ENVIRONMENTAL POLICY INTEGRATION: LESSONS FROM THE ENERGY AND TRANSPORT SECTORS

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INTRODUCTION

The integration of environmental policies into sectoral policies is a relatively recent imperative in Hungarian policy making circles, and does not yet form a cornerstone of Hungary's environmental policy or its developmental goals. However, EPI has gradually been making inroads into sectoral policies, especially in the context of European Union membership, and many Hungarian decision makers, administrators, and civil society organizations are keenly aware of the importance and challenges of reforming sectoral policies along environmentally sustainable lines.

The most important missing element in getting EPI off the ground in a more comprehensive and robust way is political leadership that would raise awareness of EPI across the sectors and provide the kind of legitimacy necessary to challenge entrenched attitudes and interests that obstruct progress in policy reform. The Parliament has yet to formulate a clear EPI mandate, although a number of legislative acts call for inter-ministerial cooperation on various environment-sectoral fronts. These piecemeal references to administrative cooperation, however, are a far cry from a systematic effort to green sectoral policies and adopt EPI as a core principle in the country's development agenda.

This paper examines EPI in the energy and transport sectors in Hungary, sectors which have witness different degrees of greening. While the energy sector has become relatively more attuned to environmental imperatives (though it is far from being on a sustainable footing) environmental concerns have been largely ignored in the transport sector. Among the main failings in both sectors are inadequate stakeholder participation and organizational linkages both within government and between government and the civil society and business communities. As a general rule, economic interests and objectives remain paramount in Hungarian policy making, regardless of the sector. As a measure of the degree of economic dominance in the decision making process, consider that the National Environment Programme states that environmental objectives and policies should be consistent with "sectoral realities." This formulation is widely understood to indicate the government's unwillingness to alter the aims and objectives of the various economic sectors if such changes would entail significant sacrifices for traditional stakeholders and bureaucracies.

ENERGY

The Hungarian economy has been less energy intensive in recent years with energy consumption decreasing despite growth in GDP, which is to say, a certain degree of decoupling of energy consumption from economic growth has occurred. In addition to the impact of the collapse of the inefficient socialist era firms, changes in the energy mix

and in energy consumption as well as investment in energy technologies account for this decline. Hungary is considered to be among the frontrunners among economies in transition in terms of energy efficiency policies.

In this section we place a special focus on *end-use energy efficiency* (EE) and promotion of *renewable energy sources* (RES). Apart from being a sound part of the climate change agenda, EE and RES meet widely accepted goals of improved security of supply, economic efficiency, increased business competitiveness and improved consumers' welfare and therefore offer stimulating possibilities for EPI.

Energy efficiency at the demand side: current status and analysis

The (in)efficiency of the energy chain is often characterised by the indicator of energy intensity (energy invested in a unit of GDP); although this indicator is subject to discussion in the literature, it is a good proxy of the efficiency of the economy, especially for comparative reasons and adjusted to price levels. The energy intensity of the Hungarian economy expressed in purchasing power parities was 0.22 toe/000 95 USD in PPP in 2001, which is equal to the average value of this indicator in the OECD countries.

In 1993 the Parliament approved the *Energy Policy Concept* (Resolution (21/1993(IV.9)OGY). Among the strategic objectives of the concept are contribution to environmental protection and increased demand side energy efficiency; there is an objective to increase the share of RES in the primary energy balance to 5-6 %. In 1995 the *National Energy Savings and Energy Efficiency Improvement Program* was established to strengthen the legal, institutional and financial framework of Hungary's energy efficiency policy. On the basis of this program in 1996 the *Energy Saving Action Plan* (2399/1995) was adopted, focusing on 4 major sets of measures: penetration of RES, energy efficiency improvement, energy efficiency labeling, education, information and encouragement of technology innovation. In 1999 the *Hungarian Energy Policy Principles and the Business Model of the Energy Sector* (resolution 2199/1999 VIII.6) was approved. "Enforcement of environmental protection requirements on both future developments and existing generating and energy-consuming plants" is among the objectives of this policy. Consequently, in 1999 the 10-year *Energy Conservation and Energy Efficiency Improvement Action Program* (1107/1999) was adopted. It embraces a range of 15 actions to be implemented in the business, household and municipality sectors and promoting the additional use of renewable energy resources. There are **quantified targets** for the duration of the program: 3.5 % annual energy intensity decrease and 7-8% reduction in energy consumption per year until 2010, 75 PJ annual savings in total primary energy supply, reduction of 50 kt of SO_2 and 5 Mt of CO_2 per year, and increase of renewable energy production by 1.2 Mtoe per year.

