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Waste Law and the Value of Food[†]

Carrie Bradshaw^{*}

Abstract – This article explores the role of law in an emerging consensus as to the causes of food waste: a structural failure to value food. Food waste’s legal home is waste law. The sagacity of this siting would appear to be self-evident. If there is a body of law concerned with the problem of waste generally, then why not use that body of law to address the challenges of a particular waste stream? We should test this assumption, acknowledging food’s importance and difference as a resource, and keeping in mind structural causes of food waste. This article explores the limitations of waste law through an imbalance in support for anaerobic digestion over redistribution; an imbalance which actively removes edible food from the food supply chain. By underpinning and validating this imbalance, waste law reflects and reinforces structural causes of food waste, rather than providing the analytical tools needed to address the problem.

Keywords: food waste; waste law; anaerobic digestion; food redistribution; renewables subsidies; sustainability criteria

1. Introduction

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Food waste is an urgent, global public policy issue, with environmental, economic and social implications.¹ The UK wastes 15 million tonnes of food waste every year, 9 million tonnes of which is avoidable or preventable, and could have been eaten.² To the extent that this reflects a failure to value food, this is clearly perverse. A dominant narrative in political and cultural discourse blames feckless consumers for these levels of food waste.³ There is some truth in this: households throw away almost half of the UK's annual food waste.⁴ However, this is not the entire story, not least because more than half of the UK's food waste occurs elsewhere in the supply chain. Furthermore, households are not singularly responsible for all the food they waste. Recent scholarship highlights how food waste often arises from a collection of factors which are essentially structural, and beyond any one actor's own control.⁵ Food waste is thus argued to be not a problem of feckless consumerism at the household level, but a side effect of a deeply embedded failure to value food at a structural (rather than individual) level.

This article explores the role of law in that structural failure to value food. Many legal areas impinge on food waste—from food safety to labelling, tort to tax, competition law to contract—but the legal home for food waste is waste law. The sagacity of this siting would appear to be self-evident. If there is a body of law concerned with the problem of waste generally, then why not use that body of existing legal principles to

¹ Environment, Food and Rural Affairs Committee, *Food Waste in England* (HC 2016-17, 429) 5.

² Environment, Food and Rural Affairs Committee, *Food Security: Demand, Consumption and Waste* (HC 2014-15 703) 15.

³ David Evans, 'Blaming the Consumer – Once Again: The Social and Material Contexts of Everyday Food Waste Practices in Some English Households' (2011) 21 *Critical Public Health* 429.

⁴ Environment, Food and Rural Affairs Committee (n 1) 9.

⁵ David Evans, *Food Waste: Home Consumption, Material Culture and Everyday Life* (Bloomsbury Academic 2014); Catherine Alexander, Nicky Gregson and Zsuzsa Gille, 'Food Waste' in Anne Murcott, Warren Belasco and Peter Jackson (eds), *The Handbook of Food Research* (Bloomsbury Academic 2013); David Evans, Hugh Campbell and Anne Murcott (eds), *Waste Matters* (1st edn, Wiley-Blackwell 2013); Zsuzsa Gille, 'From Risk to Waste: Global Food Waste Regimes' (2012) 60 *The Sociological Review* 27. See also Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (Polity Press 1984).

address the challenges of a particular waste stream? The contention made here is that this assumption should be tested. We should query what analytical work the core legal concepts do with respect to *food*, acknowledging in the process food's special status as a resource, and keeping in mind structural accounts of food waste. The article explores waste law's limitations through its role in framing, underpinning and validating an imbalance in support for anaerobic digestion (AD) over food redistribution. Support for AD, combined with a dearth of measures to support food redistribution, incentivises the removal of edible food from the food supply chain. Far from being a 'positive solution' to the problem of food waste, this is a failure to value food with unacknowledged distributional consequences.

This is partially a story familiar within waste law: the limited utility of the waste hierarchy, together with an over-inclusive definition of waste, both of which fail to mediate tensions between waste management (what we do with stuff once it becomes waste) and waste prevention (preventing stuff from becoming waste in the first place). However, whilst food waste tells us about difficulties within waste law, these difficulties are exacerbated by food's importance and difference as a resource. Of course, dismantling that broader structural failure is more than a narrow doctrinal challenge regarding waste law's application to food, or legal lines drawn between edible food surplus and inedible food waste. However, waste law is reflective and reinforcing of structural failures to value food, adding to the problem of food waste rather than providing the tools to address it. With waste law's central architecture shaping forthcoming EU legislation on food waste, and with the UK perceived as a world leader on food waste interventions (particularly in the US),⁶ this article serves additionally as a caution to other jurisdictions.

⁶ Jonathan Bloom, *American Wasteland: How America Throws Away Nearly Half of Its Food* (Da Capo Lifelong Books 2011) ch 11, 'Great, Britain! A Kingdom United in Hating Waste'.

The article is structured as follows. Section 2 explores the role of food law in drawing legal lines around the value of food. Section 3 outlines the AD/redistribution imbalance. Section 4 explores the limitations of waste law applied to food through its role in validating and underpinning the AD/redistribution imbalance, in turn reflecting and reinforcing problematic conceptions as to the value of food. Section 5 concludes.

