

An industrial factory with several tall smokestacks emitting plumes of smoke, set against a sunset sky with orange and red hues. In the foreground, there are silhouettes of cranes and other industrial structures.

Sustainable Development for Dummies.



- Basic Principles of Sustainable Development
- Sustainable Development is in Need of Ecological Economics
- Three Strategies for Sustainable Development
- Changes in Attitude for Sustainable Development
- Civil Society and Sustainable Development
- Sustainable Development Means Participation Possibilities for Everyone





Sustainable Development for Dummies. ↙



This text presents in a nutshell the most important notions behind Sustainable Development. It is a short guide containing the basics for understanding Sustainable Development.

The Basic Principles of Sustainable Development

Sustainable Development is vital for the preservation of the planet and for an equitable distribution of Earth's riches among people here, elsewhere, now, and later. It is not a third or fourth way, it is the only way. Sustainable Development does not have a fixed end goal, does not profess a unique truth, but constitutes a transition (change) in which old, non-sustainable patterns are replaced by sustainable ones. Using a long-term vision. And taking into account the limits of the Earth, with a sense of justice and based on the needs and capacities of the population.

Sustainable Development creates a framework for both governmental policy as well as our own consumption patterns. Looking through these pair of glasses, one can better comprehend and control the reality and the consequences of our daily actions.

There are **THREE PRINCIPLES** that guide Sustainable Development:

- 1 | The Earth is round and finite and thus it knows limits, it does not grow in size. Consequently, this means that the carrying capacity¹ of the Earth has a limit.
- 2 | People, for their part, also have limits as to how much they can take. Too much social pressure, alienation and/or environmental pollution deteriorates one's health.
- 3 | The economy has to serve the needs of society, not the other way around.



Sustainable Development is often described as a type of development that takes into account three pillars or dimensions: economic, social and ecological. They are usually presented as if they were all equal and deserve the same amount of attention. They are also often treated as being separate dimensions, and people speak of Sustainable Development when just two or more pillars are integrated. In this way, Sustainable Development becomes a loosely used notion, drifting away from the original holistic idea. Yet actually the three pillars are profoundly interconnected, and it is therefore incorrect to use the term 'pillars' since it implies that a separation exists between them. As Elton John sang in Shoot Down the Moon: "We can build a bridge between them, but the empty space remains."

At present, the power structures in our society are organised – consciously and unconsciously – in such a way that gives the economic pillar more weight than the other two. More and more, Sustainable Development is downgraded into a "Business as Usual" policy with some hints of red and green. Unfortunately, such an approach puts at risk the shift necessary for the preservation of mankind and the planet.

1) Carrying capacity refers to the population of a given species that be supported indefinitely in a defined habitat without permanently damaging the ecosystem upon which it is dependent.

The Basic Principles of Sustainable Development

Ecological capital: ecosystems, natural resources, biodiversity, water, clean air, ...

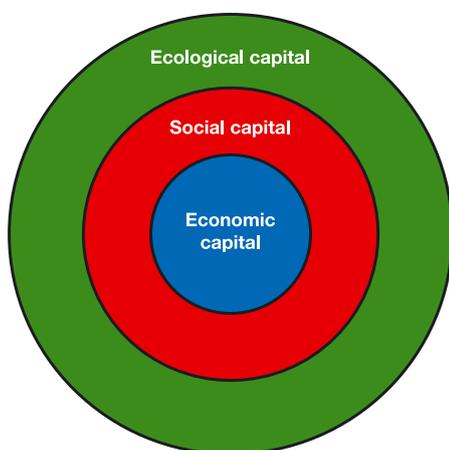
ECOLOGICAL CAPITAL forms the basis for our life and – by extension – for our economy. That is why this concept is often at the forefront of attention when Sustainable Development is discussed, the more so because the natural environment has been neglected ever since the start of the Industrial Revolution. Today we still tend to think that our ecological capital is unlimited. But at present we are squandering our ecological capital in a manner that is unfair towards future generations. Environmental problems such as drought, deforestation, erosion, loss of biodiversity or climate change are examples of the effect of our squandering. These are irreversible processes.