In 2003 a policy document titled *The Basic Questions of the Energy Policy* came out to provide long-term strategy for the Hungarian energy sector. The document contains a section on energy efficiency in Hungarian energy policy. Among its key suggestions for the new Hungarian state policy related to energy efficiency are to decouple energy use growth from the growth in GDP with the aim of having on the medium term primary energy grow at 0.3 the rate of growth of GDP and electricity grow at 0.5 the rate of growth of GDP. These recommendations are entirely consistent with the

main aim of EPI in the energy sector, namely of decoupling energy growth from economic growth and obtaining more service with less energy.

Evaluation

At present there are some weaknesses in this otherwise stable framework for the support of end-use energy efficiency.

First of all, there is no prioritization among the activities within the 10-year Energy Conservation and Energy Efficiency Improvement Action Program[1]. This may be a result of the absence of an official study on the technical, economic and market potentials for improving energy efficiency in the different end-use sectors[2] that may be used to construct cost curves for implementing energy efficiency measures in different sectors. One reason for this gap is the lack of systematic and detailed end-use data collection and reporting. Only primary and final intensities at national level, ***i.e.*** by end-use sector, are monitored. There is no disaggregated data of what is going on within sectors. Hence, while Hungary is a front-runner is providing support for energy efficiency both at supply and end-use, there is no regular survey on end-use consumption or on appliances and no interest what happens behind the consumers' meters (Molnár 2003).

There is no uniform methodology to monitor, **compare** and evaluate, based on statistical indicators, the results of different support programs for the improvement of energy efficiency. Because of these two – the lack of basic data and the lack of methodology to monitor and evaluate based on **statistical indicators** – the monitoring and evaluation that is undertaken currently is more descriptive. All these drawbacks make the design and allocations of financial support back-of-the-envelope exercise; hence it is unclear whether in order to promote energy efficiency taxpayers' money is allocated in (the most) cost-effective manner.

The existence of quantitative targets in the *Energy Conservation and Energy Efficiency Improvement Action Program* is a very positive feature. What would be even better is to have binding targets, rather than purely indicative ones, to have these numbers broken down on annual targets and on sectoral targets and have a rigorous monitoring on a year-by-year basis. This may help overcome the difficulty of monitoring the impact of EE programs on energy intensity (EI), and of separating these impacts from other factors, such as, for instance, price increases.

However, if the targets are taken seriously, comprehensive and stable financing frameworks need to operate and be implemented effectively; thereby the practice of cancelling the financing under the annual *National Energy Efficiency Program* with austerity measures cast doubts on the seriousness of energy efficiency action.

Finally, conducting consultations with stakeholders when setting the annual priorities for support under the National Energy Efficiency Program will improve the possibility of (potential) project developers and beneficiaries to provide feedback. Involving large industrial consumers' association, local governments, the block of flats housing association, big family association, pensioners association, consumers protection

[1] For instance, in the first two year of operation of the program funding for the state budget has been secured for seven actions.

[2] The latest study is from 1999 and it is considered rather outdated. A study of GKI-EGI from 1998 focuses only on the residential and industrial sectors and looks into two scenarios: one with retrofit type measures and another one with replacement strategies.

association and ESCOs, would ensure more dialogue and fine-tune the priorities for support with the real needs and potentials.

Renewable Energy Sources: current status and analysis

The background for the support of renewables is also based on the *Energy Conservation and Energy Efficiency Improvement Action Program*. The aim within this framework is to reach a share of renewable energy consumption of at 5-6% by 2010 from current 3.6 % of total energy consumption, or from 28 PJ/year to 50 PJ/year by 2010. In the electricity generation the share of renewables currently is not significant either, only about 0.8%.

