

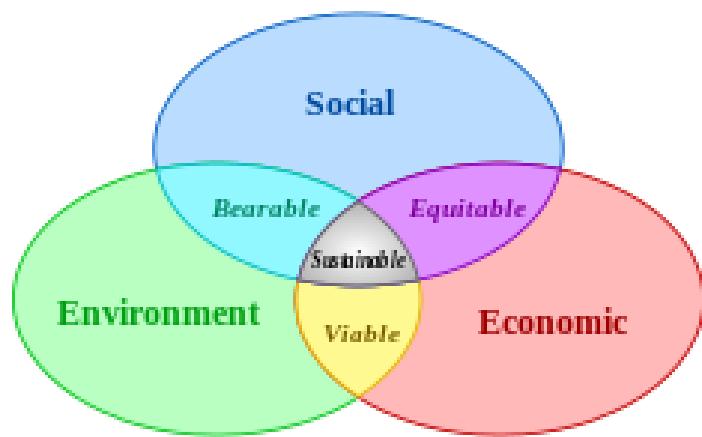
Ecotourism along river Danube



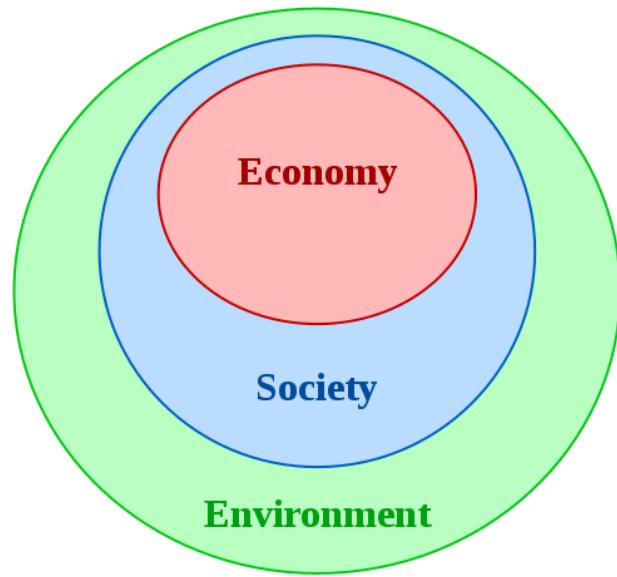
Budapest 12 October 2018.

