

**Proposals  
for the Hungarian Partnership Agreement on the  
European structural and investment funds 2021-2027  
and the National Recovery and Resilience Plan  
for contributing to a climate-neutral EU**

*by*  
*Clean Air Action Group*  
*and*  
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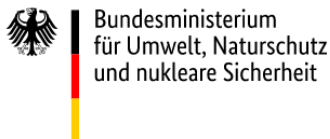
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## Table of Contents

<b>1. A Short General Description of the Partnership Agreements on the EU Funds</b>	<b>4</b>
<b>2. Enabling Conditions in the PAs</b>	<b>4</b>
<b>3. Enabling conditions for the National Recovery and Resilience Plan</b>	<b>5</b>
<b>4. The Main Principles of the Commitments in the Hungarian PA and NRRP concerning the Climate and Environment</b>	<b>6</b>
<b>5. Enabling Conditions for the Partnership Agreement and National Recovery and Resilience Plan of Hungary</b>	<b>8</b>
Indicators	8
Non-regression principle	9
Institutional and regulatory framework	10
Environmental democracy, public participation, environmental information	12
Access to justice	15
Education for Sustainability	15
Economic Instruments	18
Green investment and innovation	26
Air quality	27
Biodiversity protection and financing	28
Agriculture	33
Water management	38
Energy	42
Transport	52
Waste management	56
Environmental risk prevention	60
<b>6. General references</b>	<b>62</b>
<b>Annex 1: Indicators of progress</b>	<b>66</b>
<b>Annex 2: Proposal for the Internalisation of External Costs of Road Transport in Hungary</b>	<b>68</b>
<b>Annex 3: Proposals for Education for sustainability/Environmental education (in Hungarian)</b>	<b>78</b>

## 1. A Short General Description of the Partnership Agreements on the EU Funds

The partnership agreements (PAs) on the European structural and investment funds are strategic documents, containing a plan of each Member State which outlines their objectives and investment priorities. As legally binding documents signed by the European Commission and national governments of EU Member States (MS), PAs define the conditions and ways of using EU Funds for the concerned 7-year financial period (the Multiannual Financial Framework, MFF). In regard to the increasing danger of accelerating climate change, the content of the PAs is of utmost importance for the processes aiming to achieve the EU's climate and environmental targets.

The main principles of the preparation of the PAs are laid down in the so-called Common Provisions Regulation (CPR). The CPR for the next MFF (2021-2027) is still under negotiation between the European Parliament and the European Council, a proposal<sup>1</sup> by the Commission is available. The proposal aims to modernise Cohesion Policy by laying down common provisions for seven shared management funds<sup>2</sup> for the next Multiannual Financial Framework period. The concept of the currently available legislation draft is to deliver the next 7-year EU funding through a shared management, create commonly set, simplified and consolidated rules while reducing administrative burdens for authorities and beneficiaries.

One of the main objectives of the proposed regulation is to align the programmes of these Funds more closely with EU priorities and increase effectiveness, setting up more meaningful enabling conditions that need to be maintained throughout the implementation period. The 11 thematic objectives of the previous MFF (2014-2020) have been simplified to 5 clear policy objectives, including a greener and low carbon Europe. In this Proposal, the Commission aims to reflect the importance of tackling climate change in line with the commitment of the EU to implement the Paris Agreement and the United Nation Sustainable Development Goals. The Commission proposal for the next (2021-2027 MFF) sets a more ambitious goal with increased EU expenditures in order to contribute towards the climate objective. Concentrated focus is needed in setting up meaningful enabling conditions from this aspect, too.

## 2. Enabling Conditions in the PAs

As fundamental legal documents of the implementation of the MFF, the PAs define enabling conditions (that are the replacement of ex-ante conditionalities of the 2014-2020 period) for Member States in regard to their access to EU Funds.

The new CPR proposal of the Commission states the following: *“To ensure the necessary prerequisites for the effective and efficient use of Union support granted by the Funds, a limited list of enabling conditions as well as a concise and exhaustive set of objective criteria for their assessment should be established. Each enabling condition should be linked to a specific objective and should be automatically applicable where the specific objective is selected for support. Where those conditions are not fulfilled, expenditure related to operations under the*

<sup>1</sup> Proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for those and for the Asylum and Migration Fund, the Internal Security Fund and the Border Management and Visa Instrument, COM(2018) 375 final, 2018/0196 (COD), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A375%3AFIN>

<sup>2</sup> Cohesion Fund (CF), European Maritime and Fisheries Fund (EMMF), European Regional Development Fund (ERDF), European Social Fund Plus (ESF+), Asylum and Migration Fund (AMIF), Border Management and Visa Instrument (BMVI), Internal Security Fund (ISF)

*related specific objectives should not be included in payment applications. In order to maintain a favourable investment framework, the continued fulfilment of the enabling conditions should be monitored regularly. It is also important to ensure that operations selected for support are implemented consistently with the strategies and planning documents in place underlying the fulfilled enabling conditions, thus ensuring that all co-financed operations are in line with the Union policy framework.”*

According to the CPR proposal, enabling conditions “are fewer, more focussed on the goals of the fund concerned and – in contrast to the 2014-2020 period – monitored and applied throughout the period. The principle will be strengthened: Member States will not be able to declare expenditure related to specific objectives until the enabling condition is fulfilled. This will ensure that all co-financed operations are in line with the EU policy framework.”

In accordance with the CPR proposal and other related legislation, the enabling conditions in the Hungarian Partnership Agreement shall be clear, controllable and in full conformity with the EU’s environmental and climate goals and priorities. Compliance with enabling conditions shall be based on SMART indicators: specific, measurable, attainable, realistic and timely. Enabling conditions shall be accompanied by concise and exhaustive set of objective criteria for their assessment.

The CPR proposal states that “The Commission shall assess the Partnership Agreement and its compliance with this Regulation and with the Fund-specific rules. In its assessment, the Commission shall, in particular, take into account relevant country-specific recommendations.” Accordingly, the Hungarian Partnership Agreement shall be in full conformity with the Country-Specific Recommendations (CSRs). Considering the concept of the new CPR that administrative burdens will be simplified and that the number of controls and audits will be significantly reduced, it is crucial to set up clear enabling conditions in PAs, especially in the case of Hungary where Country Reports<sup>3</sup> reveal no progress or limited progress in regard to compliance with the EU acquis.

### **3. Enabling conditions for the National Recovery and Resilience Plan**

*“To help repair the economic and social damage caused by the coronavirus pandemic, the European Commission, the European Parliament and EU leaders have agreed on a recovery plan that will lead the way out of the crisis and lay the foundations for a modern and more sustainable Europe.”<sup>4</sup> The financial basis for implementing this plan will be “the NextGenerationEU initiative, which is a temporary instrument designed to boost the recovery, will be the largest stimulus package ever financed through the EU budget. A total of €1.8 trillion will help rebuild a post-COVID-19 Europe. It will be a greener, more digital and more resilient Europe.”<sup>5</sup> The Recovery and Resilience Facility (RRF) is the main instrument to allocate money to the Member States under the Next Generation EU Recovery Package. The basic rules of the use of the RRF are laid down in the Regulation (EU) 2021/241.<sup>6</sup>*

This means that in addition to the “normal” MFF, there will be an enormous amount of “recovery money” which, together, could be an unprecedented opportunity for the European Union to help address the many challenges we are all facing and fix some persistent

<sup>3</sup> [https://ec.europa.eu/info/publications/2020-european-semester-country-reports\\_en](https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en)

<sup>4</sup> [https://ec.europa.eu/info/strategy/recovery-plan-europe\\_en](https://ec.europa.eu/info/strategy/recovery-plan-europe_en)

<sup>5</sup> Ibid.

<sup>6</sup> Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing a Recovery and Resilience Facility, <https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ:L:2021:057:TOC&uri=uriserv:OJ.L..2021.057.01.0017.01.ENG>

inefficiencies. However, unfortunately, there is also an imminent danger that – as it has often happened in the past – much of this money will be used to maintain and promote unsustainable activities. In order to avert such a tragedy, there shall be very strict enabling conditions for the use of the recovery money, and if these conditions are not met by the MS concerned, then funding shall not begin, or it shall be suspended immediately.

According to the RRF Regulation, *“The recovery and resilience plans shall be consistent with the relevant country-specific challenges and priorities identified in the context of the European Semester, in particular those relevant for or resulting from the green and digital transition. The recovery and resilience plans shall also be consistent with the information included by the Member States in the national reform programmes under the European Semester, in their national energy and climate plans and updates thereof under the Regulation (EU)2018/1999 21, in the territorial just transition plans under the Just Transition Fund<sup>22</sup>, and in the partnership agreements and operational programmes under the Union funds.”<sup>7</sup>* As the Hungarian NRRP will probably be adopted before the PA, in order to ensure the consistency, the NRRP, too, shall contain all the enabling conditions which must be fulfilled to receive EU funding.

#### **4. The Main Principles of the Commitments in the Hungarian PA and NRRP concerning the Climate and Environment**

The rapidly deteriorating state of the environment requires immediate and effective measures. EU funding from the MFF and/or the RRF shall be provided to Hungary (as well as to any EU government) only if it plans and implements such measures. The measures set forth in the table below are mostly based on official documents of the European Union, OECD, and Hungary. (These documents have been approved by the Hungarian Government, too.

The following basic conditions shall be fulfilled to receive EU funding:

1. Enabling conditions concerning the climate and environment shall be explicit and detailed: exact goals and numerical performance indicators, and proof of financial feasibility (among others, proof that there will be financial resources for long-term operation and maintenance even after the end of the project) shall be defined.
2. Explicit deadlines shall be set for the fulfilment of environmental enabling conditions. There shall be basic conditions which must be fulfilled before receiving any funding, all the others shall have clear, feasible timelines and deadlines in line with the latest science.
3. Sustainability criteria shall be applied for any investment: the use of low-carbon, environmentally-sound, natural materials, local resources, social inclusion criteria, alternative technologies and nature-friendly solutions shall be obligatory.
4. An inventory of environmentally harmful subsidies (including the subsidies due to the non-internalisation of external costs) shall be prepared, and these subsidies shall be removed.
5. There shall be neither EU nor national public funding for polluters, in accordance with the list provided by the Green10.<sup>8</sup>
6. Discretionary funding (i.e., funding decided by individual choice or judgment in public offices) to enterprises shall be drastically reduced. Such funding shall be

<sup>7</sup> Ibid. Article 14(2)

<sup>8</sup> <https://www.greenrecovery.eu/s/Guaranteeing-a-Green-Recovery-across-Europe-in-Next-Generation-EU>

provided almost exclusively to enterprises performing public services and for R&D and innovation.

7. Resource- and energy efficient production and independent, standardised life-cycle assessments shall be mandatory, project selection criteria on environmental good performance (material, energy, water saving) shall be introduced. Emissions and waste shall be reduced as much as possible, and for the remaining output, the environmental impact shall be monitored and controlled by independent experts and mitigated.
8. The strengthening of local economy and local supply chains shall be a dominant priority of economic development. The loop shall be closed locally in terms of circular economy.
9. The Operational Programmes (OPs) shall be aligned with the National Framework Strategy on Sustainable Development (NFSSD) in accordance with the UN Sustainable Development Goals<sup>9</sup>: Hungary shall base the Operational Programmes' goals and target areas on the NFSSD and the observations of the Monitoring Reports of this Strategy (the most recent from 2018). Monitoring shall be based accordingly on a targeted set of indicators linking economic activity and social welfare with environmental performance.
10. The coherence of programme objectives and funding shall be ensured to make projects sustainability-proof. Programmes shall (i) foster synergies across economic, social and environmental policy areas, (ii) identify trade-offs and reconcile policy objectives, and (iii) address the negative spillovers of policies.
11. The implementation of Strategic Environmental Assessments, SEA shall be strengthened by applying it systematically to all spatial plans and territorial development concepts concerned by the EU funding, as well as to all government policies and programmes with a potential environmental impact.
12. The principle of non-regression shall be enforced, i.e., no measures shall be taken which downgrade the existing levels of environment protection.
13. Widespread and effective public awareness campaign shall be planned and implemented with the aim of informing the public about the state and expected changes in the environment and about the methods to improve the situation.
14. The European Code of Conduct on Partnership shall be fully implemented. Public participation throughout the whole programming cycle shall be ensured early. All stakeholders shall have effective opportunities to participate in the preparation and modification of the programmes as well as in every relevant decision-making procedure concerning the EU Funds. In light of the institutional and financial capacity needs of the participation of partners, the necessary resources shall be provided to the partners to assist them practicing their participation rights.

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<sup>9</sup> <https://sdgs.un.org/goals>

## 5. Enabling Conditions for the Partnership Agreement and National Recovery and Resilience Plan of Hungary

Meaning of the abbreviations in the column “Deadline”:

- Precond: Precondition for receiving any EU funding
- Prep: Deadline for preparing an implementation plan
- Impl: Deadline of implementation

	Enabling condition	Reference/justification	Dead-line
<b>Indicators</b>			
1)	The PA and NRRP contain a set of well measurable indicators on national level with annual targets.	The indicators with concrete annual targets on national level are indispensable in order to measure progress. For details, see Annex 1.	Precond
2)	The sustainability criteria shall be applied to all financial decisions and measures, in full conformity with the relevant EU legislation, especially the proposed Regulation a Framework to Facilitate Sustainable Investment, and the Regulation on sustainability-related disclosures in the financial services sector.	<ul style="list-style-type: none"> <li>• EU (2018), <i>Proposal for a Regulation of the European Parliament and of the Council on the Establishment of a Framework to Facilitate Sustainable Investment</i>, 2018/0178 (COD). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0353&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0353&amp;from=EN</a></li> <li>• EU (2019), <i>Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector</i>. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.317.01.0001.01.ENG">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.317.01.0001.01.ENG</a></li> </ul>	Continuous
3)	Impact assessment certificates, environment-focused review of administrative regulation of import shall be carried out to attain better data on Hungary’s footprint outside its borders.	<p>The share of CO2 emitted abroad in total CO2 embodied in domestic final demand in Hungary is 35%.</p> <ul style="list-style-type: none"> <li>• OECD (2005), <i>CO2 Emissions Embodied in International Trade and Domestic Final Demand, Using the OECD Inter-Country Input-Output Database</i>, Draft version. <a href="https://www.oecd.org/sti/ind/TECO2_OECD_webdoc_2020.pdf">https://www.oecd.org/sti/ind/TECO2_OECD_webdoc_2020.pdf</a></li> </ul> <p>Hungary needs to create better data concerning these emissions in order to take responsibility for these outsourced emissions and eventually reduce them.</p>	Prep: 31/12/21  Impl: Continuous from 01/01/21
4)	A local government shall be able to receive EU funding only if it has adopted its Sustainable Energy and Climate Plan (SECAP) and continuously implements it. The plan shall contain concrete measures with deadlines. The implementation shall be reviewed annually and if any part of the plan is not implemented, EU funding shall be suspended until its implementation.	<p><i>Covenant of Mayors for Climate and Energy</i> <a href="https://www.covenantofmayors.eu/about/covenant-initiative/objectives-and-scope.html">https://www.covenantofmayors.eu/about/covenant-initiative/objectives-and-scope.html</a></p> <p><i>Guidebook 'How to develop a Sustainable Energy and Climate Action Plan (SECAP)'</i> <a href="https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/guidebook-how-develop-sustainable-energy-and-climate-action-plan-secap">https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/guidebook-how-develop-sustainable-energy-and-climate-action-plan-secap</a></p>	



<b>Non-regression principle</b>			
5)	<p>Hungary shall ensure that no legislative or other action is taken that leads to a reduction in the current level of environmental protection. Hungary shall also ensure that national environmental policies and regulations are not reducing the current level of EU environmental protection regulations and standards.</p> <p>Relevant regulation and any new pieces of law shall be assessed from this aspect and all existing regulation shall continue to contribute to environmental and health protection at least on the existing level and in no case shall not lead to worsening pollution or loss of biodiversity. The above principle of non-regression applies to substantive, procedural as well as organisational rules.</p>	<ul style="list-style-type: none"> <li>• EU (2007), <i>Treaty of Lisbon</i>, Article 2, Paragraph 3, (2007/C 306/01). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12007L/TXT&amp;from=IT#d1e575-1-1">https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12007L/TXT&amp;from=IT#d1e575-1-1</a> ) aims at a high level of protection and improvement of the quality of the environment; there can be no derogation from this principle, based on the theory of “acquis communautaire”. (<i>Non-regression in environmental law</i> (2012), <i>Surveys and Perspectives Integrating Environment and Society</i>. 5.2/2012, Vol.5, n°2, IUCN Commissions. <a href="https://journals.openedition.org/sapiens/1405">https://journals.openedition.org/sapiens/1405</a>)</li> </ul> <p>Any unfair competitive advantage or distortion through undercutting of levels of environmental protection shall be prevented.</p> <ul style="list-style-type: none"> <li>• Institute for European Environmental Policy (2018), <i>Non-regression and environmental legislation in the future EU-UK relationship</i>. <a href="https://ieep.eu/uploads/articles/attachments/b951ce87-3dcd-4043-85bd-026119d50628/Non-regression%20and%20equivalence%20-%20October%20corrected.pdf">https://ieep.eu/uploads/articles/attachments/b951ce87-3dcd-4043-85bd-026119d50628/Non-regression%20and%20equivalence%20-%20October%20corrected.pdf</a></li> <li>• EU (2012), <i>The right to life and health of future generations must not be overlooked and measures that would be detrimental to them must not be adopted</i>. Charter of Fundamental Rights of the European Union, Article 52, 53, 54, (2012/C 326/02). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012P/TXT&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012P/TXT&amp;from=EN</a></li> <li>• EU (2011), <i>European Parliament resolution of 29 September 2011 on developing a common EU position ahead of the United Nations Conference on Sustainable Development (Rio+20)</i>. <a href="https://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2011-0430+0+DOC+XML+V0//EN">https://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2011-0430+0+DOC+XML+V0//EN</a></li> <li>• The Fundamental Law of Hungary (2019), Article 21, Paragraph I. <a href="http://njt.hu/translated/doc/TheFundamentalLawofHungary_20191213_FIN.pdf">http://njt.hu/translated/doc/TheFundamentalLawofHungary_20191213_FIN.pdf</a></li> <li>• Decision of the Hungarian Constitutional Court No. II/2092/2015.</li> <li>• Decision of the Hungarian Constitutional Court No. 17/2018.</li> <li>• The document of the Constitutional Court (2015), IV [41]–[46].</li> </ul>	31/12/20

		<a href="https://alkotmanybirosag.hu/uploads/2019/03/sz_ii_209_2_2015.pdf">https://alkotmanybirosag.hu/uploads/2019/03/sz_ii_209_2_2015.pdf</a>	
6)	Hungary shall repeal all legislation relating to environmental protection which have been adopted since the Hungary's EU accession and which contradict the non-regression principle.	Since May 2004, there have been serious changes in legislation which resulted in downgrading the legal and institutional system of environmental protection.	Prep: 31/05/21  Impl: 01/07/21
<b>Institutional and regulatory framework</b>			
7)	Hungary shall apply appropriate measures to fully comply with EU policies related to the protection of the environment and sustainable development, first of all by the following: (1) A general revision of national legislation and measures shall be carried out. (2) Hungary shall create and maintain a situation where no infringement procedures are going on concerning environmental issues.	<ul style="list-style-type: none"> <li>• EU (2016), <i>Charter of Fundamental Rights of the European Union</i>, Article 37. For details, see General References section.</li> <li>• EU (2012), <i>Treaty of the Functioning of the European Union</i> (hereafter: TFEU), Article 11. For details, see General References section.</li> <li>• EU (2018), <i>Proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for those and for the Asylum and Migration Fund, the Internal Security Fund and the Border Management and Visa Instrument</i> (hereafter: <i>CPR Proposal</i>), Article 67, Paragraph 1. For details, see General References section.</li> </ul>	(1): Impl: 30/06/21  (2) Impl: 31/12/21
8)	Hungary shall improve the application of the preventive action principle as well as the precautionary principle, in particular by the following measures: <ul style="list-style-type: none"> <li>• Taking effective steps towards the stricter official practice in environmental licensing procedures.</li> <li>• Restoring the permit requirement for minor environmental use activities.</li> <li>• Improving the legal framework of the environmental liability system.</li> <li>• Defining concrete targets, measures, and monitoring in implementing regulations in cases where the prevention principle already is mentioned.</li> </ul>	<ul style="list-style-type: none"> <li>• EU (2012), <i>TFEU</i>, Article 191, Paragraph 2. For details, see General References section.</li> <li>• <i>Jövő Nemzedékek Érdekeinek Védelmét Ellátó Biztoshelyettes</i>. <a href="https://www.ajbh.hu/documents/10180/2776705/JN_BH_jogszabalyi_javaslat.pdf/61968154-4a75-bf07-0479-10a667263033">https://www.ajbh.hu/documents/10180/2776705/JN_BH_jogszabalyi_javaslat.pdf/61968154-4a75-bf07-0479-10a667263033</a></li> <li>• OECD (2012), <i>Liability for environmental damage in Eastern Europe, Caucasus and central Asia (EECCA): Implementation of Good International Practices</i>. <a href="http://www.oecd.org/env/outreach/50244626.pdf">http://www.oecd.org/env/outreach/50244626.pdf</a></li> </ul>	Impl: 30/06/21
9)	Hungary shall restore the independent and autonomous Ministry of Environmental Protection.	There are very few countries in the world (e.g., Brunei, Somalia, Kuwait, Tanzania and Saudi-Arabia) in which the environment is not represented at a high level in the government. <ul style="list-style-type: none"> <li>• UN (2019), <i>Environmental Rule of Law: First Global Report</i>.</li> </ul>	Impl: 30/06/22

		<p><a href="https://wedocs.unep.org/bitstream/handle/20.500.1182/2/27279/Environmental_rule_of_law.pdf?sequence=1&amp;isAllowed=y">https://wedocs.unep.org/bitstream/handle/20.500.1182/2/27279/Environmental_rule_of_law.pdf?sequence=1&amp;isAllowed=y</a></p> <ul style="list-style-type: none"> <li>Green OT Press Release (2014), <i>Green OT urges the establishment of an independent Ministry of Environment</i>, <a href="https://www.oee.hu/hirek/agazati-szakmai/zold_orszagos_talalkozo">https://www.oee.hu/hirek/agazati-szakmai/zold_orszagos_talalkozo</a></li> </ul>	
10)	<p>Hungary shall significantly increase the efficiency of the work of environmental authorities, in particular by the following measures:</p> <ul style="list-style-type: none"> <li>Restoring the autonomous environmental authorities.</li> <li>Significantly increasing the human and financial resources of the environmental authorities.</li> <li>Providing necessary training for governmental and local staff in charge of environmental issues. There shall be an effective training strategy developed (training sessions, online training, etc.), with quantitative indicators, where possible. Moreover, appropriate technical assistance (e.g., guidelines, guidance documents, external experts) shall be provided to all the authorities applying EIA/SEA Directives.</li> <li>Introducing stricter sanctions in frequent or serious environmental non-compliance cases. The deterrent effect of the current administrative fines shall be assessed, and the economic benefits of non-compliance shall be eliminated.</li> <li>Increasing monitoring capacities to control implementation of regulation</li> </ul>	<ul style="list-style-type: none"> <li>IMPEL Network (2012), <i>Exploring qualitative and quantitative assessment tools to evaluate the performance of environmental inspectorates across the EU, 2011/08</i>. <a href="https://www.impel.eu/wp-content/uploads/2016/09/Adopted-Final-Report_Exploring-Assessment-Tools_2012-03-30.pdf">https://www.impel.eu/wp-content/uploads/2016/09/Adopted-Final-Report_Exploring-Assessment-Tools_2012-03-30.pdf</a></li> <li>EC (2014), <i>Guidance on ex-ante Conditionalities for the European Structural and Investment Funds Part II</i>. <a href="https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/eac_guidance_esif_part2_en.pdf">https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/eac_guidance_esif_part2_en.pdf</a></li> </ul> <p>The environmental authorities have always been rather weak in Hungary. However, during the last two decades their budget and staff has been reduced to such an extent that they are unable to perform even their basic duties. Moreover, their independence has been practically eliminated. As it has been experienced in many cases, this situation contributes to higher morbidity and mortality among the Hungarian population.</p>	<p>Prep: 31/08/21</p> <p>Impl: 31/12/21</p>
11)	<p>Hungary shall improve the application of the sustainable development principle, in particular by the following measures:</p> <ul style="list-style-type: none"> <li>Any project funding decision exceeding 10 million EUR shall be preceded by obtaining the prior opinion of the National Environmental Council and the National Council for Sustainable Development on the sustainability of the project.</li> <li>Operational Programmes and major projects shall be reviewed through an ex-ante sustainability impact assessment (SIA) to integrate economic, social and environmental dimensions into investments.</li> <li>The managing authorities shall prescribe the mandatory application of Best Available Technology (BAT) as well as the compliance with the BAT</li> </ul>	<ul style="list-style-type: none"> <li>EU (2012), <i>TFEU</i>, Article 11. For details, see General References section.</li> <li>EU (2016), <i>Charter of Fundamental Rights of the European Union</i>, Article 37. For details, see General References section.</li> </ul> <p>BAT conclusions set demanding standards that are really important to reduce emissions. BAT conclusions also include the references to the most advanced techniques for combustion performance, energy efficiency, material efficiency, noise control and for implementing an environmental management system. The SIA aims for policy coherence by assessing the possible effects of the draft regulation or programs on all three dimensions of sustainable development and the public services. The tool has been used with success in countries, like Belgium.</p>	<p>Continuous</p>

	conclusions for every project funded by at least 10 million EUR	<ul style="list-style-type: none"> <li>OECD (2018), <i>Policy Coherence for Sustainable Development 2018</i>, Chapter 2: <i>Eight building blocks for coherent implementation of the SDGs</i>. <a href="https://www.oecd-ilibrary.org/sites/9789264301061-5-en/index.html?itemId=/content/component/9789264301061-5-en">https://www.oecd-ilibrary.org/sites/9789264301061-5-en/index.html?itemId=/content/component/9789264301061-5-en</a></li> </ul>	
12)	Hungary shall fully ensure that financed operations which fall under the scope of Directive 2011/92/EU of the European Parliament and of the Council are subject to an environmental impact assessment or a screening procedure, on the basis of the requirements of that Directive.	<ul style="list-style-type: none"> <li>EC (2018), <i>CPR Proposal</i>, Point e, Paragraph 3, Article 67. For details, see General References section.</li> </ul>	Continuous
13)	Hungary shall ensure clear information on the practical cooperation and coordination arrangements between inspectors, customs authorities, police and prosecutors in tackling waste, wildlife crimes and other environmental offences.	<ul style="list-style-type: none"> <li>EC (2018), Environmental Compliance Assurance — scope, concept and need for EU actions. <i>Accompanying the document EU actions to improve environmental compliance and governance</i>. Commission Staff Working Document. <a href="https://eur-lex.europa.eu/legal-content/HU/ALL/?uri=SWD:2018:0010:FIN">https://eur-lex.europa.eu/legal-content/HU/ALL/?uri=SWD:2018:0010:FIN</a></li> </ul>	Prep: 30/06/21  Impl: 31/12/21
14)	Hungary shall apply tests under Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 for the establishment of a framework for facilitation of sustainable investments and for the amendment of Regulation (EU) 2019/2088, for the NRRP and all operational programmes – both for the measures within them and for each separate project related to the financing of production technologies, construction and supply of goods and services.	<ul style="list-style-type: none"> <li>EU (2019), <i>Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088</i>. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852</a></li> </ul>	Precond
<b>Environmental democracy, public participation, environmental information</b>			
15)	Hungary shall establish an effective and transparent system to identify and select the relevant competent environmental NGOs with a track record of carrying out larger projects and policy involvement for each programme.	<ul style="list-style-type: none"> <li>EU (2014), <i>Commission Delegated Regulation No. 240/2014 on the European code of conduct on partnership in the framework of the European Structural and Investment Funds</i> (hereafter: <i>Code of Conduct</i>), Article 4. For details, see General References section.</li> </ul>	Impl: 28/02/20
16)	Hungary and its managing authorities shall consult with the partners in advance on the process and timetable of the preparation of the programmes.	<ul style="list-style-type: none"> <li>EU (2014), <i>Code of Conduct</i>, Article 5. For details, see General References section.</li> </ul>	Continuous

