

CHAPTER 8

Measuring and Promoting Sustainable Development

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References

Human-centered sustainable development is the best means of long-term crisis prevention.

—H.E. Ms. Tarja Halonen, President of the Republic of Finland
and Co-President of the UN Millennium Summit

The World Commission on Environment and Development defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”¹ Five years later, 178 states agreed at the United Nations Conference on Environment and Development in Rio to include the sustainable development approach in official development concepts.

The Rio Declaration says:

Methods for accessing interactions between different sectoral environmental, demographic, social and developmental parameters are not sufficiently developed or applied. Indicators of sustainable development need to be developed to provide solid basis for decisionmaking at all levels.

Because sustainable development is considered a leading goal for policy, measures for progress toward it can help identify which policies are more effective over time.

This chapter explores two approaches for creating an index and map of sustainable development. Although similar in methodology, there are differences in the selection of indicators, weights, and sources of data. Both methodologies are still in development, and reader feedback is most welcome at <acunu@igc.org>.

¹ World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987).

8.1.1. SUSTAINABLE DEVELOPMENT INDEX

A. Sustainable Development Index

—Updated in 2005—

This study was conducted by the Central European Node of the Millennium Project.² And expands on the Sustainable Development Index first introduced in the *2001 State of the Future* (see next section). Chapter 7. Sustainable Development Index and Quality and Sustainability of Life Indicators in the print section of the *2005 State of the Future* presents an executive summary of the study. This section, presents more details on the methodology and results.

Sustainable development is defined as *development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*³ Sustainable development should be a “life style which seeks for the balance between liberties and rights of each individual and his/her responsibilities towards other people and Nature as a whole, including the responsibility towards the next generations” (Vavrousek 2000).

As sustainable development became a leading goal in policymaking, measuring progress and identifying policies that can help archive sustainable development became crucial. Therefore a good set of indicators is needed to make sustainable development generally understandable, measurable, and manageable.

Following the recommendation of the UN Conference on Environment and Development (UNCED), in 1995 the UN Commission on Sustainable Development came up with a set of indicators (Indicators of Sustainable Development) which contains 134 indicators divided into four main areas: social (41), economic (23), environmental (55) and institutional (15). Between 1997 – 99 these indicators were tested in 22 countries. In 2000 a modified set of 57 indicators was proposed (UN 2000b). It was intended to serve as an instrument to measure the progress of individual countries towards sustainable development.

Several international organizations have created development indicators: the World Bank has the World Development Indicators, UNDP has the Human Development Index, the World Resources Institute has the World Resources Report, WHO has the Health for All database, and OECD has the Core Set of Environmental Indicators. However, integrated sustainable development indicators to measure world progress toward sustainability have appeared just recently (e.g., Environmental Sustainability Index, Sustainability Dashboard, Ecological Footprint, Living Planet Index, and the Well-being Index).

² Study conducted by Peter Mederly, Regioplan Nitra, Slovak Republic; Pavel Novacek, Center for Social and Economic Strategies, Charles University in Prague and Center for Interdisciplinary Studies, Palacky University in Olomouc, Czech Republic; and Ján Topercer, Comenius University, Botany Garden, Research Unit Blatnica, Slovak Republic.

³World Commission on Environment and Development, *Our Common Future* (Oxford: Oxford University Press, 1987).

PHILOSOPHY AND METHODOLOGY

The objective of the SD Index is to express numerically the state of development and the progress towards sustainable development of individual countries.

1. Setting up of philosophy and methodology of SD Index.

The SD Index has a hierarchical structure composed of seven major subject areas, fourteen indicators (two indicators for each major area) and 64 variables (various number of variables for individual indicators). It was calculated for 179 countries for which the minimal necessary data was available. The Index is expressed by a relative scale of 0–1, where the higher value means better progress towards sustainable development.

A Sustainable Development Index should cover all significant areas of sustainable development. Because the four topics recommended by the UN Commission on Sustainable Development (environmental, social, economic, and institutional) do not cover all the areas, a new set of seven areas was selected:

- human rights, freedom, and equality;
- demographic development and life expectancy;
- health conditions and health care;
- education, technologies, and information;
- economic development and foreign indebtedness;
- resource consumption and eco-efficiency; and
- environmental quality and environmental problems.

Table 1 presents the basic structure of the SD Index.

Table 1. Basic Structure of the Sustainable Development Index

| | | | |
|-------------------------------|---|----|--|
| Sustainable Development Index | 1. Human rights, freedom, and equality | A. | Politics and human rights |
| | | B. | Equality |
| | 2. Demographic development and life expectancy | C. | Demographic development |
| | | D. | Life expectancy, mortality |
| | 3. Health conditions and health care | E. | Health care |
| | | F. | Diseases and nutrition |
| | 4. Education, technologies, and information | G. | Education |
| | | H. | Technologies and information sharing |
| | 5. Economic development and foreign indebtedness | I. | Economy |
| | | J. | Indebtedness |
| | 6. Resource consumption and eco-efficiency | K. | Economy: genuine savings |
| | | L. | Economy: resource consumption |
| | 7. Environmental quality and environmental problems | M. | Environment: natural resources, land use |
| | | N. | Environment: urban and rural problems |

The variables were selected based on the following criteria:

- relevance to the indicator as well as coherence with sustainable development;
- long-term observation and evaluation of the variable (data available for last several years, allowing extrapolation for trends);
- data available at least for 100 countries (with some exceptions); and
- minimization of the number of data sources (it is desirable to use one source of information for most of the variables).

Based on these criteria, 64 variables were selected; the number of variables for one subject area varying from six to thirteen.

The construction of sub-indexes and one overall SD Index represents a methodological problem. The Index is calculated as an arithmetical average of all the variables relevant for the respective country. Weighing of the variables was considered, but finally, at this stage of the study, it was decided to consider all the variables of equal weight. The reason is that we do not know yet the mutual relations among the variables and their significance. Determining the weight it's a task for the next phase in the SD Index evaluation, based on multidimensional data analysis and finding correlations between individual variables.

2. Collection of data and their basic arrangement

The individual variables were entered into a database. Only three main sources were used: World Development Indicators 2003 database, Human Development Report 2003, and Freedom House database.

3. Statistical analysis and preparation of data

Because the majority of the variables don't represent—of statistical point of view—normal sets of data with high occurrence of outlying values, it was necessary to trim and transform the data before calculating the index.

In the process of statistical testing and parameters evaluation (data screening) numerous calculations were evaluated (e.g. size of samples, average, standard deviation, median, D'Agostino tests of data normality, histogram of classes' numerousness, individual percentiles of data division).

The data was then prepared according to following process:

- assignment of threshold data on the basis of real division of data – five, respectively 10 percentile, in some justified cases twenty five percentile and median;
- “cutting” (trimming) of data according to this value, and assignment of percentile;
- transformation of the variables containing negative values to get just positive values;
- transformation of all the variables on the basis of logarithm of ten according to the following formula:

$$X_{\text{transf}} = \log_{10}(X+1)$$

4. Calculation of the sub-indexes for all 64 variables

The calculation was done based on transforming the variables to a unified scale (0,1) according to the formula:

$I_{xi} = (X_i - X_{min}) / (X_{max} - X_{min})$ if favorability of observed phenomena is decreasing with increasing value of X_i

$I_{xi} = (X_{max} - X_i) / (X_{max} - X_{min})$ if favorability of observed phenomena is increasing with increasing value of X_i ,

0 = the most unfavorable value of I_{xi} ; 1 = the most favorable value of I_{xi}

By this process there was gained data basis for calculation of overall SD Index as well as for subindexes for seven subject areas.

5. Calculation of the SD Index and sub-indexes

This phase consisted of:

1. Calculation of the overall SD Index by arithmetic average of sub-indexes of variable I_{xi}

2. Calculation of sub-indexes for the seven subject areas $I_1 - I_7$

3. Evaluation of the results—assigning to countries the rank by the SD Index as well as by the seven subject areas; calculation of the average rank and development balance of countries; evaluation of world geographical regions and income groups according to the SD Index. The NCSS Statistical System⁴ was used to process the data statistically.

⁴ NCSS Stat System <http://www.ncss.com/>

Table 2 – Basic Statistical Characteristics of the Variables

| | Variable | Units | Source | Year | Count |
|--|---|---------------------------|--------|------|-------|
| 1 - Human rights, freedom and equality | | | | | |
| A1 | Index of political rights | Index | FH | 2000 | 179 |
| A2 | Refugees - country of origin | per thous. Peo | HDR | 2000 | 107 |
| A3 | Military expenditure | % of GDP | WDI | 2000 | 139 |
| A4 | Military personnel | % of labour force | WDI | 1999 | 159 |
| B1 | Gender development index | Index | HDR | 2000 | 145 |
| B2 | Children labour force | % of 10-14 year | WDI | 2000 | 167 |
| 2 - Demographic development and life expectancy | | | | | |
| C1 | Annual population growth | % | WDI | 2000 | 179 |
| C2 | Share of population 0-14 to 65+ | % | WDI | 2000 | 179 |
| D1 | Infant mortality rate | per 1000 birth | WDI | 2000 | 179 |
| D2 | Under 5 mortality rate | per 1000 birth | WDI | 2000 | 179 |
| D3 | Life expectancy at birth | Years | WDI | 2000 | 179 |
| D4 | Death rate, crude | per 1,000 people | WDI | 2000 | 179 |
| 3 - Health state and health care | | | | | |
| E1 | Health expenditure, public | % of GDP | WDI | 2000 | 177 |
| E2 | Health expenditure, per capita | USD/cap. | WDI | 2000 | 175 |
| E3 | Child immunization – DPT | % of children < 12 months | WDI | 1999 | 178 |
| E4 | Child immunization – measles | % of children < 12 months | WDI | 2000 | 176 |
| E5 | Physicians | per 1000 peo. | WDI | 1998 | 167 |
| E6 | Birth attended by skilled health start | % of total | WDI | 2000 | 159 |
| E7 | Hospital beds | per 1000 peo. | WDI | 1998 | 109 |
| F1 | Tuberculosis | per 100,000 peo. | WDI | 2000 | 149 |
| F2 | Prevalence of HIV | % of adult | WDI | 2000 | 149 |
| F3 | Prevalence of child malnutrition, by weight | % of children < 5 | WDI | 2000 | 126 |
| F4 | Undernourishment | % of people | HDR | 2000 | 129 |
| F5 | Access to improved water sources | % of popul. with access | WDI | 2000 | 146 |
| 4 - Education, technologies and information | | | | | |
| G1 | Adult illiteracy rate | % of 15+ | WDI | 2000 | 154 |
| G2 | School enrollment, secondary | % net | WDI | 2000 | 134 |
| G3 | School enrollment, primary | % net | WDI | 2000 | 154 |
| G4 | Public spending on education, total | % of GDP | WDI | 2000 | 157 |
| H1 | Telephone mainlines | per 1000 peo. | WDI | 2000 | 179 |
| H2 | Personal computers | per 1000 peo. | WDI | 2000 | 150 |
| H3 | Internet users | per 10000 peo. | WDI | 2000 | 177 |
| H4 | Daily newspapers | per 1000 peo. | WDI | 1998 | 152 |
| H5 | Television sets | per 1000 peo. | WDI | 2000 | 179 |
| H6 | Mobile phones | per 1000 peo. | WDI | 2000 | 170 |
| 5 - Economic development and foreign indebtedness | | | | | |
| I1 | GDP per capita | USD, const. 1995 | WDI | 2000 | 170 |
| I2 | PPP GDP per capita | curr. int. \$ | WDI | 2000 | 162 |
| I3 | Annual GDP growth | % | HDR | 2000 | 163 |
| I4 | Adjusted savings: net national saving | % of GNI | WDI | 2000 | 166 |
| I5 | Gross domestic savings | % of GDP | WDI | 2000 | 154 |
| I6 | Aid per capita | current US\$ | WDI | 2000 | 156 |

| | Variable | Units | Source | Year | Count |
|--|--|---------------------------------|--------|------|-------|
| I7 | Current account balance | % of GDP | WDI | 2000 | 161 |
| I8 | Foreign direct investment, net inflows | % of GDP | WDI | 2000 | 159 |
| I9 | High-technology exports | % of manufactured exports | WDI | 2000 | 129 |
| I10 | Overall budget balance, including grants | % of GDP | WDI | 2000 | 117 |
| I11 | Unemployment, total | % of total labor force | WDI | 1999 | 102 |
| K1 | External debt, total | DOD, current US\$ | WDI | 2000 | 138 |
| K2 | Total debt services | % of GNI | WDI | 2000 | 136 |
| 6 - Resource consumption, ecoefficiency | | | | | |
| L1 | Adjusted savings: energy depletion | % of GNI | WDI | 2000 | 176 |
| L2 | Adjusted savings: mineral depletion | % of GNI | WDI | 2000 | 171 |
| L3 | Adjusted savings: net forest depletion | % of GNI | WDI | 2000 | 171 |
| M1 | GDP per unit of energy use | PPP \$ per kg of oil equivalent | WDI | 2000 | 121 |
| M2 | Commercial energy use | per cap. Kg of oil eqv. | WDI | 2000 | 128 |
| M3 | Electric power consumption | per capita kWh | WDI | 2000 | 123 |
| M4 | Passenger cars | per 1,000 people | WDI | 1999 | 166 |
| 7 - Environmental quality, environmental problems | | | | | |
| N1 | Nationally protected areas | % of land area | WDI | 2001 | 144 |
| N2 | Freshwater resources | m3 per capita | WDI | 2000 | 148 |
| N3 | Forest area | % of land area | WDI | 2000 | 174 |
| N4 | Arable land | % of land area | WDI | 2000 | 176 |
| O1 | Population in agglomeration > 1 mil. | % of total | WDI | 2000 | 175 |
| O2 | Rural population density | peo/km2 | WDI | 2000 | 174 |
| O3 | Urban population growth | annual % | WDI | 2000 | 178 |
| O4 | CO2 emissions | metric tons per capita | WDI | 1999 | 178 |
| O5 | Urban population | % of total | WDI | 2000 | 178 |

Units – measuring units, Source – source of data (WDI – World Development Indicators 2003, FH – Freedom House, HDR – Human Development Report 2003), Year – year of data collection for most countries, Count – number of countries with data available.

Basic Results

In this chapter are given the main results for the SD Index calculation.

The first major area covers **human rights, freedom and equality** (*politics*). Sustainable development is not achievable if people have to live in totalitarian state, without the privilege of freedom or in a society that is polarized by huge income gap. Therefore this area is considered as one of the most important aspects of sustainable development, despite that until now it was rather omitted. The main thematic topics of this area are:

- *Politics and human rights*. In this group were considered four variables: Index of political rights and civil liberties, Refugees according to country of origin, Military expenditure, Number of people serving in military forces.
- *Equality*. Two variables were considered in this area: Income distribution –Gender development index and Children labor force.

The sub-index was computed for 155 countries. Among the best ten countries there are developed democratic countries: Canada, Iceland, Japan, Luxembourg, New Zealand, Australia, Ireland, Spain, Netherlands and Switzerland. The worst situation was determined in Eritrea, Bhutan, Burundi, Ethiopia, Angola, Rwanda, Zaire, Haiti, Sudan and Congo.

The second major subject area covers **demographic development and life expectancy** (*demography*). Despite the fact that globally, the population growth rate decreases, the total number of people living on Earth increases (60 million each year), especially in developing countries. For developed countries stagnation is typical, population is getting older and even “dies out“ in some regions (the number of born babies is lower than the number of deaths in one year). The main thematic topics of this area are:

- *Demographic development*. In this group there were considered two variables: Annual population growth, and Population aging (share of young and old people).
- *Life expectancy, mortality*. Four variables were considered: Infant mortality rate, Under 5 years of age mortality rate, Life expectancy at birth, Death rate.

The sub-index was computed for all 179 countries. Among the states with best results are Iceland, New Zealand, Cyprus, Cuba, Finland, Norway, South Korea, France, Japan and Australia. The worst score reached Niger, Afghanistan, Mali, Angola, Sierra Leone, Somalia, Ethiopia, Burkina Faso, Zaire and Zambia.

The third major subject area covers **health state and health care** (*health*), which depends considerably on the strength of the economy. Therefore it remains one of the priorities in developing countries and this area is also one of the most important on the way towards sustainable development. The main thematic topics of this area are:

- *Health care*. In this group were considered seven variables: Health expenditure as % of GDP, Total health expenditure (USD/person), Child immunization - DPT, Child immunization - measles, Number of physicians per 1000 people, Hospital beds, Birth attended by skilled health staff.
- *Diseases and nutrition*. Five variables were considered: Number of tuberculosis cases per 100 000 people, Prevalence of HIV, Prevalence of child malnutrition, Undernourishment, Access to improved water sources.

The sub-index in this area was computed for 177 countries. The best situation seems to be in Iceland, Norway, Netherlands, Germany, Israel, Switzerland, Luxembourg, Denmark, Finland and Belgium. The worst situation seems to be in Ethiopia, Angola, Afghanistan, Chad, Niger, Congo, Central African Republic, Somalia, Equatorial Guinea and Burkina Faso.

The fourth major subject area monitors **education, technologies and information** (*education*). In developed countries with modern economy, education, information and accessibility to education and information technology have become the most important factor of economic development and creation of wealth. This is also the area that can help developing countries to overcome the vicious circle of poverty and underdevelopment, rapid population growth and damaging of the environment. Information is not lost or diminished by sharing; by the contrary, it can be used and shared without limit (“not zero sum economy”).

The main thematic topics of this area are:

- *Education* - in this group were considered four variables: Adult illiteracy rate, Primary school enrollment ratio, Secondary school enrollment ratio, Public spending on education.
- *Technologies and information sharing* - were considered six variables: Number of telephone mainlines, Personal computers, Internet users, Number of daily newspapers, Television sets, Mobile phones per person.

The sub-index in this area was computed for 177 countries. The highest score was reached by Sweden, Denmark, Iceland, Norway, Finland, Switzerland, Netherlands, United Kingdom, Austria and New Zealand. The worst situation was determined in Burkina Faso, Zaire, Central African Republic, Chad, Mali, Mozambique, Niger, Ethiopia, Sierra Leone and Haiti.

The fifth major problem area covers **economic development and foreign indebtedness** (*economy*). It is obvious that the ability of specific country to make progress towards sustainable development is conditioned by advanced economy. Rich countries “can afford” sustainable development and the population is also more sensitive towards the environment and sustainability issues. On the contrary, foreign indebtedness (above all in developing countries) annihilates the optimistic expectation for better future. The main thematic topics of this area are:

- *Economy*. In this group were considered eleven variables: GDP per capita, GDP per capita according to purchasing power parity, Annual GDP growth, Net national savings, Gross domestic savings, Aid per capita, Current account balance, Foreign direct investments, High-technology exports, Overall budget balance, Unemployment.
- *Indebtedness*. Two variables were considered: Total per capita external debt, Total debt services.

The sub-index in this area was computed for 169 countries. Among the best countries seem to be Luxembourg, Singapore, Ireland, Netherlands, Switzerland, Denmark, Canada, Finland, Sweden and United Kingdom. The worst situation seems to be in Lebanon, Sierra Leone, Sao Tome, Comoros, Guyana, Nicaragua, Surinam, Salomon Islands, Eritrea and Malawi.

The sixth major problem area monitors **resource consumption, ecoefficiency** (*resources*). There are economically successful countries that do not score very well in this index. On the contrary, there are developing countries with very low value of consumption of natural resources (mainly connected with industrial underdevelopment). The main thematic topics of this area are:

- *Economy – genuine savings*. In this group we considered three variables: Energy depletion, Mineral depletion, Net forest depletion (genuine savings means relative expression of consumption, or deterioration of domestic resources with regard to the process of GDP growth.)
- *Economy – resource consumption*. Four variables were considered: GDP per unit of energy use, Commercial energy use, Electric power consumption, Passenger cars.

The sub-index in this area was computed for 171 countries. The best situation was determined in Sao Tome, Iraq, Swaziland, Mauritius, Vanuatu, St. Kitts and Nevis, Fiji, Comoros, Macedonia and Belize.

Among the lowest ranked countries there are Liberia, Guinea, Ghana, Kuwait, Sierra Leone, Ethiopia, Australia, Bahrain, Pakistan and Canada.

The seventh major problem area monitors **environmental quality and environmental problems** (*environment*). Environmental aspects of development are crucial, without good quality of the environment sustainable development is not possible. The main thematic topics of this area are:

- *Environment – natural resources, land use.* In this group we rated four variables: Nationally protected areas, Freshwater resources, Forest area, and Arable land area.
- *Environment – urban and rural problems.* We rated five variables: Population living in agglomeration higher than 1 million, Rural population density, Urban population growth, CO2 emissions and Share of urban population.

The sub-index in this area was computed for 178 countries. The best results reached Guyana, Central African Republic, Samoa, Zambia, Guinea-Bissau, Namibia, Zaire, Cambodia, Laos and Panama. The worst situation seems to be in Kuwait, United Arab Emirates, Libya, Lebanon, Jordan, Bahrain, Singapore, Oman, Egypt, and El Salvador.

The value of the SD Index was calculated as an arithmetical average of the sub-indexes of individual variables. In all, 179 countries were evaluated but the accessible data for individual countries varied from 34 (Afghanistan) to all 64 variables (8 countries). However, due to the careful selection of the variables, the overall coverage of data was very good (10,346 data samples representing 90.3% from a maximum possible of 11,456).

According to the overall SD Index, countries are ranked similarly to the first five major subject areas (for top and bottom countries)—see Table 3. This confirms that today the world is sharply divided and polarized: rich and “western-way” developed countries of the North (partially with exception of natural resources consumption, ecoefficiency and quality of the environment) and poor, from western point of view underdeveloped countries of the South. The first group is composed of Western European countries, USA, Canada, Australia and New Zealand, Japan and also some countries of former communist bloc – Central European and Baltic states. The “most poor and underdeveloped” are most of African countries, some countries of South and South-Eastern Asia and Haiti. There is an unbelievable difference between these two groups. In the space between these two extremes there are the rest of the countries—for example countries of South and Central America, most countries of former Soviet Union and most of Asian countries (see Figure 1).

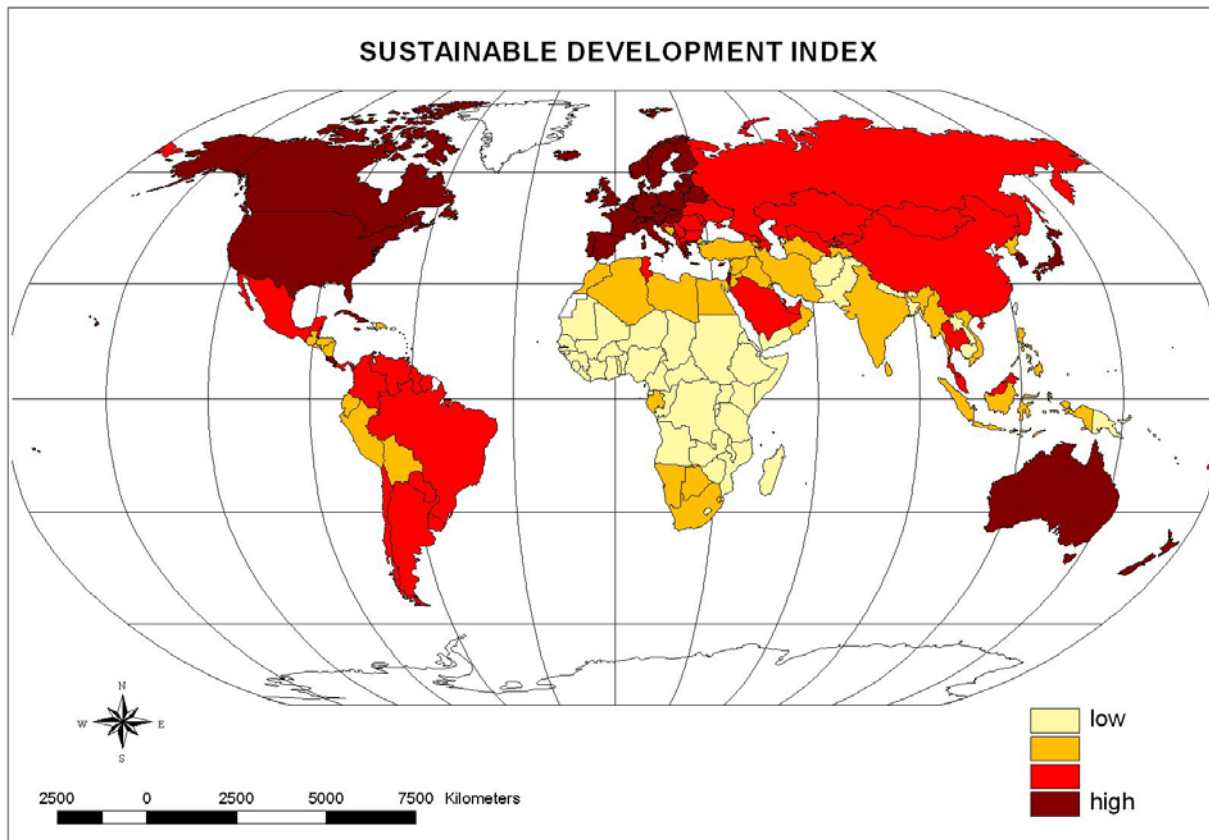
Table 3 shows the top 20 and the lowest 20 rated countries by the SD Index. The map in Figure 1 highlights areas by their respective rating.

Table 3—SD Index: Order of Selected Countries

| Rank | Country | SD Index | Subject Area* | | | | | | | Av. Order |
|-----------------------------------|------------------|----------|---------------|-----|-----|-----|-----|-----|-----|-----------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 20 top-ranked countries | | | | | | | | | | |
| 1 | Sweden | 0.885 | 21 | 12 | 12 | 1 | 9 | 113 | 24 | 27.4 |
| 2 | Finland | 0.882 | 15 | 5 | 9 | 5 | 8 | 120 | 33 | 27.9 |
| 3 | Switzerland | 0.874 | 10 | 15 | 6 | 6 | 5 | 58 | 52 | 21.7 |
| 4 | Luxembourg | 0.873 | 4 | 16 | 7 | 20 | 1 | 105 | | 25.5 |
| 5 | New Zealand | 0.871 | 5 | 2 | 19 | 10 | 17 | 134 | 11 | 28.3 |
| 6 | Norway | 0.870 | 22 | 6 | 2 | 4 | 14 | 138 | 20 | 29.4 |
| 7 | Denmark | 0.858 | 12 | 11 | 8 | 2 | 6 | 69 | 159 | 38.1 |
| 8 | Ireland | 0.855 | 7 | 23 | 22 | 22 | 3 | 92 | 103 | 38.9 |
| 9 | Netherlands | 0.848 | 9 | 19 | 3 | 7 | 4 | 84 | 129 | 36.4 |
| 10 | Austria | 0.847 | 14 | 14 | 15 | 9 | 15 | 71 | 75 | 30.4 |
| 11 | Iceland | 0.844 | 2 | 1 | 1 | 3 | 19 | 142 | 140 | 44.0 |
| 12 | Germany | 0.843 | 17 | 20 | 4 | 15 | 12 | 76 | 149 | 41.9 |
| 13 | Japan | 0.837 | 3 | 9 | 18 | 16 | 20 | 59 | 152 | 39.6 |
| 14 | Canada | 0.836 | 1 | 18 | 14 | 14 | 7 | 162 | 81 | 42.4 |
| 15 | France | 0.832 | 33 | 8 | 11 | 12 | 16 | 89 | 116 | 40.7 |
| 16 | Belgium | 0.826 | 11 | 17 | 10 | 11 | 13 | 94 | 153 | 44.1 |
| 17 | Slovenia | 0.824 | 23 | 21 | 21 | 18 | 41 | 81 | 50 | 36.4 |
| 18 | Spain | 0.821 | 8 | 32 | 28 | 25 | 22 | 57 | 114 | 40.9 |
| 19 | United Kingdom | 0.817 | 19 | 24 | 24 | 8 | 10 | 96 | 135 | 45.1 |
| 20 | United States | 0.816 | 27 | 29 | 26 | 19 | 11 | 111 | 119 | 48.9 |
| 20 lowest-ranked countries | | | | | | | | | | |
| 161 | Nigeria | 0.380 | 95 | 159 | 165 | 157 | 87 | 155 | 136 | 136.3 |
| 162 | Congo, Rep. | 0.368 | 146 | 147 | 172 | 149 | 84 | 141 | 121 | 137.1 |
| 163 | Liberia | 0.368 | | 169 | 155 | 148 | 118 | 171 | 37 | 133.0 |
| 164 | Rwanda | 0.366 | 150 | 167 | 152 | 146 | 113 | 140 | 134 | 143.1 |
| 165 | Mozambique | 0.366 | 125 | 164 | 148 | 170 | 152 | 153 | 44 | 136.6 |
| 166 | Angola | 0.354 | 151 | 176 | 176 | 163 | 79 | 121 | 48 | 130.6 |
| 167 | Guinea | 0.354 | 92 | 158 | 160 | 165 | 133 | 170 | 106 | 140.6 |
| 168 | Chad | 0.350 | 141 | 165 | 174 | 172 | 132 | 43 | 21 | 121.1 |
| 169 | Haiti | 0.348 | 148 | 137 | 167 | 166 | 88 | 122 | 168 | 142.3 |
| 170 | Mauritania | 0.339 | 134 | 157 | 145 | 154 | 147 | 145 | 146 | 146.9 |
| 171 | Congo, Dem. Rep. | 0.338 | 149 | 171 | 166 | 174 | 138 | 128 | 7 | 133.3 |
| 172 | Eritrea | 0.337 | 155 | 146 | 147 | 162 | 161 | 63 | 94 | 132.6 |
| 173 | Burkina Faso | 0.336 | 128 | 172 | 168 | 175 | 142 | 36 | 67 | 126.9 |
| 174 | Ethiopia | 0.325 | 152 | 173 | 177 | 168 | 102 | 166 | 83 | 145.9 |
| 175 | Sierra Leone | 0.313 | 131 | 175 | 164 | 167 | 168 | 167 | 55 | 146.7 |
| 176 | Niger | 0.312 | 123 | 179 | 173 | 169 | 140 | 160 | 109 | 150.4 |
| 177 | Burundi | 0.306 | 153 | 168 | 153 | 161 | 153 | 154 | 156 | 156.9 |
| 178 | Somalia | 0.295 | | 174 | 170 | | | | 117 | 153.7 |
| 179 | Afghanistan | 0.233 | | 178 | 175 | | | | 125 | 159.3 |

1 Politics, 2 Demography, 3 Health, 4 Education, 5 Economy, 6 Resources, 7 Environment.

Figure 1. World Map of Sustainable Development Index



The Development Balance Index

The development balance of individual countries was evaluated according to the values of the sub-indexes of the seven major subject areas. The ratio between the highest and lowest value of the sub-indexes is called the **Development Balance Index**.

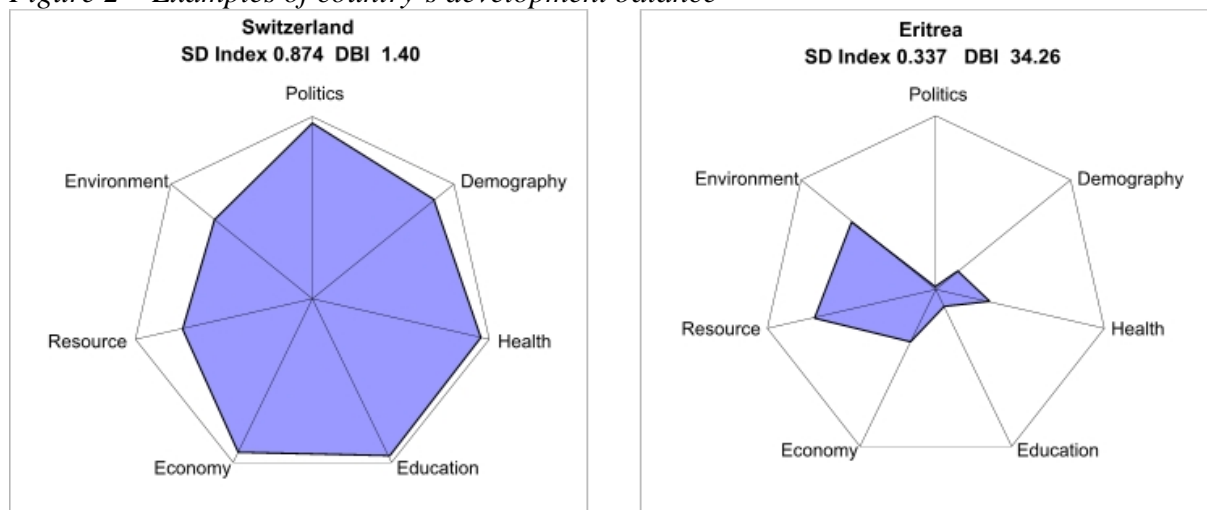
The most industrialized countries do not necessarily get the highest score on the Development Balance Index, because some of them are associated with excessive consumption of natural resources, jeopardizing the quality of the environment (e.g., Canada, Australia, Denmark, Japan, Belgium, and Germany). This is a serious challenge that needs to be addressed in order to guarantee a better future.

Among the countries with the best Development Balance Indexes are Costa Rica (1.18), Romania (1.20), Brazil (1.23), Chile (1.25), Peru, Colombia, Mexico (all at 1.30), Malaysia (1.33), Slovenia (1.34), and Ecuador and Cyprus (1.35). The poorest and least developed countries have the most unfavorable DBIs, with index values higher than 10. Extreme cases are especially Burkina Faso, Congo, Eritrea, Niger, Central African Republic, Chad, Mali, Angola, Sierra Leone, and Zambia.

On the other hand, a good score on the DBI accompanied by a relatively low level on the SD Index is certainly not a goal of development (e.g., Ecuador, Tajikistan, and the Philippines). Therefore, the DBI should be very carefully used in a broader context and in association with other indexes. Regardless, the DBI and the SD Index can be important instruments for decisionmaking by helping to identify not just the development status but also priority areas for aid and investment.

Development balance of individual countries can be expressed also graphically as a diagram. The diagrams of Figure 2 are a graphic representation of the DBI for two countries with extreme differences.

Figure 2 – Examples of country's development balance



SD Index for world regions and income groups

In addition to computing the SD Index for 179 world countries, the overall SD Index and sub-indexes were calculated for regions of the World (17 world regions based on geographical location and political relationships) and for main income groups of individual countries (6 groups based on GDP level according to the World Bank). The results are presented in Table 4–5, and respectively Figures 3–4.

The highest value of SD index reached the regions of North and West Europe and North America; opposite are all African regions (especially West Africa) and South Asia.

The direct proportionality rule is valid in comparing the GDP and the SD Index—increasing income of regions is also reflected in an increased value of the SD Index, and vice versa, to lowest income correspond lowest SD Index. But this principle is not absolutely true in the case of regional development balance—the highest income countries have shortages because of deficiency in resource consumption and quality of the environment.

Table 4. SD Index for Main World's Regions

| Region | SD Index | Subject Area* | | | | | | | DBI |
|-------------------------|----------|---------------|-------|-------|-------|-------|-------|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| South and East Africa | 0,456 | 0,487 | 0,192 | 0,365 | 0,322 | 0,526 | 0,673 | 0,649 | 5,083 |
| West Africa | 0,410 | 0,493 | 0,151 | 0,272 | 0,207 | 0,502 | 0,613 | 0,664 | 5,613 |
| North Africa | 0,459 | 0,421 | 0,347 | 0,442 | 0,342 | 0,520 | 0,689 | 0,525 | 2,641 |
| Southwest Asia | 0,582 | 0,478 | 0,540 | 0,686 | 0,629 | 0,627 | 0,640 | 0,388 | 2,237 |
| South Asia | 0,468 | 0,474 | 0,355 | 0,416 | 0,329 | 0,608 | 0,611 | 0,586 | 2,330 |
| East Asia | 0,665 | 0,736 | 0,687 | 0,647 | 0,726 | 0,742 | 0,650 | 0,564 | 1,815 |
| Central Asia | 0,616 | 0,700 | 0,467 | 0,691 | 0,489 | 0,604 | 0,637 | 0,691 | 1,701 |
| Southeast Asia | 0,577 | 0,533 | 0,526 | 0,497 | 0,511 | 0,694 | 0,640 | 0,635 | 1,941 |
| Australia and Pacific | 0,645 | 0,815 | 0,617 | 0,670 | 0,587 | 0,581 | 0,683 | 0,726 | 1,966 |
| Former-Soviet Europe | 0,650 | 0,659 | 0,613 | 0,739 | 0,641 | 0,607 | 0,667 | 0,602 | 1,562 |
| Central and East Europe | 0,721 | 0,783 | 0,713 | 0,814 | 0,772 | 0,589 | 0,720 | 0,653 | 1,555 |
| North Europe | 0,868 | 0,946 | 0,877 | 0,959 | 0,988 | 0,885 | 0,605 | 0,635 | 1,810 |
| West Europe | 0,846 | 0,946 | 0,847 | 0,938 | 0,941 | 0,906 | 0,685 | 0,571 | 1,659 |
| South Europe | 0,762 | 0,801 | 0,798 | 0,856 | 0,820 | 0,731 | 0,767 | 0,537 | 1,692 |
| North America | 0,826 | 0,946 | 0,824 | 0,909 | 0,931 | 0,896 | 0,525 | 0,602 | 1,926 |
| Central America | 0,636 | 0,689 | 0,618 | 0,653 | 0,614 | 0,590 | 0,763 | 0,617 | 1,685 |
| South America | 0,640 | 0,745 | 0,591 | 0,643 | 0,670 | 0,541 | 0,717 | 0,688 | 1,604 |
| World | 0,595 | 0,642 | 0,504 | 0,598 | 0,555 | 0,610 | 0,675 | 0,613 | 2,093 |

* 1 Politics, 2 Demography, 3 Health, 4 Education, 5 Economy, 6 Resource, 7 Environment, DBI- Development Balance Index

Figure 3. SD Index for Main World's Regions

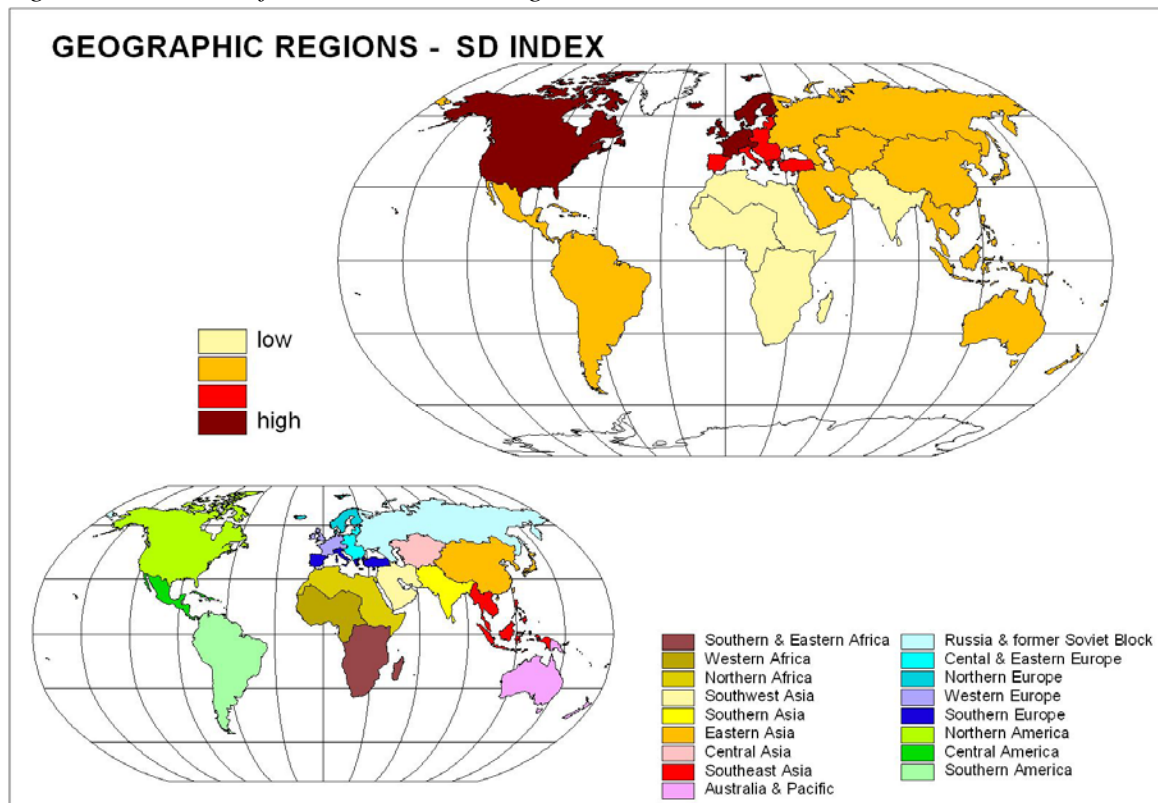
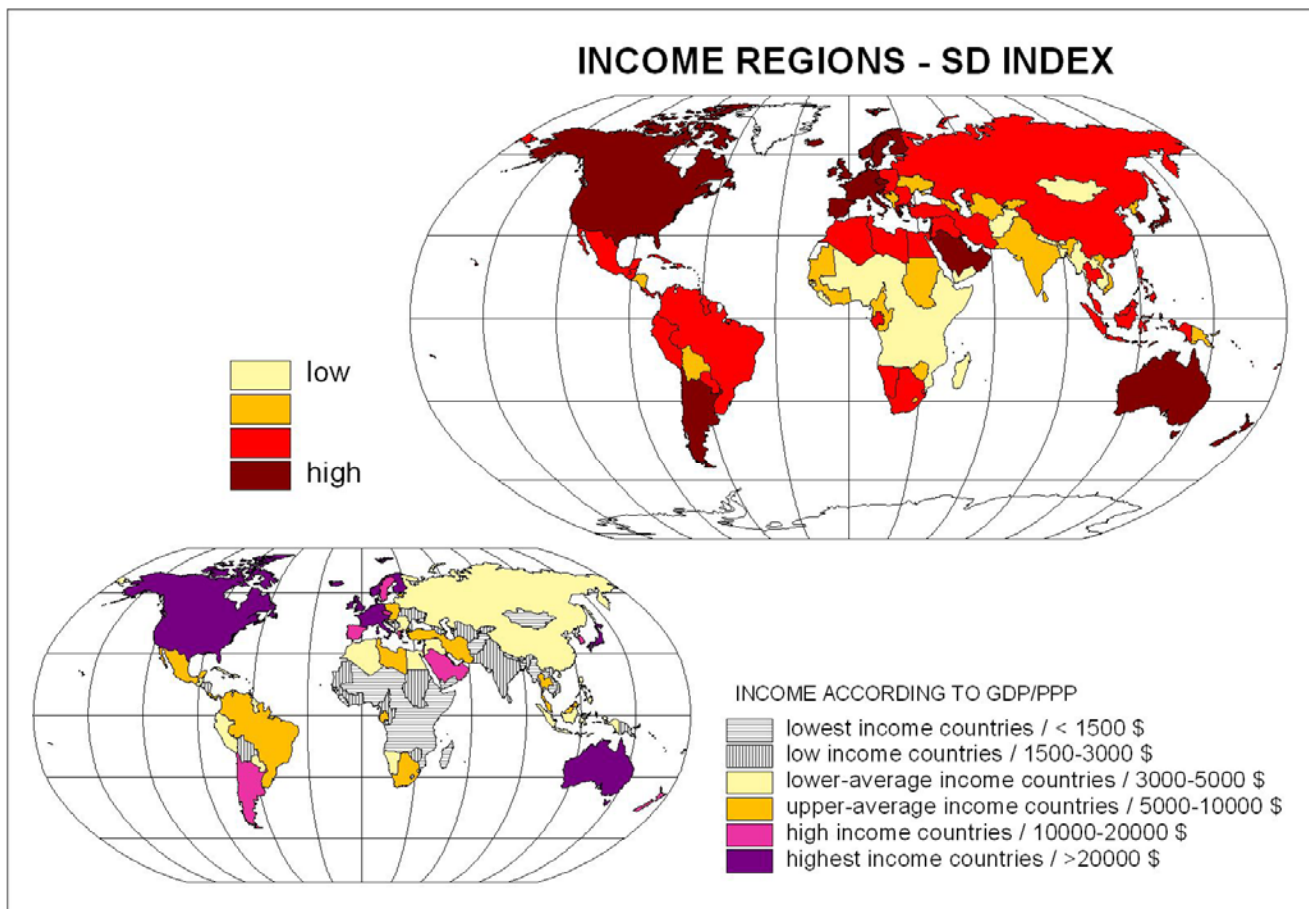


Table 5. SD Index for Main Income Groups of Countries

| Income group | SD Index | Subject Area* | | | | | | | IDB |
|---------------------------------|----------|---------------|-------|-------|-------|-------|-------|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Lowest income countries | 0,397 | 0,414 | 0,150 | 0,288 | 0,179 | 0,511 | 0,610 | 0,657 | 5,887 |
| Low income countries | 0,524 | 0,571 | 0,416 | 0,495 | 0,413 | 0,530 | 0,649 | 0,632 | 2,177 |
| Lower-average income countries | 0,622 | 0,660 | 0,551 | 0,650 | 0,608 | 0,588 | 0,746 | 0,628 | 1,739 |
| Higher-average income countries | 0,656 | 0,733 | 0,621 | 0,695 | 0,689 | 0,593 | 0,739 | 0,612 | 1,704 |
| High income countries | 0,741 | 0,761 | 0,759 | 0,828 | 0,816 | 0,734 | 0,685 | 0,537 | 1,699 |
| Highest income countries | 0,809 | 0,876 | 0,824 | 0,900 | 0,915 | 0,877 | 0,622 | 0,539 | 1,833 |
| World | 0,595 | 0,642 | 0,504 | 0,598 | 0,555 | 0,610 | 0,675 | 0,613 | 2,093 |

1 Politics, 2 Demography, 3 Health, 4 Education, 5 Economy, 6 Resource, 7 Environment, IDB- Development Balance Index

Figure 4. SD Index for Main Income Groups of Countries



Conclusions and Recommendations

The SD Index represents a possible methodology to quantify and measure progress toward sustainable development of individual countries. Further discussions concerning the philosophy and methodology used, as well as an evaluation of its advantages and disadvantages in comparison with other methodologies (HDI, ESI, UNCSD Dashboard, etc.), would be useful.

The biggest advantage of the SD Index is that the variables are taken from accessible world data sources that are regularly evaluated and updated. Therefore it is possible to build time series based on historical data of—for example—the last 10 years and to extrapolate trends for the next several years. This can be done at the global level as well as for the 179 individual countries for which minimum data are available. A disadvantage of the SD Index is that it does not work with the best possible set of variables but just with the best available set of variables for which data exist.

The disadvantage of the SD Index is that it does not work with the **best** possible set of variables but just with the best **available** set of variables for which data is available. Another serious disadvantage is lack of discussion about SD Index methodology at international fora, as well as lack of financial funds for further development of the methodology.

The SD Index and the Development Balance Index, along with the Quality and Sustainability of Life Indicators (see next sub-chapter), could become an important set of instruments for decisionmaking at global, national, and regional levels. They could help better assess the present situation, make comparisons, and identify weaknesses and areas of priority. The Sustainable Development Index and the Quality and Sustainability of Life Indicators could also supplement the State of the Future Index (see Chapter 2) to assist in policymaking.

Further expected development of SD Index methodology will focus especially on quantitative statistical multidimensional analysis. The data processing requires the following steps:

- finding the correlation between the individual variables—identification of the key variables which are the most significant for sustainable development assessment;
- excluding of excessive, respectively inconvenient variables and creation of a closer set of variables which are sufficient to calculate enough precisely the SD Index;
- analyzing the countries according to the individual variables—looking for “groups of countries” with similar problems; and
- creating a time series of countries’ data according to the closer set of variables and analysis of results, identification of significant present and future trends.

It is considered extremely important **to develop an alternative methodological tool** for assessing and evaluating the quality and sustainability of life indicators. This methodology should be based on using advanced tools of multivariate statistic analyses and modeling, which could eliminate the main imperfections of simple descriptive statistics methods, which are

frequently used in the process of creation a comprehensive index (e.g. HDI, ESI, SD Index...).

The differences between these two methods are significant. In the process of index creation, the researcher is the main subject which determines the structure and internal content of the resulting indicator (in our case the SD Index). While the advanced multivariate statistical methods are able to analyze internal relationships among the variety of variables without the researcher's active input—they demand only entering the data (input variables), and following the evaluation and interpretation of modeling outputs. The most proper methods should be for example: item analysis, regression analysis, direct and indirect ordination (factor analysis, constrained ordination), and numerical classification.

Multivariate statistical methods could become truly scientific, quantitative “data driven” methodological approaches oriented to explaining the relationships in such broad and diverse concepts like the sustainable development and the quality and sustainability of life. But this is a complex process implying a lot of work in order to obtain the appropriate results.

8.1.1. Sustainable Development Index

B. Introducing the Sustainable Development Index

Study conducted by Pavel Nováček⁵ and Peter Mederly⁶ in cooperation with Jan Topercer⁷, of the Central European Node of the Millennium Project.

The Sustainable Development Index (SD Index) was developed to help evaluate the quality of life in countries and regions of the world and to set up priorities for implementation of the Global Partnership for (Sustainable) Development.

Existing indicators

The UN Commission on Sustainable Development developed a set of 134 indicators in 1995–96. These indicators are divided into four main areas: social (41), economic (23), environmental (55), and institutional (15). All four were then tested in 22 countries for suitability and accessibility of data. Alternative indicators and methodological issues were also studied, and a modified set of 57 indicators was proposed in 2000 to serve as an instrument to measure progress towards sustainable development for individual countries.

Several international organizations created indicators to measure development, such as the World Development Indicators, Monitoring Environmental Progress, and UNDP's Human Development Report. These processes provided valuable experience and knowledge regarding the difficulties to construct such a broad and integrated methodological framework. The most practical and useful are the aggregated indicators, or the indexes that allow comparing different countries by numerical value. The most well known indexes are the Human Development Index (HDI), which has been calculated each year since 1990 by UNDP, the Index of Freedom, calculated by Freedom House, the Corruption Index, researched by Transparency International, and the Index of Economic Freedom. The success of these indexes is measured by their simplicity, reliability, and accessibility of data for sufficient number of countries and updating regularity.

