Stakeholder Workshop:

Introduction to the Concept of Sustainable Development Indicators

1. Workshop description
2. Training evaluation
3. The concept of sustainable development
   (excerpts from D. Deroy's presentations)
4. The concept of indicators
   (excerpts from Dr C. Aall's presentations)

This folder covers the deliverables "Training agenda" and "Training evaluation" for Task 5. It also includes other information concerning the SDI workshop, such as outlines of the presentations made.

SUSTAINABLE DEVELOPMENT INDICATORS WORKSHOP

1. Workshop description

The workshop was organised by the beneficiary on 8 and 9 August 2005 at the Ministry of the Interior Conference Room A (Old Secretariat Building).

The presentations were coordinated by ADD and made by:
- Didier Deroy: Introduction to the concept of SDI
- Carlo Aall: SDI considerations
- Anna Caramondani: Sustainability considerations in Cyprus Development Plans
- Charalambos Panayiotou: Sustainability indicators and the URBANGUARD project
- Ioulia Moraitou: The URBANGUARD indicator methodology sheets

The workshop was attended by the following stakeholders:

	Participant	Institution Represented
1	Christos Ktorides	DTPH, Ministry of the Interior
2	Phaedon Enotiades	DTPH, Ministry of the Interior
3	Constantinos Alkides	DTPH, Ministry of the Interior
4	Anastasia Papageorgiou	DTPH, Ministry of the Interior
5	Christiana Francopoulou	DTPH, Ministry of the Interior
6	Kalia Martides	Union of Municipalities
7	Achilleas Kalopedis	Municipality of Larnaca
8	Christiana Makridou	Municipality of Larnaca
9	Androula Evthymiou	Municipality of Paphos
10	Procopis Pattihis	Municipality of Aglantzia
11	Andreas Arotis	Municipality of Enkomi
12	Polys Polidorides	Municipality of Lakatamia
13	Philippos Levkatis	Municipality of Latsia
14	Kyriakos Kappellides	Municipality of Strovolos
15	Charalambos Ioannou	Community of Agios Tychon
16	Christos Pavlou	Community of Agios Tychon
17	Panikos Panayides	Game Fund Service (MOI)
18	Kyriakos Kyriakou	Department of Forests (MANRE)
19	Constantinos Kondeatis	Public Works Department (MCW)
20	Marios Avraamides	Public Works Department (MCW)
21	Savvas Kleanthous	Department of Labour Inspection (MLSI)
22	Georgia Ioannou	Statistical Service (MOF)

A coherent set of information was presented, allowing the development of capacity building and awareness towards the stakeholders of the project. The training was concerned with the following issues:
- The concept of sustainability
- General theory and history of indicators
- Types and uses of indicators
- Examples of indicators and indicator systems
- A description of the proposed indicator system
- Case studies

The training followed the framework set in the approved proposal and included:
- Elaboration on the principles and theories of indicators
- Theory on use of indicators and limits
- Evaluation methods
- Interpretation and reporting of results
- Information management and spatial data

The training allowed extending awareness on the issue of sustainable development. This workshop had been developed using two axes:
- Sustainable development awareness, concept and definitions. It is important to note that despite the fact that the term is now generic, it is still quite not well understood by people at all levels. This first axis allowed showing that from the broad Brundtland definition to an applicable concept it is still possible to find a lot of interpretation. D. Deroy presented the EU and UN sustainable development concept, balancing the presentation through a more practical approach related to policy and political reality.
- Information on indicators and indicator systems. Carlo Aall from the Western Norway Research Institute gave new input to the project by presenting a more "extreme vision" of sustainable development using complex indicators (indices). He confronted his current research in Norway with current UN and EU sustainable development policies, as in his opinion many institutions are currently not really answering the sustainability issue.

Participants expressed great interest in the proposed indicator system and were involved in discussions regarding possible problems in collecting data as well as proposals for additional indicators. Among others, the representatives of the Union of Cyprus Municipalities and several municipal engineers expressed their eagerness to see the results of the indicator selection process; it was agreed to provide copies of all presentations made at the workshop and keep local authorities informed on the final outcome of the process. The representative of the Game Fund Service noted that the main issues that need to be addressed include the containment of sprawl, which adversely affects bird habitats and breeding areas in urban fringes, as well as the effective protection of green corridors within urban areas; it was agreed that development sprawl and nature protection within urban areas should be addressed by the selected indicators. Representatives of the Departments of Labour Inspection and Forests informed participants of new projects on monitoring and data collection in their respective fields of work. The representative of the Department of Labour Inspection also suggested that additional air quality parameters should be used while a higher resolution could be useful, e.g. a road section within a survey area, and offered to provide valuable feedback on indicator evaluation criteria; it was agreed that the project team would be in touch with DLI for further exchange of expertise. As a result of the discussions in this workshop, further modifications were made to the tentative indicator shortlist by the addition of indicators on energy conservation and waste management.

2. Training evaluation

The evaluation exercise was run by Didier Deroy, who also presented the results to the rest of the project team. A total of 14 evaluations were completed by workshop participants. The training has been well rated with an average of 7.9. The lower mark concerned the methodology sheets presentation by I. Moraitou.

	Rating (5 best)	1	2	3	4	5	Avg.	Avg.
Increased under-standing	Sustainability issues	0	0	2	8	4	8,3	8,3
	Indicators recognition and use	0	0	2	10	2	8,0	8,0
	Methodology sheets	0	2	6	5	1	6,7	6,7
	Local planning issues	0	0	4	5	5	8,1	8,1
Presentation	Coherence and comprehension	0	0	3	7	4	8,1	8,1
	Coverage of queries	0	1	3	5	5	8,0	8,0
In your opinion the presented system is	Locally applicable	2	0	4	8	0	6,6	
	Useful	0	0	1	4	9	9,1	
	Can be interpreted	1	1	2	6	4	7,6	
Total scores							7,8	7,9

The training had a definite positive impact on building more awareness about sustainable development. The knowledge acquired about indicators out of the training is generally satisfactory. Local planning issues are rated at 8.1, which could mean that we have to give some attention to this topic as it seems to be high on the participants' agenda. Regarding the participants' opinion of the URBANGUARD project, it seems that some are not really convinced about the applicability of such process, at least at the local level. If we disregard the two extremes, the average is a bit improved and the score is 7.3. No specific indication informs us why there was such an opinion but we should take it into consideration nonetheless. The usefulness of the project is definitely recognised. The last topic to be evaluated is quite nicely rated but the dispersion can be explained by the fact that the question could be interpreted in several ways.