17)	<p>Hungary shall improve the current regime and fully ensure that the public (including partners and other relevant NGOs) is given early and effective opportunities to participate in the preparation and modification of the programmes as well as in every relevant decision-making procedure concerning the Funds.</p> <p>In the framework of the above, Hungary shall ensure</p> <ul style="list-style-type: none"> <li>• timely disclosure of and easy, low-cost or free access to relevant information and/or background information for assessment of programmes;</li> <li>• sufficient time for partners to analyse and comment on preparatory documents and draft programmes;</li> <li>• available channels through which partners may ask questions, may provide contributions and will be informed of the way in which their proposals have been taken into consideration;</li> <li>• the dissemination of the outcome of the consultation.</li> </ul>	<ul style="list-style-type: none"> <li>• EU (2014), <i>Code of Conduct</i>, Article 5. For details, see General References section.</li> <li>• EU (2003), <i>Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC</i> (hereafter: <i>Access to Information Directive</i>), Article 2. For details, see General References section.</li> <li>• UN (1998), <i>Convention on Access to Information, Public Participation In Decision-Making And Access To Justice In Environmental Matters</i> (hereafter: <i>Aarhus Convention</i>), Article 6,7. For details, see General References section.</li> </ul>	<p>Prep: 28/02/21</p> <p>Impl: Continuous</p>
18)	<p>In the preparation phase of the programmes, Hungary shall ensure effective participation of the relevant partners at least concerning:</p> <ul style="list-style-type: none"> <li>• the analysis and identification of needs;</li> <li>• the definition or selection of priorities and related specific objectives;</li> <li>• the allocation of funding;</li> <li>• the definition of programmes' specific indicators;</li> <li>• the implementation of the horizontal principles as defined in Articles 7 and 8 of Regulation (EU) No 1303/2013;</li> <li>• the composition of the monitoring committee.</li> </ul>	<ul style="list-style-type: none"> <li>• EU (2014), <i>Code of Conduct</i>, Article 8. For details, see General References section.</li> </ul>	<p>Prep: 28/02/21</p> <p>Impl: Continuous</p>
19)	<p>(1) Hungary shall significantly improve the transparency and efficiency of the monitoring committees.</p> <p>(2) Hungary shall ensure that every monitoring committee has a two-thirds majority of members with voting rights independent from the government.</p>	<ul style="list-style-type: none"> <li>• EU (2014), <i>Code of Conduct</i>, Article 11. For details, see General References section.</li> </ul>	<p>Prep: 28/02/21</p> <p>(1) Continuous</p> <p>(2) Impl: 31/03/21</p>
20)	<p>Hungary shall involve relevant stakeholders in the preparation of the progress reports on implementation of the Partnership Agreement, in particular concerning the assessment of the role of partners in the implementation of the Partnership Agreement and the overview of the opinions given by the partners during the consultation, including, where appropriate, the description</p>	<ul style="list-style-type: none"> <li>• EU (2014), <i>Code of Conduct</i>, Article 14. For details, see General References section.</li> </ul>	<p>Impl: Continuous</p>

	of the way in which the opinions of partners have been taken into account.		
21)	The Hungarian Government shall involve the partners, within the framework of the monitoring committee and their working groups, in assessing performance of the programme, including the conclusions of the performance review, and in the preparation of the annual implementation reports on the programmes.	<ul style="list-style-type: none"> <li>EU (2014), <i>Code of Conduct</i>, Article 15. For details, see General References section.</li> </ul>	Impl: Contin-uous
22)	The Hungarian Government shall involve the relevant partners in the evaluation of programmes within the framework of the monitoring committees and, where appropriate, specific working groups established by the monitoring committees for this purpose.	<ul style="list-style-type: none"> <li>EU (2014), <i>Code of Conduct</i>, Article 16. For details, see General References section.</li> </ul>	Impl: Continuous
23)	The Hungarian Government shall examine the need of support for the strengthening of the institutional and/or financial capacity of partners. Where such support is needed, the Hungarian Government shall provide the necessary resources in order to enable the partners to effectively practice their participation rights.	<ul style="list-style-type: none"> <li>EU (2014), <i>Code of Conduct</i>, Article 17. For details, see General References section.</li> </ul>	Prep: 31/03/21  Impl: 31/05/21, then Contin-uous
24)	Hungary shall set up a new, clear and searchable digital platform to make information about the objectives, beneficiaries and results of EU programmes more visible and accessible to all citizens and investors thereby substantially increasing transparency.	<ul style="list-style-type: none"> <li>EU (2017), <i>People's Budget - Position on the post 2020 MFF, SDG Watch Europe</i>. <a href="http://www.peoplesbudget.eu/wp/wp-content/uploads/Position_MFF_1December_2017.pdf">http://www.peoplesbudget.eu/wp/wp-content/uploads/Position_MFF_1December_2017.pdf</a></li> </ul>	31/12/21
25)	Hungary shall break down all barriers to disclosure procedures for environmental information, in particular, the unjustified confidentiality of certain relevant data and the unfounded determination of unreasonable costs in connection with data requests.	<ul style="list-style-type: none"> <li>EU (2003), <i>Access to information Directive</i>, Article 3, 4. For details, see the General References section.</li> </ul>	15/02/21
26)	Hungary shall continue to improve the knowledge of the extent and value of ecosystem services, habitat and soil maps within and outside protected areas. It shall also continue to share (online) sectoral data and shall improve the accessibility and communication of information to the public. Hungary shall guarantee that monitoring of the extend and value of ecosystem services is systematically continuous.	<ul style="list-style-type: none"> <li>EU (2003), <i>Access to information Directive</i>, Article 7. For details, see the General References section.</li> </ul> <p>The EU Habitats Directive requires the assessment of any plan or investment that may have a significant impact on any Natura 2000 territory. The analysis is required to cover impacts on soil, air, water, wildlife and the built environment. A lack of localised data on species and ecosystems, particularly outside of protected areas, can limit the extent to which biodiversity is considered in some assessments.</p>	Prep: 31/05/21  Impl: Continuos from 01/06/21

27)	Hungary shall improve access to spatial data and services by making stronger linkages between the country INSPIRE portals, identify and document all spatial datasets required for the implementation of environmental law, and make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services foreseen in the INSPIRE Directive.	<ul style="list-style-type: none"> <li>EU (2003), <i>Access to information Directive</i>, Article 7. For details, see the General References section.</li> </ul> <p>See Monitoring and Reporting Information in:</p> <ul style="list-style-type: none"> <li>EC, <i>Inspire in your country: Hungary</i>. <a href="https://inspire.ec.europa.eu/INSPIRE-in-your-Country/HU">https://inspire.ec.europa.eu/INSPIRE-in-your-Country/HU</a></li> </ul>	<p>Prep: 31/05/21</p> <p>Impl: Continuos from 01/06/21</p>
28)	Hungary shall facilitate and encourage citizens initiatives towards a circular economy. It shall particularly revise its legislation to support diversion of organic waste by enabling wide use of various composting methods (community, public).	<ul style="list-style-type: none"> <li>CECI (2019), <i>Involving citizen in circular economy</i>, <a href="https://www.interregeurope.eu/ceci/news/news-article/6384/involving-citizen-in-circular-economy/">https://www.interregeurope.eu/ceci/news/news-article/6384/involving-citizen-in-circular-economy/</a></li> </ul>	<p>Prep: 31/05/21</p> <p>Impl: Continuos from 01/06/21</p>
29)	Hungary shall continuously implement widescale and effective environmental awareness-raising campaigns on energy- and climate-related issues, as well as biodiversity protection by, among others, substantially increasing budgets for them.	<p>Meaningful public participation is possible only if the public is well informed.</p> <p>Hungary's Deputy Commissioner for Fundamental Rights, (Ombudsman for Future Generations) has repeatedly raised concerns about environmental democracy in his annual reports.</p>	<p>Prep: 31/03/21</p> <p>Impl: Conti-nuos from 01/05/21</p>
30)	Hungary shall ensure that the public bodies/committees dealing with the environment or climate change have a fair NGO representation (for example, in the National Economic and Social Council and the National Forest Council).	<ul style="list-style-type: none"> <li>Press release signed by 74 NGOs (2011), <i>A Mockage of Democracy in the Hungarian National Civil Fund Council</i>. Augusztus 24., Levegő Munkacsoport website. <a href="https://www.levego.hu/en/key-themes/legal-affairs/">https://www.levego.hu/en/key-themes/legal-affairs/</a></li> </ul>	<p>Prep: 31/01/21</p> <p>Impl: Conti-nuos from 01/02/21</p>
<b>Access to justice</b>			
31)	Hungary shall ensure that the public concerned (including environmental NGOs) has access to a review procedure before a court of law to challenge the programmes on environmental grounds.	<ul style="list-style-type: none"> <li>UN (1998), <i>Aarhus Convention</i>, Article 9. For details, see General References section.</li> </ul>	<p>Prep: 31/01/21</p> <p>Impl: Continuos from 01/02/21</p>
<b>Education for Sustainability<sup>10</sup></b>			
32)	Hungary shall substantially improve the quality of education on all levels. Among others, Hungary shall substantially raise the salary of teachers, reduce their administrative tasks, and in public education gradually restore the compulsory teaching time to 18 hours (from the present 26 hours) per week.	<p>Our society will be able to cope with the enormous environmental challenges only if the population will be well educated.</p> <ul style="list-style-type: none"> <li><i>National Framework Strategy on Sustainable Development of Hungary (2013)</i></li> </ul>	<p>Prep:</p> <p>Impl:</p>

<sup>10</sup> In addition to the proposals listed here, see the conceptual recommendations and extended package of proposals by the Hungarian Environmental Education Association in Annex 3 (only in Hungarian).

		<p><a href="https://www.nfft.hu/documents/127649/4101265/NFFT-ENG-web.pdf">https://www.nfft.hu/documents/127649/4101265/NFFT-ENG-web.pdf</a></p> <ul style="list-style-type: none"> <li>• <i>Education Policy Outlook – Hungary. OECD</i> <a href="http://www.oecd.org/education/Hungary-Profile.pdf">http://www.oecd.org/education/Hungary-Profile.pdf</a></li> <li>• <i>Country Report Hungary 2020. European Commission</i> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1584543810241&amp;uri=CELEX%3A52020SC0516">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1584543810241&amp;uri=CELEX%3A52020SC0516</a></li> </ul> <p>The economic competitiveness of Hungary can be improved most efficiently – besides the creation of a proper institutional and legal system – by investing in the development of human resources.</p> <ul style="list-style-type: none"> <li>• <i>The Changing Wealth of Nations. World Bank.</i> <a href="https://www.worldbank.org/en/news/infographic/2018/01/30/the-changing-wealth-of-nations">https://www.worldbank.org/en/news/infographic/2018/01/30/the-changing-wealth-of-nations</a> <a href="https://openknowledge.worldbank.org/handle/10986/29001">https://openknowledge.worldbank.org/handle/10986/29001</a></li> </ul> <p>According to the current plans of the government, a large part of the EU funding would be used for education but almost exclusively for new infrastructure. Infrastructure should certainly be upgraded but the main problem is the lack of sufficient staff with proper qualification for everyday operation as well as the obsolete institutional system. There should be appropriate plans for solving these problems, otherwise not only the new infrastructure will be underused but also the existing infrastructure will continue to be used very inefficiently. (It is important to note that these problems characterize not only the educational system but other public services, like health care, too.)</p>	
33)	Hungary shall establish an inter-ministerial coordinating body and a governmental background institution under the auspices of this body, that is tasked with disseminating the value set and approach of sustainability and assisting disseminators in both school and out-of-school areas.	Previously, such a background institution existed between 1999 and 2005, the Environmental Education and Communication Program Office (KöNKomp), which functioned as a centre for information, organizational support and expertise, helping public, non-governmental and other organizations and actors active in Hungarian environmental education to work together to spread sustainability values and principles.	Prep. 31/12/21  Impl. 01/01/21
34)	Hungary shall encourage at all levels of public education, from legislation to schools, regardless of type, scope and size, to take strong account of the 17 Sustainable Development Goals (SDGs) that are relevant to their work.	The UN Agenda 2030 and the Sustainable Development Goals are 17 ambitious objectives for a greener, healthier, more peaceful, prosperous and equal planet. Adopted in 2015 by the 193 member states of the United Nations, the 2030 Agenda for Sustainable Development sets out a supremely ambitious and transformational vision for realizing sustainable development in all countries of the world, both developed and developing. The Agenda 2030 promotes a greener, healthier, more peaceful, prosperous, and more equitable future for our planet as a whole and for billions of people worldwide.	Prep:  Impl:



		The Recovery and Resilience Fund explicitly mentions that the RRF is meant to translate EU commitments to implement the UN SDGs.	
35)	Hungary shall strengthen the network of schools and kindergartens (“Eco-schools” and “Eternal eco-schools” and Green Kindergartens and Eternal Green Kindergartens) that promote the mindset and values of sustainability both in the field of teaching and learning and in the operation of the institutions.	Once this network is in place, its long-term impact can be ensured by operating the network and deepening its environmental education commitments.	Prep:  Impl:
36)	Hungary shall support research in science (in the realms of Environmental Psychology, the Psychology of Advertising, Social Psychology, Sociology, Religion, Cultural History etc.) and art (in the realms of Literature, Fine Arts, Music, Theatre and Film, Street Art etc.) as well as programs and initiatives that aim to gear society's values towards sustainability.	<ul style="list-style-type: none"> <li>• <i>National Framework Strategy on Sustainable Development of Hungary (2013)</i> <a href="https://www.nfft.hu/documents/127649/4101265/NFFT-ENG-web.pdf">https://www.nfft.hu/documents/127649/4101265/NFFT-ENG-web.pdf</a></li> </ul>	Prep:  Impl:
37)	Hungary shall support community-driven science programs that, besides their professional and scientific usefulness, also raise environmental awareness in the population. Such programs may be carried out in any field but particularly in the areas of biodiversity, agriculture, energy and environmental risks (weather) in particular needs to be strengthened.	Community research, by promoting inclusion and public participation has a number of added benefits that conventional awareness-raising campaigns based on one-way communication cannot achieve, such as the significant and long-lasting increase in the sense of responsibility among participants. Past good examples from Hungary include: Méta, Globe, Bisel Beagle, Vadonleeső Madármegfigyelő napok, Köpönyeg, Időkép etc.	Impl: 01/01/22
38)	Hungary shall enhance environmental literacy on sustainability and the functioning of ecosystems shall be enhanced among citizens of all ages.	Sustainability literacy is a complex set of knowledge, attitudes and skills which increase current or future labor market competitiveness. Jobs requiring such literacy will inevitably multiply in the near future.	Prep:  Impl:
39)	Instead of the rigid system of subjects/disciplines, complex (non-subject-based) forms of learning (like learning projects, problem-based learning, thematic days, thematic weeks and “forest schools”) shall be given much more space in all school types than at present.	Public education based on the traditional “subject-textbook-lesson-classroom” system, despite its very real advantages, does not introduce students to the real world, nor does it confront them with real problems as opposed to the proposed forms of learning.	Prep:  Impl:
40)	Hungary shall develop programs for atypical students which build on already-established forms of activity applied in environmental education. Programs shall especially include activities that break with the traditional (i.e., one-sidedly cognitive and verbal) approach.	The pedagogy of sustainability requires a systems approach, a new teaching-learning strategy that takes into account individual differences in the learning process and creates opportunities for all children - including those with atypical development pathways (e.g., students with dyslexia, dysgraphia, dyscalculia, autism, spectrum disorder or students with outstanding abilities and talents)! – in getting to know the environment and in acquiring related competencies.	Impl: 01/01/22

<b>Economic Instruments</b>			
41)	Hungary shall prepare an inventory of environmentally harmful subsidies (including the subsidies due to the non-internalisation of external costs). This shall include also allowing market prices for the public utility services.	<p>These subsidies are creating structural risks to government budgets and the financial performance of all sectors. They encourage wasteful consumption (especially among the wealthier segments of the population) and pushing up harmful emissions.</p> <p>This measure conforms to “the polluter pays” principle (EU (2012), <i>TFEU</i>, Article 191(2), For details, see General References section).</p> <p>It will make consumers and producers pay the full social cost of producing pollution thus confront them with these costs. It will also raise substantial revenues for the government which could be used for environmental protection and protecting vulnerable groups of the society. It would also provide huge market incentive for firms to offer more efficient products and services, which cause less pollution.</p> <ul style="list-style-type: none"> <li>• EC, Law, <i>Training Package on Principles of EU Environmental Law</i>. <a href="https://ec.europa.eu/environment/legal/law/principles.htm">https://ec.europa.eu/environment/legal/law/principles.htm</a></li> <li>• <i>Dirty Subsidies: How Europe sabotages its climate goals</i>. <i>Investigate Europe</i>, <a href="https://www.investigate-europe.eu/en/2020/fossil-subsidies/">https://www.investigate-europe.eu/en/2020/fossil-subsidies/</a></li> </ul>	30/06/21
42)	On the basis of the inventory of environmentally harmful subsidies, Hungary shall prepare an annual implementation plan of removing all environmentally harmful subsidies (including the internalisation of all external costs).	<ul style="list-style-type: none"> <li>• EU (2012), <i>TFEU</i>. For details, see General References section.</li> <li>• <i>Environmentally Harmful Subsidies: Challenges for Reform</i>. <i>OECD</i> <a href="https://www.oecd.org/fr/tad/environmentallyharmfulsubsidieschallengesforreform.htm">https://www.oecd.org/fr/tad/environmentallyharmfulsubsidieschallengesforreform.htm</a></li> <li>• <i>Environmental economics</i>. <i>European Commission</i> <a href="https://ec.europa.eu/environment/enveco/taxation/">https://ec.europa.eu/environment/enveco/taxation/</a></li> </ul>	30/11/21
43)	Hungary shall remove all environmentally harmful subsidies in accordance with the above plan.	<ul style="list-style-type: none"> <li>• EU (2012), <i>TFEU</i>. For details, see General References section</li> </ul>	Substantial removal each year until total removal in 2030
44)	Hungary shall incentivise companies to provide information to their costumers about the external costs related to their products and services. Hungary shall provide the companies with appropriate methodology to calculate the monetary values of the externalities.	<p>As long as the prices do not reflect the real costs (i.e. do not include the external costs), it is necessary to provide separate information about these costs to the consumer, helping her/him to make the right decisions. Such a measure is also a very important tool for raising public awareness.</p> <p><i>Consumption and Consumer Footprint: methodology and results</i>. <i>Joint Research Centre of the European Commission</i>, 2019, <a href="https://ec.europa.eu/jrc/en/publication/consumption-and-consumer-footprint-methodology-and-results">https://ec.europa.eu/jrc/en/publication/consumption-and-consumer-footprint-methodology-and-results</a></p> <p><i>I360X, an impact assessment platform</i>. <a href="https://www.gistimpact.com/">https://www.gistimpact.com/</a></p>	

		<p><i>PENNY labels its first products with “true prices” Discussion on prices short-sighted – Consequential costs of consumption missing – Creating transparency.</i></p> <p><a href="https://www.rewe-group.com/en/newsroom/press-releases/1710-penny-labels-its-first-products-with-true-prices">https://www.rewe-group.com/en/newsroom/press-releases/1710-penny-labels-its-first-products-with-true-prices</a></p>	
45)	Hungary shall enable the landfill tax to be transferred to the polluter. This is not allowed due to the overhead cost reduction regulation.	<p>Making the polluters pay the landfill tax will enable the environmental cost of landfill to be reflected more accurately in the price. A landfill tax was introduced in 2013 and rose from HUF 3 000 per tonne to HUF 6 000 per tonne in 2014, with revenues earmarked for waste management. At the same time, its scope was extended to cover industrial waste. The tax was expected to grow up to EUR 40 (HUF 12 000) per tonne in 2016. However, the rates were frozen at 2014 levels and later increases have not been implemented. The government reported that such an increase could be counterproductive and lead to more illegal dumping. As a result, the cost of landfilling remains low, which could represent a set-back for the promotion of recycling.</p> <ul style="list-style-type: none"> <li>• OECD (2018), <i>Environmental Performance Reviews: Hungary</i>. For details, see the General References section.</li> </ul> <p>In addition, this measure will help Hungary to conform with the new EU circular economy package, which includes legislative proposals on waste with long-term targets to reduce landfilling.</p>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>
46)	Hungary shall introduce an incineration tax, to promote the upward shift in the waste hierarchy.	<p>A waste incineration tax would increase the incentive for recycling of materials, including biological treatment, and can especially boost plastic recycling, as indicated in this article from the newspaper:</p> <ul style="list-style-type: none"> <li>• The Times (2018), <i>Incineration tax could boost plastic recycling.</i></li> </ul> <p><a href="https://www.thetimes.co.uk/article/incineration-tax-could-boost-plastic-recycling-b26njp3xk">https://www.thetimes.co.uk/article/incineration-tax-could-boost-plastic-recycling-b26njp3xk</a></p> <p>This tax already exists in a several Europeans countries such as Austria, Belgium, Demark, and Italy.</p>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>
47)	Hungary shall improve the application of the polluter pays principle also by ensuring that an external cost analysis shall be carried out before every decision of the funding of concrete individual projects over 1 million EUR financial public (EU and/or national) contribution.	<ul style="list-style-type: none"> <li>• EU (2012), <i>TFEU</i>, Paragraph 2, Article 191. For details, see General References section.</li> <li>• EU (2018), <i>CPR Proposal</i>, Paragraph (5) of the Preamble. For details, see General References section.</li> </ul>	Precond
48)	The polluter pays principle shall be consistently applied: no EU funding shall be provided for projects which could be financed by the user/polluter.	<p>“The ‘polluter pays’ principle is enshrined in Article 130(2) of the EU Treaty and serves as the basis of the Environmental Liability Directive, based on the precautionary principle. Therefore, this principle must be applied for all EU funded projects.</p>	Continuous
49)	Hungary shall set up the legal framework to ensure that the government shall conduct preliminary environmental assessments before any changes in the public finance	<ul style="list-style-type: none"> <li>• <i>A Mid-term Assessment of the Environmental Policy Performance of the Hungarian Government</i> (2012).</li> </ul> <p><a href="https://www.levego.hu/site/assets/files/5535/kormanyertekeles2012-angol-vegleges.pdf">https://www.levego.hu/site/assets/files/5535/kormanyertekeles2012-angol-vegleges.pdf</a></p>	<p>Prep: 30/06/21</p> <p>Impl:</p>

	(state budget, taxations system). Ex-post impact assessments shall also be properly conducted following the changes in public finance.	<ul style="list-style-type: none"> <li>Act CXXX of 2010 on Law-making (2010), Section 17. <a href="http://njt.hu/translated/doc/J2010T0130P_20200101_FIN.PDF">http://njt.hu/translated/doc/J2010T0130P_20200101_FIN.PDF</a></li> </ul>	Continuous from 01/07/21
50)	Market-based energy prices shall be re-introduced, and Hungary shall phase out the heat subsidy, while compensating vulnerable groups through social benefits that are not linked to energy consumption.	<p>The current type of price regulation in Hungary represents a barrier to entry in the highly concentrated energy market, as well as for companies using renewables to provide power and heat. The energy price regulation and the subsidies for heat consumption undermine the government's efforts to improve energy efficiency. They also contravene the recommendations of the National Energy Strategy to help households use energy more efficiently rather than offering them lower energy prices. In addition, the energy price regulation and the subsidies for heat consumption are not an effective way of fighting the rising energy affordability concerns. Support for household energy bills locks households into inefficient use of energy, as artificially low prices do not provide any incentives to save energy or improve energy efficiency. This type of support does not target the people most in need: price cuts benefit all users, including well-off households. Subsidies to heat consumption mostly benefit people wealthier people, often living in urban areas, where the natural gas and district heating networks are developed.</p> <ul style="list-style-type: none"> <li>OECD (2018), <i>Environmental Performance Reviews: Hungary</i>. For details, see the General References section.</li> </ul>	Prep: 31/06/21 Impl: 01/01/22
51)	Hungary shall fix the potential misalignment of the energy price regulation and the corporate income tax code with Hungary's promotion of investment in renewable electricity generation. Market-based energy prices shall adequately reflect the environmental damage from energy use.	<p>Energy prices for households have been repeatedly cut to levels below costs (with the exception of solid fuels). This practice lowers returns on investment in the energy sector. As such, it is a barrier to entry in the energy market, including for companies using renewables to provide power and heat. In addition, while variable costs of new investment are immediately expensed from the corporate income tax base, capital costs need to be depreciated over time. This feature of the tax code inadvertently discourages investment in carbon-neutral electricity generation technologies, which feature relatively high capital and low variable costs compared to their carbon-intensive counterparts.</p> <ul style="list-style-type: none"> <li>OECD (2018), <i>Environmental Performance Reviews: Hungary</i>. For details, see the General References section.</li> </ul>	Prep: 31/06/21 Impl: 01/01/22
52)	Hungary shall determine all costs of the decommissioning of the Paks power plant (including those of the planned Paks II) as well as the costs of the storage of all nuclear waste from the power plant as long as they become completely safe. Hungary shall make these figures public and shall include all these costs in the price of the electricity produced by the Paks I and eventually Paks II power plants during the operation of these plants.	<p>"3. The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment..." (Consolidated version of the Treaty on European Union, Article 3), There can be no competitive market economy if the prices substantially diverge from the costs.</p>	

53)	<p>Hungary shall implement a national road toll for all motor vehicles on all roads that will reflect the distance driven, the environmental characteristics of the vehicle, the maximum permitted total weight of the vehicle, the time (e.g. different for peak hours and/or weekends) and other special conditions (e.g. sensitive areas, congested roads). This tolling system will be part of an integrated space use charging system (“Position, Time and Distance” system) which would treat public space use (both moving and parking) in a unified, flexible system.</p> <p>The toll and other pricing instruments shall ensure that all road users pay the full infrastructure and environmental costs caused by them. Having implemented such a road toll, Hungary could abolish the annual vehicle tax for the sake of simplification.</p>	<p>The European Commission has highlighted several times in its reports that the cost of the negative externalities caused by transport is not being paid by the transport users in Europe. It is particularly the case in Hungary where both passengers and freight pay less than the third of the cost they incur. The national road toll will internalise the external costs of road transport and the revenue generated can be redistributed to the population for further social benefits. This reform has already been successfully implemented in several countries like Iran or Canada. For more details, see Annex 1: “The Internalisation of External Costs of Road Transport in Hungary” by Clean Air Action Group.</p>	<p>Prep: 31/06/21</p> <p>Impl: 01/01/22</p>
54)	<p>Hungary shall make it compulsory that parking fees be set everywhere at such a level that will ensure that at any time at least 15% of the on-street parking spaces are free within a radius of 300 meters.</p>	<p>This measure will eliminate traffic searching parking places (in Budapest today this might reach 30% of all traffic). Furthermore, it will eliminate illegal parking of vehicles of delivery services which is quite typical in Budapest. Furthermore, this measure will be an implementation of a basic market principle: the price will properly balance supply and demand.</p>	<p>Prep: 31/06/21</p> <p>Impl: 01/01/22</p>
55)	<p>Hungary shall promote the use of light electric vehicles for a daily use by making it possible for the employers to pay a tax-free, kilometre-based contribution to those employees who travel to work by bicycle, including e-bikes and also to provide a bicycle (including e-bikes) tax-free for any use.</p>	<p>Electric vehicles increase electricity demand but reduce oil demand and well-to-wheel greenhouse gas emissions. Therefore, for a smooth transition to a low carbon economy, Hungary needs a long-term vision and a diversified and adaptive portfolio of policy measures, including new fiscal schemes (as this tax-free, kilometre-based contribution) in order to transition from internal combustion engines to electrified vehicles in the transport sector and stimulate the electric-vehicle rollout in major vehicle markets. Moreover, promoting the use of bicycles to work encourages people to make healthier and more environmentally friendly lifestyle choices.</p> <ul style="list-style-type: none"> <li>• Levegő Munkacsoport (2017), <i>Will there be a government decree on electric bicycles?</i> <a href="https://www.levego.hu/hirek/lesz-e-kormanyhatarozat-az-elektromos-ketkerekekrol/">https://www.levego.hu/hirek/lesz-e-kormanyhatarozat-az-elektromos-ketkerekekrol/</a></li> <li>• Levegő Munkacsoport, <i>Javaslatok a Mikromobilitási Eszközök Forgalmi Szabályozására Szolgáltatói Tapasztalatok Alapján.</i> <a href="https://www.levego.hu/sites/default/files/mikromob_szab_2020jan7.pdf">https://www.levego.hu/sites/default/files/mikromob_szab_2020jan7.pdf</a></li> </ul> <p>Light electric vehicles are electric vehicles with one or more wheels powered by a battery, fuel cell, or hybrid-powered, and generally weighing less than 100 kilograms. Examples include electric bicycles, electric kick scooters, electric skateboard, electric unicycle, onewheel.</p> <ul style="list-style-type: none"> <li>• Wikipedia (2020), <i>Light electric vehicle</i> <a href="https://en.wikipedia.org/wiki/Light_electric_vehicle">https://en.wikipedia.org/wiki/Light_electric_vehicle</a></li> </ul>	<p>Prep: 31/06/21</p> <p>Impl: 01/01/22</p>

