



# 2011 Survey of resource efficiency policies in EEA member and cooperating countries

**COUNTRY PROFILE:**

# Hungary



Country information on resource efficiency policies,  
instruments, objectives, targets and indicators,  
institutional setup and information needs

**May 2011**

This country profile is based on the information provided by the Unit of Environmental Policy (Gabriella Pajna), Hungarian Ministry of Rural Development. The information is current as of February 2011.

This country profile was prepared as part of the EEA-ETC/SCP 2011 survey of resource efficiency policies, which aims to collect, analyze and disseminate information about national experience in the development and implementation of resource efficiency policies in EEA member and collaborating countries. The work resulted in the following outcomes:

- **Short 'country profiles' (this document)** - self assessments prepared by countries, describing the current status of resource efficiency policies, including key strategies and action plans, policy objectives, instruments, targets and indicators used, institutional setup and information needs.
- **Summary report** - prepared by the EEA and ETC/SCP, the report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies information needs and knowledge gaps.
- A session on resource efficiency policies during the 2011 EIONET workshop to discuss further needs and to facilitate information sharing and experience exchange among EIONET members.

More information about resource efficiency policies, including an analytical report "Resource efficiency in Europe" and thirty one country profiles, can be found at:

<http://www.eea.europa.eu/resource-efficiency>

# 1. Resource use in Hungary – facts and figures

## 1.1 General facts and figures about the country



Source:  
<https://www.cia.gov/library/publications/the-world-factbook/index.html>

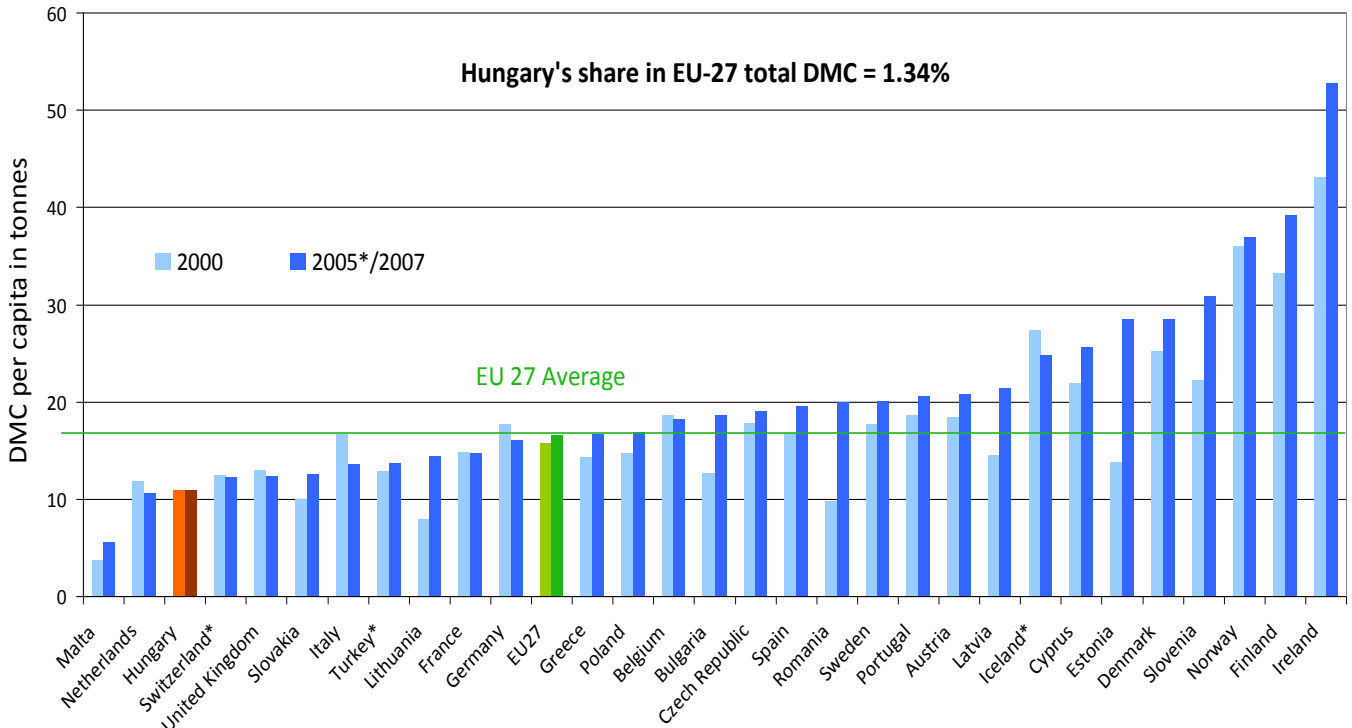
Population (projected inhabitants for 2010) [1]	10,014,324
➤ Percent of total EEA-32	1.7%
Surface area (km <sup>2</sup> ) [2]	93,028
➤ Percent of total EEA-32	1.64%
GDP at market prices – Purchasing Power Standard – Current Prices (Million Euro, 2009) [3]	153,160.7
➤ Percent of total EEA-32 (minus Liechtenstein)	1.2%
GDP per capita in Purchasing Power Standards (PPS) [4] EU27=100 (2009)	65
Urban population (rate of pop., 2009) [5]	67.9%
Main economic sectors and their share in total GDP (2009 est.) [2]	
Agriculture	2.8%
Industry	35.7%
Services	61.5%
EU accession date [6]	1.5.2004

Additional relevant background information on Hungary (and on 37 other EEA member and cooperating countries) can be found at the SOER2010 website:

<http://www.eea.europa.eu/soer/countries/hu>

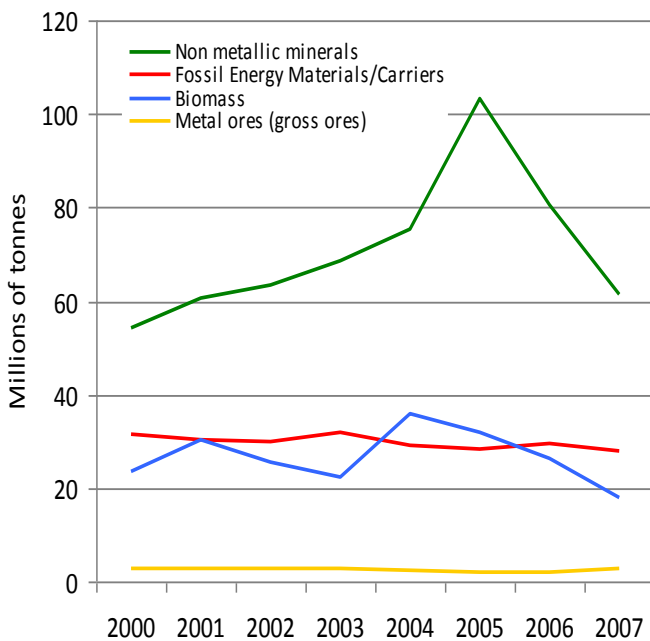
## 1.2 Facts and figures on resource efficiency for Hungary

### Use of resources per capita 2000 and 2007 [tonnes DMC/capita]



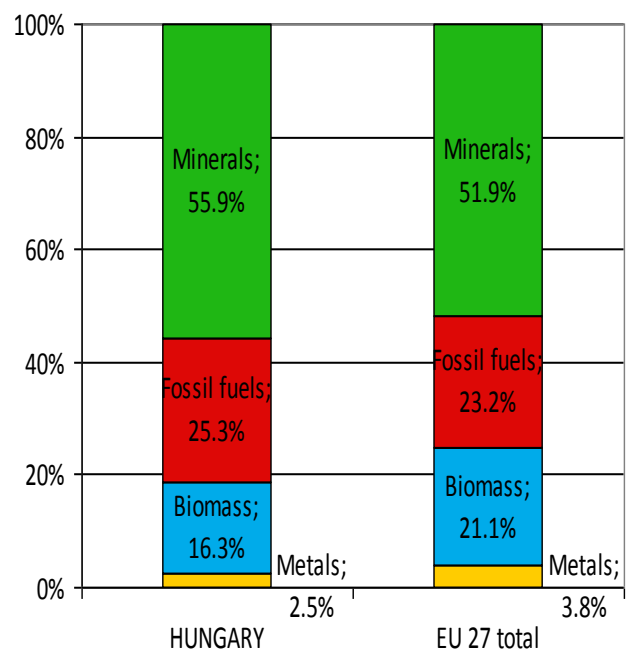
Source: Eurostat, OECD and Total Economy Database [7] \* = For these countries data is for 2000 and 2005

### Domestic Material Consumption by category over time, Hungary



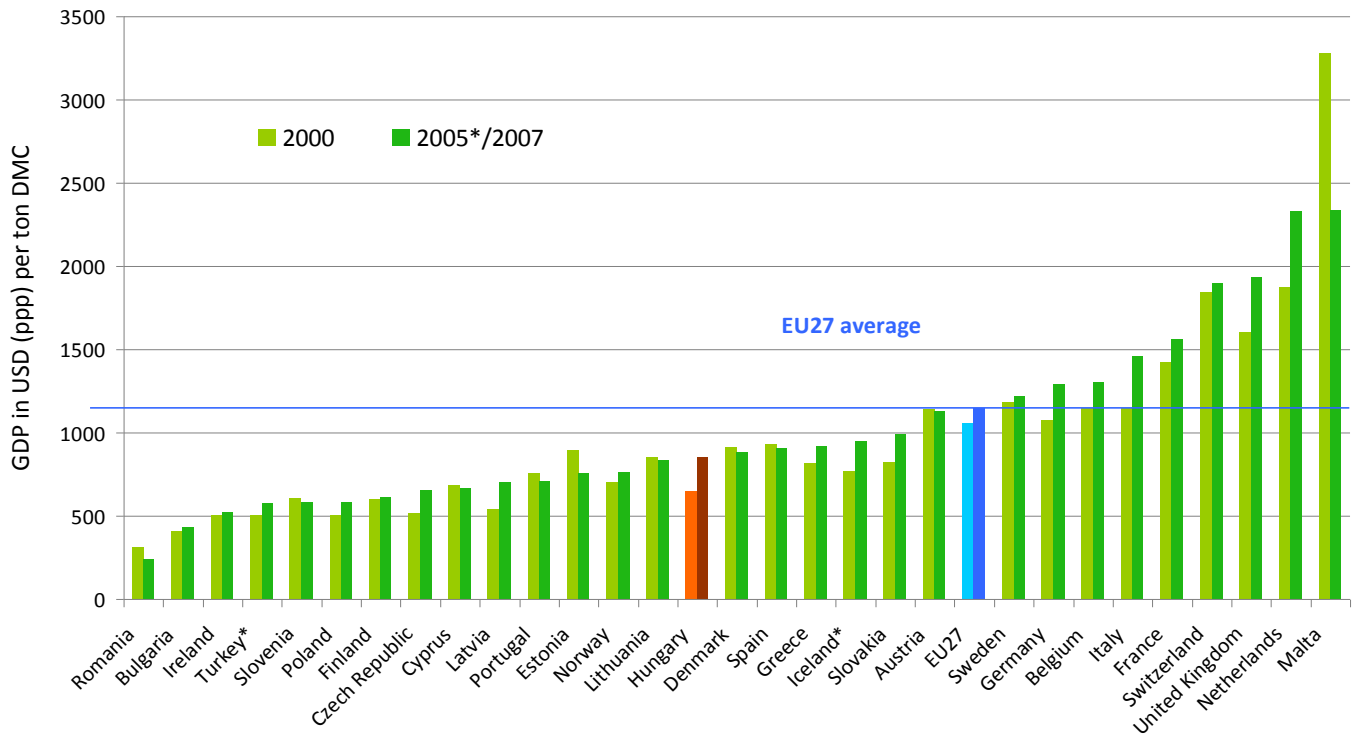
Source: Eurostat [8]

