Legal aspects of encouraging and enforcing eco-friendly behavior in the transport sector

E N Trikoz¹,², D M Osina¹, V M Malinovskaya¹

¹Moscow State Institute of International Relations (MGIMO University), Moscow, Russia
²Peoples’ Friendship University of Russia (RUDN University), Moscow, Russia

E-mail: alena_trikoz@mail.ru

Abstract. It is difficult to overestimate the importance of environmental protection at the present time. Each country takes all possible measures to protect the environment, minimize the sources of its pollution, and encourage eco-friendly behavior of organizations and individuals on its territory. At the same time, one of the main sources of pollution is the transport sector. The paper was prepared using both general scientific and special legal methods and is devoted to the analysis of legal measures applied by different countries to encourage eco-friendly behavior in this area. The research is based on extensive scientific and regulatory material. As a result of the research, it was concluded that at present, in addition to existing measures of legal liability for environmental damage, countries are widely implementing various mechanisms to encourage eco-friendly behavior, including both tax and non-tax measures, which are increasingly proving their reasonableness and effectiveness. The paper considers the experience of Russia, the United States, the European Union as a whole and some of its member states (Italy, Spain, France, Belgium, Sweden), and Japan, including their measures to promote “environmentally friendly” vehicles on the market and encourage energy savings. Based on the conducted research, the necessity of step-by-step harmonization of Russian legislation with international requirements in the field of transport ecology is justified.

1. Introduction

In the twenty-first century, the environmental needs of society and the demands for an environmentally friendly approach approach are becoming an integral part of the successful and sustainable economic growth of the transport sector around the world. Modern states have two main ways to achieve eco-friendly behavior of legal entities, companies and enterprises in the transport sector: through coercion or using encouraging measures. Coercion as a method of influence is used in many countries and is expressed, first of all, in legal liability for harmful effects on the environment. A notable example is a criminal case in the United States against Volkswagen and its officials on fraud with air pollution control systems [1].

Today, the issue of searching for new, more effective legal and economic measures to stimulate eco-friendly behaviour of transport enterprises and other key players in the transport infrastructure of the Russian Federation is on the agenda. This means minimizing the harmful impact on nature, voluntarily restoring environmental losses, reducing the energy intensity of transport and emissions from it, using environmentally friendly fuels, etc. There is an acute problem of standards of eco-friendly behavior both in the design, construction, reconstruction, and in the operation of infrastructure facilities for road, rail and inland water transport.
As stated in the “Transport strategy of the Russian Federation for the period up to 2030”, the most important goal is to improve the legal framework regulating the harmful impact of transport on the environment and human health, including in terms of determining the conditions for companies’ admission to perform transport activities. Issues of environmental and technological safety of transport infrastructure facilities and vehicles are subject to more detailed state regulation in the Russian Federation. In the near future, it is planned to switch to the high European standards of car engine toxicity (environmental standard “Euro-6”). In the context of increasing negative trends in the field of transport ecology in the Russian Federation, the greening of the tax system and the adaptation of the world experience in promoting ‘green policy’ in the transport sector are of great importance.

2. Methodology
The norms of transport environmental law established in international legal acts, Russian and foreign legislation, and judicial practice were systematically interpreted. Russian technical norms and standards for environmental protection in transport sector, which were introduced by state regulations (standards) in accordance with Federal Law No 184-FZ of 27.12.2002 “On technical regulation”, were also analyzed. The theoretical basis of the research is the works of both domestic and foreign scholars, which are devoted to the issues of ‘greening’ the tax system and designing economic tools for solving environmental and transport problems.

3. Results
In the Russian Federation, the presumption of environmental hazard of planned transport activities applies, which follows from the provisions of Federal Law No 7-FZ of 10.01.2002 “On environmental protection”. Article 45 of this law establishes the obligation of legal entities and individuals operating motor vehicles to comply with the standards for permissible emissions of substances, as well as to take measures to neutralize pollutants, reduce noise and other negative impacts. While producing and operating vehicles, certain actions must be taken to comply with the standards of permissible physical impacts on the environment (article 55 of Law No 7-FZ).