56)	Hungary shall establish a carbon-based flight ticket on the model of the passenger duty tax in the United Kingdom calculated individually for every route flown.	Carbon-based flight ticket is an effective instrument to curb the ever-growing air traffic with its increasing share in greenhouse gas emissions. This tax will work as an incentive for passengers to avoid traveling by plane or choose a substitute by internalising the external impact from air transport. <ul style="list-style-type: none"> <li>• EU (2016), <i>Sustainability-oriented EU Taxes: The Example of a European Carbon-based Flight Ticket Tax</i>. The FairTax project is funded by the European Union’s Horizon 2020 research and innovation programme 2014-2018, grant agreement No FairTax 649439. <a href="https://ec.europa.eu/budget/mff/Library/hlgor/s/elected-readings/41-Carbon-basedFlightTicketTax-Schratzenstalle.pdf">https://ec.europa.eu/budget/mff/Library/hlgor/s/elected-readings/41-Carbon-basedFlightTicketTax-Schratzenstalle.pdf</a></li> <li>• Wikipedia, <i>Air Passenger Duty</i>. <a href="https://en.wikipedia.org/wiki/Air_Passenger_Duty">https://en.wikipedia.org/wiki/Air_Passenger_Duty</a></li> </ul>	Prep: 31/06/21  Impl: 01/01/22
57)	Hungary shall monitor and evaluate the new institutional arrangements for EPR (Extended producer responsibility) schemes to analyse and address potential longer-term negative impacts. Hungary shall prepare a programme for improving it (maybe trying an EPR approach that gives producers managerial or decision-making responsibilities within either a single PRO (Producer responsibility organisation) or competing PRO systems like most of the other members of OECD).	The necessity of these measures is underlined by the fact that product fees and the new governance system for EPR do not seem to be conducive to improved environmental performance and engagement of the private sector. More information about EPR here: <ul style="list-style-type: none"> <li>• OECD, Extended producer responsibility. <a href="https://www.oecd.org/env/tools-evaluation/extendedproducerresponsibility.htm">https://www.oecd.org/env/tools-evaluation/extendedproducerresponsibility.htm</a></li> </ul> Issue mentioned into the OECD environmental performance review on Hungary of 2018: <ul style="list-style-type: none"> <li>• OECD (2018), <i>Environmental Performance Reviews: Hungary</i>, Chapter 4: Waste, material management and circular economy. For details, see the General References section.</li> </ul>	Prep: 31/06/21  Impl: 01/01/22
58)	Hungary shall ensure that environmental product fees reflect also end-of-life management costs, are predictable and encourage private sector investment (by increasing the number of products covered by the environmental product fee and the regulatory EPR scheme for example). Hungary shall include the environmental product fee on each receipt of a product or service, which contains such a fee.	This measure will help to internalize environmental externalities and should provide an incentive for producers to take into account environmental considerations along the products' end-of-life. It is important for consumers to be aware of the price formation and the reasons behind it in order to carry out conscious consumer decisions.	Prep: 31/06/21  Impl: 01/01/22
59)	Hungary shall assess the effects of environmental load fees and improve the system on the basis of the assessment. (The air load fee is calculated by the quantity and the level of hazard of polluting substances emitted into the air annually; the water load fee is calculated by the total quantity of polluting substances discharged into waters annually with the rate varying with the hazard that the individual pollutants represent and with the specific features of the affected area; the soil load fee is imposed on the desiccation and storage of wastewater.)	The prices of environmental elements (air, water and soil) need to be involved in economic planning by applying the “polluter pays” principle. Environmental load fees (ELFs) are efficient means of controlling economic processes through encouraging the user of environmental elements to reduce and prevent pollution and providing them with financial assistance to achieve this goal from the generated revenues. If ELFs perform well, the society may benefit from an improved state of the environment and human health. Competitiveness of the Hungarian economy would also be enhanced once technology is transformed and developed to become more environmentally friendly, which is indispensable for further progress anyhow. The water load fee would prevent pollution and contamination of	Prep: 31/06/21  Impl: 01/01/22

		<p>surface waters to protect human health and to preserve or even enhance the ecological value of waters. The soil load fee would eliminate, or at least reduce, contamination from desiccation of domestic wastewater (one of the key pollutants in urban areas) by making people interested in using a more convenient public utility service at a price that is close to the payable rate of soil load fee. However, in order to function efficiently, the results of the application of environmental load fees during the past years must be analysed and the system and level of fees must be adjusted accordingly.</p>	
60)	Hungary shall extend and increase the land protection fee.	<p>The land protection fee is levied when a green area is re-zoned to a construction area. However, today it does not have a real deterrent effect because it is very low and there are many exemptions.</p> <ul style="list-style-type: none"> <li>• Clean Air Action Group, Hungary Society for Sustainable Living, Czech Republic Institute for Sustainable Development, Poland Danish Ecological Council (2004), <i>Environmental Fiscal reform in Hungary, the Czech republic, Poland and Denmark: Necessity and possibilities of an ecological budget reform</i>, Page 72. <a href="https://www.levego.hu/sites/default/files/budget_n.pdf">https://www.levego.hu/sites/default/files/budget_n.pdf</a></li> </ul>	<p>Prep: 31/03/21</p> <p>Impl: 01/06/21</p>
61)	Hungary shall implement a stormwater fee (similarly to the German <i>Niederschlagswassergebühr</i> ) in urban areas.	<p>The stormwater fee is a charge imposed on real estate owners in proportion to the impervious surface runoff. The is proportional to the total impervious area on a particular property, including concrete or asphalt driveways and roofs, that do not allow rain to infiltrate.</p> <p>In urban environments, hard surfaces like parking lots, sidewalks, and rooftops prevent stormwater from soaking into the ground. This stormwater will "run off" into the city's storm drain system, discharging directly into our lakes, creeks and rivers. Stormwater runoff picks up pollutants, trash and debris along the way, creating health and safety issues for residents and wildlife. Managing stormwater protects homes, businesses and the environment and helps to prevent flooding, erosion and pollution.</p> <ul style="list-style-type: none"> <li>• EEA (2019), <i>Urban soil sealing in Europe</i>. <a href="https://www.eea.europa.eu/articles/urban-soil-sealing-in-europe">https://www.eea.europa.eu/articles/urban-soil-sealing-in-europe</a></li> <li>• The VIP, <i>A városokban csapadékdíjjal fizetnek a németek leburkolt területekért</i>. <a href="https://thevip.hu/2020/12/05/a-varosokban-csapadekdijjal-fizetnek-a-nemetek-leburkolt-teruletekert/">https://thevip.hu/2020/12/05/a-varosokban-csapadekdijjal-fizetnek-a-nemetek-leburkolt-teruletekert/</a></li> </ul>	<p>Prep: 31/07/22</p> <p>Impl: 01/01/23</p>
62)	Hungary shall substantially increase mining taxes.	<p>Mining taxes in Hungary are extremely low. This is especially valid for mining taxes on mineral raw materials other than hydrocarbons.</p> <p>Low rates of mining taxes have multiple adverse effects. New raw materials are used even when the secondary use of part of the construction materials could be arranged on the spot, which would also alleviate environment pollution caused by transportation. These mineral products are non-renewable raw materials, so the mined materials cannot be replaced. As a consequence, Hungary's natural resources</p>	<p>Prep: 31/03/21</p> <p>Impl: 01/01/22</p>

		are reduced by their volume. Mining itself entails considerable environment pollution. Low mining tax rates also provide false orientation to business organizations: among others, secondary utilization of waste construction materials is hindered or sometimes even made impossible by the unjustifiably low cost of newly mined construction materials.	
63)	Hungary shall swiftly adopt and implement a national action plan for green public procurement.	Green procurement benefits the environment by reducing greenhouse gas emissions, the use of hazardous and toxic substances, and pollution, including plastic waste. It also supports the Hungarian economy by creating new markets for innovative products and services. Hungary can follow the guidance of the green handbook, for example: European Commission, Support tools for public buyers <a href="https://ec.europa.eu/info/policies/public-procurement/support-tools-public-buyers/green-procurement_e">https://ec.europa.eu/info/policies/public-procurement/support-tools-public-buyers/green-procurement_e</a> .	Prep: 31/03/21  Impl: 01/06/21
64)	Hungary shall adopt/revise the decrees on the detailed rules of green public procurement.	<ul style="list-style-type: none"> <li>Act CXLIII of 2015 on public procurement (2015), Section 198 (1), Page 10, 13. <a href="http://njt.hu/translated/doc/J2015T0143P_20180808_FI_N.pdf">http://njt.hu/translated/doc/J2015T0143P_20180808_FI_N.pdf</a></li> </ul>	31/05/21
65)	Hungary shall set up a monitoring procedure of the public procurement market in that EU Green Public Procurement (GPP) criteria and its indicators shall be applied. The GPP criteria shall be applied to resources, products and services imported from non-EU countries, too.	<ul style="list-style-type: none"> <li>European Commission, <i>Green Public Procurement</i>. <a href="https://ec.europa.eu/environment/gpp/index_en.htm">https://ec.europa.eu/environment/gpp/index_en.htm</a></li> </ul>	Prep: 31/06/21  Impl: 01/01/22
66)	Hungary shall immediately suspend subsidising those large investments which are neither necessary for achieving the climate and environmental targets, nor urgent for the development of the Hungarian economy, among others <ul style="list-style-type: none"> <li>– the construction of new buildings in the Budapest City Park (Városliget),</li> <li>– the transformation of the Buda Castle District into a government office area,</li> <li>– the construction of new stadiums,</li> <li>– the construction of new hotels,</li> <li>– the construction of the MotoGP racetrack in Hajdúnánás.</li> </ul>	The climate emergency and the biodiversity emergency postulate a restructuring of the public finances on a scale similar to that of wartime.	Precond
67)	Hungary shall provide direct subsidy or indirect subsidy (e.g. tax allowances) neither from EU funds, nor from the national budget for the following investments or operations: <ol style="list-style-type: none"> <li>Investment related to the production, processing, distribution, storage or combustion of fossil fuels (Art. 5 JTF);</li> <li>The decommissioning, operation, adaptation or construction of nuclear power stations (Annex V to InvestEU);</li> <li>Large hydropower, with the exception of investments for the improvement of sustainability of existing installations;</li> </ol>	These investments are especially harmful for the environment. Moreover, such investments must compete on the open market, and if they are subsidized, then they will pose an unfair competition to environmentally beneficial investments. <ul style="list-style-type: none"> <li>Green 10 (2020), <i>RE: Guaranteeing a Green Recovery across Europe in Next Generation EU</i>. <a href="https://www.greenrecovery.eu/s/Guaranteeing-a-Green-Recovery-across-Europe-in-Next-Generation-EU">https://www.greenrecovery.eu/s/Guaranteeing-a-Green-Recovery-across-Europe-in-Next-Generation-EU</a></li> </ul>	Precond



	<p>4. Crop-based biofuels and unsustainable bioenergy;</p> <p>5. Investment in disposal of waste in landfill (Art. 6 ERDF);</p> <p>6. Investments in installations for the combustion of waste, whether dedicated incinerators or cofiring in other facilities such as cement kilns;</p> <p>7. Investment to achieve the reduction of greenhouse gas emissions from activities listed in Annex I to Directive 2003/87/EC of the European Parliament and of the Council (Art. 6 ERDF);</p> <p>8. Internal combustion engine vehicles;</p> <p>9. Expansion of aviation capacity;</p> <p>10. Expansion of motorways;</p> <p>11. LNG and diesel maritime vessels, with the exception of investments to retrofit existing vessels to substantially improve their energy efficiency and GHG emissions;</p> <p>12. Fossil gas (LNG/CNG) infrastructure for transport;</p> <p>13. Chemical manufacturers unless for safe and sustainable chemicals;</p> <p>14. Textiles industry unless meeting strict sustainability and human rights criteria.</p> <p>15. Livestock farming, unless organic or extensive (&lt;0.7 LSU/ha);</p> <p>16. Activities involving live animals for experimental and scientific purposes insofar as in compliance with the European Convention for the Protection of Vertebrate Animals used for Experimental and other Scientific Purposes cannot be guaranteed (Annex V to InvestEU);</p> <p>17. Logging (forestry and sawmills), unless continuous cover/close to nature;</p> <p>18. Fishing &amp; fish processing, unless performed with vessels under 12 metres, in a fishery with a small-scale fisheries plan, respecting scientifically established Maximum Sustainable Yield;</p> <p>19. Aquaculture &amp; processing, unless for extensive semi-natural wetlands or close circuit recirculation systems using fully vegetal feed;</p> <p>20. Investment by companies registered in the EU list of non-cooperative jurisdictions for tax purposes (ECON opinion on JTF).</p> <p>21. Investments in companies with track records of environmental, human and workers' rights abuse and violations, or corruption.</p>		
68)	Hungary shall promote resource-saving and circular economy, by supporting financial investments in	Hungary has improved its waste and material management by increasing recycling and recovery. However, its efforts to foster the transition to a circular economy have so far been limited. In terms of material productivity (defined as	Continuous

	<ul style="list-style-type: none"> <li>cleaner production, resource saving production,</li> <li>in industrial symbiosis programmes,</li> <li>the re-use sector (particularly setting up network of re-use centres), and</li> <li>in the recycling sector (closing the loop locally.).</li> </ul>	<p>the amount of economic value generated per unit of material used, or gross domestic product [GDP] per unit of DMC), Hungary is below the OECD Europe average. This indicates that the country could use material resources more efficiently to produce wealth.</p> <ul style="list-style-type: none"> <li>OECD (2018), <i>Environmental Performance Reviews: Hungary</i>. For details, see General References section.</li> </ul>	
69)	Hungary shall provide compensation for the increase of taxes and fees to those in need.	Those who lose their jobs and/or especially negatively affected (the poorest layers of the population) must receive additional revenues.	Simultaneously with the tax increase
<b>Green investment and innovation</b>			
70)	Public R&D funding shall be increased for environment-related innovation and the efficiency and effectiveness of this funding shall be evaluated. Hungary shall specifically target environmentally beneficial transport and agricultural innovations, sustainable building technologies, and energy production.	<p>Hungary is far below the EU average in eco-innovation EC (2020) ECO-INNOVATION at the heart of European policies</p> <ul style="list-style-type: none"> <li>EC (2020), <i>The Eco-Innovation Scoreboard and the Eco-Innovation Index</i>. <a href="https://ec.europa.eu/environment/ecoap/indicators/index_en">https://ec.europa.eu/environment/ecoap/indicators/index_en</a></li> </ul> <p>Eco-innovations are however vital to achieve high employment and equitable income distribution without an irreversible destruction of natural assets and biodiversity. More information on innovation policy for green technologies:</p> <ul style="list-style-type: none"> <li>UNECE (2013), <i>Innovation Policy for Green technologies: Guide for Policymakers in the Transition Economies of Europe and Central Asia</i>. <a href="https://www.unece.org/fileadmin/DAM/ceci/publications/GreenTechnology/ECE_CECI_20_web.pdf">https://www.unece.org/fileadmin/DAM/ceci/publications/GreenTechnology/ECE_CECI_20_web.pdf</a></li> <li>OECD (2009), <i>Sustainable Manufacturing and Eco-Innovation: Framework, Practices and Measurement – Synthesis Report</i>. <a href="https://www.oecd.org/innovation/inno/43423689.pdf">https://www.oecd.org/innovation/inno/43423689.pdf</a></li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: Continuous from 01/07/21</p>
71)	Research, Technological Development and Innovation Interventions shall specifically aim at the development of resource and energy savings, technologies and prioritise RTDI (research, technological development and innovation) activities in energy efficiency, renewables and climate adaptation.	Research and innovation are critical for delivering the solutions and system transformations for the transition towards climate neutrality by 2050. It also corresponds to the objectives of the programme Horizon Europe.	<p>Prep: 30/06/21</p> <p>Impl: Contin-uous from 01/07/21</p>
72)	Hungary shall apply EU eco-innovation indicators in national strategies.	<p>EU eco-innovation indicators:</p> <ul style="list-style-type: none"> <li>Eco-Innovation Observatory (2018), <i>EU Eco-Innovation Index: Technical note</i>. 2018 version. <a href="https://ec.europa.eu/environment/ecoap/sites/ecoap_stayconnected/files/ecoi_index_eu_2018_technical_note.pdf">https://ec.europa.eu/environment/ecoap/sites/ecoap_stayconnected/files/ecoi_index_eu_2018_technical_note.pdf</a></li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: Contin-uous from 01/07/21</p>

73)	Hungary shall establish a platform for broader cooperation between businesses, financial institutions and other stakeholders to promote development of a circular economy (and to share best resource efficiency and circular economy practices).	A similar platform: The Circular Economy Foundation, founded in 2013 had gathered business partners to promote a circular economy and provided a forum to share experiences and best practices. Likewise, the “Ablakon Bedobott Pénz” programme encourages dissemination of good practices in companies through an award for environmental performance, including on waste management and resource efficiency. This initiative is led by KÖVET, an association of environment-focused consulting companies. These private initiatives have been proved useful to share environmental good practices. Issue mentioned into the OECD environmental performance review on Hungary: <ul style="list-style-type: none"> <li>• OECD (2018), <i>Environmental Performance Reviews: Hungary</i>, Chapter 4: Waste, material management and circular economy. For details, see the General References section.</li> </ul>	Prep: 30/06/21  Impl: 31/10/21
74)	Hungary shall facilitate exchanges among buyers committed to Green Public Procurement (GPP) implementation (if one of the criteria is to make GPP obligatory) by encouraging them to take part in a “Public Buyers for Climate and Environment” initiative.	The “Public Buyers for Climate and Environment” is an initiative from the European Commission to promote collaboration between public buyers in implementing strategic public procurement and pooling resources and demand <ul style="list-style-type: none"> <li>• EC (2020), <i>New policy developments – GPP and the European Green Deal</i>. GPP Advisory group meeting. <a href="https://ec.europa.eu/environment/gpp/pdf/1.%20Update%20from%20the%20Commission%20-%20GPP%20and%20European%20Green%20Deal.pdf">https://ec.europa.eu/environment/gpp/pdf/1.%20Update%20from%20the%20Commission%20-%20GPP%20and%20European%20Green%20Deal.pdf</a></li> </ul>	Prep: 30/06/21  Impl: Contin-uous from 01/07/21
<b>Air quality</b>			
75)	Hungary shall ensure that the mapping of existing and planned infrastructures reflects air quality plans, taking into account in particular national decarbonisation plans.	The World Health Organization (WHO) classifies air pollution as the biggest environmental risk to health in Europe. This is particularly the case in Hungary, where each year about 13,000 persons die prematurely due to air pollution, and these persons lose on average nearly 12 years of their life. In terms of per capita deaths due to air pollution, Hungary is one of the worst countries in Europe; for example, in Hungary, per 100,000 inhabitants nearly twice as many persons die prematurely than in France. <ul style="list-style-type: none"> <li>• WHO, <i>Air Pollution</i>. <a href="https://www.who.int/health-topics/air-pollution#tab=tab_1">https://www.who.int/health-topics/air-pollution#tab=tab_1</a></li> <li>• EEA (2020), <i>Air Quality in Europe - 2020 Report</i>. <a href="https://www.eea.europa.eu/publications/air-quality-in-europe-2020-report">https://www.eea.europa.eu/publications/air-quality-in-europe-2020-report</a></li> </ul>	Prep: 30/04/21  Impl: Continuous from 01/05/21
76)	Hungary shall prepare a detailed, explicit operational plan for the measures listed in the National Air Pollution Control Program (NAPCP) for better air quality (the improvement of the energy efficiency of buildings, the modernization of heating appliances, the extension of district heating, limitations on the residential use of low-	The current NAPCP is lacking these important items. <ul style="list-style-type: none"> <li>• Levegő Munkacsoport (2020), <i>The government’s programme for the reduction air pollution is uninterpretable</i>. <a href="https://www.levego.hu/en/news/2020/05/ertekelhetetlen-a-kormany-legszennyez-es-csokkentesi-programja/">https://www.levego.hu/en/news/2020/05/ertekelhetetlen-a-kormany-legszennyez-es-csokkentesi-programja/</a></li> </ul>	Prep: 30/04/21  Impl: Continuous from 01/05/21

	<p>quality solid fuels, decreasing transport emissions using technical solutions and the support of greener transport modalities). The operational plan shall address especially those activities which have the greatest impact on air quality and/or have been increasing during recent years (such as residential waste burning, residential heating with lignite, and the import of very polluting second-hand cars).</p> <p>The NAPCP provisions shall align with EU funded building renovation projects. Impacts on air quality (especially PM2.5 emissions) of EU funded building renovation projects shall be reported and monitored.</p>		
77)	<p>The thresholds of the Hungarian smog alarm systems shall be reduced and more effective measures during smog alarms shall be introduced.</p>	<p>Besides reducing air pollution and protecting citizens' health, such a measure would also be very useful for raising public awareness.</p> <ul style="list-style-type: none"> <li>Levegő Munkacsoport (2017), <i>Air Pollution Emergency Schemes (Smog Alerts) in Europe</i>. Compiled by Marcus Wiesen. <a href="https://www.levego.hu/sites/default/files/smog_emergency_schemes_in_europe_201703.pdf">https://www.levego.hu/sites/default/files/smog_emergency_schemes_in_europe_201703.pdf</a></li> </ul>	<p>Prep: 31/03/21</p> <p>Impl: 01/04/21</p>
<b>Biodiversity protection and financing</b>			
78)	<p>Hungary shall ensure that a priority action framework for 2021-2027 pursuant to Article 8 of Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora is in place and fully supports its implementation with all resources.</p>	<ul style="list-style-type: none"> <li>EEC (1992), Directive 92/43/EEC, Current consolidated version: 01/07/2013. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&amp;from=EN</a></li> </ul>	<p>Prep: 31/12/21</p> <p>Impl: Continuous from 01/01/22</p>
79)	<p>Hungary shall raise the proportion of protected areas from the current 9,13% (that includes the 1,28% strictly protected areas) to at least 12%, using core areas and ecological corridors of the National Ecological Network as well as incorporate those old native forests that are without a forest production target (about 100,000 hectares). At the same time Hungary shall ensure the appropriate management by increasing the financing sources of National Park Directorates and shall remedy the shortage of park rangers.</p>	<p>More information on the values and benefits of protected areas here:</p> <ul style="list-style-type: none"> <li>Anu Press (2015), <i>Protected Area Governance and Management</i>, Chapter 6: Values and Benefits of Protected Areas. <a href="http://press-files.anu.edu.au/downloads/press/p312491/pdf/CHAPTER6.pdf">http://press-files.anu.edu.au/downloads/press/p312491/pdf/CHAPTER6.pdf</a></li> </ul>	<p>Prep: 31/12/21</p> <p>Impl: 01/12/27</p>
80)	<p>Hungary shall reinforce the institutional system of nature conservation at central, regional and local levels equally and ensure their institutional financial autonomy definitively.</p>	<ul style="list-style-type: none"> <li>Decision 27/2017. (X. 25.) of the Constitutional Court of Hungary (2017). For details, see the General References section.</li> </ul>	<p>Prep: 01/06/21</p> <p>Impl: 01/10/21</p>
81)	<p>Hungary shall put in place legal safeguards to ensure that either (a) state-owned protected areas remain in the ownership and management of state entities (e.g., National</p>	<ul style="list-style-type: none"> <li>Decision 27/2017. (X. 25.) of the Constitutional Court of Hungary (2017). For details, see the General References section.</li> </ul>	<p>Prep: 01/06/21</p> <p>Impl:</p>

	Parks) or (b) that all appropriate and necessary land use regulations are enshrined into lease contracts or that (c) all the protections of state-owned protected areas are perpetuated, continually and consistently upheld in case they are sold to private entities.		Continuous from 01/10/21
82)	Hungary shall ensure sufficient and stable financing conditions in order to fulfill the monitoring and management obligations of EU Nature Directives related to assessment, maintenance or improvement of the conservation status of species and habitats; this includes the improvement of biotic information systems and sectoral data sharing and accessibility, sharing the state and trends of nature with a wide array of the public.	<ul style="list-style-type: none"> <li>EU (2011), <i>Investing in Natura 2000, Delivering benefits for nature and people</i>. Commission Staff Working Paper, SEC (2011) 1573 final. For details, see the General References section.</li> </ul>	Prep: 01/06/21  Impl: Continuous from 01/10/21
83)	The budget funding for National Park Directorates shall be increased to reduce the need for substantial revenue-raising activity that may be contrary to biodiversity objectives.	<p>The budget for National Park Directorates has increased since 2008, with a significant portion (almost 60%) sourced from their own revenues (HUF 4.1 billion in 2016). The directorates generate revenue from the use of protected land for environment-friendly farming, including crops and livestock, as well as ecotourism. Environmental groups have, however, expressed concern that the directorates' dependence on own-source revenue is distorting decision making, favouring revenue-generating activities over nature conservation (WWF Hungary et al., 2015). Issue mentioned into the OECD environmental performance review on Hungary:</p> <ul style="list-style-type: none"> <li>OECD (2018), <i>Environmental Performance Reviews: Hungary</i>, Chapter 5: Biodiversity. For details, see General References section.</li> </ul>	Prep: 31/12/23  Impl: Continuous from 01/01/24
84)	Dedicated budgets for nature conservation departments shall be provided to improve the predictability of financing and reduce the risk of shifting short-term priorities.	<ul style="list-style-type: none"> <li>OECD (2007), <i>Handbook for Appraisal of Environmental Projects Financed from Public Funds, Environmental Finance</i>. <a href="https://www.oecd.org/environment/outreach/38786197.pdf">https://www.oecd.org/environment/outreach/38786197.pdf</a></li> </ul>	Prep:  Impl:
85)	Hungary shall ensure measures are in place to enhance the conservation status of threatened species, both in and outside protected areas by improving wildlife corridors and restricting infrastructure expansion to reduce fragmentation of habitats (especially soil sealing). The creation of steppingstone patches of habitats which can also help to reduce effects of fragmentation shall be considered.	<p>More information on the effects of fragmentation of habitats:</p> <ul style="list-style-type: none"> <li>AAAS (2015), <i>Habitat fragmentation and its lasting impact on Earth's ecosystems</i>, Science Advances. <a href="https://advances.sciencemag.org/content/1/2/e1500052.full">https://advances.sciencemag.org/content/1/2/e1500052.full</a></li> </ul> <p>Fragmentation of habitats is an issue mentioned into the OECD environmental performance review on Hungary:</p> <ul style="list-style-type: none"> <li>OECD (2018), <i>Environmental Performance Reviews: Hungary</i>, Chapter 5: Biodiversity. For details, see the General References section.</li> <li>EC (2014), <i>Science for Environment Policy: Steppingstone patches of habitat help reduce the negative effects of fragmentation</i>, Journal of Applied Ecology. <a href="https://ec.europa.eu/environment/integration/research/newsalert/pdf/368na5_en.pdf">https://ec.europa.eu/environment/integration/research/newsalert/pdf/368na5_en.pdf</a></li> </ul>	Prep: 31/12/21  Impl: Continuous from 01/01/22