Social capital: people, their family and friends, social cohesion, culture and values, labour productivity, reproductive capacity, health, level of education, ...

The **SOCIAL CAPITAL** of Sustainable Development represents a variety of major challenges: the division and marginalisation of several groups in our society, the problems of an ageing population and social isolation of people, the complexity of the migration issue, worsening labour conditions, ...

A society with a deeper social cohesion is more effective in realising goals for the common wellbeing. Such a society can better cope with external threats such as economic degradation or the effects of climate change.

Economic capital: financial assets, machines, means of production, buildings, the service sector, ...



ECONOMIC CAPITAL constitutes the set of tools that shapes and aids our society's organisation, our 'household'. Unfortunately, the development of this toolset of money, business, industry and production, is often seen as a goal in itself, instead of a means to attain a higher goal. But what is the use of perfecting the plumber's toolbox if the plumber himself does not know how to repair a tap? The current economic thinking is unsustainable. The use of energy and materials is not in balance with the goals of sustainable development.

For example, the European Union still uses much more raw materials than the amount it would be able to use if these resources were equally distributed worldwide. That our economy doesn't function efficiently is illustrated by the daily traffic jams and the related economic losses, by the cost of air pollution from ozone and aerosols or the scourge of poverty. Economic growth is often put forward as the solution to all problems, but reality shows us that too much growth is also the cause of many problems! This is especially the case with growth that requires an excessive use of raw materials and labour.



Sustainable Development is in Need of Ecological Economics



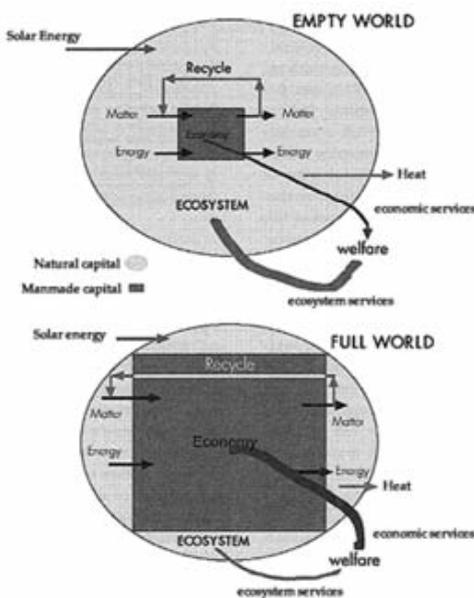
The bigger the importance of economic capital, the more tension arises vis-à-vis social and ecological capital. This causes problems. Everything should be in harmony and within sustainable limits.

Contrary to classical economic thinking, ecological economics² puts the Earth central. It regards the ecosystem as an irreplaceable capital for our society to exist (see figure). The ecosystem produces natural resources such as crops, water systems, air filtration which is provided by trees, and storage of waste. One could regard these ecosystem 'services' as the 'interest' on the capital. Upon this 'interest' we must base the production and consumption patterns. The current way of living on Earth, the industry and the people, continuously use the raw materials and energy resources of our Earth, exceeding the 'interest' that she can deliver to us. We are actually eating away our Earth, our ecological capital. Every economist knows that once you start eating away your capital you are heading towards bankruptcy.

The Earth is not merely the supplier of resources, but also the receiver of waste materials (CO₂, waste, polluted water). However, the Earth is able to absorb only a part of all this waste. Moreover, the natural capital we use cannot be replaced: once gone, it is gone forever.

Ecological Economics also takes into account the question of distribution: the assets from natural capital should be distributed equally. And so should the liabilities.

U.S. economist Herman Daly, one of the founding fathers of Ecological Economics, constructed the following model of planet Earth: we see an exchange between the economic system (represented as a rectangle) and the all-encompassing system Earth (represented as an oval). The solar energy that the Earth receives drives a number of renewable energy sources on our planet. Under influence of the sun, living organisms convert water and carbon-dioxide into food crops. The waste from these organisms feeds other organisms. Ideally, this should be a perfect cycle.



