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Addressing the carbon-crime blind spot

Research Summary

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See the full research article published here.

Background and Aim

Crime imposes high costs including:

- social costs (harm and damage to social cohesion),
- economic costs (to businesses and individuals via the informal economy and taxation)
- environmental costs (both direct and indirect emissions/pollutants).

The Home Office currently estimates the 'costs of crime' within HM Treasury Green Book guidance relating to the valuation of crime for policy appraisals in terms of economic and social impacts. In order to explore the environmental impact of crime a jointly sponsored research project was commissioned, to be undertaken by a student at the University of Surrey, entitled 'The Carbon Cost of Crime'. The aim of this project was to estimate the carbon footprint of crime and help inform policy makers of this impact. The first part of this project, a peer-reviewed academic paper, was recently published online (link needed) and this summary paper details the key findings within this paper.

Key Findings

Crime committed[1] in 2011 in England and Wales is estimated to have given rise to over 4 million tonnes CO_2e, equivalent to emissions of around 900,000 UK homes. Burglary resulted in the largest proportion of the total footprint (30%) due to large volume of offences and the carbon associated with replacing stolen or damaged goods.

Criminal justice system services accounted for a large proportion of the total footprint (21% of all crime and 49% of police recorded offences). The estimated carbon footprint of different offences is detailed in the table below. Personal offences result in more emissions from the police investigation and prison time served, whereas property offences result in more emissions from the replacement of goods that are stolen or damaged.

	Homicide	Assault	Vehicle theft	Sexual Offences	Burglary	Robbery	Criminal Damage	Shoplifting
Carbon Footprint (tonnes CO_2e)								
Per incident	71	5	2	1.4	1.3	1.1	0.15	0.05
Total in England and Wales (2011)	39,000	670,000	300,000	265,000	1,100,000	146,000	437,000	214,000

[1] The study included data of crime recorded by the police and an estimate of the amount of crime that goes unrecorded.

Using this information

The findings are intended to be integrated into the HM Treasury Green Book guidance relating to the valuation of crime for policy appraisals alongside the social and economic cost estimates. There are however several other ways in which these estimates may be beneficial to external stakeholders:

- Local Police and Crime Plan's which discuss crime prevention can also potentially detail the carbon impact of crimes alongside potential savings which may be made from reductions. Individual forces may also wish to investigate further into the environmental impacts of crime as part of carbon reduction plans or strategies.

- Any training/guidance relating to the wider impacts of crime, for example from College of Policing colleagues, may now take into account the carbon footprint estimates and help inform a wider audience of the connections between crime and the environment.

- There is a potential to integrate environmental thinking through security and safety concerns to improve the longevity of places and products. Crime prevention and security concerns taken into consideration at the design stage of housing or commercial developments may now also consider the potential added benefits in terms of carbon reduction as safer places are not only beneficial to societies, but may also have added environmental benefits.

- Security and carbon reduction are both important priorities for businesses and an opportunity may be grasped by including crime prevention as part of corporate social and environmental responsibility (CSER) strategies. The estimates from the research study can be used as a communication tool to engage security and sustainability staff to improve the overall added value to communities. By highlighting that helping to prevent crime may have added benefits in terms of reducing environmental impacts, this may address an opportunity which may have previously been overlooked.

Limitations

Like all research there are limitations to the findings, predominantly associated with the carbon footprinting methodology, detailed in the full research article. The footprint estimates within the paper and all data utilised refer to the year 2011 due to this being the most recent year of carbon multipliers available. The nature of crime and prevalence of particular crime types may have changed significantly since this date and future work within the same project is being undertaken to explore the impacts of recent changes and estimate the carbon footprint of crime over time.

It is also tempting to conclude from our research that crime reduction will automatically result in a reduction of carbon emissions overall, but this is not necessarily the case. We have focussed on estimating the consequential or attributional footprint of crimes that have occurred and although emissions clearly arise from criminal activities, the counterfactual scenario (emissions which would happen in the absence of crime) also needs to be considered. We have made an example estimate of this counterfactual scenario by modelling the emissions associated with a small drop in the number of burglary offences. Further work on these counterfactual estimates would also be beneficial in the future.