Resource of foto: <https://www.idokep.hu/webkamera/predikaloszek>

Sustainable Development

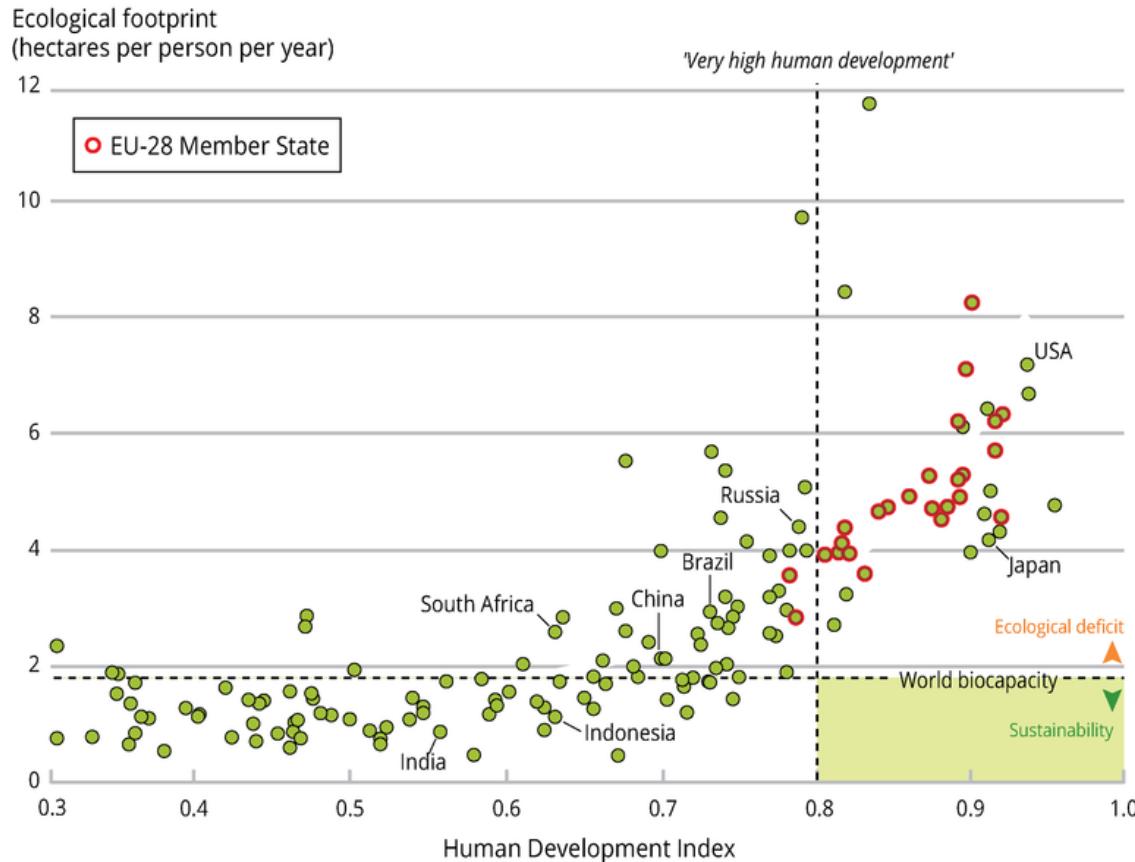


Older approach



Present approach

Sustainable Development

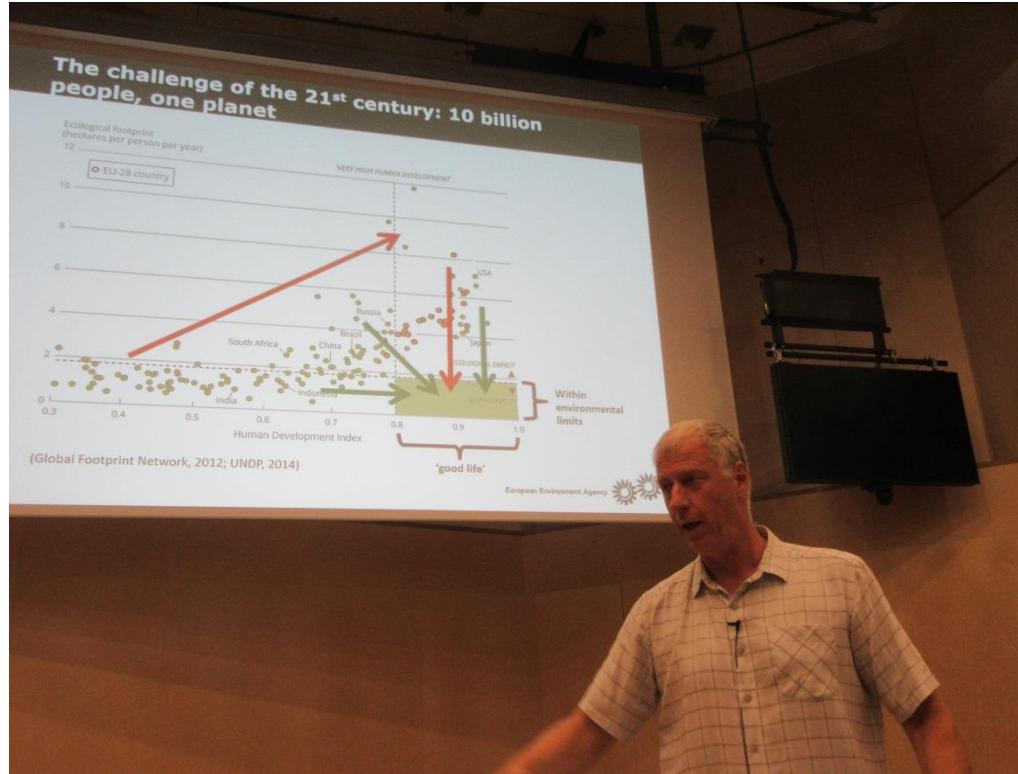


Ecological Footprint (2008) and Human Development Index (2012)

The **Human Development Index** is calculated using three components: education, life expectancy at birth and wealth. It is expressed as a value between 0 and 1, from less to most developed countries.

The **Ecological Footprint** measures how much land and water area a population requires to produce the resources it consumes and to absorb its waste. The world biocapacity is the global productive area available on Earth (it decreases as population grows).

Sustainable Development



„...even if developed states wanted to decrease their ecological footprint, by that time environment could not restore its original state. By that time biodiversity and landscape would be so much degraded, that it would not be restorable any more.
In the aspect of the graphic: we had to go down into the green field (following the red arrow), but by that time we had no green field any more.”

Sustainable Development

„Sustainable tourism means tourism which provides for **sustainable use of environmental resources**,

Prevents threats to the **biological and landscape diversity** on which it is intrinsically dependent and minimizes adverse environmental, ecological, cultural and social impacts;

Provides educational opportunity increasing knowledge of and respect for natural ecosystems and biological resources;

Respects the **socio-cultural authenticity of host communities** conserving their built and living cultural heritage and traditional values,

Contributes to **inter-cultural understanding and tolerance**,

Contributes to ensuring **viable, long-term economic operations**, providing socio-economic benefits to all stakeholders that are fairly distributed, including **stable employment** and **income-earning** opportunities and social services to host communities, and contributing to poverty alleviation.



Resource: Carpathian Convention, Protocol on Sustainable Tourism (2011)

<http://www.carpathianconvention.org/>

http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/02%20Activities/2.1.5%20Protocol%20on%20Sustainable%20Tourism.pdf

Ecotourism

Ecotourism destinations in Europe should have:

A **protected area** associated with the destination;

A critical mass of **local ecotourism businesses**;

A **sustainability plan** under implementation, in developing ecotourism;

Nature and local culture as the main ingredients in product development and marketing;

Active participation of local communities, empowered through **education and awareness** raising, based on shared values.



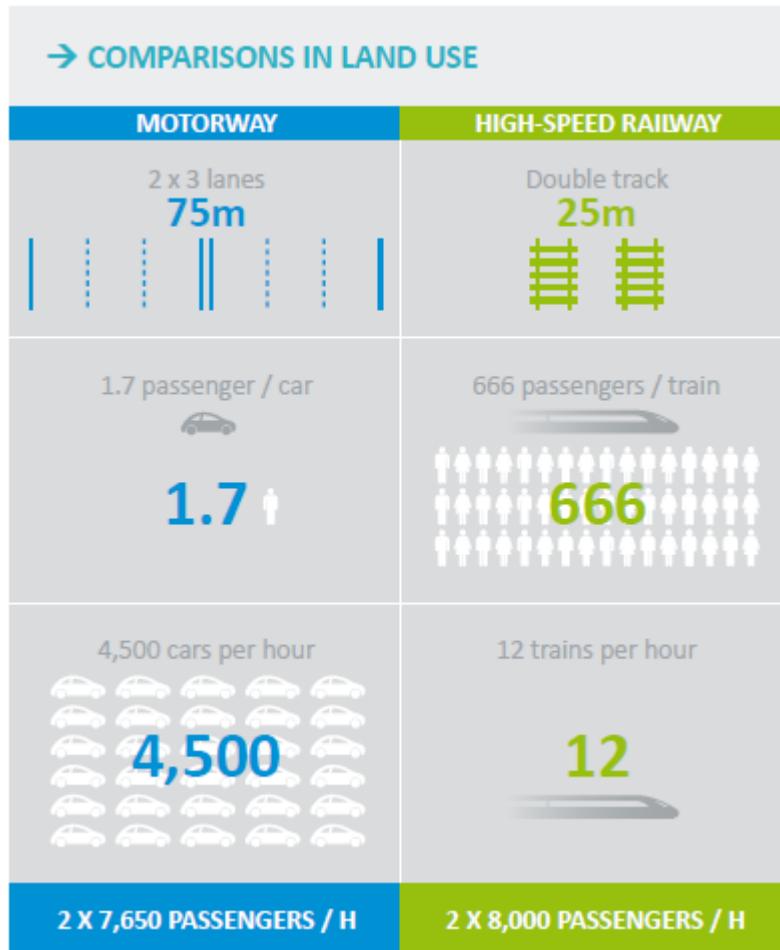
Ecotourism

Participants of the Ecotourism Workshop at the conference titled **Danube Ecological Corridor** (Budapest March 2018) agreed that elaboration of **Ecotourism Strategy for the Danube Valley** could provide mutual benefits for nature conservation and local communities.