As sustainable development is broad and complex, it is difficult to develop aggregated indicators. The main problem in the calculation of the Sustainable Development Index usually is the lack of available data and consensus on the methodology. There are countries that have

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⁶ Peter Mederly, Nitra Regional Environmental Studies, Nitra, Slovak Republic

⁷ Jan Topercer, Comenius University, Botanic Garden, Detached Unit, Blatnica, Czech Republic

developed sets of indicators of sustainable development at national level, like Finland, Switzerland, USA, and Great Britain, but, due to methodological differences, they cannot be compared.

In 2000–2001, two new approaches were developed to measure progress on sustainability: the 2001 Environmental Sustainability Index (ESI) and the UNCS D Dashboard.

2001 Environmental Sustainability Index (ESI) was presented at the World Economic Forum in Davos. (28) It was introduced by the “Initiative of Global Leaders for Tomorrow Environment Task Force”. Several indicators characterize each component of stability, and these had been calculated according to basic variables. Altogether there are 22 indicators for 67 variables. The main output of ESI is the calculation of the overall index for 122 countries and partial indexes for five components. The key variables are: Environmental Systems, Environmental Stress, Reducing Human Vulnerability, Social and Institutional Capacity.

The main advantage of ESI is the sophisticated methodology of high quality, appropriate itemization of the index into five components, and broad discussion and participation of external collaborators. The disadvantage is that data availability is problematic due to uses of different sources of information, the estimation of much data, and some variables were calculated specifically for the needs of the project and were not observed statistically. This raises questions concerning the possibility of further evaluation and the actualization of these indexes.

UNCS D Dashboard has been calculated for 170 countries by the Consultative Group for Sustainable Development in the framework of UNCS D. (29) The index includes four major areas: environmental (11 indicators), social (18 indicators), economic (13 indicators) and institutional (3 indicators). The final index is calculated from 45 indicators that are all given equal weight. Presently the dashboard model is being tested.

The important advantages of the UNCS D Dashboard are its calculation for 170 countries, outstanding visualization, the possibility to compare individual countries and relations among indicators, and the possibility to calculate subindexes for the four areas generally accepted as the main components of sustainability. The weakness is that the indicators do not proportionally represent main areas. In other words, there are many economic indicators, while other areas are underrepresented. Another disadvantage of the Dashboard is the use of different sources of data and the questionable availability of updated data for many countries.

These overviews show that it is possible to develop a good methodology for the calculation of a composite sustainable development index. One of the serious difficulties is updating the mentioned indexes at regular time intervals. If the ESI or the Dashboard would be accepted for evaluation by UN member states to measure their progress toward sustainable development, it would be necessary to start a regular data collection process.

The Sustainable Development Index

The ESI and Dashboard approach inspired the development of a set of indicators which gives the possibility to calculate not just the overall index of sustainable development (SD Index) but makes also possible to evaluate a time series (the last 10 years), and make a forecast, or an extrapolation of trends. The indicators and the aggregated index can be updated each year according to the new data.

The objective of the SD Index is to show the progress of individual countries toward sustainable development. It has a hierarchical structure composed of seven major problem areas, 14 indicators, two for each major problem area, and 58 variables. The Index is calculated for 146 countries, and expressed by a relative scale of 0–1, where a higher value means better progress toward sustainable development.

The aggregated SD Index is calculated as the arithmetical average of the subindexes for the 58 variables explored. Additionally, subindexes for the seven major problem areas are calculated, and by comparing them, it is possible to evaluate a development status in individual countries.

The highest SD Index values were found in the developed countries of North and Western Europe, such as Norway, Finland, Sweden, Switzerland, Austria, as well as Canada, and New Zealand. The worst situations for sustainability were shown in the African countries of Eritrea, Angola, Burundi, Ethiopia, Chad, and Mozambique, as well as, Haiti, and Cambodia. For some countries there was not enough data available to calculate the index as was the case for Afghanistan, Somalia, Liberia, which are expected to have very low SD Indexes, Iceland, and Luxembourg.

Methodology

Setting up the philosophy and methodology of SD Index

The index should cover the significant aspects of sustainable development. As the four UNCSO recommended areas of sustainable development (environmental, social, economic, institutional) do not cover all the aspects, seven major topics were selected:

- Human rights, freedom, and equality
- Demographic development and life expectancy
- Health conditions and health care
- Education, technologies, and information
- Economic development and foreign indebtedness
- Resource consumption, eco-efficiency
- Environmental quality, environmental problems

The variables were selected on the following criteria:

- relevance to the indicator, as well as coherence with sustainable development;
- long-term observation and evaluation of the variable, data available for the last several years, and the possibility to extrapolate trends;
- data available at least for 100 countries (with some exceptions); and
- minimization of the number of data sources used, because it is desirable to use one source of information for most of the variables.

Fifty-eight variables had been selected; the number of variables for one indicator varied from three to six (an average of four variables by indicator).

The construction of sub-indexes and the overall index is a key methodological problem. Advantages and disadvantages of individual variable weight was considered. But because the mutual relationships among the variables and their significance are not yet known at this stage of the study, it was decided to weight all variables equally. The final index is therefore an arithmetical average of all the variables. Determining the weight is a task for the next step in the evolution of the SD Index, based on multidimensional data analysis and finding correlation between individual variables.

Table 1 – The Basic Structure of the Sustainable Development Index (SD Index)

| | | |
|--------------------------------------|---|--|
| Sustainable Development Index | 1. Human rights, freedom and equality | A. Politics and human rights |
| | | B. Equality |
| | 2. Demographic and life expectancy | C. Demography issues |
| | | D. Life expectancy |
| | 3. Health and health care | E. Health care |
| | | F. Diseases and nutrition |
| | 4. Education, technology, and information | G. Education |
| | | H. Technologies and access to information |
| | 5. Economic development and foreign indebtedness | I. Economy |
| | | K. Indebtedness |
| | 6. Resource consumption, eco-efficiency | L. Economy–genuine savings |
| | | M. Economy–resource consumption |
| | 7. Environmental issues | N. Environment–natural resources, land use |
| | | O. Environment–urban and rural problems |

Collection of data and its basic arrangement

Values for the individual variables from various information sources were set in a database.

Statistical analysis and data preparation

The NCSS 2000 statistical toolkit software was used to process the data statistically. Because the majority of the variables were not normal sets of data and had many outlying values, it was

necessary to “cut” and transform the data on the basis of a logarithm of 10 before the calculation of the index could be made.

The evaluation of the parameters was tested (data screening) as to the size of the samples, average, conclusive deviation, median, tests of normality of data division (D’Agostino test of obliqueness, pointedness) histogram of classes numerousness, and individual percentiles of data division.

Based on the results of the testing, the preparation of the data was realized according to the following process:

- assignment of threshold data on the basis of real division of data – five, respectively 10 percentile, in some justified cases twenty five percentile and median;
- “cutting” of data according to this value on one side and assignment of percentile on the other side;
- transformation of variables containing negative (minus) values to get just positive (plus) values;
- transformation of all variables on the basis of logarithm of ten according to the following formula:

$$X_{\text{transf}} = \log_{10}(X+1)$$

Computation of the Variables

For the computation, the variables were transformed to a consistent scale (0.1) according to the formula:

$I_{xi} = (X_i - X_{\min}) / (X_{\max} - X_{\min})$ if the favorable development of the observed phenomena is decreasing with the increasing value of X_i

$I_{xi} = (X_{\max} - X_i) / (X_{\max} - X_{\min})$ if the favorable development of the phenomena is increasing with increasing value of X_i ,

0 = the most unfavorable value of I_{xi} ; 1 = the most favorable value of I_{xi}

Using this process were obtained the data necessary for the calculation of the aggregated SD Index and the subindexes for the seven problem areas.

Calculation of SD Index and Subindexes

The calculation involves the following processes:

- calculation of the overall SD Index by arithmetic average of subindexes of the variable
- calculation of the subindexes for the seven issues areas $I_1 - I_7$
- evaluation of the results—assigning of country rank for SD Index as well as for the seven issu areas and calculation of average rank of countries

Table 2 – Basic statistical characteristics of the variables

Abbreviations used in the table:

Data avail. – Number of countries with data available

Data missing - number of countries with data missing

St. dev. – stand of deviation

Distinct values – the number of distinct values.

| | <i>Variable</i> | <i>Units</i> | Data source | Year of survey | Min. value | Max. value | Aver. value | Close to sustainability value | |
|---------------------------------------|----------------------------------|------------------------|--------------------|-----------------------|-------------------|-------------------|--------------------|--------------------------------------|---------------|
| A - Politics and human rights | | | | | | | | | |
| A1 | Index of political rights | index | FH | 2000 | 1.0 | 7.0 | - | 1.0 | 5 percentile |
| A2 | Index of civil liberties | index | FH | 2000 | 1.0 | 7.0 | - | 1.0 | 5 percentile |
| A3 | Refugees - country of origin | per 1000 people | HDR | 1997 | 0 | 81 | 24 | 0 | 5 percentile |
| A4 | Military expenditure | % of GNP | WDI | 1997 | 0.3 | 27.5 | 2.5 | 1.5 | 25 percentile |
| A5 | Military forces | per 1000 people. | HDR | 1997 | 0 | 57 | 3.5 | 2 | 25 percentile |
| A6 | Government commitment | number | WDI | diff. | 1 | 8 | | 8 | 95 percentile |
| B - Equality | | | | | | | | | |
| B1 | Income distribution - GINI index | index | WDI | diff. | 19.5 | 62.9 | - | 24.91 | 5 percentile |
| B2 | Gender development index | index | HDR | 1999 | 0.286 | 0.928 | - | 0.918 | 5 percentile |
| B3 | Children labor force | % of 10-14 year cohort | WDI | 1998 | 0 | 52 | 12 | 0 | 5 percentile |
| C - Demographic development | | | | | | | | | |
| C1 | Excessive population growth | popul. growth >0,8 % | WDI | 1975-97 | -0.2 | 7.2 | 1.6 | 0.8 | 25 percentile |
| C2 | Population decline | popul. growth < 0,2 % | WDI | 1975-97 | -0.2 | 7.2 | 1.6 | 0.2 | 5 percentile |
| C3 | Population aging | index | WDI | 1975-97 | 0.773 | 4.65 | 1.16 | 1.21 | median |
| D - Life expectancy, mortality | | | | | | | | | |
| D1 | Infant mortality rate | per 1000 birth | WDI | 1998 | 3.6 | 169 | 54 | 4.74 | 5 percentile |
| D2 | Under 5 mortality rate | per 1000 birth | WDI | 1998 | 5 | 283 | 75 | 6 | 5 percentile |
| D3 | Maternal mortality rate | per 100,000 b. | WDI | 1990-98 | 1 | 1100 | - | 5 | 5 percentile |
| D4 | Life expectancy at birth | years | WDI | 1998 | 37.3 | 80.5 | 67 | 78.3 | 95 percentile |
| E - Health care | | | | | | | | | |
| E1 | Health expenditure | % of GDP | WDI | 1990-98 | 0.7 | 13.9 | 5.5 | 9.9 | 95 percentile |
| E2 | Health expenditure | USD/cap. | WDI | 1990- | 3 | 4080 | 483 | 2361 | 95 percentile |

| | <i>Variable</i> | <i>Units</i> | Data source | Year of survey | Min. value | Max. value | Aver. value | Close to sustainability value | |
|---|--|-------------------------|--------------------|-----------------------|-------------------|-------------------|--------------------|--------------------------------------|---------------|
| | | | | 98 | | | | | |
| E3 | Child immunization | % of children <12 years | WDI | 1995-98 | 18 | 100 | 83 | 99 | 95 percentile |
| E4 | Physicians | per 1000 peo. | WDI | 1990-98 | 0.1 | 5.5 | 1.5 | 4.25 | 95 percentile |
| E5 | Birth attended by skilled health staff | % of total | WDI | 1996-98 | 8 | 100 | 52 | 100 | 95 percentile |
| F - Diseases and nutrition | | | | | | | | | |
| F1 | Tuberculosis | per 100,000 peo. | WDI | 1997 | 5 | 576 | 136 | 8 | 5 percentile |
| F2 | Prevalence of HIV | % of adult | WDI | 1997 | 0.01 | 25.84 | 0.95 | 0.01 | 5 percentile |
| F3 | Prevalence of child malnutrition | % of children <5 years | WDI | 1992-98 | 0 | 57 | 30 | 1 | 5 percentile |
| F4 | Insufficient daily calorie intake | intake < 2700 cal. | HDR | 1996 | 1585 | 3808 | 2751 | 2700 | 55 percentile |
| F5 | Excessive daily calorie intake | intake > 3075 cal | HDR | 1996 | 1585 | 3808 | 2751 | 3075 | 75 percentile |
| F6 | Access to safe water | % of rural pop. | WDI | 1990-96 | 5 | 100 | - | 100 | 95 percentile |
| G – Education | | | | | | | | | |
| G1 | Adult illiteracy rate | % of people > 15 years | WDI | 1998 | 0 | 85 | 23 | 0 | 5 percentile |
| G2 | Combined school enrolment ratio | index | HDR | 1998 | 15 | 100 | 63 | 97.55 | 95 percentile |
| G3 | Public expenditure on education | % of GNP | WDI | 1997 | 0.7 | 10.6 | 4.8 | 8.02 | 95 percentile |
| H - Technologies and information | | | | | | | | | |
| H1 | Telephone mainlines | per 1000 peo. | WDI | 1998 | 0.44 | 675.4 | 146 | 505.5 | 90 percentile |
| H2 | Personal computers | per 1000 peo. | WDI | 1998 | 0.2 | 458.6 | 70.6 | 306 | 90 percentile |
| H3 | Internet hosts | per 10000 peo. | WDI | 1999 | 0 | 1508.8 | 94.5 | 213.2 | 90 percentile |
| H4 | Daily newspapers | per 1000 peo. | WDI | 1996 | 0.16 | 588.5 | - | 295.6 | 90 percentile |
| H5 | Television sets | per 1000 peo. | WDI | 1998 | 0.1 | 847.3 | 247 | 538.2 | 90 percentile |
| I – Economy | | | | | | | | | |
| I1 | GNP per capita | USD | WDI | 1998 | 100 | 39980 | 4890 | 22530 | 90 percentile |
| I2 | PPP GNP per capita | USD | WDI | 1998 | 445.4 | 29420 | 6300 | 20927 | 90 percentile |
| I3 | Annual GDP growth | % | HDR | 1975-97 | -5.5 | 7.7 | 2.8 | 5.73 | 95 percentile |
| I4 | Net domestic savings | % of GNP | WDI | 1998 | -50.1 | 38.9 | 10.4 | 22.7 | 95 percentile |
| K – Indebtedness | | | | | | | | | |
| K1 | Total external debt | USD per cap. | WDI | 1998 | 100 | 3988 | - | 116 | 5 percentile |
| K2 | Present value of debt | % of GNP | WDI | 1998 | 4.6 | 362.8 | - | 12.4 | 5 percentile |

| | Variable | Units | Data source | Year of survey | Min. value | Max. value | Aver. value | Close to sustainability value | |
|--|--------------------------------------|------------------------------------|-------------|----------------|------------|------------|-------------|-------------------------------|---------------|
| K3 | Total debt services | % of GNP | WDI | 1998 | 0.3 | 33 | - | 0.7 | 5 percentile |
| L - Economy - genuine savings | | | | | | | | | |
| L1 | Energy depletion | % of GDP | WDI | 1998 | 0 | 37.6 | 1.1 | 0 | 10 percentile |
| L2 | Mineral depletion | % of GDP | WDI | 1998 | 0 | 20.7 | 0.1 | 0 | 10 percentile |
| L3 | Net forest depletion | % of GDP | WDI | 1998 | 0 | 11.4 | 0.1 | 0 | 10 percentile |
| L4 | CO ₂ damage | % of GDP | WDI | 1998 | 0 | 7.1 | 0.5 | 0.16 | 10 percentile |
| M - Economy - resource consumption | | | | | | | | | |
| M1 | GDP per unit of energy use | USD/kg of oil equiv. | WDI | 1997 | 1 | 9.7 | - | 7.8 | 95 percentile |
| M2 | Paper consumption | per cap. metric tons | HDR | 1996 | 0.1 | 240.1 | 20.1 | 4.25 | median |
| M3 | Commercial energy use | per cap. kg | WDI | 1997 | 196.8 | 11967 | 1692 | 1291 | median |
| M4 | Electric power consumption | per capita kWh | WDI | 1997 | 14 | 23500 | 2053 | 1142 | median |
| N - Environment - natural resources, land use | | | | | | | | | |
| N1 | Nationally protected areas | % of land area | WDI | 1996 | 0 | 43.1 | 6.6 | 24.7 | 95 percentile |
| N2 | Freshwater resources | m ³ per capita | WDI | 1998 | 0 | 29896 2 | 8354 | 3771 9 | 90 percentile |
| N3 | Forest area | % of land area | WDI | 1995 | 0 | 82.1 | 25.1 | 64.7 | 95 percentile |
| N4 | Arable land | % of land area | WDI | 1997 | 0.1 | 60.8 | 10.6 | 12.45 | median |
| O - Environment - urban and rural problems | | | | | | | | | |
| O1 | Population in agglomeration > 1 mil. | % of total | WDI | 1995 | 0 | 100 | 16 | 22.6 | 75 percentile |
| O2 | Rural population density | peo/km ² of arable land | WDI | 1997 | 0 | 6260 | 519 | 107 | 25 percentile |
| O3 | Agglomeration up 1 mil. growth | index | WDI | 2015/1995 | 0 | 1.803 | 1.125 | 1 | median |
| O4 | Average annual deforestation | % change | WDI | 1990-95 | -2.7 | 7.8 | 0.3 | -1 | 5 percentile |

Table 3 – Basic statistical characteristics of variables

| | Variable | Data avail. | Data missing | Mean | Median | St. dev. | Mode | Distinct values | % of data trimmed |
|--------------------------------------|------------------------------|-------------|--------------|------|--------|----------|------|-----------------|-------------------|
| A - Politics and human rights | | | | | | | | | |
| A1 | Index of political rights | 146 | 0 | 3.65 | 3 | 2.16 | 1 | 7 | 5% |
| A2 | Index of civil liberties | 146 | 0 | 3.83 | 4 | 1.70 | 5 | 7 | 5% |
| A3 | Refugees - country of origin | 74 | 72 | 7.99 | 1 | 18.5 | 0 | 20 | 5% |

| | Variable | Data avail. | Data missing | Mean | Median | St. dev. | Mode | Distinct values | % of data trimmed |
|---|--|-------------|--------------|--------|--------|----------|--------|-----------------|-------------------|
| A4 | Military expenditure | 145 | 1 | 3.38 | 2.3 | 3.77 | * | 58 | 10% |
| A5 | Military forces | 125 | 21 | 6.18 | 4 | 7.22 | 1 | 22 | 10% |
| A6 | Government commitment | 145 | 0 | 5.50 | 6 | 1.57 | 6 | 8 | 5% |
| B – Equality | | | | | | | | | |
| B1 | Income distribution - GINI index | 107 | 39 | 39.3 | 37.8 | 10.1 | * | 102 | 5% |
| B2 | Gender development index | 127 | 19 | 0.672 | 0.717 | 0.181 | * | 118 | 5% |
| B3 | Children labor force | 144 | 2 | 10.83 | 2.5 | 14.28 | 0 | 39 | 5% |
| C - Demographic development | | | | | | | | | |
| C1 | Excessive population growth | 140 | 6 | 1.94 | 2.15 | 1.18 | 0.6 | 42 | 5% |
| C2 | Population decline | 140 | 6 | -1,37 | -1,4 | 1.04 | -1,3 | 42 | 10% |
| C3 | Population aging | 142 | 4 | 1.25 | 1.21 | 0.39 | 1.33 | 122 | 5% |
| D - Life expectancy, mortality | | | | | | | | | |
| D1 | Infant mortality rate | 146 | 0 | 43.41 | 27.6 | 38.82 | 12.6 | 131 | 5% |
| D2 | Under 5 mortality rate | 141 | 5 | 64.85 | 33 | 66.72 | 6 | 80 | 5% |
| D3 | Maternal mortality rate | 110 | 36 | 179.85 | 50 | 246.14 | * | 69 | 5% |
| D4 | Life expectancy at birth | 146 | 0 | 65.14 | 69.35 | 11.24 | * | 110 | 5% |
| E - Health care | | | | | | | | | |
| E1 | Health expenditure | 125 | 21 | 5.74 | 5.74 | 2.49 | 4.7 | 68 | 5% |
| E2 | Health expenditure | 123 | 23 | 467.67 | 97 | 808.09 | 11 | 104 | 5% |
| E3 | Child immunization | 140 | 6 | 79.69 | 89.5 | 20.4 | 95 | 48 | 5% |
| E4 | Physicians | 129 | 17 | 1.68 | 1.4 | 1.38 | 0.1 | 44 | 5% |
| E5 | Birth attended by skilled health staff | 136 | 10 | 71.66 | 83 | 29.32 | 100 | 58 | 5% |
| F - Diseases and nutrition | | | | | | | | | |
| F1 | Tuberculosis | 146 | 0 | 134.06 | 81 | 127.93 | 11 | 110 | 5% |
| F2 | Prevalence of HIV | 146 | 0 | 2.23 | 0.18 | 4.72 | 0.01 | 82 | 5% |
| F3 | Prevalence of child malnutrition | 106 | 40 | 20.27 | 18 | 14.72 | * | 46 | 5% |
| F4 | Insufficient daily calorie intake | 143 | 3 | 2641.9 | 2560 | 515.36 | * | 141 | 5% |
| F5 | Excessive daily calorie intake | 143 | 3 | 2641.9 | 2560 | 515.36 | * | 141 | 5% |
| F6 | Access to safe water | 119 | 27 | 55.87 | 52 | 29.26 | 100 | 62 | 5% |
| G – Education | | | | | | | | | |
| G1 | Adult illiteracy rate | 130 | 16 | 22.12 | 15.5 | 22.05 | 0 | 51 | 5% |
| G2 | Combined school enrolment ratio | 142 | 4 | 64.3 | 68 | 20.41 | 70 | 65 | 5% |
| G3 | Public expenditure on education | 127 | 19 | 4.54 | 4.6 | 1.98 | * | 62 | 5% |
| H - Technologies and information | | | | | | | | | |
| H1 | Telephone mainlines | 146 | 0 | 167.08 | 82.85 | 194.24 | 218.09 | 145 | 10% |
| H2 | Personal computers | 108 | 38 | 83.02 | 22.4 | 123.12 | * | 105 | 10% |

| | Variable | Data avail. | Data missing | Mean | Median | St. dev. | Mode | Distinct values | % of data trimmed |
|--|--------------------------------------|-------------|--------------|--------|--------|----------|--------|-----------------|-------------------|
| H3 | Internet hosts | 145 | 1 | 68.75 | 1.29 | 195.55 | 0 | 103 | 10% |
| H4 | Daily newspapers | 139 | 7 | 99.79 | 45.82 | 123.26 | 106.68 | 138 | 10% |
| H5 | Television sets | 145 | 1 | 229.35 | 185.01 | 205.22 | 259.43 | 144 | 10% |
| I - Economy | | | | | | | | | |
| I1 | GNP per capita | 135 | 11 | 5548.8 | 1340 | 9064.3 | 380 | 117 | 10% |
| I2 | PPP GNP per capita | 134 | 12 | 6834.5 | 3866.2 | 7449.7 | 445.4 | 134 | 10% |
| I3 | Annual GDP growth | 101 | 45 | 0.83 | 0.7 | 2.28 | * | 62 | 5% |
| I4 | Net domestic savings | 128 | 18 | 6.05 | 7.3 | 12.41 | 10.2 | 101 | 5% |
| K - Indebtedness | | | | | | | | | |
| K1 | Total external debt | 119 | 27 | 860.47 | 527 | 823.9 | * | 113 | 5% |
| K2 | Present value of debt | 109 | 37 | 66.6 | 53.6 | 60.37 | * | 105 | 5% |
| K3 | Total debt services | 109 | 37 | 5.48 | 4 | 4.79 | 2.1 | 72 | 5% |
| L - Economy - genuine savings | | | | | | | | | |
| L1 | Energy depletion | 131 | 15 | 2.57 | 0 | 6.52 | 0 | 37 | 10% |
| L2 | Mineral depletion | 131 | 15 | 0.46 | 0 | 2.09 | 0 | 18 | 10% |
| L3 | Net forest depletion | 131 | 15 | 0.8 | 0 | 2.08 | 0 | 29 | 10% |
| L4 | CO2 damage | 115 | 31 | 0.87 | 0.4 | 1.2 | 0.2 | 28 | 10% |
| M - Economy - resource consumption | | | | | | | | | |
| M1 | GDP per unit of energy use | 110 | 36 | 4.22 | 4 | 2.02 | * | 59 | 5% |
| M2 | Paper consumption | 126 | 20 | 21.35 | 4.25 | 39.31 | 0.1 | 81 | 10% |
| M3 | Commercial energy use | 117 | 29 | 2144.3 | 1290.6 | 2174.5 | 196.8 | 117 | 10% |
| M4 | Electric power consumption | 139 | 7 | 2405.7 | 1141.6 | 3542.9 | 39 | 138 | 10% |
| N - Environment - natural resources, land use | | | | | | | | | |
| N1 | Nationally protected areas | 145 | 1 | 7.6 | 5.5 | 7.76 | 0 | 98 | 5% |
| N2 | Freshwater resources | 144 | 2 | 15848 | 5454 | 33480 | 0 | 144 | 10% |
| N3 | Forest area | 141 | 5 | 25.2 | 22.8 | 19.8 | * | 127 | 5% |
| N4 | Arable land | 146 | 0 | 16.2 | 12.45 | 14.2 | 7 | 116 | 5% |
| O - Environment - urban and rural problems | | | | | | | | | |
| O1 | Population in agglomeration > 1 mil. | 141 | 5 | 13.85 | 10.6 | 16.3 | 0 | 75 | 5% |
| O2 | Rural population density | 145 | 1 | 371.5 | 216 | 611.5 | 138 | 144 | 10% |
| O3 | Agglomeration up 1 mil. growth | 140 | 6 | 0.73 | 1 | 0.61 | 0 | 82 | 5% |
| O4 | Average annual deforestation | 142 | 4 | 0.59 | 0.25 | 1.36 | 0 | 43 | 5% |

Abbreviations used in the table:

Data avail. – number of countries with data available

Data missing - number of countries with data missing

St. dev. – stand of deviation

Distinct values – number of distinct values.

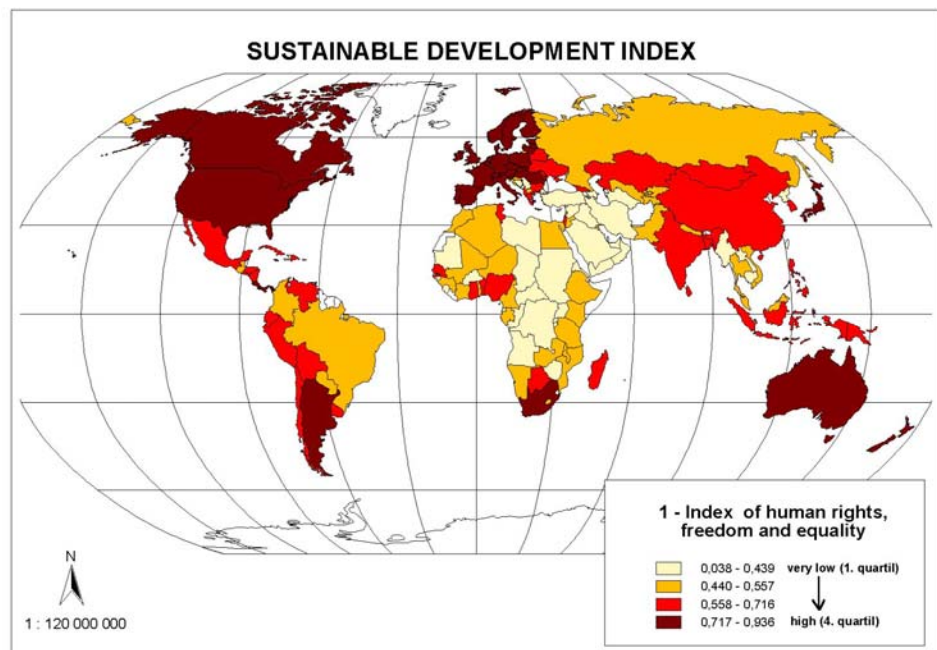
Results

I. Human Rights, Freedom And Equality

Sustainable development is not achievable if people have to live in totalitarian state, without the privilege of freedom. Nor is it possible in a society that is polarized by huge income gap. Therefore this area was considered as one of the most important aspects of sustainable development, despite the fact that until now it was rather omitted. The most important topics are:

A. *Politics and human rights.* Variables considered:

- Index of political rights,
- Index of civil liberties,
- Refugees according to country of origin,
- Military expenditures,
- Number of people serving in military forces, and
- Number of ratified international environmental agreements.



B. *Equality.* Variables considered:

- Income distribution – GINI index,
- Gender development index, and
- Children labor force.

The countries that received the highest score are the developed democratic countries: Canada 0.936, Japan 0.912, Finland 0.896, Australia 0.894, Austria 0.885, Netherlands 0.881, Denmark 0.878, New Zealand 0.871, Norway 0.865, and Belgium 0.852.

The worst situation was shown in Eritrea 0.038, Bosnia and Herzegovina 0.107, Angola 0.123, Iraq 0.144, Cambodia 0.204, Korea, Democratic Republic 0.255, Sierra Leone 0.262, Rwanda 0.278, Burundi 0.283 and Libya 0.286.

II. Demographic Development and Life Expectancy

Despite the fact that globally the population growth rate decreases, the total number of people living on the Earth increases, especially in the developing countries. For the industrialized countries stagnation is typical, because the population is getting older and even “dies out” in some regions. This occurs when the number of born babies is lower than the number of deaths in one year.

The most important topics are:

C. *Demographic development*. Variables considered:

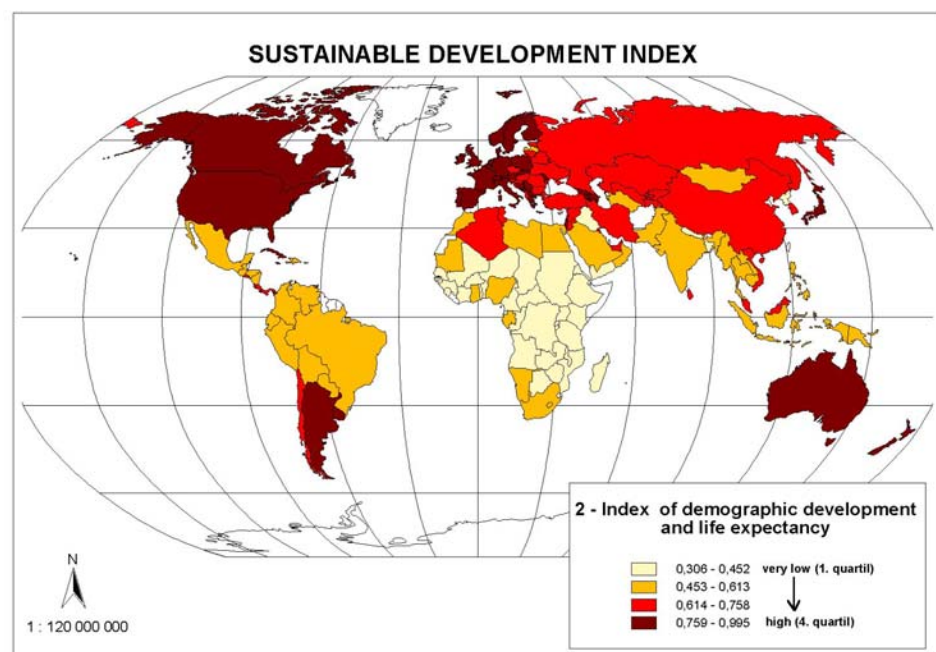
- Excessive population growth in 1975 – 97,
- Population decline in 1975–97, and
- Population aging.

D. *Life expectancy, mortality*. Variables considered:

- Infant mortality rate,
- Under 5 years old mortality rate,
- Maternal mortality rate, and
- Life expectancy at birth.

The countries that received the highest score are: Norway 0.995, Austria 0.992, Belgium 0.991, France 0.981, Ireland 0.972, Switzerland 0.965, Sweden 0.943, United States 0.942, New Zealand 0.941, Australia 0.937.

The countries that received the lowest score are: Malawi 0.306, Niger 0.315, Guinea-Bissau 0.325, Zambia 0.327, Uganda 0.339, Ivory Coast 0.341, Central African Republic 0.364, Tanzania 0.365, Chad 0.368 and Mali 0.374.



III. Health Situation and Health Care

The health and healthcare situations of countries depend considerably on the strength of the economy. Therefore the health situation and health care remains one of the main priorities in developing countries. It is also in this area that one of the most important on the way toward sustainable development. The most important topics are:

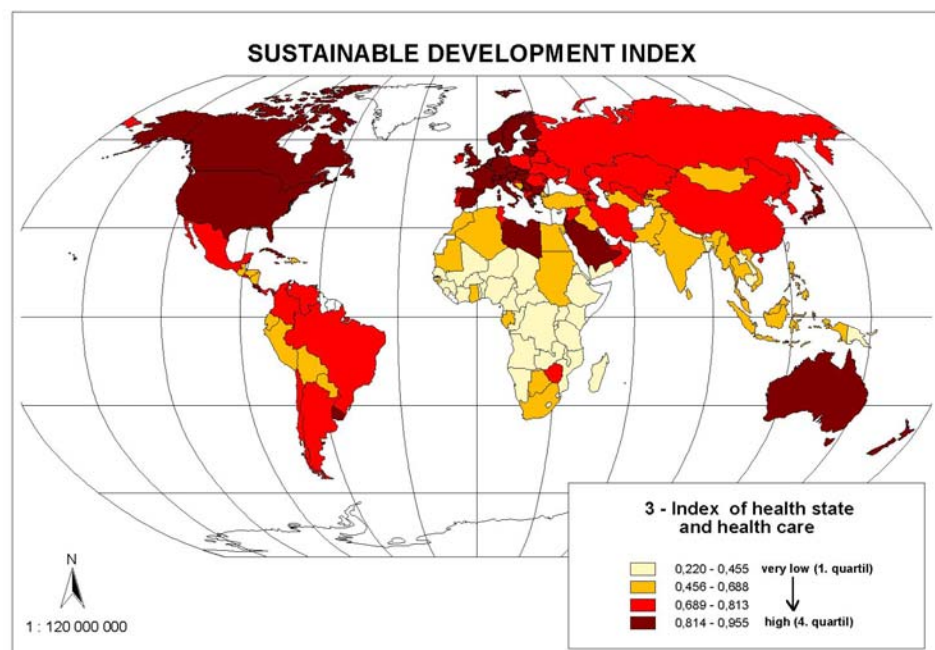
E. *Health care*. Variables considered:

- Health expenditures as % of GDP,
- Total health expenditures (USD/person),
- Child immunization,
- Number of physicians per 1000 people, and
- Birth attended by skilled health staff.

F. *Diseases and nutrition*. Variables considered:

- Number of tuberculosis cases per 100 000 people,
- Prevalence of HIV,
- Prevalence of child malnutrition,
- Insufficient daily calorie intake,
- Excessive daily calorie intake, and
- Access to safe water.

The best situation is shown in Sweden 0.955, Canada 0.946, Israel 0.945, Australia 0.940, Finland 0.940, Switzerland 0.922, Netherlands 0.915, Japan 0.905, Norway 0.893 and Slovenia 0.890. The lowest score was received by Haiti 0.220, Chad 0.222, Ethiopia 0.247, Burundi 0.247, Zaire 0.248, Angola 0.265, Kenya 0.266, Togo 0.272, Eritrea 0.284, Central Africa 0.287.



IV. Education, Technologies and Information

In developed countries with a modern economy education, information and accessibility have become the most important factors of economic development and wealth generation. This is also the area that can help developing countries to overcome the vicious circle of poverty and underdevelopment, rapid population growth, and environment deterioration. Information is not lost or diminished by sharing, on the contrary, it can be used and shared without limit. The most important topics are:

G. *Education*. Variables considered:

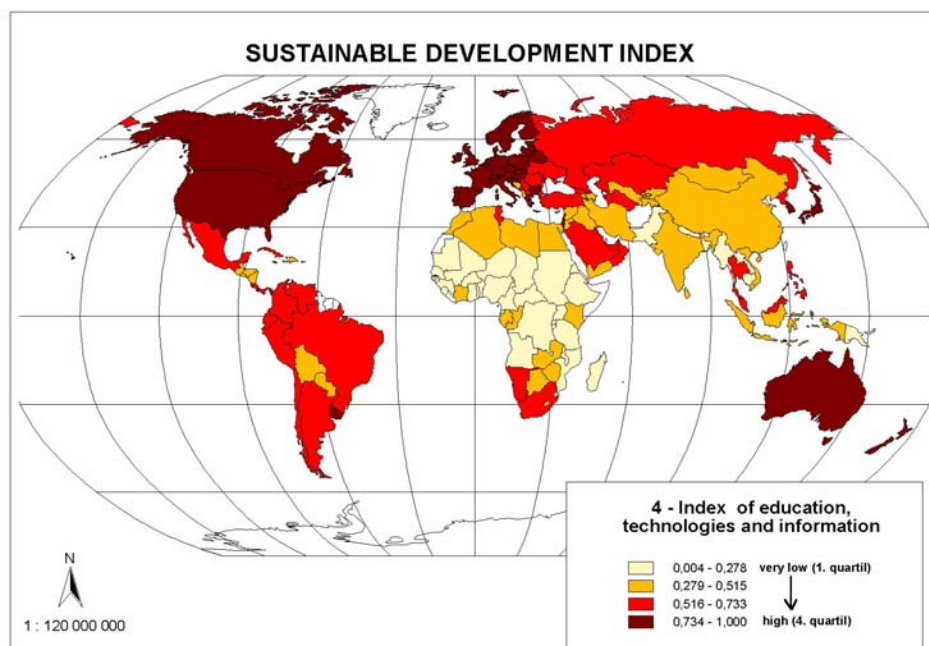
- Adult illiteracy rate,
- Combined school enrollment ratio,
- Public expenditure on education.

H. *Technologies and information sharing*. Variables considered:

- Number of telephone mainlines per person,
- Personal computers per person,
- Internet hosts,
- Number of daily newspapers per person,
- Number of television sets per person.

The ten countries that received the highest score were: Sweden 1.00, Finland 0.994, Denmark 0.991, Norway 0.990, New Zealand 0.974, Canada 0.969, Australia 0.964, Netherlands 0.960, United Kingdom 0.959 and United States 0.945.

The ten countries that received the lowest score are: Burkina Faso 0.004, Central Africa 0.010, Mozambique 0.011, Chad 0.017, Mali 0.023, Haiti 0.031, Niger 0.051, Eritrea 0.057, Sierra Leone 0.062 and Ethiopia 0.073.



V. Economic Development and Foreign Indebtedness

Without underestimating the significance of the other areas, the ability of a specific country to make progress toward sustainable development is conditioned by its economic development. Rich countries “can afford” sustainable development and the population is more sensitive toward the environment and sustainable development. On the contrary, foreign indebtedness undermines the optimistic expectation for a better future, above all in developing countries. A country that has to use a substantial part of its hard currency obtained from export to pay debt and interest rates, is trapped and is not able to escape by itself. The most important topics considered are:

I. *Economy*. Variables considered:

- GNP per capita,
- GNP per capita according to purchasing power parity,
- Annual GDP growth, and
- Net domestic savings.

Foreign indebtedness.

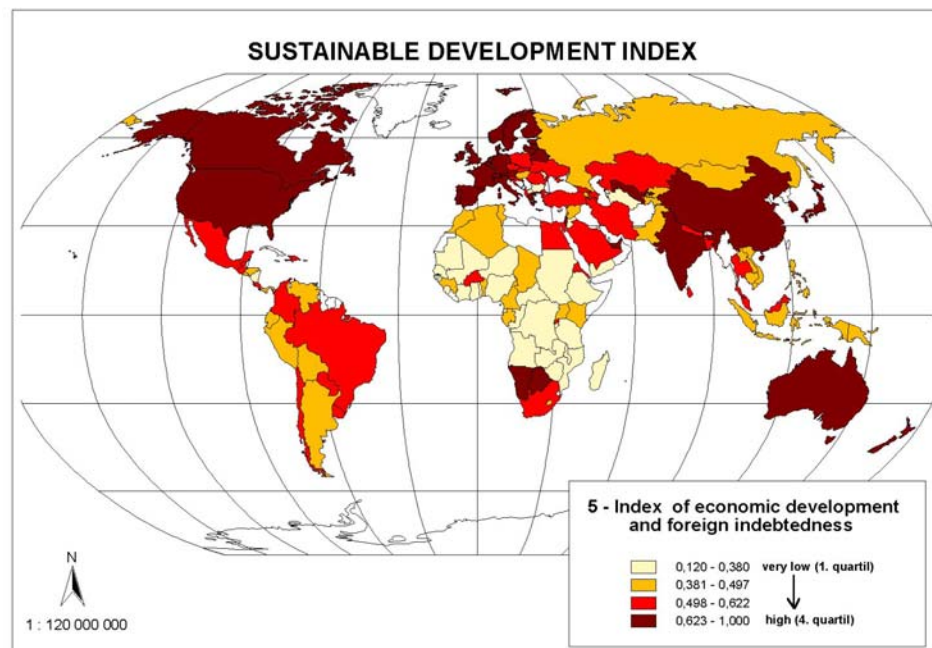
Variables considered:

- Total external debt per capita,
- Present value of debt as % of GNP, and
- Total debt services.

The ten countries with the highest score are:
Singapore 1.00,
Germany 0.927,
Norway 0.919,
Ireland 0.917, Japan 0.911, Belgium 0.911, Austria 0.897, Netherlands 0.885, Finland 0.866 and Denmark 0.862.

The lowest score was for: Nicaragua 0.120, Guinea-Bissau 0.159, Zambia 0.185,

Jordan 0.197, Mauritania 0.229, Sierra Leone 0.237, Angola 0.246, Ivory Coast 0.276, Madagascar 0.287 and Zaire 0.288.



VI. Resource Consumption

There are economically successful countries that did not receive a high score at this index. On the contrary there are developing countries with very low value of natural resource consumption, and this is tightly connected with the industrial underdevelopment of these countries. The most important topics are:

L. *Economy – genuine domestic savings*. Economy – genuine domestic savings are equal to net domestic savings, plus education expenditure and minus energy depletion, mineral depletion, net forest depletion, and carbon dioxide damage. Variables considered:

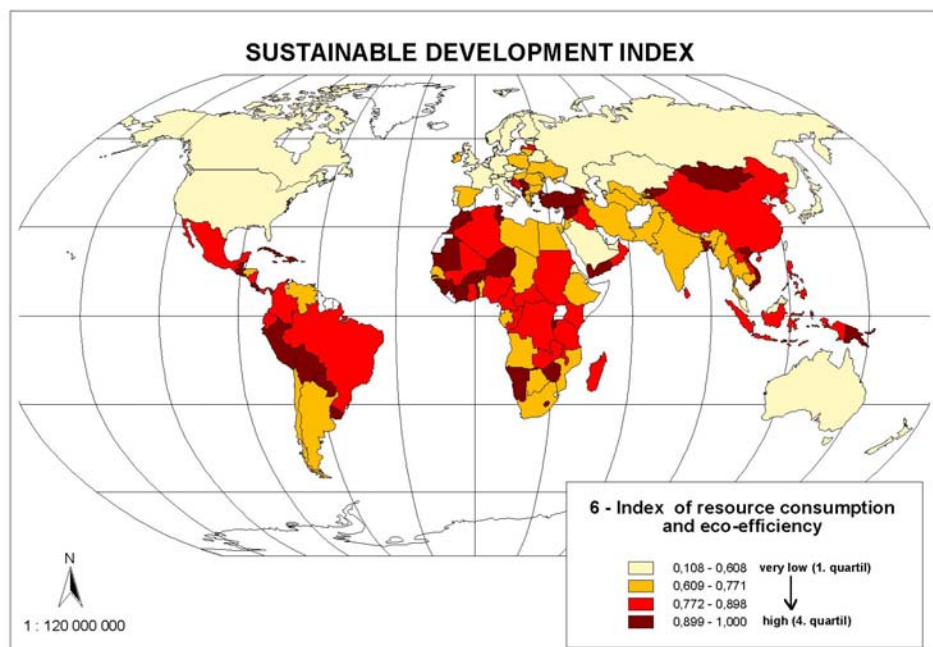
- Energy depletion,
- Mineral depletion,
- Net forest depletion,
- CO₂ damage.

M. *Economy – resource consumption* Variables considered:

- GDP per unit of energy use,
- Paper consumption,
- Commercial energy use, and
- Electric power consumption.

The highest score received Namibia 1.00, Burkina Faso 1.00, Gambia 1.00, Guinea 1.00, Guinea-Bissau 1.00, Albania 0.990, Morocco 0.990, Rwanda 0.986, Dominican Republic 0.981 and Mauritania 0.974.

The ten countries that received the lowest score are: Canada 0.108, Finland 0.117, Singapore 0.124, Sweden 0.129, Norway 0.175, France 0.230, United Kingdom 0.241, Switzerland 0.287, Trinidad 0.295 and Australia 0.297.



VII. Environmental Quality and Environmental Problems

Without respecting the environment, sustainable development is not possible. The topics considered are:

N. *Environment – natural resources, land use.* The variables considered:

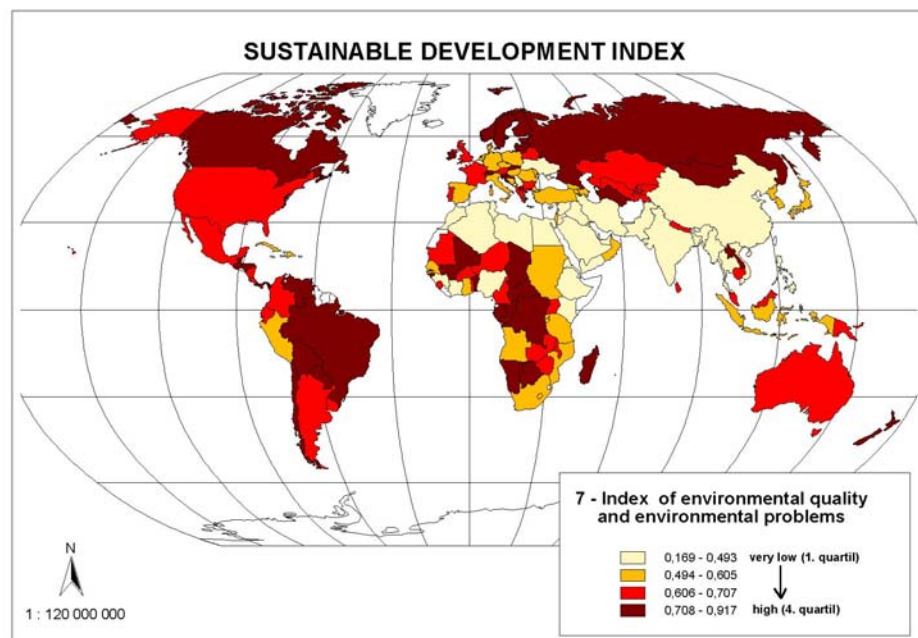
- Nationally protected areas,
- Freshwater resources,
- Forest area, and
- Arable land area.

O. *Environment – urban and rural development.* The variables considered:

- Population living in agglomeration higher than 1 million,
- Rural population density,
- Agglomeration up 1 million growth, and
- Average annual deforestation.

The best situation is shown for Norway 0.917, Central Africa 0.883, Finland 0.873, Gabon 0.855, Latvia 0.848, Estonia 0.846, Namibia 0.840, New Zealand 0.823, Panama 0.813 and Mongolia 0.799.

The lowest scored countries were: Haiti 0.169, Bangladesh 0.259, Lebanon 0.293, Syria 0.304, Pakistan 0.306, Jordan 0.312, Egypt 0.336, Kuwait 0.362, Kenya 0.378 and Libya 0.396.



The Aggregated Sustainable Development Index

The value of the sustainable development index was calculated as an arithmetical average of all the subindexes of individual variables. 146 countries were evaluated but the number of accessible data for individual countries varied from 27 (Bosnia and Herzegovina) to all 58 variables (9 countries). However, due to the careful selection of the variables from the data sources, the overall coverage of data was very good (91.2%). Countries with not sufficient available data can be considered Bosnia and Herzegovina, Yugoslavia (Serbia and Monte Negro) and the Democratic Republic of Korea.

The calculated values of the aggregated sustainable development index are shown in Table 4 and the map. The countries are classified similarly as in the first five major problem areas. This confirms that today the world is divided and polarized: rich and developed countries of the North, with the partial exception of natural resources consumption and quality of the environment. And a concentration of the poor and underdeveloped countries in the South. First group is composed of Western European countries, USA, Canada, Australia and New Zealand, Japan and also some countries of the former communist block – Central European and Baltic States. The most poor and underdeveloped are most of the African countries, some countries of South and South East Asia and Haiti. The differences between these two groups are considerable.

The ten countries that received the highest score according to the aggregated sustainable development index are: Norway 0.867, Finland 0.852, Canada 0.840, Sweden 0.838, Switzerland 0.836, Austria 0.834, New Zealand 0.828, Ireland 0.827, Netherlands 0.815 and Germany 0.802.

The ten countries that received the lowest score according to aggregated sustainable development index are: Eritrea 0.311, Angola 0.355, Burundi 0.369, Haiti 0.373, Ethiopia 0.380, Chad 0.384, Mozambique 0.398, Cambodia 0.399, Kenya 0.404, Uganda 0.404.

The Development Status in individual countries can be evaluated according to the values of the subindexes of the seven major problem areas. The ratio between the highest value of the subindex, its lowest value can be called the **Index of Development Status (IDS)**. Usually the most developed countries are not those that have the best index values. This means that high level of development in some countries is obtained because of excessive consumption of natural resources and poor attention to the environment. This is a serious challenge for the future. Unfavorable values of this index may pose problems for Canada and the Scandinavian countries of Finland, Sweden, Norway, as well as some Western-European countries such as France and the United Kingdom.

Among the countries with the best Index of Development Status are Malaysia (1.22), Greece (1.30), South Africa (1.33), Chile (1.35), Lithuania (1.38), Spain (1.41), Romania (1.42), Latvia (1.45), The Netherlands (1.48). The most unfavorable IDS have the poorest and least developed countries with an index value higher than 10. Extreme cases being: Burkina Faso, Central African Republic, Mozambique, Chad, Mali and Haiti.

