

Z 0131

Regional sustainability → Trvale udržitelný rozvoj regionů

Cíl:

navrhnout opatření pro trvale udržitelný rozvoj Jihomoravského kraje

Kontext:

Strategie a program rozvoje JmK, programy rozvoje mikroregionů

4 kroky:

1. 22.11.2005 mapa, tabulka, text

přírodní kapitál → přírodní krajinné ekosystémy (PKE):
jejich přírodní složky jako přírodní zdroje

Jak vypadaly krajinné ekosystémy před využíváním lidmi?
chráněná území - vyhlášená a žádoucí/zdůvodněná - jaký stav?

2. 29.11.2005 mapa, tabulka, text

ekonomie → kulturní krajinné ekosystémy - využívání jejich
přírodních zdrojů = land use, technická infrastruktura,
hospodářská struktura → produkce zboží a služeb,
environmentální/ekologické dopady

3. 6.12.2005 mapa, tabulka, text

sociální kapitál → sociální infrastruktura, demografická
analýza, sídla, pracovní síla, trh práce, podnikání, subjekty,
public-private participation
programy rozvoje, současný stav uplatňování trvalé udržitelnosti

4. 13.12.2005 mapa, tabulka, text

policy and politics → návrhy opatření k regionální trvalé
udržitelnosti - projekty a jejich nositelé, financování, časový

plán, zavádění, dopady, další zlepšování = od 'weak sustainability' k 'hard sustainability'

.....

přírodní kapitál - přírodní složky → přírodní zdroje → přírodní krajinné ekosystémy (mapa, tabulka, text)

5 přírodních složek:

horniny a reliéf → využitelnost hornin, reliéf nejen jako produkt, ale především jako faktor ovlivňující lidské činnosti

klima → hydrotermický režim ovzduší a jeho charakteristiky s ohledem na lidské činnosti (nejen průměrné, ale i extrémní veličiny)

oběh vody → vodní bilance území, vodní síť - povrchové a podzemní vody, prostorový chod/režim

struktura půdního pokryvu → skupiny půd a jejich vlastnosti s ohledem na lidské činnosti

potenciální/rekonstruované bio/fytocenózy

Wright R.T. 2005: *Environmental Science - toward a sustainable future*. Pearson Education International, Prentice Hall, 9th ed., Upper Saddle River, 712 pp.

Ecosystem capital = the natural and managed ecosystems that provide essential goods and services to human enterprises

