for the success of such partnerships relates to responsible entrepreneurship, implying that while remaining flexible, market-driven and innovative, business should operate with due regard to the environmental and social dimensions of sustainable development. On its part, Government should devise policy frameworks that reward eco-efficient and sustainable development options. Furthermore, Government should lead the way by taking action within its daily operations that conform with the strategic directions of the National Strategy for Sustainable Development. Such collaboration could be of major benefit in the implementation of this Strategy.

Main measures regarding private-public collaborative schemes:

- Devise schemes that enable the public sector to utilise the entrepreneurial and innovative skills of the private sector in implementing sustainable development policies.
- Put in place arrangements to promote and reward responsible entrepreneurship.

4.6 Coordinating and Funding the Strategy

The drawing up, implementation and revision of the Strategy require adequate funding, since these processes involve administrative set-ups to monitor the Strategy, to promote compliance and to enhance efficiency of implementation. Funding is also required to support consultative and educational activities, and the engagement of specialists.

Funding is also required to establish appropriate institutions, including a government focal point, that need to be set up to coordinate activities between government agencies.

Although international funding may be forthcoming in this regard, the major source should be domestic funding to ensure continuity and ownership by the Maltese public and private entities.

Main areas that will be funded on an ongoing basis:

- A permanent structure with the main function of ensuring the implementation of the strategy and promoting coordination and coherence between the different government departments, private sector organisations, and major groups and different social groups.
- The organisation of periodic stakeholder consultation meetings to foster awareness, participation and ownership of the strategy.
- The engagement of specialists to carry out studies on different aspects of sustainable development and to publish material in this regard.
- Promotional activities in the press and media.
- Development and periodic revisions of sustainability indicators, which should be developed to monitor the implementation of the strategy.

5. THE WAY AHEAD

5.1 Revising the Strategy

The formulation of the National Strategy for Sustainable Development satisfies a provision of the Environment Protection Act which, in Article 8 mandated the National Commission for Sustainable Development to prepare such a strategy.

The drawing up of this Strategy should not be viewed as a static event, but as a long-term process in the course of which decisions which have been taken and solutions which have been identified must be reviewed to check that desired results are being achieved.

The Strategy contained in this document should be reviewed in 2011, with a view to revising and updating it in line with changing circumstances and priorities.

Other national strategies that are adopted from time to time need to be reflected in the National Strategy for Sustainable Development. At the same time, this Strategy needs to inform other strategies on issues of sustainable development.

Ministries should be required to prepare their own action programmes for sustainable development, guided by the principles contained in this document, with regard to their portfolio within 18 months from the adoption of this Strategy.

The success of the Strategy lies in its implementation. A prerequisite for this is an Action Plan relating to the strategic directions, particularly the priority ones. The Action Plan needs to include specific indicators and time frames, thus rendering it amenable to regular monitoring. This exercise should be undertaken once the Strategy is approved by Government.

Main measures with regard to ongoing revision of the sustainable development strategy:

- The NCSD will comprehensively review and update the Strategy for Sustainable Development in 2011, and will prepare an Action Plan to implement the strategy.
- Ministries should be required to prepare their own action plans for sustainability, guided by the principles in this document, with regard to their portfolio of responsibilities within 18 months from the adoption of this strategy.

5.2 Ongoing Consultation

The principal vehicle for consultation on the Strategy is the National Commission for Sustainable Development, in collaboration with the different government departments and agencies and other organisations, including political parties, NGOs, trade unions, religious organisations and others.

The success of the consultation will depend to a large extent on the ability of the NCSD to foster consensus-building between the different interest groups in society, especially across political party boundaries and trade union divides, as this will ensure that the Strategy has the widest possible ownership.

The National Commission for Sustainable Development is made up of a broad-based representation from key sectors and players involved in the process of achieving sustainable development, as well as of the major groups identified in Agenda 21. However, a review of the composition of the Commission might be appropriate in order to increase the representation of the business

community. In addition, a “guardian of future generations” should be appointed on the Commission, to represent the interests of future generations.

Main measures with regard to ongoing consultation:

- Enlarge the NCSD to involve a wider sector of players than at present.
- Publish an annual progress report based on the headline sustainability indicators.
- Hold an annual conference to critically evaluate progress on the strategy, and formally present the conference report to the Prime Minister.
- Foster consensus-building across political party boundaries on the general direction of the strategy and on the measures and targets it puts forward.
- Appoint a “guardian of future generations” on the Commission to represent the interests of future generations.