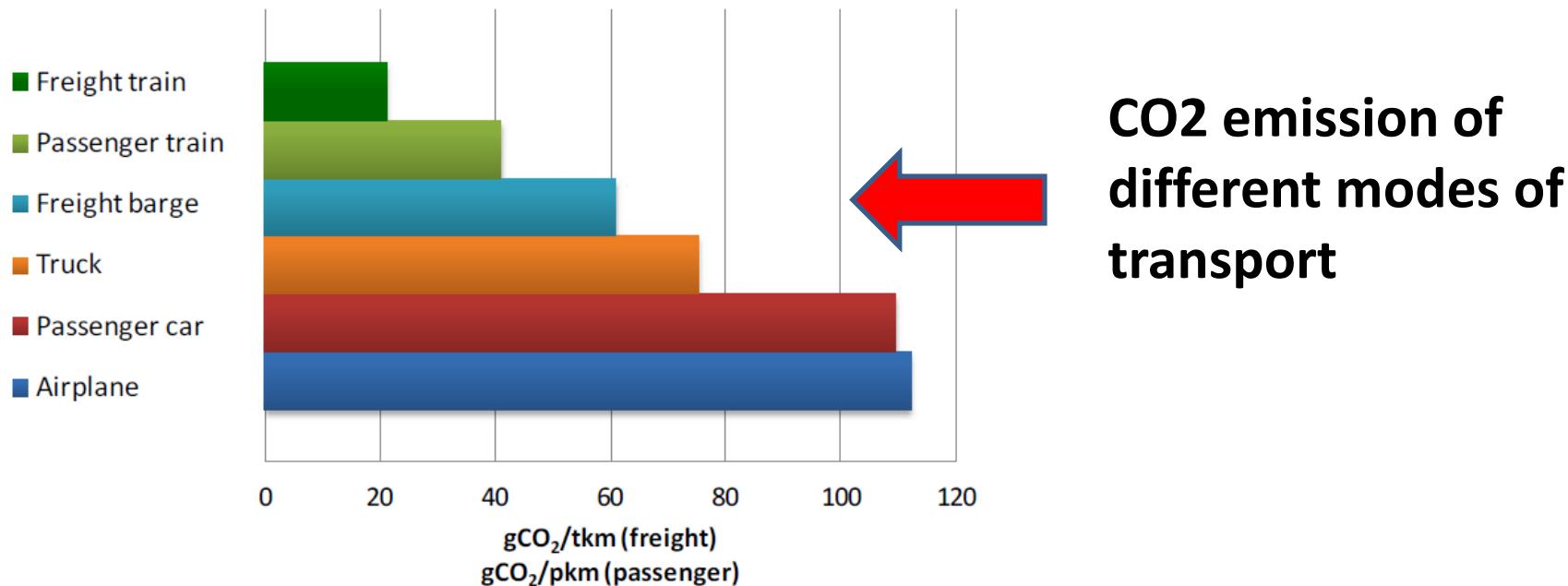
Rowmania: Tulcea, Romania

Key question of ecotourism: transport



Land use of road traffic and railway
(same capacity,
not including parking area need of the cars)

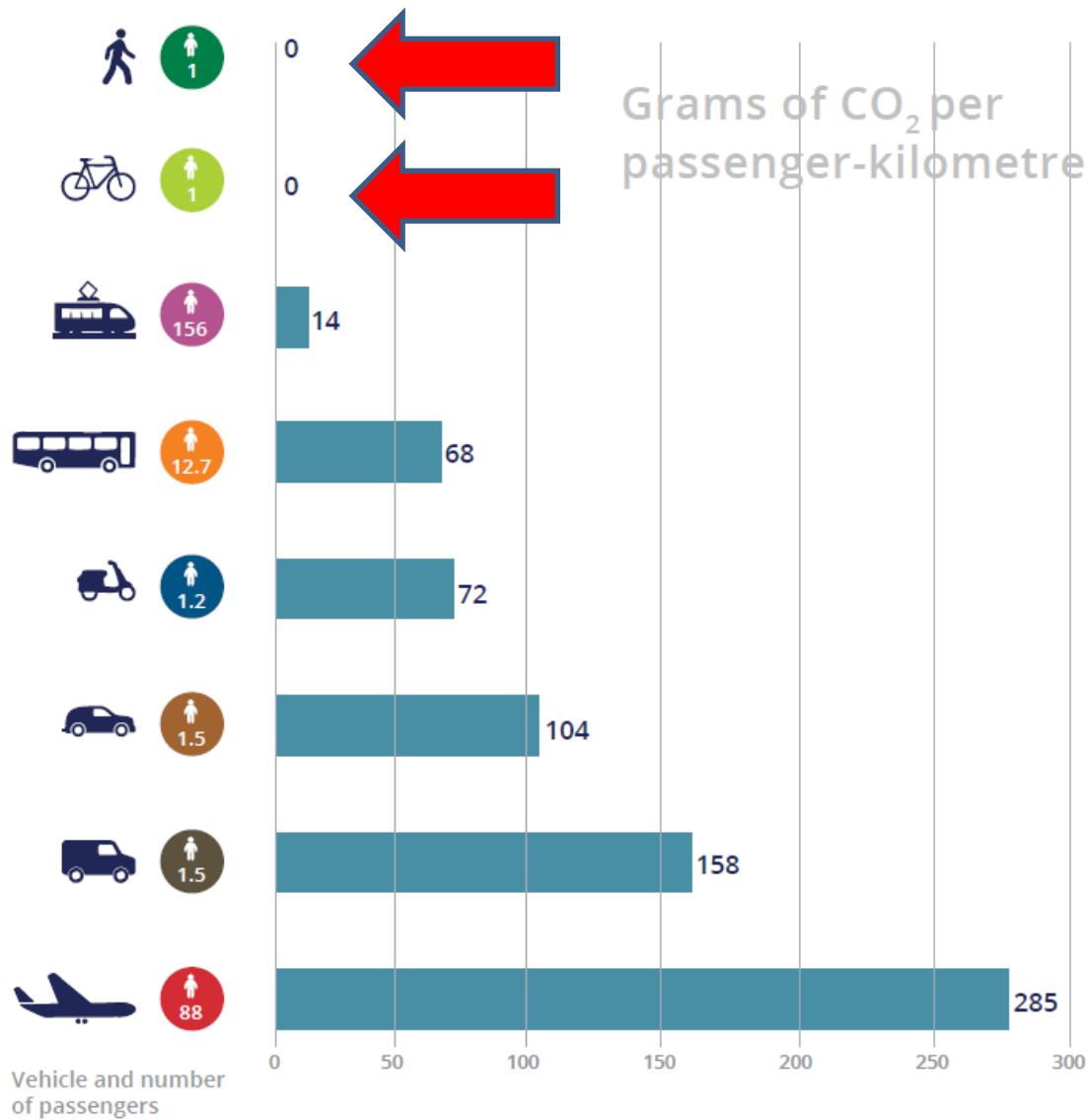
Key question of ecotourism: transport



Resource: Rail Transport and Environment – Fact & Figures

<http://www.cer.be/sites/default/files/publication/Facts%20and%20figures%202014.pdf>

Key question of ecotourism: transport



CO2 emission of different modes of transport

(gram/passenger kilometre)

Key question of ecotourism: transport

Rowing

- Ecological footprint is small
- Possibility to close exploration of local values
- Strong local traditions for rowing



Key question of ecotourism: transport

Rowing

- Ecological footprint is small
- Possibility to close exploration of local values
- Strong local traditions for rowing



Hengerel a magyar csapat: öt arany- és egy bronz a kezdzés Plovdivban!



Újra hasít a magyar evezős sport!