The Town-planning code of the Russian Federation No 190-FZ of 29.12.2004 provides for the placement of transport facilities only upon getting a special permission, including cases where the established environmental requirements are met. Federal Law No 96-FZ of 04.05.1999 “On the protection of atmospheric air” and state standards for motor transport introduced requirements for the level of toxicity of internal combustion engines, which together account for up to 80% of all harmful emissions into the atmosphere of Russian cities.

The legal means of protecting the environment and ensuring effective use of natural resources are mainly administrative and partly criminal liability for environmental violations. Thus, if while collecting, storing, transporting, processing, recycling or neutralizing production and consumption waste, situation of non-compliance with environmental requirements takes place, administrative fine of up to 250 thousand rubles, or even administrative suspension of the activities of the infringing enterprise for up to 90 days (part 1, article 8.2 of the Code of administrative offences of the Russian Federation) is imposed. Managers of an enterprise/organization or other individuals found guilty of ecocide (mass destruction of plant or animal life, poisoning of the atmosphere or water resources, or other actions capable of causing an environmental disaster) are subject to imprisonment for a term of 12 to 20 years (article 358 of the Criminal Code of the Russian Federation) [2]. Moreover, in accordance with article 61 of the Civil code of the Russian Federation, it is possible to forcibly liquidate a legal entity in case of gross violation of the law. This wording allows us to agree with the opinion of L. I. Broslavsky that the application of such a sanction is possible for gross violations in any sphere, including environmental one [3].

In the Russian Federation, only three decades ago, a single transport tax was introduced, which, in contrast to the previous numerous fees, already contains an environmental component. The introduction of chapter 28 of the Tax code of the Russian Federation “Transport tax” significantly simplified tax administration. But until now, the calculation of transport tax in our country does not
correspond to world trends, since it is considered as a property tax and does not have a regulatory function related to environmental protection [4]. Only in the second decade of the twenty-first century the ecological orientation of excise taxes on fuel has become fixed, and they have begun to differ in classes that characterize the environmental safety of gasoline.

In the European Union, the environmental protection function is performed by the annually updated the EU's Environmental action program to 2020 and a series of directives. For example, the Directive “On legal liability in the field of environmental protection” of 2004 [5] includes provisions on the processing and destruction of industrial waste from the extractive industry (Directive 2006/21/EC) and on resources containing hydrocarbon compounds of minerals (Directive 2009/31/EC). This act regulates the process of compensation for pure ecological damage, while compensation for damage from environmental violations caused to the life and health of people, property of individuals or legal entities, remains the prerogative of the national legislator in the member countries of the EU.

Thus, the Italian national Parliament adopted the corresponding Law of 2006 (D. Lgs n. 152/2006) for further development and implementation of the general ‘environmental’ Directive of the EU, which repealed the previous Law of 1997 (D. Lgs n. 22/1997), and in France the Law of 2008 was adopted “On prevention and compensation of environmental harm” 01.08.2008 (Law 2008-757) [6]. At the same time, the European Parliament, guided by the idea of a common EU approach towards enforcement measures for achieving eco-friendly behavior, has developed and adopted in 2008 a new EU Directive “On the protection of the environment through criminal law” aimed at strengthening legal liability for environmental offenses [7]. Finally, the EU has adopted high standards for the operation of vehicles and transport infrastructure facilities. In particular, there are strict quotas for greenhouse gas emissions from aircraft operation, as well as a direct ban on the use of automobile fuel below the “Euro-5” class, etc.

Many states effectively combine both coercive and encouraging measures in the economic sphere [8]. The result of a comparative study of the economic and legal policies of a number of countries aimed at promoting the ‘green transport system’ has shown that the greatest demand is not so much for legal enforcement measures, but for more lenient tools to encourage eco-friendly behavior, including both tax and non-tax mechanisms.

1.1. In many countries, legal incentives and tax benefits are actively employed to encourage production and operation of ‘friendly-to-the-environment’ vehicles. Assigning environmental labels to cars based on their share of environmental pollution is used by the state for fiscal purposes, to promote ‘ecologically friendly’ cars on the market, and to encourage energy savings.