### Breakdown of DMC by type of materials (2007)



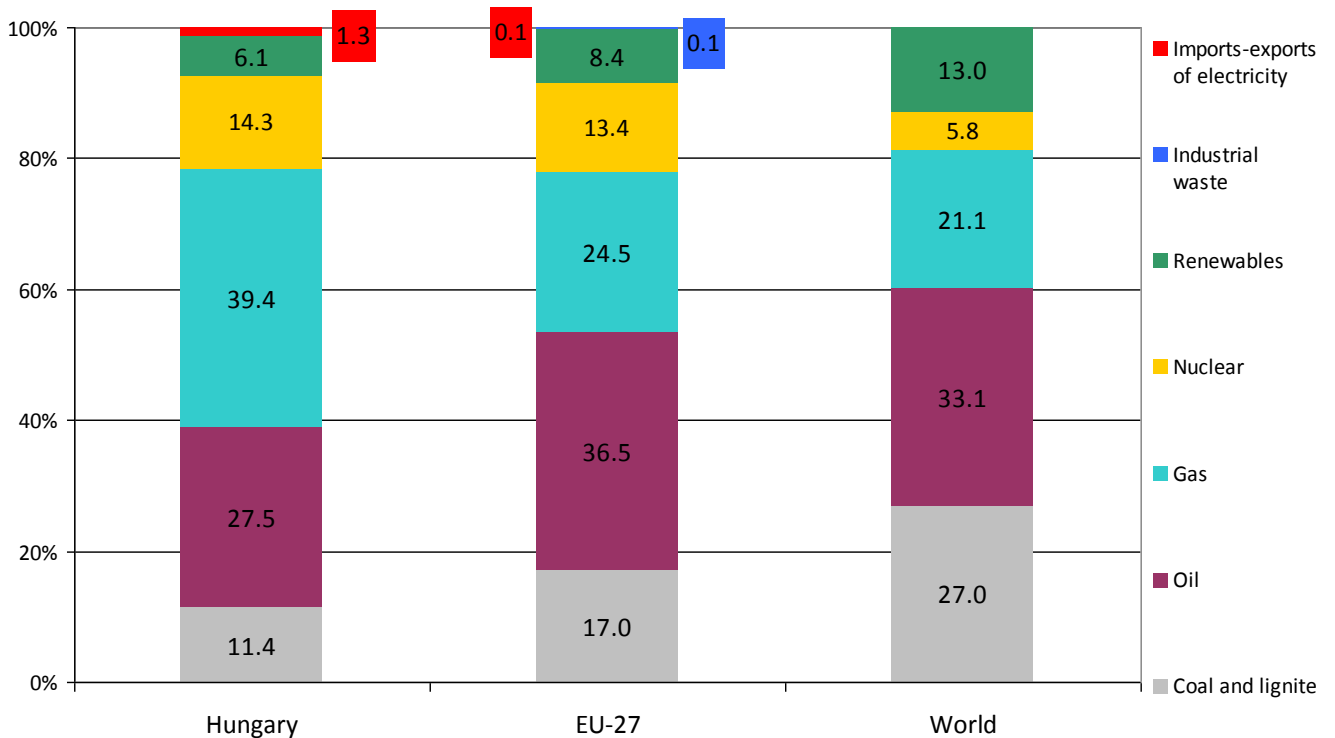
Source: Eurostat [8]

### Material productivity 2000 and 2007 [USD ppp/ton DMC]



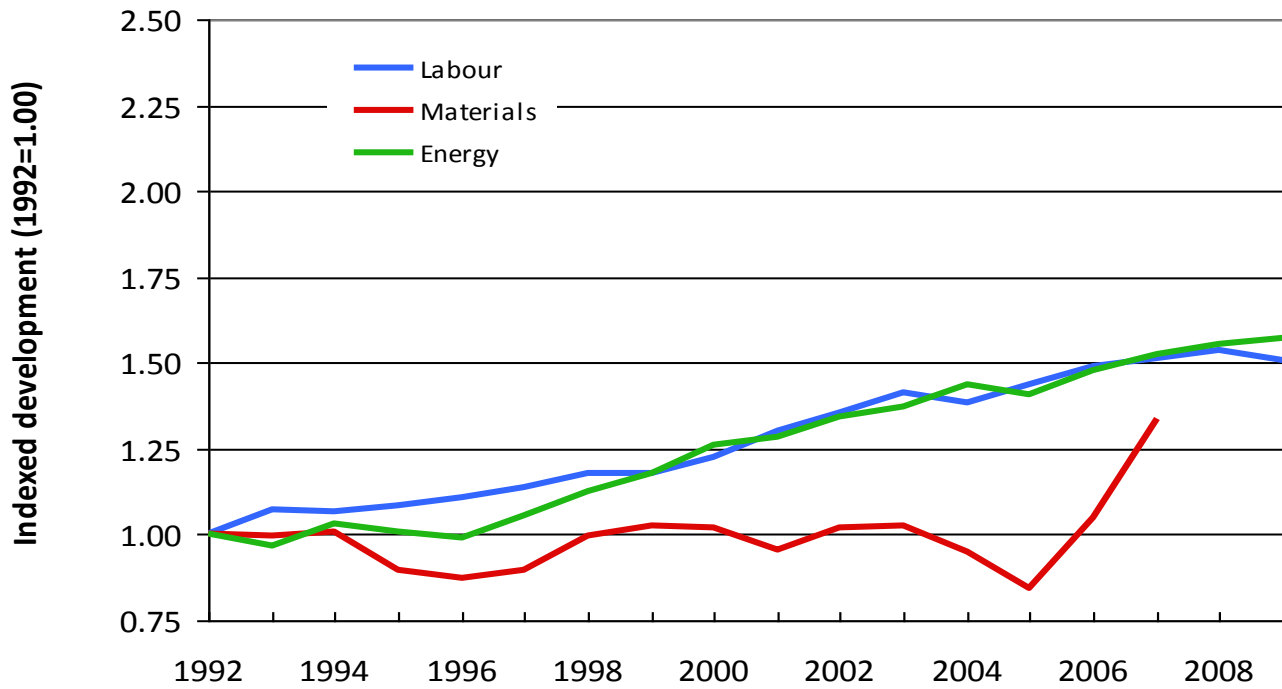
Source: The Conference Board, Total Economy Database, Eurostat [9]  
 \* = For these countries data is for 2000 and 2005.