The development status can also be expressed graphically as a diagram – see Burkina Faso and Greece, two countries with extreme difference in IDS.

Examples of distinct development status of countries

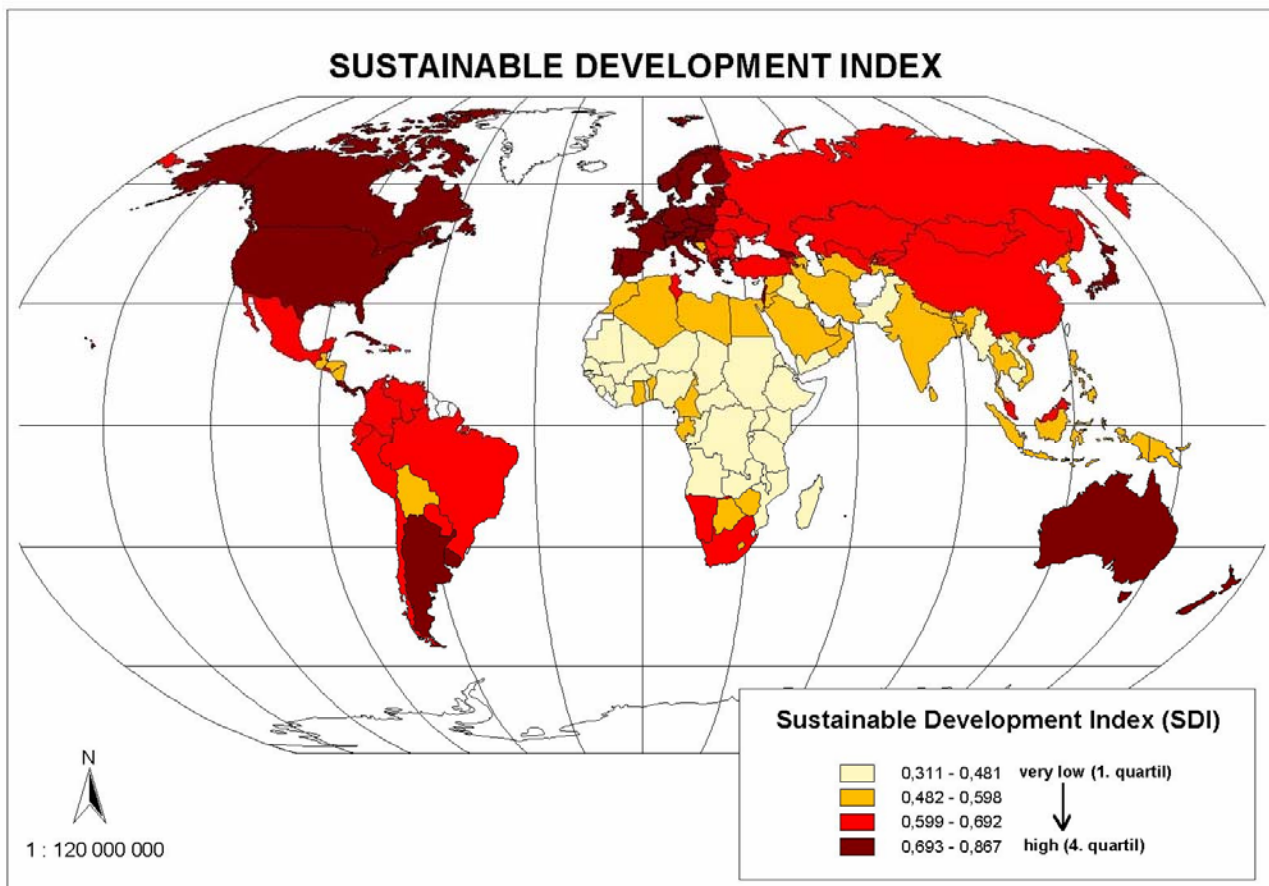
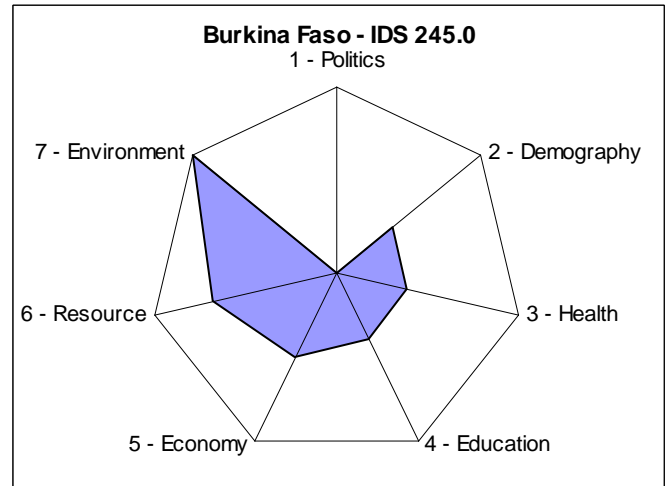
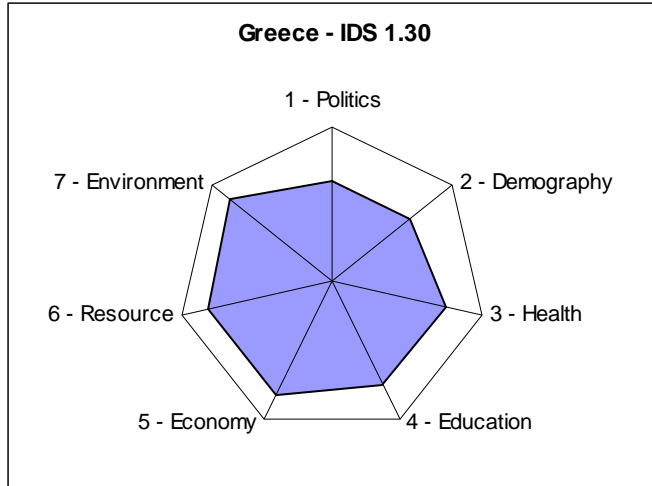


Table 4 presents the Sustainable Development Index – overall results for 146 countries

Abbreviations used in the table:

AD – available data

MD – missing data

SD Index – Overall sustainable development index

R1-R7 – Rank in partial indexes

IDS – index of development status

Table 4 – Sustainable Development Index – overall results for 146 countries

| Rank | Country | AD | MD | SD Index | R1 | R2 | R3 | R4 | R5 | R6 | R7 | IDS |
|------|----------------|----|----|--------------|----|----|----|----|----|-----|-----|------|
| 1 | Norway | 51 | 7 | 0.867 | 9 | 1 | 9 | 4 | 3 | 139 | 1 | 5.68 |
| 2 | Finland | 52 | 6 | 0.852 | 3 | 15 | 5 | 2 | 9 | 142 | 3 | 8.50 |
| 3 | Canada | 51 | 7 | 0.840 | 1 | 13 | 2 | 6 | 16 | 143 | 16 | 8.96 |
| 4 | Sweden | 52 | 6 | 0.838 | 11 | 7 | 1 | 1 | 15 | 140 | 17 | 7.73 |
| 5 | Switzerland | 51 | 7 | 0.836 | 12 | 6 | 6 | 11 | 11 | 136 | 20 | 3.36 |
| 6 | Austria | 56 | 2 | 0.834 | 5 | 2 | 13 | 12 | 7 | 113 | 41 | 1.78 |
| 7 | New Zealand | 55 | 3 | 0.828 | 8 | 9 | 23 | 5 | 23 | 118 | 8 | 1.78 |
| 8 | Ireland | 53 | 5 | 0.827 | 15 | 5 | 44 | 15 | 4 | 106 | 18 | 1.53 |
| 9 | Netherlands | 56 | 2 | 0.815 | 6 | 17 | 7 | 8 | 8 | 110 | 84 | 1.48 |
| 10 | Germany | 53 | 5 | 0.802 | 13 | 11 | 27 | 13 | 2 | 109 | 77 | 1.55 |
| 11 | Denmark | 56 | 2 | 0.798 | 7 | 14 | 18 | 3 | 10 | 119 | 89 | 1.88 |
| 12 | Belgium | 50 | 8 | 0.798 | 10 | 3 | 36 | 17 | 6 | 112 | 111 | 1.59 |
| 13 | Australia | 55 | 3 | 0.796 | 4 | 10 | 4 | 7 | 14 | 134 | 46 | 3.25 |
| 14 | France | 52 | 6 | 0.795 | 29 | 4 | 19 | 14 | 13 | 138 | 47 | 4.27 |
| 15 | Japan | 54 | 4 | 0.787 | 2 | 25 | 8 | 16 | 5 | 122 | 91 | 1.82 |
| 16 | Latvia | 55 | 3 | 0.778 | 21 | 76 | 30 | 20 | 34 | 66 | 5 | 1.45 |
| 17 | Lithuania | 56 | 2 | 0.773 | 16 | 45 | 14 | 31 | 32 | 77 | 23 | 1.38 |
| 18 | Spain | 55 | 3 | 0.767 | 22 | 24 | 26 | 24 | 18 | 104 | 75 | 1.41 |
| 19 | United States | 53 | 5 | 0.762 | 23 | 8 | 25 | 10 | 19 | 132 | 42 | 2.73 |
| 20 | Italy | 52 | 6 | 0.755 | 17 | 29 | 28 | 23 | 12 | 128 | 96 | 2.01 |
| 21 | United Kingdom | 56 | 2 | 0.755 | 19 | 12 | 15 | 9 | 20 | 137 | 57 | 3.97 |
| 22 | Estonia | 54 | 4 | 0.752 | 30 | 65 | 21 | 21 | 27 | 120 | 6 | 1.67 |
| 23 | Greece | 55 | 3 | 0.751 | 46 | 21 | 34 | 34 | 17 | 78 | 55 | 1.30 |
| 24 | Slovakia | 57 | 1 | 0.751 | 31 | 18 | 12 | 27 | 64 | 121 | 11 | 1.77 |
| 25 | Slovenia | 55 | 3 | 0.750 | 35 | 40 | 10 | 19 | 43 | 116 | 19 | 1.65 |
| 26 | Uruguay | 57 | 1 | 0.747 | 38 | 20 | 33 | 35 | 67 | 30 | 63 | 1.85 |
| 27 | Costa Rica | 55 | 3 | 0.738 | 32 | 64 | 32 | 41 | 50 | 12 | 44 | 1.79 |
| 28 | Poland | 56 | 2 | 0.735 | 26 | 19 | 46 | 25 | 39 | 90 | 100 | 1.59 |
| 29 | Israel | 55 | 3 | 0.726 | 67 | 16 | 3 | 18 | 25 | 127 | 92 | 2.18 |
| 30 | Portugal | 54 | 4 | 0.725 | 27 | 22 | 55 | 30 | 21 | 117 | 72 | 1.55 |
| 31 | Hungary | 58 | 0 | 0.718 | 28 | 43 | 37 | 28 | 78 | 82 | 76 | 1.74 |
| 32 | Argentina | 57 | 1 | 0.716 | 24 | 35 | 43 | 40 | 72 | 79 | 48 | 1.67 |
| 33 | Czech Republic | 57 | 1 | 0.712 | 14 | 38 | 11 | 22 | 59 | 130 | 85 | 2.23 |
| 34 | Cuba | 47 | 11 | 0.708 | 64 | 32 | 16 | 57 | | 24 | 90 | 1.66 |
| 35 | Panama | 56 | 2 | 0.700 | 33 | 73 | 48 | 61 | 90 | 43 | 9 | 2.02 |

| Rank | Country | AD | MD | SD Index | R1 | R2 | R3 | R4 | R5 | R6 | R7 | IDS |
|------|-----------------|----|----|--------------|-----|-----|-----|-----|-----|-----|-----|------|
| 36 | Georgia | 48 | 10 | 0.693 | 54 | 33 | 62 | 48 | 62 | 18 | 79 | 1.84 |
| 37 | Croatia | 55 | 3 | 0.692 | 110 | 44 | 42 | 32 | 58 | 64 | 15 | 1.83 |
| 38 | Chile | 58 | 0 | 0.691 | 49 | 42 | 54 | 43 | 45 | 89 | 25 | 1.35 |
| 39 | Albania | 54 | 4 | 0.684 | 69 | 56 | 45 | 91 | 57 | 6 | 40 | 2.35 |
| 40 | Bulgaria | 56 | 2 | 0.681 | 40 | 49 | 35 | 36 | 114 | 85 | 74 | 2.32 |
| 41 | Bielarus | 53 | 5 | 0.676 | 61 | 48 | 41 | 33 | 22 | 124 | 61 | 1.62 |
| 42 | Macedonia | 51 | 7 | 0.664 | 88 | 28 | 39 | 55 | 121 | 93 | 27 | 2.42 |
| 43 | Jamaica | 55 | 3 | 0.663 | 25 | 23 | 60 | 59 | 105 | 56 | 112 | 2.21 |
| 44 | Brazil | 57 | 1 | 0.661 | 75 | 90 | 52 | 54 | 53 | 50 | 22 | 1.56 |
| 45 | Paraguay | 57 | 1 | 0.657 | 79 | 77 | 80 | 82 | 40 | 26 | 13 | 1.91 |
| 46 | Trinidad | 52 | 6 | 0.655 | 20 | 47 | 49 | 42 | 79 | 135 | 62 | 2.74 |
| 47 | Mexico | 56 | 2 | 0.653 | 56 | 85 | 63 | 46 | 68 | 55 | 58 | 1.66 |
| 48 | Colombia | 57 | 1 | 0.649 | 92 | 74 | 50 | 64 | 51 | 53 | 53 | 1.63 |
| 49 | Singapore | 48 | 10 | 0.648 | 105 | 34 | 51 | 29 | 1 | 141 | 107 | 8.05 |
| 50 | Serbia | 33 | 25 | 0.646 | 130 | 30 | 17 | 50 | | 36 | 130 | 2.84 |
| 51 | Korea, Rep. | 57 | 1 | 0.643 | 51 | 46 | 57 | 26 | 29 | 129 | 104 | 1.99 |
| 52 | Romania | 58 | 0 | 0.642 | 36 | 68 | 61 | 49 | 63 | 108 | 80 | 1.42 |
| 53 | Mauritius | 48 | 10 | 0.642 | 18 | 51 | 75 | 56 | 55 | | 116 | 1.69 |
| 54 | Moldova | 53 | 5 | 0.641 | 41 | 37 | 68 | 47 | 123 | 80 | 87 | 2.41 |
| 55 | Dominican Rep. | 54 | 4 | 0.639 | 55 | 92 | 76 | 85 | 42 | 9 | 101 | 2.03 |
| 56 | Uzbekistan | 52 | 6 | 0.638 | 89 | 50 | 47 | 74 | 28 | 100 | 70 | 1.51 |
| 57 | Kyrgyzstan | 53 | 5 | 0.637 | 82 | 53 | 77 | 75 | 92 | 29 | 49 | 2.21 |
| 58 | Venezuela | 57 | 1 | 0.635 | 58 | 86 | 59 | 52 | 76 | 107 | 14 | 1.65 |
| 59 | South Africa | 55 | 3 | 0.634 | 34 | 78 | 94 | 44 | 41 | 91 | 93 | 1.33 |
| 60 | Ukraine | 54 | 4 | 0.634 | 66 | 52 | 69 | 37 | 49 | 88 | 120 | 1.58 |
| 61 | Russia | 53 | 5 | 0.632 | 99 | 61 | 38 | 39 | 75 | 131 | 26 | 2.12 |
| 62 | Kazakhstan | 51 | 7 | 0.630 | 53 | 39 | 58 | 60 | 47 | 126 | 54 | 1.66 |
| 63 | Mongolia | 52 | 6 | 0.629 | 48 | 83 | 87 | 95 | 77 | 13 | 10 | 2.59 |
| 64 | Tunisia | 57 | 1 | 0.627 | 44 | 57 | 66 | 72 | 70 | 32 | 134 | 2.21 |
| 65 | Lebanon | 54 | 4 | 0.626 | 98 | 41 | 24 | 62 | 96 | 62 | 144 | 2.90 |
| 66 | El Salvador | 56 | 2 | 0.624 | 57 | 54 | 73 | 79 | 73 | 17 | 133 | 2.20 |
| 67 | China | 56 | 2 | 0.623 | 63 | 71 | 70 | 90 | 24 | 68 | 117 | 1.85 |
| 68 | Peru | 58 | 0 | 0.604 | 59 | 97 | 92 | 71 | 80 | 15 | 83 | 2.07 |
| 69 | Namibia | 47 | 11 | 0.603 | 80 | 107 | 116 | 69 | 30 | 1 | 7 | 2.34 |
| 70 | Malaysia | 53 | 5 | 0.602 | 76 | 69 | 85 | 45 | 48 | 114 | 73 | 1.22 |
| 71 | Armenia | 55 | 3 | 0.600 | 118 | 27 | 56 | 83 | 104 | 61 | 88 | 2.16 |
| 72 | Ecuador | 56 | 2 | 0.600 | 65 | 87 | 83 | 68 | 99 | 63 | 50 | 2.03 |
| 73 | Turkey | 57 | 1 | 0.598 | 113 | 72 | 81 | 67 | 60 | 25 | 106 | 2.25 |
| 74 | Montenegro | 30 | 28 | 0.598 | 131 | 31 | 31 | 51 | | | 131 | 2.62 |
| 75 | Bosnia and Her. | 29 | 29 | 0.597 | 145 | 26 | 79 | 80 | | 52 | 78 | 7.72 |
| 76 | Bolivia | 55 | 3 | 0.596 | 43 | 101 | 100 | 86 | 102 | 20 | 35 | 2.46 |
| 77 | Kuwait | 51 | 7 | 0.596 | 95 | 55 | 40 | 38 | | 125 | 139 | 2.22 |
| 78 | Tajikistan | 52 | 6 | 0.596 | 77 | 60 | 84 | 81 | 85 | 97 | 51 | 1.55 |
| 79 | Azerbaijan | 52 | 6 | 0.593 | 112 | 36 | 64 | 77 | 38 | 115 | 95 | 1.80 |
| 80 | Turkmenistan | 44 | 14 | 0.591 | 120 | 75 | 78 | 63 | 124 | 105 | 21 | 2.43 |
| 81 | Guatemala | 58 | 0 | 0.583 | 84 | 82 | 105 | 102 | 54 | 16 | 30 | 2.91 |
| 82 | Honduras | 58 | 0 | 0.583 | 47 | 93 | 91 | 94 | 94 | 86 | 24 | 1.88 |

| Rank | Country | AD | MD | SD Index | R1 | R2 | R3 | R4 | R5 | R6 | R7 | IDS |
|------|-------------------|----|----|--------------|-----|-----|-----|-----|-----|-----|-----|--------|
| 83 | Sri Lanka | 57 | 1 | 0.583 | 70 | 58 | 103 | 93 | 44 | 67 | 59 | 1.98 |
| 84 | Botswana | 52 | 6 | 0.580 | 72 | 130 | 108 | 78 | 26 | 92 | 12 | 2.03 |
| 85 | Philippines | 57 | 1 | 0.579 | 37 | 91 | 96 | 73 | 89 | 41 | 123 | 2.05 |
| 86 | Oman | 46 | 12 | 0.578 | 125 | 79 | 53 | 70 | | 51 | 94 | 2.30 |
| 87 | Thailand | 56 | 2 | 0.576 | 81 | 80 | 89 | 66 | 56 | 84 | 121 | 1.60 |
| 88 | Iran | 57 | 1 | 0.573 | 111 | 62 | 72 | 84 | 35 | 101 | 118 | 1.59 |
| 89 | Algeria | 56 | 2 | 0.571 | 85 | 66 | 88 | 92 | 86 | 49 | 132 | 2.00 |
| 90 | Saudi Arabia | 52 | 6 | 0.565 | 136 | 96 | 20 | 65 | 46 | 111 | 119 | 2.98 |
| 91 | Korea, Dem.Rep. | 31 | 27 | 0.562 | 141 | 128 | 74 | 58 | | 39 | 99 | 3.47 |
| 92 | Libya | 44 | 14 | 0.552 | 137 | 102 | 22 | 87 | | 83 | 137 | 2.98 |
| 93 | Jordan | 55 | 3 | 0.550 | 108 | 67 | 29 | 76 | 133 | 87 | 141 | 4.24 |
| 94 | Gabon | 50 | 8 | 0.550 | 106 | 109 | 102 | 97 | 95 | 81 | 4 | 2.35 |
| 95 | Egypt | 57 | 1 | 0.549 | 94 | 89 | 82 | 88 | 37 | 75 | 140 | 2.25 |
| 96 | Papua N.Guinea | 53 | 5 | 0.546 | 45 | 88 | 119 | 119 | 74 | 14 | 45 | 4.69 |
| 97 | Morocco | 58 | 0 | 0.544 | 96 | 81 | 98 | 96 | 87 | 7 | 128 | 2.66 |
| 98 | Nicaragua | 58 | 0 | 0.544 | 73 | 84 | 86 | 89 | 136 | 65 | 65 | 6.60 |
| 99 | United Arab. Em. | 52 | 6 | 0.538 | 135 | 59 | 65 | 53 | 31 | 133 | 122 | 2.37 |
| 100 | Ghana | 56 | 2 | 0.530 | 39 | 95 | 99 | 112 | 106 | 57 | 109 | 3.07 |
| 101 | Vietnam | 55 | 3 | 0.530 | 109 | 70 | 95 | 104 | 83 | 28 | 124 | 2.92 |
| 102 | Indonesia | 54 | 4 | 0.529 | 42 | 98 | 104 | 99 | 97 | 42 | 86 | 2.44 |
| 103 | India | 56 | 2 | 0.528 | 52 | 108 | 97 | 110 | 33 | 74 | 135 | 2.75 |
| 104 | Syria | 52 | 6 | 0.516 | 128 | 63 | 67 | 101 | 101 | 31 | 143 | 3.03 |
| 105 | Nepal | 55 | 3 | 0.512 | 86 | 113 | 112 | 118 | 52 | 76 | 56 | 3.67 |
| 106 | Zimbabwe | 54 | 4 | 0.506 | 114 | 124 | 71 | 100 | 118 | 33 | 52 | 2.67 |
| 107 | Bangladesh | 57 | 1 | 0.488 | 50 | 117 | 114 | 133 | 36 | 19 | 145 | 10.55 |
| 108 | Benin | 56 | 2 | 0.487 | 68 | 127 | 113 | 127 | 91 | 73 | 31 | 7.01 |
| 109 | Lesotho | 49 | 9 | 0.481 | 104 | 99 | 117 | 98 | 100 | 23 | 102 | 2.60 |
| 110 | Cameroon | 55 | 3 | 0.481 | 93 | 122 | 123 | 121 | 103 | 58 | 64 | 4.35 |
| 111 | Senegal | 58 | 0 | 0.476 | 71 | 123 | 111 | 116 | 107 | 94 | 82 | 3.09 |
| 112 | Sudan | 53 | 5 | 0.469 | 134 | 116 | 90 | 124 | 115 | 40 | 98 | 5.03 |
| 113 | Iraq | 44 | 14 | 0.468 | 143 | 120 | 93 | 103 | | 48 | 115 | 5.83 |
| 114 | Mauritania | 54 | 4 | 0.464 | 122 | 105 | 110 | 114 | 132 | 10 | 69 | 4.25 |
| 115 | Ivory Coast | 56 | 2 | 0.464 | 90 | 141 | 115 | 109 | 129 | 21 | 113 | 3.42 |
| 116 | Gambia | 51 | 7 | 0.462 | 121 | 111 | 106 | 123 | 116 | 3 | 81 | 5.69 |
| 117 | Malawi | 52 | 6 | 0.461 | 74 | 146 | 122 | 115 | 125 | 38 | 66 | 3.85 |
| 118 | Nigeria | 57 | 1 | 0.456 | 62 | 103 | 132 | 117 | 109 | 47 | 136 | 3.82 |
| 119 | Togo | 55 | 3 | 0.456 | 91 | 133 | 139 | 113 | 108 | 11 | 67 | 4.12 |
| 120 | Yemen | 57 | 1 | 0.455 | 116 | 119 | 120 | 108 | 122 | 34 | 126 | 3.22 |
| 121 | Congo | 54 | 4 | 0.454 | 126 | 115 | 135 | 105 | 120 | 70 | 33 | 2.51 |
| 122 | Rwanda | 48 | 10 | 0.451 | 139 | 112 | 121 | 134 | 66 | 8 | 103 | 11.27 |
| 123 | Burkina Faso | 52 | 6 | 0.451 | 117 | 132 | 124 | 146 | 65 | 2 | 43 | 244.97 |
| 124 | Pakistan | 57 | 1 | 0.448 | 107 | 100 | 107 | 111 | 71 | 96 | 142 | 2.55 |
| 125 | Central Afr: rep. | 50 | 8 | 0.448 | 132 | 140 | 137 | 145 | 113 | 46 | 2 | 87.46 |
| 126 | Madagascar | 54 | 4 | 0.447 | 60 | 121 | 130 | 129 | 128 | 59 | 36 | 7.88 |
| 127 | Tanzania | 52 | 6 | 0.446 | 78 | 139 | 118 | 132 | 111 | 69 | 110 | 8.28 |
| 128 | Burma | 50 | 8 | 0.443 | 133 | 104 | 101 | 125 | | 103 | 114 | 3.75 |
| 129 | Laos | 51 | 7 | 0.442 | 124 | 106 | 125 | 128 | 84 | 54 | 37 | 7.73 |

| Rank | Country | AD | MD | SD Index | R1 | R2 | R3 | R4 | R5 | R6 | R7 | IDS |
|------|---------------|----|----|--------------|-----|-----|-----|-----|-----|-----|-----|-------|
| 130 | Niger | 53 | 5 | 0.441 | 101 | 145 | 128 | 140 | 117 | 27 | 39 | 18.04 |
| 131 | Mali | 56 | 2 | 0.441 | 83 | 137 | 131 | 142 | 110 | 44 | 32 | 36.38 |
| 132 | Zaire | 45 | 13 | 0.431 | 115 | 118 | 142 | 122 | 127 | 37 | 34 | 5.01 |
| 133 | Guinea-Bissau | 49 | 9 | 0.428 | 127 | 144 | 109 | 131 | 135 | 5 | 29 | 10.27 |
| 134 | Zambia | 56 | 2 | 0.427 | 100 | 143 | 136 | 106 | 134 | 71 | 71 | 4.16 |
| 135 | Guinea | 49 | 9 | 0.426 | 97 | 126 | 129 | 130 | 93 | 4 | 129 | 9.98 |
| 136 | Sierra Leone | 50 | 8 | 0.407 | 140 | 125 | 133 | 138 | 131 | 22 | 68 | 15.05 |
| 137 | Uganda | 49 | 9 | 0.404 | 119 | 142 | 127 | 126 | 82 | | 60 | 5.25 |
| 138 | Kenya | 53 | 5 | 0.404 | 87 | 136 | 140 | 107 | 98 | 60 | 138 | 3.04 |
| 139 | Cambodia | 51 | 7 | 0.399 | 142 | 110 | 134 | 120 | 81 | 98 | 38 | 3.49 |
| 140 | Mozambique | 51 | 7 | 0.398 | 103 | 129 | 126 | 144 | 126 | 95 | 105 | 65.14 |
| 141 | Chad | 52 | 6 | 0.384 | 123 | 138 | 145 | 143 | 88 | 99 | 28 | 43.25 |
| 142 | Ethiopia | 54 | 4 | 0.380 | 102 | 131 | 143 | 137 | 112 | 102 | 125 | 8.79 |
| 143 | Haiti | 52 | 6 | 0.373 | 129 | 94 | 146 | 141 | 69 | 45 | 146 | 27.45 |
| 144 | Burundi | 54 | 4 | 0.369 | 138 | 134 | 144 | 136 | 119 | 35 | 108 | 10.92 |
| 145 | Angola | 50 | 8 | 0.355 | 144 | 135 | 141 | 135 | 130 | 72 | 97 | 9.27 |
| 146 | Eritrea | 44 | 14 | 0.311 | 146 | 114 | 138 | 139 | 61 | 123 | 127 | 13.61 |

The SD Index represents one of the possible methodological approaches of how to quantify and measure the progress of individual countries toward sustainable development.

The most important advantage of the SD Index is that variables are taken from accessible data sources that are regularly evaluated and updated. So far only two principal data sources have been used, the World Development Indicators of the World Bank and UNDP yearbook Human Development Report. In addition, the Index of Freedom, produced annually by Freedom House, was also used. Therefore it is possible to construct a time series from the last ten years and extrapolate trends for the next five years. It will also be possible to calculate the SD Index individually for the 146 countries when enough data is available, and therefore it can become an important instrument for decision making. The other methodologies like ESI, UNCSD and Dashboard are not so flexible.

Using the SD Index, the development status of specific countries can be evaluated and therefore identify priority areas for development aid and investment.

The disadvantage of the SD Index is that it does not work with the best possible set of variables but with the best available set.

Conclusions

There will be many impediments to the implementation of GPD but the most significant is our lack of will. As Tarja Kaarina Halonen, President of Finland put it at the Millennium Summit in New York, September 2000, "We know the facts. We know what we want. We know how to get it. All we need is the will to do it." (30)

Many will oppose a new “Global Marshall Plan.” But many social plans in history were met with opposition, for instance, the New Deal made Franklin Roosevelt a hated man among the American upper class of the 1930s. The Marshall Plan also did not have the strong support of the American public at the beginning, and demanded foresight and courage of politicians to implement it despite of public meaning.

One of the impediments to implementation of GPD is past negative experience with some development programs including the problems of misuse of money, siphoning of capital, and aid fatigue in donor countries. “US funds intended to help find civilian work for unemployed weapons scientists in Russia, but 63% of the fund were spent in the US implementing and providing oversight for the program and Russian institutes themselves also have kept some of the money“. (31)

Another problem is the great cultural, political and economic diversity that is present in the regions of the world and its civilizations. In the words of S. Huntington (10):

“The differences in intra- and extracivilizational behavior stem from:

1. feelings of superiority (and occasionally inferiority) toward people who are perceived as being very different;
2. fear of and lack of trust in such people;
3. difficulty of communication with them as a result of differences in language and what is considered civil behavior;
4. lack of familiarity with the assumptions, motivations, social relationships, and social practices of other people.“

To make the GPD program successful, a great deal of effort must be devoted to popularization, and perhaps advertisement. The Marshall Plan had special Information Program headquarters in Paris with a press office, documentary film, radio section, photography section, exhibits section and opinion research section to win public attention and sympathy.

Today, “live” programmes are in high demand on television, just look at the popularity of various “survival” games where a group of people are held on a desert island, or forced to live together in an apartment. TV companies like the CNN or WETV could from the very beginning monitor a certain project, for example the children's polio eradication, and could bring “live” information from the site. Part of the TV company’s profit may go toward the support of the monitored project, but the main gain would be the capturing of the public’s attention. (The WETV is a television founded by humanitarian aid programmes of Scandinavian countries, the Netherlands, Switzerland and Austria, headed by Canadian organisations IDRC and CIDA. It obtained rights for UN programmes and prepared series such as the “Ethical Market.”)

In France in the beginning of 90s in the Minister of Education together with a pop-music star initiated collection of rice at schools for children in Somalia. This received mass media coverage, and helped not just to collect several hundred tons of rice for starving children but helped significantly increased the French population’s awareness of the situation in Somalia.

Artists and sports stars are “opinion makers“ in public, especially among young people. Jubilee 2000 campaign was a campaign for debt relief, which became very popular and received much media attention when singer Bono Vox and former world champion Muhammed Ali joined the campaign.

The UN uses famous sportsmen as “UN ambassadors” in promoting various humanitarian and development projects, a prime example of this being tennis player Martina Hingis.

Actors Paul Newman has founded a food company, Newman’s Own, and donates all of the company’s profits to charity.

We could name tens and perhaps hundreds other examples of how mass media, politicians, artists and sport stars can help to collect money. But more important, they could help to win public attention and sympathy for the GPD program.

We, the people of all cultures and nations, are more and more dependent on one another for the success of our futures. This tendency is reflected in the titles of various well-known and recognized reports: Our Common Future, For the Common Good (32), Our Global Neighborhood. As a global population, we must not get used to the suffering of millions of people on Earth, and we must not give up. We should become united in our efforts to combat poverty and make living of people as well as of other living beings on the Earth more sustainable. We all are united; in deeper sense all forms of life are united and mutually dependent:

“We know that Earth is the product of a 15-billion year journey from the first burst of creative energy. We know that we humans and all other life on Earth are intimately connected through a single, integral, and continuing creation journey and that we humans are related genetically to everything that contains the DNA molecule. ... We are all distant cousins. And we all depend on each other through the complex bio-geo-chemical cycles of Earth.“ (11).

8.1.2 Framework for Measuring Sustainable Development

Introduction

The Framework for Aggregating Indicators of Sustainable Development

Processing the Data into the Framework

The Analysis

Conclusions and suggestions

This study was carried out by Peter Riddell-Carre from the United Kingdom while interning with the Millennium Project and was presented at the International Conference on Sustainable Development in Austria, November 2000.

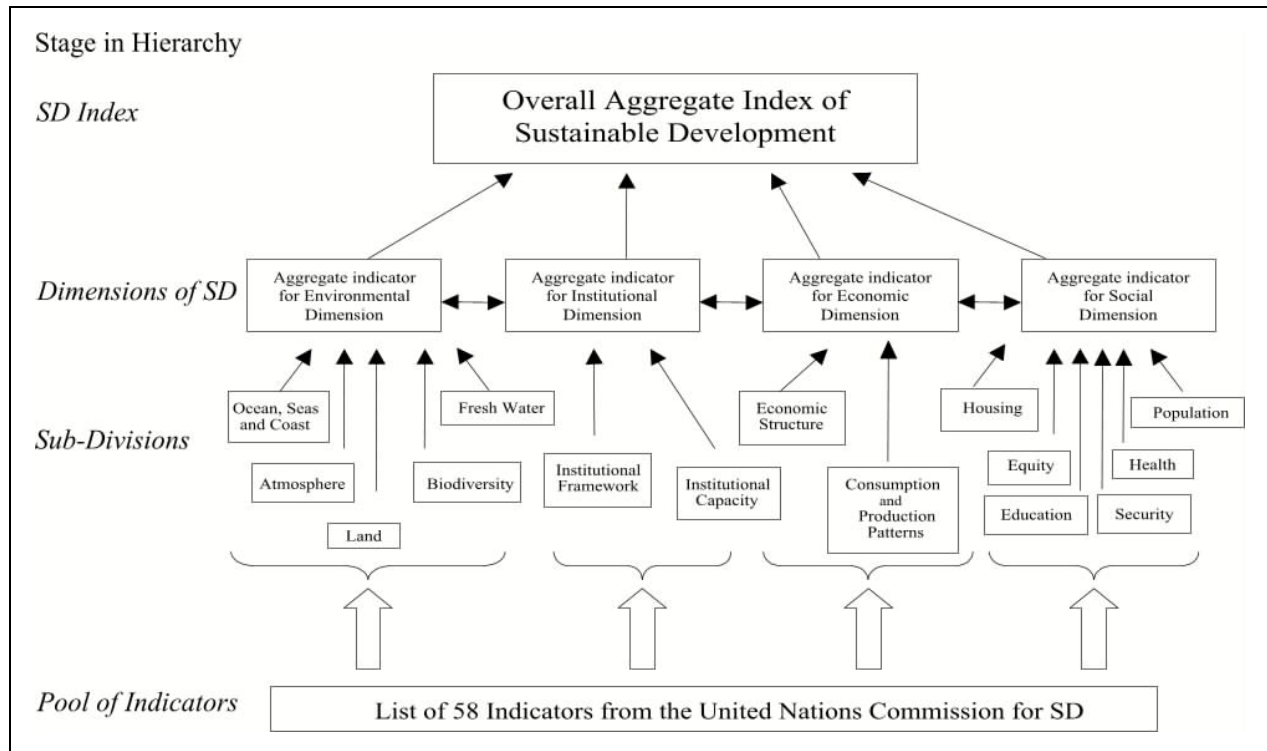
Introduction

Sustainable development has been described as a “global buzzword” (Adams, 1999, p125), while its loosely undefined framework has endangered the concept of evolving toward a meaningless “development truism” (Redclift, 1987, p2). Much academic research has concentrated on exploring the semantics of sustainable development, however this study will concentrate on trying to design a method to quantify sustainable development. There is a need to place a clearer more objective framework around the concept, from which deductions about the progress toward sustainable development can be evaluated.

This study aims to develop a framework, which aggregates indicators of sustainable development from across all its diverse dimensions, from which a clear simple map can be produced to illustrate the findings. The key to this map will be simplicity. Whereas the systematic structure incorporated to process the data will be rather complex, the end product will aim for clarity. The concept of sustainable development is universally applicable, and not just aloof within a political context. Implementing sustainable development is not solely about creating the policies to force societies to adapt, but it is much more a moral and ethical concern of the general public. This therefore requires the public, as well as the scientist and decisionmakers, to understand the state of progress toward sustainable development. Therefore the aim of this study is not solely to clarify the state of progress toward sustainable development for decisionmakers, but to break the boundaries between scientist – policymakers – public, and create a universal picture that is understandable for all.

The Framework for Aggregating Indicators of Sustainable Development

Figure 1



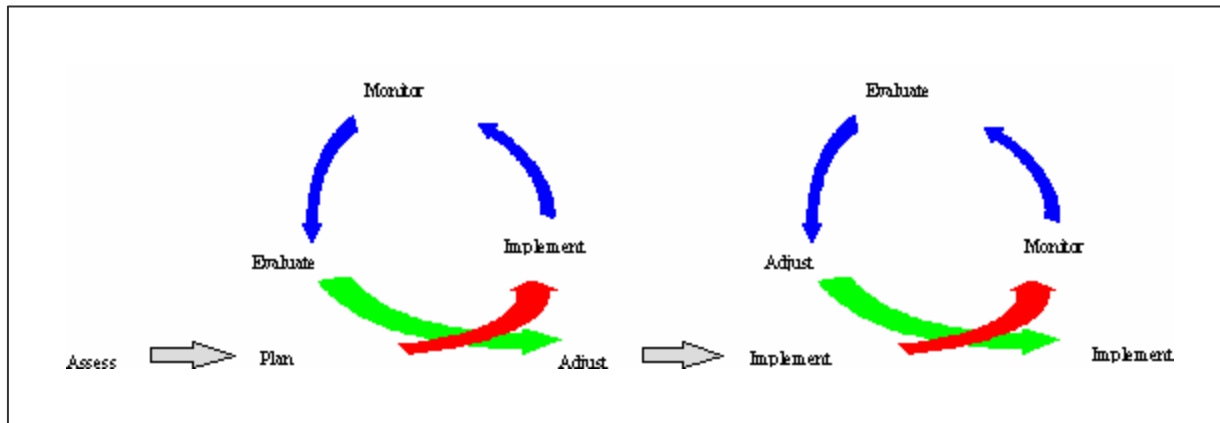
The framework provides a clear systematic structure for aggregating indicators of sustainable development. There are several key characteristics:

- The United Nations Commission for Sustainable Development (UNCSD) indicator source provides the most extensive, reliable and agreed upon source of indicators.
- Data permitting, at least one indicator from each sub-division of the UNCSD list will be incorporated, so that all dimensions of sustainable development are included in the analysis.
- These sub-divisions will be aggregated on a universal scale of 0-100 (see later for further details) into their respective dimensions.
- The inter-linking arrows between the dimensions indicate that these categories are not clear-cut boundaries, but are strongly inter-linked. It is for methodological purposes that the dimensions have been differentiated.
- The four dimensions will be then aggregated together to produce an index of sustainable development. The dimensions will be equally weighted when aggregating, to ensure that there is no bias toward certain perspectives.

Processing the Data into the Framework

The basis behind the method is to archive a large source of data together and process this data into the framework through an iterative method. Continual re-assessment occurred throughout to adapt the framework toward a reliable, clear-end product, see below:

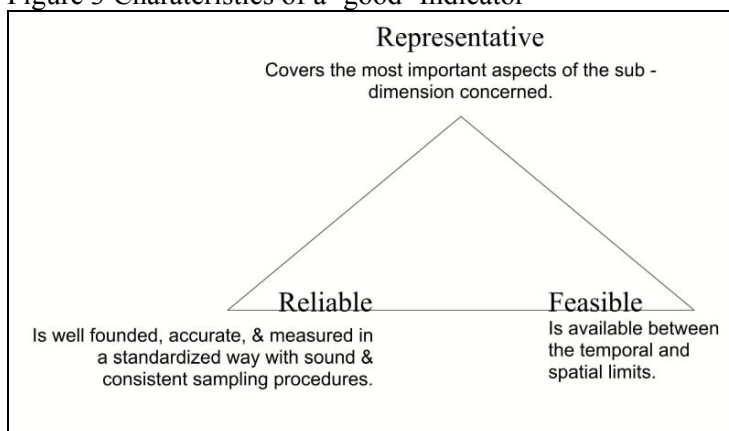
Figure 2 The Continual Iterative Methodology



Data Coverage

- It became evident from the archive sources that the most recent coverage of all the countries for the majority of indicators was 1998. Therefore data was collected for all the countries in the world between 1992-1998 inclusive.
- It was impossible to gather temporal data for all the countries in the world for all 58 indicators, therefore a selection process had to be carried out in order to evaluate 'good' indicators. 'Good' was defined as shown in the model from Figure 3 (modified version of Prescott-Allen, 2000, A2-4).

Figure 3 Characteristics of a 'good' Indicator



Each indicator from UNCSD's list was then ranked on a scale of 0-2 for each of these qualities. On this scale 0 represented very poor, 1 acceptable and 2 very good. The key aspects that were looked for in each quality are illustrated in table 1.

Table 1 Key Aspects for Each Quality

| Quality | 0 | 1 | 2 |
|--------------------------|---|--|---|
| Representative (Rep.) | No association with sub-dimension at all | Fairly well connected with sub-dimension | Clear indicator of sub-dimension |
| Reliable | Randomly measured and changing definition | A small degree of ambiguity with measuring process or definition | Accurate, standardized measurement process and definition |
| FEASIBLE | No data found = N Limited data found = L | Sporadic years = S Range of years e.g. 1990-1998 = R | Annual = A |

In order for an indicator to be accepted into the framework it had to score a total of at least 5, and no less than 2 in feasibility. If an indicator was eliminated then alternatives to the UNCSD's list were looked for (denoted by italics) and tested. Table 2 (see next page) lists the indicators that were used.

From table 2 it is evident that the sub-dimensions "Housing" and "Institutional Capacity" were both not represented by indicators. Although it would be preferable if "Housing" was included, it is not considered that this has limited the overall picture of the social dimension too much, as this sub-dimension is not an isolated factor which reveals a certain aspect of the social dimension, but is much more inter-twinned within other aspects that are included. For example poor living conditions can be seen as a product of unemployment and a factor that effects many of the health indicators.

However, the absence of all indicators from the "Institutional Framework" has had a much more significant effect on the institutional dimension. The institutional dimension is predominately composed of two aspects; the political attitudes toward sustainable development (institutional framework) and communication links (institutional capacity). These two aspects are not inter-twinned at all, but illustrate very different ideas. Therefore the absence of any political aspects has created a very distorted image of the institutional dimension, dominated by the communication aspects. Therefore, this dimension is referred as "communications" rather than "institutional" in order not to give a false idea of what was being measured.

Also, the Human Development Index (HDI) misrepresents the economic and social dimension. This is indicative of the breadth of the concept and the inter-linked nature of the dimensions. However, it would be incorrect to include this indicator twice in the framework. Therefore, the HDI was included in the social dimension as two thirds of its weighting in social indicators, and the economic indicator PPP also has a social stance.

Table 2 Indicators Used in the Framework

| Dimension | Sub-Dimension | Indicators |
|----------------------|-------------------------------------|--|
| Social | Equity | <ul style="list-style-type: none"> ▪ Unemployment Rate ▪ Gender Development Index |
| | HEALTH | <ul style="list-style-type: none"> ▪ Child Malnutrition Rate ▪ Mortality Rate Under 5 Years Old ▪ Human Development Index - (Life Expectancy) ▪ % GDP spent on Health ▪ Children Under 12 months Immunized against measles and DTP |
| | Education | <ul style="list-style-type: none"> ▪ Human Development Index – (Adult Literacy and Mean Years of Schooling) |
| | Housing | |
| | Security | <ul style="list-style-type: none"> ▪ Number of Reported Crimes per 1,000 Population |
| | Population | <ul style="list-style-type: none"> ▪ Population Growth Rate ▪ % Urban Population |
| Economic | Economic Structure | <ul style="list-style-type: none"> ▪ Human Development Index – (PPP) ▪ Gross Domestic Investment Share in GDP ▪ Balance of Trade in Goods and Services ▪ External Debt / GNP ▪ Total ODA Received as a % of GNP |
| | Consumption and Production Patterns | <ul style="list-style-type: none"> ▪ Mineral Depletion Rate ▪ Annual Commercial Energy Consumption per Capita ▪ Energy Depletion Rate ▪ % Paved Roads |
| Institutional | Institutional Framework | |
| | Institutional Capacity | <ul style="list-style-type: none"> ▪ Radios per 1,000 ▪ Internet Accounts per 10,000 ▪ Personal Computers per 1,000 ▪ Newspapers per 1,000 ▪ Main Telephone Lines per 1,000 ▪ Cell Phones per 1,000 ▪ Faxes per 1,000 ▪ Expenditure on R&D as a % of GDP |
| ENVIRONMENTAL | Atmosphere | <ul style="list-style-type: none"> ▪ Industrial Emissions of CO₂ per Capita |
| | Land | <ul style="list-style-type: none"> ▪ Arable and Permanent Crop Land Area ▪ Consumption of 100g of Fertilisers per Hectare ▪ Rate of Forest Change |
| | Freshwater | <ul style="list-style-type: none"> ▪ Annual Withdrawal of Freshwater as a % of Total Available Water ▪ BOD in Water Bodies |
| | Biodiversity | <ul style="list-style-type: none"> ▪ Protected Area as a % of Total Area |

Data Manipulation

All the data was then placed into 28 excel sheets. The countries were alphabetically listed in all these sheets, while the layout of all the indicators within each dimension was also identical. Therefore the manipulation of the data sets would be as easy as possible.

Filling in Missing Gaps

The collection of such a diverse range of data over the spatial and temporal limits will undoubtedly result in holes developing in the data sample. It would be beneficial to fill in these holes where possible. In order to make sure that the missing values are realibly calculated, two conditions were set to objectively decide when estimations could be predicted.

- Firstly, it was essential that the missing value was sandwiched between two adjacent upper and lower years.
- Secondly, the rate of change between the two adjacent values must not have exceeded +/-0.5.

If both conditions were met, then it was considered that the stability of the pattern made it justifiable to estimate the missing value by taking the mid-point between the two adjacent values. Actually very few missing pieces of data were filled in.

Eliminating Data

Having filled in as many of the missing values as deemed appropriate, the data sample consisted of 33 indicators covering the years 1992-1998 for 207 countries. However, the coverage for all these indicators and for all the countries was still not complete. Therefore precautions had to be taken to evaluate if any of the countries or indicators were so weakly represented that they were not illustrating an overall trend, but more a inconsistent unreliable pattern. To evaluate this, a model was created, which states conditions that indicators and countires had to meet in order to be included into the final data sample. The model is shown in Figure 4 (see next page).

This model is indicative of the continual iterative process that developing this framework relies on. After every modification within the above model, one looped back to the beginning to assess what effect this change had on the rest of the data sample.

Figure 4 Condensing the Data to a more reliable Sample

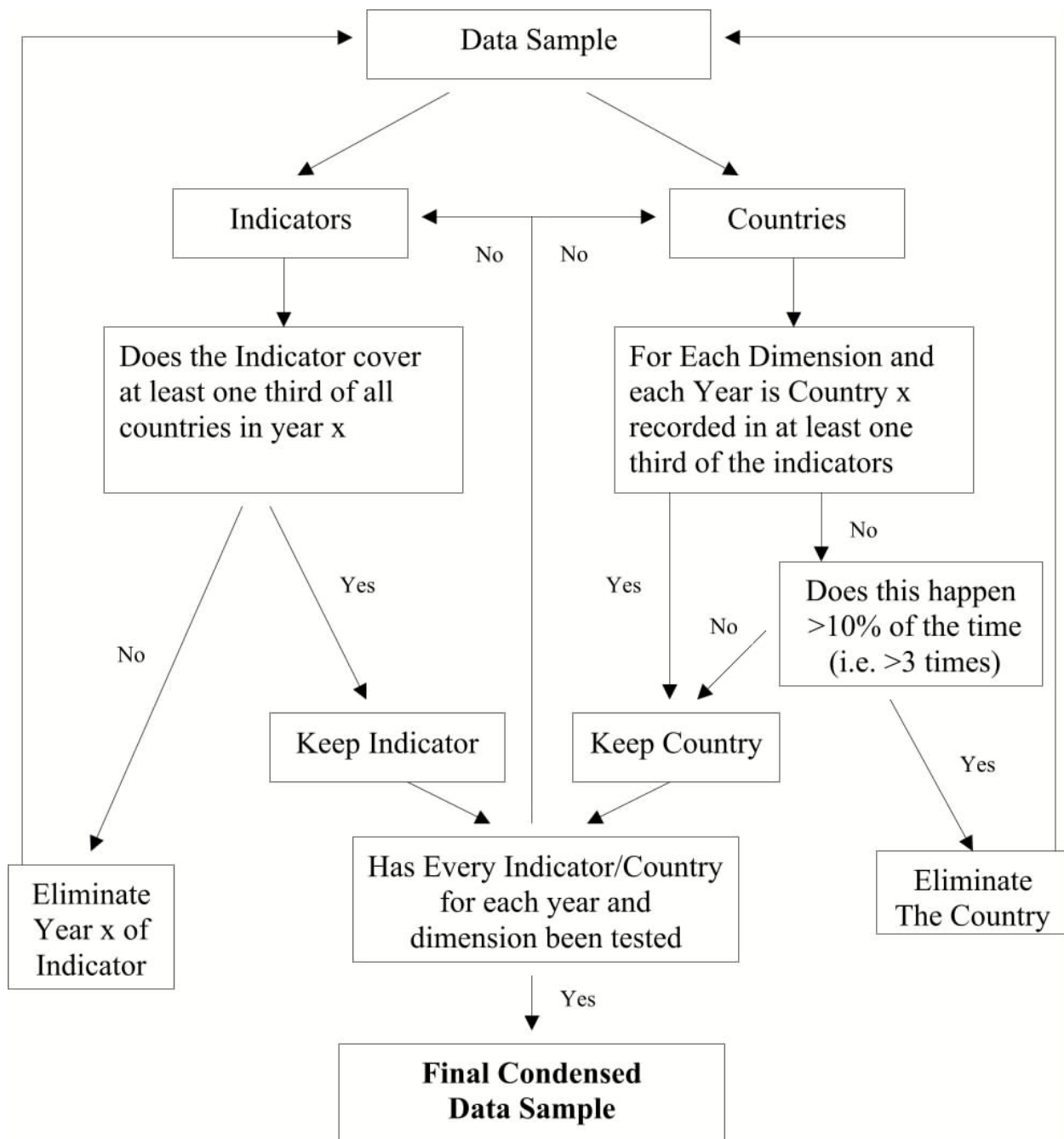


Table 3 Modifications made to the Data Sample

| Loop Number | Branch of Analysis | Eliminated | New Data Sample |
|-------------|--------------------|---|--------------------------------|
| 1 | Countries | <ul style="list-style-type: none"> ▪ 58 Countries | 149 Countries 33 Indicators |
| 2 | Indicators | <ul style="list-style-type: none"> ▪ Child Malnutrition – All Years ▪ R&D – All Years ▪ Roads – 1998 ▪ Faxes – 1998 ▪ BOD – 1997, 1998 | 31 Indicators 149 Countries |
| 3 | Countries | <ul style="list-style-type: none"> ▪ 2 Countries | 147 Countries 31 Indicators |
| 4 | Indicators | <ul style="list-style-type: none"> ▪ None | 31 Indicators 147 Countries |
| 5 | Countries | <ul style="list-style-type: none"> ▪ None | 147 Countries 31 Indicators |

One further modification was made was to eliminate the “number of reported crimes per 1,000 population” indicator. Additionally to the fact that the definition of “crime” is rather vague, it was considered that this indicator is not really measuring the security sub-dimension, but more the effectiveness at reporting crimes.