The experience of Sweden is interesting, where a private owner receives a subsidy of over a thousand euros for registering an ‘ecologically friendly’ car. Japanese legislation provides for significant benefits on transport and consumption taxes depending on several characteristics of vehicles (related to the level of harmful emissions and fuel consumption). In the United States (California), the ‘environmental characteristics’ of a car must be placed on its board in the form of a plate with an assessment on a ten-point scale of its contribution to the formation of smog and greenhouse gases [9].

Russia also has a significant number of tax benefits that encourage ‘green’ and/or ‘ecologically friendly’ behavior. For example, the social tax deduction for personal income tax applies to income transferred to non-profit organizations that carry out activities in the field of environmental protection and animal protection (sub-item 1 of item 1 of article 219 of the Tax code of the Russian Federation). Also, when determining the tax base for income tax, funds received within the framework of targeted financing are not taken into account, including grants for implementation of specific programs in the field of environmental protection and health (sub-item 14, item 1 of article 251 of the Tax Code of the Russian Federation).

1.2. There is an economic incentive for activities in Russia in the field of waste management, which is produced by transport infrastructure and related economic activities. This is possible by reducing the amount of payment for the negative impact on the environment for sole proprietors and legal entities applying technologies that reduce the amount of waste. Accelerated depreciation of fixed
assets associated with the implementation of activities in the field of waste management is applied (article 24 of the Federal Law of 24.06.1998 No 89-FZ “On production and consumption waste”).

1.3. The use of vehicles powered by internal-combustion engines significantly pollutes the environment. According to the statistics of the Center for traffic management of the Government of Moscow, about 3.5 million cars are on the roads of the capital every day. So, the Moscow authorities, according to item 2.4 of Decree of the Government of Moscow of 17.05.2013 No 289-PP “On the organization of paid city parking in Moscow”, for ecological reasons and in order to reduce traffic congestion, have allowed free parking for electric vehicles and cars operating in the carsharing system. As a result, the need to pay for parking in all other leads to the fact that more and more people give up their transport at all, preferring carsharing, or at least buy electric cars. A similar approach with some local features is used in many EU countries (for example, in Italy and Spain). In India, the authorities are trying to encourage the abandonment of personal transport by improving public transport: the most interesting is the experience of Ahmedabad, where they introduced Bus Rapid Transit – a new public transport system, thanks to which they managed to significantly reduce air pollution [10].

1.4. In order to reduce sources of environmental pollution, the state provides for tax benefits to persons using vehicles equipped with an electric motor. In accordance with Chapter 28 of the Tax Code of the Russian Federation, all vehicles are generally subject to transport tax. Due to the fact that the transport tax in Russia is regional, the laws of the subjects may provide for tax benefits. The data from Table 1 shows that many regions of the Russian Federation have exempted persons using electric vehicles from transport tax, while some other regions have provided a preferential, two-fold reduced tax rate.

Table 1. Regional tax benefits for electric vehicles in the Russian Federation [11].

| Sub-para of Para 1 of Article 4 of the Law of Moscow No 33 09.07.2008 | Para 8 of Part 1 of Article 3 of Law of the Amur region No 142-oz 18.11.2002 | Part 2 of Article 1 of the Law of the Belgorod region from No 54 28.11.2002 | Para 5 of Part 1 of Article 5 of the Law of the Irkutsk region from No 53-oz 04.07.2007 | Sub-para 9 of Para 1 of Article 5 of the Kaluga region Law No 156-oz 26.11.2002 | Para 6.19 of Article 6 of the Law of the Kemerovo region No 95-oz 28.11.2002 |
|---|---|---|---|---|---|
| Reduced rate for electric transport | Sakhalin Oblast | Kabardino-Balkarian Republic |

In the United States, personal income tax and corporate income tax credits are available to encourage the purchase of electric cars. For example, if an electric vehicle is purchased, the taxpayer can reduce the amount of tax payable by $ 2500 – $ 5000 (26 US Code, § 30D). In the EU countries, among other state benefits, there are special purchase grants available for electric car owners. In France, the owner of a new electric car, who has disposed of his old diesel car, is entitled to a bonus from the state under this program in the amount of up to 11 thousand euros [12]. In Belgium, the vehicle registration tax for electric cars is significantly reduced (in Wallonia) or even completely abolished (in Flanders) [13].

