

# **17 Societal Indicators**

**Saviour Formosa** 

Prepared by the Sustainability Indicators-Malta Observatory (SI-MO) of the Islands and Small States Institute Foundation For International Studies, University Building, St. Paul Street, Valletta, Malta Tel/Fax: +(356) 21252931; email: <u>si-mo@um.edu.mt</u>

2001

1- POPULATION GROWTH RATE				
CHAPTER 1	THEME 1	CATEGORY		
POPULATION AND SOCIETY	DEMOGRAPHY AND POPULATION	Ρ		

Population growth rate is defined as the average annual rate of change of population size during a specified period.

Formula:  $\left( \sqrt{y - x} \right) = \frac{Py}{Px} \cdot 1$  100

Py = population in year y

Px = population in year x

### 2 Unit:

Percentage

### 3 Methodological description and basic definitions:

The indicator is usually based on either the population growth rate between two censuses; or from population growth components during a period, namely, numbers of births, deaths and migratory balance.

### 4 Data sources identified and possible:

Data from the Population Division of the United Nations which publishes it every five years and carries out projections for all countries in the world. "World Population Prospects: The 1996 Revision", Population Division, Department of Economic and Social Affairs of the United Nations Secretariat. This source, whose projections are updated every two years, has the advantage of providing homogenous definitions and methods. On the other hand, national peculiarities are not taken into account enough.

Registers of births, marriages and deaths.

Census of the national population.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	YES	YES	-

2- TOTAL FERTILITY RATE			
CHAPTER 1	THÈME 1	CATÉGORY	
POPULATION AND SOCIETY	DEMOGRAPHY AND POPULATION	R	

The total fertility rate corresponds to the average number of children that would be born to a woman in her lifetime, if she were to pass through her childbearing years experiencing the age specific fertility rates for that period.

Formula:  $\sum_{io}^{in} \frac{\text{nb de naissances issues de mères d'âge i}}{\text{Population de femmes d'âge i}}$ 

io to in = Fertility period.

### 2 Unit:

Children per woman

### 3 Methodological description and basic definitions:

When data on births by age of mother is of good quality, the total fertility rate is calculated as the total of age-specific fertility rates. An age-specific fertility rate is the ratio of annual births to women at a given age i to the population of women of the same age.

In the opposite case, the fertility rate is calculated indirectly using results of censuses or demographic surveys.

#### 4 Data sources identified and possible:

World Population Prospects, the 1998 revision, United Nations.

Data from national registration system of births.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

# **3-WOMEN PER HUNDRED MEN IN THE LABOUR FORCE**

CHAPTER 1 THÈME 2 CATÉGORY
POPULATION AND SOCIETY STANDARD OF LIFE, E
EMPLOYMENT, SOCIAL
INEQUITIES, POVERTY,
UNEMPLOYMENT

### 1 Definition:

This is the number of women per hundred men in the active population. The indicator is calculated starting from the percentages of women in the working population.

### 2 Unit:

Number per hundred men

### 3 Methodological description and basic definitions:

The economically active population or "work force" is made up of two components: working population and the unemployed.

Active population was defined by the Thirteenth International Conference of the International Labour Organisation (ILO, 1982), its estimation based on demographic surveys which detail:

- The surveyed population including all normal residents or everyone present in the country at the moment of the survey (general survey).
- A minimum age limit specified by national policies or empirically determined on the basis of the extent and the intensity of participation of young people in economic activities.
- The involvement in economic activities during the survey reference period.

### 4 Data sources identified and possible:

International Labour Organisation (ILO) in the World Bank CD-Rom, WDI 1998: Serial data about women share in the labour force.

Population censuses and household sample surveys.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

4- HUMAN POVERTY INDEX (HPI)			
CHAPTER 1	THÈME 2	CATÉGORY	
POPULATION AND SOCIETY	STANDARD OF LIFE, EMPLOYMENT, SOCIAL INEQUITIES, POVERTY, UNEMPLOYMENT	E	

The human poverty index (HPI) reflects the distribution of progress and measures the backlog of deprivations that remains.

The HPI measures deprivation by using the same dimensions of basic human development as the Human Development Index: ageing, knowledge, life conditions (UNDP definition).