Overall, the training session has proved especially useful for both participants and the project team by providing information on general issues relating to sustainable development indicators, as well as problems in selecting, evaluating and interpreting indicators.

3. The concept of sustainable development

By Didier DEROY, Life Resource Management Engineer, Master in Local Development

3.1 Context flash

From Antiquity till the modern ages, Human and its relationship with Nature have all the time be an important subject of reflection. And it is not finished... We will find this topic developed in a lot of elements that has been structuring our civilisations but also other ones. It includes religion, philosophy and economy concepts. The complexity of visions developed by individuals and groups are generating a lot of options of development. But if the diversity of the visions and the options is richness, it also generates competition and conflicts. During the 20th century, we can consider that the "Sustainable Development" issue is the conjunction of two strong "philosophical" visions that have been emerging after the Second World War.

Two visions & the Sixties effect
1.   Human vision
2.   Natural vision
Not to be considered as an in deep understanding of the phenomenon but more a contextual one.

The "Human" vision
After the horror of the two WW and as a lot of countries are facing major humanitarian crisis in the world, people start to reconsider the value of "Human Life". This is the emergence of a strong and structured humanitarian network at all the levels of the territories.
Red Cross, Doctors without Borders, etc.

The "Natural" vision
Gas has been used during the first WW. The second WW and following conflicts have been marked by the use of the Nuclear power and new chemical weapons. In reaction to the unbalanced powers generated, the instability in between main political actors, the destruction generated, the civil society is protesting and structuring groups for peace and disarmament. Some of these groups will also open later new subjects related to our "violent" way of dealing with our eco-system.
Greenpeace, Pacifism, eco-activism

In the same time, other groups are concerned by conservation issues. Scientists are showing that species are disappearing. We are not properly "managing the life stock". We are under-evaluating the "value" of Nature (Ethics, philosophy, economy, social, environmental, etc.). The pressure of the industry and its effects on the territory and on human life is raising concerns and question our way of producing goods. WWF, IUCN, Friends of the Earth, etc.
Deep ecology, vegetarian, etc.

The Sixties are forging a first approach and put "Society" in front of its contradictions. People start being aware that they are living in a system

that has limits. Media are supporting this development by showing more and more the reality of the World. A certain consciousness is built.
Solidarity

The Eighties are marked by a better attention and understanding of the complexity of our environment. It is not a simple "action – reaction" system. Impacts of our actions can be more important than expected. Our way of development has deep impact on our eco-system and our health. The inter-connection aspect, the risk involved and the emergence of the "precaution management" is fostering a new conception of living, "integrated", "sustainable". Brundtland report on Development for future Generation: A first official definition of the concept of *Sustainable Development* is given.
Responsibility

The Nineties are pursuing on this way of developing responsibility. An important accent is placed on the consumption modus. More interest are also shown about the "product cycle". The media are showing the reality of the world in colour and life. No one can anymore ignore what happening in the world. Information, educational programmes and awareness campaign are developing a civil society response.
Eco-consumers (individual responsibility)

2000, Passage to a new Millennium: a mix of fears and hopes, a shared symbolic to take important decisions. The 21st century is marked by the Millennium Goals. Even if already developed under the 20th Century, the new one is really considered as the one of the "global village". The European construction and major development (15 to 25) is also influencing the global pattern.
Global partnership / alliance

3.2 The sustainable development agenda

June 1972: U.N. Conference of Stockholm
A major meeting to discuss about the environment; 6000 persons (Representatives of 113 countries; international organisations; ONG)
Eco-development

1987: Brundtland Report (U.N.): "Our common Future"
The report is defining the concept of "sustainable development".
Part of the conclusions of the report is that:
• poverty and environmental degradation are correlated
• the way "north" countries consume world resources is not viable
• environment is not a free resource
• natural resources are not all renewable
Sustainable Development: a development that answers the needs of today's populations without compromising the capacity of the future generations to sustain their ones.

Different conventions and other decisions
are taken from 1972 till 1987… and after

Some examples:
- Convention for the protection of World Heritage (Natural and cultural) (Paris, 1972)
- Convention for the protection of he Sea (Prevention of pollution by waste sea-disposal) (London, 1972)
- Convention on commerce of endangered species (Extinction risk) (Washington, 1973)
- Convention for the protection of he Sea (Prevention of pollution by boats – convention "MARPOL") (London, 1973)
- Convention on migratory species (Bonn, 1979)
- Convention for the protection of wildlife and nature in Europe (Berne, 1979)
- Convention on sea rights (Montego Bay, 1982)
- Convention for the Ozone layer (Vienna, 1985)
- Convention against product attacking the O3 layer (Montréal, 1987)
- Resolution of the U.N. assembly for the Climate protection (1988)

<u>June 1992: Rio Summit</u>
Stockholm + 20
2nd U.N. Conference on Environment and Development
Declaration of Rio (27 key principles for SD)
Climate convention
Biodiversity convention
Forest Declaration
Agenda21

<u>1997: Rio + 5</u>
June – New York: lack of concrete engagement
December – Kyoto: 2nd Convention on global warming (159 states are signing the Climate Convention: reduction of 5,2% of production of green house emissions)

<u>2000: U.N. Millennium Goals</u>
8 Objectives for 2025:
1. *Eradicate extreme poverty and hunger*
2. *Achieve universal primary education*
3. *Promote gender equality and empower women*
4. *Reduce child mortality*
5. *Improve maternal health*
6. *Combat HIV/AIDS, malaria and other diseases*
7. *Ensure environmental sustainability*
8. *Develop a global partnership for development*