### Primary energy consumption



Source: Eurostat [10]

**Trends in labour, materials and energy productivity, 1992-2008**



Source: Total Economy Database, IFF Database, WI Database, Eurostat, OECD, IEA Database [11]

## 2. Evolution and main drivers for the development of resource efficiency policies

Environmental issues in general have a growing importance since the change of the regime. Preparation for the EU accession of Hungary has also accelerated environmental developments. Besides environmental concerns, the improvement of resource efficiency seen in the past decades was partly due to economic restructuring (closing inefficient industries and mines, investments into improving efficiency of the remaining industries, substantial shift towards the service sector).

In the last few years, a result of new environmental challenges, growing public consciousness, and because of the need for new ways of economic development, sustainable consumption and production, resource efficiency and green economy have become keywords and thus got into the focus of policy making.

The fact that Hungary is not abundant in most of the resources means that security of supply remains a main concern. Besides, the growing costs of resource use and the restricted access to many resources have also led to the recognition of water, soil and land, biodiversity, energy as resources of strategic importance. As a consequence, improving resource efficiency is an overall objective of several policies in Hungary.

The issue is addressed in the National Environmental Programme in a comprehensive way. Sectoral plans, in particular the Waste Management Plan is elaborated in accordance with the thematic programmes of the National Environmental Programme.

(See also reference to the sectoral policies programmes, action plans at chapter 4.)

### 3. Overall Policy Approach for Resource Efficiency

**National Environment Programme (NEP) 2009-2014** handles environmental issues in a broad context, in a comprehensive and integrative manner. The elaboration of the programme was based on DPSIR logic, offering an opportunity to address resource efficiency in a complex way. The framework programme – having sustainable development as its context - integrates existing and future strategies and plans. It contains 9 thematic action programmes and focuses, inter alia, on the improvement of resource efficiency and energy, biodiversity, sustainable management of our genetic resources, sustainable land use, sustainable water management, sustainable production and consumption, food safety, waste management. In addition, it sets rules and requirements to other sector specific programmes.

[http://www.kvvm.hu/cimg/documents/96\\_2009\\_OGY\\_hatarozat\\_NKP\\_3.pdf](http://www.kvvm.hu/cimg/documents/96_2009_OGY_hatarozat_NKP_3.pdf)

The National Environmental Programme 2009-2014 includes as appendices:

- The **National Basic Plan for Nature Protection**,
- The **National Biodiversity Strategy and Action Plan**.

As regards energy and resource efficiency, the NEP intends to continue with the steps aiming at improving the efficiency of production and technology development in different sectors (e.g. promotion of material efficient technologies, waste reduction to be applied during design, enforcement of the chemicals policy, improvement of energy intensity, application of environment management systems, and utilisation of secondary raw materials). NEP 2009-2014 sets as an objective the widespread application of principles and methods helping the prevention and/or reduction of environmental pressure related to production (cleaner production, eco-efficiency; principle of prevention, environmentally-centred management systems, environmentally conscious product planning, and eco products), as well as to facilitate the adoption of a life cycle approach, and identifies measures to be implemented by different stakeholders.

NEP states that energy intensity has decreased by 13% between 2000 and 2006 and some 1.8 PJ could be saved during the same period, yet additional steps are required to further improve energy efficiency (by 1 % annually until 2016), primarily in the households and in the transport sector. Specific measures are primarily included in the sector specific strategic documents, but NEP also lists:

- coordinated government programme for the improvement of the existing buildings of the public and institutional sector as well as the energy efficiency of new buildings,
- increasing the efficiency of the energy production and service procedure (based on a full lifecycle analysis including the activities related to based material production, supply and sale),
- energy-saving operation of households (“smart measurement”, differentiated tariff structure according to heating, cooling and lighting solutions, modernization of household appliances, insulation, etc.),
- promotion of cars with the best energy and fuel efficiency.



NEP facilitates a change in lifestyle and consumption habits and a shift towards waste generation control. It sets various objectives in terms of waste management and sustainable consumption, including water saving measures.

Strengthening the cooperation among the relevant organisations of regional planning, environmental protection, nature conservation, water management and R&D&I (including cooperation with the scientific and business sphere) is also of high importance.

The implementation of the programme is monitored and analysed also via resource-specific assessments, e.g. the Soil Survey of Hungary, giving a quantitative and qualitative assessment of soils, which is a key resource in Hungary.