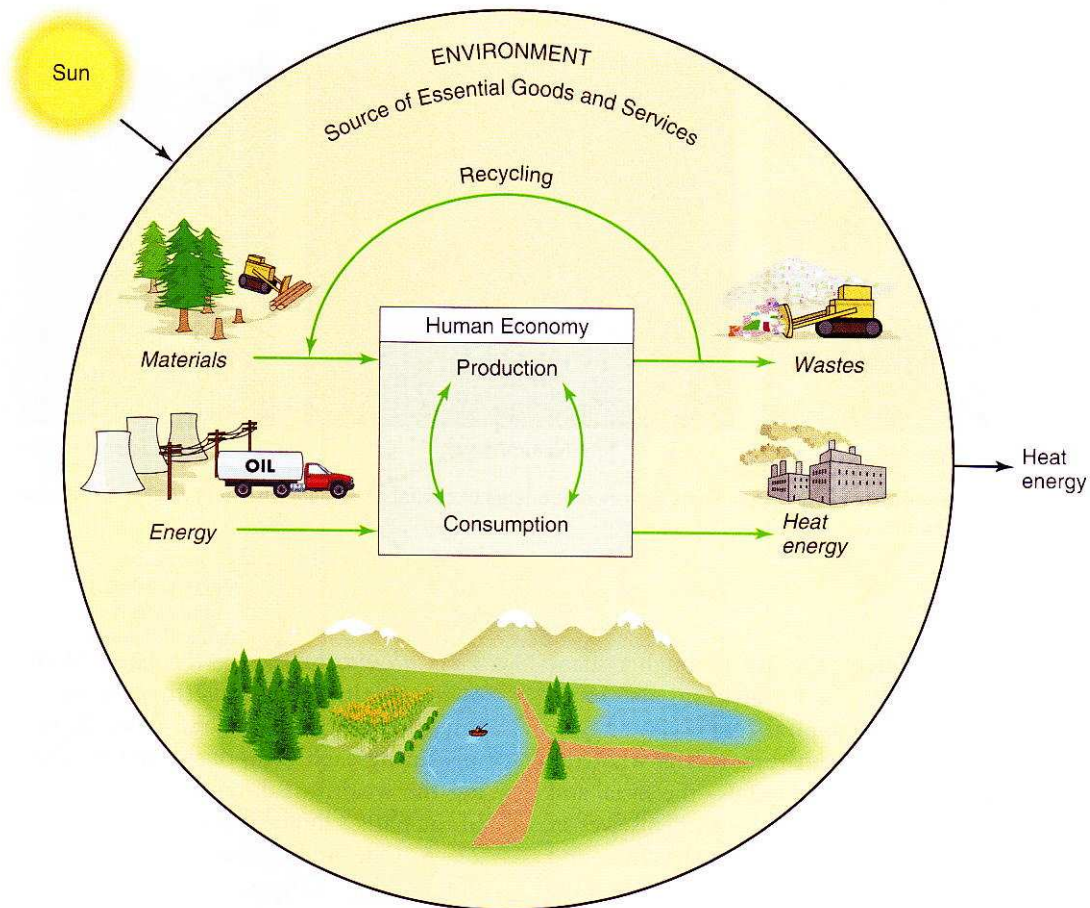


Figure 22-3 Environmental economic view of economic activity. The natural environment encompasses the economy, which is constrained by the resources found within the environment.

Economic production can be seen as it really is: the process of converting the natural world to the manufactured world. Renewable and nonrenewable resources and the ecosystems containing them are turned into cars, toys, books, food, building, highways, computers etc.

Resources flow into the economy from the enfolding ecosystem and are transformed by labour and capital, (using energy, also a resource) and then passed out of the economy and back into the ecosystem in the form of wastes.

Carrying capacity - in managing renewable resources = *maximum sustainable yield* (MSY): the highest possible rate of use that the system can match with its own rate of replacement or maintenance.

MSY applies not only to the preservation of natural biotas, but also to the maintenance of parks, air quality, water quality and quantity,, and soils - indeed , the entire biosphere