The legislative framework to define renewables is set out in the *Act CX. of 2001 on Electricity*. RES development is encouraged mainly by two tools: investment support, and the existing renewable energy feed-in tariff (REFIT, see later).

In a recent document titled *Information on the state of domestic and international renewable energy consumption patterns and on the Hungarian responsibilities after the EU accession* (March 2004), the MET provides an overview of current RES utilization, spells out the main possibilities for increased utilization of renewables broken down by source, emphasizes also non-environmental benefits of RES deployment, makes estimates about the fiscal needs of action and, most importantly, outlines the most promising applications for each renewable source.

While this is an adequate approach to draft a comprehensive roadmap for the deployment of renewables, a few issues deserve special attention. First, it would have been better to integrate this information and guidelines in the strategic document *Basic Questions of the Energy Policy*, where RES are treated in a superficial way. Second, while it is positive to integrate an assessment of the most promising applications, this is done in mostly qualitative way, or where numbers do appear, it is not clear how they have been obtained. Last, but not least, this is only an initial step: RES need a comprehensive program, backed by action plans for the development of each source and a stable investment support scheme; in addition to be taken seriously quantitative RES targets need to be made binding and included in legislation.

Currently the investment support for RES is rather limited: out of the 15 actions of the *Energy Conservation and Energy Efficiency Improvement Action Program*, 3 deal with renewables directly. However, even before the current overall termination of the annual *National Energy Efficiency Program*, one of the RES related financing priorities fell victim to budget cuts.

Besides the direct investment support a renewable energy feed-in tariff system (REFIT) has been introduced. Although the main objective as stated in the Electricity Act is to create a comprehensive Green Certificate scheme, according to the act the government will define the start date of implementation and there are no indications as to when this should happen. REFIT is a reasonable start: once sufficient capacity has been built and after a period of consolidation, certificate trading could make sense. However a general weakness of the current REFIT system is that it does not differentiate between renewable sources contrary to international practices and concerns for different rates of return on different sources. Though the Electricity Act specifies a requirement that, because of the different rates of return, the measure and way of price-support should depend on each renewable source, the executive legislation related to green electricity

production – Decree 56/2002 GKM (28 December, 2002) on the obligatory purchases of green electricity – does not correspond with this[3].

Institutional background

The policy-making authority in the energy sector – the Energy Department at the *Ministry of Economy and Transport* (MET) – has a permanent staff of 18 and is subdivided into three divisions. The energy coordination division is in charge of policy integration. The human resource assigned to RES is limited to one employee. The *Hungarian Energy Office* (HEO) is the regulatory authority and is also responsible for consumer protection and promoting energy efficiency. Even though HEO has a department dealing with energy efficiency, it does not appear that energy efficiency is a high priority. The *Ministry of Environment and Water* (MoEW) has played an important role in shaping energy efficiency and RES policy. However, the integration of energy and environmental policy has proved difficult in practice due to the fact that environmental regulations are mainly related to emissions from energy conversion (ECS 2001). There are no special positions entirely dedicated to EE and RES within *MoE*W. The energy experts are within the Department for Air and Noise Pollution Control; the Environmental Policy and Strategy Division reviews relevant policy drafts and developments as far as they are connected to strategic decisions. Biomass, biodiesel and bioethanol belong to the competency areas of the *Ministry of Agriculture and Rural Development* (MARD) (Ürge-Vorsatz *et al.* 2003a). The *Ministry of Finance* is responsible for the pricing of energy and taxation.

The Energy Efficiency, Environmental Protection and Energy Information Agency (a.k.a. the *Energy Center*) is the implementation agency for energy efficiency policy. A positive sign from EPI perspective is that the Energy Center is owned jointly by MET (60 %), MoEW (25 %) and HEO (15 %). As part of its mandate the Center also evaluates the results of programs. It may not be very practical to have the implementing agency evaluate the results of what is largely its own work. Now an in-depth evaluation and analysis of all of the existing energy efficiency programs is planned. The intentions are to have an independent external evaluator. Since the mandate and activities of the Energy Center are mainly focusing on energy efficiency, their efforts in the field of renewables are mainly confined to the administration of some programmes aimed at the RE investment support; this leads to lack of RES-related research and coordination in support of policy-making in the RES field. Appropriate staffing is needed to make the Energy Centre a hub of RES-related activities in support of RES-policy making.