6. THE PRIORITIES

The National Strategy for Sustainable Development outlined above considers the most important issues that need to be addressed and proposes a number of strategic directions that need to be followed in connection with these issues.

Given the wide-ranging coverage of the Strategy, 20 priority strategic directions have been identified following extensive consultation with stakeholders and within the National Commission for Sustainable Development. These priority strategic directions are considered to have direct positive effects on society as a whole, in that they improve the quality of life of the population and are in line with sustainable development goals. They could also be used to gauge whether Malta is moving towards or away from sustainability. Appendix 1 presents indicators and targets for these priority areas.

The 20 priority strategic directions identified are the following:

The Environment

1. *Climate Change.* Take steps to reduce greenhouse gas emissions through transport and energy policies that seek to promote environmental protection, competitiveness and security of supplies and, as a result, decouple the rate of growth of GHG emissions from economic growth.
2. *Air Quality.* Take remedial action to control emissions of air pollutants (ambient levels of particulate matter, sulphur dioxide, carbon monoxide, benzene, lead, ozone, heavy metals and nitrogen oxides) and achieve compliance with European standards.
3. *Nature and Biodiversity.* Halt loss of biodiversity by 2010 and achieve management of protected areas by 2008.
4. *Freshwater.* Adopt a policy with the aim of ensuring the utilisation of water resources in an environmentally and economically sustainable manner, while safeguarding the water needs of the population and of the agricultural, commercial and industrial sectors, and achieve good quantitative status by 2015.
5. *Seawater.* Sustain compliance with the Bathing Water Directive and achieve compliance with Barcelona Convention standards.
6. *Wastes.* Prevent and minimise waste by achieving EU waste-related objectives and targets, reviewing Malta's Waste Management Strategy by 2007.
7. *Land use.* Protect, maintain and improve the urban and rural environment, and through the planning system protect the open countryside from uses, particularly residences, which can be more appropriately located in urban areas.
8. *Transport.* Reduce car ownership rates to the EU average by 2014. Regain 1995 bus patronage levels (40 million passengers) by 2014.

The Economy

9. *Economic Growth.* Adopt policy measures so that the growth of GDP per capita in real terms occurs at a rate which will enable the Maltese economy to converge towards the EU average.
10. *Employment.* Create employment opportunities to generate income and improve the quality of life of the population, taking into consideration environmental and social impacts, and adopt policy measures so that the ratio of total employment to the working-age population in Malta converges with the EU average and reaches at least 57 per cent by 2010.
11. *Labour productivity.* Adopt policy measures to increase average labour productivity at a rate of 1 per cent per annum over the EU average by 2010, while attempting to balance wages, taxation and productivity in collaboration with the social partners.

Society

12. *Poverty reduction.* Reduce, or at least contain, the current level of 15 per cent of the population at risk of poverty and decrease the ratio of the population aged over 65 at risk of poverty from 20 per cent to 15 per cent, by 2010.
13. *Labour force participation of women.* Adopt policy measures so that the labour force participation rate of women increases to 40.7 per cent, in line with the EU average, by 2010.
14. *Health.* Decrease the percentage of overweight/obese population in line with the EU average by 2010 by measures such as enhancing the focus on healthy living and prevention, to reduce the need for curative care.
15. *Education.* Continue to adopt measures to decrease the early school leavers rate to 35 per cent by 2010.

Cross-cutting Issues

16. *Spatial development plan.* By 2010, draw up an integrated spatial development plan to take forward the National Strategy for Sustainable Development, with the participation of major stakeholders.
17. *Economic Instruments.* By 2007, draw up a strategy to enhance the use of economic instruments such as charges, taxes, subsidies, deposit refund schemes and trading schemes, to apply the polluter pays principle and promote sustainable development in Malta.
18. *Enforcement.* By 2008, put in place an audit of enforcement arrangements to assess the adequacy of the current mechanisms and to promote integration of responsibilities and reduction of overlaps.