Our economic process converts the materials and energy provided by the Earth into goods and services, creating wealth. At the same time, the Earth also delivers a number of environmental services, e.g. the regulation of the climate, the supply of water. In his model, Herman Daly makes a distinction between the world economy as it existed before the Industrial Revolution (an 'empty world') and the situation as it exists today (a 'full world'). The economy used to occupy only a small portion of the Earth. Today, the size of the world economy has reached the boundaries of our planet. The Earth is less and less capable of regulating its environmental services and is getting confused. This manifests itself, among other signs, through the warming of our climate.



2) Ecological economics is a transdisciplinary field of academic research that aims to address the interdependence and coevolution of human economies and natural ecosystems over time and space. Ecological economics was founded in the works of Kenneth E. Boulding, Nicholas Georgescu-Roegen, Herman Daly, Robert Costanza, and others.

Three Strategies for Sustainable Development

1 | The efficiency strategy

Up until today, economic progress was based on increasing labour productivity. The mantra was 'produce more with less people', while natural resources were considered infinite. Because the world and its resources are actually limited and the carrying capacity of the Earth is limited as well, we are in need of a new definition of progress. According to the efficiency strategy, the emphasis should no longer be on labour productivity, but on increasing the productivity of natural resources. **FACTOR FOUR**³ and **FACTOR FOUR**⁴ are goals of dematerialisation that fit in an eco-efficiency strategy. We try to produce as much output as possible with a minimum input of materials, resources and energy. We have to take into account the full life-cycle of a product, from the extraction of resources to the consumption of the goods to the point where these become waste. During this entire process fair labour conditions should be met.

The efficiency strategy supports closed cycles in which materials and energy are reused as much as possible. Products are designed in such a way that they only require a minimum amount of resources, made from biologically degradable materials and built from modules which are easily recyclable.

In such a strategy, technology can play an important role. Buildings can be constructed in a way that decreases the impact on the environment by 75%. However, in order to accomplish a completely sustainable transition within our society, products and technologies have to be available to everyone. In the housing market we will produce the largest social and environmental gains if these sustainable measures apply to the homes of vulnerable societal groups as well.

2 | The sufficiency strategy

An efficiency strategy alone is not enough. All too often, the gains from more efficiently produced goods are lost due to the total economic growth – the so-called 'rebound effect'.

Rebound effect

The rebound effect is what happens when higher efficiency output results in lower prices. This lowering of cost stimulates demand, through which total consumption of the resources equals the starting level. Cars today use much less fuel than 20 years ago, but the amount of cars and miles driven has increased so rapidly that the total amount of fuel consumption by cars is still on the increase.

3) **FACTOR FOUR** refers to the idea that natural resources can be used more efficiently in all domains of daily life, either by generating more products, services and quality of life from the available resources, or by using less resources to maintain the same standard. For more information, see <http://www.wupperinst.org/FactorFour>.

4) **FACTOR TEN** refers to the possibility of creating products and services that have a considerably lower resource intensity than a conventional alternative. It calls for a ten-fold reduction in resource consumption in the industrialised countries as a necessary long-term target if adequate resources are to be released for the needs of poorer countries.



Therefore we need to complement the efficiency strategy with a sufficiency strategy. The sufficiency strategy is directed towards wellbeing rather than material growth. To get there, we have to consume differently and, most of all, less. Happiness does not rely on ever-ongoing consumption. The sufficiency strategy strives to guarantee the same level of quality of life, but with less material consumption. Society should develop in a qualitative way (as regards technology, knowledge, income distribution) rather than in a quantitative way. Rising pressures in our society to consume more result in less time for social activity. Family, friends, volunteer work ... it all requires an amount of time that few of us can commit to invest. This sufficiency strategy can only work for those strata in our society who live above a certain minimum material level.

3 | The Redistribution Strategy



Next to the efficiency and sufficiency strategies we also need a redistribution strategy to attain a socially just society. We have to work on a redistribution of the economy towards those sectors that have a lower impact on the environment, and strive for a redistribution of prosperity and an increased wellbeing of everyone. This strategy would use redistributive mechanisms such as increasing the minimum incomes through, among other things, a tax on wealth.