### 2 Unit:

None

### 3 Methodological description and basic definitions:

The index is calculated differently in developing countries (IPH-1) and in the developed countries (IPH-2).

HPI-1 measures poverty in developing countries. The variables used are:

- 1) the percentage of people expected to die before age 40,
- 2) the percentage of adults who are illiterate and
- 3) deprivation in overall economic provisioning—public and private reflected by the percentage of people without access to health services and safe water and the percentage of underweight children under five.

HPI-2 Introduced in the UNDP 1998 report. It measures human poverty in industrial countries. Because human deprivation varies with the social and economic conditions of a community, this separate index has been devised for industrial countries, drawing on the greater availability of data. It focuses on deprivation in the same three dimensions as HPI-1 and one additional one, social exclusion. The variables are:

- 1) the percentage of people likely to die before age 60,
- 2) the percentage of people whose ability to read and write is far from adequate,
- 3) the proportion of people with disposable incomes of less than 50% of the median and
- 4) the proportion of long-term unemployed (12 months or more).

### 4 Data sources identified and possible:

United Nations Development Program (UNDP).

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

5- EMPLOYMENT RATE			
CHAPTER 1	THEME 2	CATEGORY	
POPULATION AND SOCIETY	STANDARD OF LIFE, EMPLOYMENT, SOCIAL INEQUITIES, POVERTY, UNEMPLOYMENT	R	

The employment rate measures the percentage of the active population in employment. In practise this is calculated as a 100% corollary to the unemployment rate.

### 2 Unit :

Percentage

### 3 Methodological description and basic definitions:

The unemployment rate measures the proportion of the active population that, during the reference period was:

(a) "Jobless", that is without paid or independent employment;

(b) "Available", that is to say that could be hired for a job (paid or independent) during the reference period;

(c) "Looking for employment", that is that they have taken specific steps at a certain time to find paid employment or an independent occupation.

### 4 Data sources identified and possible:

Data on the unemployment rate are published in the United Nations Statistical Yearbooks. They come from the Work Statistics Yearbook from the International Labour Organisation, which give a full account of the approach used for drawing up the figures on labour.

National definitions of employment and joblessness often differ from the standard recommended international definitions, which thus limit the options for making comparisons between countries.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	YES	-	-

6-SCHOOL ENROLMENT GROSS RATIO			
CHAPTER 1	THÈME 3	CATÉGORY	
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	Р	

The school enrolment ratio measures the gap between theory and reality as regards schooling. Distinction must be made between gross and net ratio whose definitions (UNESCO) are specified here. Thus, for a given school-year t, if : Ph,t,a = Population in an age group a which officially (theroetically) corresponds to the level of education h in the school-year t.Sh,t = The population actually enrolled at the level of education h in school-year t (regardless of age). The gross school enrolment ration, at school year h, is defined using the following formula :TBh,t= Sh,t/Ph,tlt thus represents, for a given year, the ratio between : the total number of pupils in a specific level of education, primary or secondary, regardless of age, and the official school-age population corresponding to the same level of education in given school-year. This rate can be over 100% (pupils who remain a second year in the same class). The school enrolment ratio, for a given school-year t, is defined using the following formula:Ph,t,a = Population in an age group a which officially corresponds to the level of education h in school-year t. t=Sh,t,a/Ph,t wherebySh,t,a = Population actually enrolled at the level of education h in school-year t which has official age a for the level. It thus represents, for a given year, the ratio between : the total number of pupils in a specific level of education, primary or secondary, of age a, and the total official school-age population corresponding to the same level of education in given school-year. This ratio is always equal to or less than 100%.

# 2 Unit :

Percentage

# 3 Methodological description and basic definitions:

The choice between net and gross enrolment ratio depends on the availability of data in the country. It is always better to use the net enrolment ratio if the data is good enough (long series, without too many gaps).

### 4 Data sources identified and possible:

Statistical yearbook of the UNESCO and on-line databank: http://www.unesco.org.

Scholar census managed by the Ministry of Education.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

# 7- DIFFERENCE BETWEEN MALE AND FEMALE SCHOOL ENROLMENT RATIOS

CHAPTER 1	THÈME 3	CATÉGORY
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	E

### 1 Definition:

This is the arithmetical difference between male and female school enrolment ratio at primary and secondary school levels.

Formula : ERboys - ERgirls

ER = % Enrolment Ratio. This ratio may be net or gross.