Aggregating the Data

All the values for each indicator were ranked with an increasing rank as the level of sustainability increased, and then converted the ranked values for each indicator into a uniform scale of 0-100. This scale thus represented relative ranks where 0 is the least sustainable and 100 is the most sustainable.

The following indicators had no obvious linear relationship with the sustainability scale and were therefore eliminated: consumption of 100g of fertilisers per hectare of arable land and permanent, cropland area, and percentage of Urban Population.

The Final Data Sample

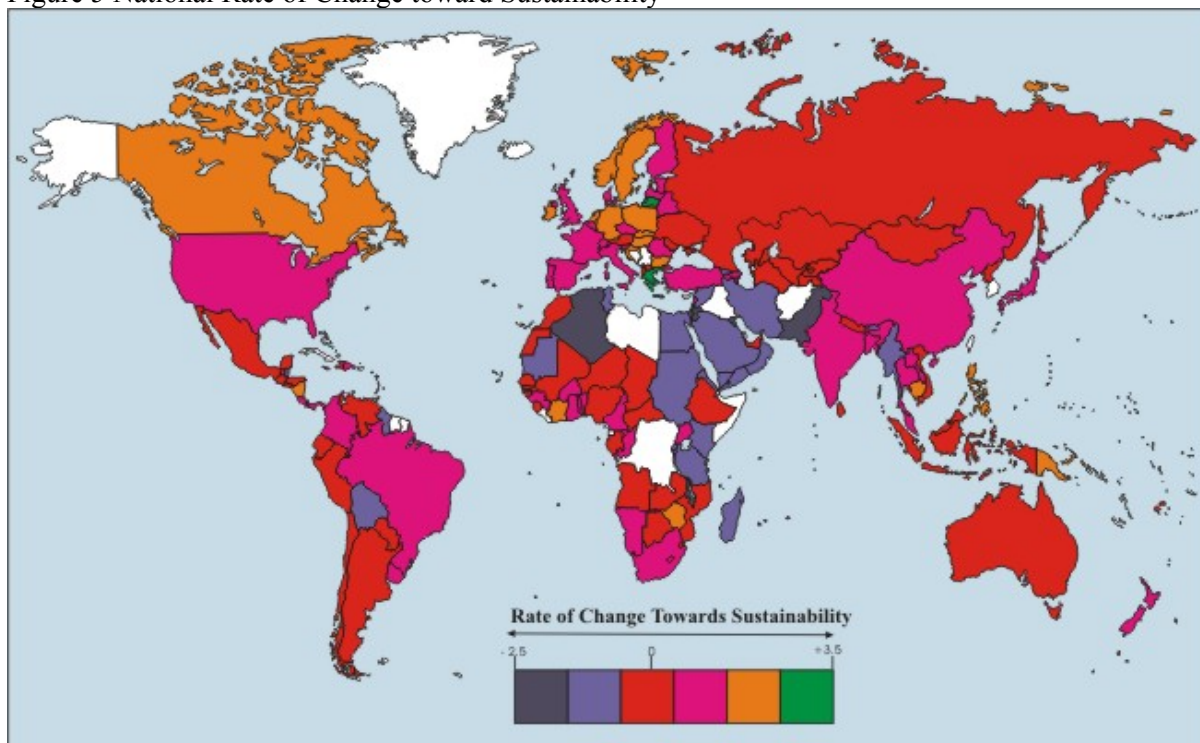
The final data sample therefore consisted of 147 countries and 27 indicators: 7 social, 8 economic, 7 communication and 5 environmental, collected between the years 1992-1998. All these indicators were then aggregated within their dimensions to produce an overall aggregate

index for each dimension for each country for each year. These aggregates were then averaged to find the overall sustainable development index. An index of sustainability was therefore calculated for each country for each year between 1992-1998.

Calculating The Rate of Change Toward Sustainability

The rate of change toward sustainability was calculated by evaluating the regression coefficient for the sustainable development index against time. This coefficient thus illustrates the direction that the country is progressing toward sustainability (positive or negative) and the rate at which this is occurring. These values were then stratified into groups and colour codes were chosen with the aim of creating a progressively changing pattern that would illustrate the trends visually without the need to refer back to a scale. Green was chosen to depict the regions that were progressing at the quickest rate toward sustainability, while the remaining scale graduated through darker shades of colours to depict the worsening situations. White areas denote countries where not enough data was available to include them in the framework. The map is illustrated in Figure 5.

Figure 5 National Rate of Change toward Sustainability



The Analysis

The main focus of the analysis will be to evaluate the methodology rather than the findings. The methodology constructs the findings, and as the framework is still far from complete, it would be rash to draw too many conclusions about the rate of change toward sustainability. Just a brief look will therefore be turned initially to evaluating Figure 6.

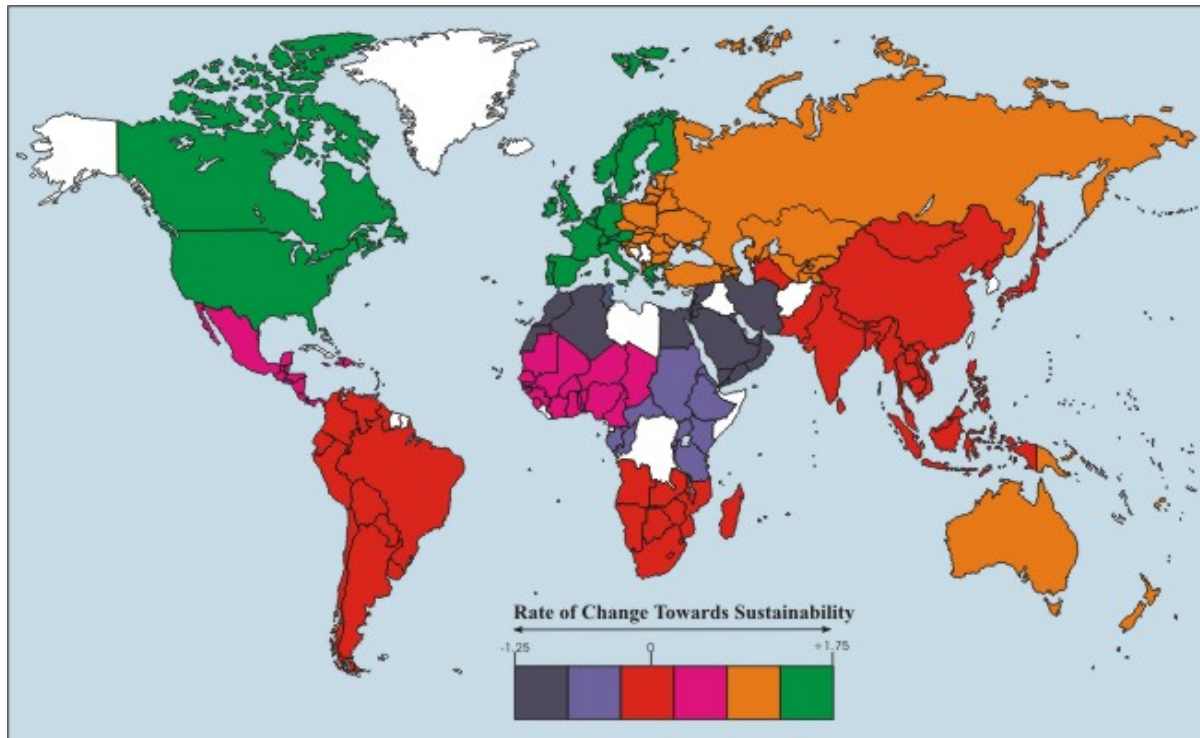


Figure 6 Regional Rate of Change toward Sustainability

Face Value Analysis of the Map

The main aim of the map was to “effectively communicate” the regional rate of change toward sustainable development clearly and concisely to a universal audience (“openness”). This objective has certainly been achieved, as the map is clear and easy to read. At face value it is evident that North America and Western Europe are progressing at the fastest rate toward a sustainable society, while the Middle East and Northern Africa is progressing at the fastest rate toward an unsustainable society. The only other region that is notably progressing in a negative direction is Central Africa, while the other regions are either fairly stagnant or progressing in a slightly positive direction. This general pattern indicates that there is an apparent link between the ‘stage of development’⁸ and the progress toward sustainable development. This general

⁸ The term ‘stage of development’ is a very vague term. As stated in section 2.1, the concept of ‘development’ is subjective, dependant on one’s situated perspective. In general four interconnected sets of phenomena have been recognised as inscriptive of defining development (Johnston et al, 1995, p128):

1) levels of changes in and the technology of material production and consumption

pattern was found rather surprising, as it was not expected to be such a close link between the rather more economic perspectives of ‘development’, with the more widespread dimensions of sustainable development. However, the strength of the method is that although at face value the trend seems rather simple, the organised structure (“practical focus”) of the hierarchical framework, allows one to look beneath the map and work back down the hierarchy to understand the hidden complexities.

Looking Beneath the Map

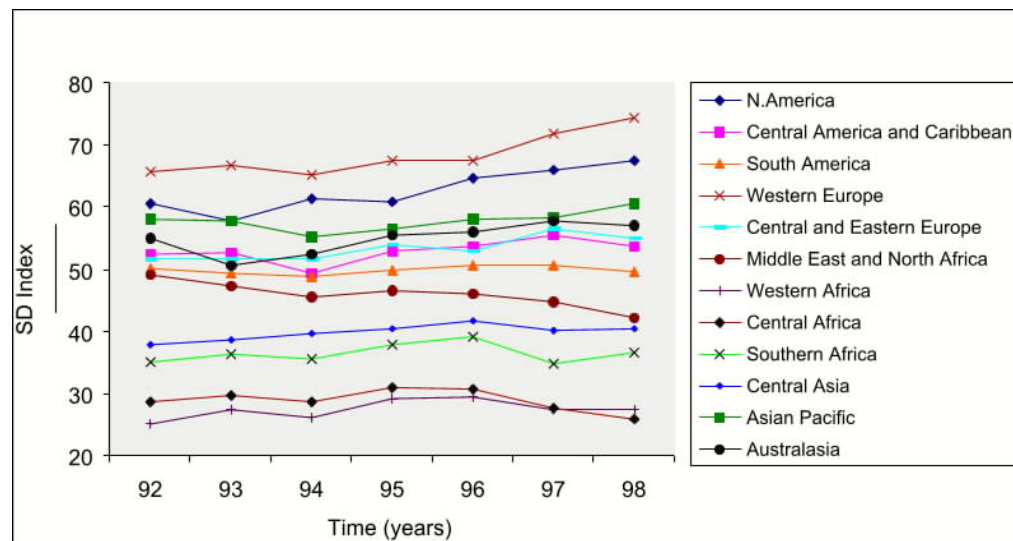
At face value, the final map is very simple so that all can understand it. However, analysts with increasing amounts of knowledge are able to delve deeper within the hierarchy to gain a greater understanding of the complex issues. This method is therefore informative to the public, decisionmakers, and scientists who can all retrieve information to the degree they wish through the hierarchical structure at different stages of depth and complexity.

As an example, the following analysis will illustrate the depth of understanding that can be drawn from beneath the map. It will start on a very general scale considering all regions and then refining the analysis to explore the finer patterns of two contrasting regions, North America and Middle East and North Africa.

Regressing back to the Aggregate Regional Sustainable Development Indexes

Rather than just evaluating the rate of change toward sustainability, one can also examine the present level of sustainability in each region, as illustrated in Figure 7.

Figure 7 The Aggregate Regional Sustainable Development Indexes



- 2) technology changes
- 3) associated social, cultural and political changes
- 4) the distribution of the costs and benefits of production and consumption

Overall in this light ‘development’ can be seen from a predominately economic and communication dimension (with a slight welfare stance expressed in number three). Reports such as WDR and WDI thus divide countries into high,

From figures 6 and 7 it is evident that the regional pattern of the rate of change toward sustainability and the actual level of sustainability are slightly different. Whilst many regions⁹ have similar relative levels of sustainability to rates of progress toward sustainability, there are a couple of anomalies.

Firstly the continent of Africa reveals an opposing pattern between these two measures. Whereas The Middle East and North Africa is seen as progressing at the worst rate toward sustainability, it is actually at the highest level of sustainability compared to any other region in Africa. While Western Africa is progressing at the most sustainable rate compared to other African regions, but is actually at the worst level of sustainability.

Secondly, the map from Figure 6 reveals a rather confused image of the homogeneity between Central Asia and The Asian Pacific. The aim of separating these two regions was to group the up and coming 'Tiger Economies' separately to the rest of the Asian continent. However, although figure 6 reveals that these areas are progressing at very similar rates toward sustainability, it hides the fact that Central Asia is at a much lower level of sustainability and thus is in a greater need to increase this rate of progress.

These two cases highlight that it is essential to consider these two measures in conjunction with each other, to establish a better understanding of the overall status of regions. Combining these images will highlight which regions are in the most need to improve the rate of change toward sustainability, and which regions need to develop their present trend so as to maintain or increase their current level of sustainability.

Finer patterns beneath the map will be examined by exploring patterns within the hierarchy of two opposing regions: North America and The Middle East and North Africa.

Uncovering the finer Patterns Within the Hierarchy – Exemplified by Comparing North America and The Middle East and North Africa Regions

North America and The Middle East and Northern Africa have very different rates of change toward sustainability. However, if going back down the hierarchy through each stage, there can be understood the reasons for this, and thus highlight areas where policymakers need to pay more attention.

Regressing Back to the Dimensions

Figures 8 and 9 overleaf compare the aggregate sustainable development indexes for each dimension for North America and the Middle East and North Africa between 1992-1998. Immediately both these graphs highlight that there are huge variations between the aggregate sustainable development indexes for each dimension. For North America this is particularly

medium and low income "developing countries", indicating the economic roots associated with 'development'.

⁹ North America, Western Europe, Australasia, Central America and the Caribbean, South America and Central and Eastern Europe.

evident with the communications and social dimensions at least double the sustainable development indices of the economic and environmental dimensions. This therefore suggests which dimensions policymakers for each region ought to focus on, to raise the overall progress toward sustainability.

Figure 8: North America's Dimensions

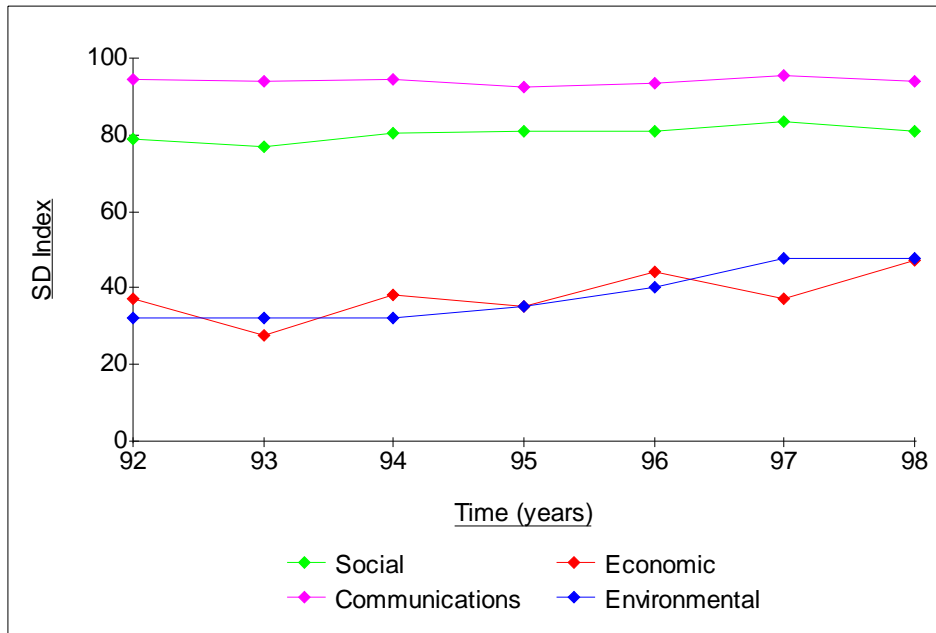
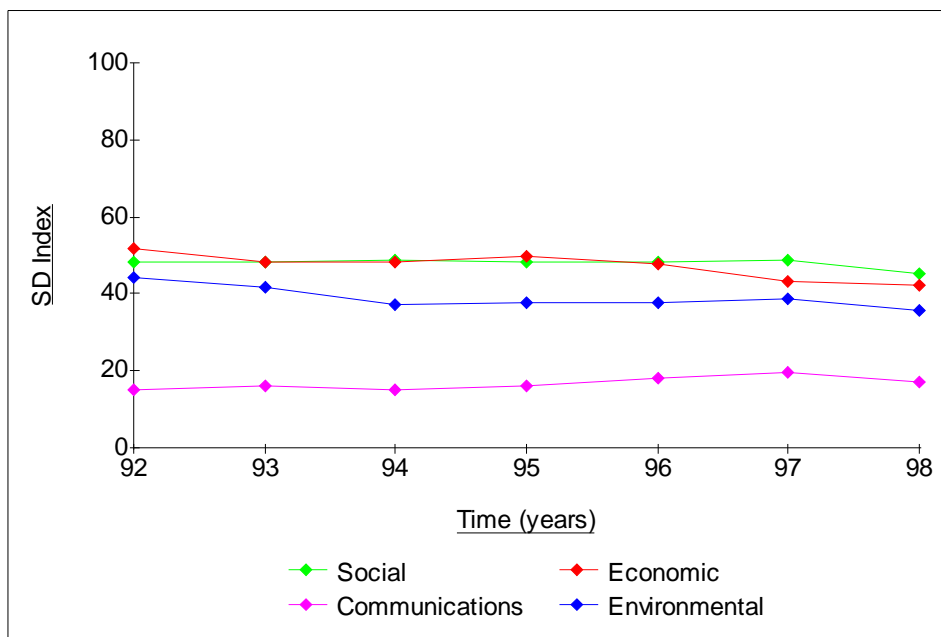


Figure 9: The Middle East and North Africa's Dimensions



However, why are there such variations? In particular why is the economic dimension of North America so low, isn't North America one of the global economic super-powers? These questions can again be answered by regressing right down to the bottom of the hierarchy to examine the individual indicators within each dimension.

Regressing down to the base of the hierarchy

In order to illustrate the influence each indicator had on the dimensions for North America and The Middle East and North Africa, it was examined the composition of each dimension for the year 1995 (the mid-point of the range).

The Social Dimension

For both regions the social dimension is one the most sustainable. The distribution of the indicators above and below the average is also fairly even for both regions. One indicator that does stand out however as being notably below the average in both cases is the unemployment rate. Therefore from these findings one could conclude that this is the aspect within this dimension that policymakers need to pay the most attention to in the future.

The Economic Dimension

In the case of North America, the Commercial Energy Consumption per Capita indicator has significantly lowered the average aggregate value for this dimension. One may expect the energy depletion rate to also reflect this pattern, however this indicator only includes domestic energy depletion, while much of North America's energy sources are imported. An aspect would be that these two indicators (plus mineral depletion rate) are much more related to the environmental dimension and their inclusion within the economic dimension under "Consumption and Production Patterns" is confusing the overall pattern. Therefore, in the future, the "Consumption and Production Patterns" sub-dimension ought to either be included within the environmental dimension, or ought to be recognised as a new dimension. Overall, however, it is evident that North America ought to concentrate its policies on improving this sub-dimension in order to increase the level of sustainability.

In terms of The Middle East and North Africa one can see that although most indicators are fairly closely spread around the average, external debt and mineral depletion rates are slightly pulling the aggregate values down. Hence, the recent initiatives on debt relief for the Highly Indebted Countries (HIC) will have a serious impact on the external debt indicator. Until this happens, policy attention should be directed toward reducing the impact that external debt and mineral depletion rates have on this dimension.

The Communications Dimension

The communications dimension for both regions produces a uniform distribution of the indicators around the average. This does however illustrate how each indicator is basically

measuring the same factor and therefore opening up the possibility that this aspect is being over represented within the framework.

The Environmental Dimension

In the case of North America one can clearly see that industrial emissions of CO₂ per capita, BOD in water bodies and the rate of forest change, are the three indicators that are strongly pulling down the average for this dimension. It is thus these areas that attention needs to be directed toward by policymakers in order to increase the sustainability in this region.

In the case of the Middle East and North Africa the areas that need to be addressed by policymakers are forest depletion rates and the annual freshwater withdrawal rate.

Conclusion and Suggestions

1. **Beneath the Map:** At face value it is evident that the pattern of the rate of change toward sustainability appears fairly simple. However, it is not until one delves deeper into the hierarchy that a fuller understanding is achieved. It is vital to incorporate elements of this more complex understanding, into the initial simplified findings, to establish a more reliable picture. The map by itself only shows a certain aspect of the state of sustainability, and therefore modifications will be needed to broaden the understanding, while still maintaining a universally interpretable format.

2. **Clarity of the Dimension:** Grouping of indicators in sub-dimensions should be reconsidered. As already mentioned, the sub-dimension “Consumption and Production Patterns” is included in Economic Dimension, even that it seems to have a stronger environmental connotation than economic. Therefore this sub-dimension should either be incorporated in the environmental dimension, or should become a new dimension.

3. **Weighting the Dimension:** The communications dimension should not be given the same importance as the three other dimensions. Initially this dimension was intended to incorporate the political attitude of governments and therefore would have measured a broader aspect of sustainable development. However, as this whole sub-dimension was eliminated because of data problems, the weighting of this dimension should be reconsidered.

4. **Weighting Indicators:** A sustainable society ought to achieve high degrees of sustainability in all aspects. If one aspect is particularly weak then this should not be counter balanced by a strong aspect, but an equilibrium ought to be reached were all aspects are at the same stage. This situation is most prominent in North America’s environmental dimension, where BOD and industrial CO₂ emissions per capita are some of the most unsustainable recordings in the world, while the overall environmental index is boosted up by indicators such as Percentage of Protected Area. A method to avoid such a situation is to introduce a variable-weighting scheme, where an indicator that deviates below the average of its dimension, has an increased weight.

This would result in lowering the overall aggregate for the particular dimension, and thus would encourage regions to strongly improve their least sustainable indicators in each dimension.

The most suitable general methodology would be to create some statistical function incorporating negative standard deviations. This study is not in the position at the moment to propose one specific function. Ideally the issue ought to be opened up within the academic field to stimulate a debate, or introduced as an issue for discussion at a specialised conference that addresses issues of measuring sustainable development.

The author first presented this study at an international conference in Austria, on 13th-15th November 2000, which specifically addressed the issues of evaluating methods and indicators to measure regional sustainable development. Table 4 summarises the feedback received at and after the conference.

Table 4 Feedback Responses to the Indicators considered in the Framework

| Questions from Feedback Sheet | General Response | Comments | Author's Response |
|---|------------------|---|---|
| Any Indicators that should be omitted? | No | | Keep all indicators |
| Any indicators that should be added? | Only a few | Noise Pollution Waste Generation Gini Index Ecological Footprint | Could not find any data that fitted the temporal and spatial limits for most suggestions |
| How would you rank fertiliser consumption? | Very Unsure | Indicator is very ambiguous | Remove from framework until a clearer relationship evaluated |
| How would you rank arable and permanent cropland? | Very Unsure | Do not see relevance of indicator. Needs to be related to another indicator such as population or environment | At present ought to be eliminated from framework as no clear relationship to sustainability |
| How would you rank % urban area? | Very Unsure | Very Important indicator but too ambiguous | Leave out of framework until standard definition and relationship to sustainability established |
| Should Crime Rate have been eliminated? | Yes | | Leave out of framework |

Overall evaluation of the framework for quantifying sustainable development:

The general impression was very positive about the work achieved. Nobody before has ever attempted to place a temporal dimension on sustainability and as Professor Richard Levine said

in his presentation at the conference, “sustainability is an ongoing metabolic process” and therefore needs to be assessed over time. However, the over-riding criticism was the resulting loss of information caused by the degree of condensation. It was pointed out that there is a need for “transparency”, so that the depth of the findings can be seen.

8.2 QUALITY AND SUSTAINABILITY OF LIFE INDICATORS

Additionally to the Sustainable Development (SD) Index, The Central European Node of the Millennium Project¹⁰ developed the Quality and Sustainability of Life Indicators calculated at national and regional level. This section presents more details and supporting research to the overview presented in *Chapter 7: Sustainable Development Index and Quality and Sustainability of Life Indicators* of the print section of the *2005 State of the Future*.

The Sustainable Development Index, as with most comprehensive statistics and analyses, tends to look at the general national level of development. However, a country's really healthy well-being should be analyzed and composed by a detailed quality-of-life analysis of all its regions. The objective of the Quality and Sustainability of Life Indicators is to help assess the quality of life and development at national and regional levels and thus assist in setting national priorities and designing policies for a more balanced development.

The methodology is demonstrated by using the Czech Republic as case study, but it can be applied to any country, region, or even regional subdivisions if enough data exist and are available for building the indicators. Also, the indicators can be changed or adapted as a function of specific needs and data availability.

¹⁰ Study conducted by Peter Mederly, Regioplan Nitra, Slovak Republic; Pavel Novacek, Center for Social and Economic Strategies, Charles University in Prague and Center for Interdisciplinary Studies, Palacky University in Olomouc, Czech Republic; and Ján Topercer, Comenius University, Botany Garden, Research Unit Blatnica, Slovak Republic

National level

The Czech Republic was chosen as the sample country because it was the only one in Central and Eastern Europe that has joined the UN Commission on Sustainable Development three-year process to test the sustainable development indicators. This section presents the assessment of the quality and sustainability of life indicators for the Czech Republic for the period 1990–2000 and the forecast outline to 2006. Czech data sources were used for the statistical data—mainly the data published by the Czech Statistical Office and other official sources, such as the Ministry of Environment. The Quality and Sustainability of Life Index is calculated as a hierarchical index aggregated from 12 sub-indexes of the topic areas selected into four main development area indexes that are then compounded into one integrated index, as illustrated in Table 1.

Table 1. Basic Structure of the Quality and Sustainability of Life Index

| | |
|------------------------------|---|
| 1. Political area | A. International position B. Internal security |
| 2. Social area | C. Demographic development D. Standard of living E. Health condition and health care F. Education, science, and research G. Access to information |
| 3. Economic area | H. Economy effectiveness and economic development I. Indebtedness and balance of economy J. Selected economic indicators |
| 4. Environmental area | K. Consumption of natural resources L. Quality of the environment |

The indexes were calculated separately at all levels as an arithmetic average of the modified indicators for each year. The indicators were modified to a uniform scale 0–1, where 0 is the most unfavorable and 1 is the highest theoretical value.

Following is a brief presentation of results.

The **political area** was assessed on grounds of two subject areas and 16 indicators in total. Significantly different developments were documented in the international position of the Czech Republic (which was strengthened by the incorporation to the prominent world institutions, the index development trend of this sub-area was positive) and the area of internal security. The development of the second area was very fluctuating—the rise of criminality and corruption in society affected the trend negatively. The overall index trend development in the political area was stagnant to 2006, with a minor prospect for its amelioration.

The **social area** was assessed on grounds of five subject areas and a total of 38 indicators. There was an obvious negative trend (which was caused by the absolute decrease of population in the

Czech Republic) in the area of demographic development. Development in other subject areas was fluctuating; the standard of living decline in 1991–92 was followed by a steady increase of the index value, and by its significant decrease in 1998 (particularly due to unemployment rise). The index development in the subject areas of health state and health care, education, science and research, was fluctuating as well. The access to information had a positive trend over the whole period observed.

With respect to the fluctuating development of the majority of standard of living indicators in the Czech Republic, the overall index of this area was stagnant, with a trend of a very slight increase for the next period to 2006.

The **economic area** was assessed based on the three subject areas and a total of 18 indicators. Economic development and effectiveness (after the initial drop in 1991) exhibits increase to 1996 and, on the contrary, decline in 1997–98. Significantly unfavorable index development was in the subject area of indebtedness of economy, its market balance and balance of national supply, which were the cause of the negative development of the whole period of 1990–2000.

The mentioned facts caused a stagnant overall index development trend in the economic area – its value for the year 2000 was almost at the same level as in 1990. The development trend to 2006 is very slightly positive and comes out of the prospects of a slight rise of economy and its key-indicators.

The **environmental area** was assessed on grounds of two subject areas and a total of 29 indicators. The indicators of the environmental pollution improved, in particular, the waste production decreased. A less positive development was possible to record in the area of investments to the environmental conservation, where the total amount of investment decreased. In the subject area of natural resources consumption, the initial index value rise in the period 1990 – 94 (caused mainly by the decline in production) was followed by a stagnant trend to 2000.

The overall index development in the environmental area in the period 1990–2000 was positive, in spite of certain stagnation in 1995–97 and 2000. The expected index development trend to 2006 is positive as well.

Overall Quality and Sustainability of Life Index

The period 1990–92 was characterized by a stagnant Quality and Sustainability of Life Index. The stagnation was mainly caused by the unfavorable economic development. On the contrary, in the environmental area case, it was noticed a steeply positive development.

The period of the first four years of independent Czech Republic (1993–96) was characterized by an increase of the Quality and Sustainability of Life Index, mainly influenced by the positive developments in the economic and political areas. On the contrary, the environmental area after the initial rise showed stagnation, as well as the development in the social area.

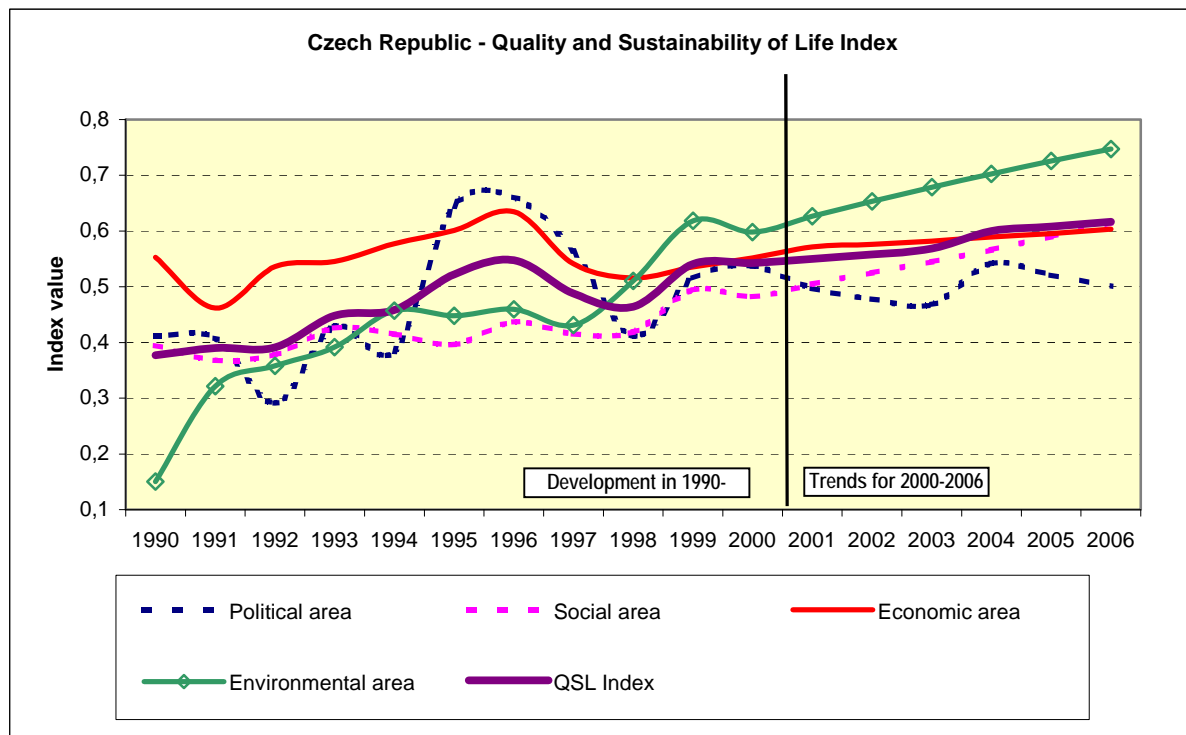
The Quality and Sustainability of Life Index showed a significant decline in the period 1997–98,

mainly caused by negative trend of nearly all indexes of the main areas, with the exception of the environment.

The year 1999 seemed to be crucial, showing positive trends in Quality and Sustainability of Life Index values—all development areas showed an improvement of the index value. The index value improved only partially in 2000.

The future trend estimation of the Quality and Sustainability of Life Index for the period up to 2006 is positive; the index value could improve, with the main factors of improvement being the environment, and after a certain period, the social area as well. On the contrary, a stagnant and fluctuating development is expected in the political area, mainly due to negative trends in the area of the internal security.

Figure 1. Chart of QSL Index for the Czech Republic, 1990–2006



Regional Aspects

Although the Czech Republic is an OECD country classified as “developed,” with a high quality of life, one overall indicator assessed at the national level cannot express the differences in specific areas (especially social and economic) or at regional levels. The objective of this exercise is to calculate the regional quality and sustainability of life index for all Czech Republic regions.

The regional division uses the administrative units of the Czech Republic as the source of statistical data (14 regions corresponding to the third level of the European Union Territorial Units for Statistics). The quality of life in the Czech regions is understood as a total of social, economic, community, and environmental conditions, which enables people to live long, healthy,

and creative lives within adequate social and economic conditions. This definition is consistent with UNDP's concept of human development.

The average of each indicator at the national level is considered 100% and is used as a comparative level for all the regions. Therefore an indicator level higher than 100% means that the respective region has a better quality of life than the national average with respect to that specific indicator, and vice versa—a value lower than 100% means a lower standard.

The structure of the regional QSL Index in the Czech Republic was adapted to the UNDP human development concept:

A. Long and healthy life expectations

- Demographic expectations – 3 indicators
- Health and people's safety – 7 indicators
- Quality of the environment – 5 indicators

B. Creative life with sufficient education expectations

- System of education and learning level – 5 indicators
- Family and social cohesion – 4 indicators
- Employment and opportunities of social acceptance – 4 indicators

C. Adequate standards of living expectations

- Economic effectiveness of each region – 4 indicators
- Social status of people – 4 indicators

The value of the overall regional quality of life index was calculated by aggregating the three sub-indexes corresponding to this structure.

Results

This research was carried out in the framework of the Human Development Report—Czech Republic 2003 (Potucek et al. 2003). Briefly, the results were:

Long and healthy life expectations - following indicators were assessed:

- *Demographic expectations* – natural population increase per 1000 people, immigration, increase per 1000 people and life expectancy at birth.
- *Health and safety of people* – overall mortality rate per 1000 people, infant mortality rate per 1000 birth, average percentage of work incapacity, number of people per one physician, number of beds in hospitals and expert medical institutes per 1000 people, number of ascertained criminal acts per 1000 people, clarification of criminal acts in %.
- *Quality of the environment* – population density per 1 km², proportion of urban population in %, proportion of forest area in %, protected areas in % of the overall area, measurable emissions of solid substances, SO₂, NO_x, CO, C_xH_y in total per km².

When assessing this area of life quality for the year 2000 in total, particularly favorable situation was in regions Jihocesky and Kralovehradecky (the index value was 115). Below the average was region Ustecky (91) and particularly unfavorable situation was in region Moravskoslezsky (84) and in the capital – Prague (82).

Creative life with sufficient education expectations – the following indicators were assessed:

- *System of education and learning level* – proportion of secondary schools students from the overall number of inhabitants in productive age, proportion of grammar school students per the overall number of secondary school students, proportion of people with university education in adult population, proportion of employees in tertiary sphere per overall employees number.
- *Family and social cohesion* – number of marriages per 1000 people, number of divorces per 100 marriages, number of abortions per 1000 birth, proportion of women with university education.
- *Work and opportunities of social acceptance* – unemployment rate (registered) in %, number of employment applicants for one work position, proportion of the graduated and the youthful per unsuccessful applicants in %, proportion of economically active people in %.

When assessing this area of life quality for the year 2000 in total, the situation was relatively differenced. The capital – Prague – achieved the most favorable values (index value was 141). Very unfavorable situation was in regions Moravskoslezsky (81) and particularly in region Ustecky (74).

Adequate standards of living expectations - the following indicators were assessed:

- *Economic effectiveness of region* – gross national product per capita, number of businessmen per 1000 people, gained material and non-material investments per capita, length of railway and road network in km per km².
- *Social status of people* – average gross month wages in Czech crowns, average pension in Czech crowns, number of given building permits per 1000 people, people in evidence of the socially disadvantaged per 1000 people.

When assessing this area of life quality, which expresses mainly the economic and the social situation of people, for the year 2000 – the situation was again the best in the capital Prague that achieved the most favorable values (index value was 143). The worst situation was in region Moravskoslezsky (77).

Overall regional Quality and Sustainability of Life Index

The value of the overall regional Quality and Sustainability of Life Index of the Czech Republic was obtained by the aggregation of the three sub-indexes corresponding to the structure. The capital, Prague, achieved the best results with the index value is 122. Situation seems relatively favorable in regions Jihocesky (107), Kralovehradecky and Stredocesky (105) and Plzensky (104). Regions Liberecky (101), Pardubicky (100), Vysocina (99) and Jihomoravsky (98)

achieved the average values. The situation is less favorable in regions Olomoucky and Zlinsky (both 96) and Karlovarsky (94). According to the calculated index, the situation was particularly unfavorable in region Ustecky (86) and particularly in region Moravskoslezsky (81).

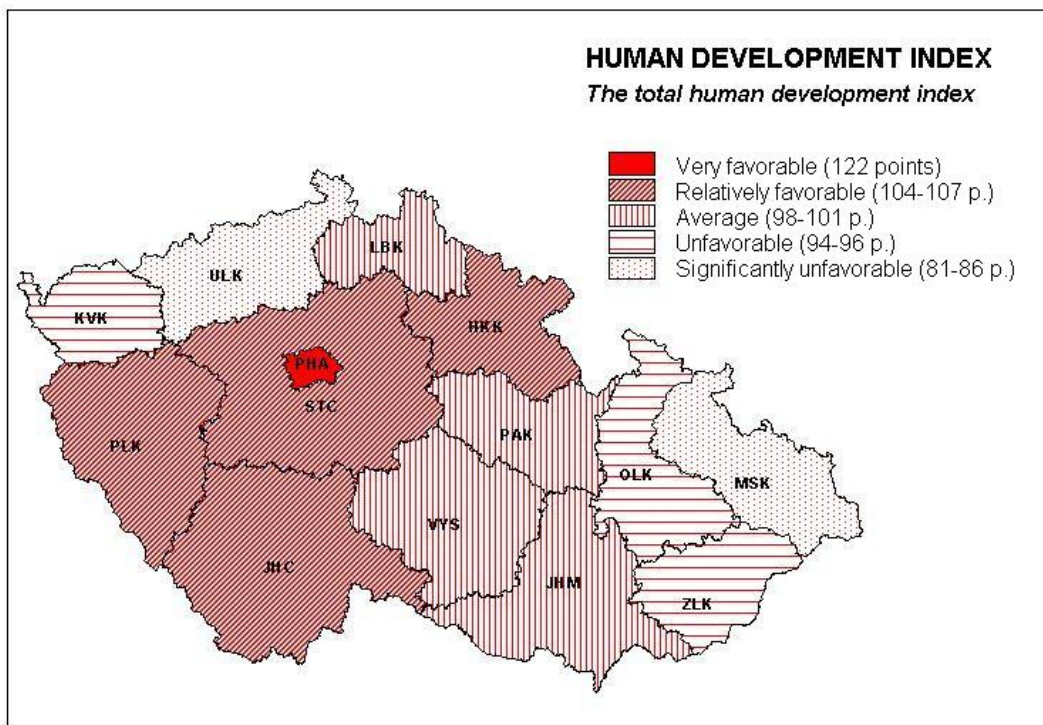
Results of the work at regional level suggest the following conclusions:

Contemporary quality of life in regions of the Czech Republic was markedly differenced in Prague (there was significantly higher than in all the other regions). In two boundary regions – Moravskoslezsky and partially Ustecky, the quality of life was markedly lower. Other regions were relatively homogeneous regarding the Quality and Sustainability of Life Index.

The overall rate of change at regional level increased during the 1990s. However, the differences between the more prosperous and less prosperous regions constantly deepened. This is particularly evident in the relation of Prague to the other regions. This indicates the need for a more complex and balanced regional policy of the state, focusing on a goal-directed and effective support of the critical regions.

The results predict that there is a need of a complex and balanced regional policy of the state, which should focus on the goal-directed and effective support of the dragging-back regions.

Figure 6 – Quality of Life Index for the Czech Republic Regions



CONCLUSIONS AND RECOMMENDATIONS

The QSL Index represents a possible methodology to quantify and measure progress towards a better quality of life of individual countries or regions of a country.

As in the case of the SD Index, the biggest advantage of this index is that the variables are taken from accessible world, country, or region data sources that are regularly evaluated and updated. The index can be computed at global, country, or regional level, allowing comparisons.

Along with the SD Index, it can become an important instrument for decision making, helping to set priority areas for a balanced development of individual countries.

The Sustainable Development (SD) Index and the Quality and Sustainability of Life Indicators could also serve as a supplement for the State of the Future Index presented in Chapter 2 of this report.

8.3 PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

by Pavel Nováček and Peter Mederly
—Millennium Project Central European Node—

[Executive Summary](#)

[Introduction](#)

[Principal Findings](#)

[Good Hope](#)

- Why Should the Global Partnership for Development be Implemented Now?
- What are the Motivations for Global Partnership for Development (GPD)
- What are the Crucial Targets of GPD
- What are the Preconditions for Successful Implementation of GPD
- How Should the GPD be Implemented
- Financing for Development
- Who Should Coordinate GPD
- Lessons from History: Success Stories
- Suggested Pilot Projects

[Appendices and Reference](#)

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The Rio Declaration on Environment and Development

Principle 5:

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development.

Principle 6:

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority.

Principle 7:

States shall cooperate in a spirit of global partnership.

U.N. Millennium Development Goals

Develop a global partnership for development

- Develop further an open trading and financial system that is rule-based, predictable, and non-discriminatory. Includes a commitment to good governance, development, and poverty reduction nationally and internationally
- Address the least developed countries' special needs. This includes tariff- and quota-free access for their exports; enhanced debt relief for heavily indebted poor countries; cancellation of official bilateral debt; and more generous official development assistance for countries committed to poverty reduction
- Address the special needs of landlocked and small island developing states
- Deal comprehensively with developing countries' debt problems through national and international measures to make debt sustainable in the long term
- In cooperation with the developing countries, develop decent and productive work for youth
- In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
- In cooperation with the private sector, make available the benefits of new technologies—especially information and communications technologies

Source: <www.un.org/millenniumgoals>

EXECUTIVE SUMMARY

Motto:

*Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!*

Emma Lazarus, sonnet The New Colossus

Lessons from History

One of the factors that distinguishes the Marshall Plan from its predecessors is that the Marshall Plan was a PLAN. Because the earlier, more ad hoc and relief-oriented assistance had made little progress toward European recovery, a different, coherent approach was put forward. The new approach calls for a concerted program with a definite purpose.

C. Tarnoff

The concept of partnerships between governments, business and civil society was given a large boost by the Summit and the Plan of Implementation. Over 220 partnerships (with \$ 235 million in resources) were identified in advance of the Summit and around 60 partnerships were announced during the Summit by a variety of countries.

World Summit on Sustainable Development (Johannesburg, 2002)

The Marshall Plan was about much more than money. Its genius rested in its emphasis on cooperative planning and action by the Plan's beneficiaries, each of whom had to agree on how to divide the money, and how it was to be spent. . . . The Marshall Plan gave us not only a restored Europe, but also a ground design for a co-operative approach to many other challenges facing humankind.

H. S. Reuss

1. What the world needs today is, above all, the hope that it is possible to solve all pressing global problems. Among the chief concerns are the following:

- Violence in the world, including threats of regional nuclear conflict, terrorism, organized crime, contempt for human rights, militant religious fanaticism, and ethnic intolerance;
- Population growth in developing countries and excessive consumption of energy and raw materials in developed countries;
- The uneven and unfair distribution of wealth, which leads to escalating tensions in the developing countries, and to tensions between developing and developed countries;
- Destruction of the environment, which includes threats to biodiversity, as well as cultural diversity, deforestation, desertification, water shortages, soil degradation, pollution of atmosphere and climate change;
- The ineffectiveness of supranational political and economic tools and institutions.

2. During the course of history several times there have been ideas that have appeared that, when realized, became catalysts for positive far-reaching changes. After 2nd World War, the Marshall Plan, also known as the European Recovery Program, showed how a grand vision could successfully shape a particular activity.

3. Currently the most important global challenge is developing a way to „achieve sustainable development“. Progress toward sustainable development of all regions is a leading topic around the world. In the same way the Marshall Plan helped at the middle of the twentieth century to rebuild Western Europe, such a plan conducted on a global scale may help the developing countries move more quickly toward sustainability.

4. The countries to be rebuilt after World War II had an entrepreneurial and industrial culture, hence finance and technical assistance made a dramatic difference over a short time. Much of the developing world does not have this culture today. Therefore, the effort and scale has to be far larger and complex than the Marshall Plan. What is needed is a common platform for the rich and poor nations of the world to form a partnership with all the actors of globalization.

5. The principal motivations to implement Global Partnership for Development are to improve the environment for the benefit of humankind, to secure global equitable and peaceful development, to improve development alternatives for developing countries, and to establish global politics and rules in the age of globalization.

6. The most appropriate long-term goals of the project are to eradicate the extreme poverty and to integrate ecological and economic development.

7. The most important and likely projects for such a partnership are ecologically based agriculture in order to reduce large consumption of water and energy; international cultural, educational, and scientific exchange, access to information technologies and immunization programs.

8. Different groups of countries will play different roles:

- Highly developed countries such as the United States, Canada, and Japan will be responsible for direct financial grants, training of experts, and educational and technical assistance programs.
- Emerging donor countries such as the Czech Republic, Poland, or South Korea will be involved in training of experts, educational programs and student/teacher exchanges on a large scale, and technical assistance programs.
- Countries with serious economical problems, such as those in sub-Saharan Africa, will be recipients of large-scale financial aid and will also be sites for program experimentation.
- Countries with massive populations such as China and India will be sites for program experiments and will be involved in educational programs. These countries will also become promoters of unilateral or regional agreements and policies for sustainable development.
- Resource-rich countries such as Saudi Arabia will participate as donors of direct financial grants and direct foreign investment.

9. The key precondition for successful implementation on Global Partnership for Development include:

- respecting human rights and international law in recipient countries;
- projects that are long enough and intensive enough.

10. There are at least three good reasons for implementation of the Global Partnership for Development now:

a) Thirteen years ago with the collapse of communism, western liberal democracy won. This however did not necessarily mean an „end of history“ as suggested Francis Fukuyama¹¹ and new threats have emerged. Samuel Huntington writes about a possible future “clash of civilizations”¹². Thanks to the collapse of communism, global military expenditures decreased significantly in the mid 90’s from 1000 billion USD/year to 650 billion USD. The idea of using the saved money as a “peace dividend” to combat poverty and improve the environment was proposed, but unfortunately this did not take place. Formerly communist countries spent money on transforming their centrally planned economies to market based economies. During this time, development aid decreased from donor countries, especially from the U.S. This decrease increased the frustration felt in developing countries. Some „signs of hope“ indicating possible changing of trends are now visible in Central European countries, which are becoming „new emerging donor countries“ in development aid and cooperation, along with South Korea and the Baltic states.

b) Just few years ago humanity entered in a new century and millennium, which signified a psychological zenith for a “new beginning”. *The change of our way of life will demand foresight,*

¹¹ Fukuyama, F. (1992): *The End of History and the Last Man*. Avon Books, New York

¹² Huntington, S. (1996): *The Clash of Civilization and the Remaking of World Order*. A Touchstone Book, New York

time and a huge amount of energy. Not energy which comes from coal, gas, crude oil and nuclear fuel, but spiritual energy, of which there would be enough to change the thinking and lives of six billion people on this planet¹³. Currently, the advantage of this „magical threshold“ seems to be almost lost. Indeed we are still in the early stages of the third millennium, so this remains a challenge for action.

c) On September 11, 2001, a terrible terrorist attack (followed by several other attacks later) changed the world. Humanity was reminded that in cases where people become deprived and frustrated from failure to improve their conditions of life, they will begin to seek outside sources to blame for their hardships. Violent acts committed by aggressive nationalist and, or, militant religious ideological promises have been thought to be solutions to these problems. Prevention is cheaper than dealing with consequences, and this is the most important reason for a new „Global Marshall Plan“.

Motivations

1. Global Partnership for Development is a profitable investment in our common future. It is an example of win-win strategy that will bring a double profit:

- It will help ease current global problems (poverty, environmental devastation, etc.);
- It will help utilise the immense potential of people who cannot currently develop their abilities.