2016. december 14. 11:42



Tíz aranyig meg sem álltak a magyarok Plovdivban



Kajak-kenu: a magyar csapat végzett az éremtáblázat élén a belgrádi Európa-bajnokságon

Forrás:

<https://24.hu/sport/2018/07/29/tiz-aranyig-meg-sem-alltak-a-magyarok-plovdivban>
<https://24.hu/sport/2018/06/10/kajak-kenu-eb-magyar-csapat-eremtblazat-takacs-tamara-lakatos-zsanett/>
<http://sportmenu.hu/hengerel-a-magyar-csapat-ot-arany-es-egy-bronz-a-kezdes-plovdivban/>
http://tortenelem.mandiner.hu/cikk/20161214_tevesz_laszlo_ujra_hasit_a_magyar_evezos_sport

Key question of ecotourism: transport

Cycling

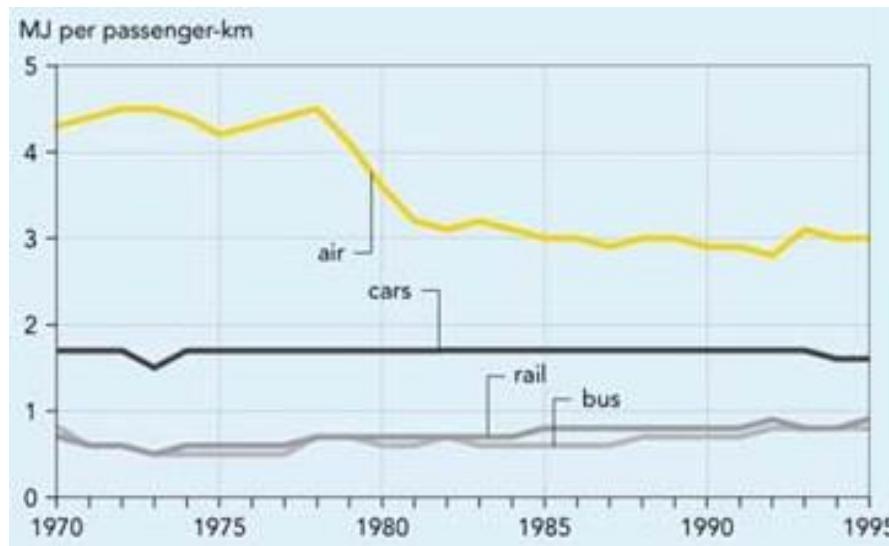
- Small ecological footprint
- Great possibilities to explore an area
- Cycling path along the Danube river is the most popular in Hungary.



Key question of ecotourism: transport

Railways

„Rail is the most energy-efficient mode of passenger transport.”

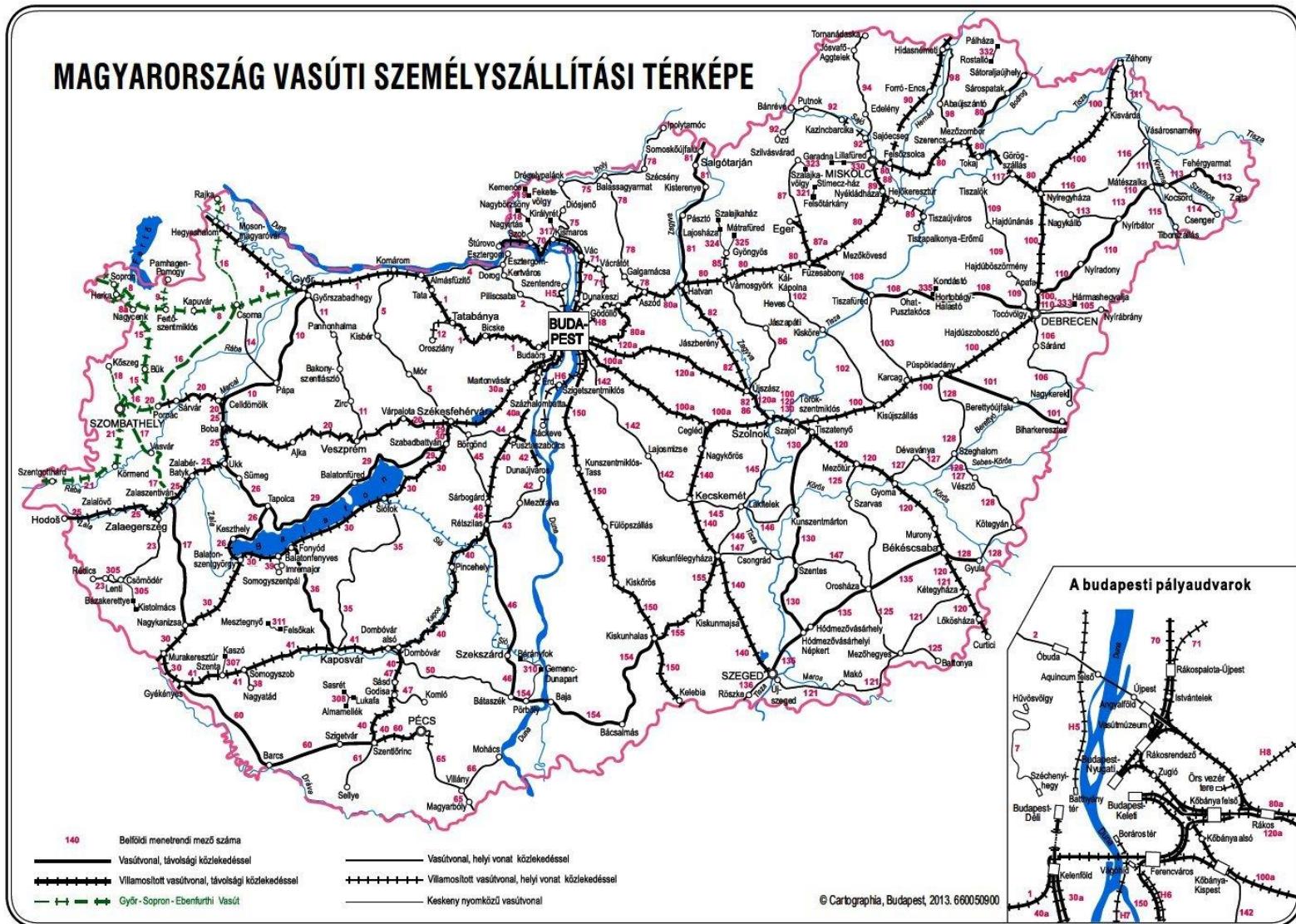


Resource: Energy efficiency

<https://www.eea.europa.eu/publications/ENVISSUENo12/page027.html>

Key question of ecotourism: transport

Railway infrastructure in Hungary



Key question of ecotourism: transport

Some narrow gauge railways



Nagycenk



Márianosztra



Kemence



Királyrét



Gemenc

Key question of ecotourism: transport

Navigation



Lowest ever water level at Budapest – October 2018

Key question of ecotourism: transport

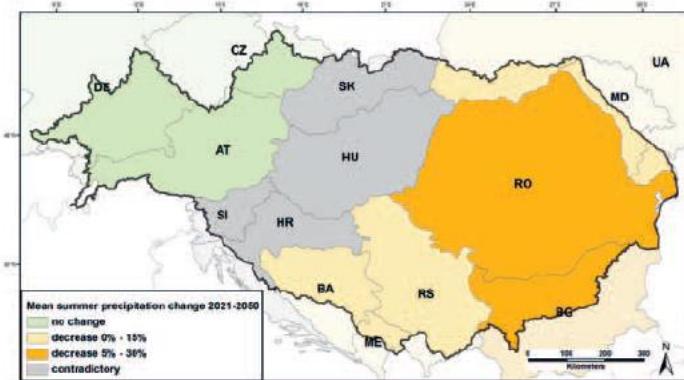
Navigation

Change of summer (JJA) mean precipitation in the Danube River Basin for different periods according to A1B and A2 scenarios of different model results