<u>August 2002: Johannesburg</u>
Rio + 10
Confirmation of need of action for poverty alleviation, consumption change, natural resources management, globalisation, health, youth an specific geographic initiatives for SD (ex.: Africa). Planning of actions and definition of targets & agenda

There exist about 200 international treaties about the environment. About 3/4 of them have been ratified during the

last 30 years ... their efficiency is too often annihilated by the
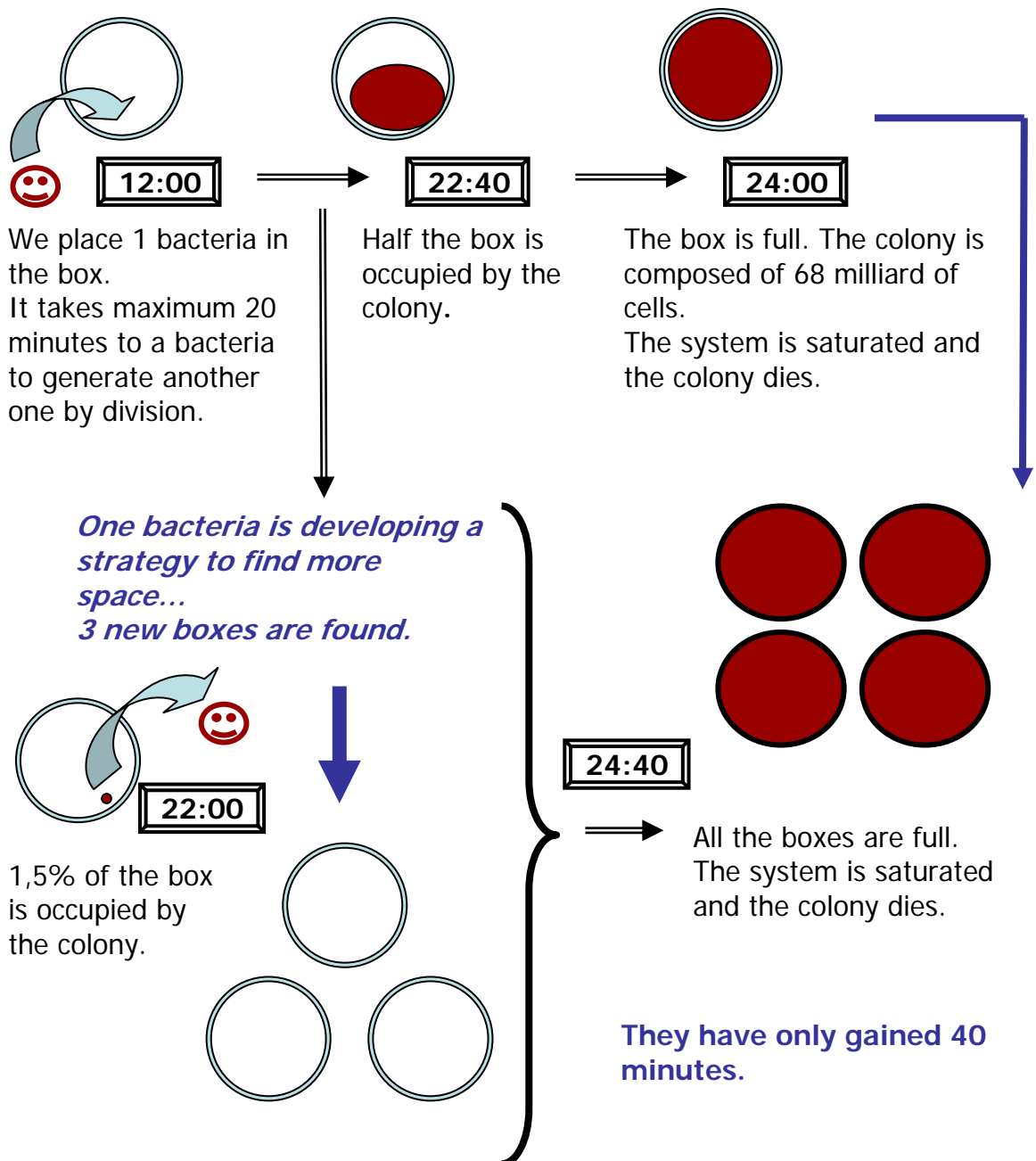*vague definitions and by a certain lack to enforce them.*
Source: Saddrudin Agha Khan, Développement, une notion pervertie,
Monde Diplomatique – Ecologie, le grand défi, p.68-70, June – July 2005

3.3 A limited system

The Earth is a closed system!
...Exponential growth is a major risk?
Source: Roland Lehoucq, Compte à rebours, Monde Diplomatique – Ecologie, le grand
défi, p.66-67, June – July 2005

12:00

22:40

24:00

We place 1 bacteria in
the box.
It takes maximum 20
minutes to a bacteria
to generate another
one by division.

Half the box is
occupied by the
colony.

The box is full. The colony is
composed of 68 milliard of
cells.
The system is saturated and
the colony dies.

One bacteria is developing a
strategy to find more
space...
3 new boxes are found.

22:00

1,5% of the box
is occupied by
the colony.

24:40

All the boxes are full.
The system is saturated
and the colony dies.

They have only gained 40
minutes.

The «Ecological Footprint» of the early 21st Century Humanity corresponds almost to 120% of our planet, considering the current huge disparity between humans in the world. If the world population was generating activities, consuming resources and releasing waste as the United States citizens, we should need 4 to 5 planets earth to survive!
Source: Redefining Progress, *www.rprogress.org*

Ecological footprint: surfaces needed to support all the human activities without destroying the ecological balance.

Country	Average surface consumed (Ecological Footprint / Citizen)
USA	9,6 Hectares
Canada	7,2 Hectares
Europe	4.5 Hectares

If we consider, the concept of sustainable civilisation – *which includes a world equity between humans* – and if the current population was stable, each citizens should not more consume than 1,4 Hectares.
Source: Gianfranco Bologna, Italia capace di futur, *WWF, Bologna, Italy, 2001*

3.4 The development question

Sustainability **and** Development?