### 2 Unit :

Percentage

### 3 Methodological description and basic definitions:

Definitions of gross and net enrolment ratio are presented in the indicator n 6.The choice between net and gross enrolment ratio depends on the availability of data in the country. It is always better to use net enrolment ratio if the data is good enough (a long series, without too many gaps).

### 4 Data sources identified and possible:

Statistical yearbook of the UNESCO and on-line databank: http://www.unesco.org.

Scholar census managed by the Ministry of Education.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

8- PRODUCTION OF CULTURAL GOODS				
CHAPTER 1	THÈME 3	CATÉGORY		
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	E		

This indicator is made of two sub-indicators:

- The first sub-indicator represents the average annual total (3 years period) of the number of first editions titles and the re-edition of original books or translations.

- The second sub-indicator concern the number of long films produced or coproduced during the year.

### 2 Unit :

Number / year

### 3 Methodological description and basic definitions:

At international level, data collected by the UNESCO since 1986 conforms to the revised recommendations concerning the International Standardization of Statistics relating to book production, adopted by the UNESCO at its 23rd General Conference: The following type of publications should be included in book production statistics : Government publications, school textbooks, university theses, offprints, illustrated works. Titles are printed publications which form a separate whole, whether issued in one or several volumes, they are books or pamphlets. A book is a non periodical, printed publication of at least 49 pages. A pamphlet is a non-periodical printed publication of at least 5 but not more than 48 pages. Both must be published in the country and made available to the public.A first edition is the first publication of an original or translated manuscript. A re-edition is a publication that differs from previous publications in content or layout and which requires a new ISBN.It is proposed that the data relating to the titles be averaged over a3 year period. The Universal Decimal Classification (UDC) classes are: General, Philosophy, Religion, Social Sciences, Philology, Pure Sciences, Applied Sciences, Art, Literature, Geography/History, A film is a full length film with a minimum length that varies from 1200 m to 1600 m according to the country.

### 4 Data sources identified and possible:

Ministry of Culture.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

# 9- SHARE OF PRIVATE AND PUBLIC FINANCES ALLOCATED TO THE PROFESSIONAL TRAINING

CHAPTER 1	THÈME 3	CATÉGORY
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING,	R
	AWARENESS IMPROVMENT	

### 1 Definition:

This indicator is composed of two sub-indicators which are defined as: i) the proportion of the public sector operational budget devoted to vocational training and,ii) the proportion of private sector GDP expenditure spent on vocational training.

### 2 Unit :

Percentage

### 3 Methodological description and basic definitions:

Expenditure on vocational training is the funds used to pay teachers, including their sundry expenses, to finance reception facilities provided they are only used for training or for the firm's own use. The indicator is defined separately for the public sector and the private sector. The public sector includes central and local government, and communities on which the State exerts a decisive influence. The private sector refers to all companies whose capital is held by individuals, by private corporations or companies. GDP is an aggregate of National Income Accounting providing a measurement of the added value created by income earning activities in the economy within the country.

### 4 Data sources identified and possible:

Surveys are certainly the best sources of information for the private sector.

Public accounts must ientify professional training expenditures.

Ministry of Education.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

# **10- P**UBLIC EXPENDITURES FOR THE CONSERVATION AND VALUE ENHANCEMENT OF NATURAL, CULTURAL AND HISTORICAL PATRIMONY

CHAPTER 1	THÈME 3	CATÉGORY
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	R

### 1 Definition:

This indicator is defined by the amount of the net total public expenditure allocated in the conservation, the management or the enhancement of the cultural, historical and natural patrimony.

### 2 Unit :

Current US dollars

### 3 Methodological description and basic definitions:

The indicator measures the public effort for preservation, the enhancement and the maintenance of the national patrimony. The patrimony can include as well:

historic sites, museums, the architectural patrimony

the natural sites, which they are or not protected; forests, landscapes.

Culture: languages, arts and traditional craft industries, expertises, the vernacular patrimony...

Each country may have a different definition of patrimony that would be useful to explain.

The public expenditures concern the national expenditures as well as those of the local communities. In certain countries where the intervention of the local communities is dispersed or not easily registered, only the national expenditure will be mentioned.

