

Aggregates Levy in the United Kingdom¹

Author: Sarah Ettliger (Eunomia Research & Consulting)

Brief summary of the case

The aggregates levy in the UK was implemented in order to reduce the negative environmental impacts of aggregate extraction and to incentivise recycling of aggregates. It was introduced in 2002 and is currently levied at a rate of GBP 2 (EUR 2.76)¹ per tonne of sand, gravel and rock, at the point at which it is commercially exploited in the UK. Annual revenues have ranged from GBP 250 million (EUR 410 million) in 2002/03 to GBP 350 million (EUR 430 million) in 2014/15, with GBP 356 million (EUR 490 million) expected in 2015/16. From 2002 to 2011, GBP 35 million (EUR 57 million)² a year was ring-fenced into a specific fund with the aim of funding projects to mitigate the environmental impacts of quarrying.

The levy was first seriously discussed in 1997, as the new 'green' Labour Government was minded to impose a new environmental tax. Although there was some lobbying for a tax from NGOs, this was enveloped in campaigns to revise the planning system for mineral extraction and is therefore not thought to have had a significant final impact on the introduction of the levy. From 1997 to 2000, several strands of research were published on the environmental costs of quarrying, by both industry and the Government, and industry (on Government invitation) also proposed a voluntary agreement that could tackle environmental impacts. However, the levy was finally announced in 2000.

The environmental impacts of the levy are difficult to attribute specifically to the levy itself. The intensity of use of primary aggregates in the construction sector has reduced dramatically, but this trend had started already before the levy was introduced and has been linked to the landfill tax that was imposed from 1997.

Due to ongoing legal challenges over particular exemptions, the levy has not evolved much since its introduction and no future reforms are currently planned.

1 Description of the design, scope and effectiveness of the instrument

1.1 Design of the instrument

The UK aggregates levy was announced in 2000 with the dual aims of reducing the negative environmental impacts of quarrying and increasing the recycling rate of construction materials by reducing the rate of primary material extraction (ECOTEC et al., 2001). The levy is applied to all sand, gravel and rock that has either been dug from the ground, dredged from the sea in UK waters or imported. Exemptions are in place for certain materials, e.g. clay, soil, vegetable or other organic matter. The levy is applied at the point at which the aggregate is first commercially exploited³ in the UK, though export of aggregates and their use in certain

¹ All GBP to EUR rates have been converted using Eurostat's average annual rates (available at [http://ec.europa.eu/eurostat](#) for the relevant years. Current rates have been converted on the basis of the 2015 conversion rate.

² Converted at the 2002 average exchange rate.

³ Commercial exploitation is defined as when it is removed from the aggregate's originating site (e.g. quarry); when subject to a written agreement to supply; or when mixed with anything other than water.

agricultural and industrial process are eligible for relief of 100%. A number of exemptions have recently been the subject of State Aid investigations from the European Commission, which found part of the shale aggregate exemption unlawful in 2015. As a result, the exemption has been amended (HMRC, 2015).

The levy was introduced in 2002, at a flat rate of GBP 1.60 (EUR 2.63) per tonne of aggregate. In 2008, the rate was increased to GBP1.95 (EUR 2.45) per tonne to account for inflation since the introduction of the levy, followed by a further increase to GBP 2 (EUR 2.24) per tonne in 2009 (European Environment Agency, 2008). Although the levy was expected to continue to increase in line with inflation, a planned rate change for 2010 was cancelled, due to the global economic crisis and shifting political priorities of a new Government. The rate has therefore remained at the level of GBP 2 (currently EUR 2.76) per tonne of aggregate since 2009.

In Northern Ireland, the Aggregates Levy Credit Scheme (ALCS) allowed for an 80 per cent relief from the full rate of the levy for companies pledging to carry out particular environmental improvements, in order to reduce the cross-border trade distortion with the Republic of Ireland (Eunomia Research & Consulting et al., 2009). This applied to aggregate extracted from 2004 to 2010 and was also investigated by the European Commission. The investigation found that the scheme was overall in compliance with State Aid rules but that those who had imported aggregates from another EU Member State and had not been eligible for relief had been disadvantaged. In 2015, a Special Tax Credit Scheme was therefore introduced for importers to retrospectively claim the relief (HMRC, 2015).