A very positive sign from EPI perspective is the existence of an *inter-ministerial committee* on energy efficiency that deals with the horizontal coordination of state policy. It is considered to be a strictly operational, rather than strategic, committee. It decides upon financial support of applications that have been first appraised by professional evaluators form the Energy Center. There is an inter-ministerial committee on RES strategy. In both cases an open stakeholder discussion forum is recommended. Finally there is an inter ministerial committee on flexible mechanisms under the Kyoto protocol (governmental Decision 2045/2003). A general concern with the latter is that the wide

[3] It seems that the REFIT scheme favors more natural gas based CHP: it provides them high investment security by indexation in the feed-in premium price related to natural gas price fluctuations.

scope of representation on the committee may impediment its work due to the limited understanding of climate change that some experts, specialized in other fields, possess.

Another positive development from EPI perspective is the involvement of *local authorities* in energy efficiency policy. Hungarian municipalities have been assigned clear energy-related tasks and have an excellent history of successful cooperation with energy service companies (ESCOs), unparalleled in any other country in the region. The Energy Center conducted energy management training for representatives of Hungarian municipalities, ranging from city mayors to facility managers under the UNDP/GEF Public Sector Energy Efficiency Program. The regional Directorates for Environmental Protection, the Chief Directorate for Environmental Protection and Nature Conservation, local governments and the county authorities are also actors in the permission process for RES deployment.

The general criticism of this institutional framework concerns the limited consultation with stakeholders outside the state administration. Perhaps the weakest component in the Hungarian stakeholder spectrum in the renewable energy field is related to economic actors. There are a number of professional associations that carry out research and promote development, however, there is no well-known association for businesses in the renewable energy field (Ürge-Vorsatz *et al.* 2003a)

Taxation and tax incentives for sustainable energy use

Sustainable energy use requires that market prices be corrected by taxes (or their equivalent) to reflect all external costs.

A new energy tax has been enforced from the 1st of January 2004 in accordance with the EU directive 2003/96/EC of 27 October 2003. The Hungarian energy tax is 40% higher than the minimum rates required by the EU[4]. Exempt from the tax are legal or natural persons who produce electricity for own consumption from **RES** or in **plants below 50 MW**. The revenue generated from the tax goes to the central budget and *is not earmarked* for support of sustainable energy development.

There is an excise tax on heating oil and on lubricant oil. Besides, fuel product charge applies to lubricant oil, heating oil with high sulphur content[5] and substandard heating oil [6] (Speck *et al.* 2001). The revenue from these charges goes to central budget but *is earmarked* for an environmental fund (Malý *et al.* 2002).

Currently there are no fiscal incentives for energy efficient goods and services and investments in energy efficiency. With regard to RES the only step that formerly was taken was the decreasing of the VAT rate of solar collectors and photovoltaic installations from 25 % to 12 %. However, it is expected that this tax reduction will be removed, so that solar collectors and photovoltaic installations will be taxed with the standard rate.

EPI in the energy sector: conclusions

[4] The exact rates are 186 HUF/MWh for electricity and 56 HUF/GJ for natural gas
[5] Classified as such if it contains more than 2.8 % of sulfur.
[6] That do not comply with Hungarian standards.

In this section we summarize the directions in which efforts need to be channeled to ensure sustainable energy policy. In practice in Hungary the integration of energy and environmental policies has been mainly related to emissions from energy conversion (SO_2, NO_x, CO, particles)[7]. This is a very positive development. However, beyond emissions from energy conversion, other aspects of sustainable energy development (such as end-use energy efficiency policy and renewable energy generation) are almost entirely left to the expertise of the energy-related state administration. Thus opportunities may be missed to integrate end-use energy efficiency policies that also have clear environmental (as well as economic, social and geopolitical) benefits within other sectors.