Technological answer

Social answer

Negative Growth   Positive Growth
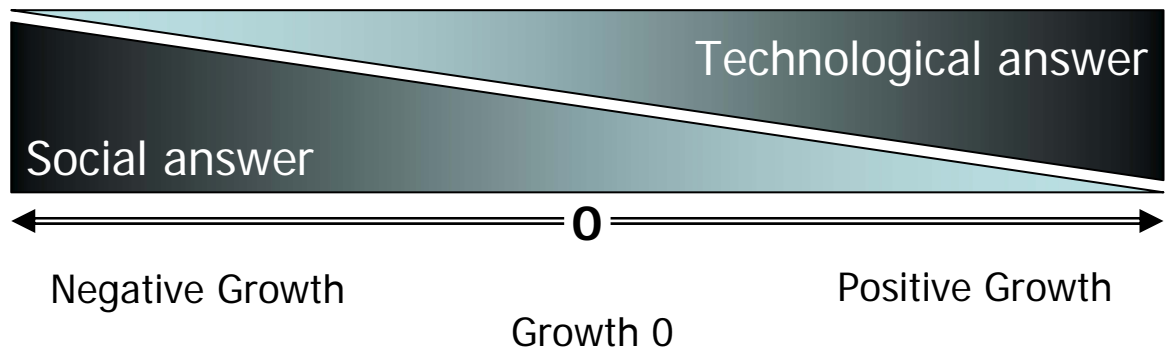
Growth 0

Citizens have to make difficult choices and accept changes in their way of living. Behaviours have to be modified allowing reduction of human impact on the environment. Economic Growth should not orient our options; solidarity is the driving force.

Growth will be the driving force allowing R&D. R&D solutions will solve the current major ecological and disparity.

Developing a status-quo by using all the available tools (Human and technology). We have to limit our activities and deeply analyse their impacts on the eco-system before implementing them.

A mix? The GREEN Growth
Redefining growth
Redefining the economy
Green accountability & responsibility
Social accountability & responsibility
Building the appropriate human and financial resources
Education
Governance

Developing new policies
Monitoring development and its impact
Promoting ecological options
Developing Eco-R&D
Enforcing laws, regulations and decisions
Supporting eco-initiatives

3.5 From sustainable development to sustainable city

Development *= capacity of a society to generate added value, capacity of improving things, by mobilising its own capacity of action and transformation and corresponding to a lifestyle expression.*
Sustainable *= responding to present needs without jeopardising the opportunity of future generations to answer their own needs.*

Sustainable Development means a transformation of the behaviours and lifestyles of individuals as well as societies. It is a learning process based on democratic approaches and participation. It is a process to build cooperation in between stakeholders of a territory about key issues and related actions.

Sustainable Development
6 principles
Global responsibility: We are all affected and are all responsible but the weight of our responsibility can be different from one to another country. (Geographic solidarity)
Vision oriented process: Long term vision is developing equity between generations. (Generation solidarity)
Integration: It is an integrated process. Economy, social and environment issues are part of the development process.
Precaution: The principle of precaution introduces the aspect of risk management.
Participation: The citizen is integrated at all the stages of the process. He is co-responsible with the other actors of the SD planning.
Pro-action: The SD is action oriented more than reaction.

SD can be everything… and nothing. Despite the definition, the term sustainable is now use as a generic term. Economy is sustainable; sustainable employment; sustainable education etc. It is therefore important to clearly read between the lines and limit the "marketing" or "mode" effect. Greening the issue is not solving the problem. Developing a SD process needs the involvement of all the

stakeholders. It is a long "individual" process of learning. The "local" input is a key issue: "Thinking globally, acting locally" is the motto of the "Local Agenda 21". If the benchmarking is important to achieve SD, it does not mean that developing an SD planning is to transfer existing data from one place to another.

Sustainable City
To develop a sustainable urban development planning, it is important to develop a participatory process that will express:
1.   the issues that are concerning:
   •   Decision makers
   •   Citizens
   •   NGO & other associations
   •   Urban planners
   •   Public officers
2.   what is the common vision of the "sustainable city"
3.   what is the vision of the "local" sustainable city

Another element is to identify, the decisions that have already been taken related to the "sustainability" of the town.
Sustainable Development means action. The SDI are there to support the initiatives by identifying the trends: Do my decision have effects? Is the impact of my decision improving the situation?

Sustainable City: some common issues
1.   Transport
2.   Housing
3.   Energy & water
4.   Waste
5.   Security
6.   Quality of life (including quality of the physical environment)
7.   Accessibility to public services (including "satisfaction" factor)
8.   Accessibility to green spaces
9.   Employment & poverty

More and more interests are shown for the following topics:
•   Urban environment & health
•   Accessibility to culture
•   City & disable people
•   City & population ageing
•   Heritage
•   Tourism

But again the reason why an issue is important in one place is not the same in another one. Its expression should therefore be adapted to the local reality. The benchmarking should mostly – if not only – be used to facilitate the process not to format it. The process used to obtain SD indicators and policies are transferable but not necessarily the indicators and the policies themselves. This does not mean that we cannot try to have common indicators and practices but it should not be the leading process towards local sustainability.

<u>Local Agenda 21</u>
(Chapter 28 of the "Agenda 21": "initiatives from local authorities to support the Action 21")

The approach is global, systemic, interdisciplinary, long term oriented

Building a Local Agenda 21 project: Some principles:
- Environmental, social and economic aspects should be integrated in a short, medium and long term vision.
- It should develop clear and concrete goals and actions, show involvement, provide deadlines, identify actors and resources
- The efficiency of such project is based on the interaction between the Community and the Local Authorities. It cannot be generated by a top-down approach led by experts or/and authorities.
- Time is a key factor: time for adaptation, discussion, "education" of the citizens to the principles, values and impact of a SD process. Information and exchange are the key tools of such action.
- The process should be monitored: facilitating, animation, evaluation tools are important.

Making a Local Agenda 21 does not mean to develop all the topics presented in the Agenda 21. Choices have to be made and adapted to the local needs. The Local Agenda 21 is a tool to simplify, gather, show what is done, what is ongoing, what will be done towards local sustainability.