1.2 Drivers and barriers of the instrument

According to a former government official, a key initial driver of the introduction of the aggregates levy was the new Labour Government in 1997 and its 'green' agenda. There was appetite in government to introduce an environmental tax, as there was a growing sense that environmental externalities should be internalised. This idea had been pushed by previous government economists, including David Pearce, who had argued for this approach in his report *Blueprint for a green economy* (Pearce et al., 1989). Furthermore, the UK had already implemented transport fuel and vehicle taxes and more recently a landfill tax in 1997. A pesticides tax and aggregates levy were both under consideration but a final decision was made to introduce an aggregates levy due to its many positive aspects, including limited impact on competitiveness, simple structure (for rates) with an easily identifiable tax base and relatively little cross-border impact. Criticisms of the aggregates levy included arguments that a levy might not be the most appropriate way to restrict primary aggregate extraction as the broader landfill tax also had the potential to do just that. Furthermore, industry argued that the levy's objectives could be achieved by voluntary agreements. This is explained further in Section 2.

1.3 Revenue collection and use

The levy is administered and enforced by HM Revenue and Customs (HMRC). Any business that exploits aggregates is liable to register with HMRC and file quarterly returns on commercially exploited aggregate. The revenue since the introduction of the levy has ranged from around GBP 250 million (EUR 410 million) in 2002/03 to GBP 350 million (EUR 430 million) in 2014/15. Provisional figures for the financial year 2015/16 indicate a total aggregates levy revenue of GBP 356 million (EUR 490 million) (HMRC, 2016).

All of the revenue currently raised forms part of the national budget and initially (partially) offset a minor tax shift: a 0.1 percentage point reduction in employers' National Insurance contributions, however the revenue was not explicitly linked to this shift (Eunomia Research & Consulting et al., 2009). From 2002 to 2011, approximately GBP 35 million (EUR 57 million)⁴ per year of the levy revenue was allocated to a fund termed the Aggregate Levy Sustainability Fund. This had the stated objective of reducing or mitigating the local environmental impacts of primary aggregate extraction, was devolved to England, Scotland, Northern Ireland and Wales and was implemented by local and national environmental NGOs and other organisations (Lockhart-Mummery, 2015; MPA Wales and Welsh Government, 2012).⁵ It was abolished in England in 2011, due to budget considerations (Seely, 2011). It is unclear whether the Fund is still operated by other devolved administrations.