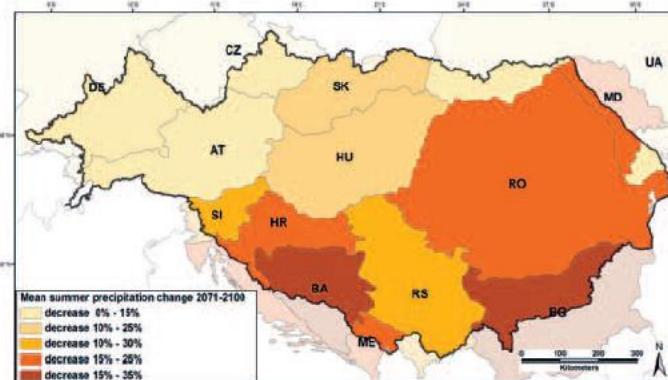
FIGURE 6

2021 - 2050

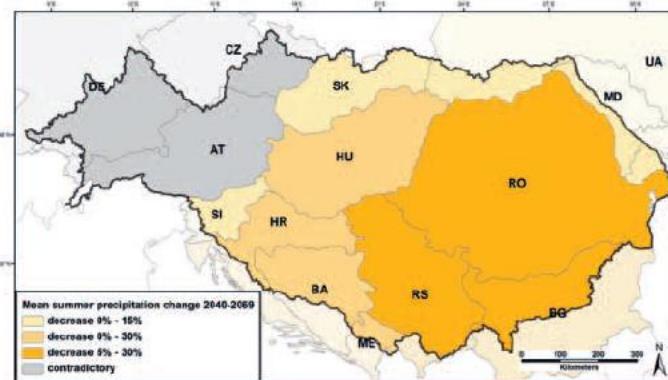
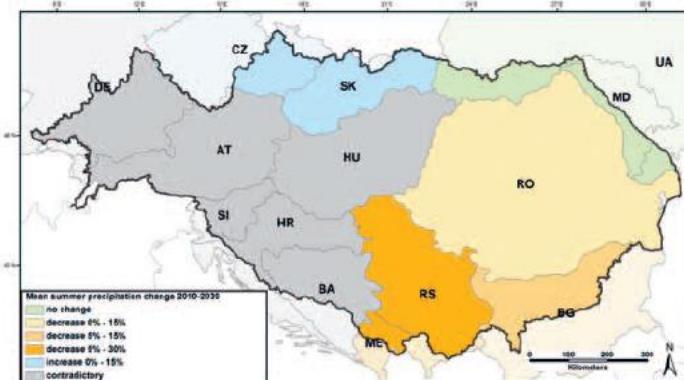
A1B



2071 - 2100



A2



Prospects for water levels in the Danube valley

Key question of ecotourism: transport

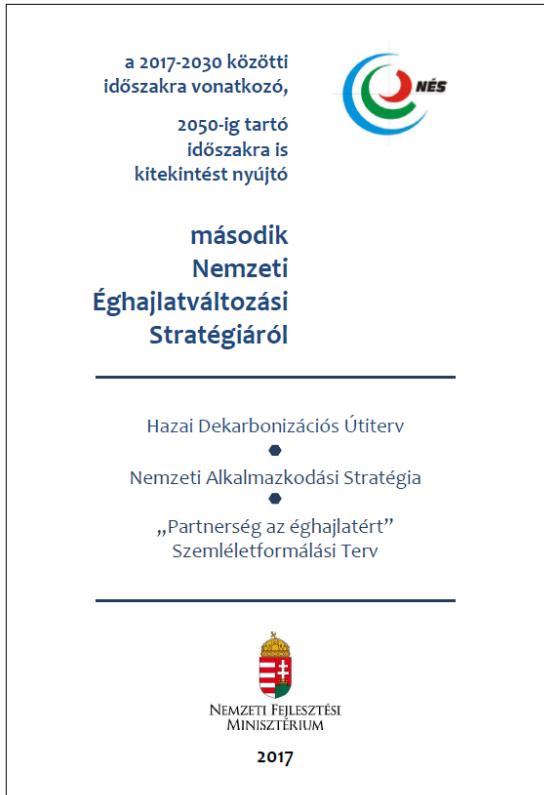
Navigation

second

National Climate Strategy

IV. 7. 2. Water management

SHORT TERM DIRECTIONS FOR ACTION



„At management of water flows that affect level of groundwater it is important to give priority to solutions that avoid lowering and deepening of channels and riverbeds...”

More than 5000 animal- and 2000 plant species in the Danube Valley



Sunbathing visitors
(photo: Kern / Donau-Auen National Park)



White-tailed Eagle (photo: Hoyer /
Donau-Auen National Park)



Golubac fortress
(photo: Djerdap National Park)



Viewpoint over the Danube
(photo: Djerdap National Park)



Szentendrei island (photo: Zsolt Kalotás /
Duna-Ipoly National Park)



The Mosoni Duna
(photo: Gyula Horvát / www.szigetköz.eu)



White Pelicans (photo: Christian Mititelu /
Danube Delta Biosphere Reserve Authority)

„like stepping stones: chain of protected areas along Danube create ecologic corridor”

