

## Summary “Pricing all bags”

An exploratory study: Can the ban on plastic shopping bags be extended to bags made of any material?

Spurred by the European Parliament’s intention to drastically reduce the use of plastic bags across Europe (EU Directive 2015/720), on January 1st, 2016 a ban on free issue of such bags by retailers came into force in the Netherlands (*Regeling beheer verpakkingen*; IENM/BSK-2015/242582). The aim over the next 10 years is to cut the number of free plastic bags to a maximum of 40 per person per year, thus to reduce litter and resource waste.

CE Delft was asked to analyse whether it is desirable and, if so, feasible to implement a ban in the Netherlands on the free issue of shopping bags made of any type of material.

The study shows that the ban on free issue of plastic bags leads to a decrease in the number of plastic bags used and greater use of paper bags. Initial market indications are that the number of plastic shopping bags issued has already dropped considerably as a result of the ban, by between 50 and 95% (average, around 60%). There are also signals from the market that the ban on free issue of plastic bags has led to increased use of bags made of other materials, including paper. Although this increase is lower than the reduction, the estimate of 10 to 25% is by no means negligible.

This trend begs two questions:

1. Is it not conceivable that (a large) part of the environmental gains achieved through less use of free plastic bags will be offset by the increase in the number of paper bags used?
2. Is it not more logical as well as fairer to extend the ban on free bags to *all* types of bag, regardless of the material they are made of?
3. Are there legal impediments to implementing a ban on free issue of bags on any material?

This study provides an answer to all these questions.

### Paper bags are not better for the environment

The fact that the ban on free issue of bags applies only to plastic bags falsely suggests that bags made of other materials are better for the environment, leading to unfair competition in the bag market.

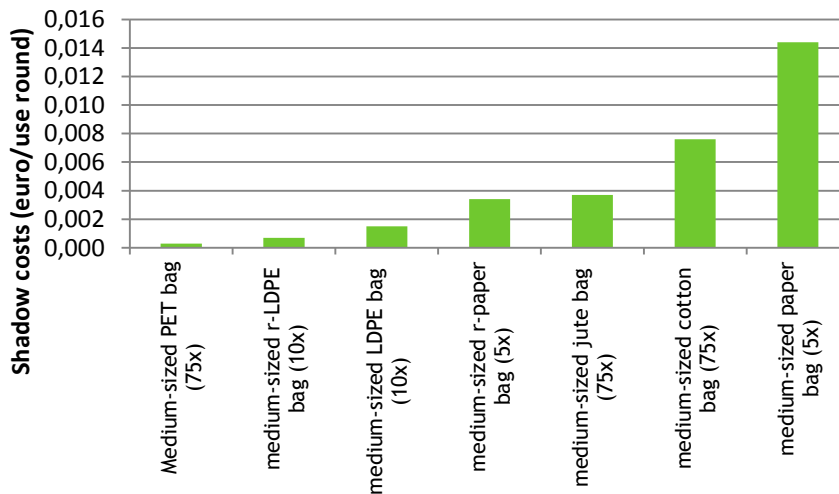
The TNO report *DoorTAS tend, LCA-studie van draagtassen* shows that carrier bags made of other materials are not eco-friendlier than plastic bags (TNO, 2015). TNO carried out an LCA study covering 18 environmental impacts on shopping bags of various materials, demonstrating that paper bags in fact score higher than plastic bags on a number of impacts. For example, they score substantially higher on land use, water consumption and particulate emissions.

Besides the impacts considered in the ReCiPe method, TNO also considered the issue of materials degradability. TNO concludes that textiles and paper degrade faster than plastics, thus suggesting that these materials remain in the environment as litter for a shorter time. No allowance was made, however, for the non-degradable components of paper bags (coating/ink). In addition, the significance of degradability compared with the other impacts is unknown, which means no conclusions can be drawn as to their relative importance.

### More use of paper bags cancels environmental gains

In its study, TNO expressed the overall environmental impact of plastic and paper bags as an aggregate impact score (expressed as shadow costs), from which the conclusion can be drawn that, overall, plastic bags have the least environmental impact.

Figure 1 Environmental impact, expressed as shadow costs, of multiple use of medium-sized carrier bags for carrying 2 kg of shopping (TNO, 2015)



From these data we conclude that greater environmental benefits would be achieved if the ban on free carrier bags were to apply not only to plastic bags but also to paper and textile bags, as increased use of paper bags can cancel out the environmental gains of reduced plastic bag use.

***Even if only a relatively small fraction (10 to 38%) of plastic bags are replaced by paper bags, the environmental gains of reduced plastic bag use are already rendered null and void. If the ban on free shopping bags were to be extended from plastic bags to include paper and textile bags, too, the environmental gains would be (far) greater. It is therefore more logical as well as fairer to extend the ban to bags made of any material.***

#### A ban on all free bags is in line with EU legislation

By implementing a measure to price bags made of *any* material the government can demonstrate to the population that it is truly reducing the environmental footprint of shopping bag use in its entirety. In addition, it signals to citizens the relevance of reducing use of *all* resources, thus doing justice to the notion of a circular economy.

Research by Prof. Dr. Ch.W. Backes, professor of environmental law at Utrecht University's Centre for Water, Oceans and Sustainability Law, shows that there are no obstacles under European law for transforming the current ban on free plastic bags to bags made of *any* material.

It is anticipated that the EU will not reject a universal ban, since the aforementioned legal study indicates that member states that took steps to reduce use of plastic bags ahead of introduction of the European directive on this issue were in fact praised for doing so.

***A universal ban on free issue of shopping bags, including paper and textile bags, is in line with the aim of EU legislation to guarantee a high degree of environmental protection.***

#### Conclusion

**It is therefore feasible, logical and fair to extend the current ban on free issue of plastic bags to *all* bags, regardless of the material they are made of.**

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