Overall the integration of sustainable energy policy into other sectoral policies, such as social, economic and fiscal policies, agricultural, industrial, transport, regional development, and urban planning policy regimes needs to be strengthened.

One overarching reason for the insufficient integration of energy efficiency policies into other sectoral policies may be that data collection and processing is mostly related to macro energy data (production, import-export, sectoral use), with no regular survey to provide **detailed data on consumption within each energy end-use sector**[8]. This leads to a situation where there is no **official assessment of technical, economic and market potentials in the different end-use sectors**. Consequently there is no clear **prioritization** (based on e.g. cost efficiency of the investments) of support for end-use energy efficiency improvement. **Monitoring and evaluations** should be made more systematic and the results of these should be fed into the energy policy making process, especially when deciding on apportioning financial support among sectors.

Other areas where environmentally beneficial measures related to energy efficiency are needed include energy efficiency provisions in **public procurement laws**, and **mandated energy audits** for consumers above a certain threshold.

The importance of RES is mentioned in policy documents, but there is neither a coherent **RES strategy**, nor a strong and clear policy, nor a **comprehensive, well-financed program/plan to harmonize the existing objectives**, nor a stable **REFIT scheme differentiated** according to a source and with fairly long-term guarantees for investors. Currently grants and funds given on the basis of application without a clear technology or market priorities (International Energy Agency 2003a). There is no agreed assessment of the RES potential in the country, e.g. no official wind map, no agreed biomass capacity assessment.

A positive development is the preparation of a RES strategy. It is important that the future RES strategy includes **quantitative targets** for each source, which will indicate **clear technology development priority**. Extensive **consultation** and involvement of industrial stakeholders (project developers, associations for the promotion of RES, NGOs) is highly recommended. Action should be **streamlined** to resolve legislative discrepancies plaguing different RES sources and in general to make the

[7] An example of such integration is the 1998 ministerial decree on air pollution limits for combustion units above 50 MW (22/1998 (VI.26)), which transposes the requirements of 88/609/EC standards on emission limits from large combustion plants. Hungary received derogation on this issue and the large combustion plants, including power plants, cement and sugar factories, will have to bring their technology in line with the EU emission limits by December 31, 2004. These standards are important from environmental perspective since they are likely to impact the energy mix and facilitate the development of natural gas in electricity production.

[8] The data is collected only by end-use sector and not by activities/processes within the sectors.

framework for the promotion of RES more consistent. Finally, it is important to **develop scenarios and quantify indicators** such as the employment opportunities from RES deployment, especially from biomass utilization[9].

It is recommended that clear **tax incentives** are adopted with regard to investments into energy efficiency and RES, such as reduced VAT on energy efficient goods and services, accelerated depreciation on equipment, partially offsetting investments in EE and RE technologies against taxable profit. In this the tax regime will not favour supply purchases vis-à-vis energy efficiency investments.

There is a need to **widen the scope of stakeholders** participating in the policy making process involving more actively ESCOs, NGOs, consumer associations, local authorities and last, but not least, distribution companies.

TRANSPORT

Policy realities

The objective of the transport policy is in accordance with economic policy, which prioritizes the development of poorer regions of Hungary. The transport sector is seen as the primary carrier of wealth and development – despite the lack of clear and sound predictions from economic theory that the improvement of transport infrastructure in peripheral regions fosters economic convergence to the core region[10]. In the meantime, the likely aggregate effects of transport policies (including the national motorway development program) on environmental issues, such as for instance GHG emissions, are not known (ECS 2001) but likely to be detrimental.

The official aim of the new Transport Policy (2003-2015)[11] is the creation of economically efficient, socially adequate, modern, and safe transport that poses minimum environmental burdens. Even though the document makes a reference to ensuring sustainable development of the sector, in practice it turns out to strongly support road and air transport instead of sustainable modes such as public transport and railways.