2. The main motivation of the Global Partnership for Development is to help people to develop their creative potential. We can only speculate how much creative energy and wealth mankind lost by the deaths of 6 million Jews during World War II, and how much we are losing because hundred millions of people must devote their energies to mere survival.

3. Mankind faces two major challenges at the beginning of the 21st century:

- Frontiers of science (discovering cosmic space, genetic engineering, biotechnology, nanotechnology, new sources of energy, etc.);
- Sustainable development which also implies eradication of poverty and a possibility for all to develop their creative potential.

4. People who had no future in Europe threw themselves into building the „promised land“ in North America. One day perhaps the descendants of the poor, illiterate and rejected of our times may give the human community a new impulse, direction and aim.

Goals

1. The eradication of extreme poverty and dangerous diseases are crucial targets for the future. According to the World Development Indicators¹⁴ “a sixth of the world’s people produce 78

¹³ Barney, G., O., Blewett, J., Barney, K., R. (1993): Global 2000 Revisited. Millennium Institute, Arlington

¹⁴ The World Bank (2000): World Development Indicators. Washington, D.C.

percent of its goods and services and receive 78 percent of world income – an average of \$70 USD a day. Three fifths of the world's people in the poorest 61 countries receive six percent of the world's income – less than \$2 USD a day. But their poverty goes beyond income. While seven of every 1000 children die before age five in high-income countries, more than 90 die in low-income countries.

2. At the beginning of the 1990s, the World Bank defined its Development Goals for 2015 as being: to cut in half the proportion of people living in poverty, of those who are hungry, and of those who lack access to safe water, to achieve universal primary education and gender equality in education; a three-fourths decline in maternal mortality and a two-thirds decline in mortality of children under five; to halt and reverse the spread of HIV/AIDS and to produce assistance to AIDS orphans, and to improve the lives of 100 million slum inhabitants.

3. There are possible targets to identify as essential and acceptable across cultural barriers; these targets are: to eliminate violence against women, institute methods for primary education and development of skills, the eradication of some diseases (leprosy, children's polio etc.) and the elimination of other transferable diseases, as well as access to safe water for all. Perhaps not essential, but definitely crucial goals for future development should also include the construction of an infrastructure (transport, telecommunications), effective public administration and the creation of a middle class, which would serve as a stabilizing element of society. Better access to efficient and environmentally friendly technologies and the enhancement of research and development capacities in developing countries should also be mentioned among crucial development goals.

4. One of the first and foremost aims of the development aid, and a prerequisite for inclusion in the Global Partnership for Development, is to establish an efficient and reliable statistical office which would provide up-to-date data compatible with the world sources (the World Bank) regarding the situation of development trends in individual countries. The recipient of aid must be willing to pledge itself to provide true and verifiable data.

5. The objective of the Global Partnership for Development is to help each country attain the level needed to make it attractive to private investors as well as to ensure its ability to conduct negotiations with their peers. Therefore, the priority is investment into the development of human resources.

6. In its final phase, the Global Partnership for Development will create an insurance fund from which money will be drawn to redress losses incurred by the risks of political instability. Further development, primarily of the material infrastructure, will be better financed by private capital.

7. There are a great variety of development goals, and they will differ for each specific country or region. To be able to evaluate quality and sustainability of life, and to identify development goals in all countries and regions of the world, the Millennium Project developed Sustainable Development Index and State of the Future Index.¹⁵

¹⁵ Glenn, J., C., Gordon, T., J. (2001): 2001 State of the Future. The Millennium Project. American Council for the United Nations University, Washington, D.C.

Preconditions

1. The Marshall Plan was successful because “unlike most foreign aid programs, it had definable, measurable and achievable goal”¹⁶.
2. Today developing countries need investments in education and training of their populations in order to improve „human capital“, which will eventually attract and lead to the growth of private investments.
3. Only countries with a well-developed background of good governance and a healthy social-economic policy are able to efficiently utilise financial inflows.
4. Projects for Global Development will be based more on contracts of mutual collaboration and dependence than development aid. These contracts will be compatible with sustainable living and the active participation of the recipient countries’ people will be guaranteed.
5. The funds allotted will not initially be enough to implement the strategy globally so a few countries will have to be selected in which to implement the plan at first. The initially selected countries and regions should become „catalysts of change“ and become gradually „emerging donor countries“. The recipient must be willing to become a provider of aid after having attained a certain level of the GDP. Thus, resources will be obtained for further stages of development in other countries and regions, leading to a spread of prosperity.

Implementation

1. Every country meeting the basic preconditions and having a GDP below 5,000 USD per capita, per year, should be eligible.
2. The Global Partnership for Development should consist of two phase. The first, short-term, stage should help the country or region emerge out of a state of crisis, and stabilise the country’s situation. This first phase should last for only a limited time, perhaps for four years. The second, longer-term phase, should assist the country in becoming a „medium“ developed country with a GDP of approximately 5,000 USD, where entrepreneurial activities are sufficiently developed and investment, particularly of private capital, can flow into the country. The final aim of the Global Partnership for Development should be to reach the threshold of sustainable development that is 8 – 10,000 USD.
3. Second phase requires not only economic changes, accompanied by possible political changes, but also social and cultural changes. These social and cultural changes will occur in the form of the position of women within the country or region, the abolition of child labor, the development of an entrepreneurial culture, the establishment of an ethical environment which eliminates

¹⁶ Trisko, R., C. in: Menges, C., C., ed. (1999): The Marshall Plan from Those Who Made it Succeed. University Press of America, Lanham

corruption, and so on. These social and cultural changes are long-range tasks that could perhaps take two generations, or 40 years, to be realised.

4. The Global Partnership for Development implementation in a given country will consist of the four following stages (stage A equals to the first phase mentioned above, stages B, C, D equal to the second phase):

- A) The country only receives aid, and the focus is on satisfying basic needs of nourishment, health, and elementary education within the country;
- B) The recipient country creates „counter-part funds“. The creation of these funds will in term generate resources for further investments in its own currency and on its own territory;
- C) The recipient country is capable of creating resources for internationally beneficial projects, but on a limited scale. In other words, these investments would take place within its own territory and in its own currency. For example, a country with tropical rain forests will pay off its foreign debt by „exchanging debt for nature“, meaning that it will pay off a portion of its debt in its own currency through a project aiming at the protection of the tropical rain forests within its territory and through the employment of its own inhabitants;
- D) The former „recipient country“ becomes a „donor country“. This refers to the recipient country overcoming the GDP limit of USD 5.000, and becoming capable of creating financial resources that could be utilised in other countries.

These four stages can be divided into the following steps:

Stage A

- Starting the pilot project and feasibility study
- Strategy of the project
- Focus on the satisfaction of survival needs: nourishment, safe water, shelter
- Focus on the satisfaction of basic needs: education, health care, better status of women

Mission of the Stage 1: Reaching the demographic threshold (GDP 1.000 USD), birth rates and death rates are stabilised at low level and basic living needs satisfied.

Stage B

- Building efficient state government as well as local governments
- Data collecting and their statistical evaluation
- Support for small and medium business
- Help in building the infrastructure (especially energy, transport, telecommunications)

Mission of the Stage 2: Reaching the democratic threshold (GDP 3.000 USD), the state is capable of guaranteeing observance of human rights, social and health insurance and health care and other services at a satisfactory level.

Stage C

- The development of the country or region continues with substantial help from foreign private investors
- The country is able to participate fully and equally in international business
- The country is becoming a new „emerging donor country“ and is not only a recipient of aid

Mission of the Stage 3: Reaching the entrepreneurial threshold (GDP 5.000 USD), favourable conditions for entrepreneurial activities, non-profit sector and civic initiatives are developed.

Stage D

- The country is becoming fully developed; people can decide on their lives and cultivate their human potential
- The country pursues sustainable development

Mission of the Stage 4: Reaching the threshold of sustainable development (GDP 8 – 10.000 USD), the focus is mainly on the quality and sustainability of life rather than on material economic growth.

Financing

1. In a world where more and more companies are truly global it makes little sense to identify tax domains in a narrow, national manner. The Millennium Project Global Lookout Panel evaluated „Taxation of multinational corporations“, as the most important resource to finance the Global Partnership for Development; however, it was very low rated with respect to likelihood of realization.
2. Today, multinational companies operate regardless of state borders and reap the benefits of the differing political and economic systems of individual countries. As a result of these differences, \$800 billion USD end up in tax havens every year¹⁷.
3. A „Charge for the use of some common global resources“ and an “International carbon tax and/or tradeable emission permits on CO₂” have been identified as important global financial resources.
4. The implementation of the Global Partnership for Development will require money. But it must be realized that the implementation of this plan is not simply about money, just as the success of the Marshall Plan was not only about money.

¹⁷ Henderson, H. (1999): Beyond Globalization. Shaping a Sustainable Global Economy. Kumarian Press, West Hartford

5. Between the end of the Second World War and the beginning of European Recovery Program, the United States dribbled 15 billion USD into uncoordinated relief and rehabilitation efforts in Western Europe with nothing to show for it. By contrast, the concentration of disciplined, structured programs which we call the Marshall Plan expended a slightly lesser sum, 13 billion USD, and received results-oriented planning of a tough and imaginative character.¹⁸

6. It is difficult to gauge what amount of money will be needed to implement the Global Partnership for Development, but we can derive our estimate from a variety of partial calculations made by UN agencies and other organizations.

7. According to UN estimates, providing each of the 2 billion poor people whose daily income is 1 USD with shelter, drinking water and at least one meal a day would cost approximately 13 billion USD per year. UNICEF estimates that it would cost 7 billion USD per year over 10 years to educate the world.

8. To summarize the World Bank 2015 development targets it may require an additional 50 USD billion a year, 3 – 4 billion USD per year for humanitarian assistance, and a budget of approximately 20 billion USD in order to meet the global public goods, as opposed to the current spending of 5 billion USD annually.

9. Let's suppose that the implementation of the Global Partnership for Development would cost 100 – 500 billion USD a year during a period of 20 – 40 years. Some proposals how to get this money are:

- James Tobin, a Nobel Prize winner in economics, suggested a tax, or charge, on foreign currency transactions. The tax is based not only, or even primarily on revenue grounds, but on the need to improve the efficiency of foreign currency transactions, the largest global market. This encompasses a great deal of speculative trading, which is too short-term to reflect fundamental economic factor. The introduction of the Euro was technically a bit more demanding than introducing the Tobin tax. And a Tobin tax of 0.1% could bring in proceeds of 100 – 200 billion USD a year.¹⁹
- It is desirable for every inhabitant of the planet to participate in a global tax, either in the direct form of income tax or by the contribution of a small percentage from value added tax into a „global cash register“. This will strengthen the feeling that global institutions are also, like state institutions, our and global issues will be exposed to greater scrutiny and control by citizens.
- Similar to global tax, and easily implemented, is the idea of charges for the use of the global commons:²⁰
 - A surcharge on airline tickets for the use of increasingly congested flight paths, with the collection of a small charge, a few dollars, for every international flight.

¹⁸ Warren, J., C. in: Menges, C., C., ed. (1999): The Marshall Plan from Those Who Made it Succeed. University Press of America, Lanham

¹⁹ Henderson, H. (1999): Beyond Globalization. Shaping a Sustainable Global Economy. Kumarian Press, West Hartford

²⁰ The Commission on Global Governance (1995): Our Global Neighbourhood. Oxford University Press, Oxford

- A charge on ocean maritime transport, reflecting the need for ocean pollution control and for keeping sea lanes open to all legitimate users, with special fees for the maritime dumping of non-toxic waste.
 - User fees for ocean, non-coastal fishing, reflecting the pressure on many stocks and the cost of research and surveillance.
 - Special user fees for activities in Antarctica, such as fishing, so as to fund the conservation of resources on the basis that the continent is part of the common heritage of mankind.
 - Parking fees for geostationary satellites.
 - Charges for user rights for the electromagnetic spectrum.
-
- Environmentally destructive subsidies should be mentioned as potentially beneficial resource for developing countries. 500 – 900 billion USD are doled out by the world's governments each year in environmentally destructive subsidies, and should be pointed in the opposite direction.²¹
 - The Official Development Aid (ODA) of 22 members of the OECD's Development Assistance Committee (DAC) equals 56 billion USD per year (0.2% of their GDP). If the DAC member countries instead gave the ODA an amount equal to 0.7% GDP (the UN recommendation), aid would increase by about 100 billion USD per year.
 - The unbearable burden for developing countries today is represented by their debt that has reached 2,500 billion USD. Jubilee 2000 campaign collected 24 million signatures supporting debt relief. Zambia for example in the 1990s spent 35 times more on the paying back of its debts and interest than the country did on its education. But the cancellation of debts in itself is not the solution. The pardoning of debts can become an opportunity for attempting to „break down“ the state sovereignty of the developing countries in a positive sense of the word. Part of the debts should be written off under the condition of launching long-term environmental, social and educational development programs, such as debt relief combined with swaps for nature. The country in debt would not have its debt, or part of it, pardoned, but creditors would agree that the country will pay the debt back in its own currency by financing various development programs on which the two sides agree.
 - Before the collapse of communism, the world spent 1,000 billion USD on armament annually. In 1995, this sum fell to 650 billion USD mainly due to the scale-down of armament programmes in former communist countries, but it has been on the increase since. There was an opportunity to use the money saved from armament for a so-called „peace dividend“ from which programmes fighting poverty and programmes of global environmental protection could be funded (this opportunity was nevertheless lost because no state was willing to give part of the armament resources for these purposes).

²¹ Hertsgaard, M. (1998): Earth Odyssey. Around the World in Search of Our Environmental Future. Broadway Books, New York

10. These examples of financing the Global Partnership for Development clearly indicate that there are enough financial resources in the world to fund such a plan, the only set back is the lack of a collective will.

11. Prevention is always cheaper and more effective than repair, and the Global Partnership for Development is prevention of terrorism and drug trafficking. When people have a chance to prosper and can foster hopes for a better future for their children, the likelihood of finding peaceful solutions to problems increases, too.

Coordination

1. The Global Lookout Panel of the Millennium Project most frequently identified the UN as the best candidate to coordinate the Global Partnership for Development, especially the Trusteeship Council. The World Bank, WHO, UNEP, UN CSD and FAO have also been mentioned as possible coordinators. The Trusteeship Council has won an excellent reputation in the past as a result of the successful decolonization and exercised trusteeship over the trusteeship territories in developing countries.

2. The task of the Trusteeship Council was completed in 1994, when the Security Council terminated the Trusteeship Agreement for the last of the original 11 UN Trusteeships – the Trust Territory of the Pacific Islands (Palau), administrated by the United States.

3. Because the Trusteeship Council exhausted its original mission it should be canceled or appointed new mission. Therefore this agency can be considered as one of the candidates to coordinate the Global Partnership for Development. (The Commission on Global Governance²² proposed a new mission for the Trusteeship Council: stewardship of global commons, referring to Antarctica, seas and oceans outside of national jurisdiction, and near cosmic space.)

4. Another possibility is to create a new agency within UN system. Example of successful and efficient development fund is the Global Environment Facility (GEF). GEF is administered through a tripartite arrangement between UNEP, UNDP and the World Bank. It is to provide concessional financing for global environmental programs. The GEF is supported by donor governments and is not meant to diminish current funding for development co-operation.

5. Similarly, the Global Recovery Fund, or Global Recovery Facility, can be established to coordinate the Global Partnership for Development. The Global Recovery Fund should work as horizontal, an „umbrella organization“, coordinating and financing different projects accepted to the structure of the Global Partnership for Development program. To make the Global Partnership for Development successful, we need, unlike many bilateral or multilateral aid programs, a definable, measurable and achievable goal, just as the Marshall Plan had.

6. The Global Partnership for Development co-ordinating body should work as a fund, with states, NGOs, and private companies bringing forward project proposals that will fit into the Global Partnership for Development structure. If this would be done, then they could obtain the

²² The Commission on Global Governance (1995): *Our Global Neighbourhood*. Oxford University Press, Oxford

resources necessary to finance the realization of these projects, or they could, under the supervision of the fund, enlist partners for financing and implementing the projects.

7. The structure of the co-ordinating body could draw on the plan of a reformed UN structure that was presented by Josef Vavroušek, the Federal Minister of the Environment of the Czech and Slovak Republics, in 1992 at the UN Conference on Environment and Development in Rio de Janeiro. The future structure of the UN should be created by four specialized subsystems that would increase the effectiveness of the UN without creating a highly centralized bureaucracy with a monopoly of power. These four subsystems would be: UN security system, UN economic system, UN social system, UN environmental system. The demand for the decentralization of the system of UN activities in order to increase effectiveness on the basis of the knowledge of the situation in the regions calls for the „secondary“ UN structure. Secondary structure is to be organized on a continental or regional basis. The present UN regional commissions, whose number should be increased, could serve as their bases.

8. A modified structure of the Global Partnership for Development coordinating body:

| Primary structure | Secondary structure | Secondary structure | General mission |
|-------------------------------------|---|---|--|
| GPD security system | GPD system for Africa African security | GPD system for Europe European security etc. | GPD global system Global security |
| GPD social system | African social and cultural development and health care | European social and cultural development and health care etc. | Global social and cultural development and health care |
| GPD economic system | African economic development | European economic development etc. | Global economic development |
| GPD environmental system | African protection of Nature and renewal of environment | European protection of Nature and renewal of environment | Global protection of Nature and renewal of environment |
| General mission (GPD global system) | Sustainable development in Africa | Sustainable development in Europe etc. | Planetary sustainable development |

9. Regions, or continents, should be further divided into subregions, states and areas within recipient countries or regions.

10. Examples of agenda for GPD coordinating body:

- Security system – land-mine cleaning; Peace keeping, including UN Special Forces to protect warehouses, clinics, employees, within GPD; Weapons for Development Programme (disarmament of civilians in exchange for food, building the state infrastructure, etc.); Healthkeeping Troops (establishment of military doctors who will practise and operate in developing countries, thus helping the poor and at the same time training themselves for work under difficult conditions), and so on.

- Social system – public administration, education and health programs etc., including advertising of the GPD in recipient as well as donor countries including seminars, mass media programs, and public hearings.
- Economic system – investments, technology transfer, debt relief, fundraising activities.
- Environmental system – swaps for nature, desertification, deforestation, water protection, climate change, biodiversity programs.

11. GPD coordinating body should work as a company. It could have executive officers, managers, and an administrative council. Collectively all involved would set strategic objectives, approve projects and their evaluation. GPD coordinating body would have also a supervising council in which donors and sponsors including states, private sector, international organizations, would be represented (perhaps according to the amount of their financial contribution) and it would control the effectivity of means used and results obtained.

12. The co-ordinating body will set, based on the World Development Indicators, development priorities and „gaps“ in the process toward sustainable development, and would focus on negotiating with partners a coordinated action to attain the desired aims.

13. At the beginning, the Global Partnership for Development will have only a small number of pilot projects and will have to manage within limited resources. The aim of the first several years will be to learn to use the means effectively for a co-ordinated and efficient action. The „big money“ may come in later. First of all, it is necessary to inspire confidence and prove that the GPD is able to produce better results than many previous partnerships.

We stand at a critical moment in Earth's history, a time when humanity must choose its future. ... The choice is ours: form a global partnership to care for Earth and one another or risk the destruction of ourselves and the diversity of life.

The Earth Charter

INTRODUCTION

During the course of history several times there have been ideas that have appeared that, when realized, became catalysts for positive far-reaching changes. In the 19th Century British capital aided in the significant development of the United States economy. After the 2nd World War, the Marshall Plan, also known as the European Recovery Program, showed how a grand vision could successfully shape a particular activity (see Textbox 1).

Textbox 1: The Marshall Plan

As the wartorn nations of Europe faced famine and economic crises in the wake of World War II, the United States proposed to rebuild the continent in the interest of political stability and a healthy world economy. On June 5, 1947, in a commencement address at Harvard University, Secretary of State George C. Marshall first called for American assistance in restoring the economic infrastructure of Europe. (1)

Marshall suggested that the European nations themselves set up a program for reconstruction, with United States assistance. The plan had two major aims: to prevent the spread of communism in Western Europe and to stabilize the international order in a way favorable to the development of political democracies and free-market economies.

European reaction to Marshall's speech was quick and positive. Sixteen of the invited countries accepted – all except the Soviet Union and areas under its power – and met in Paris in July 1947. (2)

Truman administration proposed legislation: The resulting Economic Cooperation Act of 1948 restored European agricultural and industrial productivity. Credited with preventing famine and political chaos, the plan earned in 1953 General Marshall a Nobel Peace Prize, the first professional soldier to receive it. (1)

Over the four-years during which the Marshall Plan was formally in operation, [US]Congress appropriated \$ 13.3 billion for European recovery. The United States also benefitted from the plan by developing valuable trading partners and reliable allies among the West European nations.

In the short run, the plan relieved widespread privation and averted the threat of a serious economic depression. In the long run, it enabled the West European nations to recover and maintain economic and political independence. It also paved the way for other forms of international cooperation such as the Organization for Economic Cooperation and Development (OECD), the North Atlantic Treaty Organization (NATO) and today's European Union. (2)

On June 5, 1972, the twenty-fifth anniversary of the announcement of the Marshall Plan, West German Chancellor Willy Brandt delivered an address at Harvard University commemorating Marshall's speech. After reviewing the significance of the Marshall Plan and the programs it created for European recovery and development, Brandt announced the creation of a Marshall Plan memorial – **The German Marshall Fund of the United States**. (3)

The history of the Marshall Plan can be summed up as:

- The victor of World War II took pains, through generous aid, to prevent starvation among the people in the principal war areas. Additionally the victor eliminated the devastation of the effected areas as quickly as possible, and began economic reconstruction immediately.
- The victor included – not excluded – the former enemy, Germany, in its plan.
- This prevented a repetition of the worldwide economic depression that occurred from 1929 to 1931.
- It also laid the foundation, simultaneously with the reconstruction program, for European unification and tightly-knit Trans-Atlantic partnership. (4)

I need not tell you, gentlemen, that the world situation is very serious. That must be apparent to all intelligent people. I think one difficulty is that the problem is one of such enormous complexity that the very mass of facts presented to the public by press and radio make it exceedingly difficult for the man on the street to reach a clear appraisal of the situation. Furthermore, the people of this country are distant from the troubled areas of the earth and it is hard for them to comprehend the plight and consequent reactions of the long-suffering peoples, and the effect of those reactions on their governments in connection with our efforts to promote peace in the world.

George C. Marshall

Former U.S. VicePresident Albert Gore set forth the idea of a *new* “**Global Marshall Plan**” (5). According to Gore, the principal goals of this plan would be:

- to save the planet’s environment;
- to stabilize the population of the Earth;
- to promote environmentally friendly technologies;
- to improve economic norms and indicators in order to evaluate ecological impact;
- to create a new generation of international agreements;
- to open a program for global ecological education.

The Central European Node of the Millennium Project, based at the Center for Social and Economic Strategies, Charles University in Prague, initiated a special study to develop this idea. The study consisted of two-round questionnaires, followed by interviews with politicians, NGO representatives, and scholars from around the globe to explore the possibilities of effective policies and assessing their possible implementation . According to former Millennium Project findings, currently the most important global challenge is developing a way to “achieve sustainable development“. Based on this, and because the title “Global Marshall Plan“ is easily confused with the Marshall Plan of 1948, we have decided to entitle the study “**Global Partnership for Development.**”

Textbox 2: Global Marshall Plan

Something like the Marshall Plan – a Global Marshall Plan, if you want – is now urgently needed. What is required now is a plan that combines large-scale, long-term, carefully targeted financial aid to developing nations as well as great efforts to design, and then transfer, the new technologies to poor nations that are needed for sustained economic progress. A worldwide program to stabilize world population is need as well as, binding commitments between industrialized and poorer nations to accelerate the transition of the poorer nations to environmentally responsible ways of life.

A Global Marshall Plan must, like the original, focus on strategic goals and emphasize actions and programs that are likely to remove the bottlenecks presently inhibiting the healthy functioning of the global economy. The new global economy must be an inclusive system that does not leave entire regions behind.

But strategic thinking is useless without consensus, and here again the Marshall Plan is instructive. Historians remind us that it would have failed if the countries receiving assistance had not shared a common ideological outlook, or at least a common leaning toward a set of similar ideas and values.

As the philosophical victory of Western principles becomes increasingly apparent, a Global Marshall Plan will be increasingly feasible.

The world has made three important choices:

First, that democracy is the preferred form of political organization on this planet; second, that modified free markets are the preferred form of economic organization; and, third, that most individuals now feel themselves to be part of a truly global civilization.

The diversity of the world's nations and peoples vastly complicates the model used so successfully in Europe. The plans for catalyzing a transition to a sustainable society should be made with regional groupings in mind and with distinctive strategies for each region.

One of the biggest obstacles to a Global Marshall Plan is the requirement that the advanced economies must undergo a profound transformation themselves.

The new plan will require the wealthy nations to allocate money for transferring environmentally helpful technologies to the Third World, to help impoverished nations achieve a stable population, and a new pattern of sustainable economic progress.

Today, of course, the United States cannot conceivably be the principal financier for a global recovery program, and can obviously not make key decisions alone or with only one close ally. The financial resources now must also come from Japan and Europe and from wealthy, oil-producing states.

The world's effort to save the environment must be organized around strategic goals that simultaneously represent the most important changes and allow us to recognize, measure, and assess our progress toward making those changes.

Five strategic goals must direct and inform our efforts to save the global environment.

The first strategic goal should be **the stabilizing of world population**. Policies should be designed to create the conditions necessary for the so-called demographic transition – the historic and well-documented change from a dynamic equilibrium of high birth rates and death rates to a stable equilibrium of low birth rates and death rates in every nation of the world.

The second strategic goal should be **the rapid creation and development of environmentally appropriate technologies**. These technologies should be focused especially in the fields of energy, transportation, agriculture, building construction, and

manufacturing. These new technologies need to be quickly transferred to all nations. The third strategic goal should be a comprehensive and ubiquitous change in the economic “rules of the road“ by which we **measures the impact of our decisions on the environment**. The fourth strategic goal should be **the negotiation and approval of a new generation of international agreements**. The fifth strategic goal should be **the establishment of a cooperative plan for educating the world’s citizens about our global environment**. Finally, the plan should have as its more general, integrating goal **the establishment, especially in the developing world – of the social and political conditions most conducive to the emergence of sustainable societies** – such as social justice, including equitable patterns of land ownership; a commitment to human rights; adequate nutrition, health care, and shelter; high literacy rates; and greater political freedom, participation, and accountability.

Albert Gore: Earth in Balance (5)

Principal Findings

Progress toward sustainable development of all regions is a leading topic around the world. In the same way the Marshall Plan helped at the middle of the twentieth century to rebuild Western Europe, such a plan conducted on a global scale may help the developing countries move more quickly toward sustainability.

The countries to be rebuilt after World War II had an entrepreneurial and industrial culture, hence finance and technical assistance made a dramatic difference over a short time. Much of the developing world does not have this culture today. Therefore, the effort and scale has to be far larger and complex than the Marshall Plan. What is needed is a common platform for the rich and poor nations of the world to form a partnership with all the actors of globalization.

The Global Partnership for Development study explored the feasibility, likelihood, and priorities of such a concept.

The Global Lookout Panel of the Millennium Project suggested and rated issues concerning the principles and feasibility of such a program and then explored the possibilities of effective policies and implementation through interviews with politicians, NGO representatives, members of the business community, and academics from around the world.

The study found that the principal motivations to implement a GPD are to improve the environment for the benefit of humankind, to secure global equitable and peaceful development, to improve development alternatives for developing countries, and to establish global politics and rules in the age of globalization. The lowest rated motivations of implementing such a program were to correct historical wrongs (colonization, cheap labor, etc.) and to avoid primitive and environmentally dangerous industrialization.

If money were available, the most appropriate long-term goals of the project would be to eradicate the extreme poverty and the most dangerous diseases, and to integrate ecological and economic development.

The most important and likely projects for such a partnership are ecologically based agriculture in order to reduce large consumption of water and energy; international cultural, educational, and scientific exchange; access to information technology, especially the Internet; and immunization programs.

It was proposed that the partnership would be financed on a global basis by taxation of multinational corporations. (This was considered the most important but unlikely.) Taxation of the use of some common global resources; and an international carbon tax or tradable emission permits on carbon dioxide were also other ways that were proposed to fund the program.

The study found that different groups of countries would play different roles:

- Highly developed countries such as the United States, Canada, and Japan should be responsible for direct financial grants, training of experts, and educational and technical assistance programs.
- Emerging “donor” countries such as the Czech Republic, Poland, or South Korea should be involved in training of experts, educational programs and student/teacher exchanges on a large scale, and technical assistance programs.
- Countries with serious economical problems, such as those in sub-Saharan Africa, should be recipients of large-scale financial aid and should also be sites for program experimentation.
- Countries with massive populations such as China and India should be sites for program experiments and should be involved in educational programs. These countries should also become promoters of unilateral or regional agreements and policies for sustainable development.
- Resource-rich countries such as Saudi Arabia should participate as donors of direct financial grants and direct foreign investment.

The key preconditions for successful implementation on Global Partnership for Development (GPD) include:

- respecting human rights and international laws in recipient countries (rated highest as importance but lowest likelihood), and
- projects that are long enough and intensive enough to contribute to a fundamental change (ranked highest in both importance and likelihood).

The UN or its agencies were identified most frequently as the most appropriate organization to coordinate a GPD program. International NGOs like Oxfam, Médecins sans Frontières (Doctors Without Borders), and so on should work “under the auspices of UN with regular audits to maintain their moral and fiscal integrity”. Their impact would have to be direct and visible with low overhead cost.

It is important to show success of similar or related efforts to help leaders decide to create a GPD. Some examples of “success stories“ cited by the Global Lookout Panel include:

- *the Marshall Plan, which demonstrated for the first time a broad-scale international development project that was successful, and hence different from the numerous “partnerships“ which are on the current agenda despite the fact that they are ineffective;*
- *the support from EU funds contributed to modernization, economic development, and enforcement of democracy in Spain, Portugal, and Greece;*
- *Doctors Without Borders, in the area of health and medicine;*
- *The “Stabilization Fund“ for Poland in 1990 and debt relief for Poland and Bulgaria in early 1990s;*
- *International initiatives by Rotary International, such as polio vaccination;*
- *Development of a new high-yielding grain for India in the 1960s;*
- *Earth Day (which launched a worldwide movement – Earth Day was the translation of a vague concept into local or “grass root“ activities around the world); and*
- *The Endangered Species Act in the United States, which crystallized vague concepts into a simple vision to preserve species.*

The participants made the following additional comments:

- There is no real sustainable development without transforming people’s attitude to the world, nature and – first of all – towards other people.
- It is necessary do develop such Global Partnership for Development to help developing countries to avoid the mistakes that occurred in the developing stage of the developed countries.
- The major impediments are not related to funds, but to those of a political or institutional nature. Political impediments are related to the donor countries, while institutional ones are related to international organizations, such as the UN, and the recipient countries, or the underdeveloped world. I could also add an impediment that refers to the lack of infrastructure. One of the principal impediments for a GPD is the involvement of great world powers like the U.S., EU, and Russia, China in a kind of regional domination.
- The governments of developing countries should immediately solve problems in order to create a “sustainable atmosphere“ for the investment process. (i.e., democratic reforms, encouraging the civil society, respecting international laws, and, of course, a decisive struggle against problems such as corruption and bribery).

- In particular situations, when poverty in certain countries reaches alarming levels, endangering population surviving, I do not believe that preconditions should be imposed before providing global Marshall Plan. However, generally speaking, I believe that the recipient country should accept an agreement to respect human rights and international law.
- It is very important for the donor to know the cultural and religious traditions of the recipient. Preconditions of aid must be strictly defined and must be clear for both the recipient and the donor.
- Those who coordinate the funds distribution should include the recipient country's citizens as well as, people who are familiar with local realities.
- The commitments required should be based on respecting the cultures of the recipients.
- Some joint committees seem necessary to achieve such agreements. Corruption is a mutual activity: on the recipient side, the corrupted recipients might siphon off the funds, and on the donor side, some corrupted donors might "donate" things that might be dangerous, to the innocent recipients.
- I find the proposal good in general. Although at this stage it seems to encourage too much international bureaucracy and too little in the formation and development of skilled local professionals and experts.
- In Southeast Europe the "Pact of Stability" announced a sort of "Partnership for Development." A lot of meetings, conferences, projects but little money; 2.4 billions USD was officially announced as the donors as their gift but much less was received in reality.
- Economic opportunity will drive economies to meet the challenge of sustainable development. The pressures of resource limitation create new business opportunities that naturally flow from periods of major economic reorganization.
- The cooperation of rich and poor countries is a very delicate issue. Examples of such successful cooperation are very important, and information about them should be disseminated in the recipient country.
- A sustainable development for the former "Third World" would have to be well prepared at the level of government and public opinion; conditions are now extremely favorable. However, a kind of small-scale experiment could be useful before launching a "Global Marshall Plan".
- Private-sector partnerships that engage vast resources – human, technological, and financial – of the business community are critical in achieving a successful sustainable development.
- It is good to realize this Global Partnership for Development as the 3rd Millennium vision of enlightening civilization. Before great crises there were always great ideas, but it is very important to realize these ideas.

Good Hope

What the world needs today is, above all, the hope that it is possible to solve all pressing global problems. Among the chief concerns are the following:

- Violence in the world, including threats of regional nuclear conflict, terrorism, organized crime, contempt for human rights, militant religious fanaticism, and ethnic intolerance;
- Population growth in developing countries and excessive consumption of energy and raw materials in developed countries;
- The uneven and unfair distribution of wealth which leads to escalating tensions in the developing countries, and to tensions between developing and developed countries;
- Destruction of the environment, which includes threats to biodiversity, as well as cultural diversity, deforestation, desertification, water shortages, soil degradation, pollution of atmosphere and climate change;
- The ineffectiveness of supranational political and economic tools and institutions.

The concept of sustainable development, formulated in 1987 by the World Commission on Environment and Development (7) and discussed by the world leaders in Rio de Janeiro (The United Nations Conference on Environment and Development, 1992), is said to hold the answers needed to solve these problems. But according to the UN Commission on Sustainable Development (8), the purpose of the World Summit on Sustainable Development (to be held in Johannesburg, August 2002) is not to renegotiate the road map for sustainability provided by Agenda 21, but to strengthen its implementation and take emerging trends into account.

The aim of this chapter is to outline a vision for making sustainable development achievable for all, which is listed as Global Challenge No. 1 according to the *2001 State of the Future*.

When Portuguese navigator Bartolomeo Diaz sailed around South Africa in 1488, opening a route for Europeans to India by going around the southern tip of Africa, the southern most tip of the continent became known as the Cape of Good Hope. Similarly, The World Summit on Sustainable Development in South African Johannesburg may become hope for a positive and democratic change contrary to present African and global development trends. As the European Recovery Program is known as “the Marshall Plan” after its chief architect, this chapter, outlining the main principles of the Global Partnership for Development, is entitled “Good Hope”.

Why should be the Global Partnership for Development Implemented Now?

There are at least three good reasons for implementing a GPD now:

1. Thirteen years ago with the collapse of communism, western liberal democracy won. This however did not necessarily mean an “end of history“ as suggested Francis Fukuyama (9), and

new threats have emerged. S. Huntington writes about a possible future “clash of civilizations“ (10). Thanks to the collapse of communism, global military expenditures decreased significantly in the mid 90’s from 1000 billion USD/year to 650 billion USD. The idea of using the saved money as a “peace dividend“ to combat poverty and improve the environment was proposed, but unfortunately this did not take place. Formerly communist countries spent money on transforming their centrally planned economies to market based economies. During this time, development aid decreased from donor countries, especially from the U.S. This decrease increased the frustration felt in developing countries. Some “sign of hope“ indicating possible changing of trends are now visible in Central European countries, which are becoming “new emerging donor countries“ in development aid and cooperation, along with South Korea and the Baltic states.

2. Just two years ago humanity entered in a new century and millennium, which signified a psychological zenith for a “new beginning“. As Gerald O. Barney (11) writes, “The change of our way of life will demand foresight, time and a huge amount of energy. Not energy which comes from coal, gas, crude oil and nuclear fuel, but spiritual energy, of which there would be enough to change the thinking and lives of nearly six billion people on this planet.“ Currently, the advantage of this “magical threshold“ seems to be almost lost. Indeed we are still in the early stages of the third millennium, so this remains a challenge for action.

3. On September 11, 2001, a terrible terrorist attack changed the world or the western world at least. Humanity was reminded that in cases where people become deprived and frustrated from failure to improve their conditions of life, they will begin to seek outside sources to blame for their hardships. Violent acts committed by aggressive nationalist and, or, militant religious ideological promises have been thought to be solutions to these problems. As with any other type of situation, prevention is cheaper than dealing with consequences, and this is the third, but the most important reason for a new “Global Marshall Plan“.

What are the Motivations for Global Partnership for Development?

The Global Lookout Panel of the Millennium Project has identified key motivations for the GPD’s need to improve the environment. Improving the environment will not only benefit mankind, but will also improve development alternatives for developing countries. Behind these two general statements there is strong call for human solidarity. However, on the other hand, there is the legitimate danger of the North becoming a “ghetto of the rich.“

Thomas Aquinas stood up for the poor when he wrote, “the riches of the wealthy belong by natural right to the poor“. In 1968, when two million children perished in African Biafra during the great famine, the Chief Rabbi of Israel, Meir Lau, went with a poster to the front of the Israeli parliament. On the poster he made an addition to the Ten Commandments to emphasise that the suffering of Africans concerns the entire world; it read: “Don’t kill your neighbour, except in Africa“.

If people in poor regions have no hope for a better future in their own countries, great migration waves will flood other countries, and these following floods will also be aggravated by an increase in ecological refugees resulting from refugees leaving their countries to compensate for climatic changes and coastal flooding. Therefore, it is “in the interest of our own security that we use our knowledge to bring prosperity to other parts of the world before all the people living there become migrants, refugees or social cases in the western world”. (12) Or in the words of Jesuit priest Tomáš Špidlík “the 20th century and two world wars at least deprived nationalism and ideologies of their attractiveness once and for all and they constitute a threat no more. The threat, however, lies in the unjust distribution of wealth in the world, which may cause another upheaval, but may also prompt our efforts to improve the situation”. (13) Finally, in 1999, Mikhail Gorbachev wrote:

“To ensure our own safety in the future, we must strive to secure a future for the poor of this world. Believing that we shall not be endangered by the abject poverty in which billions of people live in the whole world is as unthinkable as refusing to acknowledge the irreparable deficiencies of the Bolshevik system. In the course of time, social inequality will discredit capitalism in the same way as the absence of freedom discredited communism from within (see the present antiglobalization protests – note by P.N.)...If these disconcerting realities are not taken into account and reflected in our everyday life, the global system’s sustainability will be put into jeopardy. Hence, we must change our mentality as we did after the cold war had ended. We must pull down the wall separating the future from the present.”

After World War II, the Marshall Plan severely curbed the threat of communists seizing the power in Greece. Today, Greece is faced with the threats of terrorism, extreme nationalism, and religious intolerance. A large-scale aid plan can eliminate certain threats, for example, the threat of nationalist military groups in Kosovo, as well as, the threat of terrorism in Afghanistan or Somalia. Ivajko Znepolski, a Balkan professor of philosophy, warns against excessive optimism sprung from a military victory when immediate uprooting of the causes of crisis does not ensue. He states, “It may happen that the war ends in a formal victory which gives rise to a prolonged agony of the afflicted countries and casts a shadow on the integration process of the continent. It is, therefore, necessary to attack also the roots of nationalism – economic backwardness, spiritual and material poverty, and feelings of rejection and isolation.”

The GPD is a profitable investment in our common future. It is an example of a so-called win-win strategy that will bring a double profit:

- It will help ease current global problems (poverty, environmental devastation, etc.);
- It will help utilise the immense potential of the global population who cannot currently develop their abilities.

The main motivation of the GPD is to help hundreds of thousands of people to develop their creative potential. We can only speculate how much creative energy and wealth mankind lost by the deaths of 6 million Jews during World War II, and how much we are losing because hundred millions on the planet must devote their energies to mere survival, thus not allowing them to attend school. Furthermore, much creative potential is lost to those who and are exposed to the “tyranny of night” in the tropics because they have no artificial light sources.

Mankind faces two major challenges at the beginning of the 21st century:

- Frontiers of science (discovering cosmic space, genetic engineering, biotechnology, nanotechnology, new sources of energy, etc.);
- Sustainable development which also implies eradication of poverty and a possibility for all to develop their creative potential.

People who had no future in Europe threw themselves into building the “promised land” in North America. One day perhaps the descendants of the poor, illiterate and rejected of our times may give the human community a new impulse, direction and aim.

“Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!”

Emma Lazarus, sonnet *The New Colossus*

What are the Crucial Targets of Global Partnership for Development?

The Global Lookout Panel of the Millennium Project identified the eradication of extreme poverty and dangerous diseases as crucial targets for the future. According to World Development Indicators, (14) “a sixth of the world’s people produce 78 percent of its goods and services and receive 78 percent of world income – an average of 70 USD a day. Three fifths of the world’s people in the poorest 61 countries receive six percent of the world’s income – less than 2 USD a day. But their poverty goes beyond income. While seven of every 1000 children die before age five in high-income countries, more than 90 die in low-income countries. How do we bridge these huge and growing income gaps, matched by similar gaps in social living standards? Can the nations of the world work together to reduce the numbers in extreme poverty? This is the fundamental challenge of the 21st Century.”

At the beginning of the 1990s, the World Bank defined its Development Goals for 2015 as being: to cut in half the proportion of people living in poverty, of those who are hungry, and of those who lack access to safe water, to achieve universal primary education and gender equality in education; a three-fourths decline in maternal mortality and a two-thirds decline in mortality of children under five; to halt and reverse the spread of HIV/AIDS and to produce assistance to AIDS orphans, and to improve the lives of 100 million slum inhabitants.

The international development aim of environmental protection is to ensure that national strategies of sustainable development have been implemented in every country by 2005 in such a way that the current trends concerning natural resources could be stopped at both national and global levels by 2015.

There are possible targets to identify as essential and acceptable across cultural barriers; these targets are: to eliminate violence against women, institute methods for primary education and development of skills (crafts), the eradication of some diseases (leprosy, children's polio, etc.) and the elimination of other transferable diseases, as well as access to safe water for all. Maybe not essential, but definitely crucial goals for future development should also include, the construction of an infrastructure (transport, telecommunications), effective public administration and the creation of a middle class, which would serve as a stabilizing element of society. Better access to efficient and environmentally friendly technologies and the enhancement of research and development capacities in developing countries should also be mentioned among crucial development goals.

One of the first and foremost aims of the development aid, and a prerequisite for inclusion in the GPD programme, is to establish an efficient and reliable statistical office which would provide up-to-date data compatible with the world sources (the World Bank) regarding the situation of development trends in individual countries. The recipient of aid must be willing to pledge itself to provide true and verifiable data.

The Report of the High-Level Panel on Financing for Development (15) set up four vital roles of International Development Cooperation. These roles are as follows:

- Helping to initiate development;
- Coping with humanitarian crises;
- Providing or preserving the supply of global public goods;
- Confronting and accelerating recovery from financial crises.

According to the High Level Panel on Financing for Development “donors should have better coordination and delivery of aid, via common pool approach.”

In the past, large-scale development plans focused on building or restoring the material infrastructure. The Marshall Plan was specifically aimed at the economic reconstruction of a physically devastated Europe. F. D. Roosevelt's New Deal invested USD 10.5 billion into publicly beneficial projects and financially contributed to other projects with federal money amounting to USD 2.7 billion. As a result, 8.5 million jobs were created, 122,000 public buildings were built as well as 77,000 new bridges, many miles of roads, 40,000 kilometres of sewage systems and drainage, and also parks, playgrounds and water reservoirs. (16).

The objective of the Global Partnership for Development should be to help each country attain the level needed to make it attractive to private investors as well as to ensure its ability to

conduct negotiations with their peers. Therefore, the priority is investment into the development of human resources. In other words, sharing information and knowledge in education, government, and the civil sector development. Thus, the so-called “non-zero-sum economy” where wealth is not diminished by sharing, but increased.

In its final phase, the GPD should create an insurance fund from which money could be drawn to redress losses incurred by the risks of political instability. Further development, primarily of the material infrastructure, could also be better financed by private capital.

There are a great variety of development goals, and they will differ for each specific country or region. To be able to evaluate quality and sustainability of life, and to identify development goals in all countries and regions of the world, it was developed the *Sustainable Development Index*. This index is very helpful for understanding the developmental threats and the opportunities of the Millenium Project’s *State of the Future Index*.

What are the Preconditions for Successful Implementation of GPD?

There are some preconditions that must be met in order for the GPD to be successful. The Marshall Plan was successful because “unlike most foreign aid programs, it had a definable, measurable and achievable goal“ (17). Though Europe was in ruins after the War, the nations had well-developed political and economic institutions, largely well-educated and well-trained populations, and a strong desire to rebuild what the War has destroyed.

Today developing countries need investments in education and training of their populations in order to improve “human capital,” which will eventually attract and lead to the growth of private investments.

In 1998, the World Bank (18) evaluated the effectiveness of foreign aid, in other words, what works, what does not and why. Their evaluation yielded that, only countries with a well-developed background of good government and a healthy social-economic policy are able to efficiently utilise financial inflows. Furthermore, in these cases the aid provided produces highly satisfactory results.

According to the Global Lookout Panel of the Millennium Project, the most important precondition for the successful implementation of GPD is “Respecting human rights and international laws in recipient countries.“ However, the respondents, at the same time, ranked the likelihood of this occurring as the lowest. The concept of “Projects long enough and investive enough to contribute to a fundamental change“ were ranked as being very important as well as likely. Another precondition of a successful GRD is definitely respecting the principles of democracy and free market rules. Transparency and availability of information from both the country receiving aid and the country providing aid should be guaranteed. Additionally, the country receiving aid should be able to collect statistical data deemed necessary in order to evaluate the development process. And inhabitants of the country receiving aid should have easy access, through Internet and other media, to information and data from abroad.

GPD projects should be based more on contracts of mutual collaboration and dependence than development aid. These contracts should also be compatible with sustainable living and the active participation of the recipient countries' people should be guaranteed.

The funds allotted for the GPD will not initially be enough to implement the plan globally, so at the beginning, a few countries will have to be selected in which to implement the plan at first. As time progresses, the initially selected countries and regions should become "catalysts of change." This meaning that they should become from recipient countries "emerging donor countries". The prerequisite for inclusion in the GPD should therefore be that in order to receive initial aid, the recipient must be willing to become a provider of aid after having attained a certain level of the GDP, or of the Sustainable Development Index. This commitment, even if not a legal requirement, should be at least moral. Thus, if implemented in this fashion, resources will be obtained for further stages of development in other countries and regions, leading to a spread of prosperity. A good example of a comparable plan is The German Marshall Fund of the United States (see Textbox 1).

How should the Global Partnership for Development be Implemented?

Every country meeting the basic conditions, see previous chapter, and having a GDP below 5,000 USD per capita, per year, should be eligible. Emphasis should be placed on initially implementing the Plan in the poorest countries, but not excluding richer countries with the potential soon to become "emerging donor countries," and donor countries..

The GPD should consist of two phase. The first, short-term phase should help the country or region emerge out of a state of crisis, and stabilise the country's situation. This first phase should last for only a limited time, perhaps for four years, the same amount of time that the Marshall Plan lasted. The second, longer-term phase, should assist the country in becoming a "medium" developed country with a GDP of approximately 5,000 USD, where entrepreneurial activities are sufficiently developed and investment, particularly of private capital, can flow into the country. The final aim of the GPD should be to reach the threshold of sustainable development that is 8-10,000 USD. The entire second phase requires not only economic changes, accompanied by possible political changes, but also social and cultural changes. These social and cultural changes will occur in the form of the position of women within the country or region, the abolition of child labor, the development of an entrepreneurial culture, the establishment of an ethical environment which eliminates corruption, and so on. These social and cultural changes are long-range tasks that could perhaps take two generations, or 40 years, to be realised.

The GPD implementation in a given country could consist of the four following stages:

- 1) The country only receives aid, and the focus is on satisfying basic needs of nourishment, health, and elementary education within the country;
- 2) The recipient country creates "counterpart funds." The creation of these funds will in turn generate resources for further investments in its own currency and on its own territory. (This is very similar to how the Marshall Plan worked);

- 3) The recipient country is capable of creating resources for internationally beneficial projects, but on a limited scale. In other words, these investments would take place within its own territory and in its own currency. For example, a country with tropical rain forests could pay off its foreign debt by “exchanging debt for nature,” meaning that it could pay off a portion of its debt in its own currency through a project aiming at the protection of the tropical rain forests within its territory and through the employment of its own inhabitants;
- 4) The former “recipient country” becomes a “donor country.” This refers to the recipient country overcoming the GDP limit of USD 5.000, and becoming capable of creating financial resources that could be utilised in other countries.

These four stages can be divided into the following steps:

Starting the pilot project and feasibility study
 Strategy of the project
 Focus on the satisfaction of survival needs: nourishment, safe water, shelter
 Focus on the satisfaction of basic needs: education, health care, better status of women

Reaching the demographic threshold and GDP (currently USD 1.000), birth rates and death rates are stabilised at low level and basic living needs satisfied.

Building efficient state government as well as local governments
 Data collecting and their statistical evaluation
 Support for small and medium business
 Help in building the infrastructure (especially energy, transport, telecommunications)

Reaching the democratic threshold and GDP (currently USD 3.000), the state is capable of guaranteeing observance of human rights, social and health insurance and health care and other services at a satisfactory level.

The development of the country or regions continues with substantial help from foreign private investors.
 The country is able to participate fully and equally in international business
 The country is becoming a new “emerging donor country” and is not only a recipient of aid

Reaching the entrepreneurial threshold and GDP (currently USD 5.000), favourable conditions for entrepreneurial activities and for the development of non-government, non-profit sector and civic initiatives are created.

The country is becoming fully developed; people can decide on their lives and cultivate their human potential.
 The country pursues sustainable development.

Reaching the threshold of sustainable development and GDP (currently USD 8-10.000), the focus is mainly on the quality and sustainability of life rather than on material economic growth.