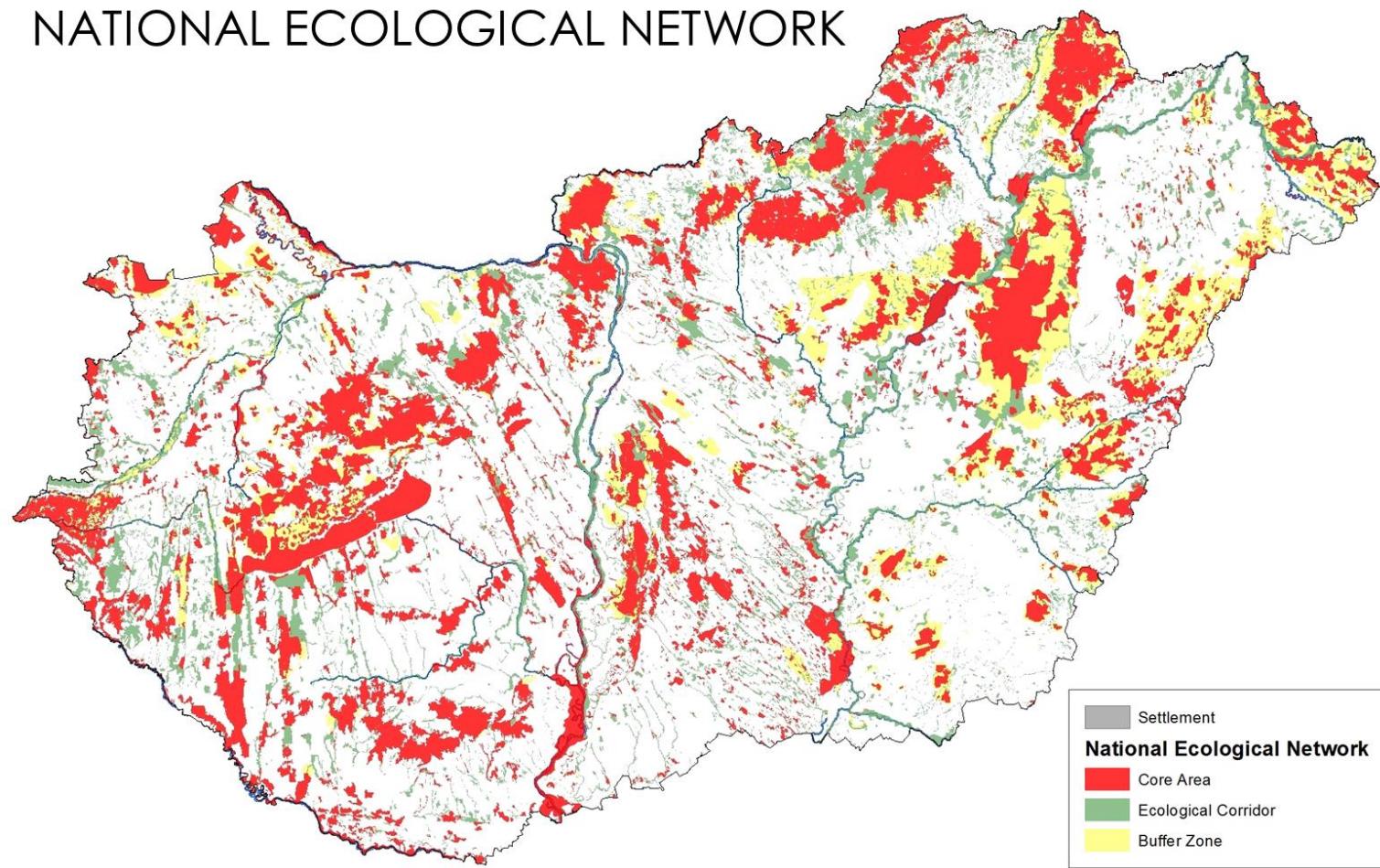
Mag. Georg Frank
DANUBEPARKS secretary general



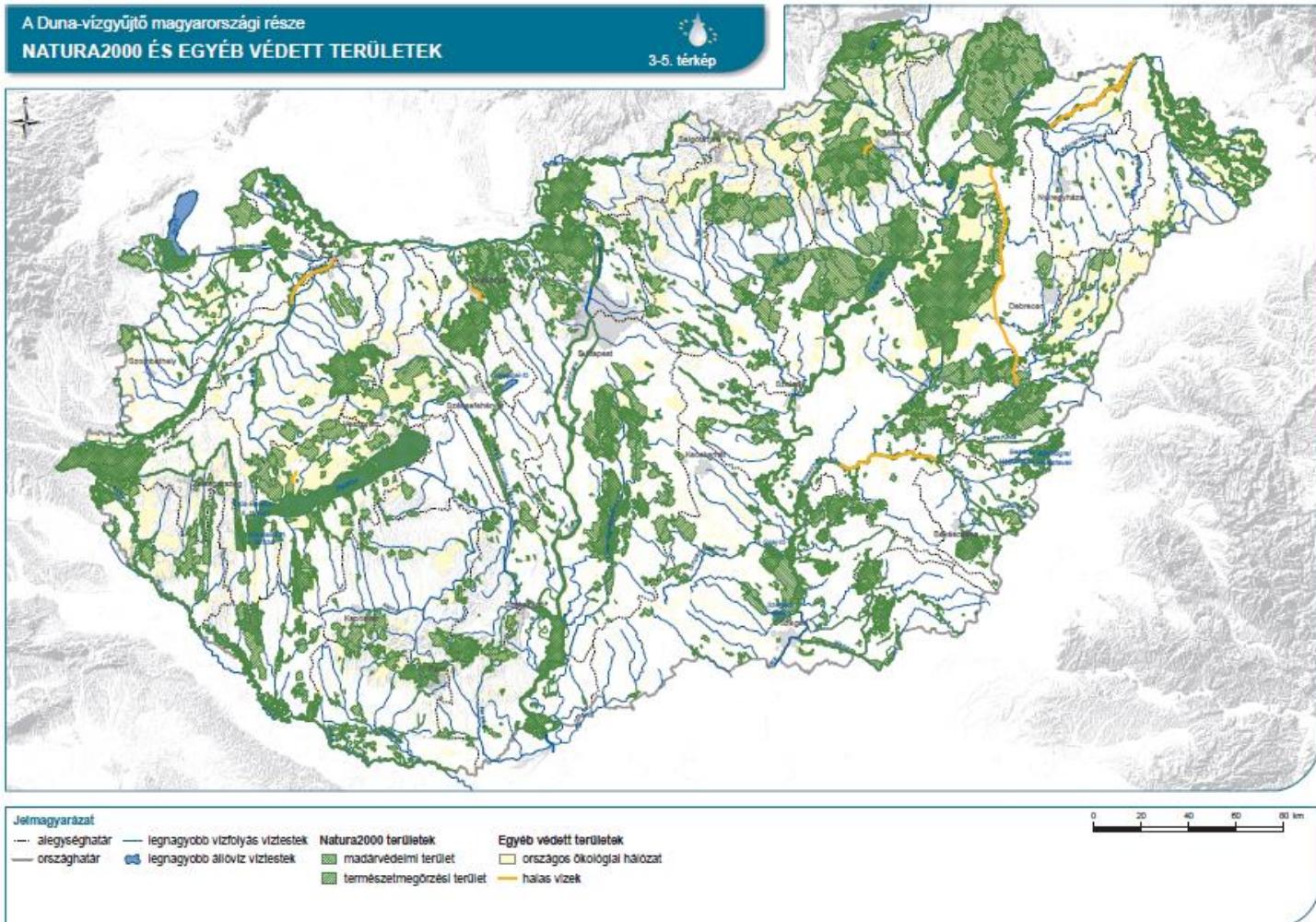
Act XXVI. of 2003 on National Spatial Plan