Some remarks
It appears from the various experiences existing in Europe an abroad that, when assisting local authorities towards a local SD plan and therefore integrating social, economic and environmental policies, the difficulties are to coordinate the different sectors under the local authority and in the same time integrate the comments of all the parties of the communities, that are often representing opposed interests. To tackle such problems, the analysis has to be holistic; the problems have to be identified; all parties have to be represented.
Source: "Un Agenda 21 pour Genève", 1999

<u>The Charter of Aalborg</u>
In 1994, 80 representatives of local authorities and 253 other experts gatheredn Aalborg, Denmark, to discuss about the "Sustainable City".

Charter:
- Declaration of the Municipalities:
- European Towns & Cities for Sustainability
- Sustainable Towns & Cities campaign Network
- Local action plan for SD*****

*Guidelines for the SD Local Action Plan:
1. Consider the local planning methods and tools, the financial tools, the different plans and programmes
2. Identify all the problems and causes <u>through a large public consultation</u>
3. Classify actions by priority allowing to properly answer the identified problems

4. Define the concept of sustainable community <u>with the participation of all partners</u>
5. Identify and evaluate the alternative strategies of development
6. Establish a local plan of action (long term) with measurable goals
7. Plan the implementation phase (agenda, work load definition and attribution)
8. Establish a system and related procedures to monitor the implementation (Indicators; reporting)

3.6 Sustainable development in Cyprus

Cyprus listed as example of good practices for Sustainable Urban Development
Contact: Ioannis Chrysis, Applied Energy Centre, Ministry of Commerce, Industry and Tourism, 6 Andreas Araouzos, CY-1421 Nicosia
tel: +357 2 305797; fax: +357 2 305159; e-mail: mcienerg@cytanet.com.cy;
website: www.insula.org/
Source: DFID – Department for International Development, http://www.ucl.ac.uk/dpu-projects/drivers_urb_change/urb_environment/pdf_LA_21/DFID_DPU_Bridging_Cyprus_Solar.pdf

<u>Large-Scale Utilisation of Solar Energy</u>
The island of Cyprus, in the eastern Mediterranean, has a population of 663,300 inhabitants. Cyprus does not have any indigenous fossil fuel resources and is almost totally dependent on imported energy products, mainly crude oil and refined products. With the island's dry Mediterranean climate and abundant sunlight, solar energy is one of the few locally available sources of energy. For this reason Cyprus has invested in a policy of future energy use centred on renewable energy sources, and solar energy in particular. The result is that today 92% of all island dwellings are fitted with solar water heating systems, the estimated current area of solar collection in Cyprus is 600,000 square meters - or 0.86 m² of solar collector per capita – and the annual solar thermal energy production 336,000 MWh/year. All in all, the contribution of solar energy to the energy balance of the country is about 4% and, due to the extensive use of solar heaters, CO2 emissions on the island have been reduced by 10% by avoiding the use of fossil fuels. The promotion of solar energy in Cyprus, therefore, shows that alternative energy sources can be economically viable and affordable substitutes for fossil fuels. It also highlights the important role that both government and the private sector can make in promoting the use of renewable energy sources by households.

3.7   The ecological footprint of Cyprus

EU 25: HDI & Ecological Footprint
WWF report based on 2001 National Data

Country	Human Development Index	Footprint (ha/ca)
Sweden	0.94	7.0
Netherlands	0.94	4.7
United states	0.94	9.5
Belgium/ Luxemburg	0.94	4.9
Japan	0.93	4.3
Finland	0.93	7.0
Denmark	0.93	6.4
Ireland	0.93	6.2
United Kingdom	0.93	5.4
Austria	0.93	4.6
France	0.93	5.8
Germany	0.92	4.8
Spain	0.92	4.8
Italy	0.92	3.8
Portugal	0.90	5.2
Greece	0.89	5.4
Cyprus	0.88	4.0
Slovenia	0.88	3.8
Malta	0.88	3.9
Czech Republic	0.86	5.0
Poland	0.84	3.6
Hungary	0.84	3.5
Slovakia	0.84	3.6
Estonia	0.83	6.9
Lithuania	0.82	3.9
Croatia	0.82	2.9
Latvia	0.81	4.4
Libya	0.78	3.1
Lebanon	0.75	2.3
Albania	0.74	1.5
China	0.72	1.5
Morocco	0.61	0.9

4. The concept of indicators

By Carlo AALL, Dr in Environmental Science, Sustainable Development Agency & Western Norway Research Institute