Implementation

19. *Institutional setup.* By 2008, put in place a permanent structure, appropriately staffed and funded, to monitor and review the National Strategy for Sustainable Development on an ongoing basis, under the auspices of the National Commission for Sustainable Development, and hold an annual Conference with the participation of major stakeholders to critically evaluate progress relating to the strategy.
20. *Sustainability indicators.* By 2008, establish and fund an entity responsible for compiling and evaluating sustainability indicators. This entity should work closely with the National Commission for Sustainable Development and the National Statistics Office.

APPENDIX 1: PRIORITY STRATEGIC DIRECTIONS

Indicators and Targets for the Priority Strategic Directions:

GLOSSARY OF TERMS

Main theme:

A main theme is a policy-relevant issue considered important for the promotion of sustainable development in Malta.

The proposed Sustainable Development Strategy for Malta contains five main themes:

1. The environment
2. The economy
3. Social issues
4. Cross-cutting strategic issues
5. Implementation of the Strategy.

Sub-theme:

A sub-theme is an issue within a main theme which is considered to be of major concern for the promotion of sustainable development in Malta. Given that the purpose of this exercise is to provide headline strategic directions and indicators, the sub-themes will be limited to a total of twenty issues.

Indicator:

An indicator is a variable that can be used to measure changes in a sub-theme relevant to the attainment of sustainable development goals.

Target (or Goal):

A target is an objective, often expressed in quantitative terms, which Malta is to reach in a given period with regard to each sub-theme.

Policy Driver:

A policy driver is an approved government policy document relevant to a particular target. Information about policy drivers is important in order to ensure that the targets set are coherent and consistent with existing policies and with government commitments to the EU and to international/ regional organisations

HEADLINE INDICATORS AND TARGETS

REF	POLICY RELEVANT SUB-THEME	INDICATOR	TARGET	POLICY DRIVERS
MAIN THEME: ENVIRONMENTAL				
ENV 1	Climate Change	GHG emissions by sector (tonnes of CO ₂ equivalent per annum)	Take steps to reduce greenhouse gas emissions through transport and energy policies that seek to promote environmental protection, competitiveness and security of supplies, and as a result decouple the rate of growth of GHG emissions from economic growth	Malta's <i>National Allocation Plan</i> in the context of the Emissions Trading Scheme http://www.mepa.org.mt/environment/index.htm?climate_change/mainpage.htm&1
ENV 2	Air Quality	Emissions of air pollutants (ambient levels of particulate matter, sulphur dioxide, carbon monoxide, benzene, lead, ozone, heavy metals and nitrogen oxides)	Take remedial action to control emissions of air pollutants (ambient levels of particulate matter, sulphur dioxide, carbon monoxide, benzene, lead, ozone, heavy metals and nitrogen oxides) and achieve compliance with European standards	Air Quality Framework Directive, and daughter directive 1999/30/EC. (LN 224 of 2001) http://www.mepa.org.mt/environment/index.htm?air_quality/mainframe.htm&1
ENV 3	Nature and Biodiversity	Proportion of surface area protected and managed to total surface area of the Maltese Islands, and trends in abundance, distribution and status of selected species (priority protected/threatened species)	Halt loss of biodiversity by 2010, and achieve management of protected areas by 2008	National Strategy for Protection of Biodiversity
ENV 4	Groundwater	Water Exploitation Index	Achieve good quantitative status of water by 2015	Water Framework Directive (LN 194 of 2004) http://www.mra.org.mt/wfd_introduction.shtml
ENV 5	Sea Water	Percentage of seawater meeting bathing water quality standards	Sustain compliance with Bathing Water Directive and achieve compliance with Barcelona Convention standards	Bathing Water Directive (LN 380 of 2003) http://www.health.gov.mt/dph/ehuhome.htm
ENV 6	Waste	Waste arising by type and treatment method	Prevent and minimise waste by achieving EU waste-related targets, reviewing Malta's Waste Management Strategy by 2007	MRAE, MEPA http://www.mrae.gov.mt , http://www.mepa.org.mt
ENV 7	Transport	Levels of private car ownership and public bus usage	Reduce car ownership rates to the EU average by 2014, and regain 1995 bus patronage levels by 2014 (40 million passengers)	Sustainable Transport White Paper
ENV 8	Land	(a) Relative contribution of land-cover categories to uptake by urban and other artificial land development (b) Permitted new dwellings on previously developed land or through conversions and permitted dwellings outside designated development areas	Protect, maintain and improve the urban and rural environment and through the planning system protect the open countryside from uses, particularly residences, which can be more appropriately located in urban areas	Structure Plan for the Maltese Islands http://www.mepa.org.mt/Planning/index.htm?pln_fbk_str_pln.htm&1