Financing for Development

In a world where more and more companies are truly global it makes little sense to identify tax domains in a narrow, national manner. The Millennium Project Global Lookout Panel evaluated “Taxation of multinational corporations,” as the most important resource to finance GPD; however, it was very low rated with respect to likelihood of realization. Nevertheless, this “very low likelihood” can change in time. In October 1999, the Canadian organization Environics International conducted an opinion poll for the Prince of Wales Business Leaders Forum in Great Britain. Twenty-five thousand citizens from 20 countries were polled and it was shown that two out of three wanted the firms to go beyond their historic purpose of creating profit, paying tax, employing people and observing all laws, and to begin to contribute to wider social issues. (19) Today, multinational companies operate regardless of state borders and reap the benefits of the differing political and economic systems of individual countries. As a result of these differences, 800 billion USD end up in tax havens every year.

A “Charge for the use of some common global resources” and an “International carbon tax and/or tradeable emission permits on CO₂” have been identified as important global financial resources.

The implementation of GPD will require money. But it must be realized that the implementation of this plan is not simply about money, just as the success of the Marshall plan was not only about money.

The Marshall Plan was about much more than money. Its genius rested in its emphasis on cooperative planning and action by the Plan’s beneficiaries, each of whom had to agree on how to divide the money, and how it was to be spent. ... The Marshall Plan gave us not only a restored Europe, but also a ground design for a cooperative approach to many other challenges facing humankind. (20)

Similarly James C. Warren Jr. declared that: Between the end of the Second World War and the beginning of European Recovery Program, the United States dribbled 15 billion USD into uncoordinated relief and rehabilitation efforts in Western Europe with nothing to show for it. The winter of 1947-48 was a crisis of frightening severity. By contrast, the concentration of disciplined, structured programs which we call the Marshall Plan expended a slightly lesser sum, 13 billion USD, and received results-oriented planning of a tough and imaginative character. And there was another key difference: a degree of “moral authority”. (21)

It is difficult to gauge what amount of money will be needed to implement GPD, but we can derive our estimate from a variety of partial calculations made by UN agencies and other organizations.

According to UN estimates, providing each of the 2 billion poor people whose daily income is 1 USD with shelter, drinking water and at least one meal a day would cost approximately 13 billion USD per year.

UNICEF estimates that it would cost 7 billion USD per year over 10 years to educate the world. Incidentally, this is about the same as Americans spend on cosmetics or Europeans on ice cream each year.

In quoting Jeremy Leggeth, Mark Hergsgaard (22) states, that the “Price tag for safeguarding two thirds of the Amazon rainforest is 3 billion USD, according to a 1989 estimate. Cancel just six U.S. “Stealth“ bombers and you have cash to do it.“

To summarize the World Bank 2015 development targets (see chapter 3.3.) it may require an additional 50 USD billion a year, 3 – 4 billion USD per year for humanitarian assistance, and a budget of approximately 20 billion USD in order to meet the global public goods, as opposed to the current spending of 5 billion USD annually.

Prevention is always cheaper and more effective than repair, and the GPD is prevention of terrorism and drug trafficking. When people have a chance to prosper and can foster hopes for a better future for their children, the likelihood of finding peaceful solutions to problems increases, too. It is estimated that the world’s drug trade generates 500 billion USD, that the world’s arms race spending equals roughly 750 billion USD, and average gross global product is 6 000 USD/person a year. The September 11, 2001 terrorist attacks on the World Trade Center will cost American insurance companies approximately USD 40-70 billion. Economic advisors to the New York State Senate published a report stating that due to these attacks, a total decrease of the US GDP by USD 639 billion will result, and this does not include the damage suffered by other states.

Let’s suppose that the implementation of the GPD would cost 100 – 500 billion USD a year during a period of 20 – 40 years. Some proposals how to get this money are:

One hundred and eighty-two member states of the International Monetary Fund pay yearly membership fees. These fees are determined on the basis of the relative economic power of individual states, and total 195 billion USD annually. We suggest that one percent of this sum should be set apart for the GPD. The UN has also made the similar recommendation that 0.7 of these dues should be set aside of the GDP for development aid.

Thirty years ago, James Tobin, a Nobel Prize winner in economics, suggested a tax, or charge, on foreign currency transactions. The basis of his proposal is that the tax is based not only, or even primarily on revenue grounds, but on the need to improve the efficiency of foreign currency transactions, the largest global market. This encompasses a great deal of speculative trading, which is too short-term to reflect fundamental economic factors. The introduction of the Euro was technically a bit more demanding than introducing the Tobin tax. And a Tobin tax of 0.1% could bring in proceeds of 100-200 billion a year. (19).

P. Johnson (16) shows that without the income tax the United States could not play an active role in international politics, and would not be able to fight inequality within American society. Today, the majority of federal expenditures in the United States go toward health care, education, social care, creating jobs, administration, building an infrastructure-- especially transport and communications. This is said to be a good model to emulate globally, with expenditures on administration strictly limited to a given percentage of the whole sum. In the

USA, the federal taxes were introduced or significantly raised in times of a military threat (World War I). In our times, fighting terrorism represents an analogical situation at a global level. Some countries could set an example by introducing global tax voluntarily, and hopefully others would follow suit.

The idea of a global tax to be used for “World Development Fund“ was discussed on the “Global Futures Bulletin (23). According to the bulletin, “All countries would contribute 1% of their GDP to this fund. All countries would be donors, though some would be net donors while others would be net recipients. The fact that all countries contribute means that all countries could participate in deciding how the funds will be allocated. The formula can be established based on poverty levels, resource levels, [and so on]. Conditions would be attached such as democratic reform, transparency, accountability, grassroots participation, human rights, land reform, efficiency in government bureaucracy, reduced military, freedom of expression of the media, gender equity, environmental protection, etc. ... [A certain] percentage would be set aside for emergency relief and debt relief. There may be times where special considerations would mean deviating from the standard formula. Voting might be based on one vote per country, or a on [a more] complex system giving more weight to the largest donor countries.“

Similar to global tax, and easily implemented, is the idea of charges for the use of the global commons. It has broad appeal on the grounds of resource conservation, economic efficiency, as well as, for political and revenue generating reasons. The Commission on Global Governance (24) proposed the following financing solutions:

- A surcharge on airline tickets for the use of increasingly congested flight paths, with the collection of a small charge, a few dollars, for every international flight.
- A charge on ocean maritime transport, reflecting the need for ocean pollution control and for keeping sea lanes open to all legitimate users, with special fees for the maritime dumping of non-toxic waste.
- User fees for ocean, non-coastal fishing, reflecting the pressure on many stocks and the cost of research and surveillance.
- Special user fees for activities in Antarctica, such as fishing, so as to fund the conservation of resources on the basis that the continent is part of the common heritage of mankind.
- Parking fees for geostationary satellites.
- Charges for user rights for the electromagnetic spectrum.

We should also mention environmentally destructive subsidies as potentially beneficial resources for developing countries. Mark Hergsgaard, when writing about Global Green Deal (see Textbox 4) estimates that 500 – 900 billion USD are now doled out by the world’s governments in environmentally destructive subsidies, and should be pointed in the opposite direction.

The Official Development Aid (ODA) of 22 members of the OECD’s Development Assistance Committee (DAC) equals 56 billion USD per year (0.2% of their GDP). If the DAC member countries instead gave the ODA an amount equal to 0.7% GDP, aid would increase by about 100 billion USD per year.

The unbearable burden for developing countries today is represented by their debt that has reached 2,400 billion USD. Debt relief is a hot topic today on the agenda of the World Bank, IMF, UN, as well as many international organizations and campaigns. For example, the Jubilee 2000 campaign collected 24 million signatures supporting debt relief. The IMF, the World Bank, and the Paris Club of Creditors promised to cross out the debts of the poorest countries, which total 100 billion dollars, but just small part of it became reality. Jeffrey Sachs (25) at the Forum 2000 conference in Prague proposed to pardon at least 200 billion USD. Only the debts of African countries reach the unbelievable 300 billion USD, for example, Nigeria itself owes 30 billion USD. The installments often fail to cover the interest, and for instance Zambia in the early 1990s spent 35 times more on the paying back of its debts and interest than the country did on its education.

The cancellation of debts in itself is not the solution. In the past irresponsible governments borrowed money for senseless projects and armaments, and there is no guarantee that the situation will not be repeated, considering the character and the undemocratic principles and the corruption of many governments in the recipient countries. As a result, the money that is donated could be wasted, and besides it could easily produce much rivalry between the countries as to whom and why the debts should be pardoned.

The pardoning of debts, however, can become an opportunity for attempting to “break down“ the state sovereignty of the developing countries in a positive sense of the word. This refers to the fact that part of the debts could be pardoned under the condition of launching long-term environmental, social and educational development programs, which would lead the people out of poverty and despair.

Albert Gore (5) quotes Tom Lovejoy from the Smithsonian Institution in Washington, D.C., who came forward with the idea of debt relief combined with swaps for nature. This means that the country in debt would not have its debt, or part of it, pardoned, but the creditors would agree that the country will pay the debt back in its own currency by financing various development programs on which the two sides agree. One example is pardoning part of Brazil’s debt, and using the amount for projects that would help save the Amazon tropical forests, which are indispensable for preservation of the biosphere. Why not extending this idea to apply to education and health care, development of rural areas, and so on? Jeffrey Sachs (25), who cooperates with the World Health Organization, suggests the setting up of a special fund that would motivate large pharmaceutical concerns to produce drugs treating tropical diseases. The firms would get nothing from the fund for the development of medicines but if they themselves made investments into the treatment of malaria, they would have guaranteed sales and would benefit from the project because the purchase of medicaments for the developing countries would be subsidized from this fund.

An often-discussed resource for funding development is the money spent on armament. Before the collapse of communism, the world spent 1,000 billion USD on armament annually. In 1995, this sum fell to approximately 650 billion USD mainly due to the scale-down of armament programmes in former communist countries, but it has been slightly on the increase since. There was a great opportunity to use the money saved from armament for a so-called “peace dividend” from which programmes fighting poverty and programmes of global environmental protection

could be funded. But this opportunity was lost because no state was willing to give part of the armament resources for these purposes.

However, at the same time it is still true that military budgets around the world, and especially in developing countries, can be lowered without any risks by introducing insurance instead of arms. The Global Commission to Fund the United Nations supports the establishment of a UN Security Insurance Agency (UNZIA) which would be based on a public, private and civic partnership among the Security Council, insurance companies and hundreds of civil humanitarian organizations focusing on conflict resolution and peace issues around the world. (19)

All these examples of financing the GPD clearly indicate that there are enough financial resources in the world to fund such a plan, the only set back is the lack of a collective will to use them for good purposes. Financing the GPD may be relatively easy after several successful projects have earned this idea some credit. Even such spurious organizations as Ahmad Yasin's Hamas, fighting for Palestinian independence by violence and terrorist attacks, do not suffer from a shortage of funds. This organization gains support from Palestinians in part thanks to the social programmes that are partially derived from the money paid to the families of "martyrs," or suicide assassins. Similarly, Osama Bin Laden financed some social programmes in Afghanistan to obtain support from its inhabitants and secure shelter. When such organizations are capable of finding funds from Saudis, Iranians and Palestinian emigrants, there is no reason as to why the world should be unable to find resources for programmes that will offer viable alternatives to a world of poverty and frustration. This is especially possible considering that poverty and the frustration that it causes will often lead to attempts of solutions through violence.

Who should Coordinate Global Partnership for Development?

The respondents of the Global Lookout Panel of the Millennium Project most frequently identified the UN as the best candidate to coordinate GPD, especially The Trusteeship Council. But the World Bank, WHO, UNEP, UN CSD and FAO have also, been mentioned as possible coordinators. The Trusteeship Council has won an excellent reputation in the past as a result of the successful decolonization and exercised trusteeship over the trusteeship territories in developing countries. The Commission on Global Governance (24) in 1995 proposed a new mission for the Trusteeship Council: stewardship of global commons, referring to Antarctica, seas and oceans outside of national jurisdiction, and near cosmic space.

According to Adrian Pop, a participant of the Global Lookout Panel, "the Trusteeship Council as coordinator of GPD is not a feasible solution. The Trusteeship Council was established to ensure that government responsible for administering trust territories take adequate steps to prepare them for self-government or independence. The task of the Trusteeship Council was completed in 1994, when the Security Council terminated the Trusteeship Agreement for the last of the original 11 UN Trusteeships – the Trust Territory of the Pacific Islands (Palau), administrated by the United States. All Trust Territories have attained self-government or independence, either as separate states or by joining neighboring independent countries. Practically, this agency has exhausted its mission."

Because the Trusteeship Council exhausted its original mission it should be canceled or appointed new mission. Therefore this agency can be considered as one of the candidates to coordinate GPD.

Another possibility is to create a new agency within UN system. Good example of successful and efficient development fund is the Global Environment Facility (GEF). GEF is administered through a tripartite arrangement between UNEP, UNDP and the World Bank. It is to provide concessional financing for global environmental programs in four areas: protection of the ozone layer; reduction of greenhouse gas emissions and improvement in energy efficiency; protection of international marine and fresh water resources; the conservation of biodiversity. The GEF is supported by donor governments and is not meant to diminish current funding for development co-operation.

Similarly, the Global Recovery Fund, or Global Recovery Facility, could be established to coordinate the Global Partnership for Development program. The Global Recovery Fund should work as horizontal, an “umbrella organization“, coordinating and financing different projects accepted to the structure of the Global Partnership for Development program. To make the GPD program successful, we need, unlike many bilateral or multilateral aid programs, a definable, measurable and achievable goal, just as the Marshall Plan had. Coordinating bodies like the Global Recovery Fund, the Trusteeship Council or something similar should be responsible **to construct the PLAN from the variety of ideas, proposals and projects**. It is necessary that the plan has definable, measurable and achievable goals. Once again, the Marshall Plan (26) would serve as an inspirational model:

One of the factors that distinguishes the Marshall Plan from its predecessors is that the Marshall Plan was a PLAN. Because the earlier, more ad hoc and relief-oriented assistance had made little progress toward European recovery, a different, coherent approach was put forward. The new approach called for a concerted program with a definite purpose. The purpose was European recovery, defined as increased agricultural and industrial production; restoration of sound currencies, budgets, and finances; and, stimulation of international trade among participating countries and between them and the rest of the world.

(Dr. Curt Tarnoff, The Marshall Plan From Those Who Made It Succeed)

The GPD co-ordinating body should work as a fund, with states, NGOs, and private companies bringing forward project proposals that would fit into the GPD structure. If this would be done, then they could obtain the resources necessary to finance the realization of these projects, or they could, under the supervision of the fund, enlist partners for financing and implementing the projects. The World Bank could be a permanent source of income for the fund because, unlike other bodies of the UN system, it is not bound by a condition to reach a consensus. Other possible financial sources are discussed in chapter 3.6.

The structure of the co-ordinating body could draw on the plan of a reformed UN structure that was presented by Josef Vavroušek, the Federal Minister of the Environment of the Czech and Slovak Republics, in 1992 at the UN Conference on Environment and Development in Rio de Janeiro.

According to J. Vavroušek, the future structure of the UN should be created by four specialized subsystems that would increase the effectiveness of the UN without creating a highly centralized bureaucracy with a monopoly of power. These four subsystems would be:

- a) UN security system, whose task would be to resolve international conflicts by peaceful means. This council would be controlled by the UN Security Council;
- b) UN economic system, which would support balanced global economic development with the help of suitable financial, trade and other measures, carried out by the UN Economic Council;
- c) UN social system, concentrating on the support of culture, education, health care, social insurance and similar activities, realized through the UN Social Charter;
- d) UN environmental system, orientated towards the protection and regeneration of Nature, and more generally, the environment of Man in particular. The environmental system would be controlled by the UN Environmental Council.

Each of these four specialized cornerstones should be autonomous because they concentrate on different aspects of the sustainable development of our planet. At the same time, however, they should closely co-operate because each of the actual problems are connected to each other.

This proposal is of an evolutionary nature,. As the UN security system exists already, the economic and social questions are within the competence of the ECOSOC, hence, only the environmental system is a new proposal. This new proposal for UN structure would absorb most of the existing UN bodies, programs and commissions. For instance, the environmental system would absorb UNEP, the UN Commission on Sustainable Development, and so on.

However, the demand for the decentralization of the system of UN activities in order to increase effectiveness on the basis of the knowledge of the situation in the regions led J. Vavroušek to propose a "secondary" plan, the regional UN structure. The primary one is the UN structure and this secondary structure is to be organized on a continental or regional basis. The present UN regional commissions, whose number should be increased, could serve as their bases. Today there are five UN regional commissions: the Economic Commission for Europe - ECE, the Economic Commission for Latin America and the Caribbean - ECLAC, the Economic and Social Commission for Asia and the Pacific - ESCAP, the Economic Commission for West Asia - ECWA and the Economic Commission for Africa - ECA.

There should be created a UN Commissions for Africa, Europe, North America, South America and the Caribbean, East Asia, West Asia, Australia and the Antarctic. Each of these commissions would cover four principal branches: security, economy, social affairs and the environment, which corresponds with the UN primary structure. The primary and secondary structure of the UN would thus create a matrix structure, which would make it possible to react to the global consequences of specific problems as well as to their regional aspects.

Main areas of co-operation between the two proposed structures of the UN system:

| Primary structure | Secondary structure UN system for Africa | Secondary structure UN system for Europe etc. | General mission (UN global system) |
|------------------------------------|---|---|--|
| UN security system | African security | European security etc. | Global security |
| UN social system | African social and cultural development and health care | European social and cultural development and health care etc. | Global social and cultural development and health care |
| UN economic system | African economic development | European economic development etc. | Global economic development |
| UN environmental system | African protection of Nature and renewal of environment | European protection of Nature and renewal of environment etc. | Global protection of Nature and renewal of environment |
| General mission (UN global system) | Sustainable development in Africa | Sustainable development in Europe etc. | Planetary sustainable development |

A modified structure of GPD coordinating body could look like this:

| Primary structure | Secondary structure GPD system for Africa | Secondary structure GPD system for Europe etc. | General mission (GPD global system) |
|-------------------------------------|---|---|--|
| GPD security system | African security | European security etc. | Global security |
| GPD social system | African social and cultural development and health care | European social and cultural development and health care etc. | Global social and cultural development and health care |
| GPD economic system | African economic development | European economic development etc. | Global economic development |
| GPD environmental system | African protection of Nature and renewal of environment | European protection of Nature and renewal of environment etc. | Global protection of Nature and renewal of environment |
| General mission (GPD global system) | Sustainable development in Africa | Sustainable development in Europe etc. | Planetary sustainable development |

Proposed agenda for:

Security system – land-mine cleaning, Peace keeping, including UN Special Forces to protect warehouses, clinics, people, within GPD; Weapons for Development Programme (disarmament of civilians in exchange for food, building the state infrastructure, etc.); Healthkeeping Troops (establishment of military doctors who will practise and operate in developing countries, thus helping the poor and at the same time training themselves for work under difficult, or conditions of wartime conditions), and so on.

Social system – public administration, education and health programs etc., including advertising of the GPD in recipient as well as donor countries including seminars, mass media programs, and public hearings.

Economic system – investments, technology transfer, debt relief, fundraising activities.

Environmental system – swaps for nature, desertification, deforestation, water protection, climate change, biodiversity programs.

Regions, or continents, should be further divided into subregions, states and areas within recipient countries or regions. For example tribes in Africa could have their land divided into subregions. Similarly, donor countries, for example Scandinavian states, can focus on chosen recipients of aid, that occurs following bilateral aid.

This GPD co-ordinating body could work as a company. It could have executive officers, managers, and an administrative council made up of representatives of UN agencies and NGOs. Collectively all of those involved would set strategic objectives, approve projects and their evaluation, and it would also have a supervising council in which donors and sponsors including states, private sector, international organizations, would be represented, perhaps according to the amount of their financial contribution, and it would control the effectivity of means used and results obtained.

The co-ordinating body would set based on the World Development Indicators or the Sustainable Development Index – see chapter 4, the development priorities and “gaps” in the process toward sustainable development, and would focus on negotiating with partners a co-ordinated action to attain the desired aims. For this, it would also have a financial fund at its disposal that, however, does not have to cover all costs of planned projects. For example, the fund for the development and subsidizing of medicaments against tropical diseases would still remain with the WHO. The GPD co-ordinating body would help find an insurance company for private investors to make the amount of risk they take in this project acceptable. It would conduct negotiations with other UN agencies, with the World Bank and states, both the donors and recipients, with transnational organizations and NGOs. Above all, it would guarantee that first-rate negotiators would be employed to act on behalf of recipients.

At the beginning, the GPD would have only a small number of pilot projects and would have to manage within limited resources. The aim of the first several years would be to learn to use the means effectively for a co-ordinated and efficient action. The “big money” may come in later,

perhaps for example from the global tax or Tobin tax. But first of all, it is necessary to inspire confidence and prove that the GPD is able to produce better results than many previous partnerships.

Lessons from History (Success Stories)

There are examples of successful development projects done in 20th Century. The most successful and famous was the Marshall Plan, but some others had been identified by the Global Lookout Panel of the Millennium Project.

The Marshall Plan did however have a predecessor. After World War I, the then future US President Hoover scored success in the office of Chairman of the American Committee for post-war aid to Belgium, Central Europe and Russia. Soviet writer Maxim Gorky wrote him a letter of thanks: “You have saved three and a half million children and five and a half million adults from death.”

The European Recovery Program bore the name of general George C. Marshall, but an immense amount of the credit for this project, and for other daring visions is also due to the then US President Truman. Truman had the ability to push his visions through despite his political opponents, and the prevailing public opinion against his views if he were certain that the cause was just (see Textbox 3).

Textbox 3: Truman Doctrine

From the 1940s to the early 1960s, the taxation in the USA in relation to the GDP was the highest in the country’s history, so the government had enough financial means to support and strengthen the democratic world – especially Europe – facing the Soviet expansionism. Truman was the first American politician to realize that the USA is physically and financially able to protect the world not only in times of war, but also in times of peace.

*On March 12, 1947, the President declared “**the Truman Doctrine**”: “I believe that it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures.”*

*On December 12, 1947, Truman submitted to Congress a proposal of the “European Recovery Program” whose expected expenditures were USD 17 billion. **At the beginning, the plan had many detractors in the USA, but the whole affair was made easier by Stalin. The brutal communist putsch he staged on 25 February, 1948, in Czechoslovakia contributed to Congress passing the series of bills concerning foreign aid. The whole project then became perhaps the most successful undertaking of this kind in history.***

Truman’s great wish was to “make the Palestinian desert bloom”. In October 1949, he declared that he wished that the “Mesopotamian Valley obtained, with American help, the fertility of the ‘Garden of Eden’, where 30 million people could live”. And he explained to them how “The Zambezi River Valley” could be turned into “stretches comparable to our valley of the Tennessee River”. The only thing necessary to accomplish this was to make “our know-how” available to people in these regions.

Truman repeatedly stressed that “America cannot remain healthy and happy in a world where

millions of people are starving". After his election victory, he incorporated into his inaugural speech in January 1949 an unexpected "Fourth Point". In his program for "peace and freedom" he committed himself to a "bold new program in which scientific successes and industrial progress will serve to help backward countries". He was the first statesman to draw attention to the glaring differences between the rich and the poor parts of the world and he constantly repeated: "More than half of the world's population lives in conditions that are not too remote from suffering." And he was also the first statesman to do something about it. He considered the "Fourth Point" the most important political issue of his term in the White House. He said at a press conference that he was harbouring it in his head "since the time the Marshall Plan originated. It began with the proposal to help Greece and Turkey. After that I was studying the issue all the time."

"The Fourth Point" - the Global Marshall Plan - was to be the fourth pillar of Truman's foreign policy, the previous three being the UN, the NATO and the Marshall Plan for Europe.

The original amount of subsidy was USD 34.5 million. In the 1952 fiscal year, the "aid budget" had risen to USD 147.9 million. Generous contributions came not only from the Government but also from many great corporations. As early as 1953, 2,445 American technicians were working in 35 foreign countries. The "Fourth Point" had an extension - bilateral aid agreements. The sums given by the American government were increasing throughout the 1950s and 1960s, totalling USD 150 billion in the 1970s. But then the amount of American foreign aid began to decrease.

This is probably the greatest act of national generosity in mankind's history. During this singularly altruistic period, however, anti-American sentiments started to spread in the world. Truman contented himself with the Jewish-Christian moral teaching that virtue is a reward to itself.

Just for comparison: the direct military expenditures of the USA on the Korean War exceeded USD 54 billion.

Truman's typical reaction to unfavourable public opinion polls was: "I would like to know what Jesus' teaching would have been if he had had to conform to the polls in the land of Israel?... Polls are not important. What is important is truth and untruth, and leaders who by the power of spirit, by honesty and faith in justice make epochs in the history of the world."

Freely adopted according to P. Johnson: History of American Nation (16)

Another successful development program, at a national level, was President Franklin Roosevelt's New Deal, launched in the 1930s to propel the US economy out of depression. The New Deal inspired Mark Hertsgaard, author of *Earth Odyssey* (22), to propose the environment-oriented "Global Green Deal" (see Textbox 4)

Textbox 4: Global Green Deal

*Some environmentalists have suggested that the race to the moon in the 1960s serve as the model for the race now needed to save the Earth. It's a good idea, and not simply because that earlier race sent back pictures of this blue planet that revolutionized humanity's understanding of itself and its place in the cosmos. **The race to the moon showed how a clear mission and deadline can focus resources and fire public enthusiasm.** It also demonstrated something rarely acknowledged these days: that **certain overarching public challenges cannot be left up to the workings of the marketplace;** government must play a central,*

leading role.

Another model is the *New Deal* that President Franklin Roosevelt launched in the 1930s to propel the U.S. economy out of depression. After all, the environmental crisis is as much an economic challenge as anything, and the *New Deal* helped overcome the gravest economic challenge in modern American history. The problems afflicting today's global economy are strikingly similar to those the *New Deal* was created to solve in the 1930s.

The basic function of the *New Deal* was to restore sufficient demand to the economy by raising what can be called the social wage. *New Deal* policies raised the economy's collective purchasing power by guaranteeing workers a minimum wage and the right to strike for more; by putting unemployed people to work in government – funded public works projects; by providing direct cost payments to tide over the unemployed until they found work; and by establishing the universal pension plan for the elderly known as *Social Security*. In start, **the *New Deal* redistributed society's surplus wealth**, shifting a portion away from the rich, where it languished unproductively, toward the poor and working classes. Their spending of that surplus boasted overall demand and along with the explosion of military spending during World War II, pulled the economy out of depression and prepared it for the unprecedented prosperity of the 1950s and 1960s.

Why not to revive these *New Deal* policies but apply them in a green and global fashion? The program could even be called the **Global Green Deal**. It would rely on market mechanisms to the maximum extent possible, while realizing that government must also establish „rules of the road“ that compel markets to respect rather than harm the environment. In particular, governments must reform tax, subsidy, and economic accounting systems so that the market internalizes environmental values.

Governments should also increase public investment to help nascent industries like solar power achieve commercial take off. Priming the pump with steady purchases by the Pentagon in the 1960s was what got the computer industry up and running, and the Clinton administration did much the same in the 1990 by having the federal bureaucracy shift its purchases from virgin to recycled paper. By requiring that the seven million vehicles the U.S. government buys every year be fuel cell or hybrid powered rather than traditional gasoline powered, for example, Washington could help create market demand for green cars, demand that private capital could then step up and accommodate. ...

This **shift to environmentally friendly technologies would set a compelling example for China, India, Brasil, and the other Southern nations** whose participation in the global environmental cleanup is essential. ... Installing efficient equipment and processes throughout China's energy system, for example, could reduce its energy consumption by 50 percent. In the short term, we must accelerate changes already underway in our technologies to make them more efficient and environmentally friendly. Furthermore, these technologies must be diffused throughout the planet, which means in concrete terms that the North must help transfer them to the South. In the medium term, population size must be stabilized both in the South and the North, and the hyperconsumption that is now common in the North and among elites in the South must be cut back. In the medium to long term, capitalism will probably have to be transformed so that the constant expansion in material terms of production, consumption, and waste is no longer a central feature of the system. Development, not growth, must become our motto.

Mark Hergsgaard: *Earth Odyssey* (22)

In Europe, the enlargement of the European Union is a good example of the gradual spread of “positive-change islands”. The EU has aided Spain, Portugal, Greece and Ireland on their way to prosperity and democracy. Currently, Central and Eastern European Countries and Baltic States are hoping for the same. Today, Ireland provides important development aid to Third World countries, and similarly, the promise of future prosperity and political stability should constitute a pledge for the countries of the former communist block that, at their turn, will start helping other countries and promote the spread of positive changes further.

In Brazil, “The Real Plan” helped reduce poverty by 30% only two years after its launch in 1994, but unfortunately, the global financial crisis wiped out a third of these gains. (14) A promising “success story” failed and turned into “lost hope”. Another example of a wasted chance, but this time at a global level, is the failure of the “peace dividend”. When armament expenditures fell from the original 1,000 billion USD a year to 650 billion a year in the mid-1990s, there was an opportunity to invest several hundred billions of dollars a year into the fight with poverty and environment protection. It is a sad paradox that it was in the 1990s there was a decrease in expenditures on development aid rather than an increase.

An example of a “success story” which became a “failure story” through lack of political will can be found also in the field of technology. The most powerful rocket constructed so far, Saturn 5, able to carry a spaceship with the crew to the Moon, was built mere seven years after the first, simple rocket. This shows how much progress mankind can make when it concentrates on a certain objective, and this does not apply exclusively to technology. Saturn 5 has never been used because US Congress voted against the proposed expenditures and the entire project was abandoned.

These several instances prove that nations, and humankind, are capable of daring visions and that it actually is in our power to realize bold projects. Unfortunately, political will and foresight are not always found in sufficient proportions. Today, we are facing other great and pressing challenges, the battle with poverty and the conservation of natural resources on this planet. These challenges are unprecedented mainly in their global proportions. In the 20th century, great politicians emerged who were able to realize daring visions at national and continental levels. In the 21st century, eschewing global visions will not be possible, and only future generations will be able to assess whether we have transformed our efforts into “success stories” or if they have been turned into “lost hope”.

Suggested Pilot Projects

GPD is so complex, that it must be implemented gradually in a “step by step“ manner. Further are presented three types of potential pilot projects that could eventually lead to the beginning of the GPD program.

I. Sustainable Kosova (a territorial pilot project)

After 50 peaceful years and the collapse of communism in Central and Eastern Europe, a war broke out in the Balkans. Crimes had been committed in the name of nationalism that will take very long to heal. After World War II, it also seemed that the hatred among Germans and French, and other victims of Nazism, would last several generations. But thanks to the Marshall Plan these countries have for long been capable of effective co-operation and even managed to become the vehicle of European unification within the European Union.

An idea has surfaced that large-scale aid from the international community and the ensuing prosperity could help renew not only the infrastructure, but also human relations in the Balkans. An example of this type of plan is George Soros’s proposal of a “Balkan Marshall Plan”. The international community did agree on a so-called “Stability Pact” and 2.4 billion USD were promised to help the Balkans. But it seems that the amount will be much lesser and that the project will not be sufficiently co-ordinated, funded and long-term to be similarly successful as the Marshall Plan 55 years ago. Therefore, the pilot project of the GPD could be an establishment of the National Strategy for Sustainable Development of Kosovo and its subsequent implementation. Kosovo is now controlled by the international community, it is a relatively small region (11,000 km² and 2.5 million inhabitants), so carrying out this “case study” would be neither economically, nor politically, demanding as doing the same for the whole of the Balkans. A successful Kosova project could help us gain experience for an implementation of other territorial projects. And there are many candidates: East Timor, Palestine, Kashmir, El Salvador, Nicaragua, Afghanistan, South African Republic and, above all, the countries of Sub-Saharan Africa.

In creating the National Strategy for Sustainable Development of Kosova, experience with the successful Slovak project could be drawn upon. The task of the project preparation could be entrusted to the University of Pristina (structure of the Slovak Project of the National Strategy for Sustainable Development – see Appendix G5).

Due to the anti-terrorist campaign, the leading candidate for an implementation of a Marshall Plan imitation is now Afghanistan. At the Tokyo Conference in January 2002, donor countries promised to provide aid for the restoration of Afghanistan totalling 5 billion USD. However, the participants of the conference are afraid that the tax money might be squandered because of corruption. The Prime Minister of Afghanistan, Mr. Kharzai, therefore promised that a respected international company would supervise the expenditures of the Afghan government in order to prevent corruption, and to help establish a functioning market economy. Such a pledge should be demanded also in connection with other development projects.

II. Eradication of children's polio (basic needs project)

According to Jeffrey Sachs (25), 8 million people, mainly children, die unnecessarily because the 25 billion USD needed for their vaccinations are not available. Some diseases, like malaria, cannot be totally eradicated, but they can be substantially curbed. But totally eradicable diseases do exist, as does an example that such an undertaking is possible. In the 1970s, the WHO launched a campaign against smallpox. It was a real war against a disease with logistics, a strategy and, especially, political will of the international community to bring this war to a victorious end. In 1979, variola was declared eradicated and since then no appearance has been reported. Currently, variola samples are kept in laboratories in the United States and Russia.

A disease can be eradicated when the following conditions are met:

- there are no animal hosts or agents;
- it is a clinically evident disease;
- the time is known that elapses since the moment of infection till the appearance of evident symptoms that the virus or bacteria has been contracted;
- there are no agents, or carriers, of the virus;
- the epidemic develops slowly;
- the occurrence in a man is not repeated;
- A highly efficient vaccine exists, preferably lyophilized – in a powdery state.

Such prerequisites have been met in the cases of measles and polio. But with polio, only 1% of incidence is apparent, 99% of affected people have the hidden form. Therefore, it is necessary to vaccinate not only the population in the epicentres of incidence, but also the entire population of states and regions.

It is a pity that since the eradication of smallpox the international community has not found the political will and financial means to fight other diseases. The eradication of polio is surely the next most fitting candidate for a GPD pilot project. Apart from the WHO, Rotary International has for long pursued the fight with children's polio. A successful realization of this "case study" would undoubtedly help strengthen the international community's resolve to improve the current situation in the area of preventive medicine and health in developing regions.

III. Supporting computer literacy and the use of the Internet in developing countries

This is precisely the kind of project in which the private sector and transnational companies can become engaged.

In the whole of Africa there are less servers providing Internet connection than in the central part of New York, Manhattan. In Somalia, there are 0.2 Internet users per 10,000 inhabitants, in Ethiopia the figure is 1.1. An unwelcome disseminator of the freedom of word and expression, the Internet is subject to severe state censorship in many developing countries, in Laos, Burma, Vietnam, North Korea, and Saudi Arabi for example. In Burma, there is one Internet user per

50,000 people. In Laos, there are mere 1,000 Internet users altogether, and these people are mainly foreigners and government officials.

The Internet is a great challenge and can facilitate a wider availability of education and information for inhabitants in developing countries. Nevertheless, it has the dangerous potential of widening the gap between the rich and the poor parts of the world.

The Japanese intended to massively supply the developing world with computers as part of the development aid. But such aid is counter-productive for people who are illiterate and have no experience even with a telephone. Therefore, at the G8 Summit in Okinawa the Japanese suggested that they provide 15 billion USD for training computer experts during the following 5 years who will teach inhabitants of developing countries to use computers and the Internet. But in developing countries, the infrastructure poses a problem. In many places there is no telephone cabling or Internet connection, and the cost of using a telephone line is five times higher for people in developing countries than for European or North American citizens. In many developing countries, a more flexible spread of telecommunication networks is prevented by government monopoly.

Developed countries should realize that development aid that is not complex entails many dangers. A cheap and easy Internet connection must be for all, not only for university students and other “privileged” people. Humanitarian and development projects must not be sources of inequalities within developing countries.

It is, therefore, desirable to adopt a system in which connecting to a computer network in developed countries is taxed with a small sum and from this tax or fee projects introducing Internet to developing countries could be financed. An inhabitant of a developed country, based in relation to the amount of the GDP or to the value of the Sustainable Development Index (see chapter 4), would pay a small fee, say for a certain amount of emails sent or for a certain time spent on-line on the Internet.

Private investors could help build the necessary infrastructure of telephone cables according to the BOT system (build – operate – transfer). This system was applied by Gordon Wu in Southeast Asia during the construction of highways. It works as follows: a private firm builds a highway, then collects the toll for a certain time which was settled in the contract in advance, as was the amount of the toll. When the investment returns to the firm together with a reasonable profit, which is once again specified in advance in the contract, the firm hands the facility over to the state. Thus, the country strengthens its transport infrastructure necessary for development free of charge or at a very low price. The private firm, too, profits on it, especially when it carries the project out quickly and efficiently. The population also benefits because it gains opportunity to use the facility. There are however, huge risks involved, namely those associated with political pressures and political instability. The establishment of an insurance fund might reduce these risks though.

Creating just conditions for spreading the Internet in developing countries requires difficult political negotiations. The best method to employ could be that of “sugar and cane”. With some undemocratic countries, the implementation of such a project will not be possible in the near

future and, therefore, a “multi-speed structure” of spreading Internet literacy and the Internet in developing countries will be necessary. It is essential to find first-rate professional negotiators for the GPD programme, a task for which individual developed countries do not have time, nor do they desire to seek them. These negotiators would play the same role as the UNIDO in times of obtaining independence for the former colonial countries when they helped the newly emerged developing countries negotiate just conditions for trade and foreign investment with private entrepreneurs.

Appendix G: Measuring and Promoting Sustainable Development

[Appendix G1: Partnership for Sustainable Development -Round 1 Questionnaire](#)

[Appendix G2: Partnership for Sustainable Development -Round 2 Questionnaire](#)

[Appendix G3: Partnership for Sustainable Development -Interview Protocol](#)

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APPENDICES AND REFERENCES**Appendix 1. PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT -ROUND 1 QUESTIONNAIRE****AC/UNU Millennium Project - Central European Node**

Partnership for Sustainable Development Study-Round 1

Invitation

Dear Colleague:

On behalf of the Millennium Project of the American Council for the United Nations University, Central European Node, we have the honor to invite you to participate on a questionnaire panel that will address the means for achieving Sustainable Development, particularly in poorer countries.

Seven years ago vice-president Albert Gore proposed the idea of a new, global "Marshall Plan" in his book "Earth in Balance" (1992). In 1998, the Millennium Project studied global opportunities and the global "Marshall Plan" was mentioned again as one of the opportunities for development. Several respondents considered it an interesting and inspiring proposal. One respondent suggested calling this idea "Partnership for Sustainable Development".

During the Millennium Project Planning Committee Meeting in Washington, D.C., 28 – 29 July 1999 the Central European Node of the Millennium Project proposed to study this idea further and to develop the idea of "Partnership for Sustainable Development" through two questionnaire rounds. The Planning Committee accepted this suggestion.

In this work we intend to explore potentially effective policies and means of implementation through interviews with decision makers, representatives of NGOs, corporations, universities and international organizations.

The results of this study will be published in the *State of the Future* report. Those who respond to this questionnaire will receive a complimentary copy and will be listed in the report, but no attributions will be made.

You can type your answers and send them to us in the form of e-mail, fax or letter. Please do not include hand written responses that may be difficult to read. You can download this questionnaire from <http://www.millennium-project.org>, under „Global Lookout Study“ button chose 2000, than "Partnership for Sustainable Development".

In this way you can fill out the questionnaire on your computer and then send it back by email. Whichever way you choose, please send your responses so that they can be received by 25 April 2000.

Based on the results of this questionnaire, a second round will include the most relevant ideas for your further comments.

We look forward to your responses.
Sincerely Yours,

Jerome C. Glenn and Theodore J. Gordon
co-directors, AC/UNU Millennium Project

Pavel Novacek
chair, Central European Node of

the AC/UNU Millennium Project

The Questionnaire

There are many global issues that humanity faces at the Millennium. Among them, some of the most crucial are:

- How can sustainable development and all of its potential benefits be achieved ?
- How can everyone have sufficient clean water without conflict?
- How can renewable resources be brought into balance with population growth and consumption rates?
- How can ethical market economies be encouraged to help reduce the gap between the rich and poor?

As the Marshall Plan was designed to - and accomplished - the rebuilding of Europe after WW II, PSD's goals are the achievement of reasonable and sustainable development and the elimination of poverty. In this study we are interested in obtaining your views on the formulation and implementation of strategies for improved development, and the consequences of these strategies.

We use the following definition:

”sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

(Source: 'Our Common Future', The World Commission on Environment and Development. Oxford University Press. 1987. ISBN 0-19-282080-X, pp.43)

Name of the Project

We consider that "Partnership for Sustainable Development" (PSD) is a better title than "Global Marshall Plan" (GMP), as the current economic and political situation is very different of the post WW II. Because of the technological and cultural differences between different geographical and social areas, the PSD may require more than a quick injection of money and technology. Hence, a title involving the concept of a partnership between the rich and poor is more likely.

1. What do you think are the motivations for PSD?

This question asks your views on the importance of such a program now. Listed below are several examples; we ask you to assess each and add to the list, using the following scale:

- 5= *Unquestionably a key motivation*
- 4= *May be an important motivation*
- 3= *Possibly a motivation, possibly not*

2= *Would detract from the attractiveness of a program*
 1= *A reason not to pursue the program*

| POSSIBLE MOTIVATIONS | Import. |
|---|---------|
| Improve the environment for the benefit of mankind | |
| Improve development alternatives for developing countries | |
| Human solidarity | |
| Danger of North becoming "a ghetto of the rich" (surrounded by the sea of frustration and anger, immigration waves, etc.) | |
| Correct historical "wrongs" (colonization, cheap labor, import of energy and raw materials) to avoid the phase of primitive and environmentally dangerous industrialization | |
| Provide a feeling of self-confidence, self-respect and dignity (those who trust themselves are broad minded and tolerant towards others) | |
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2. *If the money is easily available, what could, in your opinion, be the long-term most appropriate goals of the project?*

Clearly the overall strategic goal is progress towards a sustainable and compassionate society. Please review the following list of goals that might be associated with the project and provide your views on how important it is to include the goal in a final statement of the objectives of such a project. Please use the following scale:

- 5= *Essential; must be included as a project goal*
- 4= *Important*
- 3= *Useful to be included*
- 2= *Detracts somewhat from the essential objectives*
- 1= *Counterproductive*

Please add to the list:

| POSSIBLE GOAL | Import. |
|---|---------|
| Eradicate the extreme poverty and most dangerous diseases | |
| Remove the obstacles which prevent economic development | |
| Revive the infrastructure | |
| Establish mutually beneficial terms of trade | |
| Concentrate on global and acute regional ecoproblems | |
| Mitigate tensions between developed and developing countries | |
| Employ people (the most valuable resource of a country) | |
| Create middle class (stabilizing element of society) | |
| Enhance research and development capacities in developing countries | |

| | |
|--|--|
| Provide better access to efficient and environmentally friendly technologies | |
| Save the global environment | |
| Stabilize the world's population | |
| Encourage ecologically economical technologies | |
| Induce a change of economic norms for evaluation of ecological impact | |
| Create a new generation of international agreements | |
| Establish a world program for ecological education | |
| | |
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| | |

3. If the goals in Question 2 were set, which would be the role of different groups of countries for the Project?

Various regions of the world could be involved in this project in various ways: as financial donors, as donors of information and on-site assistance, as sites for testing of program prototypes, as recipients, etc. Consider the following types of countries and provide your judgments about the contributions they might make:

- A. Highly developed countries such as the US, Japan, and Canada
- B. Emerging donor countries such as the Czech Republic, Poland, and South Korea
- C. Countries in deep economic trouble such as the Sub Saharan countries
- D. Countries with massive populations such as China and India
- E. Resource rich countries such as Saudi Arabia
- F. Countries that are not concerned about the world interests

Please rate each suggestion with respect to each country type using the following scale, and add to the list.

- 5= *The stated means of involvement is completely appropriate*
- 4= *The stated means of involvement is somehow appropriate*
- 3= *The stated means of involvement is questionable*
- 2= *The stated means of involvement is inappropriate*
- 1= *The stated means of involvement is impossible*

Please add other examples.

| POTENTIAL INVOLVEMENT | A | B | C | D | E | F |
|--|---|---|---|---|---|---|
| 1. Direct financial grants | | | | | | |
| 2. Technical assistance programs | | | | | | |
| 3. Site for program experiments | | | | | | |
| 4. Recipients of large scale financial aid | | | | | | |
| | | | | | | |
| | | | | | | |

4. Potential projects for recipient countries/regions and their importance

There are many types of projects that are potentially beneficial to recipient countries. Please add to the list and provide your judgments about the importance of the projects:

5= *Extremely beneficial*

4= *Beneficial*

3= *Generally positive but must be accompanied by other actions*

2= *The positive and negative consequences balance*

1= *Counterproductive, will do more harm than good*

| PROJECTS FOR RECIPIENT COUNTRIES | IMPORTANCE |
|--|------------|
| Immunization programs | |
| Jobs beneficial to the public (planting and maintenance of trees,...) | |
| Adoption at a distance (Children International) | |
| Disaster relief programs and insurance of developing countries with international insurance companies | |
| Triangles of cooperation (donor country provides financial support, emerging donor country provides cheaper labour and lower costs of the project and recipient country is the receiver of assistance) | |
| Create (via UNEP, WTO, other IOs) international teams to define terms, standards and measurements necessary for commonly applied environmental policies (tax incentives, labels, etc.) | |
| Create taxes or fees for the most environmentally damaging activities with revenues collected to be used to subsidize the acquisition of environmentally safe technologies | |
| Include environmental costs in the pricing of natural resources and products | |
| Establish an international technology bank, funded by country pledges, that could acquire the rights to innovate „green“ technologies so as to make them more easily available to environmentally less advantaged countries | |
| Create tradable pollution permits that regulate global emission limits for countries or industrial sectors | |
| Develop and support ecologically based agriculture to reduce large consumption of water, energy, and other material inputs in agriculture | |
| Continue to support and promote all modes of family planning by subsidizing and distributing contraceptives and by promoting programs to improve health care, diminish infant mortality, improve literacy, and involve women in the monetary economy | |
| Create institutions for increased global environment protection (for example the International Court of Environmental Arbitration and Conciliation) | |
| Increase national and international efforts to build communities that provide models of sustainable economic development | |
| Pursue policies to minimize the need for travel, such as local production and telecommuting | |
| | |
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Comments:

Thank you for your participation.

Please send your response to:

Pavel Novacek
Central European Node of the Millennium Project
Center for Interdisciplinary Studies, Palacky University
Krizkovskeho 8, 771 47 Olomouc, Czech Republic
email: nov@risc.upol.cz
fax: +420 68 523 2035

Appendix 2. PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT-ROUND 2 QUESTIONNAIRE**AC/UNU Millennium Project - Central European Node**

Partnership for Sustainable Development Study-Round 2

Invitation

Dear Colleague:

On behalf of the Millennium Project of the American Council for the United Nations University, Central European Node, we have the honor to invite you to participate in the second and final round of the Partnership for Sustainable Development Questionnaire.

The results of this study will be published in the *State of the Future Report*. Those who respond to this questionnaire will receive a complimentary copy and will be listed in the report, but no attributions will be made.

You can type your answers and send them to us in the form of e-mail, fax or letter. Please do not include hand written responses that may be difficult to read. You can download this questionnaire from <http://www.millennium-project.org>, under “Global Lookout Study” button chose 2000, then “Partnership for Sustainable Development”.

In this way you can fill out the questionnaire on your computer and then send it back by e-mail. Whichever way you choose, please send your responses so that they can be received by 5 July 2000.

We look forward to your responses.

Sincerely Yours,

Jerome C. Glenn and Theodore J. Gordon
AC/UNU Millennium Project

Pavel Novacek
Central European Node of
The AC/UNU Millennium Project

The Questionnaire

As you recall, the Central European Node is conducting a study about a project titled tentatively “Partnership for Sustainable Development”. If implemented, its purpose would be to explore potentially effective policies for the achievement of reasonable and sustainable development and the elimination of poverty. The first round of the PSD Questionnaire involved 47 people in 17 countries who identified and rated importance of motivations, goals, potential involvement and projects for recipient countries. Second round has two parts:

Part I:

The table below presents the results of the first round. The numbers in the tables are the average responses from the first round. The newly suggested items have no numbers and your assessments are invited for these. Please review the motivations, goals, potential involvement and projects added by respondents and add your judgments about these suggestions.

Look please at final general comments done by respondents in Round 1 and make additional comments if you wish.

1. What do you think are the motivations for PSD?

This question asks your views on the motivations that might engender such a program now. Listed below are several examples; we ask you to assess each and add to the list, using the following scale:

- 5= *Unquestionably a key motivation*
- 4= *May be an important motivation*
- 3= *Possibly a motivation, possibly not*
- 2= *Would detract from the attractiveness of a program*
- 1= *A reason not to pursue the program*

| POSSIBLE MOTIVATIONS | Importance |
|---|-------------------|
| Improve the environment for the benefit of mankind | 4,60 |
| Improve development alternatives for developing countries | 4,16 |
| Human solidarity | 3,91 |
| Danger of North becoming "a ghetto of the rich" (surrounded by the sea of frustration and anger, immigration waves, etc.) | 3,50 |
| Provide a feeling of self-confidence, self-respect and dignity (those who trust themselves are broad minded and tolerant towards others) | 3,18 |
| Correct historical "wrongs" (colonization, cheap labor, import of energy and raw materials) to avoid the phase of primitive and environmentally dangerous industrialization | 3,09 |
| NEWLY SUGGESTED MOTIVATIONS: | |
| TO SECURE GLOBAL EQUITABLE DEVELOPMENT IN PEACE | 4,23 |
| <i>Provide a feeling of self-confidence, self-respect and dignity (those who trust themselves are broad minded and tolerant towards others)</i> | 3,64 |
| <i>Prevention of possible conflicts between the North and the South and within the regions (it is the own interest of the rich to prevent outbreak of conflicts in the poorer regions of the world). Uncertainty about character of possible conflicts in the 21st Century</i> | 4,14 |
| <i>Improve the involvement of the business sector in achieving sustainable development goals</i> | 3,82 |
| <i>Nonsustainable development may give rise to "development" (ecoterrorism, riots, wars over scarce natural resources, ecological refugees)</i> | 3,57 |
| <i>Collaboration between downsized governments and emerging civil society</i> | 3,50 |
| <i>Narrowing a gap between rich and poor countries</i> | 3,77 |
| <i>Need for global politics and rules in the age of globalization</i> | 4,05 |

| | |
|---|------|
| <i>Development of common infrastructures (information, financial, transport)</i> | 3,59 |
| <i>Spiritual advancement (transformation) of Mankind</i> | 3,14 |
| <i>National governments understanding of environmental problems and taking decisions to assign High Priority</i> | 3,77 |
| <i>Involve private firms and corporations</i> | 3,55 |
| <i>Ensuring of survival of humanity</i> | 3,86 |
| <i>Forge durable and sustainable development partnerships based on equality and mutual respect between developed and developing countries</i> | 4,05 |
| <i>Need for a supranational authority to enforce the program with loss of sovereignty</i> | 2,64 |
| <i>To promote the principles of global tolerance and universal ethics</i> | 3,64 |
| <i>Peace keeping both on the local and global level</i> | 3,91 |
| <i>Promote a feeling of global responsibility for all forms of life</i> | 3,71 |

2. If the money were easily available, what could, in your opinion, be the long-term most appropriate goals of the project?