A proposal to the government has been prepared by the Innovation and Environment department of MET for an action program on environmentally friendly transport and transport infrastructure development in relation to the new Transport Policy. The action program contains 10 sub-programs, covering issues such as decreasing the urban environmental pollution of cities by preparing and implementing programs that use information technology, legal and financial instruments and local programs; ensuring that prices reflect better external costs (including environmental and health expenditure); preserving the share and improving the quality of public transport; modernization of vehicles by using technical, economic and legal instruments; ensuring that vehicles keep their emission and noise characteristics on the long run; reducing environmental damage

[9] After joining the EU a huge area of arable land in Hungary will be left without food crops due to production quota of classical food crops under CAP. Biomass can be a good choice to meet multiple policy goals related to employment, land use change and forestation.

[10] For example, the so-called bifurcation models predict the existence of multiple equilibria, whereby the improvement of transport infrastructure may lead to either economic convergence or divergence between periphery and core depending on other factors (such as the level of transport costs between the regions and the amount of change in these transport costs).

[11] It was already accepted by the Government, but the parliamentary approval is still pending.

of freight transport using technical, legal and financial instruments and stimulating transport modes with lower environmental damage; and reducing noise pollution in densely populated areas and protected areas. More specific measures are proposed under each of the 10 areas. The proposal was once returned for revision on financial grounds and its fate is currently unclear. Hence a concern is that the even the measures proposed – narrow in scope as they are – have not been approved and currently the attempt to introduce program that target also the transport demand and modal split is on hold.

There is a ministerial decree (12/2002 GM-KöViM-KöM) on fuel efficiency and CO_2 emission requirements for newly distributed cars. The decree makes it obligatory for dealers to indicate clearly for consumers – by labeling the cars and advertising on posters at the dealer point – the fuel consumption and carbon-dioxide emission data of the product based on the technical documentation. This data must be displayed on all advertisements (International Energy Agency 2003b).

Institutional background

The policy-making authority in the transport sector is within the *Ministry of Economy and Transport* (MET) with its Transport department and Innovation and Environment department. Another key actor is the *State Motorway Managing Company* that is also under the MET. There are several background institutes, the most important of which is the *Institute of Transport Sciences*. There is some work in progress on the environmental consequences of the transport policy. In the *Institute for Environmental Management* there is a department of air pollution control, but there is no specific expertise on transportation. Within *MoEW* there is no separate transport department. The department for Air and Noise Pollution Control provides opinion on transport-related issues. In the department there is only one expert who deals with environmental (air and noise) implications of transport developments. For issues outside the scope of air and noise consultations are requested from the department working on water and soil protection. Little inter-ministerial cooperation occurs over the issue of transport.

Environmentally unsound developments in the transport sector

Despite the recognition of emissions, noise, vibration, water, soil and landscape implications of transport development, it seems that insufficient attention has been given to these in relation to some major developments which support motorization and urban sprawl, and make the use of environmentally detrimental transport modes such as cars and road transport cheaper relative to environmentally friendlier modes. At the same time giving no proper support to public transport and railways as environmentally friendly transport modes makes them increasingly expensive relative to road transport.

Road construction is very high on the policy agenda in Hungary. Just in the last days of December 2003, the parliament accepted unanimously a law stipulating the construction of 636 km of motorway and expressway roads in the period 2005-2007

related to spending 150 billion HUF[12]. With road transport having highly adverse environmental impacts, such prioritization deserves closer inspection.

The Hungarian government developed the National Road Rehabilitation Program, part of which receives financing under ISPA[13]. The program involves road strengthening to raise the axle-load bearing capacity of main roads from 10 to 11.5 tons to meet EU norms (Council Directive 96/53/EC) and, according to Szabó (2003), will require 1200 million Euro investment. This service is needed by less than 1 % of all road users, *i.e.* the heaviest trucks and buses above 10 tons that have disproportionately high road-damaging properties and negative environmental impacts (Lukács 2003a). Hence, it is not a sound decision to finance it from (Hungarian and European) taxpayers' money.

The integration of transportation and land-use planning is a key factor in achieving sustainable urban travel patterns. Since the 90s in Hungary the proliferation of large out-of-town shopping malls, instead of redeveloping brownfield sites for business, was symptomatic of a failure to adequately integrate land-use and transportation planning (Kiss 2001).