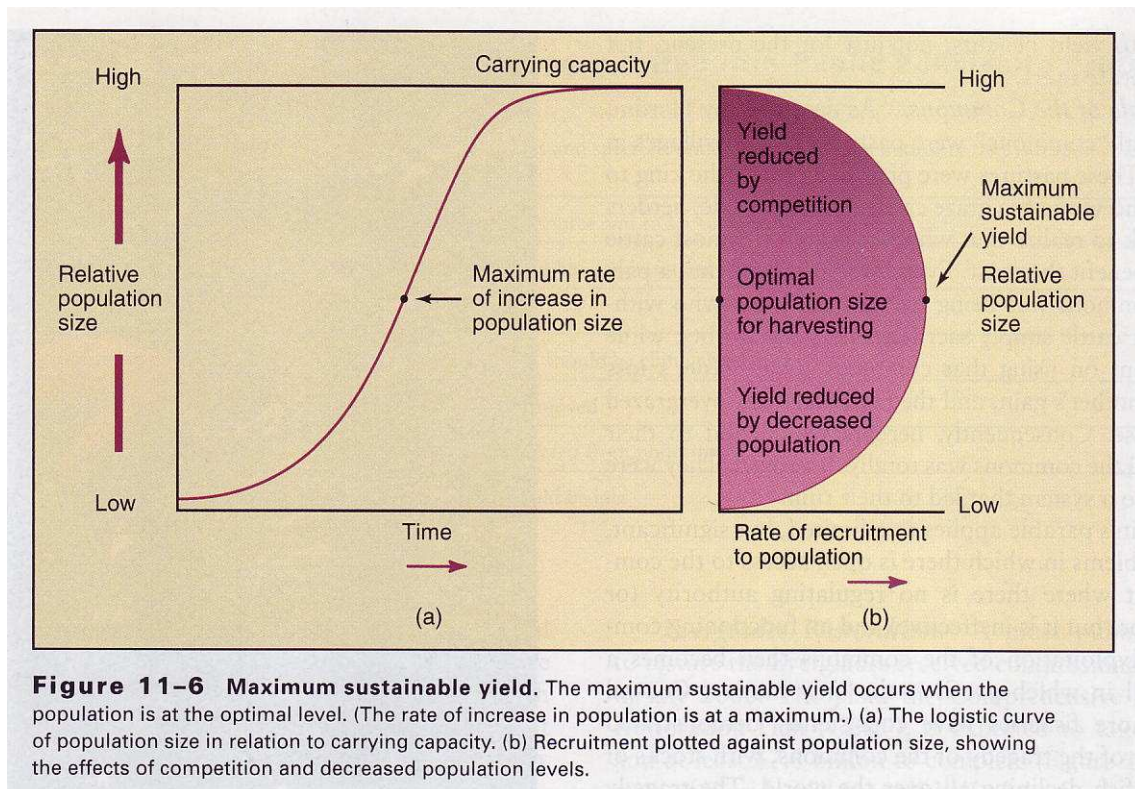


Figure 11-6 Maximum sustainable yield. The maximum sustainable yield occurs when the population is at the optimal level. (The rate of increase in population is at a maximum.) (a) The logistic curve of population size in relation to carrying capacity. (b) Recruitment plotted against population size, showing the effects of competition and decreased population levels.

CC varies from year to year as the weather fluctuates, human impacts (pollution),

Consumptive use versus productive use

Consumptive = when people harvest natural resources in order to provide for their needs for food, shelter, tools, fuel, and clothing they are engaged in..... local markets, families... their own needs.....gathering, hunting

Productive = the exploitation of ecosystem resources for economic gain... products are harvested and sold for national or international markets.... It is a an enormously important source of revenue and employment for people in every country... the commercial trade..... private, community, state ownership

MSY as a fixed quota - in fishery management , the *total allowable catch* (TAC). If uncertainties - **precautionary principle** to favour the protection of the living resources (below MSY)

The commons (= obecni, občina)

Garrett Hardin (1968) *The tragedy of Commons*

Landscape ecosystems:

Matter and energy in (non)living systems

Trophic chains

Biodiversity - species

Succession

Dynamics

Disturbance

Resistance

Resilience

Environmental hazards

*Hazard...*anything that can cause (cultural, biological, physical,chemical)

injury, disease, or death to humans

damage to personal or public property

degradation/deterioration/destruction of the environment (environmental components)

with respect to human health.... Exposure - risk...

Risk assessment is the process of evaluating the risks

associated with particular hazard before taking some action in a situation in which the hazard is present