**National Sustainable Development Strategy (2007-2025/2050)**, including, inter alia, the protection of natural resources, sustainable water management, the promotion of sustainable production and consumption, climate change mitigation, sustainable spatial structure, energy management reform, and sustainable economic instruments as priorities.

[http://www.nfft.hu/dynamic/nemzeti\\_fenntarthato\\_fejlodesi\\_strategia.pdf](http://www.nfft.hu/dynamic/nemzeti_fenntarthato_fejlodesi_strategia.pdf)

**National Climate Change Strategy 2008-2025** has two pillars: mitigation and adaptation measures, making an inventory of the effects exerted on the natural flora and fauna, the human environment, as well as on human health, water management, agriculture, forest management and the built environment.

<http://www.kvvm.hu/cimg/documents/nes080214.pdf>

**New Hungarian Development Plan (NSRK, 2007-2013)**, especially its Environment and Energy Operational Programme focusing on sustainable settlements, the good management of waters and natural resources, promoting the use of renewables, energy efficiency as well as sustainable consumption and production.

[http://www.nfu.hu/download/16836/80825\\_UMFT\\_angol\\_4\\_teljes.pdf](http://www.nfu.hu/download/16836/80825_UMFT_angol_4_teljes.pdf)

Since January 2011 the framework of the regional policy is determined by the **New Széchenyi Plan** (focusing on the aspects of green economy, energy efficiency, eco-innovation, sustainable waste management).

[http://www.nfu.hu/uj\\_szechenyi\\_terv](http://www.nfu.hu/uj_szechenyi_terv)

**National Reform Programme**, under the Europe 2020 Strategy

<http://www.kormany.hu/hu/nemzetgazdasagi-miniszterium/parlamenti-es-gazdasagstrategiaert-felelos-allamtitkarsag/hirek/magyarorszag-nemzeti-reform-programja>

**New Hungarian Rural Development Programme (NHRDP, 2007-2013)**

<http://www.fvm.gov.hu/main.php?folderID=2170>

The programme promotes information and knowledge dissemination in various forms. Besides the focus of Axis II is the improvement of the environment and the countryside. Axis II includes measures targeting:

- the sustainable use of agricultural land;

- agri-environmental payments to promote agricultural practice based on the sustainable use of environment, landscape, and natural resources;
- maintenance of environmentally sound agricultural methods in Natura 2000 areas (grasslands, arable lands);
- preservation of native and endangered farm animals' genetic resources through breeding;
- promoting the farming of livestock adapted to unfavourable (climatic, soil, etc.) conditions;
- preservation of genetic resources;
- the sustainable use of forestry, afforestation and establishment of agroforestry systems on agricultural land, restoring forestry potential and introduction of preventive actions, etc.

**National Spatial Development Concept, National Spatial Structure Plan.** The Concept defines Hungary's spatial vision in an integrative way and sets spatial policy objectives and principles. The protection and the efficient use of resource as well as sustainability, and a systemic approach is among the main priorities of the Concept.

[http://www.nfu.hu/orszagos\\_teruletfejlesztési\\_koncepcio](http://www.nfu.hu/orszagos_teruletfejlesztési_koncepcio)

or for a short English description see:

[http://www.eukn.org/Hungary/hu\\_en/E\\_library/Urban\\_Policy/National\\_Spatial\\_Development\\_Concept\\_2005](http://www.eukn.org/Hungary/hu_en/E_library/Urban_Policy/National_Spatial_Development_Concept_2005)

**The National Spatial Structure Plan** measures like the sustainable use of minerals and other national resources. It contains a thematic and integrative map-series including the Ecological Network comprising of three functionally complementary components: core areas, corridors and buffer zones. The plan gives restrictions for each zone (in terms of resource extraction, etc.) With a view to environmental sustainability, several other regulatory zones were revised or newly established in the national plan, which are also incorporated in the regulation plans of the counties and of other areas of high importance.

**River Basin Management Plan (RBMP) of Hungary** (complex approach, integrating water management, agricultural, soil aspects, etc.)

[http://vizeink.hu/files/OVGT\\_ROVID\\_100505.pdf](http://vizeink.hu/files/OVGT_ROVID_100505.pdf)

The **definition of natural resources** according to the Act No LIII of 1995 on the general regulations concerning environmental protection is environmental elements or certain components thereof (with the exception of the artificial environment) that can be used for satisfying the needs of society.

Some of the national plans and programmes do not restrict this definition; the term is used in a broad sense, while other documents focus on specific elements of resources or resource efficiency.

The regional development framework itself covers various aspects of natural resources and contains constructions like drinking water base protection, integrated water management, protecting and improving the state of habitats, improving the energy performance of buildings, modernisation of public lighting, improving the energy efficiency of the district heating sector, SCP campaigns and pilot projects, etc.

## 4. Strategies or action plans to improve resource efficiency for individual economic sectors, products or product groups