A general criticism to the existing state support for housing (even after its two recent revisions) comes along similar lines: it gives preferential treatment to **greenfield** developments vis-à-vis the renovation of existing buildings. It allows for much reduced interest rate loans and higher loan limits for the construction of new houses than for purchase (and renovation) of existing ones. It also allows under certain conditions for tax rebates and VAT reclamation but only for new houses, as well as gives grants to young families again only for **new construction**. By all these incentives the current housing policy strongly encourages greenfield development and fosters urban sprawl, which makes public transport use more difficult and less efficient.

Taxes and subsidies in transport

Fuel taxes are one of the key energy-saving measures traditionally implemented in the transport sector. In Hungary the tax component (including both the excise and VAT) within motor fuel prices was 63.2 % in 1999, which is well in line with the average within the EU(Speck *et al.* 2001). Some vehicle taxes in Hungary do reflect environmental concerns. Sales tax is differentiated according to whether a car is equipped with catalytic converter and also according to engine capacity. Annual vehicle tax is based on the weight of the vehicle. Both engine capacity and weight may be considered as proxies for environmental impact (Speck *et al.* 2001).

There are no rebates or fiscal incentives based on fuel economy or the presence of particular advanced technologies for vehicles. These are strongly recommended as a way

[12] The promulgation is still pending. Environmental NGOs within Levegő Munkacsoport intend to challenge the law on constitutional grounds. The main concern against the motorway construction law is that it fails to satisfy a certain legislature specifying the structure and content of a proposal submitted for parliamentary approval. More specifically, the proposal did not contain a sound scientific justification of the measure. Despite of this shortcoming, the Parliament passed the law and this is not in harmony with the constitution, according to some lawyers. The Levegő Munkacsoport has sent a letter to the President asking him no to sign the law for this reason.

[13] The first phase of the program has already been approved for ISPA support: project 01/HU/16/P/PT/006).

to make more attractive vehicles with reduced environmental impacts. A recent decree (266/2003. (XII.24)) aims at promoting combined international freight transport by giving tax exemptions and tax allowances to those international freight transport vehicles, which utilise the rail or inland waterway legs of the combined freight transport route.

The plans to shift the reduced VAT rate of public transport to normal rate were abandoned; now VAT for public tranport will increase only from 12 to 15 %, *i.e.* public transport will be kept in the reduced VAT rate category.

Because of the high share of relatively old, fuel-inefficient cars, the profile of the vehicle fleet is problematic with regard to air pollution and fuel economy. So far to stimulate fleet renewal, a vehicle-scrapping program offering Ft 30 000 in public transport tickets has been set up as an incentive to retire old two-stroke Trabant cars from the fleet (this program resulted in the scrapping of 10 000 vehicles in 1993).

Some environmentally unsound taxation practices exist within the transport sector. First, diesel fuel is inefficiently less heavily taxed than gasoline: excise tax on diesel oil is much lower than on petrol, though economic and environmental considerations also reflected in the EU Common Transport Policy favor having the same tax levels for both types of fuels (Kiss 2002). Second, an often-criticised practice refers to the tax and customs breaks and exemptions given to car manufacturers; according to Lukács (2001) in 2000 foreign-owned car manufacturers in Hungary were granted customs duty allowances of HUF 20.5 billion , VAT allowances of 33.9 billion, and were exempted from paying HUF 23 billion in the form of corporate tax allowances[14]. Third, due to the fact that fuel prices in all of Hungary's neighbors (except for Austria) are lower than in Hungary, the negative phenomena of 'fuel tourism' occurs, whereby vehicles cross a border with the only or primary purpose of filling their tanks for their own use. The quantity of fuel brought into Hungary from neighboring countries in the tanks of vehicles equals about 30 % of the total consumption of the country and, according to estimates, generated losses for the Hungarian state of more than 180 billion HUF[15]. This practice while not illegal, constitutes a form of tax evasion, generates unnecessary traffic[16], uses the infrastructure and pollutes the environment (Lukács 2003b). This phenomena cannot be solved by the Hungarian state, but requires international policy co-ordination on minimum fuel tax rates (following the example of the EU minimum energy taxation).