86)	Hungary shall better incorporate the assessments of management effectiveness of protected areas and Natura 2000 sites into the existing national biodiversity monitoring system to track the effects of nature conservation interventions more effectively. Both the frequency and geographic extent of management effectiveness assessments shall be significantly extended. Hungary shall furthermore make valid evaluations of such protected area management effectiveness assessments and feed conclusions into the next cycles of planning and decision-making.	<ul style="list-style-type: none"> <li>EU (2011), <i>Investing in Natura 2000, Delivering benefits for nature and people</i>. Commission Staff Working Paper, SEC (2011) 1573 final. For details, see the General References section.</li> </ul>	<p>Prep: 31/12/21</p> <p>Impl: Continuous from 01/01/22</p>
87)	Hungary shall gradually implement the best practices provided by the European Commission to avoid recurring to soil sealing. Green infrastructure (GI) and nature-based solutions (NbS) shall be an integral part of the solution to soil sealing. Applying GI and NbS to soil sealing in an urban context has additional benefits, e.g., decreased heat island effects, increased resilience and climate adaptation, decreased extreme weather-related risks and damages.	<p>Best practices for limiting soil sealing:</p> <ul style="list-style-type: none"> <li>EC Environment, <i>Soil: Overview of the best practices for limiting soil sealing or mitigating its effects in EU-27</i>. <a href="https://ec.europa.eu/environment/soil/sealing.htm">https://ec.europa.eu/environment/soil/sealing.htm</a></li> </ul> <p>Soil sealing causes an irreversible loss of the ecological functions of soil; therefore, it is necessary to limit its expansion.</p>	<p>Prep: 31/12/23</p> <p>Impl: Continuous from 01/01/24</p>
88)	The effectiveness of the National Ecological Network Zone instrument and other spatial planning policies shall be improved by developing regional-level biodiversity indicators and using biodiversity experts to support informed decisions (with the help of the Biodiversity Indicators System for Europe, BISE).	<ul style="list-style-type: none"> <li>Biodiversity Information System for Europe, <i>Nature in Europe</i>. <a href="https://biodiversity.europa.eu">https://biodiversity.europa.eu</a></li> </ul>	<p>Prep: 31/12/24</p> <p>Impl: Continuous from 01/01/25</p>
89)	Hungary shall ban the cutting of native tree species for biomass and shall rethink its stance on burning forest biomass in general and align its target share with the commitments and targets on renewable energy and emissions reduction.	<ul style="list-style-type: none"> <li>NGOs position on forest biomass (2020), Letter to Vice President Frans Timmermans. <a href="http://www.ceeweb.org/ngo-biomass-letter-to-vice-president-frans-timmermans-may-15-2020/">http://www.ceeweb.org/ngo-biomass-letter-to-vice-president-frans-timmermans-may-15-2020/</a></li> </ul>	Precond
90)	Hungary shall implement sustainable use of soil for construction projects and for mining. This entails preventing further soil degradation and preserving its functions, as well as restoring degraded soils. Hungary shall set voluntary Land Degradation Neutrality targets aligned with the UNCCD mechanism and with respect to the EU Soil Thematic Strategy.	<p>Soils are the second largest carbon sink in the world after the oceans.</p> <ul style="list-style-type: none"> <li>UNCCD, <i>Land Degradation Neutrality target setting programme</i>. <a href="https://www.unccd.int/actions/ldn-target-setting-programme">https://www.unccd.int/actions/ldn-target-setting-programme</a></li> </ul>	<p>Prep: 31/12/23</p> <p>Impl: Continuous from 01/01/24</p>
91)	Hungary shall ensure more effective preservation of ecological corridors, landscape permeability and sustainable land use (decrease and halt the use of biologically active areas) by adopting new laws and regulations, in line with the EU Biodiversity Strategy 2030 among others, using the authorisation of Act No. 53 of 1996 on nature conservation to mitigate the effects of habitat fragmentation.	<p>It is necessary to increase awareness among the public as well as governmental officials to the importance of protecting ecological corridor functions (e.g., free animal movement through landscape) and to how these functions represent ecosystem services for the future. While a certain regulation already exists (Spatial Planning Law (2018), Act No. 139), a stricter prescription for ecological corridor zones is necessary, or alternatively based on the authorisation of Act on Nature Conservation</p>	<p>Prep: 31/12/23</p> <p>Impl: Continuous from 01/01/24</p>

		(Act No. 53 of 1996, 53. § (5)-(6)), special rules for ecological corridors could be announced.	
92)	Hungary shall avoid the destruction of green spaces and the fragmentation of habitat, including in areas with no formal protection.	<p>Green spaces are essential</p> <p>(a) to reduce heat and pollution</p> <ul style="list-style-type: none"> <li>David Suzuki Foundation (2015), <i>The Impact of Green Space on Heat and Air Pollution In Urban Communities: A Meta-Narrative Systematic Review</i>. <a href="https://davidsuzuki.org/wp-content/uploads/2017/09/impact-green-space-heat-air-pollution-urban-communities.pdf">https://davidsuzuki.org/wp-content/uploads/2017/09/impact-green-space-heat-air-pollution-urban-communities.pdf</a></li> </ul> <p>(b) and it also improve the health of the population.</p> <ul style="list-style-type: none"> <li>NRPA (2017), <i>The Health Benefits of Small Parks and Green Spaces, Health and Wellness</i>. <a href="https://www.nrpa.org/parks-recreation-magazine/2017/april/the-health-benefits-of-small-parks-and-green-spaces/">https://www.nrpa.org/parks-recreation-magazine/2017/april/the-health-benefits-of-small-parks-and-green-spaces/</a></li> </ul> <p>Moreover, greening urban spaces is one of the objectives of the European Green Deal.</p>	<p>Prep: 31/12/21</p> <p>Impl: Continuous from 01/01/22</p>
93)	Afforestation of indigenous species beyond protected areas shall be expanded, unless the species cannot survive projected future climate conditions, in which case afforestation should continue with climate resilient species causing the lowest possible disruption to indigenous ecosystems. Afforestation shall be carried out in places where it does not disrupt the natural water cycle nourishing indigenous ecosystems in the same river basin. Hungary shall also increase sustainability certification of forest companies and maintain sustainable forest management objectives.	<p>More information on sustainable forest management:</p> <ul style="list-style-type: none"> <li>PEFC, <i>What is sustainable forest management?</i> <a href="https://www.pefc.org/what-we-do/our-approach/what-is-sustainable-forest-management">https://www.pefc.org/what-we-do/our-approach/what-is-sustainable-forest-management</a></li> </ul> <p>Example of good practices:</p> <ul style="list-style-type: none"> <li>CBD (2019), <i>Sustainable Forest Management, Biodiversity and Livelihoods: A good Practice Guide</i>. Montreal. <a href="https://www.cbd.int/development/doc/cbd-good-practice-guide-forestry-booklet-web-en.pdf">https://www.cbd.int/development/doc/cbd-good-practice-guide-forestry-booklet-web-en.pdf</a></li> </ul>	<p>Prep: 31/12/22</p> <p>Impl: Continuous from 01/01/23</p>
94)	Hungary shall continue supporting the mapping and assessment of ecosystems and ecosystem services, and the evaluation and development of natural capital accounting systems, gradually weaving them into decision-making processes, accounting and reporting systems.	<p>Target 2 of EU Biodiversity Strategy to 2020 focuses on improving knowledge of ecosystems and their services, covering mapping, assessment of state and economic value of the services, and promoting the integration of these values into accounting and reporting systems. The EU Biodiversity Strategy 2030 also emphasizes the importance of maintenance and improvement of ecosystem services due to their significant importance to several sectors of the economy.</p>	<p>Prep: 31/12/24</p> <p>Impl.: Continuous from 01/01/25</p>
95)	Environmental Impact Assessments (EIA) and appropriate monitoring shall be properly conducted for all phases of mining operation (exploration, project development, mine operation, and mine closure).	<p>More information on EIA:</p> <ul style="list-style-type: none"> <li>EC, <i>Environmental Impact Assessment - EIA</i>. EIA Directive (85/337/EEC). <a href="https://ec.europa.eu/environment/eia/eia-legalcontext.htm">https://ec.europa.eu/environment/eia/eia-legalcontext.htm</a></li> </ul>	Precond
96)	Hungary shall ensure the elimination of damages to polluted areas connected to brown-field investments as part of settlement rehabilitation and economic development.	<p>One of the main challenges of brown field investments is that the extent of environmental pollution on a given area is not always clear or known with certainty, and in many cases, it is unknown whether there is a potential for further pollution.</p>	<p>Prep: 31/12/22</p>

		<p>This is partly the reason why interest among investors is still low for brown field territories and preference is often given to green field investments. The tasks and responsibilities related to decontamination may be too burdensome in terms of expertise and costs for those involved. Rehabilitation costs (depending on the pollution) can be significant. In addition, the often unclear ownership structure can be a further complicating factor. In addition to ownership, the fragmentation of (different) privately owned contiguous areas is also a problem.</p> <p>EU-funded programs in Hungary (e.g., under KEOP) have been tackling the issue and continuing and incentivizing such work is strongly advised. In order to ensure that real estate developments, whether residential buildings, office buildings or a new cultural district, do not take green spaces from city dwellers (especially in densely populated urban areas), it would be important to make maximum use of available brownfield capacities.</p>	Impl.: Continuous from 01/01/23
97)	When establishing digital connectivity infrastructure, there shall be careful consideration of trees and vegetation. Vegetation can be cut only if it is unavoidable, and only outside of the vegetation period.	The multiplication and proliferation of digital connectivity infrastructure especially in urban settings often entails significant pruning or cutting of trees and vegetation in the vicinity. Such pruning could be avoided by better planning of wire routes. Trees should only be pruned after the vegetation period to avoid long-term and irreversible harm to trees.	Prep: 01/05/21  Continuous from 01/06/21
98)	Hungary shall guarantee that the farmers are respecting the Luxembourg agreement (June 2003).	The Luxembourg agreement had established a set of rules in the environmental, health and animal welfare fields (a set of rules known as "cross-compliance") as a long-term outlook for sustainable agriculture.	Prep: 31/12/22  Impl.: Continuous from 01/01/23
99)	Hungary shall expand the National Biodiversity Strategy to incorporate specific commitments and indicators related to energy, transport, tourism, industry, and mining; improve policy coherence and cross-linkage with sectoral strategies and plans; ensure clear accountability for achieving targets; identify financial and human resources for specific actions to achieve targets.	<p>The strategy, relatively comprehensive and ambitious, improves upon the previous version, which did not have measurable targets. However according to the OECD environmental performance review of Hungary (2018), the strategy could have stronger linkages to sectors beyond agriculture, forestry, and fisheries. The strategy has no influence on other ministries beyond the Ministry of Agriculture (which is now responsible for biodiversity, agriculture, forestry, and fisheries). The interim evaluation of the National Biodiversity Strategy in 2018 is expected to indicate progress in implementation.</p> <p>Over 80% of habitats of community importance, and 62% of species, remain in an unfavourable state. Further effort is needed to reduce pressures on biodiversity from land-use change, habitat fragmentation, pollution, invasive species and climate change. Agriculture and forestry sectors remain key sources of pressures, despite their inclusion in the Biodiversity Strategy. Attention is also needed in other sectors, such as energy, transportation, tourism and industry. Greater use of economic instruments, enhanced public financing and a renewed focus on implementation will be important to significantly reduce the rate of biodiversity loss.</p>	Prep: 31/12/23  Impl.: Continuous from 01/01/24



100)	Hungary shall commit to supporting civil society organisations in implementing nature protection project by creating transparent and adequate grant mechanisms independent of as well as complementing EU project financing (e.g., LIFE programme).	LIFE projects are set to be co-financed in the 2021-27 period at a 60 % co-financing rate (75% for priority areas and species). This can put civil society organizations in Hungary at a disadvantaged position compared to other countries unless state or local authorities are willing to complement the available EU financing. The lack of other sources of adequate grants for environmental civil society organizations is a serious risk for generating civil society added value in nature conservation and environmental protection in Hungary.	Continuous
101)	Hungary shall elaborate a national brownfield programme to make brownfields more competitive through economic instruments and regulations and therefore encourage investors to prefer brown-field sites to green-field ones for their investments.	Brown-field sites are areas of land, not covered with green surfaces, which have deteriorated due to former industrial or other use. Developers are wary of brownfield sites because they are often much trickier to build on and because they are not sure of what they are going to find. However, revitalising these brownfield sites is an easy solution to avoid the destruction of Greenfields and is beneficial for both the environment and urban development. Therefore, Hungary needs to encourage the investors through a national brownfield programme. This programme can for instance provide tax incentives for clean-up that is not paid for outright; specifically, clean-up costs can be fully tax-deductible in the year they are incurred.	Prep: 31/12/23  Impl.: Continuous from 01/01/24
<b>Agriculture</b>			
102)	Hungary shall significantly increase the share of organic farming (by increasing the funding designated for sustainable agricultural practices under the EU CAP and making more easy and accessible transition towards organic farming).	Organic farming could benefit biodiversity as it can reduce use of chemical or synthetic fertilisers or pesticides and limit livestock density (although additional use of manure may sometimes increase ammonia emissions and nitrate leaching). It is also an economic opportunity for Hungary, given market conditions in Europe, existing restrictions on genetically modified organisms (GMOs), and favourable climate and soil conditions for organic farming. Increasing the funding designated for sustainable agricultural practices will also scale up investments leading to increased “green value added” processing by primary producers that would make the agricultural sector more resilient throughout the supply chain. It is also in line with the objectives set out in the Farm to Fork Strategy.	Prep: 01/10/21  Impl: Continuous from 01/01/22
103)	Hungary shall make the creation (or maintenance) of short supply-chain systems a strategic priority for agriculture and create the right incentives for farmers and all stakeholders in order to capitalize on mutual benefits in local economic development, climate protection, social inclusion and employment opportunities and the promotion of regional and local agro-diversity. Monitoring of the short supply-chain systems is also needed.	Recommendations on the future CAP and climate policies:  • EEB & Birdlife International (2019), <i>Recommendations on the Future CAP and Climate Policies</i> . For details, see General References section.	Impl.: 01/01/21

104)	Hungary shall use agricultural direct payments as an instrument that allows farmers to make the necessary steps towards greater sustainability and reward those who deliver on environmental performance, employment and deliver public goods.	<p>According to the World Biodiversity Council (IPBES), intensive agriculture is the number one cause of biodiversity loss and associated ecosystem services that are essential for human well-being. For example, the decline in numbers of insects leads to decreased pollination of food plants or a lack of plant pest control through natural enemies. Intensive farming also promotes emission of climate gases and contributes to soil and water pollution. Past evidence demonstrates that efforts to date to green the Common Agricultural Policy (CAP) have not been sufficient to outweigh the damage being done to natural systems by current intensive agricultural practices.</p> <p>Greening measures were designed to implement the principle that farmers should be rewarded for the public goods they provide and to enhance the environmental performance of the CAP. (See among others:</p> <ul style="list-style-type: none"> <li>• <i>European Court of Auditors (2017): Special Report n°21/2017: Greening: a more complex income support scheme, not yet environmentally effective</i> <a href="https://www.eca.europa.eu/Lists/ECADocuments/SR17_21/SR_GREENING_EN.pdf">https://www.eca.europa.eu/Lists/ECADocuments/SR17_21/SR_GREENING_EN.pdf</a>)</li> </ul> <p>The ECA estimates that greening led to changes in farming practices on only around 5 % of all EU farmland.</p> <ul style="list-style-type: none"> <li>• <i>EU Common Agricultural Policy: More than 3,600 researchers call for science to be taken into consideration.</i> <a href="https://www.eurekalert.org/pub_releases/2020-03/gcfi-mtm030620.php">https://www.eurekalert.org/pub_releases/2020-03/gcfi-mtm030620.php</a> // Pe'er, G, Bonn, A, Bruelheide, H, et al. <i>Action needed for the EU Common Agricultural Policy to address sustainability challenges.</i> <i>People Nat.</i> 2020; 2: 305– 316. <a href="https://doi.org/10.1002/pan3.10080">https://doi.org/10.1002/pan3.10080</a></li> </ul> <p>Member States shall link the disbursement of CAP payments to the achievement of performance targets. Farmers should only have access to CAP payments if they meet a set of basic environmental norms encompassing areas covered by the current GAECs and the generalised greening requirements (which are both meant to go beyond the requirements of environmental legislation). Penalties for non-compliance with these combined norms should be sufficient to act as a deterrent. In addition, all such basic norms should be fully incorporated in the environmental baseline for any programmed action regarding agriculture.</p>	Precond
105)	Hungary shall ensure that greening regulations more efficiently support the conservation of biodiversity, the regeneration of nature and the climate resilience of ecosystems. At least 10% of the area of farmland shall be given back to nature, increasing the territory of land withdrawn from the cultivation conserving natural habitats (for example row of trees, hedgerows, ponds). Such regulations shall be basic requirements to receive CAP subsidies.	<ul style="list-style-type: none"> <li>• Birdlife International (2020), <i>Advocating for sustainable agriculture.</i> For details, see General references section.</li> </ul> <p>One of the main ecological repercussion of direct agricultural payments is the disappearance of micro-habitats, such as hedgerows, flower strips or ponds and the sprawl of large-scale monocultures (agro-deserts). Previous voluntary support elements (e.g., support for so-called non-productive investments, like allowing grassland or water retention) and greening regulations for ecological focus areas (EFAs) have not been able to reverse the</p>	Precond

		<p>process. Stricter regulation is needed. We therefore recommend that at least 10% of farms be returned to nature without compromise as one of the basic conditions for support within the CAP. There should be no exemption from the requirement, and replacement by other practices, e.g., by growing a certain type of crop or by accounting for plots of land in contact with the farm.</p> <p>This measure is particularly important in farms mainly engaged in arable crop production, as well as in areas where the elements of the agro-ecological network have disappeared in recent decades, and on land not suitable for arable farming based on local conditions, e.g., areas that are often flooded or have unfavourable soil conditions. Research has shown that setting aside at least 10-14% of an area and permanently removing them from productive use can help regenerate wildlife. Restoration of natural habitat structures has also been shown to have a positive effect on crop yields, while loss of habitats and species is associated with declining yields. Farmers who farm in a nature-friendly way can meet the requirements with little extra effort, as they already provide “space for nature” in many elements of their economy.</p> <ul style="list-style-type: none"> <li>Magyar Madártani Egyesület (Bird Life Hungary) (2020): <i>Helyet a természetnek! A Magyar Madártani és Természetvédelmi Egyesület javaslatai a Közös Agrárpolitika tervezéséhez és a hazai mezőgazdálkodás célrendszerének átalakításához.</i> For details, see General References section.</li> </ul>	
106)	Hungary shall reinforce the conditionalities linked to water and soil protection for all agricultural payments under the CAP.	<p>Integrating and encouraging the use of eco-schemes (and aligning direct payments with them) by the national CAP Strategic Plan could contribute to both water and soil protection.</p> <p>Guide for using eco-schemes in the new CAP:</p> <ul style="list-style-type: none"> <li>IFOAM EU (2020), <i>Using Eco-Schemes in the New Cap: A guide for Managing Authorities.</i> For details, see General References section.</li> <li><i>Soil health policies for CAP and Agri-environment Directives.</i> <a href="https://www.soilcare-project.eu/images/images/Policy_Briefs/Policy_brief1_SICS_Final.pdf">https://www.soilcare-project.eu/images/images/Policy_Briefs/Policy_brief1_SICS_Final.pdf</a></li> </ul>	Precond
107)	Hungary shall effectively integrate eco-schemes in its national CAP Strategic Plan in order to contribute to the CAP’s environmental and climate objectives. National envelopes for direct payments shall be dedicated to eco-schemes as much as possible, helping farmers transition to more sustainable farming practices and systems.	<p>Guide for using eco-schemes in the new CAP:</p> <ul style="list-style-type: none"> <li>IFOAM EU (2020), <i>Using Eco-Schemes in the New Cap: A guide for Managing Authorities.</i> For details, see General References section.</li> </ul>	<p>Prep: 31/12/22</p> <p>Impl.: Continuous from 01/01/23</p>
108)	(a) Additional measures in the agricultural sector shall be implemented to reduce ammonia emissions, curb pesticide use and limit cultivation of flooded land (there is scope to expand the use of taxes and charges in these areas).	(a) Ammonia emission is one of the main contributors to eutrophication in Hungary. Ammonia emissions, although they dropped during the economic slowdown, had almost returned to 2005 levels by 2015. This will make it difficult for Hungary to meet its EU target for ammonia (-34% compared to 2005 levels over 2020-29). Also, the	<p>a) Prep: 31/12/22</p> <p>Impl.: Continuous from 01/01/23</p>

	<p>(b) Hungary shall address agricultural GHG emissions in a more systematic way, for example, by supporting and educating farmers for a greater integration of agroecological practices; setting ambitious targets for drastically cutting food waste (already on farms); reducing livestock numbers; supporting farmers to manage nutrients optimally; protecting and managing permanent grasslands.</p>	<p>cultivation of flooded land is threatening wetlands (which are key carbon sinks). More information on the advantages of wetlands here:</p> <ul style="list-style-type: none"> <li>Mitsch et al. (2012), <i>Wetlands, carbon, and climate change, Landscape Ecology</i>. Springer Link. <a href="https://link.springer.com/article/10.1007/s10980-012-9758-8">https://link.springer.com/article/10.1007/s10980-012-9758-8</a></li> </ul> <p>(b) Policy brief on the ways sustainable food production, based on agroecological principles, can potentially lead to decreased GHG emissions:</p> <ul style="list-style-type: none"> <li>EEB &amp; Birdlife International, <i>Mezőgazdaság És Klímaváltozás</i>. For details, see General References section.</li> <li>EEB &amp; Birdlife International (2019), <i>Recommendations on the Future CAP and Climate Policies</i>. For details, see General References section.</li> </ul>	<p>b) Prep: 31/12/22</p> <p>Impl.: Continuous from 01/01/23</p>
109)	<p>Hungary shall devote 30% of the entire national CAP budget for payments with targeted and valid nature conservation commitments and needs to set aside dedicated sources for the monitoring of the effectiveness of prescriptions. Hungary shall strive for a competitive nature-friendly and climate-resilient farming, give high payment for high level expectations and give priority to zonary against horizontal programmes.</p> <p>2% of the financial envelope for the measures shall be set aside to fund independent scientific monitoring,</p> <p>Policy safeguards should also ensure that dedicated resources really serve to achieve the desired goals; in case of over-application, payments to higher value added to nature should be preferred.</p> <p>In the case of Agri-Environment Schemes, payments for so-called zonal programs delivering high nature and environmental protection standards shall be guaranteed.</p>	<ul style="list-style-type: none"> <li>Birdlife International (2020), <i>Advocating for sustainable agriculture</i>. For details, see General references section.</li> </ul> <p>“Targeted and valid” means that the measures’ primary aim is to preserve biodiversity, the effectiveness of which has been proven by research and practical examples. All this, of course should be implemented in an economically meaningful way, but economic and efficiency considerations cannot override conservation considerations. thus</p> <p>It is necessary to set aside 2% to fund independent scientific monitoring, so that it becomes verifiable whether an intervention contributes to conserving biodiversity, whether the measures actually meet the objectives set and whether measures that prove ineffective can be filtered out and made more effective.</p> <ul style="list-style-type: none"> <li>Magyar Madártani Egyesület (Bird Life Hungary) (2020): <i>Helyet a természetnek! A Magyar Madártani és Természetvédelmi Egyesület javaslatai a Közös Agrárpolitika tervezéséhez és a hazai mezőgazdálkodás célrendszerének átalakításához</i>. For details, see General References section.</li> </ul>	<p>Prep: 31/12/22</p> <p>Impl.: Continuous from 01/01/23</p>
110)	<p>Hungary shall ensure transitional measures for conversion to agro-ecological farming with transitional payments, eliminating harmful subsidies, and putting an end to the constraint of continual cultivation.</p>	<ul style="list-style-type: none"> <li>Birdlife International (2020), <i>Advocating for sustainable agriculture</i>. For details, see General references section.</li> </ul> <p>In parallel with the elimination of forms of support harmful to the environment, transitional measures shall be introduced to help farmers set up an agro-ecological farming system in line with the carrying capacity of the environment. The amounts of payments shall be determined in such a way that they are comparable to the revenue provided by industrial farming thus contributing to environment-friendly land use.</p>	<p>Impl.: 01/06/21</p>

		<p>Agro-ecological systems with much lower input produce perhaps somewhat less but higher quality products, in many cases with significant added value, while minimizing harmful and costly environmental impacts. Good examples of switching can be grassland planting, support for organic farming, transition to feed self-sufficiency and the cultivation of native, more resilient livestock and the cultivation of regional cultivars that can withstand the extremes of climate change.</p> <ul style="list-style-type: none"> <li>Magyar Madártani Egyesület (Bird Life Hungary) (2020): <i>Helyet a természetnek! A Magyar Madártani és Természetvédelmi Egyesület javaslatai a Közös Agrárpolitika tervezéséhez és a hazai mezőgazdálkodás célrendszerének átalakításához.</i> For details, see General References section.</li> </ul>	
111)	Hungary shall give preference to added-value organic farming over biofuel and biomass production	<p>Hungary is one of the largest bioethanol producers in the European Union. Biofuels and biomass electricity production can encourage agricultural expansion, and therefore affect biodiversity. The European Commission has therefore recommended phasing out conventional biofuels after 2020. In its 2017 review of Hungary, the International Energy Agency posited that the country was close to reaching the limits of biomass production. Indeed, future increases in forest plantations intended for energy use could negatively affect biodiversity, depending on the tree species used and forestry practices.</p>	Impl.: Continuous from 01/06/21
112)	For the conservation and proper management of protected areas and Natura 2000 sites, Hungary shall work out the Natura 2000 land use regulations for other land use categories besides grasslands enforce compliance with rules of the existing and new Natura 2000 land use regulations as well as ensure the necessary financial resources for compensation payments.	<ul style="list-style-type: none"> <li>Birdlife International (2020), <i>Advocating for sustainable agriculture.</i> For details, see General references section.</li> </ul> <p>The need for land and financial support resulting from the loss of agricultural land and the increased demand for area-based payments should no longer be alleviated by Natura 2000 areas and by softening existing regulations for protected areas. Mandatory land use regulations for protected and Natura 2000 sites, now complete Natura 2000 maintenance plans or, in their absence, documents containing Natura 2000 objectives and priorities provide sufficient guidance for the conservation of the natural values of the sites and the selection of appropriate land use methods.</p> <p>Review where necessary, work out and adhere strictly mandatory land use regulations for protected and Natura 2000 sites and provide the necessary compensation payments. Develop and make available in an interactive interface the management plans of all Natura 2000 sites.</p> <ul style="list-style-type: none"> <li>Magyar Madártani Egyesület (Bird Life Hungary) (2020): <i>Helyet a természetnek! A Magyar Madártani és Természetvédelmi Egyesület javaslatai a Közös Agrárpolitika tervezéséhez és a hazai mezőgazdálkodás célrendszerének átalakításához.</i> For details, see General References section.</li> </ul>	Prep: 31/12/22  Impl.: Continuous from 01/01/23