MAIN THEME: ECONOMIC				
ECN 1	Economic Growth	Growth in GDP, and GDP per capita	Adopt policy measures so that the growth of GDP per capita in real terms occurs at a rate which will enable the Maltese economy to converge towards the EU average	National Reform Programme http://www.mcmp.gov.mt/pdfs/National Reform Programme Malta.pdf
ECN 2	Employment	Employment ratio	Create employment opportunities to generate income and improve the quality of life of the population, taking into consideration environmental and social impacts, and adopt policy measures so that the ratio of total employment to the working-age population in Malta converges with the EU average and reaches at least 57% by 2010	National Action Plan for Employment 2004 http://europa.eu.int/comm/employment_social/employment_strategy/nap_2004/nap2004mt_en.pdf
ECN 3	Competitiveness	Real value added per person in employment in the private and public sectors	Adopt policy measures to increase average labour productivity at a rate of 1% per annum over the EU average by 2010, while attempting to balance wages, taxation and productivity, in collaboration with the social partners	National Reform Programme http://www.mcmp.gov.mt/pdfs/National Reform Programme Malta.pdf
ECN 4	Public Finance sustainability	Government budget balance	Consolidate public finances so that the deficit between expenditure and revenue (excluding one-offs) does not exceed 3% by between 2007 and 2010	Updated Convergence Programme 2004-2007 http://europa.eu.int/comm/economy_finance/about/activities/sgp/country/countryfiles/mt/mt20042005_en.pdf
MAIN THEME: SOCIAL				
SOC 1	Poverty reduction	Income distribution	Reduce or at least contain the current level of 15% of the population at risk of poverty and decrease ratio of population aged over 65 at risk of poverty from 20% to 15%	National Action Plan on Poverty and Social Inclusion http://www.msp.gov.mt/documents/msp/nap_incl_mt_20040703.pdf
SOC 2	Labour Force Participation of women	Proportion of women in the labour force	Adopt policy measures so that the labour force participation rate of women increases to 40.7% by 2010	National Action Plan for Employment 2004 http://europa.eu.int/comm/employment_social/employment_strategy/nap_2004/nap2004mt_en.pdf
SOC 3	Health	Overweight population	Decrease the percentage of overweight/obese population in line with the EU average by 2010, by measures such as enhancing the focus on healthy living and prevention, to reduce the need for curative care	Health Vision 2000
SOC 4	Education	Early School Leavers	Continue to adopt measures to decrease the early school leavers rate to 35% by	National Action Plan for Employment http://www.education.mt

			2010	gov.mt/ministry/doc/pdf/NAPdoc.pdf
MAIN THEME: CROSS-CUTTING ISSUES				
CRC 1	Integrated Planning	Spatial Development Plan	By 2010, draw up an integrated spatial development plan to take forward the Sustainable Development Strategy, with the participation of major stakeholders	Malta Environment and Planning Authority
CRC 2	Economic Instruments	Economic instruments strategy	By 2008 draw up a strategy to enhance the use of economic instruments, such as charges, taxes, subsidies, deposit refund schemes, and trading schemes, to apply the polluter pays principle and promote sustainable development in Malta	Malta Environment and Planning Authority
CRC 3	Improve enforcement	An audit of enforcement mechanisms	By 2008, put in place an audit of enforcement arrangements to assess the adequacy of the current enforcement mechanisms and to promote integration of responsibilities and reduction of overlaps	Malta Environment and Planning Authority
MAIN THEME: IMPLEMENTATION				
IMP 1	Institutional set-up and evaluation of progress	An entity to coordinate the Sustainable Development Strategy process	By 2008, put in place a permanent structure, appropriately staffed and funded, to monitor and review the National Strategy for Sustainable Development on an ongoing basis, under the auspices of the National Commission for Sustainable Development, and hold an annual Conference with participation of major stakeholders to critically evaluate progress relating to the Strategy	National Commission for Sustainable Development
IMP2	Monitoring	Monitoring and evaluation tools	By 2008, establish and fund an entity responsible for compiling and evaluating sustainability indicators; this entity should work closely with the National Commission for Sustainable Development and the National Statistics Office	National Commission for Sustainable Development and National Statistics Office