### *Sector-specific documents:*

- *Waste prevention and waste management:*
  - **New Hungarian Waste Management Plan** (under approval)
- *Water and wastewater:*
  - **Protection Programme of the Underground sources of drinking water in Hungary,**
  - **National Wastewater Collection and Treatment Implementation Programme** (until 2015)
- *Agriculture/food sector:*
  - **New Hungarian Rural Development Programme** (NHRDP, 2007-2013 <http://www.fvm.gov.hu/main.php?folderID=2170>)
  - **National Rural Strategy 2011-2020** (to be adopted soon, containing environmental, agricultural and rural development pillars)
- *Forestry:*
  - **Hungarian Forestry Program and its Implementation Plan 2006-2015** [http://www.fvm.gov.hu/doc/upload/200411/n\\_erdostrat.pdf](http://www.fvm.gov.hu/doc/upload/200411/n_erdostrat.pdf)
- *Energy and energy efficiency:*
  - **Energy Strategy until 2030** (under finalization),
  - **Hungarian Energy Efficiency Action Programme 2008-2016,**
  - **National Renewable Energy Action Programme 2010-2020,** etc.) [http://www.nfm.gov.hu/data/cms2089724/NCsT\\_20110106\\_v\\_gleges.pdf](http://www.nfm.gov.hu/data/cms2089724/NCsT_20110106_v_gleges.pdf)
- *Industry:*
  - **Environmental Technology Innovation Strategy** (under elaboration, aiming at cleaner production, eco-innovation)
- *Construction:*
  - **sectoral energy strategy** (time horizon 2020) is being elaborated
- *Transport:*
  - **National Transport Concept** (under preparation) 2010-2030 (ambitious modal split rates, transport consciousness, waterways, etc.)

The improvement of resource efficiency of the households is promoted in both the comprehensive and the sectoral strategies mentioned above. Specific products, product groups are usually dealt with via legal instruments.

## 5. Individual types of resources identified as priority for national or sector-specific resource efficiency policies

- **Land** (National Environmental Programme, NHRDP, Rural Development Strategy, National Spatial Development Concept, National Spatial Structure Plan)
- **Water** (RBMP of Hungary, National Environmental Programme, National Sustainable Development Strategy, )
- **Biodiversity, genetic resources** (National Environmental Programme, National Biodiversity Strategy and Action Plan, National Rural Strategy 2011-2020, National Sustainable Development Strategy)
- **Energy** (National Climate Change Strategy 2008-2025, Energy Efficiency Action Programme 2008-2016, National Renewable Energy Action Programme 2010-2020, etc.)
- **Soil** (National Environmental Programme ,National Rural Strategy, to be adopted in 2011)
- **Forests** (Hungarian Forestry Program and its Implementation Plan)
- **Renewables** (Energy Strategy until 2030, National Renewable Energy Action Programme 2010-2020)
- **Biomass** (National Rural Strategy 2011-2020, to be adopted soon)
- **Construction materials** (National Environment Programme, 2009-2014, New Hungarian Waste Management Plan – under approval)

## 6. Strategic objectives, targets and indicators on resource efficiency

### Strategic objectives:

- Promoting sustainable consumption and production (National Environmental Programme 2009-2014)
- Resource conservation, strengthening the ex-situ biodiversity (gene banks) (National Environmental Programme 2009-2014)
- Sustainable use of natural resources, including
  - Sustainable and integrated water management (River Basin Management Plan of Hungary, National Environmental Programme 2009-2014, National Spatial Development Concept) as well as
  - Improving energy efficiency and promoting energy conservation (National Climate Change Strategy 2008-2025, Hungarian Energy Efficiency Action Programme 2008-2016)
  - Sustainable use of biodiversity (National Environmental Programme 2009-2014, National Biodiversity Strategy and Action Plan)
  - Sustainable waste management (National Environmental Programme 2009-2014, Hungarian Waste Management Plan)

### Targets:

- Achieving good status of waters by 2015, where possible, in accordance with the Water Framework Directive (National Environmental Programme 2009-2014);

- Yearly energy saving of 1 % (almost 7 PJ) between 2008 and 2016 (National Energy Efficiency Action Plan);\*
- Renewable energy consumption to be increased to 120,56 PJ by 2020 (compared to 51,3 PJ in 2005), the share of renewables in total energy consumption to reach 14,65% (National Renewable Energy Action Programme 2010-2020);\*  
\*national level targets for energy might change according to international discussions
- Improvement of the conservation status of 'Natura2000 species' (National Environmental Programme 2009-2014);
- Reducing the quantity of annually produced waste by 20% (from 2009 to 2014), producing no more than 20 million tons of by 2014 (National Environmental Programme 2009-2014);
- by 2014, a minimum of 40% of the generated waste should be recycled and the energetic reuse level should reach 10% (National Environmental Programme 2009-2014);
- the selective collection system of municipal waste should be accessible for 80% of the population by 2014 (National Environmental Programme 2009-2014);
- 60% of the packaging waste should be recycled by 2012, at least 45% of the construction-demolition waste should be recycled until 2020, etc. (National Environmental Programme 2009-2014).

#### Indicators:

- energy consumption/GDP;
- total water withdrawals (% of total available sources) and the share of different activities;
- the amount of municipal waste collected selectively and recycled (by groups);
- share of recycled waste (%) for each main type of waste;
- the amount of municipal waste to be land-filled, share of biodegradable component;
- number of recultivated land-fill sites;
- change of land use;
- land area under agro-environmental farming.

For further indicators see e.g. the Sustainable Development Indicators in Hungary, (published every 2<sup>nd</sup> year by the Hungarian Central Statistical Office)

Sustainable development indicators in Hungary, 2011:

[http://portal.ksh.hu/pls/ksh/ksh\\_web.shop.lista?p\\_session\\_id=42276503&p\\_lang=EN&p\\_temakor\\_kod=U](http://portal.ksh.hu/pls/ksh/ksh_web.shop.lista?p_session_id=42276503&p_lang=EN&p_temakor_kod=U)

## 7. The institutional setup for the development and implementation of resource efficiency policies

Development and implementation of policies on resource efficiency are coordinated at ministerial or inter-ministerial level (mainly by the Ministry of Rural Development (water, nature protection and biodiversity, waste, etc.) and the Ministry of National Development (climate change, energy) as well as the Ministry for National Economy (raw materials, industry)).

In addition to the ministerial level coordination, agencies are set up for specific themes and sectoral initiatives. For example, the Energy Centre is responsible for the improvement of energy efficiency and renewable energy utilization, manages statistical issues and development programmes in the field of energy, environment and innovation and contributes to decision making and strategy elaboration.