What is counted counts…
«The indicators a society chooses to report to itself about itself are surprisingly powerful. They reflect collective values and inform collective decisions. A nation that keeps a watchful eye on its salmon runs or the safety of its streets makes different decisions than does a nation that is only paying attention to its GDP»
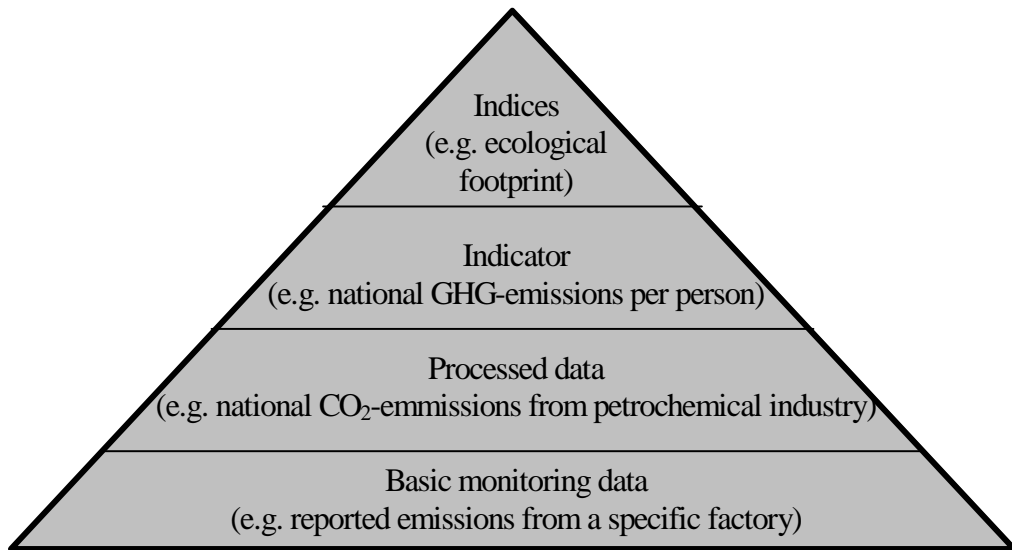
Donella Meadows (co-author of the international best selling book «Limits to Growth»)
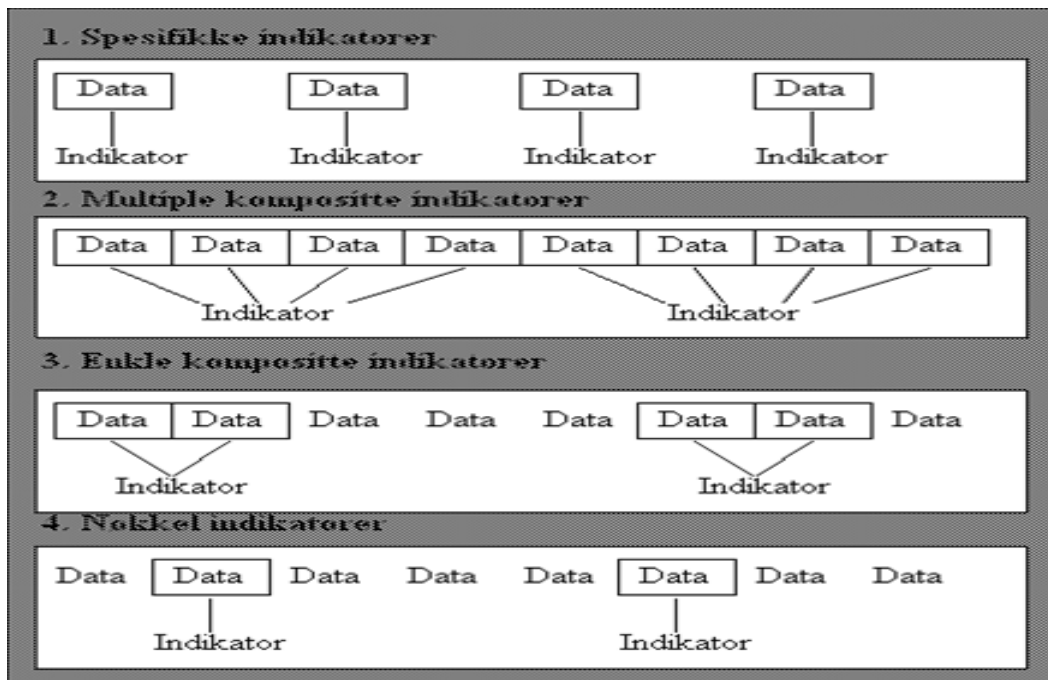
The basic meaning of indicators:
1. The origin of the word "indicator" (*indicare* from Latin) means "to point out or proclaim":
   → communication
2. In day-to-day speech (English) we say "indicate" and "indication":
   → simplification
3. The way we present an indicator (most often!):
   → quantification

We use (2) and (3) as a means to obtain (1)!

The relation indicators – data:

Indices
(e.g. ecological footprint)

Indicator
(e.g. national GHG-emissions per person)

Processed data
(e.g. national CO_2-emmissions from petrochemical industry)

Basic monitoring data
(e.g. reported emissions from a specific factory)

A basic typology of indicators:

✓ Specific indicators

- e.g. many environmental indicators; like number of people living in areas above a specific noise level

✓ Multiple composite indicators

- e.g. ecological footprint

✓ Simple composite indicators

- e.g. many SDI indicators; like GDP / energy use

✓ Key indicators

- e.g. the 7-key SDI system developed by the Norwegian Association of Local Authorities

Three perspectives on local indicator systems:

✓ Top-down systems
- Data gathering for the Central Bureau of Statistics
- Government goal achievement reporting

✓ Horizontal systems
- National benchmarking (e.g. the Danish local sustainable indicator system)
- International benchmarking (e.g. European Common Indicators Project - ECIP)

✓ Genuine local systems
- Internal systems (e.g. Danish system of "Green office")
- External systems (e.g. most LA21 based SDI)

Three categories of local indicators:

✓ National indicators used in a local context
- Based on national data
- e.g. average per capita consumption data

✓ Proxy local indicators

- Based on national data with some sort of local or regional adjustments
- e.g. per vehicle energy use data adjusted by data for the genuine local number of cars
- ✓ <u>Genuine</u> local indicators
  - Based on genuine local data
  - e.g. waste treatment data

Different categories of local indicator systems:

| Categories of local indicators	Perspectives on indicator systems		
	Top-down systems	Horizontal systems	Genuine local systems
National indicators used in a local context			
Proxy local indicators			
Genuine local indicators			

My main focus

For what purposes de we use the genuine local indicator systems?

Governing context	Analytical context				
	Direction analysis	Impact assessments	Evaluating	Reporting	Monitoring
Public information and debate					
Political steering					
Administrative steering					

