



The Costs and Financing Options of Ecodriving Training Programmes for Truck Drivers

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Introduction

Ecodriving is generally portrayed as a cost-effective action for less fuel use and CO₂ emissions. This means that the initial investment into training and/or technology pays back quickly via fuel cost and maintenance savings and via public benefits like road safety and climate mitigation. Nevertheless, how much these measures cost and how they can be funded remain critical questions for project- and fleet managers or for self-employed truck drivers.

This briefing paper looks into the following questions:

- What are the main cost elements for ecodriving training programmes?
- What factors influences the magnitude of these costs?
- Who should/can pay?
- What instruments are available to different types of actors?

This document addresses these four questions in order to facilitate the process of identifying the best suited financial mechanisms for financing ecodriving training. Different arrangements may be suitable in different cases, or even in a single case. Also, this document does not report on the exact volume of each cost element, as these will greatly vary across countries depending on a variety of factors, the most important of which will be mentioned in the next chapters.



Figure 1 Training of Trainers in Myanmar, GIZ 2017

The costs of training truck drivers

Table 1 describes relevant cost & revenue aspects of ecodriving. Note that the listed items are borne by different stakeholders. While a training fee is a cost for companies, it is a revenue for driving schools.

Table 1 Cost elements of ecodriving training

Cost item	Description
Training fees	<p>Training fees relate to payments made to the training entity in exchange for the provision of the training services. External training service providers charge their training fees to their clients (e.g. drivers or their employers). Training fees may already include other direct costs, such as training personnel or materials and equipment. For instance, a training provider may offer its services in its premises, but the client needs to provide vehicle(s). The more equipment is provided by the client, the fewer the costs borne by the training entity, and thus the lower the training fee should be.</p> <p>Large fleet operators with own in-house training programmes don't face training fees, but still bear the costs of the training staff, materials and equipment that would have otherwise be provided by the training entity. Nonetheless they save money.</p>
Equipment costs	<p>Ecodriving training requires various equipment which cost money:</p> <ul style="list-style-type: none"> ▪ Classrooms for training ▪ Training materials ▪ Practice yard for on-road training ▪ Truck(s) for on-road training ▪ Fuel ▪ Telematic devices or other ICT tools to assist drivers ▪ Driving simulators <p>Each can be provided by the training service provider or by the training client</p>
Administrative costs	<p>"The costs for enterprises to maintain an administration on training of staff, including registration, reporting and monitoring of training followed by staff" (Panteia 2014, 182).</p>
Certification of training centres and quality control	<p>The certification of training centres and quality control of training measures falls under the responsibility of public authorities. The largest share of the costs within this item are concentrated in personnel costs. For instance, the Dutch government employs 8 agents tasked with monitoring approximately 900 training centres (Panteia 2014).</p>
Enforcement actions	<p>Enforcement actions relate to the efforts by public authorities to check that professional drivers possess valid certificate (this will be necessary in cases where ecodriving training has been made compulsory by law). However, these actions do not represent additional costs to public authorities as they can be integrated in the routine enforcement of transit rules (e.g. checking drivers' licences, vehicle requirements, etc.)</p>
Opportunity costs	<p>If the training is conducted during working hours, the company or driver needs to account for the revenue that could have been made when working. If the training is conducted outside of working hours, the driver needs to account for the value of lost leisure time.</p>
Increase in labour costs	<p>As ecodriving training improves the performance of drivers, they may in turn expect a higher salary. In addition, companies may follow-up training with financial rewards for drivers who consistently drive better. The extra cost for better performances can be compensated by fuel savings, lower maintenance costs, fewer fines and accidents and thus in significant cost reductions.</p>

Factors influencing training costs

The following aspects may substantially influence the cost scale of a training programme:

- **Number of drivers:** Whether it's a national or local qualification program or just an optional offer for individual drivers within a company, the total cost correlate with how many drivers sign-up or must participate in the training initiative.
- **Training duration:** the longer a training the more costly it is. However, there is a positive correlation between duration and effectiveness
- **Periodicity:** Is the training a one-time effort or provided continuously, e.g. through additional regular refreshment courses?
- **Training format:**
 - **Classroom and/or practical training:** Not all training formats involve these two components. Especially, periodic training can involve only refreshment of the theory of ecodriving or practical test with a qualified instructor. Just classroom is cheaper than the combination with on-road sessions **but probably also less effective in terms of behaviour change**
 - **E-learning:** e-learning is cheap due to its limited personnel costs. However, their effectiveness is probably lower than proper classroom and practical training
 - **Simulators:** some trainings involve the use of driving simulators instead of on-road practice, which need to be purchased and have certain operational costs but save on-road training cost
- **Training resources:** Which equipment and/or experts are available in-company or need to be hired externally?