1.4 Environmental impacts and effectiveness

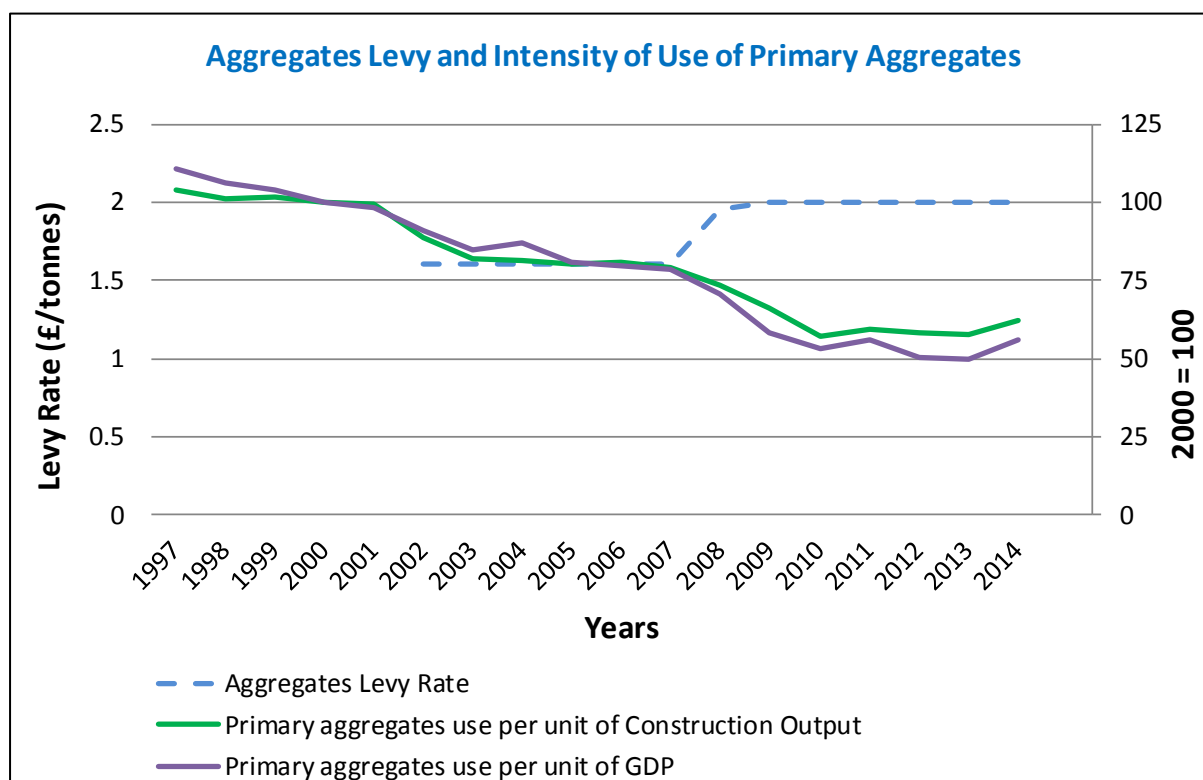
A potential measure of the environmental effectiveness of the UK aggregates levy is the intensity of use of primary aggregates within the construction sector. As shown in Figure 1, since the levy was announced in 2000, the use of primary aggregates per unit of construction output has reduced by around 40% to the years 2010-2014; per unit of GDP, it is around a 50% reduction. These figures cannot be solely attributed to the aggregates levy, however, as the UK landfill tax introduced in 1997 is also thought to have had a significant impact (Eunomia Research & Consulting et al., 2009; EEA, 2008).⁶ The landfill tax, by disincentivising landfilling and incentivising recycling of construction & demolition waste, created a market for secondary materials and thus played a role in reducing the use of primary aggregates.

⁴ Converted at the 2002 average exchange rate.

⁵ In England, the majority of funds through 2007 were distributed to English Nature, English Heritage and WRAP. Funds used by WRAP were, amongst other activities, used to improve the quality standards for recycled aggregate (EEA, 2008). From 2008 to 2011, the majority of funds were used for improvements of natural environments around quarries (Natural England), sea bed mapping and marine impacts monitoring (CEFAS) and further development of recycling capacity (WRAP) (Lockhart-Mummery, 2015).

⁶ In fact, the figure shows that the intensity of use was already on a downward trend when the aggregates levy was announced. The landfill tax included a specific rate for inert waste, i.e. a significant proportion of which is Construction & Demolition waste.

Figure 1: Rate and Environmental Effectiveness of UK Aggregates Levy



Sources: Adapted from HMRC (2015), Eurostat (2016), BGS (2016) and ONS (2016)

1.5 Other impacts

The aggregates levy is not thought to have had significant additional impacts to those outlined above. The cost of primary aggregates tends to be a small proportion of the overall cost of construction projects (Eunomia Research & Consulting et al., 2009) and the levy is expected to have been passed on to consumers due to the inelastic demand of the product (ECOTEC et al., 2001). This may have had minor competitiveness impacts, particularly on smaller companies in the construction sector. Due the design of the levy, with imports also subject to the levy and exemptions in place to protect more vulnerable agricultural and industrial users of aggregates, wider competitiveness impacts have not been seen. Finally, some cross-border impacts have been noted across the Republic of Ireland and Northern Ireland border, due to the absence of an aggregates or primary materials tax in Ireland. This was partially addressed through the levy credit scheme (ACLS) (Bickets and Salmon, 2013; Eunomia Research & Consulting et al., 2009; EEA, 2008).

2 Stakeholder engagement

Discussions around minerals and proposed approaches to tackling the environmental impacts associated with their extraction had been ongoing for a number of years ahead of the announcement of the aggregates levy. To reduce environmental impacts of quarries, environmental NGOs such as Campaign to Protect Rural England (CPRE) and the umbrella organisation Wildlife and Countryside Link had initially focused their campaigns on the

planning system as it still relied on outdated permissions and guidelines. When discussions within Government turned to an aggregates levy, NGOs therefore widened their proposals for action on minerals to include an aggregates levy (Wildlife and Countryside Link, 2010). However, the levy was never a significant part of their campaign and according to industry sources, it is not thought that NGO lobbying was a significant factor in the decision to go ahead with the aggregates levy.