Each purpose <u>could</u> imply a different set of indicators

Hot and cold indicators:
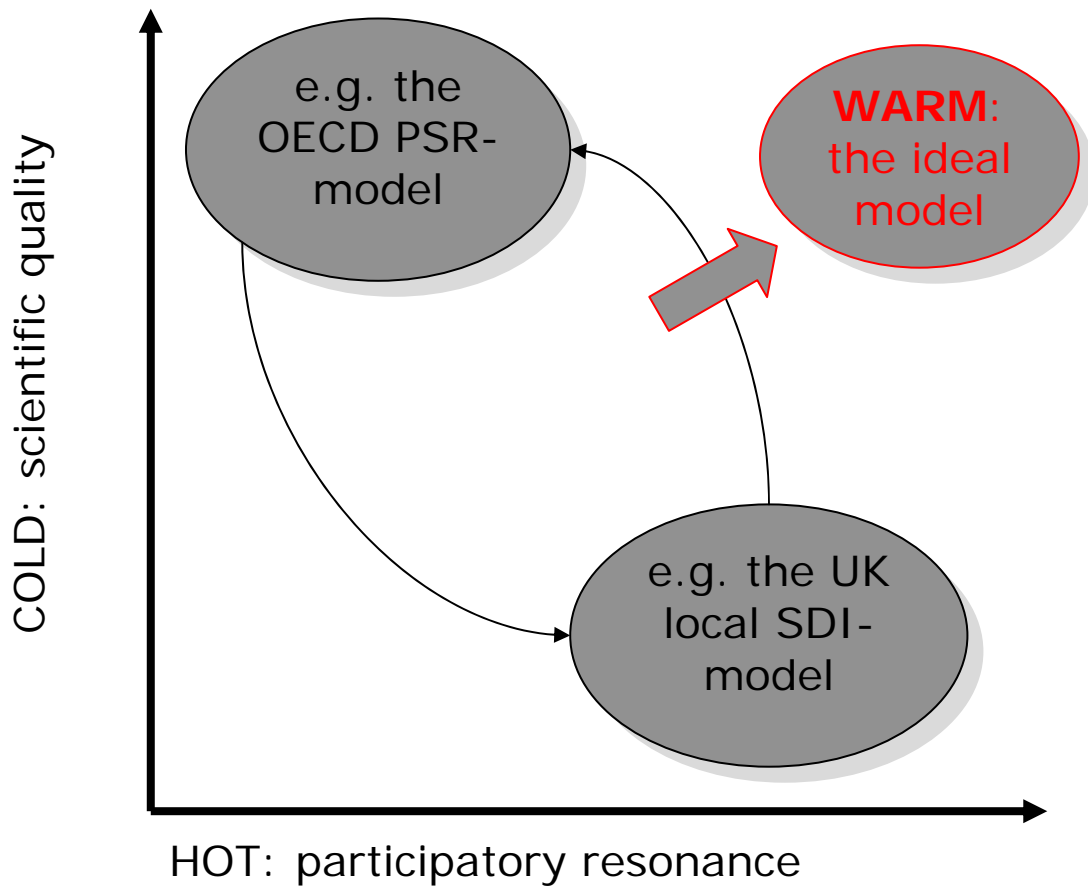
**Examples of Sustainable Development Indicators (SDI):**

✓ The process of <u>developing</u> and <u>taking use of</u> SDI is perhaps the most important (and best?) way to maintain the debate on what is the meaning and consequence of working for a sustainable development.

✓ However:
  • Far more examples internationally of <u>developing</u> than taking use of SDI
✓ But:
  • Far more interesting examples of actually <u>using</u> SDI at the <u>local</u> level of governance as compared to the national level

The basic meaning of sustainable development:
✓ SUSTAINABLE - the green or <u>ecological</u> part of the concept:
• meaning the long term survival of the global ecosystem
✓ DEVELOPMENT – the red or <u>social</u> part of the concept:
• meaning that all people today and in the future have the right to satisfy their basic needs
✓ The two most critical questions in defining the content of sustainable development:
• What changes – or man-made incursions on the ecosystem – are acceptable, and;
• What is meant by "basic needs"?
✓ And – <u>important</u> – sustainable development is not "everything"!
  • If sustainable development is everything, maybe it is nothing (rephrased after a saying referring to the concept of planning)

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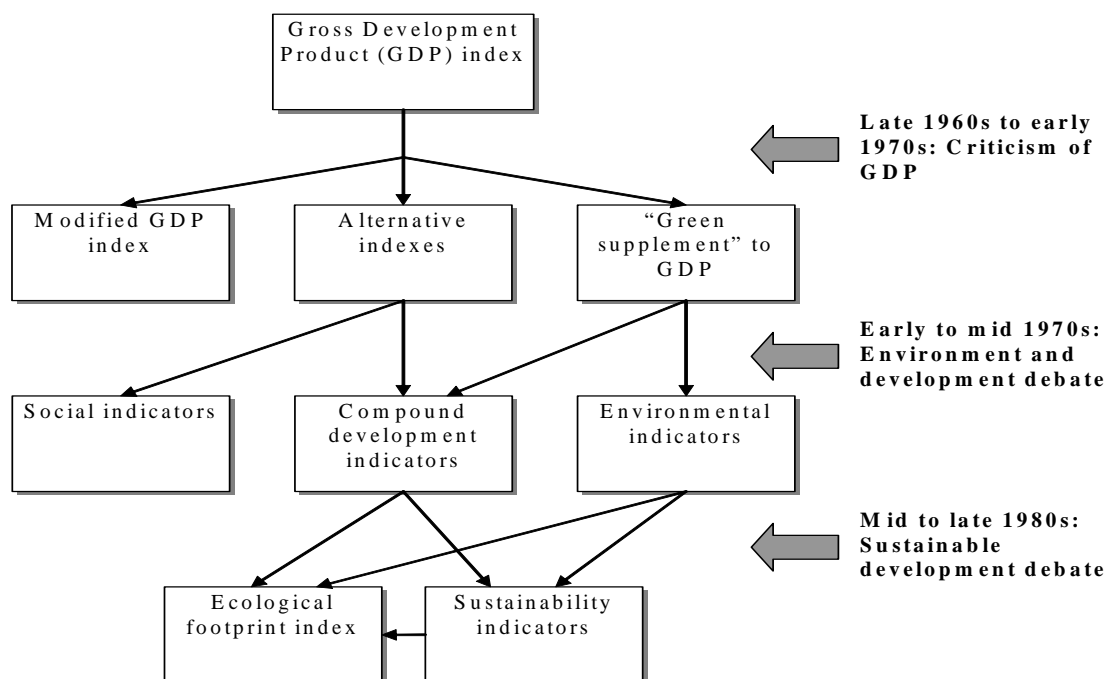
The Pressure State Response (PSR) model – a basic logic in SDI:
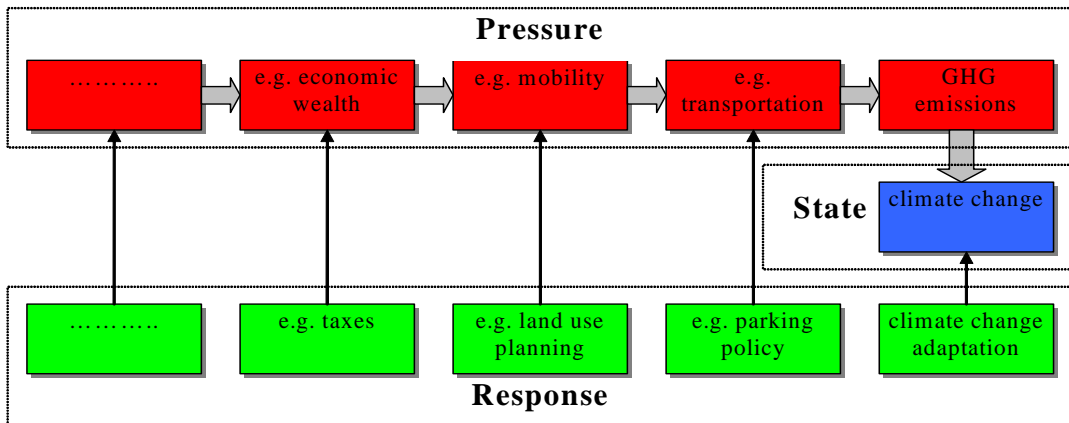
The Local Sustainability in Practice: model (SIP) from Norway:
- ✓ Developed by the Norwegian Association of Local and Regional Authorities (KS)
- ✓ A set of 7 mandatory key indicators and optional 70 supplementary indicators, of which 60 percent can be downloaded from the Internet
- ✓ To be used within further specified public debate, political and administrative settings
- ✓ Could be further developed from a basic model to include more sophisticated elements (the "stair-case-approach")