For the countries of the global South, the question of redistribution is even more evident and poignant. Concepts such as the 'ecological footprint' and 'ecological and social debt' make clear that the wealth enjoyed by the North is based on the exploitation and consumption of natural resources in the South. This all started during the age of colonisation, but persists up until today. A minor transfer of wealth in the form of development aid will never resolve the question of redistribution. Another way of engaging in trade and politics, which includes the adherence to binding international agreements, will certainly be necessary.



Changes in Attitude for Sustainable Development

These three strategies ask for a change in attitude; especially the sufficiency strategy should be supported by a change in our behaviour. The basic idea behind it is for us to produce and consume in a different and better way. In some cases we will have to consume less. It is important to mention here that consumption does not merely serve to meet basic needs such as hunger, thirst or shelter; consumption also plays a role in shaping our social identity and position. Furthermore, habits, different behaviours and culture play a role in our complex (consumption) behaviour patterns.

Despite growing attention towards the environment and climate, ethical consumption and fair trade in the last few years, a gap remains between how people think about their role as consumer and what people actually buy. Attitude and behaviour often do not match.

A variety of barriers block the path to sustainable consumption. The following scheme, based on the “All Quadrants, All Levels”⁵ scheme by Ken Wilber, clarifies what we need to focus on in order to attain a change in behaviour.

Wilber places the barriers in our society along two axes: an individual versus a collective axis, and an internal (subjective) versus external (objective) axis. In this way four quadrants describe the barriers for behaviour change in our society.

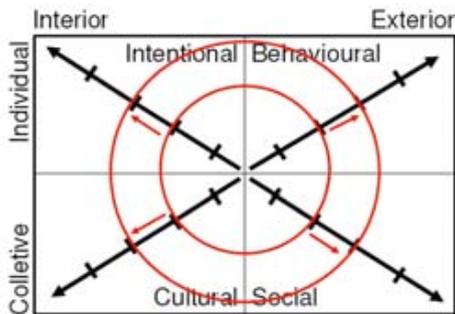
The first quadrant, the individual-internal (subjective) quadrant, describes the individual emotions and personal experiences of people. These include the norms, values, ways of thinking and **ATTITUDES** of people. If we take the example of food, there are few people who believe that biological food effectively contributes to a more sustainable society worldwide or to better health.

In the second quadrant, the individual-external (objective) level is delineated. Here we situate the exact **BEHAVIOUR** of people, taking into account the personal physical, cognitive and financial capacities. For example, not everyone can afford a sustainable renovation of his house.

The third quadrant, the collective-external (objective) part, deals with the **STRUCTURES** that hinder a change in behaviour. Often these are political structures which focus on short term actions instead of applying a global vision.

The last quadrant represents the barriers of the collective-internal (subjective) dimension. Here we see that the dominant **WORLD VIEW** and the associated social norms take centre stage. They influence our behaviour, people’s attitudes and political decisions. The urge for more individualism and materialism, for example, negatively influences the range of possibilities to attain a society based on solidarity.

This scheme puts the driving forces in society together in an integral model. If we want to attain a behaviour change in society it will have to come from an integral approach by working on all of these four quadrants at the same time.



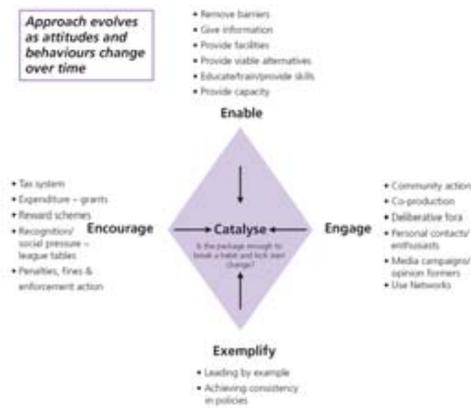
Integral approach to change



⁵ See <http://integralwiki.net/index.php?title=AQAL>

Civil Society and Sustainable Development

Civil Society can certainly play a role. Civil Society Organisations (CSOs) have the task to be a stimulating force in attaining behaviour change among the population. They can stimulate their constituencies by means of specific actions. They can signal certain societal problems to policy makers, have the duty to speak up against injustice, and to strive for a more just and sustainable world by presenting sound solutions. CSOs often focus on the two collective quadrants of the scheme and disregard the individual quadrants.