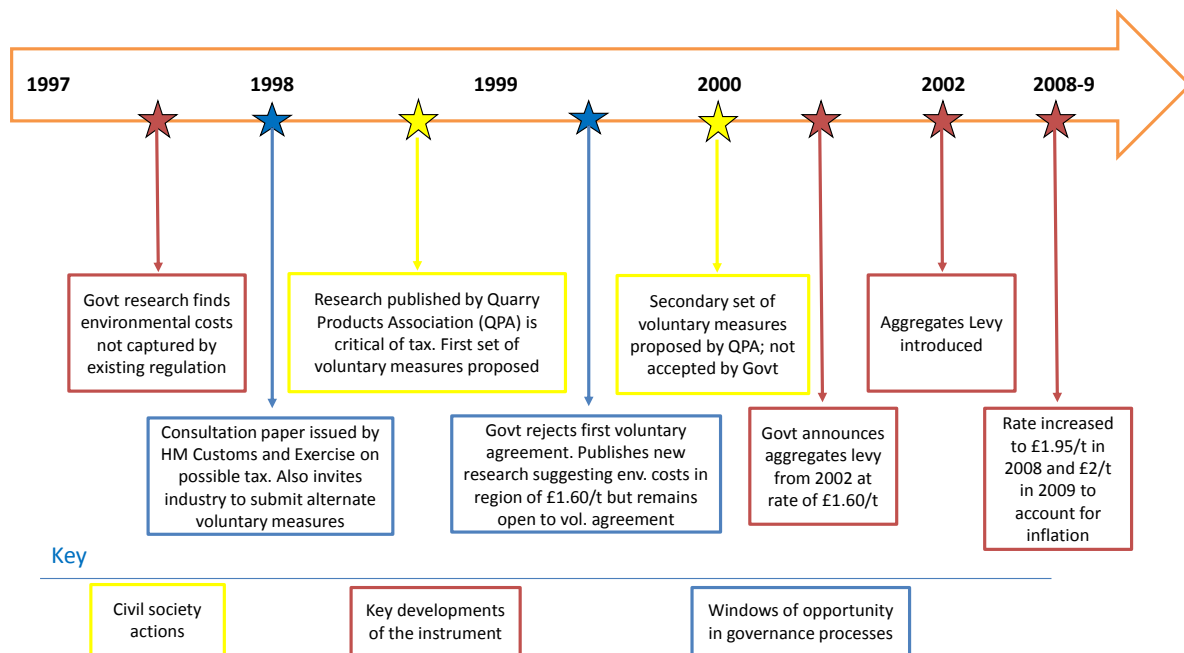
Meanwhile, the aggregates industry was concerned about the Government's intent to impose a levy on aggregates and responded to the Government-funded research, which supported the use of a levy, with research suggesting that an aggregates levy was not the most appropriate tool, particularly in the light of the recently imposed landfill tax (ECOTEC et al., 2001). Furthermore, on Government invitation, the industry counter-proposed a series of voluntary measures. Although for a while it appeared that the voluntary agreement could be successful, the measures were ultimately not accepted by Government due to concerns that a voluntary agreement would not be as effective as a mandatory levy, and the levy was announced in 2000.⁷

The various events leading up to the implementation of the levy are outlined in Figure 2. Overall, it appears that the impact of lobbying was relatively limited, for a variety of reasons: the Government was already intent on imposing an environmental tax and believed in this as a relevant and useful measure to improve the environment; the aggregates levy was not public-facing and affected only a limited industry sector, therefore did not inspire and excite the majority of the public; and industry overall appeared to accept the levy once imposed, as it formed a small proportion of their cost base and could easily be passed on to customers.

⁷ Industry had proposed that participation could be encouraged by Government promotion of companies that did sign up to the voluntary agreement, along the lines of green public procurement guidelines, which were yet to come at the time.