The Fleet Environmental Action and Assessment (FLEAT) programme of the European Commission for the reduction of energy consumption and CO₂ emissions of fleets underlines the importance of training all drivers in a fleet on ecodriving: “we estimate the costs of this type of measure to be between **€ 300 and € 1.000 per driver**. This is including the trainer and loss of man hours, and is independent from the type of vehicle. Because of the higher yearly mileage and the higher fuel consumption, the possible profits are higher for busses and trucks than for passenger cars and small vans. In addition, the largest effect in terms of relative reduction was seen with trucks (-9,4%) (...) From these numbers we can conclude that the payback period is shortest for trucks (1,3 to 4,3 months), and longest for light duty vehicles (1,6 to 5,2 years)” (FLEAT n.a., 5).

Who needs to pay for the training?

Generally, different actors could assume a financial role of ecodriving training as shown in the below figure.



Generally, cost borne by individual drivers should be kept at a minimum in order to maximise their participation rate in training programs: “Regardless of how driver training opportunities are made manifest, they should seek to obtain maximum public participation and, as such, should be offered at no cost to individuals. Regardless of the cost savings eco-drivers will gain over time, there will be considerable reluctance to participate in training if an upfront fee is required for attendance. This means that **training sessions will have to be subsidized either by the public or private sector, or a combination of the two**” (Barkenbus 2010, 767).

Fleet operators and drivers

Some countries’ labour market regulation mandate that employers must contribute to furthering the professional skills of their employees. Fleet operators assume some or all training costs for their drivers. But even without regulation, fleet operators in developed countries often support their drivers’ further qualification as a means of professional development. By supporting advanced driving skills, fleet operators can increase the drivers’ job satisfaction and thus keep them happy in the company, which is important especially in countries with trucker shortages. The fleet operator can also reap the economic benefits from improved fuel efficiency, less accidents, lower maintenance costs and fewer fines.

In the US trucking industry, employer reimbursement programs are common. How it works is: the future employer pays for a driver's training cost in exchange for an employment contract. Generally, these contracts require a commitment 1-2 years of employment in exchange for the full tuition.

A cost-saving solution for companies to train their driver is to train one of their drivers to join a training-for trainer programme. For example, the **UK's Road Haulage Association** offers a 2-Day Driver Development to all company drivers. The objective of the training is to train a company's driver to become an instructor, who will be able to create initial and ongoing training programmes for fellow employees within the fleet operator. The training conveys the necessary knowledge for the trainer to conduct training on improving fuel efficiency, reducing accidental damage, among others. The training is offered at a price of approx. 1400 EUR for members and 1500 EUR for non-members.

Truck manufacturers

In some cases, the truck manufacturers offer training as a part of the service package when selling new trucks to a customer.

Though how about the large number of truck drivers who are not company-drivers but are self-employed "owner-drivers"? The option of employer-funded training doesn't exist for them, so they either need to cover the training cost themselves (plus the opportunity cost of lost driving time) – which is unlikely happen – or utilise dedicated public grant programmes where available.

The role of governments

Governments are well advised to invest in ecodriving training for several reasons. Not only public safety and environmental concerns are of clear importance. Governments can intervene to correct market imperfections resulting from different resource endowments (e.g. financial constraints) of fleet operators and drivers. In such contexts, government intervention can help create a level-playing field between the market actors and ensure widespread adoption of training measures.

A World Bank Study on Logistic Skills (MCKinnon 2018) distinguishes between direct and indirect financial support for training initiatives:

- **“Direct:** This involves investment in government-controlled training programs. A government can either run them itself or outsource them to specialized agencies.” One example for this type of financial support is Austria's Klimaaktiv Programme: Under the programme, sponsored by Austria's Federal Ministry of Sustainability and Tourism, an ecodriving training scheme for all types of road transport has been developed in cooperation with the country's national organization of driving schools. Under this arrangement, training formats on ecodriving are made available for fleet operators. Up to 12 persons can participate in a training. The duration of the training is 8 hours. Training costs are approx. 200 EUR per participant. Another example is the UK government's SAFED program, which has trained more than 10,000 truck and van drivers in safe and fuel efficient driving techniques.
- **“Indirect:** With this type of support, governments incentivize other organizations to increase the level of logistics skill/competence. This raises several issues:

- (i) Which organizations should be eligible? A narrow definition of logistics would confine financial support to organizations whose main activity is freight transport, warehousing, materials handling, etc., although this would exclude the producers, wholesalers and retailers that undertake logistical tasks on an in-house and ancillary basis [...] Financial support can also be channelled through training providers such as colleges or professional institutes [...] The South African Ministry of Labor established the Transport Education and Training Authority (TETA), which is responsible for education, training and skills development in the transport sector. [...] Companies pay a small premium on salary taxes for education and training. If they send their employees to TETA/SETA training courses, they can receive reimbursements for the extra tax payments. These employers are financially incentivized to train their workforces.” In the Dutch Het_neut scheme, public funding was provided for training courses in companies if they were provided by certified ecodriving instructors. In the UK, ecodriving training suppliers can claim a subsidy of £25 per person trained, provided that the training that meets the requirements by the public Energy Saving Trust.
- (ii) “What type of financial support should be provided? A standard range of fiscal incentives could be deployed, including:
 - a. Per capita allowance for each person receiving training, possibly graduated by skill level
 - b. Tax rebates for corporate expenditure on training/skills development
 - c. Block grants for setting up training units/businesses
- (iii) How can governments ensure that the money is used appropriately? In countries where corruption is rife, there is a danger that much of the money allocated for logistics training will be misappropriated. The risk of this happening in the logistics sector is probably greater than in others because of the relatively high levels of illegality in the trucking industry. There can be tighter monitoring of training programs in which the public funds are paid to training providers and where it is linked to an institutionally-recognized examination and certification system.”

Training subsidies are also available in Germany via the so called De-minimis funding programme: This programme provides fleet operators with non-reimbursable grants that fund up to 80% of the costs of measures intended to increase the freight sector’s safety and environmental record, including ecodriving training for truck drivers. Training measures for employees are promoted in the form of courses, seminars and training courses with a minimum duration of 4 hours. Online courses are not eligible for funding. The companies eligible for funding are those which, at the time of applying, are verifiably engaged in commercial road haulage of goods and / or general carriage of goods and, as of the date of application, have owned or possessed at least one approved heavy-goods vehicle.

In addition to direct and indirect financial support, governments can promote investment in driver training via the following instruments (Mc Kinnon et al 2017):

- Public procurement: Include levels of skill development and staff training as a selection criterion in the award of contracts to logistics providers
- Training of drivers working for government authorities and state-owned enterprises (e.g. postal services or port authorities)
- Government-sponsored multi-stakeholder collaborative initiative: In the UK, for example, the national government established a sector skills council specifically for logistics convening companies, labour unions and professional bodies. Singapore, Dubai and Saudi Arabia have all organized professional logistics conferences on training, certification and recruitment that assembled all the main stakeholders
- Raising awareness about the crucial role of logistics skills and training: Government departments and agencies can be a useful source of information and promotional activity in the field of logistics. They already perform this role in many countries with regard to topics such as safety, energy efficiency and environmental sustainability.
- Governments could mandate logistics companies to give employees a certain number of training hours per year.

Truck driver / road freight associations

National road freight or trucker associations can provide, among their various services offered to their members, ecodriving training schemes. Sometimes, these training measures are made available also to non-members at a higher price. These organizations can offer ecodriving training at (sometimes drastically) reduced costs relative to other training providers, as they use the collective resources provided by their members (i.e. through membership fees) to finance their services.

For example, the UK's Road Haulage Association offers Periodic eco-driving training for drivers. The course is conducted both in-cab and in a classroom and aims to improve the driving performance of the driver. The training is conducted off the job and with a vehicle provided by the fleet operator, which will help reduce equipment costs. The training is offered at a price of approx. 575 EUR for members and 650 EUR for non-members.

How can government mobilise training funds?

Efficient logistics are central to economic development and social welfare, so it appears straightforward to justify government investment in efforts to raise skill levels in the road freight transport sector. The subsidies can be funded through either dedicated taxes and fees (e.g. fuel and vehicles taxes) in line with the “transport pays for transport” approach, or through general tax revenues. Governments can also raise training levies on companies to raise resources which will then be directed to funding training measures. There are three main types of levy collection and distribution (European Training Foundation 2018):

- **Levy reimbursement:** “Enterprises pay the levy and can be reimbursed for training costs, up to the total of their contribution, or a part thereof. Reimbursement levels can

also be differentiated by type of training and/or target group. The key feature is that the levy is collected and distributed on the basis of completed training, after the costs have been incurred”.

- **Levy grant:** “Enterprises pay the levy but can receive funding for training on the basis of pre-planned activities. As with the first model, grants can be less than, equal to, or more than the enterprise levy payment, but they are provided in advance of the training”.
- **Levy exemption:** “In the ‘train or pay’ model, enterprises can avoid paying the levy if they commit to verifiable expenditure on approved training and associated costs. Those which do not spend the required amount pay the difference as their levy. Enterprises may also be able to claim excess expenditure from levy monies collected” .

Similar to levies, governments can establish a training fund through a tax on freight companies (e.g. 1% of the yearly turnover in France) to finance training activities. The cost of the training measures is borne by the fund, and in some cases it can even go further by additionally compensating the company/owner-driver for the losses (e.g. lost profits, wages) incurred during the training period (e.g. in Morocco).



Figure 2 Classroom training of driver trainers in Myanmar, GIZ 2017

Further readings

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