An effective strategy to move a society toward the necessary behavioural change is incorporated in the 4 Es model⁶ as developed by DEFRA (the UK's Department for Environment Food and Rural Affairs). The 4 Es stand for Enable, Encourage, Engage and Exemplify.

Enable

deals with the availability of options for sustainable consumption. Making sustainable choices should become easy and normal. Correct information needs to be available and making a sustainable choice should mean the choice is affordable and of high quality. Choosing to have a better isolated house should not be a time consuming effort. The costs and the ease of use of sustainable alternatives should be prioritised.

Encourage

wants to stimulate sustainable choices. Price stimuli or better targeted information campaigns can help in this. Sensibilisation, proper marketing and the communication of positive messages can convince people to behave in a more sustainable manner.

Engage

is crucial in order to reach out to a larger section of the population. By the formation and engagement of small citizen groups, more change can be achieved than individuals can achieve on their own. Using group stimulus measures the changes will be more easily accepted.

Exemplify

puts the spotlight on the importance of leading by example. Organisations can themselves choose to work sustainably. The experience they gain by doing so makes it easier for them to promote behaviour changes in others.

6) Securing the Future - UK Government Sustainable Development strategy, <http://www.defra.gov.uk/sustainable/government/publications/uk-strategy>.



Sustainable Development Means Participation Possibilities for Everyone

Participation is often called the fourth dimension and even the core of the process of sustainable development. The 1987 Brundtland report “Our Common Future” regards participation as a fundamental requirement to attain sustainable development: **“THE PURSUIT OF SUSTAINABLE DEVELOPMENT REQUIRES... A POLITICAL SYSTEM THAT SECURES EFFECTIVE CITIZEN PARTICIPATION IN DECISION MAKING.”**⁷ Sustainable development is a process through which this vision needs to be integrated into all institutional levels in our society. Participation offers many advantages. The active involvement of civil society brings new ideas, experience and expertise to the table and encourages the development of alternative and sound solutions. Participation decreases the risk of conflicts since all parties are involved in the decision making and it increases the chances for a better and more sustainable development. Participation also offers opportunities for collaboration and coordination between governments and civil society, which can increase mutual trust and can result in long-term cooperation.

Participation supposes the existence of structures and processes that guarantee civil society’s and citizens’ access to policymaking. Participation means more than attendance. The tempo and the options of participation need to be adapted to the participants, the ultimate purpose of participation need to be clear and there should be feedback to participants about the results of their participation. Another requirement for participation is a strong, politically engaged and well-organised civil society.

Other vital elements are of course political will, leadership and a long-term vision from politicians!

⁷) See Chapter 2, paragraph 81, Report of the World Commission on Environment and Development. "Our Common Future", 4 August 1987. United Nations. A/42/427, http://en.wikipedia.org/wiki/Our_Common_Future

How to participate on the local level?

The Sustainability Mirror – an initiative by VODO in the framework of the Focal Point Local Agenda 21 – is a questionnaire that measures the sustainability level of local policy. Local civil society organisations work in partnership with the local municipality on a list composed of 11 modules with questions about what is happening in the municipality and how participants value these actions. Besides a module on sustainable development – which deals with the overall principles of sustainable development – various ecological, economic and social themes are tackled. The mirror differs from other instruments such as the city monitor in that it takes a qualitative approach to the concept. The mirror aims to stimulate the local dialogue and provide prospects for cooperation across policy borders. The results are used to encourage municipalities to keep up a dialogue about sustainable development. Because it makes the participants think about sustainable development, it is not only an instrument to measure and communicate but also an instrument for learning. More information is available on www.duurzaamheidsspiegel.be.



Weblinks for the Interested Reader:

In Belgium

www.vodo.be

www.sla21.be

www.duurzaamheidsspiegel.be

and outside Belgium:

www.economischegroei.net

www.anped.org

www.wupperinst.org

www.seri.at

www.ecoeco.org

www.iisd.org/sd

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