Clearly the overall strategic goal is progress towards a sustainable and compassionate society. Please review the following list of goals that might be associated with the project and provide your views on how important it is to include the goal in a final statement of the objectives of such a project. Please use the following scale:

- 5= Essential; must be included as a project goal
- 4= Important
- 3= Useful to be included
- 2= Detracts somewhat from the essential objectives
- 1= Counterproductive

| POSSIBLE GOAL | Importance |
|--|-------------------|
| Eradicate the extreme poverty and most dangerous diseases | 4,55 |
| Save the global environment | 4,39 |
| Encourage ecologically economical technologies | 4,25 |
| Provide better access to efficient and environmentally friendly technologies | 4,09 |
| Concentrate on global and acute regional ecoproblems | 3,91 |
| Establish a world program for ecological education | 3,89 |
| Stabilize the world's population | 3,82 |
| Enhance research and development capacities in developing countries | 3,82 |
| Employ people (the most valuable resource of a country) | 3,70 |
| Mitigate tensions between developed and developing countries | 3,66 |
| Induce a change of economic norms for evaluation of ecological impact | 3,64 |
| Remove the obstacles which prevent economic development | 3,59 |
| Establish mutually beneficial terms of trade | 3,48 |
| Revive the infrastructure | 3,41 |
| Create a new generation of international agreements | 3,28 |
| Create middle class (stabilizing element of society) | 2,93 |
| NEWLY SUGGESTED GOALS: | |
| <i>Encourage and support movements of selfhelp on a local level (e.g. tree planting, conservation of rare habitats etc.)</i> | 3,82 |
| <i>Global Poverty Alleviation, Elimination and Prevention (First Critical Step: Write-off</i> | 4,14 |

| | |
|---|------|
| <i>the Third World Debts completely)</i> | |
| <i>Ensure the involvement of the business sector in sustainable develop.</i> | 3,52 |
| <i>Create economic incentives to promote sustainable development</i> | 4,09 |
| <i>Ensure a public process for a broad range of stakeholder involvement in sustainable development</i> | 3,73 |
| <i>Create strong international (regional and global) institutions to monitor progress and failure in sustainable development (and not just assessments of the state of the environment)</i> | 3,82 |
| <i>To promote sustainable production and consumption patterns</i> | 4,00 |
| <i>To search for values compatible with sustainable way of living</i> | 3,70 |
| <i>Dismantle the vicious circle as how economic growth, population growth (explosion and implosion) and environment degradation are tied at present together</i> | 3,95 |
| <i>Promote development of genuine partnerships among different global actors</i> | 3,77 |
| <i>Mitigate waste</i> | 3,68 |
| <i>Introduce economic instruments protecting the environment</i> | 3,82 |
| <i>Introduce legal instruments protecting the environment</i> | 3,95 |
| <i>Integrate ecological and economic development</i> | 4,23 |
| <i>Explore new ways of inducing cooperation</i> | 3,59 |
| <i>To protect local cultural and religious tradition</i> | 3,65 |
| <i>To promote universal human rights awareness and education</i> | 3,82 |
| <i>Encourage individuals to take a more responsible attitude to life</i> | 3,64 |

3. If the goals in Question 2 were set, what would be the role of different groups of countries for the Project?

Various regions of the world could be involved in this project in various ways: as financial donors, as donors of information and on-site assistance, as sites for testing of program prototypes, as recipients, etc. Consider the following types of countries and provide your judgments about the contributions they might make:

- A. Highly developed countries such as the US, Japan, and Canada
- B. Emerging donor countries such as the Czech Republic, Poland, and South Korea
- C. Countries in deep economic trouble such as the Sub Saharan countries
- D. Countries with massive populations such as China and India
- E. Resource rich countries such as Saudi Arabia
- F. Countries that are not concerned about the world interests

Please rate each suggestion with respect to each country type using the following scale, and add to the list.

- 5= *The stated means of involvement is completely appropriate*
- 4= *The stated means of involvement is somehow appropriate*
- 3= *The stated means of involvement is questionable*
- 2= *The stated means of involvement is inappropriate*
- 1= *The stated means of involvement is impossible*

| POTENTIAL INVOLVEMENT | A | B | C | D | E | F |
|--|------|------|------|------|------|------|
| 1. Direct financial grants | 4,86 | 3,73 | 1,63 | 2,63 | 4,21 | 2,44 |
| 2. Technical assistance programs | 4,76 | 4,11 | 1,94 | 3,19 | 3,36 | 2,48 |
| 3. Site for program experiments | 3,21 | 3,77 | 4,16 | 4,31 | 3,24 | 2,94 |
| 4. Recipients of large scale financial aid | 1,84 | 2,50 | 4,62 | 3,64 | 2,06 | 2,56 |
| NEWLY SUGGESTS AREAS OF INVOLVEMENT: | | | | | | |
| Peace keeping operations | 4,60 | 3,67 | 2,30 | 3,50 | 3,43 | 2,30 |
| Educational programmes | 4,76 | 4,43 | 2,86 | 3,95 | 3,45 | 3,00 |
| Management | 4,40 | 3,89 | 2,56 | 3,50 | 3,00 | 2,33 |
| Direct foreign investment | 4,50 | 3,52 | 1,55 | 2,90 | 4,09 | 2,25 |
| Promoter of unilateral or regional agreements and policies for sustainable development | 4,45 | 4,18 | 2,76 | 3,91 | 3,73 | 2,57 |
| Schooling of experts | 4,81 | 4,43 | 2,30 | 3,02 | 3,60 | 2,50 |
| Student teacher exchanges large scale | 4,62 | 4,43 | 3,29 | 3,86 | 3,62 | 3,14 |

4. Potential projects for recipient countries/regions and their importance

There are many types of projects that are potentially beneficial to recipient countries. Please add to the list and provide your judgments about the level of benefit the project will provide and the likelihood that such projects will be implemented.

Importance

5= *Extremely beneficial*

4= *Beneficial*

3= *Generally positive but must be accompanied by other actions*

2= *The positive and negative consequences balance*

1= *Counterproductive, will do more harm than good*

Likelihood

5 = *Almost certain*

4 = *Likely*

3 = *As likely as not*

2 = *Unlikely*

1 = *Almost impossible*

| PROJECTS FOR RECIPIENT COUNTRIES | Level of benefit | Likelihood |
|---|------------------|------------|
| Develop and support ecologically based agriculture to reduce large consumption of water, energy, and other material inputs in agriculture | 4,38 | 3,65 |

| | | |
|--|------|------|
| Include environmental costs in the pricing of natural resources and products | 4,12 | 3,59 |
| Immunization programs | 4,05 | 4,20 |
| Increase national and international efforts to build communities that provide models of sustainable economic development | 4,00 | 3,59 |
| Continue to support and promote all modes of family planning by subsidizing and distributing contraceptives and by promoting programs to improve health care, diminish infant mortality, improve literacy, and involve women in the monetary economy | 3,95 | 3,94 |
| Triangles of cooperation (donor country provides financial support, emerging donor country provides cheaper labor and lower costs of the project and recipient country is the receiver of assistance) | 3,90 | 3,53 |
| Create taxes or fees for the most environmentally damaging activities with revenues collected to be used to subsidize the acquisition of environmentally safe technologies | 3,83 | 3,41 |
| Establish an international technology bank, funded by country pledges, that could acquire the rights to innovate „green“ technologies so as to make them more easily available to environmentally less advantaged countries | 3,79 | 3,06 |
| Disaster relief programs and insurance of developing countries with international insurance companies | 3,74 | 3,12 |
| Jobs beneficial to the public (planting and maintenance of trees,...) | 3,66 | 3,71 |
| Create institutions for increased global environment protection (for example the International Court of Environmental Arbitration and Conciliation) | 3,63 | 3,12 |
| Create (via UNEP, WTO, other IOs) international teams to define terms, standards and measurements necessary for commonly applied environmental policies (tax incentives, labels, etc.) | 3,63 | 3,53 |
| Create tradable pollution permits that regulate global emission limits for countries or industrial sectors | 3,21 | 3,53 |
| Pursue policies to minimize the need for travel, such as local production and telecommuting | 3,20 | 2,94 |
| Adoption at a distance (Children International) | 2,95 | 3,18 |
| NEWLY SUGGESTED PROJECTS: | | |
| Facilitating access to information technology – Internet | 4,14 | 4,06 |
| <i>Establish systems of environmental statistics, indicators and accounting</i> | 3,95 | 3,89 |
| <i>Evaluation of real steps from countries which are on the route to sustainable development and making them public (a kind of the state of the art)</i> | 3,91 | 3,83 |
| <i>Promote fair trade practices</i> | 4,05 | 2,89 |
| <i>Encourage foreign direct investment in least developed countries</i> | 3,68 | 3,06 |
| <i>Special programmes for preserving cultural heritage</i> | 3,86 | 3,17 |
| <i>Promotion of international cultural educational and scientific exchange</i> | 4,32 | 4,00 |
| <i>Diminish subsidies to environmentally damaging activities</i> | 4,41 | 3,28 |
| <i>Identify international projects to which both rich and poor countries can contribute in areas of their competence</i> | 4,10 | 3,56 |
| <i>Find programs that encourage reverse brain drain</i> | 3,86 | 2,94 |

The comments made by the participants in Round 1 are listed below. Please add additional comments if you wish.

Recipient countries are usually poor. Ecologically based agriculture is still less efficient (short-term) so the incentives are low. However this is a long-term goal for all agriculture and natural resource management.

Family planning and contraceptives: My conviction is that this issue cannot be seen only from the economical point of view. It involves judgment over somebody else's traditions and morality. In this box good and controversial ideas are mixed together.

International Court of Environmental Arbitration and Conciliation – as a moral arbiter perhaps, as a law enforcing institution no.

If poverty is the global problem, and it is, then its core cause needs to be eliminated: ever, extremely and endlessly exploitative Capitalism.

Ethical Market economics: Try Islami Economics – open-mindedly.

The Brundtland definition of sustainable development is opaque. It has created more confusion (and indicator proliferation) than solutions. E.g. what are human needs? What's the time frame (how many generations?) Where's the environment? I suggested more operational definitions of (a) sustainable growth as non-declining "green NDP" or non-negative green capital formation (from environmental accounting); and (b) sustainable development as the set of development programmes which meet targets of human needs satisfaction (to be specified explicitly) without violating long-term natural resource capacities, standards of environmental quality and social equity (see for an elaboration, my book (1994) on „Environment, Growth and Development“ or more recently: Wuppertal Paper 98 „Economic Growth and Patterns of Sustainability – www.wupperinst.org).

There is no clear definition of motivations and goals of the PSD project – some motivations could be goals too (and opposite).

Fulfilling basic human needs and improving the quality of life are the main objectives of any development process. These objectives must be realized as the capacity to achieve social and economic growth in an environmentally sustainable manner, based on a long-term perspective in order not to jeopardize the interests of future generations.

Global approach to the problem sometimes became subject of contradictions to implementation process on national level. When elements of sustainability are assessed all national obstacles should be considered.

For about 70 years Soviet schoolboys and schoolgirls had learned about negative influence of US "Marshall Plan" on development of Western democracies. I mean that the cooperation of rich and poor countries is very delicate issue. Examples of such successful cooperation are very important and information about them should be disseminated by a country-recipient, first of all.

I find the proposal good in general. Although at this stage it seems to encourage too much international bureaucracy and too little the formation and development of skilled local professionals and experts.

The Global Marshall Plan is charismatic, for Marshall Plan (and not used under the real name "European Recovery Program") demonstrated for the first time a broad scale international development project which was successful, hence, different from numerous "partnerships", which are now on the agenda and don't really work

The crucial areas should be singled out: rain forest, taiga, oceans – to be handled as top priorities

New paradigms (different than present notion of "new economies") of economies of

sustainable development should be enhanced

New philosophies based on the use of intelligence and world ethos should be propelled, i.e. also involvement of major religions

Because of costs of failure, from an ethical point of view “experimentation” should not be part of global strategies of sustainable development.

Especially in the traditional societies involving women in the monetary economy should be counterproductive and destroy the family structure and stability as seen in South-East Asia.

This questions are important. In our state isn’t a good knowledge of these problems – especially consequences.

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Part II:

Four additional questions are submitted for your evaluation that will help us to better formulate the idea of Partnership for Sustainable Development (“global Marshall Plan”).

1. What do you think are key preconditions for successful implementation of PSD?

Listed bellow are several examples, we ask you to assess each and add to the list, using the following scale:

Importance:

- 5 = Unquestionably a key precondition
- 4 = May be an important precondition
- 3 = Possibly precondition, possibly not
- 2 = Unimportant
- 1 = Doesn’t have significance at all

Likelihood that such a precondition will exist within the next decade:

- 5 = Almost certain
- 4 = Likely
- 3 = As likely as not
- 2 = Unlikely
- 1 = Almost impossible

| PRECONDITIONS FOR SUCCESSFUL IMPLEMENTATION | Importance | Likelihood |
|---|------------|------------|
| Projects long enough and intensive enough to contribute to a fundamental change in the orientation of development | 4,41 | 3,69 |
| Active participation of NGOs in the recipient countries | 4,18 | 3,84 |
| Functioning democracy in recipient countries | 4,27 | 3,26 |
| Respecting human rights and international law(s) in recipient countries | 4,45 | 2,90 |

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2. What are potential resources at global level to finance PSD?

During World Conference on Environment and Development in Rio de Janeiro, 1992, developing countries demanded 125 billion USD/year (0,35% of Gross World Product) for Agenda 21 implementation. In 70's Nobel Prize Winner Jan Tinbergen and later U.N. suggested transfer of 0,7% GDP/year from developed to developing countries through bilateral and multilateral development aid. These suggestions have not been realized.

Is it possible to identify potential resources not at national but international (global) level to finance PSD? Listed bellow are several suggestions. Please rate them and add to the list, using following scale:

Importance as a source

5 = Essential; must be included as financial resource

4 = Of great importance

3 = Of modest importance

2 = Unimportant

1 = Counterproductive

Likelihood that source will be used

5 = Almost certain

4 = Likely

3 = As likely as not

2 = Unlikely

1 = Almost impossible

| RESOURCES TO FINANCE PSD | Importance | Likelihood |
|---|-------------------|-------------------|
| International carbon tax and/or tradeable emission permits on CO ₂ | 4,05 | 3,33 |
| Tax or charge foreign currency transactions ("Tobin's tax") | 3,77 | 2,89 |
| Computer-based network of foreign currency exchange to gain flow of income for the operating agency trough user charges (R. Mendez) | 3,29 | 2,94 |
| Taxation of multinational corporations | 4,09 | 2,84 |
| Charge (tax) for the use of some common global resources (surcharge on airline tickets for international flights, ocean maritime transport, fishing in Antarctica, parking fees for geostationary satellites,...) | 4,05 | 3,00 |
| Taxation of MNC's commercials | 3,44 | 3,00 |
| Direct global tax (every person on the planet should contribute a microscopic part according to his/her income) | 3,68 | 2,37 |
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3. Who should coordinate Partnership for Sustainable Development?

Despite all of the controversy surrounding the United Nations and its programs, the UN is

probably best candidate to coordinate PSD. Within the existing UN structure perhaps UN Trusteeship Council is the best candidate because of excellent reputation in developing countries for successful decolonization and previously exercised leadership over the trusteeship territories. Can you suggest other candidates within or outside UN Structure?

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4. Examples of “successful stories”

During the course of history there has appeared several times an idea which is ingenious in its simplicity, which, when it was realized, became a catalyst for positive far-reaching changes. The Marshall Plan (A Program of European Revival) shows how a grandiose vision can be successfully transferred into the shape of particular activity. Perhaps other examples could be found – investments to railroads and following development of North America; or investments to cosmic exploration. In both cases investments approximately equals one percent of U.S. GDP; investments to the Program of European Revival (Marshall Plan) were for several years equal two percent of U.S. GDP.

Can you identify other examples of “success stories” which became catalyst of significant positive changes? Please write them bellow:

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Thank you for your participation.

Please send your response to:

Pavel Nováček
Central European Node of the Millennium Project
Center for Interdisciplinary Studies, Palacky University
Krizkovskeho 8, 771 47 Olomouc, Czech Republic
e-mail: nov@risc.upol.cz
fax: +420 68 523 2035
(Please include your full return address).

APPENDIX 3. PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT- INTERVIEW PROTOCOL

AC/UNU Millennium Project-Partnership for Sustainable Development

Interview Protocol

- 1) Select decisionmakers you are going to interview. These people should be decisionmakers, NGO leaders, representatives of academic community etc. acquainted with the idea of sustainable development.
- 2) If possible, prior to interview send them evaluation of two round PSD questionnaire. Make sure you include an explanation of the study, your role and how it fits into the Millennium Project. Enclose the new Millennium Project flyer and you might add your contact-information on the back of the flyer between the photos and the „For further information“ section.
- 3) Begin the interview by reminding the policy maker that The Millennium Project is conducting a set of interviews around the world with carefully chosen leaders in government, corporations, UN organizations and NGOs. The purpose of the interviews is to explore the possibilities of effective policies and implementation of PSD project.
- 4) Remind them that their comments and the comments of other participants in these interviews will not be attributed. Let them know that their name will be included in the appendix of the *2001 State of the Future*.
- 5) Assure them that they do not have to answer all the questions. The questions are just guide to help get the key insights of the decision-maker.

Questions:

1. In 19th Century British capital enabled development of U.S. After 2nd World War on the contrary Marshall Plan enabled reconstruction of Western Europe. Similarly cheap raw materials and labour force in former colonies helped to industrial development of Western Europe. Do you think it is possible to help developing countries now through Partnership for Sustainable Development („global Marshall Plan“) to start process towards sustainable development?

2. There are at least six types of impediments to successful implementation of PSD:

- a) Financial impediments such as lack of funding;
- b) Institutional impediments such as the fact that no one until now has responsibility to act;
- c) Political impediments such as the action interferes with national interests;
- d) Cultural impediments such as roles of men vs. women, racism or ethnocentrism;
- e) Psychological impediments such as the fear of making a mistake of looking silly;
- f) Information impediments such as the lack of reliable and sufficient data and information, or the uncertainty of the risk.

Can you name some examples that you might be aware of within these categories? Can you add other categories of impediments?

3. Big financial investments are necessary to develop underdeveloped regions. They are available as private capital which is avoiding the most underdeveloped and politically unstable regions. Would it be possible and efficient to create (within UN for example) insurance fund to eliminate or reduce the risks of investing in the poorest regions? Do you have other idea how to attract

private capital to the poorest regions?

4. Should the Partnership for Sustainable Development („global Marshall Plan“) be provided to developing countries without any preconditions or is it necessary for the recipient to accept commitments concerning especially human rights and respecting international law? Also, should it be up to them to determine how the money will be spent or should the donor countries have the final say? What can be done about corruption that might siphon off funds?

5. Czech president Václav Havel talked at the Millennium Summit in New York about his vision of the World Parliament within U.N. 100 years. Do you think that the world needs some kind of global governance or will the nation states survive in more or less their current form and will these states create regional economical (and perhaps political) blocs?

President Havel also proposed a „direct global tax“: „Every person on the planet should one day contribute to the U.N. a microscopic part of their income in as direct a way as possible, so it would be clear that this organization has been established by mankind for itself“. Do you think that U.N. should implement a „direct global tax“? Could such a tax become source of income to balance development differences among regions of the world (similarly as for example it is done within EU)?

6. The U.N. Trusteeship Council has received an excellent reputation in developing countries for successful decolonization. Maybe we are now at the beginning of a „second decolonization“ (break of Yugoslavia, former USSR, in the future possible break of some African states like Sudan, maybe break of China, India, Indonesia...). Should we somehow try to manage this process (if it occurs) to prevent chaos and anarchy (like for example in Kosovo in Yugoslavia)? Do you think that Partnership for Sustainable Development („global Marshall Plan“) coordinated through U.N. Trusteeship Council is the best candidate for this task or do you have other opinions or ideas?

7. Finally, do you have some additional comments to Partnership for Sustainable Development?

Interviewer thanks the interviewee and reminds them that they will get a copy of the results of all the interviews and other research of the Millennium Project in the 2001 State of the Future Report that should be out in mid-2001. Make sure that his/her name, title, and organization are written correctly.

As soon as possible after the interview, write up your notes about the interviews and send to nov@risc.upol.cz with a copy to jglenn@igc.org, tedjgordon@worldnet.att.com and acunu@igc.org. Please do not send them all at the same time in the end. The form of the write up that we have found works best is to write the notes as though the person who was interviewed is preparing the write up. Also make sure that the name, affiliation, address, and title of the person interviewed are included. The last interview should be sent by 29 January 2001.

APPENDIX 4. PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT-RESULTS OF THE QUESTIONNAIRES

AC/UNU MILLENNIUM PROJECT – CENTRAL EUROPEAN NODE

PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

RESULTS OF ROUND 1 AND ROUND 2 QUESTIONNAIRE

Part I:

1. What do you think are the motivations for PSD?

This question asks your views on the motivations that might engender such a program now. Listed below are several examples; we ask you to assess each and add to the list, using the following scale:

- 5= *Unquestionably a key motivation*
- 4= *May be an important motivation*
- 3= *Possibly a motivation, possibly not*
- 2= *Would detract from the attractiveness of a program*
- 1= *A reason not to pursue the program*

| POSSIBLE MOTIVATIONS | Importance |
|---|-------------------|
| Improve the environment for the benefit of mankind | 4,60 |
| Improve development alternatives for developing countries | 4,16 |
| Human solidarity | 3,91 |
| Danger of North becoming "a ghetto of the rich" (surrounded by the sea of frustration and anger, immigration waves, etc.) | 3,50 |
| Provide a feeling of self-confidence, self-respect and dignity (those who trust themselves are broad minded and tolerant towards others) | 3,18 |
| Correct historical "wrongs" (colonization, cheap labor, import of energy and raw materials) to avoid the phase of primitive and environmentally dangerous industrialization | 3,09 |
| NEWLY SUGGESTED MOTIVATIONS: | |
| To secure global equitable development in peace | 4,23 |
| <i>Provide a feeling of self-confidence, self-respect and dignity (those who trust themselves are broad minded and tolerant towards others)</i> | 3,64 |
| <i>Prevention of possible conflicts between the North and the South and within the regions (it is the own interest of the rich to prevent outbreak of conflicts in the poorer regions of the world). Uncertainty about character of possible conflicts in the 21st Century</i> | 4,14 |
| <i>Improve the involvement of the business sector in achieving sustainable development goals</i> | 3,82 |

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|---|------|
| <i>Nonsustainable development may give rise to “development” (ecoterrorism, riots, wars over scarce natural resources, ecological refugees)</i> | 3,57 |
| <i>Collaboration between downsized governments and emerging civil society</i> | 3,50 |
| <i>Narrowing a gap between rich and poor countries</i> | 3,77 |
| <i>Need for global politics and rules in the age of globalization</i> | 4,05 |
| <i>Development of common infrastructures (information, financial, transport)</i> | 3,59 |
| <i>Spiritual advancement (transformation) of Mankind</i> | 3,14 |
| <i>National governments understanding of environmental problems and taking decisions to assign High Priority</i> | 3,77 |
| <i>Involve private firms and corporations</i> | 3,55 |
| <i>Ensuring of survival of humanity</i> | 3,86 |
| <i>Forge durable and sustainable development partnerships based on equality and mutual respect between developed and developing countries</i> | 4,05 |
| <i>Need for a supranational authority to enforce the program with loss of sovereignty</i> | 2,64 |
| <i>To promote the principles of global tolerance and universal ethics</i> | 3,64 |
| <i>Peace keeping both on the local and global level</i> | 3,91 |
| <i>Promote a feeling of global responsibility for all forms of life</i> | 3,71 |

2. If the money were easily available, what could, in your opinion, be the long-term most appropriate goals of the project?

Clearly the overall strategic goal is progress towards a sustainable and compassionate society. Please review the following list of goals that might be associated with the project and provide your views on how important it is to include the goal in a final statement of the objectives of such a project. Please use the following scale:

- 5= Essential; must be included as a project goal*
- 4= Important*
- 3= Useful to be included*
- 2= Detracts somewhat from the essential objectives*
- 1= Counterproductive*

| POSSIBLE GOAL | Importance |
|---|-------------------|
| Eradicate the extreme poverty and most dangerous diseases | 4,55 |
| Save the global environment | 4,39 |
| Encourage ecologically economical technologies | 4,25 |
| Provide better access to efficient and environmentally friendly technologies | 4,09 |
| Concentrate on global and acute regional ecoproblems | 3,91 |
| Establish a world program for ecological education | 3,89 |
| Stabilize the world's population | 3,82 |
| Enhance research and development capacities in developing countries | 3,82 |
| Employ people (the most valuable resource of a country) | 3,70 |
| Mitigate tensions between developed and developing countries | 3,66 |
| Induce a change of economic norms for evaluation of ecological impact | 3,64 |
| Remove the obstacles which prevent economic development | 3,59 |
| Establish mutually beneficial terms of trade | 3,48 |
| Revive the infrastructure | 3,41 |
| Create a new generation of international agreements | 3,28 |
| Create middle class (stabilizing element of society) | 2,93 |
| NEWLY SUGGESTED GOALS: | |
| <i>Encourage and support movements of selfhelp on a local level (e.g. tree planting, conservation of rare habitats etc.)</i> | 3,82 |
| <i>Global Poverty Alleviation, Elimination and Prevention (First Critical Step: Write-off the Third World Debts completely)</i> | 4,14 |
| <i>Ensure the involvement of the business sector in sustainable develop.</i> | 3,52 |
| <i>Create economic incentives to promote sustainable development</i> | 4,09 |
| <i>Ensure a public process for a broad range of stakeholder involvement in sustainable development</i> | 3,73 |
| <i>Create strong international (regional and global) institutions to monitor progress and failure in sustainable development (and not just assessments of the state of the environment)</i> | 3,82 |
| <i>To promote sustainable production and consumption patterns</i> | 4,00 |
| <i>To search for values compatible with sustainable way of living</i> | 3,70 |
| <i>Dismantle the vicious circle as how economic growth, population growth (explosion and implosion) and environment degradation are tied at present together</i> | 3,95 |
| <i>Promote development of genuine partnerships among different global actors</i> | 3,77 |
| <i>Mitigate waste</i> | 3,68 |
| <i>Introduce economic instruments protecting the environment</i> | 3,82 |
| <i>Introduce legal instruments protecting the environment</i> | 3,95 |
| <i>Integrate ecological and economic development</i> | 4,23 |
| <i>Explore new ways of inducing cooperation</i> | 3,59 |
| <i>To protect local cultural and religious tradition</i> | 3,65 |
| <i>To promote universal human rights awareness and education</i> | 3,82 |
| <i>Encourage individuals to take a more responsible attitude to life</i> | 3,64 |

3. If the goals in Question 2 were set, what would be the role of different groups of countries for the Project?

Various regions of the world could be involved in this project in various ways: as financial donors, as donors of information and on-site assistance, as sites for testing of program prototypes, as recipients, etc. Consider the following types of countries and provide your judgments about the contributions they might make:

- A. Highly developed countries such as the US, Japan, and Canada
- B. Emerging donor countries such as the Czech Republic, Poland, and South Korea
- C. Countries in deep economic trouble such as the Sub Saharan countries
- D. Countries with massive populations such as China and India
- E. Resource rich countries such as Saudi Arabia
- F. Countries that are not concerned about the world interests

Please rate each suggestion with respect to each country type using the following scale, and add to the list.

5= The stated means of involvement is completely appropriate

4= The stated means of involvement is somehow appropriate

3= The stated means of involvement is questionable

2= The stated means of involvement is inappropriate

1= The stated means of involvement is impossible

| POTENTIAL INVOLVEMENT | A | B | C | D | E | F |
|--|------|------|------|------|------|------|
| 1. Direct financial grants | 4,86 | 3,73 | 1,63 | 2,63 | 4,21 | 2,44 |
| 2. Technical assistance programs | 4,76 | 4,11 | 1,94 | 3,19 | 3,36 | 2,48 |
| 3. Site for program experiments | 3,21 | 3,77 | 4,16 | 4,31 | 3,24 | 2,94 |
| 4. Recipients of large scale financial aid | 1,84 | 2,50 | 4,62 | 3,64 | 2,06 | 2,56 |
| NEWLY SUGGESTS AREAS OF INVOLVEMENT: | | | | | | |
| Peace keeping operations | 4,60 | 3,67 | 2,30 | 3,50 | 3,43 | 2,30 |
| Educational programs | 4,76 | 4,43 | 2,86 | 3,95 | 3,45 | 3,00 |
| Management | 4,40 | 3,89 | 2,56 | 3,50 | 3,00 | 2,33 |
| Direct foreign investment | 4,50 | 3,52 | 1,55 | 2,90 | 4,09 | 2,25 |
| Promoter of unilateral or regional agreements and policies for sustainable development | 4,45 | 4,18 | 2,76 | 3,91 | 3,73 | 2,57 |
| Schooling of experts | 4,81 | 4,43 | 2,30 | 3,02 | 3,60 | 2,50 |
| Student teacher exchanges large scale | 4,62 | 4,43 | 3,29 | 3,86 | 3,62 | 3,14 |

4. Potential projects for recipient countries/regions and their importance

There are many types of projects that are potentially beneficial to recipient countries. Please

add to the list and provide your judgments about the level of benefit the project will provide and the likelihood that such projects will be implemented.

Importance

5= *Extremely beneficial*

4= *Beneficial*

3= *Generally positive but must be accompanied by other actions*

2= *The positive and negative consequences balance*

1= *Counterproductive, will do more harm than good*

Likelihood

5 = *Almost certain*

4 = *Likely*

3 = *As likely as not*

2 = *Unlikely*

1 = *Almost impossible*

| PROJECTS FOR RECIPIENT COUNTRIES | Level of benefit | Likelihood |
|--|------------------|------------|
| Develop and support ecologically based agriculture to reduce large consumption of water, energy, and other material inputs in agriculture | 4,38 | 3,65 |
| Include environmental costs in the pricing of natural resources and products | 4,12 | 3,59 |
| Immunization programs | 4,05 | 4,20 |
| Increase national and international efforts to build communities that provide models of sustainable economic development | 4,00 | 3,59 |
| Continue to support and promote all modes of family planning by subsidizing and distributing contraceptives and by promoting programs to improve health care, diminish infant mortality, improve literacy, and involve women in the monetary economy | 3,95 | 3,94 |
| Triangles of cooperation (donor country provides financial support, emerging donor country provides cheaper labour and lower costs of the project and recipient country is the receiver of assistance) | 3,90 | 3,53 |
| Create taxes or fees for the most environmentally damaging activities with revenues collected to be used to subsidize the acquisition of environmentally safe technologies | 3,83 | 3,41 |
| Establish an international technology bank, funded by country pledges, that could acquire the rights to innovate „green“ technologies so as to make them more easily available to environmentally less advantaged countries | 3,79 | 3,06 |
| Disaster relief programs and insurance of developing countries with international insurance companies | 3,74 | 3,12 |
| Jobs beneficial to the public (planting and maintenance of trees,...) | 3,66 | 3,71 |
| Create institutions for increased global environment protection (for example the International Court of Environmental Arbitration and Conciliation) | 3,63 | 3,12 |

| | | |
|--|------|------|
| Create (via UNEP, WTO, other IOs) international teams to define terms, standards and measurements necessary for commonly applied environmental policies (tax incentives, labels, etc.) | 3,63 | 3,53 |
| Create tradable pollution permits that regulate global emission limits for countries or industrial sectors | 3,21 | 3,53 |
| Pursue policies to minimize the need for travel, such as local production and telecommuting | 3,20 | 2,94 |
| Adoption at a distance (Children International) | 2,95 | 3,18 |
| NEWLY SUGGESTED PROJECTS: | | |
| Facilitating access to information technology – Internet | 4,14 | 4,06 |
| <i>Establish systems of environmental statistics, indicators and accounting</i> | 3,95 | 3,89 |
| <i>Evaluation of real steps from countries which are on the route to sustainable development and making them public (a kind of the state of the art)</i> | 3,91 | 3,83 |
| <i>Promote fair trade practices</i> | 4,05 | 2,89 |
| <i>Encourage foreign direct investment in least developed countries</i> | 3,68 | 3,06 |
| <i>Special programs for preserving cultural heritage</i> | 3,86 | 3,17 |
| <i>Promotion of international cultural educational and scientific exchange</i> | 4,32 | 4,00 |
| <i>Diminish subsidies to environmentally damaging activities</i> | 4,41 | 3,28 |
| <i>Identify international projects to which both rich and poor countries can contribute in areas of their competence</i> | 4,10 | 3,56 |
| <i>Find programs that encourage reverse brain drain</i> | 3,86 | 2,94 |

Comments of participants in Round 1:

Recipient countries are usually poor. Ecologically based agriculture is still less efficient (short-term) so the incentives are low. However this is a long-term goal for all agriculture and natural resource management.

Family planning and contraceptives: My conviction is that this issue cannot be seen only from the economical point of view. It involves judgment over somebody else's traditions and morality. In this box good and controversial ideas are mixed together.

International Court of Environmental Arbitration and Conciliation – as a moral arbiter perhaps, as a law enforcing institution no.

If poverty is the global problem, and it is, then its core cause needs to be eliminated: ever, extremely and endlessly exploitative Capitalism.

Ethical Market economics: Try Islami Economics – open-mindedly.

The Brundtland definition of sustainable development is opaque. It has created more confusion (and indicator proliferation) than solutions. E.g. what are human needs? What's the time frame (how many generations?) Where's the environment? I suggested more operational definitions of (a) sustainable growth as non-declining "green NDP" or non-negative green capital formation (from environmental accounting); and (b) sustainable development as the set of development programmes which meet targets of human needs satisfaction (to be specified explicitly) without violating long-term natural resource capacities, standards of environmental quality and social equity (see for an elaboration, my book (1994) on „Environment, Growth and Development“ or more recently: Wuppertal Paper 98 „Economic Growth and Patterns of Sustainability –

www.wupperinst.org).

There is no clear definition of motivations and goals of the PSD project – some motivations could be goals too (and opposite).

Fulfilling basic human needs and improving the quality of life are the main objectives of any development process. These objectives must be realized as the capacity to achieve social and economic growth in an environmentally sustainable manner, based on a long-term perspective in order not to jeopardize the interests of future generations.

Global approach to the problem sometimes became subject of contradictions to implementation process on national level. When elements of sustainability are assessed all national obstacles should be considered.

For about 70 years Soviet schoolboys and schoolgirls had learned about negative influence of US “Marshall Plan” on development of Western democracies. I mean that the cooperation of rich and poor countries is very delicate issue. Examples of such successful cooperation are very important and information about them should be disseminated by a country-recipient, first of all.

I find the proposal good in general. Although at this stage it seems to encourage too much international bureaucracy and too little the formation and development of skilled local professionals and experts.

The Global Marshall Plan is charismatic, for Marshall Plan (and not used under the real name “European Recovery Program”) demonstrated for the first time a broad scale international development project which was successful, hence, different from numerous “partnerships”, which are now on the agenda and don’t really work

The crucial areas should be singled out: rain forest, taiga, oceans – to be handled as top priorities

New paradigms (different than present notion of “new economies”) of economies of sustainable development should be enhanced

New philosophies based on the use of intelligence and world ethos should be propelled, i.e. also involvement of major religions

Because of costs of failure, from an ethical point of view “experimentation” should not be part of global strategies of sustainable development.

Especially in the traditional societies involving women in the monetary economy should be counterproductive and destroy the family structure and stability as seen in South-East Asia.

This questions are important. In our state there is not a good knowledge of these problems – especially of the consequences.

Part II:

1. What do you think are key preconditions for successful implementation of PSD?

Listed bellow are several examples, we ask you to assess each and add to the list, using the following scale:

Importance:

Likelihood that such a precondition will exist

5 = Unquestionably a key precondition
 4 = May be an important precondition
 3 = Possibly precondition, possibly not
 2 = Unimportant
 1 = Does not have significance at all

within the next decade:

5 = Almost certain
 4 = Likely
 3 = As likely as not
 2 = Unlikely
 1 = Almost impossible

| PRECONDITIONS FOR SUCCESSFUL IMPLEMENTATION | Importance | Likelihood |
|---|-------------------|-------------------|
| Projects long enough and intensive enough to contribute to a fundamental change in the orientation of development | 4,41 | 3,69 |
| Active participation of NGOs in the recipient countries | 4,18 | 3,84 |
| Functioning democracy in recipient countries | 4,27 | 3,26 |
| Respecting human rights and international law(s) in recipient countries | 4,45 | 2,90 |

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During World Conference on Environment and Development in Rio de Janeiro, 1992, developing countries demanded 125 billion USD/year (0,35% of Gross World Product) for Agenda 21 implementation. In 70's Nobel Prize Winner Jan Tinbergen and later U.N. suggested transfer of 0,7% GDP/year from developed to developing countries through bilateral and multilateral development aid. These suggestions have not been realized.

Is it possible to identify potential resources not at national but international (global) level to finance PSD? Listed bellow are several suggestions. Please rate them and add to the list, using following scale:

Importance as a source

5 = Essential; must be included as financial resource
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 3 = Of modest importance
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 1 = Counterproductive

Likelihood that source will be used

5 = Almost certain
 4 = Likely
 3 = As likely as not
 2 = Unlikely
 1 = Almost impossible

| RESOURCES TO FINANCE PSD | Importance | Likelihood |
|--|-------------------|-------------------|
| International carbon tax and/or tradeable emission permits on CO ₂ | 4,05 | 3,33 |
| Tax or charge foreign currency transactions ("Tobin's tax") | 3,77 | 2,89 |
| Computer-based network of foreign currency exchange to gain flow of income for the operating agency through user charges (R. Mendez) | 3,29 | 2,94 |
| Taxation of multinational corporations | 4,09 | 2,84 |
| Charge (tax) for the use of some common global resources | 4,05 | 3,00 |

| | | |
|--|------|------|
| (surcharge on airline tickets for international flights, ocean maritime transport, fishing in Antarctica, parking fees for geostationary satellites,...) | | |
| Taxation of MNC's commercials | 3,44 | 3,00 |
| Direct global tax (every person on the planet should contribute a microscopic part according to his/her income) | 3,68 | 2,37 |

3. Who should coordinate Partnership for Sustainable Development?

Despite all of the controversy surrounding the United Nations and its programs, the UN is probably best candidate to coordinate PSD. Within the existing UN structure perhaps UN Trusteeship Council is the best candidate because of excellent reputation in developing countries for successful decolonization and previously exercised leadership over the trusteeship territories. Can you suggest other candidates within or outside UN Structure?

The most frequently respondents identified UN as the best candidate. Here are some answers:

I see no other candidate to be coordinating PSD but UN. That is obvious that the UN Trusteeship Council in the best for this purpose.

UN Commission on Sustainable Development should coordinate PSD.

The best would be a sort of co-ordination group composed by representatives of principal international organizations and NGOs. Within UN, the involvement of WHO, UNEP, HABITAT and FAO would be essential because of their roles in the road to sustainability. UN Trusteeship Council is the best candidate.

The U.S. has the most experience how to draw and implement Marshall Plan. It can mobilize activities of banks, enterprizes and other actors of this global endeavour. ... UN can accomplish another part of this important work like participation of countries and the general acceptance of the project. NGOs should be important players as well.

The contemporary UN is not the best candidate. UN reminds much more huge bureaucratic office than effective community to solve real problems of the world. The best candidate is radically reformed UN working in cooperation with large network of various NGOs.

There are many dangers in having a single coordination for such a plan. What is needed is a common agenda that existing global institutions, with their different strengths and approaches, seek to implement together.

Transnational charities like Oxfam, Médecins sans Frontieres etc. are good candidate. These organizations have a wealth of expertise in tackling poverty and development issues at global level.

Theoretically there could be several NGO (international) agencies specializing in fundraising and fund distribution in needed countries and projects. These would work under the auspices of UN (regular audits) to maintain their moral and fiscal integrity. Their impact would have to be direct and visible with low overhead cost.

4. Examples of “success stories”

During the course of history there has appeared several times an idea which is ingenious in its simplicity, which, when it was realized, became a catalyst for positive far-reaching changes. The Marshall Plan (A Program of European Revival) shows how a grandiose vision can be successfully transferred into the shape of particular activity. Perhaps other examples could be found – investments to railroads and following development of North America; or investments to cosmic exploration. In both cases investments approximately equals one percent of U.S. GDP; investments to the Program of European Revival (Marshall Plan) were for several years equal two percent of U.S. GDP.

Can you identify other examples of “success stories” which became catalyst of significant positive changes? Please write them bellow:

The respondents identified some interesting examples of “success stories” and/or made some additional comments:

The most obvious example is industrialization in 18th Century England. Much of the world economy came to be based on this, with huge increase in both GDP and standards of living, especially in material terms. The Industrial Revolution also illustrates the ecological and social dangers of sudden economic and wide-ranging growth.

Many NGOs Funds are examples of „success stories“.

Rural water supply and sanitation programs in Peru, Colombia and some Central American countries in the 60’s and 70’s.

New Deal of F. D. Roosevelt.

The development of information technology should be mentioned though it has brought about both the advantages and disadvantages.

Investment to railroads and following development of North America mentioned as example is not „success story“ –what about genocide of original population and their culture?

Kerala state in India – poor state but with efficient social policy eliminating poverty, illiteracy, illnesses.

Grammeen Bank in Bangladesh offering loans (microcredits) for farmers, craftsmen and shop-keepers enables enterprising also for the poorest citizens.

European Union – the support from EU funds contributed to modernization, economical development and enforcement of democracy in the „southern“ countries: Spain, Portugal, Greece.

Doctors without borders in the area of health and medicine.

“Stabilization Fund” for Poland in 1990 and debt relief for Poland and Bulgaria in early 1990s.

Educational assistance for the East in early period of transition (economic, management, public administration).

International initiatives by Rotary International – Polio vaccination.

Development of new species of grain for India in the 1960s.

Earth Day (which launched a worldwide movement; Earth Day was the translation of a vague

concept into a popular energizing mission. However, the subsequent activity was not as specific as the Marshall Plan).

Endangered species act (in U.S.); crystallized vague concepts into simple vision to preserve species.

APPENDIX 5. PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT-RESULTS OF THE INTERVIEWS

After two round questionnaire and its evaluation we asked decisionmakers, NGOs leaders and representatives of business community to answer seven questions in personal interview. Eighteen opinion leaders from six countries participated (Azerbaijan, China, Italy, Romania, Slovak Republic, Ukraine). The aim of the interviews was to explore the possibilities of effective policies and implementation of the Partnership for Sustainable Development.

Following are some selected comments:

Question No. 1:

In 19th Century British capital enabled development of U.S. After 2nd World War on the contrary Marshall Plan enabled reconstruction of Western Europe. Similarly cheap raw materials and labor force in former colonies helped to industrial development of Western Europe. Do you think it is possible to help developing countries now through Partnership for Sustainable Development to start process toward sustainable development?

The development of U.S. by British capital in the 19th Century was a kind of industrialization, which cannot be mentioned as sustainable development in today's view, particularly in view of environment, so is the case of post war reconstruction of Western Europe in the middle of the 20th Century. It is therefore necessary to develop such Partnership for Sustainable Development to help developing countries to avoid the mistakes occurred in the developing stage of the developed countries. The sustainable development of the developing countries will help, on the contrary, the global stability which will help to insure the benefits of investors from the developed countries to the developing countries and finally promote the global prosperity.

Any cent of the invested money cannot be aided without any intentions of those providers. They can use the flag of „protect the only planet of human being“ to ask the underdeveloped countries to slow down the speed of economic development so that they can make as full use of the bearing capacity of the nature as they can. ... The capacity of implementation is another problem. In many underdeveloped countries, institutions and human resources are not sufficient. This can greatly discount the results and efficiency of implementation.

In the South-East Europe the Pact of Stability announced a sort of Partnership for Sustainable Development. A lot of meetings, conferences, projects but few money; 2.4 billions USD, officially announced by the donors but much less in reality. ... A model could be the big investments with American money from pension funds.

The Marshall Plan was feasible thanks to stable currency. The stable currency is a very important factor of big investments and, hence, makes the process of sustainable development rapidly progressing.

There are some issues that should be solved immediately by governments of developing countries. I mean creation of sustainable „atmosphere“ for investment process, i.e. developing democratic reforms, building civil society, respecting international laws, and, of course, a

decisive struggle against such problems as corruption and bribery.

The social-political and economical situation in the world was absolutely different from today's one while the Marshall Plan was implementing for Western Europe. At the present time, when there is not already the Soviet Empire, and most of the developing countries are open to accept the Marshall Plan, another problem arises – fundamental reformation of former planned economy to a market way. I think all this is a serious barrier to the Marshall Plan implementation at the present time.

Times have really changed and the recipient countries should be in the position to chose what is important for THEIR Sustainable Development.

It is the only chance for overcoming present global crisis. Better way for Western civilization as to defense against migration from the Third World with arms is to invest in the Third World development.

Question No. 2:

There are at least six types of impediments to successful implementation of PSD:

- a) Financial impediments such as lack of funding;*
- b) Institutional impediments such as the fact that no one until now has responsibility to act;*
- c) Political impediments such as the action interferes with national interests;*
- d) Cultural impediments such as roles of men vs. women, racism or ethnocentrism;*
- e) Psychological impediments such as the fear of making a mistake of looking silly;*
- f) Information impediments such as the lack of reliable and sufficient data and information, or the uncertainty of the risk.*

Can you name some examples that you might be aware of within these categories? Can you add other categories of impediments?

Technology can also become an impeditive factor to successful implementation, such as alternative technologies and assembled technologies etc. Fertilizer pollution in agricultural production, traditional industrial pollution etc., are very serious problems in developing countries, how to seek alternative technologies or how to assemble some new technologies to overcome these problems is still worked out.

Major impediments are not the lack of funds, but political and institutional ones. Political impediments are related to the donor's countries, while institutional ones are related to international organizations (such as UN) and the recipient countries (underdeveloped world). I could also add an impediment which refers to the lack of infrastructure.

IMF and the World Bank are not responsible for the failure of the reforms in different developing countries and for programs that could have also negative effects. ... Due to the difficulties of the transition and after decades of totalitarian system there are no psychological impediments – especially for the young generation or for those Romanians who have changed their mindset, understanding that the most important strategically resource of their country and of themselves is the work only, the hard and the efficient work. ... A decade of transition experience in Central Europe indicates that risk should not be perceived only as a negative element; it could also be

seen as a challenge offering opportunities for a new beginning.

If we consider as example the Caucasian region, I would emphasize the following impediments: First of all, these are political and financial impediments characterized by wrong, unbalanced policy of authorities. Any important decision of the President and his surroundings is accepted and approved by Parliament and Constitution Court with no discussion. Society's opinion is presently nothing to influence on any policy in the country. ... Most of state appointments is based on the individuals who come only from one local region. ... The society has no possibility to know or get any confidential information about natural resources of the country or the most interesting, of how national income and annual revenue are managed and spent.

The political instability is principal prevention of contributing an investment in economy of developing countries. Moreover, this causes the difficulties to elementary cooperation in all spheres of activity in the whole. An example with Afghanistan is obvious evidence of this. ... One of the most principal impediments for the PSD is the fact of involvement of great world powers like the United States, EU, Russia, China in a way of regional domination.

The lack of information about the production ability and export potential of developing countries is one of the main obstacles to development of trade among these countries. Therefore, it is important to accelerate the activity of international organizations and Chambers of Commerce in support of information exchange. ... Besides the above, imperfect legislation, corruption, higher tax rates and customs bureaucracy in some countries allows the flourishing of shuttle trade and smuggling. That is why the PSD implementation is urgently needed. It is necessary to protect small businesses through governmental institutions. Special customs and tax laws for trading in a number of the regions would considerably support the development of cooperation and integration.

Except cultural impediments that are different from country to country, the remaining 5 categories may be found in every developing country. Another category of impediments may be corruption, which affects the most vital structures of society and violation of human rights and minorities rights, which lead to local conflicts, often turned into regional crises.

Psychological impediments – fear of making mistake is typical for very competent people. The training is necessary in this area.

In different regions also different type of impediments play the key role. SWOT analysis (strengths, weaknesses, opportunities and threats) of the recipient countries would be helpful.

Political impediments – it is necessary to move from verbal support and declarations toward concrete policy and projects. ... Information impediments – in post-communist countries great impediment is habit for collective decision and the shift toward individual responsibility is great problem.

Question No. 3:

Big financial investments are necessary to develop underdeveloped regions. They are available as private capital which is avoiding the most underdeveloped and politically unstable regions. Would it be possible and efficient to create (within UN for example) insurance fund to

eliminate or reduce the risks of investing in the poorest regions? Do you have other idea how to attract private capital to the poorest regions?

It might be also interesting to create some kind of U.N. or international prizes to acknowledge active donors to the poorest regions. The successful private donors need to expand their business, the international or U.N. prizes will help to increase their reputation and public visibility which will be in turn helpful to their business.

The efficiency of this fund is doubtful. It is too complicated a procedure to supervise the implementation of the investment in the poorest countries. ... The only possible way is to help set up the self-restriction systém in the poor countries. Institutions need perfecting, such as laws and regulations, auditing system, accounting system, and training.

UN could create an insurance fund with the support of G7 and of international financial institutions (IMF, WB, EBRD).

One opportunity is to use the huge amount of money existing in pension funds in the West for projects in developing countries. ... Bringing to the light the grey economy, representing between 20 and 60 percent of the real national economy, could be an important instrument in raising funds for these activities.

Though it sounds pretty well, establishment of something like the insurance fund within UN or other organization would not be constructive and effective in the regions where there is geopolitics of great powers. ... The only way to attract private capital to the poorest regions is the creation of stable political and social situation with secure economic development.