113)	Hungary shall ensure the improvement of the regional agricultural expert network and consultancy which bring sustainability expertise to the field, i.e., directly to farmers, thereby improving education, expertise, and knowledge-transfer. In addition, control systems shall be developed involving all relevant organisations (e.g., nature conservation civil society organizations, National Park Directorates, authorities, Chamber of Agriculture, Hungarian State Treasury)	<ul style="list-style-type: none"> <li>Birdlife International (2020), <i>Advocating for sustainable agriculture</i>. For details, see General references section.</li> </ul> <p>An obvious way to represent shared natural resources, like soil health, climate stability and freshwater resources can be an expert network, field consultants and inspectors supporting farmers in collaboration with the relevant professional organizations (nature conservation NGOs, National Park Directorates, authorities, National Chamber of Agriculture, Hungarian State Treasury).</p> <ul style="list-style-type: none"> <li>Magyar Madártani Egyesület (Bird Life Hungary) (2020): <i>Helyet a természetnek! A Magyar Madártani és Természetvédelmi Egyesület javaslatai a Közös Agrárpolitika tervezéséhez és a hazai mezőgazdálkodás célrendszerének átalakításához</i>. For details, see General References section.</li> </ul>	Impl.: 01/01/23
114)	Hungary shall ensure that policies incentivising land use change for climate mitigation, like. afforestation includes biodiversity and environmental sustainability in their objectives and are based on an assessment of the pre-existing biodiversity value, either at planning or at project level. Ecological principles and sustainable forest management shall be implemented in forestry in establishing as well as in restoring biodiversity (landscape elements) on farmlands.	<p>It is essential to avoid mitigation measures which have negative trade-offs with other environmental dimensions. The implementation of land use change for climate mitigation measures shall serve the prevention of fires and desertification, promote biodiversity, involve the sustainable management of natural forests and shall foster environmental benefits such as protection for water systems and the combating of erosion. Afforestation should be done with native species. Taken together land use change for climate mitigation should present multiple ecological and social benefits beyond CO2 sequestration.</p> <p>Ecosystems restoration or the adequate management of landscape elements on farmlands are win-win solutions which provide habitats and increase carbon sequestration. Policy brief on the ways sustainable food production, based on agroecological principles, can potentially lead to decreased GHG emissions:</p> <ul style="list-style-type: none"> <li>EEB &amp; Birdlife International, <i>Mezőgazdaság És Klímaváltozás</i>. For details, see General References section.</li> </ul>	Prep: 31/12/22  Impl.: Continuous from 01/01/23
115)	Hungary shall reinforce measures to reduce the abstraction of freshwater through enhanced water use efficiency in irrigation, more draught-resistant crops and other agricultural practice	<p>Using for example Best Management Practices:</p> <ul style="list-style-type: none"> <li>NIWA, <i>Mitigation and best practice options</i>. <a href="https://niwa.co.nz/our-science/freshwater/tools/kaitiaki_tools/land-use/agriculture/mitigation">https://niwa.co.nz/our-science/freshwater/tools/kaitiaki_tools/land-use/agriculture/mitigation</a></li> </ul>	Impl.: Continuous from 01/01/22
<b>Water management</b>			
116)	Hungary shall address the risk of increased flooding and resulting vulnerability of the water supply and sanitation systems through improved engineering and water management practices by increasing funds in this area to	<ul style="list-style-type: none"> <li>Publications Office of the EU (2014), <i>The EU Water Framework Directive</i>. <a href="https://ec.europa.eu/environment/pubs/pdf/factsheets/wfd/en.pdf">https://ec.europa.eu/environment/pubs/pdf/factsheets/wfd/en.pdf</a></li> </ul>	Impl.: Continuous from 01/01/22

	achieve the good status/potential objectives set in the Water Framework Directive.	<ul style="list-style-type: none"> <li>EC (2000), <i>Directive of the European Parliament and of the Council of 2000 establishing a framework for Community action in the field of water policy.</i> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></li> </ul>	
117)	<p>Hungary shall reduce diffuse water pollution from agriculture by promoting sustainable use of fertilisers.</p> <p>In addition to optimal nutrients management, Hungary shall encourage and incentivise the integration of alternative farming solutions and practices that help decreasing diffuse water and soil pollution by excess nutrients from fertilisers, e.g. using cover crops, crop rotation, planting nitrogen-fixing leguminous plants, establishing and restoring wetlands and peatlands etc.</p>	<p>To fulfil this criterion, Hungary can follow The International Code of Conduct for the Sustainable Use and Management of Fertilizers:</p> <ul style="list-style-type: none"> <li>FAO UN(Food and Agriculture Organization of the United Nations) (2019), <i>The international Code of Conduct for the sustainable use and management of fertilizers.</i> <a href="http://www.fao.org/3/ca5253en/CA5253EN.pdf">http://www.fao.org/3/ca5253en/CA5253EN.pdf</a></li> </ul> <p>Reducing water pollution is necessary to attain a sustainable use and protection of water resources which is one of the climates and environmental objective as defined in Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (“EU Taxonomy Regulation”).</p> <ul style="list-style-type: none"> <li>SoilCare, <i>Soil health policies for CAP and Agri-environment Directives.</i> <a href="https://www.soilcare-project.eu/images/images/Policy_Briefs/Policy_brief1_SICS_Final.pdf">https://www.soilcare-project.eu/images/images/Policy_Briefs/Policy_brief1_SICS_Final.pdf</a>.</li> </ul>	Precond
118)	Hungary shall demonstrate the existence of a water pricing policy that provides appropriate incentives for efficient use of water resources by users and provide an adequate contribution of the different water users to the recovery of the costs of water services, at a rate determined in the approved River Basin Management Plan for the investments supported by the programmes.	<p>Information on the implementation of the River Basin Management Plan in Hungary:</p> <ul style="list-style-type: none"> <li>EC, Hungary, <i>Environment Water, 2<sup>nd</sup> RBMPS (2016-2021), 1<sup>st</sup> RBMPS (2009-2015).</i> <a href="https://ec.europa.eu/environment/water/participation/map_mc/countries/hungary_en.htm">https://ec.europa.eu/environment/water/participation/map_mc/countries/hungary_en.htm</a></li> </ul>	<p>Prep: 31/12/23</p> <p>Impl.: Continuous from 01/01/24</p>
119)	Hungary shall set an indication of potential sources of public financing, when needed to complement user charges in its potential green investment plan.	It is necessary for updating planning for required investments in water and wastewater sectors in order to increase water efficiency.	<p>Prep:</p> <p>Impl:</p>
120)	Hungary shall establish a national investment plan which includes an assessment of the current state of implementation of the Urban Wastewater Treatment Directive (UWWTD) 91/271/EEC and of the Drinking Water Directive (DWD) 98/83/EC and an estimate of investments needed to renew existing wastewater and water supply infrastructure, including networks, based on their age and depreciation plans.	<p>Hungary needs to renew its existing wastewater and water supply infrastructure to meet the existent and future demand while undergoing a variety of unsustainable changes like groundwater table sinking, the amount of water stored by lakes decreasing and rivers failing to reach seas as identified in the following document:</p> <ul style="list-style-type: none"> <li>Ijjas, I., Somlyódy, L., Józsa, J., <i>Water Security in Europe, in the Danube Basin and in Hungary.</i> <a href="http://www.bmtt.hu/assets/letolt/secchal21/IjjasI_SomlyodiL_JozsaJ_Security_Challenges_in_the_21st_Century_web-19.pdf">http://www.bmtt.hu/assets/letolt/secchal21/IjjasI_SomlyodiL_JozsaJ_Security_Challenges_in_the_21st_Century_web-19.pdf</a></li> </ul>	Impl: 01/01/21

		<ul style="list-style-type: none"> <li>• EC (2020), <i>Urban Water Treatment Directive</i>. For details, see the General References section.</li> <li>• EC (2020), <i>Drinking Water Directive</i>. For details, see the General References section.</li> <li>• Ramos, H., McNabola, A., Lopez-Jimenez, A., Perez-Sanchez, M. (2020), <i>Smart Water Management towards Future Water Sustainable Networks</i>. <a href="https://www.mdpi.com/2073-4441/12/1/58">https://www.mdpi.com/2073-4441/12/1/58</a></li> <li>• Li, J., Yang, X., Sitzenfrei, R. (2019), <i>Rethinking the Framework of Smart Water System: A Review</i>. <a href="https://www.mdpi.com/2073-4441/12/2/412">https://www.mdpi.com/2073-4441/12/2/412</a></li> </ul>	
121)	Hungary shall make progress towards the digitalisation of water management, both in an urban (along the ‘smart city’ concept) as well as in a rural (e.g., with regard to agricultural irrigation) context. The increased use of digital solutions in water management can effectively lead to more efficient use of water as an essential resource, to the avoidance of extreme weather-related risks and damages and overall, to the increased resilience of relevant socio-economic systems.	Same justifications as in the previous row.	Prep: 31/12/21  Impl.: Continuous from 01/01/22
122)	Hungary shall identify and plan any public investments in its national investment plan, including an indicative financial estimation required to achieve compliance with the UWWTD, including a prioritization with regard to the size of agglomerations and the environmental impact, with investments broken down for each wastewater agglomeration. It shall also be required to implement the DWD Directive on drinking water 98/83/EC and to match the needs stemming from the Drinking Water Directive.	<ul style="list-style-type: none"> <li>• EC (2020), <i>Drinking Water Directive. Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption (recast)</i>, <a href="https://eur-lex.europa.eu/eli/dir/2020/2184/oj">https://eur-lex.europa.eu/eli/dir/2020/2184/oj</a></li> </ul>	Prep: 31/12/21  Impl.: Continuous from 01/01/22
123)	Hungary shall ensure the implementation of the Urban Wastewater Treatment Directive for all agglomerations, as well as of the Drinking Water Directive and continue to prioritise the investments for UWWT plants.	<ul style="list-style-type: none"> <li>• EC (2020), <i>Urban Water Treatment Directive</i>. For details, see the General References section.</li> <li>• EC (2020), <i>Drinking Water Directive</i>. For details, see the General References section.</li> </ul>	Impl.: 31/12/27
124)	Hungary shall make more use of biogas and sewage sludge produced from wastewater at treatment plants.	<ul style="list-style-type: none"> <li>• EC (2020), <i>Drinking Water Directive</i>. For details, see the General References section.</li> </ul>	
125)	The share of the population connected to the sanitation infrastructure shall be increased and improve access to drinking water fully compliant with EU requirements.	<ul style="list-style-type: none"> <li>• EC (2020), <i>Drinking Water Directive</i>. For details, see the General References section.</li> </ul>	Impl.: 31/12/27



126)	Hungary shall make Integrated Water Management a strategic priority and make a paradigmatic change in water management. Hungary shall implement integrated and landscape scale management systems by using mutually beneficial solutions, prioritizing water retention, ensuring the space for water in the landscape based on the ability to retain water, especially in case of flood prevention using alternative methods (widening the floodplain, where possible; the regular transfer of water to the floodplains; opening the distributaries; revival of traditional forms of floodplain farming etc.)	<p>The implementation of integrated water management and treating the aspects of each relevant sector with equal importance could produce mutually beneficial solutions. In general, none of the sectors is superior to the other, such a hierarchy cannot be deduced from either domestic or EU legislation, On a given territory, individual features and problems and real public interests need to be considered to decide on which aspect shall take precedence - the reduction of the flood risk of an arable land is a private interest, but the preservation of floodplain natural values is in the public interest, while the flood protection of a settlement, if it directly serves the protection of life, can be considered an overriding public interest etc.</p> <ul style="list-style-type: none"> <li>• CEEweb for Biodiversity (2020), <i>Jelentős Vízgazdálkodási Kérdések a Natura 2000 és védett természeti területekkel összefüggésben.</i> For details, see the General References section.</li> </ul>	<p>Prep:</p> <p>Impl:</p>
127)	Efforts to assess the status of all water bodies shall be stepped up. Hungary shall also increase the confidence in the assessment of status and reduce the proportion of unknown status. Monitoring shall provide sufficient temporal resolution and spatial coverage.	<p>The ecological statuses of many rivers and especially lakes are unknown in Hungary. This lack of data needs to be solved.</p> <ul style="list-style-type: none"> <li>• OECD (2018), <i>Environmental Performance Reviews: Hungary.</i> For details, see the General References section.</li> </ul>	<p>Prep: 31/12/23</p> <p>Impl.: Continuous from 01/01/24</p>
128)	Hungary shall more effectively integrate climate resilience, nature conservation and ecological aspects into water management and enforce them during the planning of operative programmes.	<p>As the effects of climate change, identified as one of the main drivers of biodiversity loss, are worsening, the extreme spatial and temporal distribution of precipitation distribution, the reconsideration of water management practices is needed. Facing the new challenges, future water management, with climate change adaptation at its core, should be devised with all relevant sectors and social actors involved. The water sector has a key role to play in promoting climate resilience. However, another key to flexible adaptation to climate change is nature conservation. Although water management concerns all actors in society, without real cooperation between the water sector and nature conservation sector, it cannot be effective in sustainable climate adaptation. With the emergence of new challenges, it is becoming increasingly clear that conservation aspects are impossible to integrate into current water management practices that promote drainage and serve primarily private interests.</p> <ul style="list-style-type: none"> <li>• CEEweb for Biodiversity (2020), <i>Jelentős Vízgazdálkodási Kérdések a Natura 2000 és védett természeti területekkel összefüggésben.</i> For details, see the General References section.</li> </ul>	<p>Impl: 31/12/2021</p>
129)	Green infrastructure and nature-based solutions shall be integrated into the water management solutions of Hungary.	<p>GI and NbS can effectively contribute to increased climate change adaptation, reduced extreme weather-related risks and damages as well as a better cooling of urban environments and an increased urban biodiversity.</p> <p>Nature-based solutions for urban water management: IWA Publishing (2020) <i>Blue – Green Systems: A review of nature-based solutions for urban water management in European circular cities: a critical assessment based on case studies and literature.</i></p>	<p>Prep: 31/12/23</p> <p>Impl.: Continuous from 01/01/24</p>

		<ul style="list-style-type: none"> <li>• Oral et al. (2020), Blue-Green Systems: A review of nature-based solutions for urban water management in European circular cities: a critical assessment based on case studies and literature. <a href="https://iwaponline.com/bgs/article/2/1/112/71868/A-review-of-nature-based-solutions-for-urban-water">https://iwaponline.com/bgs/article/2/1/112/71868/A-review-of-nature-based-solutions-for-urban-water</a></li> <li>• FAO UN (2018), Nature-based solutions for agricultural water management and food security. <a href="https://www.preventionweb.net/publications/view/62867">https://www.preventionweb.net/publications/view/62867</a></li> </ul>	
130)	Climate adaptation criteria shall be introduced for small-scale water management infrastructure.	<p>More information:</p> <ul style="list-style-type: none"> <li>• WWC (World Water Council) (2018), <i>Water Infrastructure for Climate Adaption: The Opportunity to Scale Up Funding and Financing</i>. Report. <a href="https://www.worldwatercouncil.org/sites/default/files/2019-12/WWC-Investing-in-Water-Infrastructure-for-Climate-Adaption_WEB.pdf">https://www.worldwatercouncil.org/sites/default/files/2019-12/WWC-Investing-in-Water-Infrastructure-for-Climate-Adaption_WEB.pdf</a></li> </ul>	Precond
<b>Energy</b>			
131)	Hungary shall reduce its energy consumption each year by at least 1.5% in comparison with the year 2019.	<ul style="list-style-type: none"> <li>• <i>Energy efficiency directive</i> <a href="https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive_en">https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive_en</a></li> </ul>	
132)	NECP (National Energy Climate Plan) shall be revised to set more ambitious intermediate and final targets for energy efficiency improvement and for renewables in accordance with the Governance Regulation in order to able to achieve climate neutrality in 2050.	<ul style="list-style-type: none"> <li>• Ministry of Innovation and Technology, <i>The current National Energy and Climate Plan (NECP)</i>. <a href="https://ec.europa.eu/energy/sites/ener/files/documents/hu_final_necp_main_en.pdf">https://ec.europa.eu/energy/sites/ener/files/documents/hu_final_necp_main_en.pdf</a></li> <li>• NECP is rather weak as this was stated also in the Commission's assessment: EC (2019), <i>Assessment of the draft National Energy and Climate Plan of Hungary, Accompanying the document Commission Recommendation on the draft integrated National Energy and Climate Plan of Hungary covering the period 2021-2030</i>. Commission Staff Working Document, {C (2019) 4417 final}, <a href="https://ec.europa.eu/energy/sites/ener/files/documents/hu_swd_en.pdf">https://ec.europa.eu/energy/sites/ener/files/documents/hu_swd_en.pdf</a></li> <li>• EC (2019), <i>Commission Recommendation of 18 June 2019 on the draft integrated National Energy and Climate Plan of Hungary covering the period 2021-2030</i> C/2019/4417. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019H0903(17)&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019H0903(17)&amp;from=EN</a></li> </ul> <p>A more ambitious NECP will help to reduce Hungary's energy dependence and will boost investments into energy efficiency investments and renewable energy sources. It is also necessary to fulfil the objectives of the Paris Agreement.</p>	01/06/21

		<ul style="list-style-type: none"> <li>UNCC (2015), <i>The Paris Agreement</i>. <a href="https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement">https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement</a></li> </ul>	
133)	Hungary shall ensure that measures are in place to increase the share of renewables in the heating and cooling sector by 1 percentage point per year to 2030 and ensure Compliance with the 2020 national renewables binding target and with this baseline up to 2030 in accordance with the recast of the Directive 2009/28/EC.	<ul style="list-style-type: none"> <li>EU (2009), <i>Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC</i>. (current consolidated version: 05/10/2015). For details, see the General References section.</li> </ul> <p>It is necessary to achieve one of the seven European Flagships identified in the Communication on the 2021 Annual Sustainable Growth Strategy which is to support the building and sector integration of almost 40% of the 500 GW of renewable power generation needed by 2030, support the instalment of 6 GW of electrolyser capacity and the production and transportation of 1 million tonnes of renewable hydrogen across the EU by 2025. More information here:</p> <ul style="list-style-type: none"> <li>EC, <i>Heating and cooling. Facts and figures</i>. <a href="https://ec.europa.eu/energy/topics/energy-efficiency/heating-and-cooling_en">https://ec.europa.eu/energy/topics/energy-efficiency/heating-and-cooling_en</a></li> </ul>	
134)	Hungary shall ensure that the comprehensive plans describing the national energy infrastructure priorities shall be implemented to achieve the objectives of social and economic cohesion and environmental protection, in line with Articles 3.10 of Directive 2009/72/EC and 3.7 of Directive 2009/73/EC. These measures shall include means to combat climate change in the field of electricity energy efficiency, including demand-side management measures. These measures shall also include the provision of adequate economic incentives, using, where appropriate, all existing national and Community tools, for the maintenance and construction of the necessary network infrastructure, including interconnection capacity. Where applicable, Hungary shall take measures in order to optimise the use of electricity and gas, for example, by providing energy management services, developing innovative pricing formulas, and introducing intelligent metering systems and smart grids, where appropriate. Thus, Hungary shall take the necessary technical and institutional measures to upgrade the capability of the Hungarian grid to integrate weather-dependent generators.	<ul style="list-style-type: none"> <li>Nemzeti Energiastratégia 2030, kitekintéssel 2040-ig. <a href="https://www.banyasz.hu/images/klimapolitika/Nemzeti%20Energiastrat%C3%A9gia%202030.pdf">https://www.banyasz.hu/images/klimapolitika/Nemzeti%20Energiastrat%C3%A9gia%202030.pdf</a></li> <li>EU (2009), <i>Directive 2009/72/EC and Directive 2009/73/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC</i> (Current consolidated version: 23/05/2019). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0072&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0072&amp;from=EN</a></li> <li>EU (2009), <i>Directive 2009/72/EC and Directive 2009/73/EC concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC</i>. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0073&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0073&amp;from=EN</a></li> </ul> <p>The electricity sector is one of the major emission sources of carbon dioxide (CO<sub>2</sub>). To mitigate the impacts of climate change over the coming decades and to meet Paris Agreement's goals, Hungary needs to decarbonize its power systems. To achieve this goal, power generation systems need a transition from a high reliance on coal-fired power stations to a low-carbon energy mix. Example of a transition planning method for a low-carbon economy:</p> <ul style="list-style-type: none"> <li>Shen, W., Qui, J., Dong, Z. (2018), <i>Electricity network planning targeting Low-Carbon energy transition</i>. Global Energy Interconnection, Volume 1, Issue 4.</li> </ul>	

		<p><a href="https://www.sciencedirect.com/science/article/pii/S2096511718300690">https://www.sciencedirect.com/science/article/pii/S2096511718300690</a></p> <p>Smart grid is an electricity network that can integrate in a cost-efficient manner the behaviour and actions of all users connected to it, including generators, consumers and those that both generate and consume, in order to ensure an economically efficient and sustainable power system with low losses and high levels of quality, security of supply and safety. It is therefore an appropriate tool to optimise the use of electricity and gas.</p> <p>Moreover, smart grid and other renewable energy grids or systems can be covered by Renewables Energy Financing Mechanism and/or cooperation mechanisms on renewables and so be financed as part as a Cross-border and multi-country projects and/or IPCEI (Projects of Common European Interest).</p> <ul style="list-style-type: none"> <li>Greening the Grid, <i>Overview of Grid Integration Issues</i>. <a href="https://greeningthegrid.org/quick-reads">https://greeningthegrid.org/quick-reads</a></li> </ul>	
135)	National incentive shall be introduced to decrease the barrier to entry in the energy market and to encourage investors to invest in renewable energy (especially geothermal).	<p>More information here:</p> <ul style="list-style-type: none"> <li>Moorthy et al. (2019), <i>Breaking barriers in deployment of renewable energy</i>. Heliyon, Volume 5, Issue 1. <a href="https://www.sciencedirect.com/science/article/pii/S2405844018354240">https://www.sciencedirect.com/science/article/pii/S2405844018354240</a></li> </ul>	<p>Prep: 01/05/21</p> <p>Impl: 01/06/21</p>
136)	Life-cycle approach shall be ensured by Hungary during the assessment of different energy sources (e.g.: impacts of extraction, transport, and infrastructure).	<p>Further environmental and climate benefits are expected by applying life-cycle approaches and design based on circular systems to housing and construction materials. This includes, among others, adaptability, service life extension, reuse of abandoned or unutilised buildings, resilience to climate change and disasters, disassembly and reassembly, reuse and recycling, using materials with recycled content, deploying nature-based solutions (e.g., green roofs, green walls, green and blue infrastructure to combat heat waves and reduce pluvial flooding by retaining and reusing water), and rehabilitating abandoned or contaminated brownfields.</p> <p>Excellent methods exist already for life-cycle assessment of the use of various energy sources.</p> <ul style="list-style-type: none"> <li>EU Commission (2020) <i>Recovery and Resilience Plans Example of component of reforms and investments – Renovation wave aimed at enhancing energy and resource efficiency</i> <a href="https://ec.europa.eu/info/sites/info/files/component_renovation.pdf">https://ec.europa.eu/info/sites/info/files/component_renovation.pdf</a></li> </ul>	<p>Prep: 31/11/21</p> <p>Impl: Continuous from 01/02/22</p>
137)	Hungary shall make the wind energy market accessible by loosening the conditions of getting a special license for implementing wind generation plants. The conditions shall be attainable and realistic.	<p>Today, it is impossible to comply with the current conditions, which can explain the fact that no such licenses have been issued for more than 10 years. Wind energy is however one of the most important sources of renewables and can be a strong factor to promote rural development.</p>	31/05/21
138)	Hungary shall put into place transparent support schemes for renewable energy which means that information on support measures is made available to all relevant actors	<ul style="list-style-type: none"> <li>EU (2009), <i>Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives</i></li> </ul>	31/05/21

	(consumers, builders, installers, architects and suppliers of heating, cooling and electricity equipment and systems and of vehicles compatible with the use of energy from renewable sources, etc.) consistent with Article 14 (1) Article 16 (2) and 16 (3) of Directive 2009/28/EC. The METÁR system shall be completed accordingly.	<p>2001/77/EC and 2003/30/EC. (current consolidated version: 05/10/2015). For details, see the General References section.</p> <ul style="list-style-type: none"> <li>• <i>Hungary's METÁR system:</i> <a href="https://www.iea.org/policies/6558-hungary-metar-system">https://www.iea.org/policies/6558-hungary-metar-system</a></li> </ul>	
139)	Hungary shall put priority in grid access or guaranteed access and priority in dispatching to renewable energy, as well as standard rules relating to the bearing and sharing of costs of technical adaptations which have been made public. It means that national transmission system operators and distribution system operators shall set up and publish their standard rules related to the bearing and sharing of costs of technical adaptations. These measures shall be consistent with Article 14 (1) Article 16 (2) and 16 (3) of Directive 2009/28/EC.	<ul style="list-style-type: none"> <li>• EU (2009), <i>Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.</i> (current consolidated version: 05/10/2015). For details, see the General References section.</li> </ul> <p>A more sustainable energy system needs a clear strategy performed by the government to accelerate growth of grid interactive renewable distributed generations, especially in Hungary where renewable energy is still meagre. It also requires a clear policy framework to ensure that incentives for investments trigger those investments that provide the greatest efficiency gains.</p>	31/05/21
140)	Hungary shall ensure that energy efficiency is always prioritised over new energy generation and transmission projects, both on the national scale as well as locally.	<ul style="list-style-type: none"> <li>• EC (2012), <i>The Directive 2012/27/EU on Energy Efficiency.</i> For details, see the General References section.</li> </ul>	
141)	Measures shall be introduced to ensure proper implementation of the rights of prosumers' and renewable energy communities' rights in accordance with the Clean Energy Package.	<p>It will provide an opportunity for the consumers to be active, participate in flexibility or energy efficiency schemes and get legal recognition.</p> <ul style="list-style-type: none"> <li>• EC, <i>Energy. Clean energy for all Europeans Package.</i> <a href="https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en">https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en</a></li> </ul>	31/05/21
142)	Hungary shall encourage the design of co-generation units to match economically justifiable demands for useful heat output and avoid production of more heat than useful heat. Hungary shall reduce the regulatory and non-regulatory barriers to an increase in co-generation. Support for co-generation shall be based on useful heat demand and primary energy savings consistent with Article 7(1) and points (a) and (b) of Article 9(1) of Directive 2012/27/EU on energy efficiency.	<ul style="list-style-type: none"> <li>• EC (2012), <i>The Directive 2012/27/EU on Energy Efficiency.</i> For details, see the General References section.</li> </ul> <p>Cogeneration (Combined Heat and Power or CHP) is the simultaneous production of electricity and heat, both of which are used. The central and most fundamental principle of cogeneration is that, in order to maximise the many benefits that arise from it, systems should be based according to the heat demand of the application. This can be an individual building, an industrial factory or town/city served by district heat/cooling. Through the utilisation of the heat, the efficiency of cogeneration plants can reach up to 90% or more. Cogeneration can offer energy savings up to 40% or even more when compared against the supply of electricity and heat from conventional power stations and boilers. Cogeneration measures require a clear policy framework to ensure that incentives for investments trigger those investments that provide the greatest efficiency gains.</p>	31/05/21
143)	Investments in combined heat and power (CHP) and district heating and cooling systems shall be based on so called useful heat demand. This means that Hungary shall	<p>Issue mentioned by:</p> <ul style="list-style-type: none"> <li>• EC (2014), <i>Guidance on Ex ante Conditionalities</i></li> </ul>	

	carry out investments on improving EE and reducing energy demand, in a first step, and only the remaining heat demand shall be the basis for investments in CHP and district heating, in a second step. In order to achieve this in a proper way, the investments have to be part of an overall coherent low-carbon strategy.	<i>for the European Structural and Investment Funds, Part II.</i> <a href="https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/eac_guidance_esif_part2_en.pdf">https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/eac_guidance_esif_part2_en.pdf</a>	
144)	Hungary shall give evidence that, where appropriate, the following information is made available to final customers in clear and understandable terms in their bills, contracts, transactions, and /or receipts at distribution stations: current actual prices and actual consumption of energy; comparisons of the final customer's current energy consumption with consumption for the same period in the previous year, contact information (consumers' organisations, energy agencies or similar bodies, including website addresses) to get information on available energy efficiency improvement measures, etc.	<ul style="list-style-type: none"> <li>• EC (2012), <i>The Directive 2012/27/EU on Energy Efficiency</i>. For details, see the General References section.</li> </ul>	31/05/21
145)	Hungary shall take measures consistent with Directive 2012/27/EU of the European Parliament and of the Council on energy end-use efficiency and energy services to ensure the provision to final customers of individual meters in so far as it is technically possible, financially reasonable and proportionate in relation to the potential energy savings.	<ul style="list-style-type: none"> <li>• EC (2012), <i>The Directive 2012/27/EU on Energy Efficiency</i>. For details, see the General References section.</li> </ul>	Prep: 31/05/21  Impl: Continuous from 01/07/21
146)	Hungary shall take measures consistent with Directive 2012/27/EU of the European Parliament and of the Council on energy end-use efficiency and energy services to ensure that accurate individual meters (or smart meters) are in place and provide information on actual energy consumption and actual time of use of electricity, natural gas, district heating/cooling and domestic hot water to final customers. These individual meters shall be provided in case of new buildings or buildings undergoing major renovation or, where it is technically possible, if the cost is proportionate in relation to the potential energy savings in the other cases.	<ul style="list-style-type: none"> <li>• EC (2012), <i>The Directive 2012/27/EU on Energy Efficiency</i>. For details, see the General References section.</li> </ul> <p>Environmental advantages of smart meters:</p> <ul style="list-style-type: none"> <li>• Smart Energy Consumer Collaborative, <i>Do Smart Meters Help the Environment?</i> <a href="https://www.whatissmartenergy.org/faqs/do-smart-meters-help-the-environment">https://www.whatissmartenergy.org/faqs/do-smart-meters-help-the-environment</a></li> </ul>	Prep: 31/05/21  Impl: Continuous from 01/07/21
147)	Hungary shall present a diagnosis of the housing sector in each region, presenting the feedback from the 2014-2020 period of the Structural Funds concerning the financing of the energy renovation of housing with ERDF funding; the inventory of the region's social and private housing stock, explaining the needs of both stocks in terms of energy renovation.	This is necessary for well-based planning of future renovation of buildings.	30/10/21