Coexisting local SDI and related systems in Norway:
- ✓ Top-down systems
- • Mandatory indicator based reporting to the County Governor regarding national goal achievement evaluation
- ✓ Horizontal systems
- • Mandatory indicator based reporting to the Central Bureau of Statistics (KOSTRA) on different policy issues for establishing a system of national benchmarking
- ✓ Local systems
- • A large number of previous "isolated" SDI initiatives initiated by the Ministry of Environment, NGOs, research institutions, municipalities etc
  - • Mostly initiatives with few, if any, an example of prolonged use after the development stage was over!

The elements of the SIP model:

Basic system	Additional tools
The suggested indicators	More advanced indicators (e.g. ecological footprint)
Direction analysis, e.g. the annual report	Eco auditing
Simple check list for impact assessments	More advanced impact assessment tools
Public procurement	Formalized management systems (e.g. EMAS)

The key indicators of the SIP model:

Sustainability issues	Key indicators	Sources of information
Life quality	Life expectancy	Genuine local data, accessible on Internet
Local pollution	Emission of phosphorus and nitrogen from sewage	Genuine local data, accessible on Internet
Management of natural resources	The amount of waste per capita	Genuine local data, accessible on Internet
Biodiversity	The annual number of exemptions from land use plan restrictions on development in non-developed areas	Genuine local data, accessible on Internet
Energy and climate	Emission of CO2 per capita	Genuine local data, accessible on Internet
Sustainable consumption and production	The share of local private business certified by eco-management schemes	Genuine local data, accessible on Internet
Internal issues	Share of employees in the municipal organisation which have taken part in sustainable development training	Genuine local data, data have to be gathered by the municipality

Some examples of how the SIP model is used:
- ✓ Direction analysis:
- • Evaluating the "direction" of the municipal master plan in connection with the 4 year review of the plan (the small municipality of Tingvoll)
- • An annual evaluation of the direction of the development in the whole county as part of the annual report (County of Sogn og Fjordane)
- ✓ Impact assessments:
    - • The SDI set as part of the local planning guide to be used in all local planning processes (the City of Porsgrunn)
    - • A check list

How to establish the SIP model in a municipality:
1. A political commitment
2. A review of existing local sustainability goals
3. Suggestion of corresponding supplementary indicators
4. Suggestion of local sustainability goals to fill in "gaps"

Maintenance of the SIP model:
- ✓ The system is owned by the Norwegian Association of Local and Regional Authorities (KS)
    - • The system is presented at, and all necessary information can be downloaded free of chard from www.ks.no
- ✓ An annual updating of the system
    - • update the national average for the key indicators and a number (approximately 70) of the suggested supplementary indicators

Common mandatory part of the system:		Local adaptations of the system:	
Sustainability issues	Key indicators	Systematisation of existing local sustainability goals	Suggestion of corresponding supplementary indicators
Number 1	Number 1	x	x
		x	x
Number 2	Number 2	(empty)	(suggestion as to establish a goal)
Number 3	Number 3	x	x
		x	x
		x	X
Number 4	Number 4	x	x
Number 5	Number 5	(empty)	(suggestion as to establish a goal)
Number 6	Number 6	x	x
		x	x
Number 7	Number 7	x	x
		x	x
		x	x

The many pitfalls of SDI:

- ✓ Becoming too <u>detailed</u>
- • The danger of loosing focus and becoming too complicated
- • e.g. the UK national SD indicator system with 120 indicators
- ✓ Becoming too <u>broad</u>
- • Including almost every aspect of policymaking under the umbrella of SD
- • e.g. SDI on issues like inflation, employment, import and export, infant mortality, the rate of children with caries, the feeling of being safe when walking out at night (taken from the UK national and local SDI model)
- ✓ Becoming too <u>narrow</u>
- • Sustainability reduced to being only the green ecological part of sustainability
- • e.g. the many examples of traditional environmental indicator systems that are "upgraded" to SDI with few major changes
- ✓ Becoming <u>contra-productive</u>
  - • moving from sustainable development to the notion of sustainable growth
  - • e.g. the Norwegian national SDI system with indicators like "the need for reducing public spending as a share of GDP" (an indicator presented by the most wealthy nation in the world!)