<http://www.energiakozpont.hu/>,

<http://www.energiakozpont.hu/index.php?p=181>

Hungarian Office for Mining and Geology (MBFH) is the national agency for geo-scientific information, mineral assessment and research and outlook. These activities are supported by scientific institutes like the Geological Institute.

<http://www.mafi.hu/en>

MBFH serves as the mining and geology regulatory authority as well.

<http://www.mbfh.hu/home/html/index.asp?msid=1&sid=0&hkl=12&lng=1>

Research institutes like the Research Institute of Agricultural Economics, the Hungarian Forest Research Institute also support policy making. There is a good cooperation between the ministries and the research institutes of the Hungarian Academy of Sciences as well, including:

- the Institute of Ecology and Botany,  
<http://www.obki.hu/en/index.shtml>
- Research Institute for Soil Science and Agricultural Chemistry  
<http://www.taki.iif.hu/english.htm>

To fulfil planning, policy making and authority tasks, ministries strongly cooperate with their background institutions, central and territorial authorities (Examples of these bodies are:

- Hungarian Meteorological Service  
[http://www.met.hu/omsz.php?almenu\\_id=omsz&pid=omsz\\_main&mpx=0](http://www.met.hu/omsz.php?almenu_id=omsz&pid=omsz_main&mpx=0)
- Central Directorate for Water and Environment and its territorial bodies  
<http://www.vkki.hu/index.php?mid=162>
- National Park Directorates  
<http://www.nemzetipark.gov.hu/>
- The National Inspectorate for Environment, Nature and Water and its territorial bodies,  
<http://www.orszagoszoldhatosag.gov.hu/>
- Central Agricultural Office,  
<http://www.mgszh.gov.hu/>

- Institute for Geodesy, Cartography and Remote Sensing (surveying, mapping, authority jurisdiction),  
<http://www.fomi.hu/honlap/angol/>
- VÁTI Non-profit Company for Regional Development and Town Planning  
<http://www.vati.hu/index.php?page=main>

## 8. Selected policy instruments or initiatives on resource efficiency presented in more detail

### INFORMATION BASED INSTRUMENTS

#### ***Example 1: (In situ and) ex situ conservation of wild and cultivated plant diversity***

The traditional methods of nature protection look back several decades in Hungary and have resulted in considerable expertise in the field and achieving the designation of protected areas. The experiences gathered have highlighted that in-situ protection needs to be reinforced by ex-situ conservation, a key example of which is the Pannon Seed Bank project which started in January 2010.

In compliance with Convention on Biological Diversity and the EU Biodiversity Action Plan, the main goal of the project is the long-term seed preservation of the wild vascular flora of the Pannon biogeographical region in order to assist and complement in situ species conservation activities.

The project aims to achieve this goal through expanding the current functions of the world's 13th largest agricultural gene bank, the Research Centre for Agrobotany of the Central Agricultural Office, having more than fifty-years of experience in the conservation of agricultural genetic resources.

The establishment of a joint seed bank for the agricultural and wild flora would be a unique and demonstrative example worldwide in line with the objectives of the Convention on Biological Diversity, as the genetic diversity of the Pannonian biogeographical region's entire flora, including the wild flora as well as crop and vegetable plants serving human nutrition are aimed to be conserved at one place. This valuable collection of natural assets is of great importance in terms of maintaining biodiversity at national, European and global levels and of assisting to meet the 2010 biodiversity objectives. <http://www.rcat.hu/pannonmagbank/indexe.html>

#### ***Example 2: - Highlighting some results achieved in wide cooperation between the ministry and the scientific and civil sector***

The Money back through the window (MBW) project is one of the most successful programmes coordinated by KÖVET Association for Sustainable Economies (the Hungarian member of International Network for Environmental Management, CSR Europe, and Global Footprint Network). The programme started in 2002 with the collection of case-studies from companies to prove that money spent on environmental protection is not „money thrown out the window”, rather a good investment that pays back in a short period, and gives economical advantages to environmentally aware companies.

In the first year 44 measures from 12 companies were documented that brought environmental and financial benefit at the same time. The case-studies were published in a case-study book called „Money Back through the Window” in Hungarian. Since 2002 these case studies have been gathered annually, a case-study book being published every year. In the first 8 years 370 measures from 78 different organizations were collected with a total saving of more than 80 million euro (22,1 billion HUF)

The database is available in English: <http://www.environmental-savings.com/> and programme continues. The Environmental Savings Awards of 2010 have been made (yet the latest projects and good practices have not yet been translated into English) <http://www.ablakonbedobottpenz.hu/>

For households and individuals, the ‘Greening the daily life’ Programme offers a number of green tips, ideas in a comprehensive way (energy saving, use of raw materials and water, food consumption, health, education, work, transport, housing, free time, etc.)  
<http://www.zoldkoznepok.hu/>; <http://www.egymozdulat.hu/>

Complex programmes have been introduced in the field of waste management as well, with a wide range of elements, including awareness raising, the presentation and promotion of new techniques and tools for preventing waste generation, as well as for the reuse of waste.

In these programmes civil organisations like the Waste Reduction Alliance (HuMusz, <http://www.humuszu.hu/tematika/angol>) play a crucial role. In the framework of “No Waste is Good Waste” program a study (with the subtitle ‘shift of paradigm’) a set of recommendations were elaborated - aiming at all actors and all fields of life (<http://www.humuszu.hu/onkormanyzat/az-kincs-ami-nincs-paradigmav-lt-s-hullad-kgazd-lkod-sban>) emphasising the common responsibility in terms of waste prevention.