That is necessary to create something like insurance fund at UN or at any other authoritative organization in order to be guarantor of huge investments to the poorest regions. ... Political stability and strong legislation are basic factor of the investment process. Let me give you here one example related with Black and Caspian Seas region. With potentially large quantities of oil in the Caspian and demand for that oil in Europe, the region has enormous potential for economic prosperity and integration with the world economy. Pipeline projects, financed by multinational oil consortiums, have the potential to be one of the most integrating forces in the Black and Caspian Sea Basin. Increased prosperity and integration could, in turn, foster greater stability in the region. Political dynamics, however, have thus far impeded all of the proposed pipeline routes, frustrating investors and preventing integration. ... That investment will not come until the government of the countries meet four basic criteria: 1) they must be transparent; 2) they must be accountable; 3) they must respect the rule of law; 4) they must provide a secure environment if they wish to attract business.

Private capital might be attracted also if the American or Western European investor would understand the importance of his role in creating a strong market economy in the poorest countries, which should ensure a stable political environment in those countries. Thus country which is a developed one, would no longer be threatened by refugees' invasions, by the extension of local crises or drug and weapon traffic which are the result of the economic disaster in the poorest countries.

Making free economic zones, introducing private property in land as well as giving some privileges to investors would promote to attract private capital to the poorest economies.

One of the ways to attract private capital is to reform the financial sector to increase the independence and transparency of the central bank and the power of the banking system.

Good idea, but it is necessary to rise authority of the insurance fund e.g. within UN for the purpose of elimination possible misusing this insurance fund.

Question No. 4:

Should the Partnership for Sustainable Development be provided to developing countries without any preconditions or is it necessary for the recipient to accept commitments concerning especially human rights and respecting international law? Also, should it be up to them to determine how the money will be spent or should the donor countries have the final say? What can be done about corruption that might siphon off funds?

Commitments required should be based on the respecting of the cultures of recipients. ... Some joint committees seem necessary to achieve such agreements. Concerning the corruption, it is also mutual. On the recipient side, the corrupted recipients might siphon off the funds, and on the donor side, some corrupted donors might „donate“ the rubbish, which might be dangerous, to the innocent recipients.

It is not necessary for recipient to accept commitments concerning especially human rights and respecting international law, because the definition of the human rights is different in different countries.

Partnership for Sustainable Development should have a double mission: developing local social and economic infrastructure and promote economic development programs. Social infrastructure is essential for creating the conditions for absorption of foreign capital, combating corruption, protecting human rights, developing democracy, etc. Social infrastructure means primarily institutions, governmental and non-governmental, private, etc.

The “new money” has to come with the “new people”. The young people, trained abroad and with experience of international institutions, assisted by the experts of IMF and World Bank have to be appointed in key positions as a requisite for providing the money. ... A new elite could be created and implemented through this system. Corruption can be put under control with a package of measures including the denunciation of any corrupt transactions or decision taken without the necessary transparency.

Preliminary conditions are an extremely necessary factor in the regions where corrupted government mainly manages investments coming in their country. ... World experience demonstrates that the recipient is mostly unable to spend the means in the best way.

Preconditions are very necessary step to PSD process. Donor organization, country or private investor should control all the investment process. Countries getting a financial support are in not only deep economical crisis but also have great problems with human rights violation, observing the law, corruption, bribery, etc.

I would recommend to the government to follow the below suggestions:

Place part of capitals and revenues in a trust fund or in foreign assets abroad for slower and more gradual drawdowns as domestic capacity expands.

Avoid the easy but hazardous road to hasty industrialization, particularly where inadequate skilled labor, technological expertise, and management know-how can not support sophisticated high-tech ventures.

Resist the temptation to squander foreign exchange revenues and investments from international organizations on increased domestic consumption to placate a restless population. Avoid raising wages beyond labor productivity, cutting taxes, and increasing subsidies. Instead, encourage domestic saving by adopting tight fiscal policies and limiting subsidies to truly needy recipients in a well-planned safety net.

Coordinate fiscal, monetary, and exchange rate policies so as to strengthen the economy's supply side. Cut profligate public spending and resource waste as much as possible to prevent inflation and growth-impeding currency appreciation.

Check the raising dominance of the state over the economy by developing market mechanisms, including a liberal trade and exchange system, privatization, regulations on capital flows, and the speedy deregulation of prices, wages, and interest rates.

As for the corruption it is very necessary to strengthen the judicial system so it can fight corruption.

The developing countries have to determine how the money has to be spent or else we shall have the same effects as in the past with loans and debts.

In particular situations, when poverty in certain countries reaches alarming levels, endangering population surviving, I do not consider preconditions should be imposed before providing global Marshall Plan. But, generally speaking, I think the recipient country should accept and engagement to respect human rights and international law. ... Among those who coordinate fund distribution should be recipient country's citizens as well, people who are familiar with local realities.

It is very important for donor to know cultural and religious traditions of recipient. Preconditions of aid must be strictly defined and must be transparent for both recipient and donor. Very important are also the wages of aid workers.

Human rights must be the part of sustainable development.

Very necessary are criteria for selection of workers. They must have appropriate stage of personal integrity as basic condition to avoiding corruption.

Respecting of international law is necessary. It is necessary to design common rules.

Question No. 5:

Czech president Václav Havel talked at the Millennium Summit in New York about his vision of the World Parliament within U.N. 100 years. Do you think that the world needs some kind of global governance or will the nation states survive in more or less their current form and will these state create regional economical (and perhaps political) blocs?

Prezident Havel also proposed a "direct global tax": "Every person on the planet should one day contribute to the U.N. a microscopic part of their income in as direct a way as possible, so it would be clear that this organization has been established by mankind for itself". Do

you think that U.N. should implement a “direct global tax?” Could such a tax become source of income to balance development differences among regions of the world (similarly as for example it is done within EU)?

It is better for this world to maintain the current state of self-governance, but the regional economical blocs are necessary. U.N. should implement a „direct global tax“ on the condition that the tax should be well supervised and controlled to avoid the corruptive persons to siphon it off. Such a tax can become a source of income to balance development differences among regions of the world.

In 100 years, the world would much probably have a „global government“ or at least „global institutions“ to deal with the problems of the so-called „global village“. However, regional blocs will continue to develop, but not against globalization. As about a „global tax“, there is already a form of it to the extent UN member countries are paying a fee that is from the public budget, i.e. from any citizen. A „direct global tax“ may complicate things instead of simplifying them.

Introducing such a „direct global tax“ UN could collapse without a deep reform of the whole institution. Paying the tax is an important chance to give the citizens all over the world the feeling that they have an ultimate place to solve their problems – unsolved at local, national or regional level.

Establishment of the global governance would not be sufficient and, consequently, effective for most of the nations and people over the world. The following reasons are preventing to creation of something like the World Parliament:

- factor of cultural, religious and racial differences of folks;*
- unsolved conflicts and problems between nations and people;*
- global distinction in geopolitical interest of great powers.*

Regarding the “direct global tax”, I think as Havel’s idea is very ambitious, it would not possibly be working because of impossibility for controlling and managing all the financial resources (for example, what purposes and how the global money will be spent for).

The World Parliament is anything what all countries but some great states dream about. I think it is a great idea that can be realized if some super-powers like US, Russia, China will allow and even promote this establishment. ... As for the “direct global tax”, it is obvious that if every person on the planet would contribute to the UN the amount of ONE US dollars in a year, which is roughly six billion dollars, such type of tax could become considerable at all to support economics of the poorest regions.

To my deep regret the UN is not always able to solve political and economical problems. The block formation is currently more viable and effective for national security of the developing countries. ... As for the “direct global tax”, though it sounds just fine, this is Utopian as well as creation of ideal union of all the states what was suggested such Utopists as Charl Fourier, Henri D’censimon, Rober Owen.

I do not think mankind is prepared for global governance. There are regions on the Earth where anarchy is a permanent presence because of political, economical and military crises. At the same time, the strongest states are joined in their own political and military organizations,

having their own governance principles. Before reaching an economical, political and military balance between all states, global governance will remain an unattainable ideal. ... I do not think U.N. is prepared right now to implement a direct global tax because of the big gap in the development level of various countries. In the future it would be very instrumental to be successful in imposing such a tax to create a U.N. fund, whose resources would be used to help developing countries. But, in order for this tax to be an income source, it should have a higher value/level for developed countries compared to the others.

I think President Havel's proposal is excellent: it would make all people more responsible and start as sort of global governance that is not overcoming completely the states which are at the moment weak economically in facing global economy and give them a sort of global role keeping the differences and at the same time giving them a mediating role between the citizen and the world.

It is necessary to reform UN system with possibility of transformation this system to global governance system. Nation states have the role in protection of cultural and historical continuity of individual ethnic. Ethnic values are also part of global values. Very necessary is here principle of subsidiarity. Global tax is very good idea – personal responsibility and transparency in using of global taxes.

It is very good visionary idea, win-win strategy. Global tax is the way to rise interest in global problems and also for participation in UN activities.

Question No. 6:

The U.N. Trusteeship Council has received an excellent reputation in developing countries for successful decolonization. Maybe we are now at the beginning of a “second decolonization” (break of Yugoslavia, former USSR, in the future possible break of some African states like Sudan, maybe break of China, India, Indonesia...). Should we somehow try to manage this process (if it occurs) to prevent chaos and anarchy (like for example in Kosovo in Yugoslavia)? Do you think that Partnership for Sustainable Development coordinated through U.N. Trusteeship Council is the best candidate for this task or do you have other opinions or ideas?

We should not try to manage this process because every people of a country have the right to determine the fate of their own country. The temporary chaos and anarchy will not hinder general progress of global society.

It is hard to speak on a “second decolonization” just for the sick of comparisons. Maybe it is enough to speak on the increasing globalization that is generating fragmentation and therefore regional conflicts. Of course, UN could get involved more than it is actually doing (peace-keeping, for instance). The Trusteeship Council could work on the prevention of chaos and anarchy and protection of human rights, if appropriate.

We cannot speak of a “second decolonization” because we are experiencing a contradictory way of development of the globalization and a new power distribution in the world.

I don't think we are able to control any process of decolonization. Maybe it would be better if the UN Trusteeship Council should be trying to coordinate the process after the decolonization is

fully finished. ... It seems to me that even positive interference in a process of the decolonization can have grave, or I would say very negative consequences.

The current practice shows that the UN is mostly unable to affect on some of regional states, which are within intent geopolitical attention of the great powers. ... Constructive reorganization of the UN would be an important step to do this authoritative institution capable of functioning to manage the world community.

Maybe a new economic organism or economic department within U.N. should be established, to be in charge of coordinating the Partnership for Sustainable Development, so that it should be implemented as soon as possible and to be efficient.

The UN Trusteeship Council could be a good instrument but the main point is to involve the local communities, intellectuals, actors of different kinds (see women who are silently rebuilding social structures when violence destroys them, see Rwanda, Uganda, and even Sudan or Bosnia-Herzegovina. Without this involvement no plan will be successful and this is based on my empirical research.

Question No. 7:

Finally, do you have some additional comments to Partnership for Sustainable Development?

A sustainable development for the former “Third World” would have to be well prepared at the level of government and public opinion. Conditions are now extremely favorable. However, a kind of small-scale experiment could help a lot before launching a “global Marshall Plan”.

The Partnership for Sustainable Development is a very important step towards the development of the poorest region all over the world. However, only time will show if the PSD is like it could work in making a progress.

Private sector partnerships that engage the vast resources – human, technological, and financial – of the business community are critical in achieving a success for sustainable development.

The PSD, so-called “global Marshall Plan” long-term model should be immediately undertaken to address complex global challenges. The current growth and character of world population, the pressure on the environment and natural resources, whether on water, land, air or energy, demand our joint collaborative experiences and foresight.

Sustainable development integrates goals for population and health with those of protecting the environment, building democracy, and encouraging broad-based economic growth. The Partnership for Sustainable Development would certainly be like it could work for improving the level of life.

It is good to realize this as 3rd Millennium vision of spiritualizing the civilization. Before great crisis were always great ideas, but very important is to realize these ideas.

APPENDIX G6: REFERENCES

- 1) <http://www.nara.gov/exhall/featured-document/marshall/marshall.html>
- 2) <http://lcweb.loc.gov/exhibits/marshall/mars0.html>
- 3) <http://lcweb.loc.gov/exhibits/marshall/mars14.html>
- 4) <http://lcweb.loc.gov/exhibits/marshall/m41.html>
- 5) Gore, A. (1992): *Earth in Balance*. Houghton Mifflin Company, New York
- 6) Glenn, J., C., Gordon, T., J. (2001): *2001 State of the Future*. The Millennium Project. American Council for the United Nations University, Washington, D.C.
- 7) The World Commission on Environment and Development (1987): *Our Common Future*. Oxford University Press, Oxford
- 8) UN Economic and Social Council, Commission on Sustainable Development acting as the preparatory committee for the World Summit on Sustainable Development (2002): *Implementing Agenda 21*. Report of the Secretary-General.
- 9) Fukuyama, F.(1992): *The End of History and the Last Man*. Avon Books, New York
- 10) Huntington, S.(1996): *The Clash of Civilization and the Remaking of World Order*. A Touchstone Book, New York
- 11) Barney, G.,O., Blewett, J., Barney, K., R. (1993): *Global 2000 Revisited*. Millennium Institute, Arlington
- 12) Kapuscinski, R.: Chudoba a planetární soliarita (Poverty and Planetary Solidarity). In: *Hospodářské noviny*, 16. 5. 1997 (in Czech)
- 13) Špidlík, T. (1991): K vyšším věcem jsem se narodil (To Higher Sense I Was Born). Alverna, Praha (in Czech)
- 14) The World Bank (2000): *World Development Indicators*. Washington, D.C.
- 15) International Conference on Financing for Development (2002): www.un.org/esa/ffd
- 16) Johnson, P. (1997): *A History of the American People*. Weidenfeld & Nicolson, London
- 17) Trisko, R., C. in: Menges, C., C., ed. (1999): *The Marshall Plan from Those Who Made it Succeed*. University Press of America, Lanham
- 18) The World Bank (1998): *World Development Report*. Washington, D.C.
- 19) Henderson, H. (1999): *Beyond Globalization. Shaping a Sustainable Global Economy*. Kumarian Press, West Hartford
- 20) Reuss, H., S. in: Menges, C., C., ed. (1999): *The Marshall Plan from Those Who Made it Succeed*. University Press of America, Lanham
- 21) Warren, J., C. in: Menges, C., C., ed. (1999): *The Marshall Plan from Those Who Made it Succeed*. University Press of America, Lanham
- 22) Hertsgaard, M. (1998): *Earth Odyssey. Around the World in Search of Our Environmental Future*. Broadway Books, New York
- 23) *Global Futures Bulletin # 79*. Institute for Global Futures Research. Earlville, Australia
- 24) The Commission on Global Governance (1995): *Our Global Neighbourhood*. Oxford University Press, Oxford
- 25) Sachs, J., D. (2000) in: *Forum 2000 Conference Proceedings*. Forum 2000 Foundation, Prague
- 26) Tarnoff, C. in: Menges, C., C., ed. (1999): *The Marshall Plan from Those Who Made it Succeed*. University Press of America, Lanham
- 27) Černoušková, M.: Rozdělení světa na připojené a nepřipojené (The World Divided into the „Connected“ and „Unconnected“). In: *Lidové noviny*, 5. 8. 2000 (in Czech)

- 28) K. Samuel-Johnson, D.C. Esty et al., 2001: 2001 Environmental Sustainability Index. An Initiative of the Global Leaders of Tomorrow Environment Task Force, World Economic Forum. Yale Center for Environmental Law and Policy, Yale University.
<http://www.weforum.org>
- 29) UN CSD, 2001: Highly Aggregated Sustainable Development Indices. Consultative Group on Sustainable Development Indicators, IISDnet <http://esl.jrc.it/envind/dashbrds.htm>
- 30) Glenn, J., C., Florescu, E., Gordon, T., J. (2001): Analysis of the United Nations Millennium Summit Speeches. Army Environmental Policy Institute, Atlanta
- 31) Christian Science Monitor, 24. 2. 1999
- 32) Daly, H., E., Cobb, B., J. (1989): For the Common Good. Redirecting the Economy Toward Community, the Environment, and a Sustainable Future. Beacon Press. Boston

REFERENCES

For Sustainable Development Index and Quality of Life Indicators

CZECH STATISTICAL OFFICE 1994-2003: Statistical Yearbooks of the Czech republic.
Prague: CSO < www.czso.cz>

GLENN, J. C., GORDON, T. J., et al. 2001: State of the Future. Washington, D.C.: The Millennium Project. American Council for the United Nations University,

HINTZE, J. L. 1997–2001: User's Guide – I, II, IV. NCSS Statistical System. Number Cruncher Statistical Systems, Kaysville, Utah, 3492 pp.

MEDERLY, P., NOVACEK, P. & TOPERCER, J. 2002: How to Measure Progress Towards Sustainability – The Sustainable Development Index. *Futures Research Quarterly*, 18,2, pp. 5-24.

MEDERLY, P., NOVACEK, P. & TOPERCER, J. 2003: Sustainable Development Assessment: Quality and Sustainability of Life Indicators at Global, National and Regional Level. *Foresight*, 5,5, pp. 42-49.

MEDERLY, P., TOPERCER, J. & NOVACEK, P. 2004: Quality of Life and Sustainable Development Indicators – Quantitative, Multivariate and Variant Approach. Prague: CESES, Charles University. Mscr, 73 pp.

MOLDAN, B. et al., 2000: Czech Republic 2000. Ten Years on: Environment and Quality of Life after Ten Years of Transition. Prague: Charles University Environment Center.

NOVACEK, P., MEDERLY, P. 2002: Global Partnership for Development. Study of the Central European Node of the Millennium Project. Olomouc: Palacky University Press.

POTUCEK, M., et al. 2002: Guide to the Landscape of the Czech Republic's Priorities. Prague: Gutenberg,. 686 pp. (in Czech)

POTUCEK, M., et al. 2003: Human Development Report. Czech Republic 2003. Prague: Charles University, UNDP, 128 pp.

PRESCOTT-ALLEN, R. 1999: Assessing Progress Towards Sustainability: The System Assessment Method. IUCN International Assessment Team / PADATA.
<www.iucn.org/themes/eval/english/index.htm>

SAMUEL-JOHNSON, K., ESTY, D. C., et al. 2001: 2001 Environmental Sustainability Index. An Initiative of the Global Leaders of Tomorrow Environment Task Force, World Economic Forum. Yale Center for Environmental Law and Policy, Yale University. <www.weforum.org>

SOKAL, R. R. & ROHLF, F. J. 1995: Biometry. 3rd ed. W. H. Freeman & Co., New York, 892 pp.

TER BRAAK, C. J. F. & ŠMILAUER, P. 2002: CANOCO Reference Manual and CanoDraw for Windows User's Guide: Software for Canonical Community Ordination (version 4.5). Biometris, Wageningen & České Budějovice, 500 pp.

UN 2000: Information for decision-making and participation. Report to the Secretary-General. Commission on Sustainable Development work programme on indicators of sustainable development. United Nations, Economic and Social Council, New York.
<www.sdi.gov/reports.htm>

UN 2000a: Report on the Aggregation of Indicators of Sustainable Development. Background paper for the ninth session of the CSD. United Nations, Division for Sustainable Development, New York.

UN 2000b: Indicators of Sustainable Development: Framework and Methodologies. Background paper for the ninth session of the CSD. United Nations, Division for Sustainable Development, New York.

UN CSD 2001: Highly Aggregated Sustainable Development Indices. Consultative Group on Sustainable Development Indicators, IISDnet. <www.esl.jrc.it/envind/dashbrds.htm>

UN DESA. 2000: Indicators of Sustainable Development. New York

UNDP 1990-2003: Human Development Report. United Nations Development Program, New York.

THE WORLD COMMISSION on Environment and Development. 1987: Our Common Future. Oxford. Oxford University Press

VAVROUSEK, J. 2000: Searching for Human Values Compatible with the Sustainable Ways of Living. In: Huba, M., Novacek, P., ed.: The World Perceived by the Heart of Europe. Olomouc : Palacky University Press (in Czech)

VOTOČKOVÁ, T. (ed.) 1998: Testing United Nations Indicators of Sustainable Development — Results of the Czech Republic. Prague: Czech Ecological Institute, 15 pp. + annexes (in Czech).

WORLD BANK 2003: World Development Indicators CD-ROM. The World Bank, Washington, D.C.

ZAR, J. H. 1996: Biostatistical Analysis. 3rd ed. Prentice-Hall, Upper Saddle River, 662+256 pp.

REFERENCES**For Partnership for SD and Sustainable Development Index sections**

Gore, A. (1992): *Earth in Balance*. Houghton Mifflin Company, New York

Glenn, J., C., Gordon, T., J. (2001): *2001 State of the Future*. The Millennium Project. American Council for the United Nations University, Washington, D.C.

The World Commission on Environment and Development (1987): *Our Common Future*. Oxford University Press, Oxford

UN Economic and Social Council, Commission on Sustainable Development acting as the preparatory committee for the World Summit on Sustainable Development (2002): *Implementing Agenda 21*. Report of the Secretary-General.

Fukuyama, F.(1992): *The End of History and the Last Man*. Avon Books, New York

Huntington, S.(1996): *The Clash of Civilization and the Remaking of World Order*. A Touchstone Book, New York

Barney, G.,O., Blewett, J., Barney, K., R. (1993): *Global 2000 Revisited*. Millennium Institute, Arlington

Kapuscinski, R.: *Chudoba a planetární soliarita (Poverty and Planetary Solidarity)*. In: *Hospodářské noviny*, 16. 5. 1997 (in Czech)

Špidlík, T. (1991): *K vyšším věcem jsem se narodil (To Higher Sense I Was Born)*. Alverna, Praha (in Czech)

The World Bank (2000): *World Development Indicators*. Washington, D.C.

International Conference on Financing for Development (2002): www.un.org/esa/ffd

Johnson, P. (1997): *A History of the American People*. Weidenfeld & Nicolson, London

Trisko, R., C. in: Menges, C., C., ed. (1999): *The Marshall Plan from Those Who Made it Succeed*. University Press of America, Lanham

The World Bank (1998): *World Development Report*. Washington, D.C.

Henderson, H. (1999): *Beyond Globalization. Shaping a Sustainable Global Economy*. Kumarian Press, West Hartford

Reuss, H., S. in: Menges, C., C., ed. (1999): *The Marshall Plan from Those Who Made it Succeed*. University Press of America, Lanham

Warren, J., C. in: Menges, C., C., ed. (1999): The Marshall Plan from Those Who Made it Succeed. University Press of America, Lanham

Hertsgaard, M. (1998): Earth Odyssey. Around the World in Search of Our Environmental Future. Broadway Books, New York

Global Futures Bulletin # 79. Institute for Global Futures Research. Earlville, Australia

The Commission on Global Governance (1995): Our Global Neighbourhood. Oxford University Press, Oxford

Sachs, J., D. (2000) in: Forum 2000 Conference Proceedings. Forum 2000 Foundation, Prague

Tarnoff, C. in: Menges, C., C., ed. (1999): The Marshall Plan from Those Who Made it Succeed. University Press of America, Lanham

Černoušková, M.: Rozdělení světa na připojené a nepřipojené (The World Divided into the „Connected“ and „Unconnected“). In: Lidové noviny, 5. 8. 2000 (in Czech)

K. Samuel-Johnson, D.C. Esty et al., 2001: 2001 Environmental Sustainability Index. An Initiative of the Global Leaders of Tomorrow Environment Task Force, World Economic Forum. Yale Center for Environmental Law and Policy, Yale University.
<http://www.weforum.org>

UN CSD, 2001: Highly Aggregated Sustainable Development Indices. Consultative Group on Sustainable Development Indicators, IISDnet <http://esl.jrc.it/envind/dashbrds.htm>

Glenn, J., C., Florescu, E., Gordon, T., J. (2001): Analysis of the United Nations Millennium Summit Speeches. Army Environmental Policy Institute, AtlantaChristian Science Monitor, 24. 2. 1999

Daly, H., E., Cobb, B., J. (1989): For the Common Good. Redirecting the Economy Toward Community, the Environment, and a Sustainable Future. Beacon Press. Boston

<http://www.nara.gov/exhall/featured-document/marshall/marshall.html>

<http://lcweb.loc.gov/exhibits/marshall/mars0.html>

<http://lcweb.loc.gov/exhibits/marshall/mars14.html>

<http://lcweb.loc.gov/exhibits/marshall/m41.html>

8.4 A MARSHAL PLAN FOR HAITI

Initial Project of the Global Partnership for Development

Study conducted by Pavel Nováček²³, Peter Mederly²⁴, Pierre C. Armand²⁵, and Irena Skácelová²⁶.

Introduction

Quality and Sustainability of Life Index for Haiti

Four Alternative Scenarios

Scenario 1: Pervasive Stagnation

Scenario 2: Calling for “an Enlightened Dictator”

Scenario 3: Disruption of the State and Consequent Anarchy

Scenario 4: A Marshall Plan for Haiti

Conclusions

Introduction

During the course of history, there are many examples of ideas which, when implemented, became catalysts for positive far-reaching changes. Such was the Marshall Plan, also known as the European Recovery Program²⁷, which after World War II, showed how a grand vision could successfully shape a particular activity.

The Central European Node of the Millennium Project initiated a special study to develop a similar plan for developing countries—see previous subchapter, 8.3 *Partnership for Sustainable Development*.

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²⁶ Agency for Development and Humanitarian Aid, Olomouc Region, Czech Republic

²⁷ According to the Global Lookout Panel member of the Global Partnership for Development project (Nováček, P., Mederly, P., 2002) “the Marshall Plan demonstrated for the first time a broad-scale international development project that was successful, and hence different from the numerous “partnerships” which are on the current agenda despite the fact that they are ineffective”. Therefore we call this project „Marshall Plan for Haiti“.

In 2003, Haiti was identified as priority candidate for an initial project of the Global Partnership for Development (it is the poorest country in western hemisphere, with a GDP per capita \$ 367, an adult illiteracy rate of 50%, life expectancy at birth 52.9 years, unemployment rate 34%, and 29% of the population makes less than \$150 per year).

SWOT Analysis of Haiti

| STRENGTHS | WEAKNESSES |
|--|--|
| <ul style="list-style-type: none"> - Natural beauties („tropical paradise“) - Educated people usually speak 3 languages (French, English, Spanish) - Enormous vitality of people and entrepreneurial spirit - Favourable age structure (43% under 15 years, 4% above 65 years) - Legal system based on Roman civil law system, Constitution widely accepted and supported by people - Places of great historical importance, historical monuments - People see education as priority for development of the country and better future | <ul style="list-style-type: none"> - Lack of domestic energy sources - Lack of domestic raw materials - Low level of literacy - Underdeveloped transport infrastructure - Underdeveloped telecommunication infrastructure - Location in the middle of hurricane belt - Occasional flooding and earthquakes, periodic draughts - Inadequate supplies of potable water - Underdeveloped industrial sector and services (70% of population depends on small-scale subsistence farming) - Shortage of skilled labor, unskilled labor abundant - High dependence on foreign economic assistance - Enormous rich-poor gap (1% of society owns 44% of the wealth) - Absence of territorial planning and zoning in cities |
| OPPORTUNITIES | THREATS |
| <ul style="list-style-type: none"> - High potential for tourism - Traditional relations with France (and EU) - 200 anniversary of independence (2004) as sign of hope for new beginning - Potential for development of agriculture - High potential for renewable energy resources (hydropower and solar energy) - Strong Haitian diaspora in the U.S. willing to help country development | <ul style="list-style-type: none"> - Weak government - High level of corruption - Low security, high level of crime - Deforestation, extreme soil erosion - Tensions between Christianity and Vodou - Tensions between black and mulatto communities - Poor waste management, especially in Port au Prince - Potential tensions between Haiti and Dominican Republic (illegal migration) |

| | |
|--|---|
| | <ul style="list-style-type: none"> - Drug trafficking and smuggling to U.S. and Europe - Overpopulation (300 people/km²) - HIV/AIDS problem (300 000 people living with AIDS) - Poverty (80% of population below poverty line) - Negative GDP real growth rate (2004 estimation: -3.5%) - Widespread unemployment and underdevelopment - High external debt (1,2 billion USD in 2004) - Money-laundering activities - Exodus from rural areas created slums with almost unlivable conditions - Unbalanced understanding of rights and responsibilities of people |
|--|---|

Quality and Sustainability of Life Index for Haiti

The main aim of sustainable development is to increase the quality of life in long-time horizon with respect to other living beings. But to make sustainable development generally understandable, measurable and manageable, we need to have a set of indicators.

The Sustainable Development Index—as described in the previous subchapters—was developed in 2000 – 2001 by the Central European Node of the Millennium Project and first published in the *2001 State of the Future* in the framework of the “Global Partnership for Development”. It was updated in autumn 2003 on the basis of the World Development Indicators 2003 database. Follow up of this new version is Quality and Sustainability of Life Index for Haiti, which was developed in 2004.

The second stage, prepared in 2005, evaluated previous developments in Haiti for the period 1970 – 2002 and these trends were extrapolated for the period 2005 – 2015.

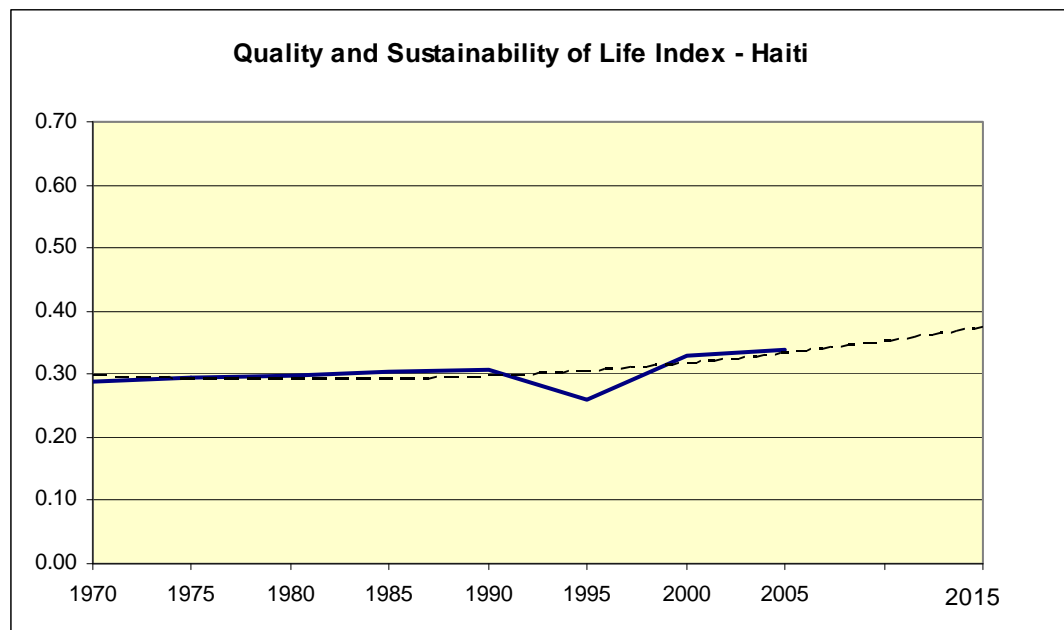
The Quality and Sustainability of Life Index was calculated as an average of all examined variables in 7 major areas (see Table 1) and therefore expresses development trends in all areas in an unified form. The general development of the overall Index for the period 1970 – 2005 and the extrapolated trend to 2015 is presented in Table 8 and expressed graphically in Figure 9. These figures document a very slight improvement in the Index, which continues to the present day. After a steep decline in the decade from 1990 – 2000, this trend continues to the present.

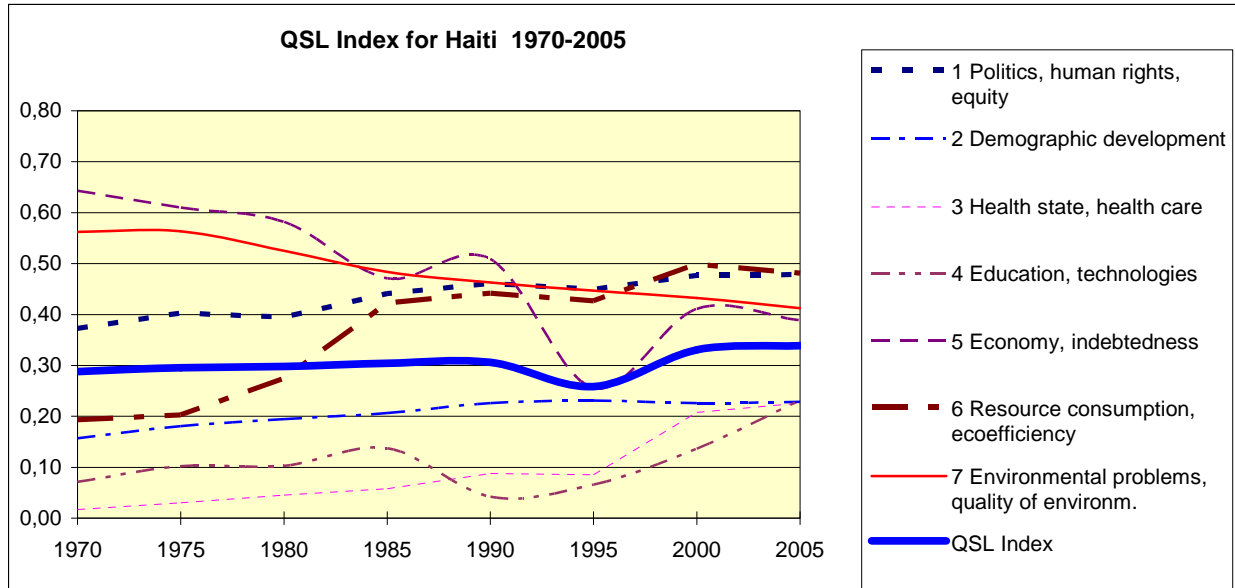
Table 1 – Basic structure of Quality and Sustainability of Life Index (QSLI)

| | | |
|--|--|---|
| Quality and Sustainability of Life Index (QSLI) | 1 - Human rights, freedom and equality | A - Politics and human rights |
| | | B – Equality |
| | 2 - Demographic development and life expectancy | C - Demographic development |
| | | D - Life expectancy, mortality |
| | 3 - Health state and health care | E - Health care |
| | | F - Diseases and nutrition |
| | 4 - Education, technologies and information | G – Education |
| | | H - Technologies and information sharing |
| | 5 - Economic development and foreign indebtedness | I – Economy |
| | | K – Indebtedness |
| | 6 - Resource consumption | L - Economy - genuine savings |
| | | M - Economy - resource consumption |
| | 7 - Environmental quality, environmental problems | N - Environment - natural resources, land use |
| | | O - Environment - urban and rural problems |

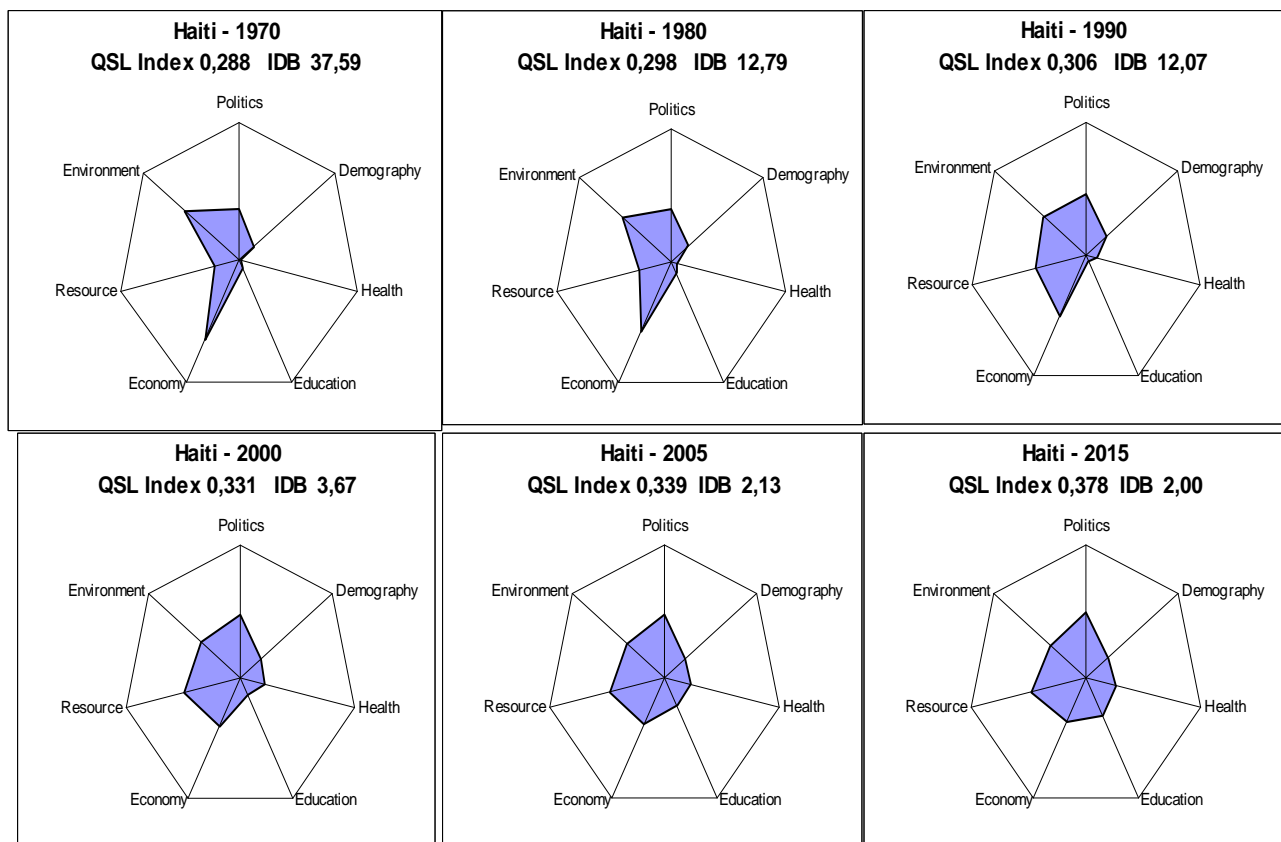
The analysis of basic indicators of quality of life highlights the unsatisfactory course of development and contemporary situation in Haiti.

QSL Index for Haiti – Overall results





Time series of QSL Index for Haiti and development balance



Four Alternative Scenarios

Four different scenarios were constructed to evaluate potential future threats and opportunities.

[Scenario 1: Pervasive Stagnation](#)

[Scenario 2: Calling for “an Enlightened Dictator”](#)

[Scenario 3: Disruption of the State and Consequent Anarchy](#)

[Scenario 4: A Marshall Plan for Haiti](#)

Scenario 1: Pervasive Stagnation

In March of the year 2004 riots broke out in Haiti which forced President Aristide to abandon office prematurely and even leave the country. Over the years 2004 and 2005 the transitional government was weak without any formulated vision with the mere ambition to provide the most basic functions of a governing state. The political scene was extremely fragmented with the presidential elections in the end of 2005.

When the expectations connected with the anniversary of 200 years of independence in the year 2004 dissipated and the hopes for a better future were not brought into fruition by new president and new government in the years 2005 and 2006, society fell into a deep apathy.

Though people continued to work in their fields, trade and sell goods on the streets, no one had any clue as to how to rescue the country from its tragic position as the poorest and most problematic nation in the western hemisphere. Although no one actually admits it, part of the domestic elites actually prosper from this state of affairs. The state is weak and unable to implement the maintenance of human rights, civil servants live off of corruption.

The rules are created by the strong, while the weak have to adhere to them. The country continued to be a center for smuggling and trade with illegal drugs (cocaine in particular), laundering of dirty money and illegal financial operations.

Haiti continued to be dependent on foreign aid, from either the Haitian Diaspora in the United States and Canada or from international charitable organizations.

Foreign investors did arrive in the country. They turned out to so-called “gold-diggers”, in particular, who take advantage of the fact that anyone can be bought in Haiti, laws need not be taken seriously, environmental limits do not exist, trade unions do not exist or are too weak and people are willing to work for three dollars a day. The natural wealth of the country was plundered, whether it concerned cheap export of agricultural crops, or export of natural resources (bauxite, copper, calcium carbonate, gold, marble).

After tens of years of this kind of stagnation and apathy, the desire to change certain things waked up once again amongst young people. Some of them left for abroad if possible.

Amongst the young and pragmatic elite in the large towns, an idea arised and begun to gain

support which would have been unthinkable at the beginning of the 21st century. A solution to the “problem called Haiti” could be the joining up of the country to the United States of America, as the 51st member of the Union.

The idea of joining Haiti to the United States was however a bitter and difficult to digest pill for the middle and older generation of inhabitants of Haiti. The first free black state would give up its independence after over two hundred years as well as the dream of its own path toward prosperity and development which could have one day serve as an inspiration for their brothers and sisters in Africa.

Scenario 2: Calling for “an Enlightened Dictator”

After the overthrow of Jean Bertrand Aristide in the function of president of Haiti in March 2004 and his departure into exile, a provisional government was established. It soon became apparent, however, that the provisional government was weak and incapable of resisting the temptation of corruption and enriching themselves from public resources. Peace in the streets of the towns was ensured by the presence of a eight thousand member contingent of UN peace-keeping forces.

The population was fully occupied with the everyday struggle for providing themselves with basic human needs. Almost no one paid taxes – the poor, as they have nothing to pay with and the rich, because they can afford to not pay taxes.

Populists were becoming more and more prominent in the political arena, with increasing tension between the mulatto minority and the black majority. Both small and organized crime were on the rise.

A charismatic and populist leader appeared on the scene in the beginning of 2006 capable of convincing people of his vision and ability to solve the current situation. There was no clear origin for the financial resources used for supporting his campaign. In the second half of the year it has become clear that this leader has power lying at his feet.

A period of dramatic and rapid changes begun. Although the government was formally democratically elected, authoritarian features and elements of a dictatorship begun to continually be on the increase. The people did not protest due to fear, but also with the hope that this kind of regime might finally help Haiti attain a better future. Several dozen vocal critics, mainly intellectuals, mysteriously disappeared while others went into exile abroad.

After several years it became apparent that Haiti is proceeding on a similar path as Chile in the 1970s and 1980s under the dictator Pinochet. Differences between the rich and poor continually deepened, but the government did not hesitate in suppressing any form of dissatisfaction through intimidation and terror. Foreign capital flew into the country where it has been met with an extremely cheap labor force and a relatively stable political environment. Environmental laws and restrictions did not exist, or were gotten around.

Later the economy of Haiti begun to grow (5 –7 % growth of the GDP annually), of course at the

price of exploitation of the population and devastation of the natural resources. No one, however, was strong enough to stand up against this trend. Only after two decades, after the Leader has grown old and moved aside, does a new generation of political representatives emerge and gain prominence (arising from the rich elite and having studied abroad at foreign universities) which gradually and slowly changes the direction of society toward a more socially and environmentally sensitive form of development.

Around the year 2030 people within Haiti and abroad admit that the economy has grown and the country gradually becomes more prosperous. Primarily the local population, however, realizes from their own experience that the price which more than one generation had to pay was too large and painful.

Scenario 3: Disruption of the State and Consequent Anarchy

From the beginnings of its existence Haiti has had an unstable political regime. For example of the 22 heads of state between 1843—1915, only one served his full term in office.

Haiti has been the poorest country in the western hemisphere for a long period of time. Hundreds of thousands of people in the capital lived in slums in the most brutal and demoralizing conditions imaginable. After departure of Jean Bertrand Aristide into exile in March 2004 the provisional government was not able to ensure a basic functional state and safety was only maintained on an acceptable level through UN peace-keeping forces. All of this took place at the time of the 200th anniversary of achieving independence. People lost hope in a better future and the faith that Haiti could have a good government one day.

This situation was taken advantage of by organized crime which gradually but thoroughly built up a base for their activities in the western hemisphere. Organized crime, first and foremost, trade with illegal drugs, quickly penetrated into the structure of the executive, legislative and judicial powers. It went as far as a so-called corruption symbiosis of the elite. The intertwining of the world of politics, business and organized crime became impenetrable and in Haiti mainly untouchable.

The situation from the perspective of the average person actually seemed more bearable now. The Mafia made use of the “sugar and whip method”. They financed various projects of public benefit from their profits. On the other hand, even the smallest indication of resistance or co-operation with the police was harshly punished.

Over a ten-year period, this corruption symbiosis of the elite reached such a strength that no diplomatic pressure proved effective. Foreign countries consequently imposed economic sanctions on Haiti which only led to an increased worsening of the miserable situation of ordinary people.

The strong Haitian Diaspora in the USA began to cut back on the sending of money to relatives in Haiti as they were never quite certain if the money actually got into the hands of the

addressee. This resulted in an unbearable situation for people in Haiti, primarily in towns, and hundreds of thousands of people attempted to reach the USA on primitive boats. The United States created an “iron curtain” an impermeable barrier which would prevent the flood of immigrants from Haiti. Country became, in similar fashion as with Somalia, Sierra Leone and Liberia in Africa or Afghanistan in Asia a “country which had fallen over the edge of the planet”. Chaos reigned in the country, the state did not function. This stalemate situation with international isolation endured for a number of years in Haiti.

In the years 2015—2020, however, a strengthening suspicion of developing links between organized crime in Haiti and terrorist groups in the Middle East came to light. Haiti served as “an unsinkable and uncontrollable boat” for its activities. The United States were faced with a basic decision, how to solve “the problem of Haiti”.

More than 50 years after the war in Vietnam and almost two decades after the extremely problematic intervention in Iraq, the United States once again prepared for a possible military intervention. This time against a small country the size of Connecticut which lies not far from the coast of the USA and which has sunk so far partially because it had never had any strategic importance for the largest world superpower. The United States and their allies only now realize that the solution to “the problem of Haiti” will be extremely expensive, painful for everyone and will never be ideal.

Scenario 4: A Marshall Plan for Haiti

In summer 2005 one of the presidential candidates came forward with the vision of a Marshall Plan for Haiti. The mission of a Marshall Plan for Haiti would be the creation of the bases for long-term sustainable development and the elimination of the activities of organized crime, illegal drug trade, laundering of dirty money and corruption. In order for this plan to be successful, it would have to be oriented toward the long-term. In contrast to many smaller development and humanitarian projects it must be concentrated and coordinated. It must be PLAN with definable, measurable and achievable goals.

The advantage of the individual who came up with the idea of a Marshall Plan for Haiti was that he was the only one to imagine a realistic vision for long-term and positive changes in Haiti. He gave people hope for a better future once again. The deciding moment was probably when he gained the support of the representatives of the strong Haitian Diaspora in the United States and Canada for the Marshall Plan. “A window of opportunity” for Haiti began to be discussed which could become a positive signal for other countries. Thanks to the lobbying of the Haitian Diaspora the Marshall Plan reached the mass media.

In 2006 Presidential elections, the initiator of the Marshall Plan for Haiti won and became President. Haiti found itself at the center of attention for many foreign development and donor organizations, including the World Bank and institutions of the UN.

The President was aware of the fact that this kind of opportunity for Haiti might be the only to appear for another several decades.

The Marshall Plan for Haiti was planned in two stages. The first, a short-term, over a period of 4 years, should help the country emerge out of its state of crisis and stabilize the country's situation. The country receives aid and the focus is on satisfying "survival needs" (nourishment, safe water, shelter) and "basic needs" (education, health care, better status for women, etc.). The goal is reaching the demographic threshold (with a GDP of approximately 1,500 USD/person/year according to purchasing power parity) where birth rates and death rates are stabilized at a low level and basic living needs are satisfied. The second, long-term stage, should last around 40 years, in other words over two generations. Over this period, Haiti should become a partially developed up to a modern, developed country. This long-term stage would be divided into three phases:

- a) Reaching a democratic threshold (GDP of approximately 3—5,000 USD) involving building an efficient state government and local governments, support for small and medium businesses, building the infrastructure (especially energy, transport, telecommunications). The state is capable of guaranteeing human rights, social and health insurance and health care and other services at a satisfactory level.
- b) Reaching the entrepreneurial threshold (GDP of approximately 8—10,000 USD). The development continues with the substantial involvement of foreign private investors, the country is able to participate fully and equally in international business. The government guarantees favorable conditions for entrepreneurial activities and also for the development of the non-government, non-profit sector. Civic initiatives can flourish.
- c) Reaching the threshold of sustainable development (GDP approximately 12—15,000 USD). The country is becoming fully developed. People can make decisions regarding their own lives and cultivate their human potential. The focus is mainly on the quality and sustainability of life rather than on material economic growth. The country pursues sustainable development.

Due to the fact that the President according to the constitution can be elected for only one five-year period, only the first, short-term stage of the Marshall Plan for Haiti could be carried out as well as the preparation for the first phase of the second, long-term stage. The process of renewal of Haiti has however gotten underway and has had enormous support from the population. As a result the process has been able to sustain itself against attempts by the mafia to destabilize the situation in the country.

The President at the end of his election term, refused proposals which would change the constitution and allow him to remain in office another five years. He handed over the presidential office to his successor and established a foundation "The Marshall Plan Today". The mission of this foundation was to not only assist in carrying out the Marshall Plan for Haiti, but also to expand this project into other developing countries.

Conclusions

When searching for an explanation to illustrate why Haiti has become so poor, one must examine the historical context in which the country has evolved.

From 1492 to the present date, Haiti's resources have been exploited by all major powers around the world, each plundered during different periods in the history of the nation. Today, sadly, the country has very little to offer. It is only through pity and humanitarian considerations, or perhaps because Haiti's problems have reached distant shores and affected the politics of neighboring powers, that countries are coming at its aid. While the population is grateful for the generosity of the Americans, Canadians, French, and German, it cannot remain an eternal burden to the taxpayers in those countries. In fact, if Haiti had used the resources obtained from these international donors more efficiently, it would have had a place of envy in the concert of nations.

In the past, Haiti has played a major role in the histories of other nations throughout the world. Not only did Haiti contribute to the abolition of slavery, but it also served as an instrument in the process of the liberation of some countries in Latin America.

Bilateral and multilateral aid pouring through non-governmental agencies must be reviewed to be better adapted to the developing conditions of the country. These funds need to be integrated into the major development programs of the day and should be specific in nature. Too often, these projects are temporary and not conceived to support an institutional structure or to create a permanent institutional framework. Obviously, as a result, the country has become a cemetery of projects. In this perspective, for a Marshall Plan to be implemented, it is important to mobilize human, technical and financial resources on a global level- from major corporations to various governments, in order to make such an attempt a successful one.

With the help of a well-planned program and the resources of this Marshall Plan, Haiti can finally come into its own. If its citizens in-country and those in the diaspora can join hands to reverse the unbearable conditions of the masses, a joyful return to prosperity is on the horizon.