148)	Hungary shall implement the deep renovation of at least 130,000 homes annually.	<p><i>Hazai felújítási hullám – A magyarországi lakóépület-állomány energetikai korszerűsítésében rejlő lehetőségek, egyes támogatási eszközök széles körű hatásainak vizsgálata. Magyar Energhatékonyági Intézet.</i></p> <p><a href="http://mehi.hu/sites/default/files/mehi_hazai_felujitasi_hullam_tanulmany_2021.pdf">http://mehi.hu/sites/default/files/mehi_hazai_felujitasi_hullam_tanulmany_2021.pdf</a></p>	
149)	Hungary shall adopt a national long-term renovation strategy to support the renovation of the national stock of residential and non-residential buildings, in line with the requirements of Energy Performance of Buildings Directive 2010/31/EU (EPBD) and the Energy Efficiency Directive 2012/27/EU, and the Directive amending the Energy Performance of Buildings Directive (2018/844/EU). The strategy shall include milestones for each year until 2050, provide an outline of budgetary resources, and define effective mechanisms for promoting investments in building renovation.	<p>According to Eurostat data, 26 percent of Hungarians live in a dwelling not comfortably cool during summer and 20 percent live in a dwelling not comfortably warm during wintertime. In many cases, this is a question of life and death: for example, in recent years during heat waves in Budapest the number of deaths increased by 15 to 30 percent.</p> <ul style="list-style-type: none"> <li>• Eurostat (2020), <i>Share of population living in a dwelling not comfortably cool during summertime by income quintile and degree of urbanisation.</i> <a href="https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_hcmp03&amp;lang=en">https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_hcmp03&amp;lang=en</a></li> <li>• Eurostat (2012), <i>Share of population living in a dwelling not comfortably warm during wintertime by material deprivation status.</i> <a href="https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Share_of_population_living_in_a_dwelling_not_comfortably_warm_during_winter_time_by_material_deprivation_status,_2012.png">https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Share_of_population_living_in_a_dwelling_not_comfortably_warm_during_winter_time_by_material_deprivation_status,_2012.png</a></li> <li>• Páldy, A., Bobvos, J., Fazekas, B. (2013), <i>A hőség napi halálózásra kifejtett hatása budapesti adatok alapján (2000-2011).</i> <a href="https://www.met.hu/doc/rendezvenyek/metnapok-2013/P3_Paldy_etal.pdf">https://www.met.hu/doc/rendezvenyek/metnapok-2013/P3_Paldy_etal.pdf</a></li> <li>• EC (2001), <i>Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.</i> (Current consolidated version : 24/12/2018). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&amp;from=EN</a></li> <li>• EC (2012), <i>The Directive 2012/27/EU on Energy Efficiency.</i> For details, see the General References section.</li> <li>• EU (2021), <i>Consolidated text: Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (recast)</i> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02010L0031-20210101">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02010L0031-20210101</a></li> </ul> <p>More than 99% of all the existing buildings in Hungary do not fulfil the energy efficiency requirements valid for new buildings since the 1<sup>st</sup> of January 2021 as set forth in Article 9 of the above Directive.</p>	30/09/21

		<p>This component also supports the European Flagship ‘Renovate’ by improving the energy and resource efficiency of public and private buildings and contributing to the doubling of the renovation rate and the fostering of deep renovations by 2025.</p> <ul style="list-style-type: none"> <li>EC (2020), <i>Renovation Wave: doubling the renovation rate to cut emissions, boost recovery and reduce energy poverty</i>. Press release. Brussels. <a href="https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1835">https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1835</a></li> </ul>	
150)	EU funded building renovation projects shall plan and report annually on their energy- and resource-efficiency, carbon footprint, and other non-financial impacts.	Same justification as in the previous row.	
151)	Hungary shall include in the renovation of both residential and non-residential buildings the renovation/refurbishment/replacement of domestic biomass appliances, i.e. stoves, fireplaces and range cookers, and shall follow the eco-design requirements defined by EU Regulation 2015/1185 (will come into force on 1 January 2022).	<ul style="list-style-type: none"> <li>EU (2015), <i>Commission Regulation (EU) 2015/1185 of 24 April 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for solid fuel local space heaters</i>. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R1185&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R1185&amp;from=EN</a></li> </ul> <p>More information on domestic biomass appliances:</p> <ul style="list-style-type: none"> <li>Cepsi, D., Passarini, F., Ciacci, L., Vassura, I. (2014), <i>Heating systems LCA: Comparison of biomass-based appliances</i>. The International journal of Life cycle Assessment 19(1). ResearchGate. <a href="https://www.researchgate.net/publication/257680107_Heating_systems_LCA_Comparison_of_biomass-based_appliances">https://www.researchgate.net/publication/257680107_Heating_systems_LCA_Comparison_of_biomass-based_appliances</a></li> </ul>	
152)	Hungary shall take measures to ensure that minimum requirements are in place related to the energy performance of buildings consistent with Article 3, Article 4 and Article 5 of Directive 2010/31/EU of the European Parliament and of the Council. Hungary shall also establish a system of certification of the energy performance of buildings consistent with Article 11 of Directive 2010/31/EU. The certificates contain at least the following information: energy performance of the building, reference values such as minimum energy performance requirements, and recommendations for the cost-optimal or cost-effective improvement of the energy performance of the building or building unit. It also provides an indication as to where the owner or tenant can receive more detailed information. The energy	<ul style="list-style-type: none"> <li>EU (2010), <i>Directive 2010/31/EU of the European Parliament and the Council of 19 May 2010 on the energy performance of buildings</i>. For details, see the General References section.</li> </ul> <p>Some characteristics of the buildings are likely to influence positively energy performance like local solar exposure conditions, active solar systems and other heating and electricity systems based on renewable energy; electricity produced by cogeneration; district or block heating and cooling systems; natural lighting, etc. It is therefore important to take it into account in the energy performance with a view to achieving cost-optimal levels.</p>	<p>Prep: 30/06/21</p> <p>Impl: 01/09/21</p>



	performance of a building shall be expressed in a transparent manner and includes an energy performance indicator and a numeric indicator of primary energy use. It shall take into consideration the characteristics and energy installations of the building.		
153)	Hungary shall introduce building codes that ensure homes and offices are well insulated and require less cooling.	More information here: <ul style="list-style-type: none"> <li>• BuildingGreen, <i>Heating and Cooling</i>. <a href="https://www.buildinggreen.com/heating-cooling">https://www.buildinggreen.com/heating-cooling</a></li> </ul>	31/05/21
154)	Hungary shall ensure that in building renovation, the use of reused/recycled building materials is incentivized.	More information on reusing and recycling materials generated during building construction, demolition, or renovation here: <ul style="list-style-type: none"> <li>• United States Environmental Protection Agency (EPA) (2009), <i>Recover Your Resources</i>. <a href="https://archive.epa.gov/greenbuilding/web/pdf/cdbrochure.pdf">https://archive.epa.gov/greenbuilding/web/pdf/cdbrochure.pdf</a></li> </ul>	Prep: 31/05/21  Impl: Continuous from 01/10/21
155)	Hungary shall set an energy poverty reducing objective and shall implement it.	<ul style="list-style-type: none"> <li>• UNDP, <i>Policy Brief 08: Interlinkages among energy, poverty and inequalities</i>. In collaboration with UNESCAP and Federal Ministry for Economic Cooperation and Development (BMZ), Germany. <a href="https://sustainabledevelopment.un.org/content/documents/17480PB8.pdf">https://sustainabledevelopment.un.org/content/documents/17480PB8.pdf</a></li> </ul>	Prep: 31/05/21  Impl: Continuous
156)	Hungary shall guarantee (monitored and audited) that residential building renovations low-income households are prioritized. Non-refundable support shall be provide to these households.	Usually, these are the least energy-efficient buildings, so their energy-saving potential is the highest. Moreover, it is first of all these households that do not have the financial means to renovate their buildings. In addition, by providing incentives to renovate the existing stock of social infrastructure and low-income housing, energy poverty concerns can be alleviated through reduced energy and water bills, while improving affordability of housing and living conditions.	
157)	Hungary shall eliminate illegal household waste burning through awareness raising, strengthening the responsible authorities, and a comprehensive plan to reduce energy poverty, with appropriate attention to the needs and constraints of marginalized people.	Illegal household waste burning is a widespread practice in Hungary. <ul style="list-style-type: none"> <li>• CAAG (2017), <i>We disapprove it, yet we burn waste</i>. <a href="https://www.levego.hu/en/news/ellenezzuk-megis-egetunk/">https://www.levego.hu/en/news/ellenezzuk-megis-egetunk/</a></li> </ul> More information about the serious environmental and health impacts of waste burning: <ul style="list-style-type: none"> <li>• Hoffer et al. (2020), <i>Emission factors for PM10 and PAHs from illegal burning of different types of municipal waste in households</i>. <a href="https://acp.copernicus.org/preprints/acp-2020-672/acp-2020-672.pdf">https://acp.copernicus.org/preprints/acp-2020-672/acp-2020-672.pdf</a></li> </ul>	31/10/22
158)	Hungary shall prohibit the sale of coal (first of all lignite) for households.	Coal (especially low-quality coal like lignite) used for household heating is a considerable source of emissions of GHGs and air pollutants,	31/10/21
159)	Hungary shall prohibit the sale of wood to households with humidity content higher than 20% .	Burning wet wood is a very inefficient use of wood and causes much more pollution than the burning of relatively dry wood.	30/04/21
160)	Hungary shall introduce strict requirements for the use of heaters and air conditioners, for example by banning heaters used by cafes and restaurants on outdoor terraces.	Information on the emissions from heaters and air conditioners can be read on the Cooling Emissions and Policy synthesis Report from the UNEP and IEA: <ul style="list-style-type: none"> <li>• United Nations Environment Programme and International Energy Agency (2020), <i>Cooling</i></li> </ul>	Prep: 30/06/21  Impl: 01/01/22

		<p><i>Emissions and Policy Synthesis Report</i>. UNEP, Nairobi and IEA, Paris.</p> <p><a href="https://wedocs.unep.org/bitstream/handle/20.500.11822/33094/CoolRep.pdf?sequence=1&amp;isAllowed=y">https://wedocs.unep.org/bitstream/handle/20.500.11822/33094/CoolRep.pdf?sequence=1&amp;isAllowed=y</a></p>	
161)	Incentives to switch to more climate-friendly appliances shall be introduced by implementing minimum energy performance standards.	<p>It will help to attain the energy efficiency target of at least 32.5% from The Clean Energy Package which sets new targets for the EU for 2030.</p> <p>More information on the benefits of energy efficiency standards for appliances:</p> <ul style="list-style-type: none"> <li>• EESI (2017), <i>Fact Sheet – Energy Efficiency Standards for Appliances, Lighting and Equipment</i>. <a href="https://www.eesi.org/papers/view/fact-sheet-energy-efficiency-standards-for-appliances-lighting-and-equipmen#4">https://www.eesi.org/papers/view/fact-sheet-energy-efficiency-standards-for-appliances-lighting-and-equipmen#4</a></li> <li>• ECEEE, <i>How to Finance Energy Efficiency</i>. <a href="https://www.eceee.org/static/media/uploads/site-2/policy-areas/financingenergy_efficiencybriefing1.pdf">https://www.eceee.org/static/media/uploads/site-2/policy-areas/financingenergy_efficiencybriefing1.pdf</a></li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>
162)	Hungary shall take measures to ensure that minimum requirements related to energy performance are in place consistent with Article 3, Article 4 and Article 5 of Directive 2010/31/EU.	<ul style="list-style-type: none"> <li>• EU (2010), <i>Directive 2010/31/EU of the European Parliament and the Council of 19 May 2010 on the energy performance of buildings</i>. For details, see the General References section.</li> </ul>	30/06/21
163)	Hungary shall ensure that the Environmental Impact Assessments (EIA) are properly conducted on the mining operations and monitor all phases of mining operation (exploration, project development, mine operation, and mine closure). The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect effects of a project on the following factors: human beings, fauna and flora; soil, water, air, climate and the landscape; material assets and the cultural heritage; and the interactions between all these factors.	<ul style="list-style-type: none"> <li>• <i>UN Commission on Sustainable Development (UN CSD) National Reporting for CSD-18/19 Thematic Areas - Hungary / Mining</i> <a href="https://sustainabledevelopment.un.org/content/documents/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/hungary/Mining.pdf">https://sustainabledevelopment.un.org/content/documents/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/hungary/Mining.pdf</a></li> </ul> <p>Environmental impact assessments shall identify, describe, and assess in an appropriate manner, in the light of each individual case, the direct and indirect effects of a project on the following factors: human beings, fauna and flora; soil, water, air, climate and the landscape; material assets and the cultural heritage; and the interactions between all these factors.</p>	
164)	The role of biomass shall be reconsidered and at least conditioned on sustainability criteria if not phased out entirely, due to the large land and ecological footprint of biomass-based energy production. Regarding renewables, there shall be priority for wind, solar and geothermal; biomass conditioned on the protection of ecological services, soil nutrient households and biodiversity. The accounting of biomass use shall be revised so that data reflect the real situation.	<p>Currently there is a big role of biomass in the Hungarian renewable targets, but sustainability criteria are not sufficiently addressed. Also, increasing biomass use for fuel increases the price of good quality firewood, which can lead to the intensification of energy poverty and air quality deterioration due to the increased use of cheap, low quality solid fuels or the illegal burning of waste.</p> <ul style="list-style-type: none"> <li>• <i>Applicants' Submissions for Annulment pursuant to Art 263 TFEU (2019)</i>, <a href="https://www.biomassmurder.org/docs/2019-08-00-eu-biomass-legal-case-main-arguments-english.pdf">https://www.biomassmurder.org/docs/2019-08-00-eu-biomass-legal-case-main-arguments-english.pdf</a></li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>
165)	Support for construction of new solar panels shall be based on strict environmental criteria, especially in order to prevent the use of valuable land for this purpose.	<ul style="list-style-type: none"> <li>• EU (2016), <i>PV sites. Regulatory framework. "Building-integrated photovoltaic technologies and systems for large-scale market deployment"</i>.</li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>

		<p><a href="https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5acc95e9f&amp;appId=PPGMS">https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5acc95e9f&amp;appId=PPGMS</a></p> <p>There are serious doubts about the correctness of biomass use statistics.</p> <ul style="list-style-type: none"> <li>• CAAG, <i>Hungary meets its renewable obligations by burning stolen wood and waste in households</i> <a href="https://www.levego.hu/en/related-documents/hungary-meets-its-renewable-obligations-by-burning-stolen-wood-and-waste-in-households/">https://www.levego.hu/en/related-documents/hungary-meets-its-renewable-obligations-by-burning-stolen-wood-and-waste-in-households/</a></li> </ul>	
166)	Hungary shall set up a transferable on-bill recovery scheme, linking the loan for renovation to the energy meter in the property (not the owner or occupant) and allowing repayment via electricity or heating bills. It will allow customers to repay loans made for energy and resource efficiency improvements on their electricity or heating bills according to the energy and resource savings achieved by the renovation.	The on-bill scheme has a number of advantages for beneficiaries, facilitating the repayment so that there is only on-bill to pay, being simple to understand and the duration of the loan can be set so that energy cost savings ensure a neutral or positive cash flow. The scheme is transferable as it is tied to the meter in the property and not the household, business or the energy supplier (no switching costs). It also provides incentives to financial institutions by allowing them to use the existing invoicing system to recover the loan which reduces overheads, increases repayment rates, gives access to a large customer base, and is transferable as it is tied to the meter in the property. It is an excellent way to address the investment barriers for renovation, in particular the high up-front cost and the long pay-back periods.	Prep: 30/06/21  Impl: 01/01/22
167)	Hungary shall set up dedicated one-stop-shops in each NUTS-3 region (or relevant functional area) for project developers, individual households, and businesses to streamline the administrative processes, to ease access to finance and to enhance the absorption capacity of public and private investments in energy and resource efficiency building renovations.	The local one-stop shops cover the whole customer journey from information, technical assistance, structuring and advising financial support schemes to the monitoring of energy savings. This includes the provisions of tools and practices to increase the uptake of Energy Performance Certificate (EPC) and of their recommendations as well as the broader climate quality standards for renovation. The one-stop shops are crucial for more complex social housing and creating cross-sectoral partnerships for large scale renovations at district level. A mapping could be developed of built assets, notably exploration of empty and underused properties and creation of an inventory explaining ownership and type of building. The shops play also an important role in increasing trust by ensuring good quality renovations at district level, where a multitude of renovation aspects and purposes have to be combined, by linking households and businesses, in particular SMEs, to certified professionals and monitoring the achieved performance. The one-stop shops will help build strong project pipelines that offer integrated solutions and strong partnerships with local actors (e.g., SMEs, qualified professionals, financial institutions, social housing associations, energy and building agencies, residents), the key being to connect the supply of finance and expertise with demand for it. They will coordinate local actors to ensure efficient separate collection of building waste and used building products, and their effective management and re-use or recycling.	Prep: 30/06/21  Impl: 01/01/22
168)	Hungary shall create the adequate regulatory framework and incentives for small-scale, community-owned renewable energy and energy efficiency projects, including the	Small-scale citizens' investment is hampered by high transaction costs due to the lack of favourable legal environment.	Prep: 30/06/21  Impl:

	financial regulatory framework to access financing for such projects.	<ul style="list-style-type: none"> <li>Notre Europe (2017), <i>Pellerin-Carlin, Thomas et. al.: Making the Energy Transition a European Success: Tackling the Democratic, Innovation, Financing and Social Challenges of the Energy Union.</i>  <a href="https://institutdelors.eu/wp-content/uploads/2018/01/makingtheenergytransitionaeropeansuccess-study-pellerincarlinfernandesrubio-june2017-bd.pdf">https://institutdelors.eu/wp-content/uploads/2018/01/makingtheenergytransitionaeropeansuccess-study-pellerincarlinfernandesrubio-june2017-bd.pdf</a></li> </ul>	01/01/22
<b>Transport</b>			
169)	<p>Hungary shall ensure that multimodal mapping of existing and planned infrastructures until 2030 is in place which:</p> <ol style="list-style-type: none"> <li>1. Includes economic justification of the planned investments, underpinned by robust demand analysis and traffic modelling, which shall take into account the anticipated internalisation of external costs as well as anticipated impact of rail liberalisation</li> <li>2. Includes investments in core TEN-T rail network corridors, as defined by regulation (EU) 1316/2013, in line with the respective TEN-T work plans</li> <li>2. For investments outside the core rail TEN-T, ensures complementarity by providing sufficient connectivity of the regions and local communities to the core TEN-T and its nodes</li> <li>3. Ensures interoperability of the rail network, through the deployment of baseline-3 compliant ERTMS covering at least the European Deployment Plan</li> <li>4. Promotes multimodality, identifying needs for multimodal or transshipment freight and passenger terminals and active modes</li> <li>5. Includes assessment of road safety risks in line with existing national road safety strategies, together with a mapping of the affected roads and sections and providing with a prioritisation of the corresponding investments</li> <li>6. Provides information on budgetary and financing resources corresponding to the planned investments and required to cover operation and maintenance costs of the existing and planned infrastructures.</li> </ol>	<p>These criteria are taken from the annex IV, part 3 (a more connected Europe by mobility regional connectivity) from the annexes to the proposal for a Regulation of the European Parliament and of the Council:</p> <ul style="list-style-type: none"> <li>EC (2018), <i>Annexes to the Regulation of the European Parliament and of the Council.</i> Strasbourg, 29.5.2018 COM(2018) 375, Final version.  <a href="https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-375-F1-EN-ANNEX-1-PART-1.PDF">https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-375-F1-EN-ANNEX-1-PART-1.PDF</a></li> </ul>	
170)	<p>Transport infrastructure investment shall be aligned with long-term environmental objectives. No direct or indirect (e.g., tax breaks) public funding shall be provided for the construction or widening of motorways or other major roads.</p>	<p>Outside of the disastrous ecological impacts of roads, it has been proven that increasing road capacity only causes more traffic and does not relieve congestion. There is ample literature on the topic, e.g.</p> <ul style="list-style-type: none"> <li><i>Generated traffic: Implications for transport planning</i>  <a href="https://www.researchgate.net/publication/279940472_Generated_traffic_Implications_for_transport_planning">https://www.researchgate.net/publication/279940472_Generated_traffic_Implications_for_transport_planning</a></li> </ul>	

171)	Hungary shall ensure that existing and planned infrastructures include measures aiming at promoting alternative fuels, in line with the relevant national policy frameworks.	Alternative fuels have prominent advantages for reducing emissions of greenhouse gases and pollutants. Furthermore, they help alleviating the dependence on fossil fuel consumption in the transport sector. However, the switch from current fuels to the alternative fuels requires a fuel infrastructure change, since most of the alternative fuels are not drop-in fuels (e.g., electricity, CNG, LNG, ethanol, hydrogen) and this change must be plan in the relevant national policy framework.	
172)	Hungary shall simplify and harmonize permitting procedures for alternative fuels infrastructure	This measure will accelerate investment in recharging stations in particular, and also facilitate interactions between the electricity grid operators and recharging infrastructure operators. Heavy and lengthy permitting procedures act as a barrier to the deployment of alternative fuels infrastructure. The objective is to ease permitting procedures for alternative fuels infrastructure. Moreover, the reform should enable much more efficient infrastructure development by requiring DSOs (Distribution System Operators) to make available information on their grid, indicating possible congestion areas, the state of digitalisation and the flexibility of the grid.	
173)	Hungary shall complete the requirements of the EU Directive on the Deployment of Alternative Fuels Infrastructure (2014/94/EU) for electric cars.	<ul style="list-style-type: none"> <li>EU (2014), <i>Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure.</i> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0094&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0094&amp;from=EN</a></li> </ul>	
174)	Hungary shall identify investment needs and financing sources for implementing the E-mobility Programme, analyse its impact on electricity generation and compare its cost-effectiveness with other options to reduce GHG emissions from transport.	<p>More information:</p> <ul style="list-style-type: none"> <li>UNEP (2019), <i>GEF Global E-Mobility Programme to help developing countries go electric.</i> <a href="https://www.unenvironment.org/news-and-stories/press-release/gef-global-e-mobility-programme-help-developing-countries-go">https://www.unenvironment.org/news-and-stories/press-release/gef-global-e-mobility-programme-help-developing-countries-go</a></li> </ul>	30/06/21
175)	The track access charges for rail freight shall be decreased to encourage freight companies to switch a part of the transport of their products to rail transport. Hungary shall also make rail freight transport more competitive by modernising the rolling stock, improving its reliability, eliminating speed restrictions on railway lines making it easier to implement one-wagon transport.	<p>During the last 25 years, road freight transport in Hungary has been growing rather constantly. However, rail transport has practically stagnated, despite the fact that rail transport offers multiple ecological advantages: it uses less fuel, gas emissions are reduced by 75% compared to truck transport and it decreases the number of trucks on the road which means less traffic and also less maintenance for the highways. More information:</p> <ul style="list-style-type: none"> <li>GEFCO (2013), <i>Rail Freight: a shift to innovation.</i> <a href="https://cdn.gefco.net/fileadmin/user_upload/gefco-logistics-supply-chain-transport-ebook-rail.pdf">https://cdn.gefco.net/fileadmin/user_upload/gefco-logistics-supply-chain-transport-ebook-rail.pdf</a></li> </ul>	Prep: 30/06/21  Impl: 01/01/22
176)	Hungary shall modify the legislation on land use and construction in a way that it stimulates the setting up of proper parking installations for bicycles, including electric ones and modify the technical and traffic regulations related to electric bicycles.	Cycling reduces air pollution, ecological footprint, CO2 emission. It is healthy and very inexpensive. Electric bicycles have become more and more popular with their capability to increase the standard cycling commuting distance, it is therefore important alongside as regular bicycles to incentive their utilisation through modification of the current legislation. Moreover, investing in active mobility (walking and cycling, also encouraging multimodal connection with public transport, e.g., through bike parking facilities at public transport hubs) will further improve public health thanks to increased levels of physical	Prep: 30/06/21  Impl: 01/01/22

		activity. This can decrease obesity levels and contribute to preventing cancer, hypertension and other chronic diseases.	
177)	Hungary shall make it obligatory for all cities with a population over 50,000 to implement low emission zones (LEZ) in order to reduce air pollution and decrease the import of obsolete used cars. The already existing cars of residents might be temporarily exempted from the restrictions.	<p>More information on LEZ here:</p> <ul style="list-style-type: none"> <li>Transport &amp; Environment (2019), <i>Low-Emission Zones are a success - but they must now move to zero-emission mobility.</i>  <a href="https://www.transportenvironment.org/sites/te/files/publications/2019_09_Briefing_LEZ-ZEZ_final.pdf">https://www.transportenvironment.org/sites/te/files/publications/2019_09_Briefing_LEZ-ZEZ_final.pdf</a></li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>
178)	Hungary shall require as a pre-condition for receiving any new state aid (including also EU funding) for transport investment in any city the preparation of Sustainable Urban Mobility Plan (SUMP) in full accordance with the Eltis SUMP Guidelines and will include concrete deadlines and targets. All transport developments shall be in full accordance with the SUMP of the city in question.	<p>Many cities, including Budapest, have a sustainable urban mobility plan (SUMP) as this is a pre-condition for receiving EU funds for transport developments. However, these SUMPs are mostly too general, and they do not contain deadlines for implementation, nor concrete targets. Moreover, in a number of cases, investments are carried out in total disregard of the SUMP. Link to the Eltis SUMP Guidelines:</p> <ul style="list-style-type: none"> <li>EPSUMP (2019), <i>Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan</i>, Second Edition.  <a href="https://www.eltis.org/sites/default/files/sump_guidelines_2019_interactive_document_1.pdf">https://www.eltis.org/sites/default/files/sump_guidelines_2019_interactive_document_1.pdf</a></li> </ul>	<p>Prep: 30/06/21</p> <p>Impl: 01/01/22</p>
179)	An integrated ITS (Intelligent Transport System) for urban freight transport shall be implemented in order to eliminate unnecessary truck movements (for example, searching parking sites) and empty (or half-empty) runs.	The traffic control centers in Hungary have been modernised, and they generally function well (especially on the motorways), but there are still serious deficiencies. ITS integrates telecommunications, electronics and information technologies with transport engineering in order to plan, design, operate, maintain and manage transport systems. It helps to decrease traffic congestion, air and noise pollution and it increases business efficiency, safety of vulnerable road users and allocation of road space especially in the management of truck movements.	<p>Prep: 30/06/21</p> <p>Impl: Continuous from 01/01/22</p>
180)	Hungary shall promote the wider use of carpooling.	Carpooling positively affects traffic congestion and the environment by reducing the carbon footprint.	<p>Prep: 30/06/21</p> <p>Impl: Continuous from 01/01/22</p>
181)	Hungary shall promote car-sharing (both free floating and those operating with fixed stations).	<p>More information on the advantages of car-sharing:</p> <ul style="list-style-type: none"> <li>EPSUMP (2019), <i>Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan</i>, Second Edition.  <a href="https://www.brightaroundthecorner.com/mobility/benefits-car-sharing/">https://www.brightaroundthecorner.com/mobility/benefits-car-sharing/</a></li> </ul> <p>Car sharing fleets available in a dense network of stations provide more flexibility in rental conditions and thus cater for the full range of possible car use situations.</p>	<p>Prep: 30/06/21</p> <p>Impl: Continuous from 01/01/22</p>
182)	Hungary shall promote the sharing of light electric vehicles (pedelecs, etc.)	Light electric vehicles sharing is a remedy against high volumes of traffic and air pollution. Moreover, the	Prep: 30/06/21