(2003. évi XXVI. Törvény az Országos Területrendezési Tervről) designated parts of National Ecological Network.
As part of it: whole **Danube valley became part of Ecological Network.**

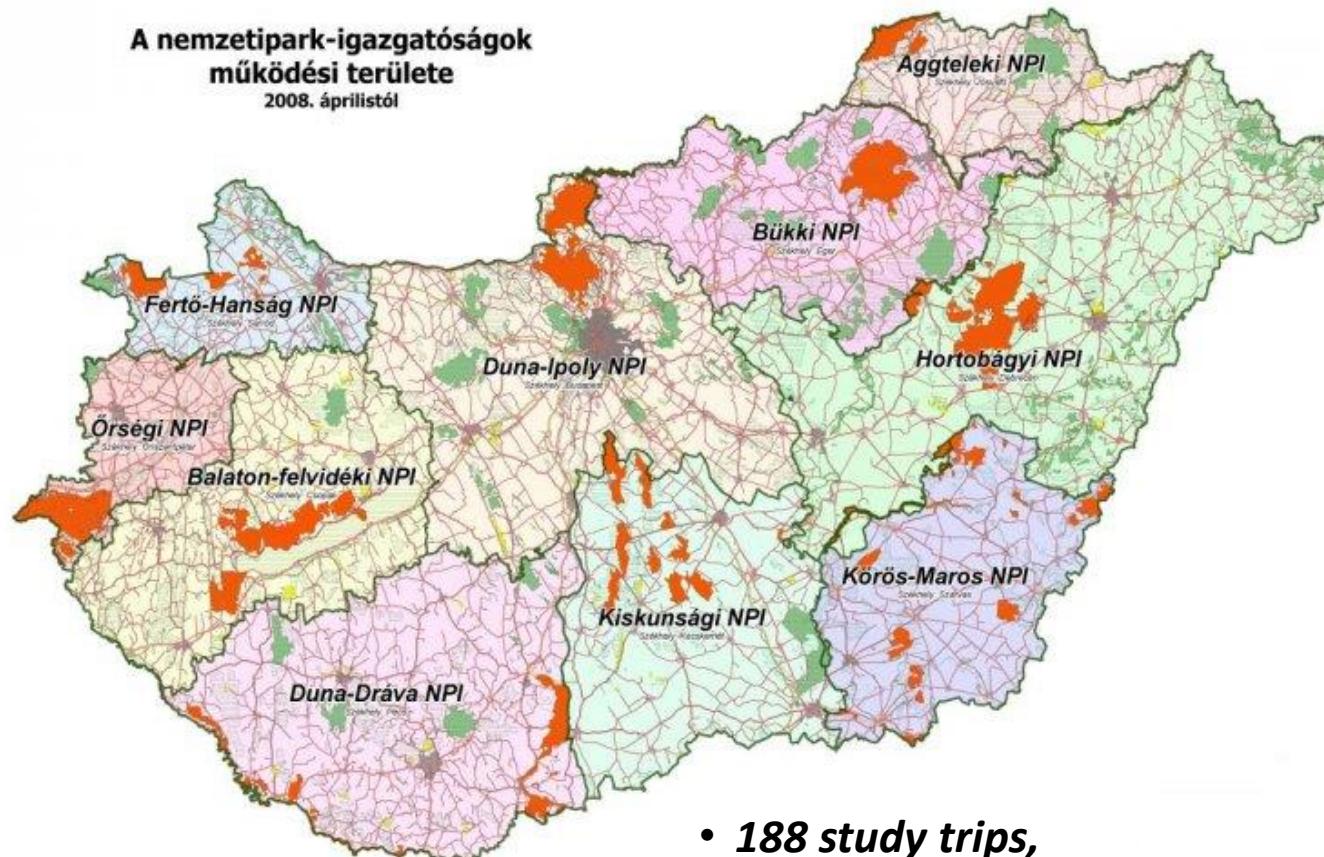
NATIONAL ECOLOGICAL NETWORK



Protected areas



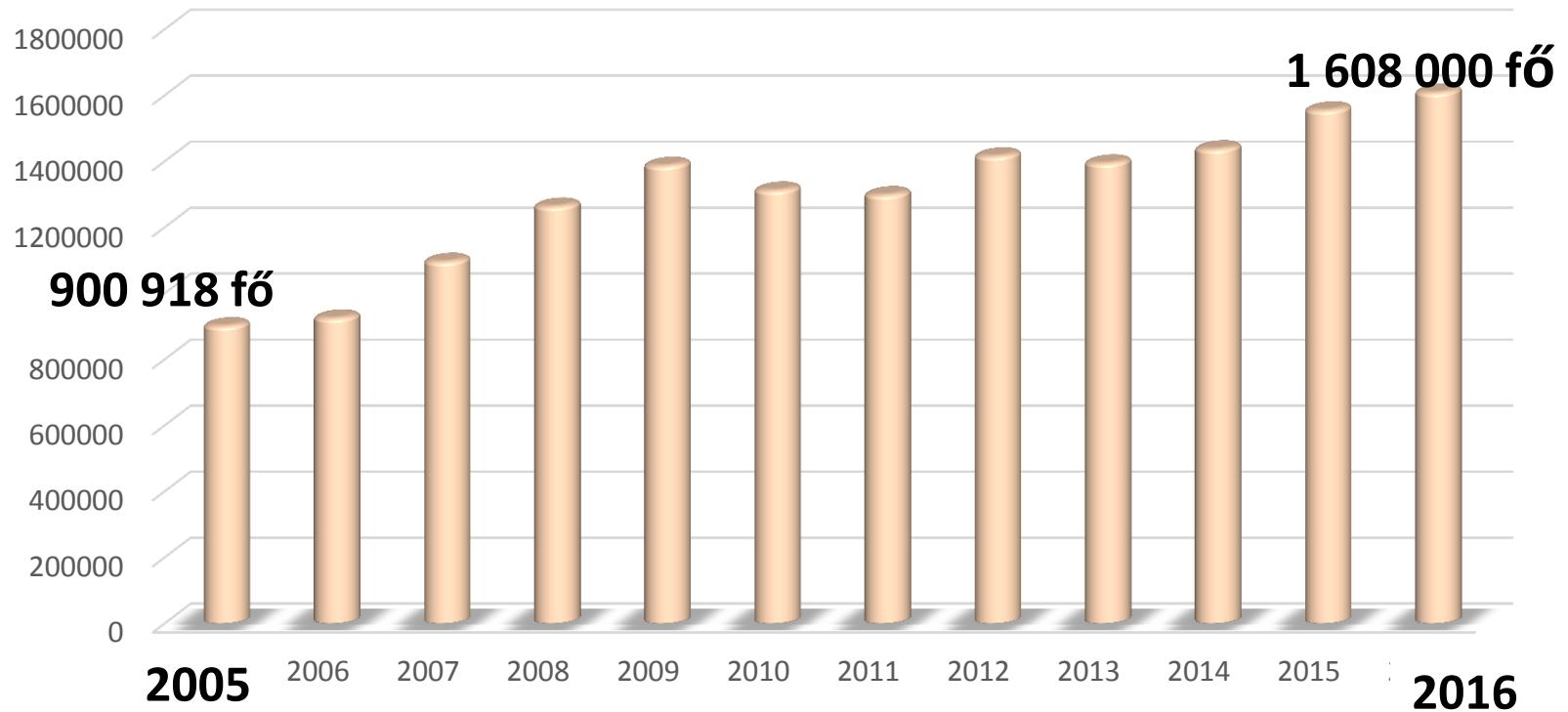
National parks



- **188 study trips,**
- **8 guest houses,**
- **4 botanic gardens,**
- **34 caves open for tourists,**
- **59 other sights**