4. Discussion

As the research has shown, the impact of exclusively legal enforcement methods does not always bring significant and sustainable results for the environment. And sometimes they clearly show the absence of a preventive effect of such measures as tougher sanctions for environmental offenses [14-15].

The issue of developing harmonized approaches and methods for assessing the environmental cleanliness of vehicles is widely discussed. The system of ranking environmental and economic...
indicators in the transport sector, the distribution of economic incentives and the greening of taxes remains controversial. The tax benefits and incentives for people using electric vehicles described above contribute to increasing demand for electric vehicles in Russia (according to the Russian analytical agency “Autostat” data for 2019). But their share in the total mass of vehicles still does not exceed a meager 1%. This is due not only to the high cost of electric vehicles, but also to the lack of infrastructure for servicing them. Despite this, one cannot underestimate the importance of measures taken in the Russian Federation for the development and popularization of the use of electric vehicles, which makes an undeniable contribution to protecting the environment from exhaust gases.

For comparison, the share of electric cars in the European Union also does not exceed 2%, but in recent years, there has been a positive trend to increase their number. Although the price of an electric car in Europe is on average 40% higher than that of a car powered by an internal combustion engine, the difference in price can be completely offset by benefits from the state and lower car maintenance costs over the four years of operation of the electric car [16]. In total, about 800 000 electric cars are used in the EU and the US, while China remains the leader in vehicle electrification, with more than 1 million electric cars in operation. [13].

As one of the priorities of the state policy, the gradual harmonization of Russian legislation in the field of transport ecology with international requirements and standards is announced. Thus, as a member of the United Nations Economic Commission for Europe (UNECE), Russia needs to adapt and apply regulatory ecological requirements for vehicles (a total of 57 agreements and conventions developed within the framework of the UNECE, and the UN Global technical regulations) [17].

The technical regulation “On requirements for emissions of harmful (polluting) substances by motor vehicles put into circulation on the territory of the Russian Federation” of 12.10.2005 No 609 had a number of significant drawbacks, so manufacturers and importers really looked forward to further amendments of this regulation, and it was completely canceled in 2015. The UNECE has introduced new requirements for transport ecology, which should be reflected in the Russian regulations. The technical regulation of the Customs Union “On the safety of wheeled vehicles”, approved in 2015, does not fully meet them (approved by decision of the CU Commission No 877 dated 09.12.2011). In particular, the definition of ‘environmental class’ needs to be refined.

In Russia, the communication among car manufacturers, government agencies and other persons involved, including technical service providers, is poorly developed. It is ‘transport lobby’ (still poorly represented in Russia) that should be able to suggest technical scenarios and solutions to legal conflicts, including categorization of manufactured vehicles [18].

The legal and economic nature of the transport tax, which belongs to property taxes in Russia, as well as its rates being dependent on horsepower, remain a debated issue. In Russian practice, there is no direct link between the tax base and the indicators of the object’s impact on the environment. However, this is partially compensated by the right of Russian regions to differentiate the tax depending on the environmental class of the vehicle. There are fair proposals to let transport tax finally be one of the environmental taxes. In this case, transport and fuel taxes will be a special tool for influencing the behavior of taxpayers, encouraging them to refuse to purchase non-ecological transport or choose a vehicle of a higher environmental class [19].

5. Conclusion

Based on the conducted research, it can be concluded that at present, in addition to existing measures of legal liability for environmental damage, states implement various mechanisms to encourage environmentally friendly behavior, both of tax and non-tax origin, which already turn out to be very reasonable and effective. In the transport sector, these measures are primarily aimed at promoting ‘environmentally friendly’ vehicles at the market and encouraging energy savings. At the same time, it is necessary to further develop scientific, practical and legal support for the purposes of reducing the harmful impact of transport on the environment in the Russian Federation. It is necessary to carefully study the latest technological models which may potentially be used for switching vehicles to
environmentally friendly fuels. The problem of scientific and expert justification of indicators and criteria for assessing the environmental friendliness of transport also remains on the agenda.

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