		advantages of this type of transportation can easily challenge established forms of transport in the near future. Indeed, it is faster, cheaper, and more flexible than public transportation, it requires less maintenance and is less expensive than owning a car and can be combined with other means of transport.	Impl: Continuous from 01/01/22
183)	Hungary shall promote eco-driving (for example, by promoting the application of electronic eco-driving assistance systems, especially for professional drivers).	More information here: Together on the Move. <ul style="list-style-type: none"> <li>• <i>Benefits of Eco-driving.</i> <a href="http://www.together-eu.org/docs/102/TOGETHER_Eco-driving_5_Handout_15.pdf">http://www.together-eu.org/docs/102/TOGETHER_Eco-driving_5_Handout_15.pdf</a></li> </ul>	Prep: 30/06/21  Impl: Continuous from 01/01/22
184)	Hungary shall introduce restrictions for the traffic of polluting motorcycles and scooters.	Motorcycles and scooters with internal combustion engines have high emissions of hydrocarbons, carbon monoxide and PM. Therefore, this measure will reduce air pollution, especially in the urban areas.	Prep: 30/06/21  Impl: 01/01/22
185)	The same treatment shall be applied for the company cars than for the other cars in Hungary by reforming the tax treatment of the personal use of company cars and parking space.	More than 40% of all registered cars are company cars in Hungary, among the highest shares in the OECD, these cars tend to be bigger and more CO2-intensive.	Prep: 30/06/21  Impl: 01/01/22
186)	A unified passenger transport schedule shall be implemented in the whole country.	The preparation of such a system is ongoing but implementation is still lacking. <ul style="list-style-type: none"> <li>• Nemzeti Mobilfizetési Zrt., <i>Nemzeti Elektronikus Jegyrendszer Platform.</i> <a href="https://nejp.hu/">https://nejp.hu/</a></li> </ul>	Prep: 30/06/22  Impl: 01/01/23:
187)	Efficient regional contracting entities shall be established, which will order the services from the public transport companies in a way which ensures efficient services in accordance with the unified national transport schedules.	<ul style="list-style-type: none"> <li>• EC (2020), <i>Communication from the Commission, COVID-19: Guidelines on the progressive restoration of transport services and connectivity.</i> <a href="https://ec.europa.eu/info/sites/info/files/communication_transportservices.pdf">https://ec.europa.eu/info/sites/info/files/communication_transportservices.pdf</a></li> </ul>	Prep: 30/06/21  Impl: Continuous from 01/01/22
188)	A clock-face scheduling of public transport shall be implemented wherever possible.	Clock-face scheduling will increase the attractiveness and versatility of public transport. A constant schedule over the whole day can also improve service during off-peak hours and makes more efficient use of personnel, infrastructure, and vehicles, and can make resource planning easier.	Prep: 30/06/21  Impl: Continuous from 01/01/22
189)	The institutional capacity of state organs dealing with sustainable transport shall be enhanced substantially.	This is an area which is often neglected in Hungary, as it is considered a superfluous bureaucracy. However, the detailed elaboration of the development and support of transport energy issues needs a very serious technical, scientific work. For the elaboration of alternative methods, the cooperation of several professions is necessary, therefore already for this a well-functioning coordinating organisation with highly qualified professionals is indispensable. After the elaboration of detailed programs, there will be the serious tasks of acquiring the necessary EU and other financial sources as well as preparing the calls for applications and arranging the applications. A further task is to establish contact with business groups, energy providers, and to organise and coordinate their involvement. All these	Prep: 30/06/21  Impl: Continuous from 01/01/22

		tasks cannot be implemented within the framework of the present state administration. The ministries and the authorities are not capable of fulfilling these tasks, because they are not specialised in such work, and they do not even have the capacity for it.	
190)	Hungary shall take measures to improve the state of the existing bus fleet by using particle filters on medium aged buses, and to ensure better maintenance of the bus fleet.	Many public transport buses operating in Hungary are obsolete and emit a huge number of harmful substances. Moreover, the lack of proper maintenance of the buses is making pollution even worse. In a number of cases, diesel fumes can be smelt even inside the bus. The use of particle filters will help to decrease the particle number (PN) concentration which inside some buses, have been sometimes measured up to 20 times higher than the background urban pollution.	Prep: 30/06/21  Impl: Continuous from 01/01/22
191)	Hungary shall take measures so that the average age of public transport buses does not exceed 5 years.	Same as in the previous row.	Prep: 30/06/21  Impl: Continuous from 31/12/22
192)	Hungary shall implement an on-road remote control of vehicle emissions.	This is necessary considering that the regular and compulsory technical tests of the cars are not reliable and not frequent enough, and because cheating is quite widespread, including the removal or neutralisation of particle filters.	Prep: 30/06/21  Impl: Continuous from 01/01/22
193)	Hungary shall reduce the environmental impact of road construction and maintenance by using best practice in sustainable road construction, therefore minimizing wasted resources.	<ul style="list-style-type: none"> <li>• <i>EU, Sustain Euro Road Project. (The SustainEuroRoad' Project is co-financed by LIFE Programme 2014)</i> <a href="https://sustainableroads.eu">https://sustainableroads.eu</a></li> <li>• <i>Newman, P., Hargroves, J., Desha, J., Whistler, L. (2012), Reducing the environmental impact of road construction. ResearchGate.</i> <a href="https://www.researchgate.net/publication/330039291_Reducing_the_environmental_impact_of_road_construction">https://www.researchgate.net/publication/330039291_Reducing_the_environmental_impact_of_road_construction</a></li> </ul>	Prep: 30/06/21  Impl: Continuous from 01/01/22
<b>Waste management</b>			
194)	The existing EU waste legislation shall be fully implemented (which includes the waste hierarchy, the need to ensure separate collection of waste, the landfill diversion targets, etc.).	<ul style="list-style-type: none"> <li>• EC, <i>EU Waste Legislation.</i> <a href="https://ec.europa.eu/environment/waste/legislation/index.htm">https://ec.europa.eu/environment/waste/legislation/index.htm</a></li> </ul>	Prep:   Impl:
195)	Waste prevention, re-use definitions and terms shall be clarified by legislation. Continuous work needed on end-of-waste definitions.	<ul style="list-style-type: none"> <li>• EEA (2019), <i>Waste prevention in Europe.</i> <a href="https://www.eea.europa.eu/themes/waste/waste-prevention">https://www.eea.europa.eu/themes/waste/waste-prevention</a></li> </ul>	Prep:   Impl:



196)	Hungary shall revise its production related legislation and industrial regulations. Hungary shall appoint a responsible state organisation for waste prevention as it is cross-sectoral regulation and activity.	This is necessary to achieve waste prevention and re-use goals, The Waste Framework Directive prescribes prevention whereas prevention is out of the WFD's scope: in case of prevention and re-use products are not in waste status.	Prep:  Impl:
197)	Hungary shall enable by revising its legislation the widespread of composting methods.	Current regulation on composting gives very limited entitlement to carry out the activity.	Prep:  Impl:
198)	Hungary shall set up monitoring for food waste.	<ul style="list-style-type: none"> <li>Commission implementing decision (EU) 2019/2000 of 28 November 2019 laying down a format for reporting of data on food waste and for submission of the quality check report in accordance with Directive 2008/98/EC of the European Parliament and of the Council <a href="https://eur-lex.europa.eu/legal-content/HU/TXT/PDF/?uri=CELEX:32019D2000&amp;from=EN">https://eur-lex.europa.eu/legal-content/HU/TXT/PDF/?uri=CELEX:32019D2000&amp;from=EN</a></li> </ul>	Prep:  Impl:
199)	Hungary shall avoid a financing scheme for waste management that favours preliminary sorting at landfill sites against separate collection at source.  Hungary shall guarantee the priority of separate collection by improving the quality of waste streams and shall avoid waste management companies to rather produce RDF in practice. Hungary shall ensure proper control of these activities.	Separate collection of individual waste fractions is seen as a pre-condition for fostering high quality recycling and high recycling rates. Thus, Article 10(2) of the Waste Framework Directive (WFD) sets the general requirement of separate collection and obliges the Member States (MS) to set up separate collection systems for at least paper, metal, plastic and glass by 2015. Article 11 (1) sets the requirements for the European Member States to take measures to promote high-quality recycling through separate collection. Therefore, Hungary must improve separate collection of household waste which will lead to higher recycling waste.	Prep:  Impl:
200)	Hungary shall increase the separate collection of waste so that it attains the post-2020 recycling and landfill targets set out in the revised Waste Directives (especially the glass packaging recycling target).	During the last MFF, the EU fund was primarily used to invest in treatment infrastructure for unsorted municipal waste. Moreover, Hungary had still not met the requirements of the EU packaging targets of 2012-14.	Prep:  Impl:
201)	The waste prevention programmes shall meet the following requirements: they are compliant with the waste hierarchy, they set out waste prevention objectives and measures to break the link between economic growth and the environmental impacts associated with the generation of waste and they contain qualitative and quantitative indicators necessary to measure progress in this field.	<ul style="list-style-type: none"> <li>EC (2008), <i>Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.</i> For details, see the General References section.</li> </ul>	Prep:  Impl:
202)	Hungary shall assess existing waste collection schemes, including the material and territorial coverage of separate collection and measures to improve its operation, as well as the need for new collection schemes and make an investment gap assessment justifying the need for additional or upgraded waste infrastructure, with an information of the sources of revenues available to meet operation and maintenance costs.	It will be useful for the Commission to identify further investments needed for Hungary to upgrade waste infrastructures.	Prep:  Impl:

203)	<p>Hungary shall ensure that Waste management plan(s) are in place in accordance with Article 28 of Directive 2008/98/EC as amended by Directive EU 2018/xxxx and covering the entire territory of the Member State and includes:</p> <ol style="list-style-type: none"> <li>1. An analysis of the current waste management situation in the geographical entity concerned, including the type, quantity and source of waste generated and an evaluation of their future development taking into account the expected impacts of measures set out in the Waste Prevention Programme(s) developed in accordance with Article 29 of Directive 2008/98/EC as amended by Directive 2018/xx/EU</li> <li>2. An assessment of existing waste collection schemes, including the material and territorial coverage of separate collection and measures to improve its operation, as well as the need for new collection schemes</li> <li>3. An investment gap assessment justifying the need for additional or upgraded waste infrastructure, with an information of the sources of revenues available to meet operation and maintenance costs</li> <li>4. Information on the location criteria for site identification and on the capacity of future waste treatment installations</li> </ol>	<ul style="list-style-type: none"> <li>• EC (2008), <i>Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste.</i> For details, see the General References section.</li> </ul>	<p>Prep:</p> <p>Impl:</p>
204)	<p>Hungary shall propose concrete solutions to raise its recycling rate (especially for glass recycling) and to avoid illegal dumping. A deposit-refund system can be used for example.</p>	<p>The deposit-refund scheme for both single-use and refillable beverage containers in Lithuania proved instrumental in raising the collection rate for glass beverage containers from 32% to 73% within a few months in 2016. Door-to-door separate collection of glass or pay-as-you-throw schemes charging users for waste (measured by weight or volume) could also help enhance glass recycling.</p>	<p>Prep:</p> <p>Impl:</p>
205)	<p>Glass' recycling points shall be more common (and to encourage recycling, Hungary shall use a deposit-refund scheme for both single-use and refillable beverage containers, door-to-door separate collection of glass or pay-as-you-throw schemes charging users for waste measured by weight or volume).</p>	<p>In terms of glass recycling, Hungary is lagging behind its European neighbours and does not meet the requirements of the Directive 2008/98/EC to increase the recycling rate of glass waste to 50% in 2020.</p>	<p>Prep:</p> <p>Impl:</p>
206)	<p>Hungary shall increase the share of recovered and treated construction and demolition waste. Backfilling shall not be assessed similarly to recycling of C&amp;D waste.</p>	<p>Construction and demolition waste constitute the largest share of waste in Hungary, it is therefore important to promote selective demolition to help remove recyclable and reusable parts of C&amp;D waste. Backfilling is not more than disposal, and the inclusion in the recycling target distorts recycling activities.</p>	<p>Prep:</p> <p>Impl:</p>

207)	The construction of incineration plants (RDF [refuse-derived fuel] thermic utilisation plants) shall be avoided, especially in areas with high concentrations of particulate matter.	Currently three programmes and the RDP support it in various ways. The Territorial and Settlement Development and Economic Development and Innovation programmes support the incineration of waste (RDF thermic utilisation plants).	Prep:  Impl:
208)	The policy framework shall be strengthened to speed up the uptake of the circular economy by all economic sectors, especially concerning water and energy savings, waste reduction, the recycling of materials, eco-design and/or the uptake of the secondary raw materials market. Moreover, Hungary shall establish an institutional coordination mechanism between the different ministries in charge of the promotion of circular economy	Hungary does not have a dedicated policy framework for a circular economy. Instead, several national strategies and action plans address the issue of material and resource management. There is currently no dedicated institutional coordination mechanism between the different ministries for the promotion of a circular economy. However, the transition to a circular economy would require a whole-of-government approach through collaboration between relevant ministries to steer the transition to a circular economy.	Prep:  Impl:
209)	Hungary shall improve the prominence and visibility of resource efficiency targets and circular economy measures in the Waste Management Plan and the Irinyi Plan on Innovative Industry Development Directions.	Hungary lacks a steering mechanism for the transition to a circular economy. There are ongoing efforts to include resource efficiency and circular economy in cross-cutting and sectoral policies such as NETIS (National Environmental Technology Innovation Strategy). However, the targets set in NETIS remain indicative and are not translated into other policy measures and mechanisms. The Irinyi Plan on Innovative Industry Development Directions could provide an opportunity to encourage the move to a circular economy in the production value chain.	Prep:  Impl:
210)	Hungary shall require vehicle-owners to continue paying the tax on motor vehicles and the compulsory liability insurance fees until they prove that they handed over the motor vehicle following the concept of Extended Producer Responsibility (EPR). Moreover, Hungary shall bear the costs of transporting the wreck motorcars into vehicle dismantling yards.	In most cases, handling of these wrecks places a growing burden upon local governments, and thereby indirectly (and in some respects, directly) also upon the state budget. From 2005, EU regulations make it compulsory for motorcar manufacturing companies to take back and to recycle used motor vehicles. Hungary should formulate the domestic regulations in line with these EU rules. Information supplied by the ERECO Eastern European Waste Recycling and Environment Protection Co. reveal that processing of, and recycling of the materials obtained from, these wreck motorcars in compliance with environmental protection provisions could be a remunerative activity once a solution is found for the problem of collecting the wrecks and transporting them into car dismantling yards (preferably free of charge for the vehicle dismantlers).	Prep:  Impl:
211)	Hungary shall set minimum obligations on producers to use secondary raw material as input, in sectors where applicable.	The use of secondary raw material is strongly promoted by the Commission as part of the Circular Economy Action Plan: <ul style="list-style-type: none"> <li>• EC, <i>EU Circular Economy Action Plan</i>.  <a href="https://ec.europa.eu/environment/circular-economy/index_en.htm">https://ec.europa.eu/environment/circular-economy/index_en.htm</a> </li> </ul>	Prep:  Impl:
212)	Hungary shall plan investments in reuse and recycling infrastructure. Hungary shall initiate tools and facilities for reusing construction materials (including material passports/databases for reusable construction elements), substituting existing construction materials by more sustainable	This is necessary in order to reduce the negative environmental externalities associated with energy and resource use for renovation activities. A green public procurement process aimed at selecting the builder and operator of the recycling facility will ensure a transparent and non-discriminatory bidding process and an efficient use of public funds, while taking into account	Prep:  Impl:

	<p>alternatives (e.g., wood) and using construction materials with recycled content. The support granted shall comply with the conditions defined in the EEAG or the GBER.</p> <p>A competitive, open and non-discriminatory bidding procedure for selecting beneficiaries and determining the level of support shall ensure that aid is limited to what is necessary.</p>	<p>environmental sustainability criteria. While the government will provide support for building the facility (investment aid), the recurrent costs of maintaining and operating the reuse system and tools as well as the recycling facilities should be covered by operator.</p>	
<b>Environmental risk prevention</b>			
213)	<p>Hungary shall ensure that national climate change adaptation strategies address the impact of climate change on health, agriculture and forest, biodiversity and ecosystems, water areas, and infrastructures and constructions in a way as to avoid doing significant harm to the environmental objectives listed in the Taxonomy Regulation.</p>	<ul style="list-style-type: none"> <li>• EC (2020), <i>EU Biodiversity Strategy for 2020, Bringing nature back into our lives</i>. Brussels. <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1590574123338&amp;uri=CELEX:52020DC0380">https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1590574123338&amp;uri=CELEX:52020DC0380</a></li> <li>• Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (“EU Taxonomy Regulation”). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852</a></li> </ul>	2030
214)	<p>Hungary shall make a revision of risky industrial activities next to the streams/rivers in order to prevent the polluted water and the toxic substances getting to the living rivers and lakes.</p>	<p>This measure will not only protect wildlife, but it will protect drinking water supply, as well.</p> <ul style="list-style-type: none"> <li>• SSMP, <i>Best Management Practices for Industrial Storm Water Pollution Control</i>. <a href="https://waterresources.saccounty.net/stormwater/documents/industrial-BMP-manual.pdf">https://waterresources.saccounty.net/stormwater/documents/industrial-BMP-manual.pdf</a></li> </ul>	31/12/25
215)	<p>Hungary shall establish a national or regional disaster risk management plan, consistent with the existing climate adaptation strategies which shall include a description of key risks, assessed in accordance with the provisions of Article 6 (a) of Decision No 1313/2013/EU, reflecting current and long-term threats (25-35 years). The assessment shall build, for climate related risks, on climate change projections and scenarios. It shall also include description of the disaster prevention, preparedness and response measures to address the key risks identified and information on budgetary and financing resources and mechanisms available for covering the operation and maintenance costs related to prevention, preparedness and response</p>	<ul style="list-style-type: none"> <li>• EU (2013), <i>Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism</i>. (Current consolidated version: 21/03/2019). <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D1313&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D1313&amp;from=EN</a></li> </ul>	31/12/21
216)	<p>In its national or regional disaster risk management plan, Hungary shall ensure that the measures are prioritized in proportion to the risks and their economic impact, capacity</p>	<ul style="list-style-type: none"> <li>• UNISDR (2017) <i>Disaster risk reduction &amp; disaster risk management</i>. Adapted from UNISDR Global Assessment Report 2015.</li> </ul>	31/12/22

	gaps, effectiveness and efficiency, taking into account possible alternatives.	<a href="https://www.preventionweb.net/disaster-risk/concepts/drr-drm/">https://www.preventionweb.net/disaster-risk/concepts/drr-drm/</a>	
217)	Hungary shall collect and compile climate change related statistics and introduce an analysis methodology for climate vulnerability assessments.	<ul style="list-style-type: none"> <li>• ECOFYS (2015), <i>Assessing Adaptation Knowledge in Europe: Vulnerability to Climate Change</i>. Final Report, Ecofys 2016 by order of: the European Commission. <a href="https://ec.europa.eu/clima/sites/clima/files/adaptation/wat/docs/climate_change_vulnerability_en.pdf">https://ec.europa.eu/clima/sites/clima/files/adaptation/wat/docs/climate_change_vulnerability_en.pdf</a></li> </ul>	31/12/20
218)	Transboundary flood protection shall be developed that satisfies ecological demands: Hungary shall focus on natural solutions. The flood protection and water management shall follow new concepts due to the effects of climate change (i.e. water retention and utilization instead of water regulation) which can only be carried out by a coordinated territorial planning between the different sectors.	The areas threatened by floods and inland waters cover almost 50% of the country. In previous flood protection measures, many urgent interventions against flood risks of small streams primarily in hilly areas have been made in insufficiently big dimensions which ignored the basic ecological and environmental aspects.	31/12/21

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[http://www.peoplesbudget.eu/wp/wp-content/uploads/Position\\_MFF\\_1December\\_2017.pdf](http://www.peoplesbudget.eu/wp/wp-content/uploads/Position_MFF_1December_2017.pdf)
- The Environmental Implementation Review 2019. Country Report Hungary, European Commission. [https://ec.europa.eu/environment/eir/pdf/report\\_hu\\_en.pdf](https://ec.europa.eu/environment/eir/pdf/report_hu_en.pdf)
- UN (1998), Convention on Access to Information, Public Participation In Decision-Making And Access To Justice In Environmental Matters (Aarhus Convention).  
<https://unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf>

## Annex 1:

### Indicators of progress

The indicators with concrete annual targets on national level are indispensable in order to measure progress. The indicators on project level are necessary but they do not reflect at all the situation on national level. It might happen (and it has happened quite often) that project indicators showed progress while national indicators on the same topic showed regress.

The indicators on which the Member States' performance is assessed should be substantially improved.

- a) Further well measurable indicators showing the progress on national level should also be applied (for example, the Innovation Union Scoreboard, the results of OECD's PISA, the change in the GINI Index, and the change in healthy life years). It is much more important to have indicators on national level than for projects financed by the EU.
  - b) The indicators should be as SMART (specific, measurable, attainable, realistic and timely) as possible.
  - c) In cases where no concrete indicators can be worked out, it should be required that the Member State apply the best practice possible (e.g. concerning legislative and institutional measures to combat corruption and tax fraud).
  - d) The indicators (priorities) must be worked out in a transparent process, involving all stakeholders, and providing for these stakeholders the necessary means for meaningful participation, in accordance with the European Code of Conduct on Partnership. This will guarantee the robustness and public acceptance of the indicators. There are many documents containing indicators that might be used as a basis for the indicators in the Partnership Agreement.
- First of all, the **OECD Green Growth Indicators** can be recommended:
    - <https://www.oecd.org/greengrowth/green-growth-indicators/>
    - [https://read.oecd-ilibrary.org/environment/green-growth-indicators-2013\\_9789264202030-en#page1](https://read.oecd-ilibrary.org/environment/green-growth-indicators-2013_9789264202030-en#page1) (2013)
    - <https://www.oecd-ilibrary.org/sites/9789264268586-en/index.html?itemId=/content/publication/9789264268586-en> (2017)
 According to OECD, Hungary could also draw on the experience of 28 other countries (including emerging and developing economies) that have customised these indicators to their national circumstances (e.g. Chile, Denmark, Germany, Korea, the Netherlands):
  - The **United Nations indicators for the targets of the 2030 Agenda (SDG)** are also very important. As a Member State of the European Union, Hungary committed itself to achieve the 17 SDGs (Sustainable Development Goals) by 2030, which are set out in the 2030 Agenda for Sustainable Development. Each of these goals are supported by many indicators (there are 231 unique indicators) that are being used to measure progress towards each target. As far as the environment is concerned the following indicators are most relevant: SDG 11, 12, 13:
    - [https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202020%20review\\_Eng.pdf](https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202020%20review_Eng.pdf).

- Moreover, **the EU SDG indicator set** is also related to the United Nations SDGs: they are structured along the 17 goals of the United Nations 2030 Agenda and are intended to measure progress towards the SDGs in an EU context:  
<https://ec.europa.eu/eurostat/web/sdi/indicators>
- The Hungarian Central Statistical Office (more than 100 sustainable development indicators) that are larger than in most other Central and Eastern European countries (so the Hungarian ones)
  - A fenntartható fejlődés indikátorai Magyarországon, 2018,  
<http://www.ksh.hu/docs/hun/xftp/idoszaki/fenntartfejl/fenntartfejl18.pdf>
  - Indicators of sustainable development for Hungary, 2016,  
<http://www.ksh.hu/docs/eng/xftp/idoszaki/fenntartfejl/efenntartfejl16.pdf>
  - Environment, public utilities, <http://www.ksh.hu/environment-public-utilities>

The task of the Hungarian government is to set concrete annual targets for the selected indicators.

## **Annex 2:**

# **Proposal for the Internalisation of External Costs of Road Transport in Hungary**

*by Dávid Kosztyi and András Lukács*

Hungary's Partnership Agreement<sup>11</sup> on the European structural and investment funds for the financial period 2014-2020 states that “the polluter pays” principle will be applied in transport. There was a substantial step forward in this direction (the implementation of the electronic distance-based toll for trucks) but also serious setbacks (enormous subsidies to car manufacturers). Thus, there is still a long way to go to implement “the polluter pays” principle in transport. In this study, we propose a step-by-step implementation of this principle for the period of 2021-2030.

### **1. External costs of road transport**

Transport is responsible for 25% of the EU's greenhouse gas emissions.<sup>12</sup> This share is even much higher if all those other activities are taken into account which are necessary for transport (mining, vehicle manufacturing, road construction, oil extraction, and refinery, etc.). Moreover, transport has a high share in air pollution and other environmental and health adversities. However, the costs associated with them are currently far from being paid by the transport users. This fact has been known for a long time. For example, it has been stated in the European Commission's 1995 Green Paper “Towards fair and efficient prices for transport”<sup>13</sup>. In 1998, the White Paper on Equitable Charging for Infrastructure<sup>14</sup> also states that the share of the cost of passenger and freight transport which is not borne by the user is significant in all Member States of the European Union and that these costs should be internalised in transport prices.

According to the 1995 Green Paper, taxes on road transport in the EU should be doubled just to cover its full cost of road transport. Both documents emphasize that this would not lead to an increase in total transport costs on macroeconomic level but, on the contrary, would reduce them. On the one hand, there would be a significant reduction in traffic congestion and losses due to environmental and health damages, which are currently a heavy burden on the EU's economy. On the other hand, the revenues from extra taxes and fees on transport would be returned to the economy by the state (for example, by reducing taxes on human labour). All of this would improve the EU's competitiveness.

<sup>11</sup> [https://ec.europa.eu/info/publications/partnership-agreement-hungary-2014-20\\_en](https://ec.europa.eu/info/publications/partnership-agreement-hungary-2014-20_en)

<sup>12</sup> Greenhouse gas emission statistics – emission inventories. Eurostat, June 2020, <https://ec.europa.eu/eurostat/statistics-explained/pdfscache/1180.pdf>

<sup>13</sup> Towards Fair and Efficient Pricing in Transport. Policy Options for Internalising the External Costs of Transport in the European Union. – Commission of the European Communities, Brussels, 20.12.1995, COM(95)691 final, [https://europa.eu/documents/comm/green\\_papers/pdf/com95\\_691\\_en.pdf](https://europa.eu/documents/comm/green_papers/pdf/com95_691_en.pdf)

<sup>14</sup> Fair payment for infrastructure use: a phased approach to a common transport infrastructure charging framework in the EU - White Paper, 1998-07-22, <https://op.europa.eu/en/publication-detail/-/publication/ceccf466-59bd-46e6-a08b-972286cebdc6/language-en>

The White Paper also stated that “all transport participants must pay the costs they incur, including environmental and other impacts, at or as close as possible to where the impact occurs. ”

The White Paper specifically emphasizes the importance of internalising the external costs of urban transport in its prices. EU research programs have examined the expected impact of the introduction of road tolls and other fees in Amsterdam, Brussels, Dublin, Helsinki, London, and Naples. Studies in each city have shown that an appropriate introduction or increase of these charges in each city would help to improve the living conditions of the population and the efficiency of the economy. Reducing congestion, pollution, and accidents, as well as bringing surplus revenue back into the economy, has more benefits than the “loss” from rising transport prices. The European Commission has since then issued several reports on the extent to which transport users pay the costs which they incur in EU countries. According to the latest study<sup>15</sup>, published in May 2019, road transport users in Hungary, both in passenger and freight transport, pay less than a third of the costs they incur (Figures 1 and 2). In other words, road transport prices should be tripled for “the user pays” and “the polluter pays” principles (which are fundamental principles of the EU) to prevail.