‘Zero waste’ program defines local, regional and national level tools and gives recommendations regarding product design and product management guidelines in order to reduce the amount and the hazardous elements of waste, with the main goal of preventing waste generation.  
(<http://humuszu.hu/nullahulladek/complete-life-zero-waste/4656>)

As regards the detection of illegal waste disposal, ‘Landscape surgery’ action lasted several years and resulted in mapping thousands of spots and recultivating many of these. In relevance to this action an IT based monitoring project led by EMLA, (<http://emla.hu/englishsite/index.shtml>) is now in progress: <http://webmap.viamap.hu/emla/>.

Promoting organic waste recycling was also (and still is) facilitated by providing practical advice, leaflets, brochures, displays, on-site education See. e.g. <http://www.szike.zpok.hu/>

Further tools like expert forums, exhibitions at different programs, such as fairs or festivals help orientate both citizen and economic actors towards developing the most adequate waste management attitudes.



## **EFFICIENCY FUND**

### ***Example 3:- GIS (Green Investment Scheme)***

The Green Investment Scheme financed by the revenues from international emissions trading brought about by the Kyoto Protocol, furthers mitigation actions against climate change by energy efficiency measures in the households.

First, tenders were announced for buildings made by industrialized technologies (Panel program) in 2009, then for existing conventional buildings, later on for low energy consumption buildings (“eco”, or passive houses).

In the long term investments and technology improvements are to be made for energy production, transport and conversion (district heating systems).

## **SECTORAL POLICIES**

***Example 4: - Strategies dealing with resource efficiency have a wide scope, including traditional elements like the wise use of resources as well as the most current and forward looking methods.***

Examples for the latter are:

- Environmental Technology Innovation Strategy (under approval)
- National Biodiversity Strategy, which:
  - contains actions for all relevant sectors in order to conserve and enhance biodiversity;
  - handles all levels of biodiversity from genetic diversity to the variety of ecosystems;
  - pays special attention to the genetic resources of wild flora and fauna as well as domestic plants and animals, including species which have adapted to the unique circumstances and characteristic of the Carpathian basin and are very important in climate change adaptation.

**Hungarian Waste Management Plan** with its ambitious targets, describing special management of the different types of waste, having in mind resource efficiency and the waste management hierarchy

## **RESEARCH**

### ***Example 5: - Soil vulnerability mapping by RISSAC***

The research programme of the Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences (RISSAC) has an aim of comprehensive soil vulnerability mapping and GIS based soil status assessment. Kreybig maps and soil information systems can be used in land use, agriculture or water management issues, also at regional scale.

## **LABELLING**

**Example 6: - labelling scheme for local, hand-made and organic products**

National Park Directorates play an important role fostering traditional forms of farming, preserving genetic diversity and other local peculiarities. The Directorates keep and breed indigenous domestic animals like grey cattle, racka sheep, Tsigai and cikta sheep, buffalo and domestic horse types. Besides, they have introduced a new labelling scheme for local, hand-made and organic products.

**OTHER****Example 7:- National Industrial Symbiosis Programme (NISP) and REPROWIS – Reducing Production Waste by Industrial Symbiosis**

NISP project is realized by Public Foundation for the Progress of Industry in Hungary (IFKA) with the contribution of LIFE+ of European Commission. The general objective of NISP is the demonstration of industrial symbiosis as an innovative tool for fostering the prudent management of natural resources.

REPROWIS is also project led by IFKA and implemented jointly by IFKA and its Cross-Border Partner, Slovakian Proventus n.o. The project encourages companies to look beyond their traditional physical and sector boundaries in the pursuit of creating a sustainable economy. The programme endeavours to encourage government and industry of benefiting from industrial symbiosis as a key policy tool in helping to achieve a low carbon sustainable economy.

Industrial symbiosis brings together traditionally separate industries and organisations from all business sectors with the aim of improving cross industry resource efficiency and sustainability; involving the physical exchange of materials, energy, water and/or by-products together with the shared use of assets, logistics and expertise.

<http://ifka.hu/en/ifka/home/>

[http://nisp.hu/en/about\\_nisp](http://nisp.hu/en/about_nisp)

<http://reprowis.eu/en/home>

## 9. Topics of interest and information needs for follow up work

- resource efficiency and the rebound effect
- integration of resource efficiency into all policy areas incl. economic policy
- identification and collection of ideas on how to tackle trade offs (how to ensure an integrated approach for all the different resources, raw materials) outlining a common structure for monitoring, reporting and knowledge base on resource efficiency policies in Europe
- linkages between resource efficiency and the conservation of ecosystem services

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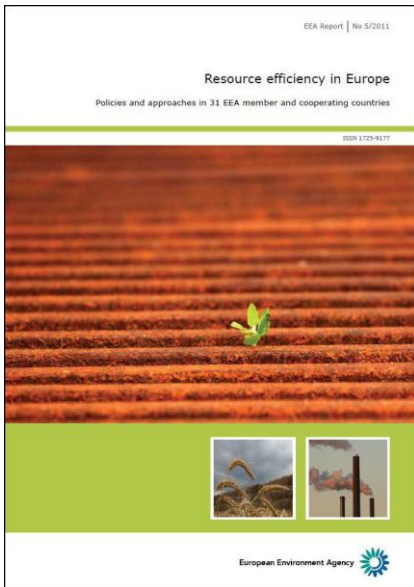
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# Resource efficiency in Europe

## Policies and approaches in 31 EEA member and cooperating countries

Further information about resource efficiency policies, including the analytical report and thirty-one detailed country profiles, are available on the EEA website:

<http://www.eea.europa.eu/resource-efficiency>

### Selected examples of resource efficiency policies, instruments or targets presented in the thirty one detailed country profiles