Conclusion for transport policy

The discussion above reveals that while ensuring sustainable development of the transport sector is strongly emphasized in key policy documents related to transport, in practice the current and planned developments strongly support road and air transport instead of sustainable modes such as public transport and railways. In this way the

[14] While attempts to justify these practices may be made on the grounds of employment creation, Lukács (2001) notes that whereas the maximum available amount of subsidy put out in a tender by the MET to increase employment was 300,000 HUF in 1999, the level of tax subsidies per employee to create a job in a capital-intensive industry such as car manufacturing is 16 million HUF.

[15] This number includes normal traffic that occurs anyway, not only fuel tourism and smuggling (Lukacs 2003b)

[16] According to Lukacs (2003b) at several crossings on Hungary's border with Ukraine it is estimated by the Customs Office that 90 % of the traffic is due to fuel tourism and smuggling. For instance the proce of diesel in Ukraine is less than half of the price in Hungary.

existing initiatives – limited in scope as they are – are additionally watered down by environmentally unsustainable activities that are orders of magnitude larger. Besides, there is no or very limited effort to decouple economic development from the increase in transport activities.

Furthermore there is neither an inter-ministerial committee to facilitate the coordination and exchange of information between the different state actors with authority and expertise in transport, nor an institutionalized regular forum that will ensure public participation in the process of policy making in the sector.

Below we suggest directions in which serious efforts and commitment is needed to ensure environmental policy integration within the transport sector.

Overall Conclusions

A systematic process of policy transfer since the transition from socialism has had a profound impact on the environmental policies of Hungary, not only in the formal and legally mandated process of transposing EU law, but in focusing the attention of decision makers and civil society on environmental and sustainable development issues. However, the concept of environmental policy integration has not yet been adequately operationalised in the country, and the typical bureaucratic and cultural resistances to "external", in this case environmental, interference in sectoral policy making and priority setting are in evidence in both the energy and transport sectors, though to a different degree. While environmental concerns are taken seriously in energy policy, sustainable development is far from being a central goal of policy making in this sector. In the transport sector environmental issues are marginal at best.

One of the greatest challenges for Hungary is to achieve a greater degree of policy coherence across sectors. The government has not yet committed itself to producing a national development plan that is fully consistent with sustainable development. Consequently, there is no overarching framework for integrating environmental concerns and policies into the various sectors. Rather, EPI is a relatively piecemeal process, sometimes driven by EU directives, at other times left to policy entrepreneurs at the national level who then have to content with the resistance to policy change typically found in entrenched policy communities.

In addition to the lack of political will that would raise the status of EPI on the policy agenda, institutional factors play an important role in limiting the scope of integration to this point. In the area of horizontal integration, ministries do not cooperate effectively with each other as a general rule. Although interministerial committees often do exist, they are easily marginalised by higher levels of decision making, which are still ruled by traditional political and economic interests. Interministerial committees are often established to meet formal legal requirements, but are deliberately disempowered and shut out of decision making.

Additionally, vertical integration also suffers from serious deficiencies at the institutional level. Within ministries, environmental departments are typically isolated and their influence is limited by the traditional economic interests of the sectors. While

they may be competent at producing reports and analysis, there are few legal mandates to follow their prescriptions. Moreover, in most cases when ministries produce development programmes, their various environmental departments do not take part in the programme formulation, but rather are usually asked to provide comments after the programmes have already been drafted.

Finally, one of the biggest specific problems in the area of policy incoherence is the continuing inconsistencies among economic instruments across and within sectors. Environmentally perverse subsidies are still being provided to environmentally less desirable forms of energy development and transport, and the same is true in other sectors such as agriculture and industry. Neither has the government produced a coherent set of fiscal policies that would efficiently provide the greatest environmental benefits in the various sectors.

On its present course, Hungary can be expected to make gradual improvements in its environmental performance and in achieving a greater degree of environmental policy integration. However, in order to achieve a substantial degree of environmental improvement and a deep level of EPI, a significant effort must be made at both political and policy levels. The first step—putting EPI front and center in Hungary's development process—requires high level political support that does not exist at this time.

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