National parks



National parks: number of registered visitors (2005-2016)

Nemzeti Parkok

One of the development plans: Danube Curve Visitor Centre



National Park Products



Resource: <http://nemzetiparkitermek.hu/>

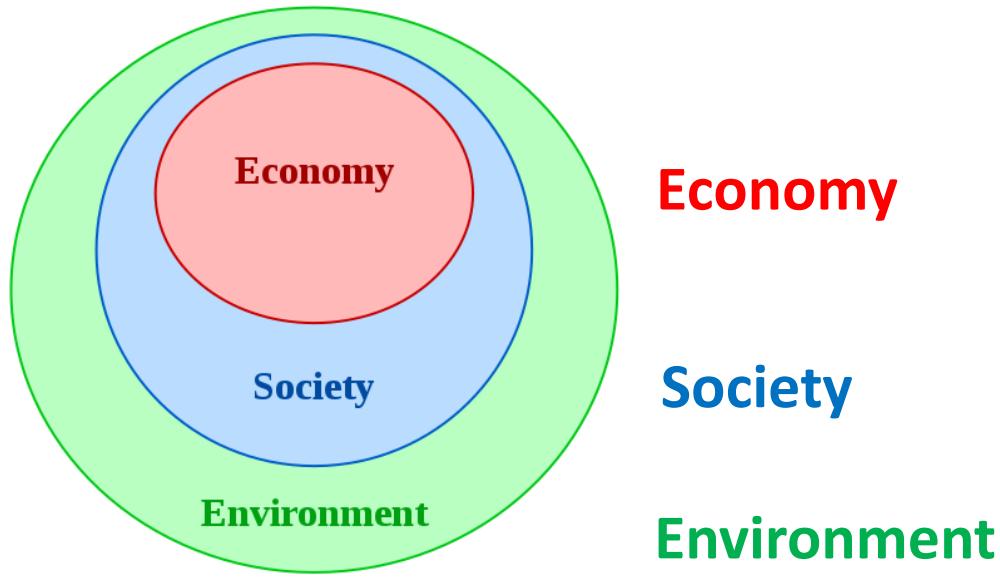
Network of „forest schools”



PLASTIC CUP



Sustainable Development



Comparison some forms of tourism based on sustainability

- Gastro tourism / wine tourism
- Tourism by plane
- Cycling touring
- Cruise trip
- Extreme sports (e.g. mountain biking)
- Group travel (by bus)
- Hiking
- „Forest schools“ (educational touring for primary schools)



Lessons learnt: environment

Comparing environmental effects is not easy. Still, based on data and assessments a sequence can be elaborated.

Mountain biking can be extremely destructive (due to soil erosion).

Tourism for education („forest schools“) enhances environmentalism only in longer term.



Lessons learnt: **economy**

Economic effects can be relatively easily compared (paid euro / guest night).

Biking touring is a surprisingly notable segment: surveys reported that average Vienna – Passau biker pays **65-75 euro per day**.

(<http://eionet.kormany.hu/eurovelo-es-okoturizmus-fejleszesek-ausztrianban>).

Benefits of „forest schools” can not be counted in euro.



Lessons learnt: society

Societal effects of tourism are hard to compare. Still, one can base on effects on local economy / centralisation of services.

*„while 100 % of spending of biking tourists „lands” at local services,
In the case of cruising ships this rate is 5%“*

DANURB projekt



„in European level there is more income from cycling touring than from cruising trips”

Máriusz Révész
government commissioner



*„Tour bikers pay **75 euro** in average per day”*

Dr. Michael Meschik
University of Natural Resources and Life Sciences,
Vienna

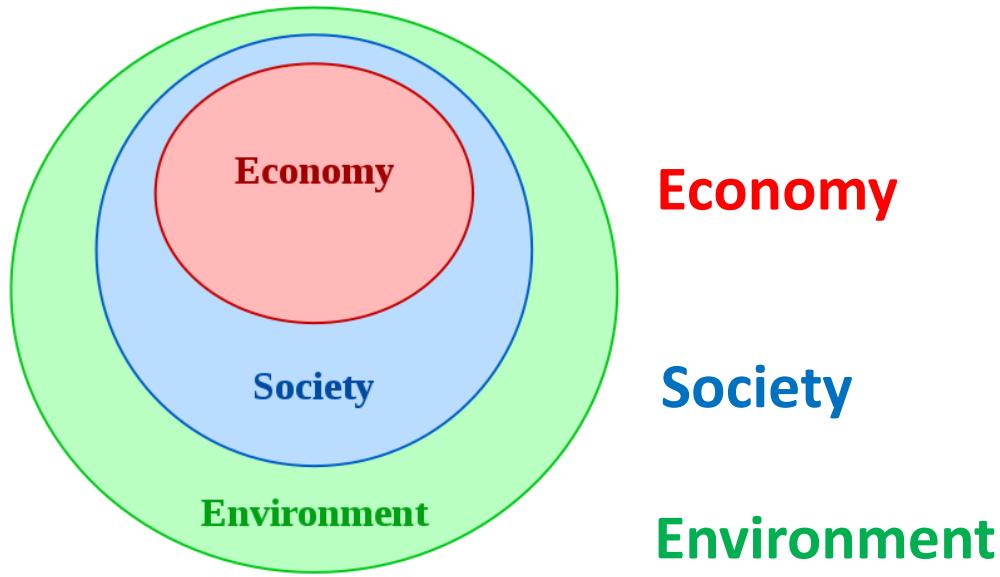


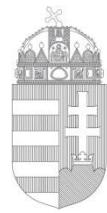
*„average passenger of these cruise ships pay locally **6 euro** per day ”*

Boris Čamernik
Danube Competence Center,
Belgrád

Resource: <http://eionet.kormany.hu/ecovelotour-konferencia>
<https://www.biketours.com/danube-river/>
<https://www.amawaterways.com/ships>

Sustainable Development





AGRÁRMINISZTÉRIUM



Thank you for your attention!

Miklós Marton
miklos.marton@am.gov.hu