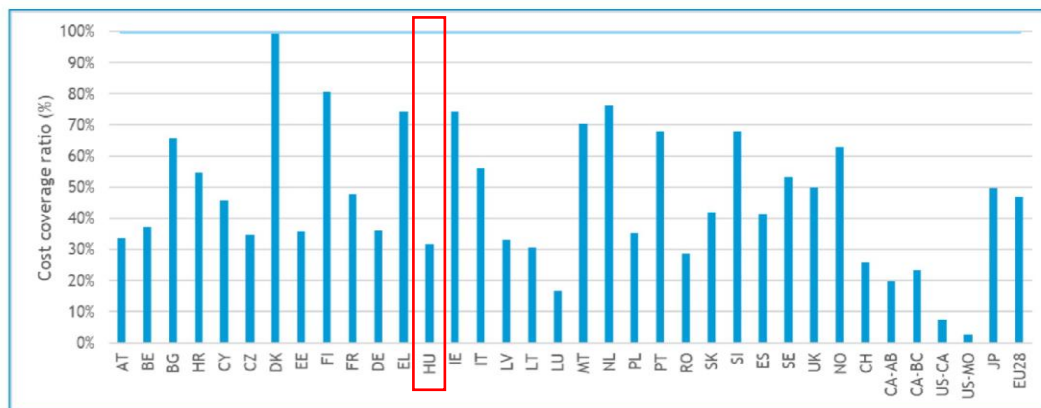


Figure 1: Percentage of road passenger transport costs borne by users in EU countries, Switzerland, Norway, Canada, the USA, and Japan  
(source: European Commission, 2019)

<sup>15</sup> Internalisation of transport external costs. European Commission, 2019, [https://ec.europa.eu/transport/themes/sustainabletransport/internalisation-transport-external-costs\\_en](https://ec.europa.eu/transport/themes/sustainabletransport/internalisation-transport-external-costs_en)

State of play of Internalisation in the European Transport Sector. European Commission, 2019, <https://ec.europa.eu/transport/sites/transport/files/studies/internalisation-state-of-play-isbn-978-92-76-01413-3.pdf>

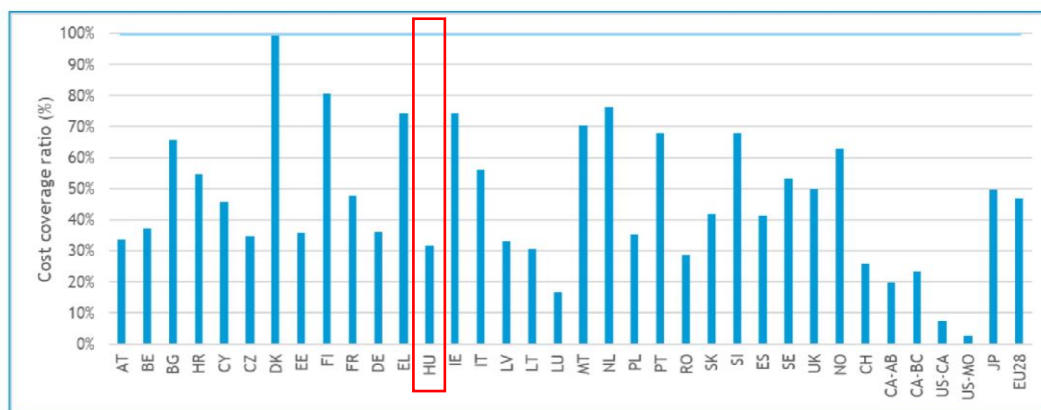


Figure 2: Percentage of road freight costs borne by users in EU countries, Switzerland, Norway, Canada, the USA, and Japan  
(source: European Commission, 2019)

A similar result was obtained in 2010 by a study<sup>16</sup> commissioned by the Hungarian Ministry of Economy and Transport, according to which the unpaid cost of road transport amounts to 7-13% of the Hungarian GDP (Tables 1 and 2 show the distribution in case of the lower and higher value).

<sup>16</sup> The social balance of road and rail transport in Hungary. Institute for Transport Sciences (KTI), Budapest, 2010, [https://www.levego.hu/site/assets/files/5529/social\\_balance\\_transport\\_hungary\\_20110131.pdf](https://www.levego.hu/site/assets/files/5529/social_balance_transport_hungary_20110131.pdf)

*Table 1: Differentiated values of the expanded central budgetary balance in 2006 as amended by further social impacts (taxation, trucks stop) (lower estimate) (source: KTI, 2010)*

	Road				Railway		
	Total	Passenger cars	Trucks	Inter-locality bus	Total	Passenger transport	Goods transport
Budget revenues (billion HUF)	887,6	603,6	246,3	24	19,9	12,1	7,8
Budget expenses (billion HUF)	1034,9	547,9	358,5	92,5	183,9	142	41,9
Budget balance (billion HUF)	-147,3	55,7	-112,2	-68,5	-164	-129,9	-34,1
Transport performance (million goods ton-kms, veh. kms)		39290	36887	11784		9584	10167
Specific budget balance (HUF/goods ton-kms, HUF/veh.kms)		1,4	-3,0	-5,8		-13,6	-3,4
External effects (billion HUF)	-1307,8	-737,1	-364,3	-14,4	-26,8	-21,6	-5,1
Expanded balance (billion HUF)	-1455,1	-681,4	-476,5	-82,9	-190,8	-151,5	-39,2
Expanded specific budget balance (HUF/goods ton-kms, HUF/veh.kms)		-17,3	-12,9	-7,0		-15,8	-3,9
Other factors of competition distortion (tax fraud, tax evasion, truck stop)	-830,1	-554	-276,1	0	0	0	0
Total balance (budget+externality+other)	-2285,2	-1235,4	-752,6	-82,9	-190,8	-151,5	-39,2
Total specific budget balance (HUF/goods ton-kms, HUF/road-kilometres)		-31,4	-20,4	-7,0		-15,8	-3,9

Table 2: Differentiated values of the expanded central budgetary balance in 2006 as amended by further social impacts (taxation, trucks stop) (higher estimate) (source: KTI, 2010)

	Road				Railway		
	Total	Passenger cars	Trucks	Inter-locality bus	Total	Passenger transport	Goods transport
Budget revenues (billion HUF)	790,8	540,6	230,1	12,6	1,0	0,6	0,4
Budget expenses (billion HUF)	1034,9	547,9	358,5	92,5	183,9	142	41,9
Budget balance (billion HUF)	-244,1	-7,3	-128,4	-79,9	-182,9	-141,4	-41,5
Transport performance (million goods ton-kms, veh. kms)		39290	36887	11784		9584	10167
Specific budget balance (HUF/goods ton-kms, HUF/veh.kms)		-0,2	-3,5	-6,8		-14,8	-4,1
External effects (billion HUF)	-1307,8	-737,1	-364,3	-14,4	-26,8	-21,6	-5,1
Expanded balance (billion HUF)	-1551,9	-744,4	-492,7	-94,3	-209,7	-163	-46,6
Expanded specific budget balance (HUF/goods ton-kms, HUF/veh.kms)		-18,9	-13,4	-8,0		-17,0	-4,6
Other factors of competition distortion (tax fraud, tax evasion, truck stop)	-1513,1	-1237	-276,1	0	0	0	0
Total balance (budget+ externality+other)	-3065,0	-1981,4	-768,8	-94,3	-209,7	-163,0	-46,6
Total specific budget balance (HUF/goods ton-kms, HUF/road-kilometres)		-50,4	-20,8	-8,0		-17,0	-4,6

Based on the data presented in the table, in both cases, the costs of road transport significantly exceed revenues. This balance needs to be improved in line with EU principles.



## 2. The internalisation of the external costs of road transport in Hungary

According to Clean Air Action Group (Levegő Munkacsoport), it is necessary to impose a distance- and pollution-based toll on road users at first in Budapest<sup>17</sup> and then on all roads in Hungary. The toll would depend on the following six factors:

- 1) the distance travelled,
- 2) the environmental characteristics of the vehicle,
- 3) the mass of the vehicle (for cars: own mass; for heavier vehicles: maximum permitted mass),
- 4) the time of the day/week (e.g., higher in peak hours),
- 5) the place (e.g., higher in cities, lower in the countryside),
- 6) the probability of congestion on the given section of the road.

As a first step, we recommend the introduction of a daily Budapest sticker, which must be paid for each car that travels within the administrative boundaries of Budapest. Owners of cars registered in Budapest could pay an annual or monthly amount. There could be two types of annual or monthly fees: lower for those who agree not to drive their car during rush hour in the morning and afternoon. Such a version may also be popular with the majority of car users because two-thirds of car owners in Budapest do not use their car on working days. These “introductory fees” should be low; their main purpose is to prepare for the implementation of the nation-wide toll.

Trucks with a total permitted weight of more than 3.5 tonnes already pay mileage tolls on motorways and main roads, and almost all of them already have GPS tracking equipment. Regarding this fact, all trucks operating in the country can be obliged to install a GPS unit. The system should be implemented in cooperation with Nemzeti Útdíjfizetési Szolgáltató Zrt. (National Toll Payment Services PLC).

The IT and logistics background are already available for the imposition, collection, and control of such a system, so it can be implemented quickly with the right strategy.

At the same time, the current parking system should be modified, too. Clean Air Action Group has made detailed recommendations for such a modification.<sup>18</sup> In the first step, the various discounts and subsidies must be removed, then generally parking fees should be raised and widely extended.

With these modifications, the demand for parking in Budapest and other cities can be significantly reduced. At the same time, the revenues must be used to compensate the residents of the area concerned.

The proposed road toll system and the parking fee system could be integrated into a unified common system.

## 3. Compensation for price increases

The measures expounded above represent an additional expense for commuters and residents. This additional expense should be compensated by redistribution of the revenues., which

<sup>17</sup> It is time to implement congestion charging in Budapest. Levegő Munkacsoport, 2016, [https://www.levego.hu/site/assets/files/5752/time\\_to\\_implement\\_congestion\\_charging\\_in\\_budapest\\_2015szept-2016dec12.pdf](https://www.levego.hu/site/assets/files/5752/time_to_implement_congestion_charging_in_budapest_2015szept-2016dec12.pdf)

<sup>18</sup> A budapesti közlekedés közterület-használatának problémái és megoldási lehetőségek. Levegő Munkacsoport, 2020, [https://www.levego.hu/site/assets/files/6187/kozlekedes\\_kozterulet\\_2020marc09h.pdf](https://www.levego.hu/site/assets/files/6187/kozlekedes_kozterulet_2020marc09h.pdf)

already have been successfully implemented in various countries. Hereby we mention the examples of Iran, Canada, Ghana and Indonesia.

### Iran

In 2010, Iran significantly increased its energy prices, generally fourfold and in some cases twentyfold. With this, Iran became the first major oil-exporting country to significantly reduce its implicit (indirect) energy subsidies.

In the past, fuel prices have been kept extremely low in Iran with huge state subsidies. This has resulted in enormous waste, pollution, constant traffic jams. In 2010, however, the government cancelled the subsidy. The population not only did not revolt, but almost unanimously supported the price increase, which enjoyed great popularity, and strengthened the government's position. The secret to success lay in thorough preparation, extensive information, and proper compensation. The distribution of the compensation was as follows:

- 50 percent of the compensation went to the population. Except for the richest 20 percent of households, all households received 40 dollars per person per month. One of the decisive arguments in the government's communication was also the aspect of social justice.
- 30 percent was provided to companies for energy-saving measures, energy efficiency investments.
- 20% was given to the public sector (schools, hospitals, etc.) to offset increased energy costs and improve their energy efficiency.

In Iran, the main goal was to eliminate waste and rationalize consumption. Compensation paid for higher energy prices benefitted most consumers, as higher prices provided an incentive to reduce unnecessary energy consumption while being able to buy more other goods and services from the money they received as compensation. The reform also improved social equality, as the poorest have benefited little from low energy prices, while the compensation paid by the government significantly improved their living conditions. The reform has virtually eradicated poverty in Iran, resulting in significant moral support for the government. The reform also boosted domestic demand, contributing to the growth of the non-energy sector and the reduction of unemployment. The reform was not intended to improve the state of public finances or increase public redistribution. On the contrary, the government has been trying to achieve a reduction in public spending. However, the significant decline in domestic energy consumption also significantly increased the amount of exportable oil, which also provided additional resources for the development of the energy sector.<sup>19</sup>

### Canada

In Canada, the Government introduced a price on carbon pollution across the country in 2019. This includes a plan that sees the direct proceeds from carbon pollution pricing generated under the federal system returned to the province or territory of origin. Direct proceeds from the federal fuel charge are returned either directly to governments (where the federal system has been voluntarily adopted) or to individuals and families through tax-free Climate Action Incentive payments and to targeted sectors, including small and medium-sized businesses, schools, hospitals, non-profits and Indigenous communities. Most households receive more in Climate Action Incentive payments than they incur in total costs resulting from the federal

<sup>19</sup> Iran–The Chronicles of the Subsidy Reform. IMF Working Paper, 2011, <https://www.imf.org/external/pubs/ft/wp/2011/wp11167.pdf>

carbon pollution pricing system. The Government of Canada does not keep any direct proceeds from carbon pollution pricing.<sup>20</sup>

### Ghana and Indonesia

Proper communication and public involvement were key to the implementation of reforms also in Ghana and Indonesia.<sup>21</sup> The similarity in these successful reforms was also that they reduced social inequalities.

The deregulation of petroleum product pricing in Ghana was accompanied by a set of measures, targeted to get support from the broad population. It consisted of 3 steps: poverty and social impact assessment (PSIA), studying the impact of the subsidy; widespread communication campaign by the government; introduction of the several programs, providing assistance to the poor population. For example, the abolition of tuition fees has had a significant impact on the wider community, as well as the abolition of public transport fares and increased health spending in poorer areas.

Indonesia has been experimenting with the reform of oil subsidies since 1997. However, this policy could achieve success only by reforms in 2005 and 2008. Reasons for that were efficient policy targeted cash transfers to the poor and providing an affordable alternative energy source, which minimised the opposition and even helped the popularity of the president. Moreover, during the second wave of the reforms, the public became better informed about the reasons and objectives, which helped in better understanding and acceptance of the measures.

## **4. A simplified model for Hungary**

In the following, we present an extremely simplified model for the internalisation of the external costs of road transport and the relevant compensation in Hungary. It only illustrates the concept and gives an approximate idea about the magnitude of the costs and compensation.

In Hungary, the cost caused by road users but not paid by them is EUR 11 700 million per year<sup>22</sup>, i.e., approx. 4 200 billion HUF. This value is HUF 100.38 per vehicle-kilometre. A possible incorporation of this unpaid cost into the prices is shown in Table 3. We propose that the costs be internalised by a distance- and pollution-based road toll levied on each car and truck on every road in Hungary.

Recent events in the world (pandemic situation, Russian-Saudi Arabian oil price war) and a significant decrease in the oil prices is a great opportunity now to implement such a road toll. Also, it could meet much better understanding and acceptance from the public, since the consumers of oil products currently don't have to pay as much as earlier.

<sup>20</sup> Government Announces Climate Action Incentive Payment Amounts for 2020. Government of Canada, December 2019, <https://www.canada.ca/en/department-finance/news/2019/12/government-announces-climate-action-incentive-payment-amounts-for-2020.html>

<sup>21</sup> Case Studies on Energy Subsidy Reform: Lessons and Implications. IMF, 2013, <https://www.imf.org/external/np/pp/eng/2013/012813a.pdf>

<sup>22</sup> Internalisation of transport external costs. European Commission, 2019, [https://ec.europa.eu/transport/themes/sustainabletransport/internalisation-transport-external-costs\\_en](https://ec.europa.eu/transport/themes/sustainabletransport/internalisation-transport-external-costs_en)

*Table 3: A simplified model of internalisation of the external costs of road transport in Hungary by the year 2030*

Year	Passenger cars			Trucks			TOTAL
	Vehicle kilometer* (million km)	Road Toll Unit cost (HUF/vkm)	Road Toll Revenue (billion HUF)	Vehicle kilometer* (million km)	Road Toll Unit cost (HUF/vkm)	Road Toll Revenue (billion HUF)	Road Toll Revenue (billion HUF)
2020	30 245			11 595			
2021	30 245	10.04	<b>304</b>	11 595	10.04	<b>116</b>	420
2022	28 733	20.08	<b>577</b>	11 015	20.08	<b>221</b>	798
2023	27 296	30.11	<b>822</b>	10 464	30.11	<b>315</b>	1 137
2024	25 931	40.15	<b>1 041</b>	9 941	40.15	<b>399</b>	1 440
2025	24 635	50.19	<b>1 236</b>	9 444	50.19	<b>474</b>	1 710
2026	23 403	60.23	<b>1 410</b>	8 972	60.23	<b>540</b>	1 950
2027	22 233	70.27	<b>1 562</b>	8 523	70.27	<b>599</b>	2 161
2028	21 121	80.31	<b>1 696</b>	8 097	80.31	<b>650</b>	2 346
2029	20 065	90.34	<b>1 813</b>	7 692	90.34	<b>695</b>	2 508
2030	19 062	100.38	<b>1 913</b>	7 308	100.38	<b>734</b>	2 647

\*Note: For the vehicle kilometres in 2020, we used the numbers for the year 2017 provided by Eurostat<sup>23</sup>

For the sake of simplicity, we used the following assumptions in our calculations:

- the unpaid costs will be internalised gradually until 2030;
- the number of vehicle-kilometers travelled will decrease by 5% per year after introduction (in comparison with the year 2020);
- the price will be raised each year by the same amount (10% of the total sum to be achieved in 2030) for each vehicle-kilometre;
- the price increase will be the same for passenger cars and trucks (per vehicle-kilometre),
- the above costs for the internalisation of external costs in function of vehicle-kilometres are average values (as we mentioned above, in practice, there must be a differentiation according to the environmental characteristics of the vehicle).

We propose that the revenue from the internalisation of external costs of passenger car use be fully redistributed to each person living permanently in Hungary who belongs to the lower 8 deciles of Hungarian society (see Table 4).

<sup>23</sup> <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

*Table 4: Annual redistribution of the revenues from the internalisation of external costs of passenger car use to 80% of the Hungarian population*

<b>Year</b>	<b>Redistribution (HUF/person)</b>
2020	-
2021	39 562
2022	75 167
2023	107 113
2024	135 676
2025	161 116
2026	183 672
2027	203 570
2028	221 018
2029	236 213
2030	249 336

Note: For the sake of simplicity, we supposed that Hungary's population will remain constant between 2020 and 2030.

The revenues from the internalisation of external costs of truck use might be used to reduce the harmful environmental impact of freight transport (investments into railways, city logistics, local production, and consumption, increasing road safety, etc.) and to provide training and work for those who lose their jobs due to the internalisation.

The implementation of the road toll into the current taxation system in Hungary will lead to:

- Decrease in the harmful environmental impacts (air pollution);
- Increased investments into more sustainable means of transport (railways, metro);
- Development of the city logistics;
- Induction in the production and consumption of the local production;
- More jobs.

Budapest, October 2020

**Annex 3:****Proposals for Education for sustainability/Environmental education  
(in Hungarian)**

\* \* \*

**Környezeti fenntarthatóságra nevelési javaslatok  
az MFF 2021-27 (Multiannual Financial Framework; structural funds)  
és az RRP 2020-24 (Recovery and Resilience Plan; COVID-19 funds)  
magyar dokumentumaihoz***Készítette a  
Magyar Környezeti Nevelési Egyesület*

Az alábbiakban olyan gondolatokat vagy konkrét javaslatokat fogalmazunk meg, amelyek – beillesztve a fenti dokumentumokba – gazdagítják azok környezeti nevelési (fenntarthatóságra nevelési) arculatát.

Mínthogy a dokumentumok szerkezete, tagolása még ideiglenes, nem tudjuk ezeket a gondolatokat, javaslatokat adott pontokhoz kötni. Tartalmuk szerint viszont csoportosítottuk azokat.

**Szervezeti szint**

- A kormány hozzon létre egy olyan tárcaközi koordináló testületet<sup>24</sup> és az e testület irányítás alá tartozó kormányzati háttérintézményt szervezetet, amelynek a fenntarthatóság értékrendszerének és szemléletmódjának terjesztése, a terjesztők segítése a feladata iskolai és iskolán kívüli területen egyaránt. [Előzményként ld. a hajdani KöNKOmp irodát!]
- Szorgalmazni és segíteni kell a köznevelés ügyére ható minden szervezeti szinten – a törvényhozástól az iskolákig – típustól, hatókörtől és mérettől függetlenül –, hogy tevékenységükben nyomatékosan vegyék figyelembe a 17 fenntarthatósági cél (SDG) közül azokat, amelyek relevánsak a számukra.
- Erősíteni kell azon iskolák és óvodák – az „ökoiskolák” és „örökös ökoiskolák” illetve Zöld Óvodák és Örökös Zöld Óvodák – hálózatát, amelyek mind a tanítás-tanulás terén, mind az intézmény működése, működtetése terén érvényesítik a fenntarthatóság gondolkodásmódját és értékrendjét.

**Társadalmiasítás**

- A kormány támogassa kiemelten azokat a tudományos (környezet-pszichológiai, reklám-pszichológiai, társadalom-lélektani, szociológiai, vallástudományi, kultúrtörténeti stb.) és művészeti (irodalmi, képzőművészeti, zenei, színház- és filmművészeti, street-art stb.) kutatásokat, programokat, kezdeményezéseket, amelyek a társadalom értékrendjének a fenntarthatóság irányába való fordítását célozzák, segítik.
- Szülessen döntés közösségi kutatás programok indítására és támogatására. Ezek ugyanis szakmai-tudományos hasznosságuk mellett a lakosság környezeti tudatosságát is emelik. Ilyen programok a terv egészében megvalósíthatóak, de különösen a biodiverzitás, a mezőgazdaság, az energetika és a környezeti kockázatok (időjárás) témával kapcsolatban

<sup>24</sup> Korábban már működött ilyen bizottság, lásd: <http://www.nefmi.gov.hu/miniszterium/2002-090803>

erősítendő a közösségi kutatás (*citizens' science*). (Előzmények: Méta, Globe, Bisel Beagle, Vadonleeső Madármegfigyelő napok, Köpönyeg, Időkép stb.)

- Induljon társadalmi konzultációs folyamat diákok részvételével, annak érdekében, hogy a fenntarthatósággal kapcsolatos döntések a lehető legtöbb érdekcsoport és vélemény megismerésével és figyelembevétel történjenek meg. A kormány kiemelten támogassa az állampolgárok bevonását ezekbe a döntéshozatali folyamatokba kapcsolódva az Európai Unió Green Deal programja keretében ebben a témakörben indított programjainak<sup>25</sup> megvalósulását.

### Gondolkodásmód fejlesztése, felkészítés a jövőre

- Túl kell lépni az olyasféle „igen/nem” jellegű, terméketlen vitákon, mint például: „a klímaváltozást az ember okozza, vagy nem?”. Meg kell értenünk, hogy a globális változások ezer tényezőtől és azok kölcsönhatásaitól függenek, tehát nem lehet az ilyen kérdésekre egy-szavas válaszokat adni. Társadalmi szintű – ide értve az iskolát is – tervet kell készíteni a redukcionista, leegyszerűsítő, a jelenségeket vagy változásokat egyetlen okra visszavezető gondolkodásmód meghaladására. Éppen az előttünk álló gazdasági-természeti-társadalmi problémák összetettsége miatt van kiemelt jelentősége a sok-tényezős gondolkodásmód fejlesztésének, a komplex világlátás erősítésének. A színvonalas környezeti nevelés – minthogy ökológikus szemléletű – sokat segíthet ebben.
- Az ökológiai és klíma-veszély kezelése (vagy a hozzá való alkalmazkodás) összetett kompetenciákat kíván meg, s ráadásul olyan komplexitásban, amelyre eddig az emberiségnek eddig nem volt szüksége. A pedagógia – nevelés, szemléletformálás – teljes területén a környezeti nevelésnek (fenntarthatóságra nevelésnek) van a legnagyobb tapasztalata az ehhez szükséges „transzformatív” pedagógiai módszerek tekintetében, amelyek nem egyszerűen a tudás átadását, hanem a környezeti kérdésekről való közös gondolkodásra, új megoldási lehetőségek keresésére való felkészítést is jelentik.
- Minden korosztály esetében fejleszteni kell a fenntarthatósággal és az ökológiai rendszerek működésével kapcsolatos környezeti műveltséget, mert ez növeli a jelenlegi vagy jövőbeli munkaerőpiaci alkalmasságot, ugyanis kikerülhetetlen az ilyen jellegű munkakörök egyre nagyobb számban való megjelenése.
- Tudomásul kell vennünk, hogy a hagyományos „tantárgy-tankönyv-tanóra-osztályterem” rendszerre alapozott közoktatás – meglévő előnyei ellenére – nem vezeti a diákokat a valóságos világba, nem szembesíti őket a valóságos problémákkal. Ezért a merev tantárgyi rendszer lazításával a jelenleginél sokkal nagyobb teret kell adni minden iskolatípusban a komplex (nem-tantárgyi) tanulás-szervezési formáknak (pl. a tanulási projekteknek, a probléma-alapú tanulásnak, a témnapoknak, témaheteknek és az erdei iskolázásnak).

### Értelmezés, a megértés segítése

- Az ajánlások kidolgozásához szervesen hozzá kell tartozzon egy olyan glosszárrium, amely rögzíti egyes szavak, kifejezések jelen dokumentumban használt jelentését. Például a „fenntartható növekedés” kifejezés a környezeti/fenntarthatóságra nevelés szóhasználatában erősen vitás. Vitás, hiszen a fenntartható szó – ha helyesen használjuk – nem a jelenlegi működési mód „fenntartását”, azaz folytatását jelenti, hanem azt a működési módot, amely nagyon hosszú időtávlatban is folytatható meghatározóan negatív következmények nélkül. Márpedig elvi szinten is kérdéses, hogy az értelemszerűen véges Földön lehetséges-e egyáltalán folytonos (végtelen) növekedés. De csak akkor, ha

<sup>25</sup> Lásd: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-gd-10-1-2020>

növekedés alatt valamilyen számokkal kifejezhető, mennyiségi változást értünk. Ha ugyanis valaki azt a minőségi jobba-válást is beleérti a növekedés szóba, amelynek a leglényege számokkal nem fejezhető ki – bár lehetnek kvantitatív jellemzői –, akkor joggal használhatja a „fenntartható növekedés” kifejezést, hiszen az ilyen változás valóban „örök időkig” folyhat.

- A körforgásos gazdálkodás fogalma a legtöbb ember számára ismeretlen és érthetetlen. Tisztázandó tehát, hogy mi a lényege, s melyek a fokozatai. Ide tartozhat az is, hogy szorgalmazzuk valamely termék többszöri használatát, az is, hogy szelektíve gyűjtjük például a papírt, de kevésbé ismert az a gondolat, hogy a leglényege az, hogy az egyik folyamat hulladéka egy másik folyamat nyersanyaga. Ahogy ez a természetben alapforma.
- Sok iskolákban érzékelhető az a sztereotip gondolkodás, hogy az iskolai környezetvédő tevékenység gyakorlatilag egyenlő a szelektív hulladékgyűjtéssel. Ezért a hulladékkal kapcsolatos tudatosság-növelő tevékenységekben hangsúlyozni kell, hogy ez ugyan fontos, de csak másodlagos jelentőségű a megelőzéshez képest.
- A reziliencia fogalmának, valamint működésmódjainak a megértése nem egyszerű, hiszen nagyon összetett jelenségről van szó. Ezt a megértést azonban hathatósan segítheti a környezeti nevelés, amikor az ökológiai törvényszerűségek vizsgálata során egy ökoszisztéma – mondjuk egy lombhullató erdő – működését tanulmányozza. Ez ugyanis kiváló modellje lehet egy adott társadalom rezilienciáját meghatározó folyamatok megértésének.
- Az atipikus fejlődésű tanulók nevelésében sikeresek lehetnek a környezeti nevelésben meghonosodott tevékenységformák, különösen azok, amelyek szakítanak a hagyományos – vagyis egyoldalúan kognitív és verbális – megközelítéssel.

#### A tananyag relevanciája

- Az informális tanulás óriási jelentősége nem tudatosult eléggé sem a pedagógiában, sem a közvéleményben. Ezen sokat javíthat a környezeti nevelés, ugyanis a tanulási terek kiterjesztése az iskolán kívüli helyszínekre – erdőre, rétre, patakpartra – (ami a környezeti nevelésben gyakori példa) értelemszerűen magával hozza az előre meg nem tervezhető, a helyszínen jelentkező hatásokból, élményekből fakadó tanulási folyamatokat.
- Az iskolai környezeti nevelésnek szorosabban kell kapcsolódnia a tanulók tényleges élethelyzetéhez, releváns feladataihoz, hiszen a környezeti kultúra elsajátításának igazi színtere mégiscsak a tényleges környezet; ideértve a természeti, ember-alkotta és társadalmi környezetet egyaránt.

#### Értelmi, érzelmi, testi fejlődés egyensúlya

- A környezeti nevelésnek meghatározó szerepe lehet a következő generációk értelmi és érzelmi fejlődésének egyensúlyát illetően, hiszen a természet megismerésében és megvédésében egyenrangú szerepe van a kognitív és affektív viszonyulásnak.
- Az erdei iskola, mint komplex tanulásszervezés forma a legkiválóbb lehetőség az értelmi, érzelmi és szomatikus fejlődés egyidejű elősegítésére, hiszen a tanulóknak egyszerre gazdagodnak az ismeretei, a világ jelenségeihez kapcsolódó érzelmi viszonyulásai, s mindezt ráadásul (tipikusan) természeti, egészséges körülmények között.

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