The net amount of expenditures is calculated according to the formula : (Investment expenditure + Current expenditure + Subsidies to private sector) - (Receipts from by-products + Fees/charges from private sector).

Investment expenditure: outlays and enhancement of durable goods financed by the public sector.

Current expenditure: processing, rents, wages, energy, maintenance costs, purchase of goods and services, for patrimony under public management.

Public subsidies: financial transfers of the public towards the private one aiming at conservation or enhancement of the patrimony under private management.

Receipts from by-products : Where patrimonial estate, under public management, entails receipts from selling a by-product of this activity (e.g. postcards, book, etc), these receipts must be deducted from gross expenditure incurred.

Fees : Financial transfers from patrimonial estate under private management to the public sector. Only taxes which are directly used for financing conservation and value enhancement expenditures by the public sector are included.

### 4 Data sources identified and possible:

Ministries of Culture, Economy, Tourism and Environment are possible data sources at national level.

Local governments and regional communities are possible data sources at local level.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

11- LIFE EXPECTANCY AT BIRTH				
CHAPTER 1	THÈME 4	CATÉGORY		
POPULATION AND SOCIETY	HEALTH, PUBLIC HEALTH	E		

This is the average number of years a new-born child could expect to live, if the agespecific death rates , as calculated at birth were to apply for the rest of its life.

### 2 Unit :

Years

### 3 Methodological description and basic definitions:

The calculation of life expectancy at birth is based on age-specific death rates, which can be calculated separately for males and females, or for both sexes combined.

The death rates are commonly tabulated for ages 0 to 1 years, 1 to 5 years, and for 5-year age groups for age 5 and above.

Where data on deaths by age are of good quality, or adjustments for age misstatement and incompleteness can be made, the life expectancy at birth can be calculated directly from registered deaths and population counts, which are usually based on census enumerations, evaluated and, if necessary, adjusted.

When data on deaths by age are unavailable from registration systems or sample surveys, the life expectancy at birth can be calculated through "indirect" methods based on special questions asked in census or demographic surveys.

### 4 Data sources identified and possible:

World Population Prospects: The 1998 revision, published by the Population Division of the United Nations Secretariat.

Census or demographic surveys at national level.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

12- INFANT MORTALITY RATE				
CHAPTER 1	THÈME 4	CATÉGORY		
POPULATION AND SOCIETY	HEALTH, PUBLIC HEALTH	E		

This indicator is defined by the number of deaths of children under one year old over a period of time, per 1000 live births during the same period.

### 2 Unit :

Number per thousand

### 3 Methodological description and basic definitions:

Data on newborn or infant child deaths can be found in registers of births, marriages and deaths, or urban hospitals. Infant mortality rate can be calculated through indirect or modelling methods based on questions asked in censuses or demographic surveys.

### 4 Data sources identified and possible:

World Population Prospects, the 1998 revision, United Nations.

In the absence of births, marriages and deaths system some special studies carried out on representative samples of the population can provide the necessary data.

Births, marriages and deaths register, survey, census, demographic survey are the first data sources.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

<b>13-ACCESS TO SAFE DRINKING WATER</b>				
CHAPTER 1	THÈME 4	CATÉGORY		
POPULATION AND SOCIETY	HEALTH, PUBLIC HEALTH	R		

This indicator represents the proportion of population with access to an adequate amount of safe drinking water (at least 20 liters per day and per person).

### 2 Unit :

Percentage

### 3 Methodological description and basic definitions:

The indicator measures the population's access rate to infrastructures delivering of safe drinking water.

Safe drinking water is water that does not contain biological or chemical pathogenic agents at concentration levels directly detrimental to health. Its includes treated surface waters and untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells. Streams and lakes waters should be considered safe only if the water quality is regularly monitored and considered acceptable by public health officials.

Reasonable access to water means a water supply in the dwelling or within 15 minutes walking distance.

This indicator is close to the indicator n 86 which measures, on these water supply points, the accidents frequency.

#### 4 Data sources identified and possible:

Wold Bank: World Development Indicators, 1999

The World Health Organization (WHO)

EPI information system of WHO (Global Summary, September 1998)

UNICEF (State of the children of the world, 1999)

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

14- ANNUAL ENERGY CONSUMPTION PER INHABITANT				
CHAPTER 1	THÈME 5	CATÉGORY		
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	Р		

This is the amount of energy –liquid, solid, gas, or electricity– used by an individual in a given year in a given geographical area.