Figure 2: Schematic view of the involvement of civil society (in yellow) and policy-makers (in blue) in the introduction and implementation of the instrument (in red)

Timeline of key developments in the UK's aggregates levy

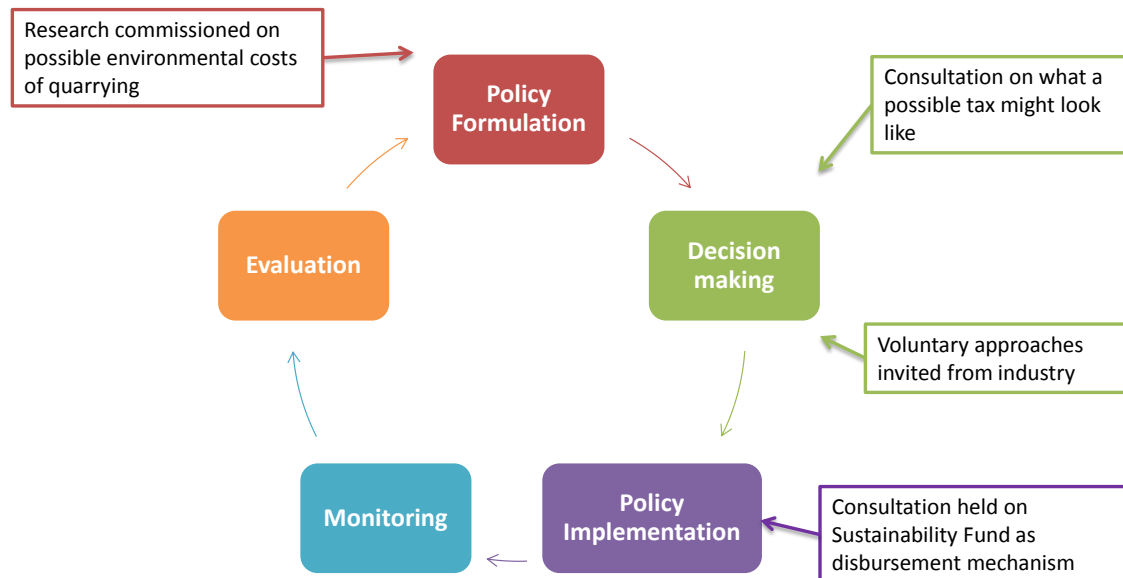


3 Windows of opportunity

The windows of opportunity for civil society to engage with the aggregates levy have been limited to the stages ahead of and immediately following its introduction. Since its implementation, we are not aware of any formal processes for either monitoring or evaluating the levy. The engagement opportunities have been outlined in Figure 3. In addition to those opportunities discussed in Section 2, two rounds of public consultation were held relating to the Aggregates Levy Sustainability Fund. The first was on the overall aims of the fund and the second was on more detailed disbursement of the fund in England. Following the latter, it was decided that the distribution of grants would be managed by NGOs and government agencies (Seely, 2008).

Figure 3: Schematic overview of windows of opportunity throughout the policy cycle of UK aggregates levy

Civil society engagement with UK aggregates levy



4 Insights into future potential/reform

4.1 Actual Planned reforms and stakeholder engagement

The levy has evolved very little since its implementation. According to industry sources, this is due to ongoing State Aid legal challenges. Although some judgments have been made in these matters (see Section 1.1), there are still ongoing appeals. It has further been suggested that the levy is a relatively poor candidate for significant updates, as it is 'stable' (i.e. relatively non-controversial, despite the legal battles) and is not a significant revenue raiser, therefore unlikely to be the subject of detailed scrutiny. We are therefore not aware of any planned reform of the levy.

4.2 Suggestions for future reforms – instrument design and civil society engagement

The UK aggregates levy could benefit from differential rates depending on the nature of the materials and their environmental costs. This would require engagement with civil society to understand what these costs are, as well as to estimate the appropriate rate(s). As there was criticism of the research methodology used to calculate the environmental costs ahead of the introduction of the levy, a reform to the rates would provide a good opportunity also to revisit possible methodologies for such calculations.

4.3 Suggestions for replicability

The aggregates levy could easily be replicated in other EU Member States where one has not yet been imposed. However, it is suggested that the levy should be imposed alongside other regulatory instruments, including a landfill tax and constraints on mineral planning (EEA, 2008). Furthermore, any cross-border impacts should be considered for countries where neighbouring Member States do not have an aggregates or primary materials tax in place.