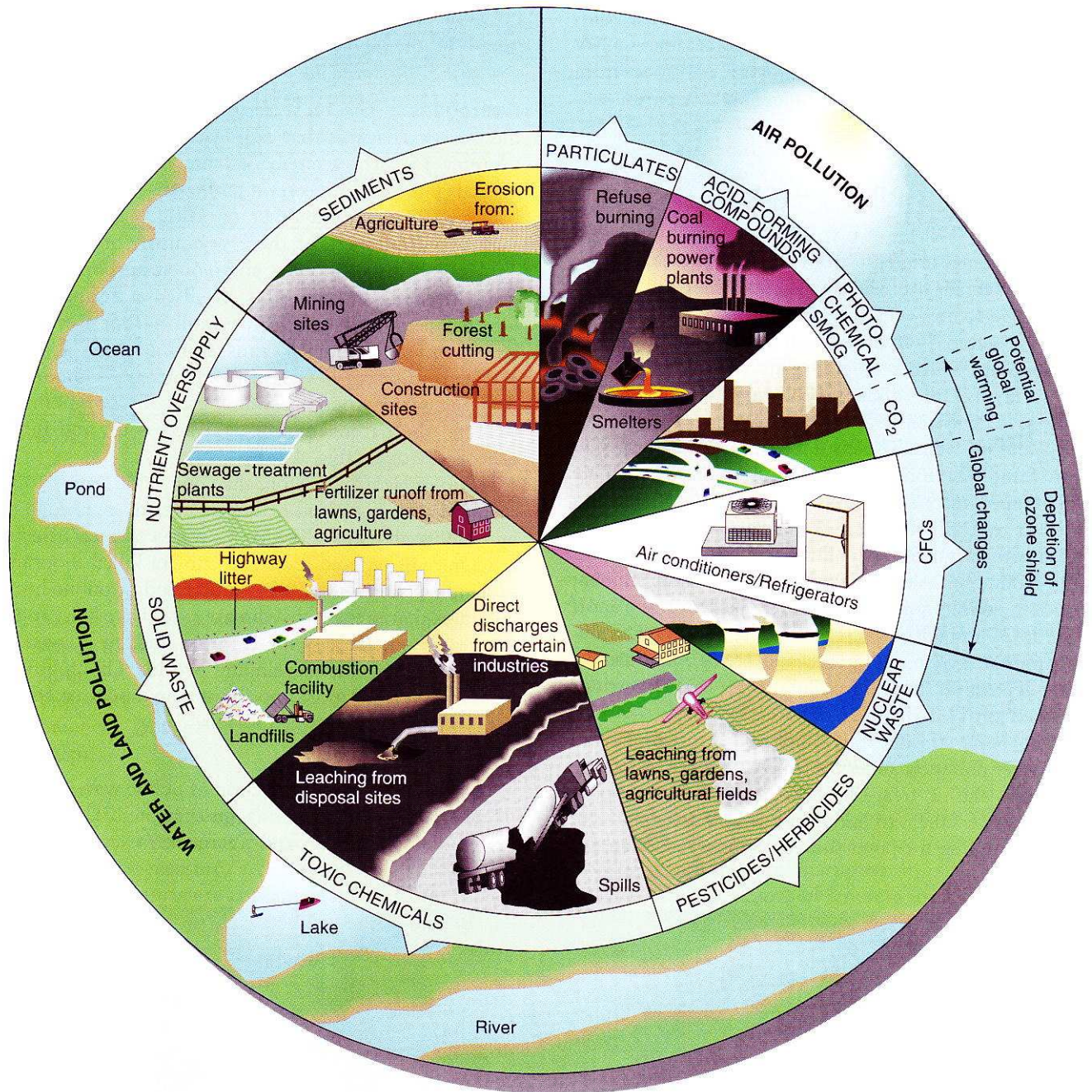


Figure 17-2 Categories of pollution. Pollution is an outcome of otherwise worthy human endeavors. Major categories of pollution and some activities that cause them are shown here.

An ecosystem has the capacity to replenish itself through reproduction despite certain quantities of organisms being taken from it, and this renewal can go on indefinitely - it is sustainable. Conservation of natural biotas and ecosystems does not -or at least should not - imply *no* use by humans whatsoever, although this may sometimes be temporarily expedient in a management program to allow a certain species to recover its numbers.

Rather the aim of conservation is to *manage or regulate use* so that it does not exceed the capacity of the species or system to renew itself. Conservation is capable of being carried out sustainably, and when sustainability is adopted in principle, conservation has a well-defined goal.

Preservation - the objective is to *ensure species and ecosystems continuity, regardless of their potential utility*. For example, it is impossible to maintain old-growth (virgin) forests and at the same time harvest the trees. Thus a second-growth forest can be *conserved* (trees can be cut, but at a rate that allows the forest to recover), but an old-growth forest must be *preserved* (it must not be cut down at all)

(případ brazilských opic v druhotných lesích....)