### 2 Unit :

Ton oil equivalent per capita

### 3 Methodological description and basic definitions:

Consumption refers to "apparent consumption", derived from the formula "production + imports - exports - (+/-) stock changes".

Energy consumption values are converted in tons of oil equivalent according to conversion factors of the International Energy Agency (IEA) statistical yearbook 1996. There is a conversion factor proposal in indicator n 71.

The retrospective figures of the population can come from a national estimate of the total population resident at the year considered or from the United Nations (cf indicator n 1).

### 4 Data sources identified and possible:

International Energy Agency (IEA) : Statistiques et bilans énergétiques des pays de l'OCDE 1995-1996 OCDE Edition 1998 and Statistiques et bilans énergétiques des pays non-membres 1995-1996 OCDE Edition 1998.

Ministries of Economy, Industry and Environment.

National energy Agency.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

<b>15- NUMBER OF PASSENGER CARS PER 100 INHABITANTS</b>				
CHAPTER 1	THÈME 5	CATÉGORY		
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	Р		

This indicator is calculated by taking the proportion of passenger cars in use over the total population multiplied by 100.

# 2 Unit :

Number per hundred inhabitants

### 3 Methodological description and basic definitions:

Passenger cars are those with no more than 9 seats including hire cars, taxis, jeeps, estate cars and other light transport mixed-use vehicles.

The retrospective figures of the population can come from a national estimate of the total population resident at the year considered or from the United Nations (cf indicator n 1).

### 4 Data sources identified and possible:

International Road Federation database, World Road Statistics.

United Nations Statistical yearbooks.

Ministry of Transports

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	YES	-	-

<b>16- MAIN TELEPHONE LINES PER 100 INHABITANTS</b>				
CHAPTER 1	THÈME 5	CATÉGORY		
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	E		

The indicator is obtained by dividing the number of installed main telephone lines by the population and multiplying by 100.

Formula: telephone line nb x100

inhabitant nb

### 2 Unit :

Number per hundred inhabitants

### 3 Methodological description and basic definitions:

The definition of a main telephone line is a telephone line connecting a subscriber's terminal to the public switched telephone network and which has a dedicated port in the telecommunication network.Because of the fast development of cellular phones, it is suggested that the number of subscribers to cellular telephony systems should be included.

### 4 Data sources identified and possible:

International Telecommunications Union, World Telecommunication Development Report and database. Series: Telephone main lines (per 1,000 people).

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-

17-DISTRIBUTION OF FOOD CONSUMPTION PER INCOME DECILE					
CHAPTER 1	THÈME 5	CATÉGORY			
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	E			

This indicator is defined as the proportion of the annual budget devoted by the inhabitants of a country to food consumption. Population is broken down into income deciles for whom the amount of food expenditure as a percentage of income is supplied.

### 2 Unit :

Percentage for each income decile

### 3 Methodological description and basic definitions:

The indicator may, according to the country, be estimated based on the income of the inhabitants, or on household consumption. Generally, the results of representative surveys carried out at national level are used. These allow the population (or households) to be classified according to income and drawing up proportion of income devoted to food expenditure for each class. This rate should be higher, the lower income, and thus the ability to save, is. If the data is only available per household, conversion to the number of inhabitants will be attempted if the size of households is known. If not, the figures per household will be supplied. The population should be classified according to increasing size of total annual income. The following table is suggested to assist in calculating the indicator: Size of Classes by inhabitant or householdsYear of survey: \_ If required: Exchange rate used for converting -> \$US national currency: \* Use a separate table for each vear. The monetary values for the deciles, for the total and food budgets should be converted from local currency into current US dollars by using the World Bank conversion tables for example. The deciles are the values for a feature that divide the total size of a range into 10 equal groups, values for the range being sorted in increasing order. There are nine deciles annotated as D1 to D9 that separate ten equivalently sized population classes. In the table above, class A represents the 10% of the population that has the lowest income; class J the 10% with the highest income.

# 4 Data sources identified and possible:

United Nations: National accounts statistics.

Statistical yearbook of Eurostat.

World Bank.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	LITTORAL AREA	MEDITERRANEAN SPOT
-	YES	-	-	-