References

Bicket, M., and Salmons, R. (2013) Dynamix policy mix evaluation: More efficient use of aggregates in the UK. Policy Studies Institute, London. Accessible at <http://dynamix-project.eu/case-study-report-and-case-studies-decoupling>

BGS (2016) United Kingdom Minerals Yearbook 2015. Minerals and Waste Programme. Open Report OR/16/021. Table: Great Britain Estimated Consumption of Natural Aggregates 1961-2014. British Geological Survey, Nottingham. Accessible at <http://www.bgs.ac.uk/mineralsUK/statistics/ukStatistics.html>

ECOTEC et al. (2001) Study on the economic and environmental implications of the use of environmental taxes and charges in the European Union and its Member States, Report for DG Environment, European Commission. Accessible at <http://ec.europa.eu/environment/enveco/taxation/>

EEA (2008) Effectiveness of environmental taxes and charges for managing sand, gravel and rock extraction in selected EU countries. EEA Report No 2/2008. European Environment Agency, Copenhagen. Accessible at http://www.eea.europa.eu/publications/eea_report_2008_2

Eunomia Research & Consulting et al. (2015) Study on environmental fiscal reform potential in 14 EU Member States, report for DG Environment of the European Commission, January 2015. Accessible at http://ec.europa.eu/environment/integration/green_semester/pdf/EFR%20Final%20Report.pdf

Eunomia Research & Consulting et al. (2009) International review of waste management policy: Summary report, report for Department of Environment Heritage and Local Government (Ireland).

Eurostat (2016) GDP and main components (output, expenditure and income). Eurostat, Luxembourg. Accessible at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_10_gdp&lang=en

HMRC (2015) Excise notice AGL1: Aggregates Levy. HM Revenue and Customs, London. Accessible at <https://www.gov.uk/government/publications/excise-notice-agl1-aggregates-levy/excise-notice-agl1-aggregates-levy>

HMRC (2016) Aggregates Levy bulletin, April 2016, Tables 4 and 6. HM Revenue and Customs, London. Accessible at <https://www.uktradeinfo.com/Statistics/Pages/TaxAndDutyBulletins.aspx>

Interview with former government (Defra) official, July 2016.

Interview with representative of the aggregates extraction industry, July 2016.

Lockhart-Mummery, E. (2015) UK Aggregates Levy & Sustainability Fund, presentation given at UK Expert Visit to Israel. Accessible at <http://www.sviva.gov.il/subjectsEnv/OpenSpaces/mining-quarry/Documents/Committee-quarries/meeting3/EdwardAggregatesfund-January2015.pdf>

MPA Wales and Welsh Government (2012) Leaflet supporting quarrying communities in Wales – Aggregates Levy Fund. Accessible at http://www.mineralproducts.org/documents/Aggregate_Levy_Fund_Leaflet.pdf

Oliver, H., formerly Senior Natural Resources Campaigner at Campaign to Protect Rural England. Interviewed for this case study, July 2016.

ONS (2016) Output in the construction industry: December 2015 and quarter four (Oct to Dec) 2015, Figure 9. Office for National Statistics, London. Accessible at <http://www.ons.gov.uk/businessindustryandtrade/constructionindustry/bulletins/outputintheconstructionindustry/december2015andquarter4octtodec2015>

Pearce, D.W. et al. (1989) Blueprint for a green economy, Vol. 1, Report for the UK Department of Environment. Earth scan Publications Ltd, London.

Seely, A. (2011) Aggregates Levy. Standard Note SN1196. House of Commons Library, London. Accessible at: <http://researchbriefings.files.parliament.uk/documents/SN01196/SN01196.pdf>

Wildlife and Countryside Link (2010) Making the Link: Thirty years of Wildlife and Countryside Link. Accessible at: http://www.wcl.org.uk/docs/2010/Making_the_Link_2010_14Jul10.pdf

ⁱ This case study was prepared as part of the study 'Capacity building, programmatic development and communication in the field of environmental taxation and budgetary reform', carried out for DG Environment of the European Commission during 2016-2017 (European Commission Service Contract No 07.027729/2015/718767/SER/ENV.F.1) and led by the Institute for European Environmental Policy (www.ieep.eu). This manuscript was completed in September 2017.