2. Food Law and Edibility: Drawing Lines Around the Value of Food

The legal home for food waste is waste law. This is partly because food law is largely unconcerned with food waste, both in its stated purposes (free movement of food and consumer safety) and as an academic subject.⁷ Instead, waste law frames and underpins food waste interventions, and forthcoming EU legislation concerning food waste is housed primarily within the Waste Framework Directive (WFD).⁸ However, understanding how waste law applies to food requires an understanding of food's argued special status as a resource, together with its perishability. As highlighted in the literature (and will be explained below), the (i) 'importance' and (ii) 'difference' of food has implications for its wastage. While food law is largely unconcerned with managing food as a resource, this section argues that food law does nonetheless shape the line between

⁷ Regulation 178/2002/EC of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety [2002] OJ L31/1, art 5(1); Terry Marsden and others, *The New Regulation and Governance of Food: Beyond the Food Crisis?* (Routledge 2009); Caoimhín MacMaoláin, *Food Law: European, Domestic and International Frameworks* (Hart Publishing 2015). Neither of the cited academic works devotes time to food waste, even in more obvious places: eg food waste is conspicuous by its absence in MacMaoláin's coverage of food safety, date labeling and climate change (ibid 5–6 & 259–63). This is not a criticism, but indicative of food waste being largely outwith food law. Food waste sometimes features within policy debates on sustainable food and food security: Environmental Audit Committee, *Sustainable Food* (HC 2010-12 879) 26–8; Environment, Food and Rural Affairs Committee (n 2) ch 4.

⁸ EU Commission, 'Proposal for a Directive Amending Directive 2008/98/EC on Waste' (2015) COM(2015) 595 final, 2 December 2015; HM Government, 'Prevention Is Better than Cure: The Role of Waste Prevention in Moving to a More Resource Efficient Economy' (Crown Copyright 2013). Although the latter was written by a previous government, it is the current Waste Prevention Programme for England, as required under Directive 2008/98/EC of 19 November 2008 on waste [2008] OJ L312/3, art 29.

edible and inedible food in ways that are conceptually appropriate (albeit imperfectly drawn) in view of food's importance and difference as a resource. This line drawing pursuant to food law, together with associated allocations of responsibility and benefits, serves as a point of comparison for our later exploration of waste law's application to food.

Food has *importance* as a resource given its intrinsic use value for humanity as one of the few basic human needs. Commentators and policy makers routinely acknowledge the particular perversity (even immorality) of wasting food, especially alongside world hunger.⁹ In order to respect the importance of food to humanity, and to 'value food as food', we should aim to keep food in the food supply chain by distributing any surplus food for human consumption.¹⁰ Of course, food has many values beyond its intrinsic use value. Food is a commodity, so that it also has an exchange value.¹¹ Food also serves social and cultural roles, so that food is often consumed for purposes beyond sustenance, and can be akin to a material good.¹² Furthermore, not all food is of equal calorific value, and nor is all food produced equal; beef, for example, is especially resource-intensive.¹³ Nonetheless, food has a profound—if not unique—importance to humanity, in addition only perhaps to water, and, as explained, this importance colours the scholarship.

The legal definition of food pursuant to food law acknowledges food's purpose in providing human sustenance: food is 'any substance or product intended to be, or

⁹ Around 795m people globally are undernourished, FAO, IFAD and WFP, *The State of Food Insecurity in the World 2015: Meeting the 2015 International Hunger Targets: Taking Stock of Uneven Progress* (FAO 2015) 4; Evans (n 5) 60–1; Bloom (n 6) 41–58.

¹⁰ Food surplus can also be fed to animals, keeping food within the supply chain indirectly. Note that EU law imposes strict controls on this: EU Committee, *Counting the Cost of Food Waste: EU Food Waste Prevention* (HL 2013-14 154) 39–40.

¹¹ Carrie Bradshaw, 'The Environmental Business Case and Unenlightened Shareholder Value' (2013) 33 *Legal Studies* 141; Peter Jackson and the CONANX group, *Food Words - Essays in Culinary Culture* (Bloomsbury Academic 2015) 240–1.

¹² Marsden and others (n 7) 13.

¹³ Tristram Stuart, *Waste: Uncovering the Global Food Scandal* (Penguin 2009).

reasonably expected to be ingested by humans'.¹⁴ This distinguishes food from animal feed or fuel (although note that the controversial production of food-capable resources for feed or fuel is beyond the scope of this paper, which is concerned with wasting 'food': matter intended for human consumption). Food law also prohibits the sale and donation of 'unsafe' food; that is, food which is 'injurious to health' or 'unfit for human consumption'.¹⁵ When food is unsafe, it is an offence to sell or donate it.¹⁶ Prohibitions on the supply of unsafe 'food' comprise part of the legal contours of 'edibility', and a legal line as to the value of food.

Food is *different* from many (though not all) resources in that it is matter subject to decay, and this, as with the importance of food, is also emphasised in food waste scholarship.¹⁷ Whilst some food is shelf-stable for years, some food is perishable, so that food (together with its intrinsic use value to humanity) has a shorter life span compared with many resources.¹⁸ Food waste thus arises not 'solely as a consequence of human activity'.¹⁹ Perishable surplus food is also more difficult to keep in the supply chain,²⁰ and food is less likely than other commodity flows to be reused or redistributed.²¹

Food law acknowledges food's perishability. EU law requires most pre-packed food to include either a date of expiration (a 'use by' date), concerned with food safety, or a date of minimum durability (a 'best before' date), concerned with food quality.²² Use

¹⁴ General Food Law (n 7), art 2.

¹⁵ *ibid*, art 14; Food Safety Act 1990 (as amended), ss 1 and 2.

¹⁶ Food Safety Act 1990, s 8; General Food Regulations 2004/3279, reg 4.

¹⁷ Julian Parfitt, Mark Barthel and Sarah MacNaughton, 'Food Waste within Food Supply Chains: Quantification and Potential for Change to 2050' (2010) 365 *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 3065.

¹⁸ Evans (n 5) 60–6.

¹⁹ *ibid* 67.

²⁰ Catherine Alexander and Chris Smaje, 'Surplus Retail Food Redistribution: An Analysis of a Third Sector Model' (2008) 52 *Resources, Conservation and Recycling* 1290.

²¹ See Evans (n 5) 65–7 explaining how food runs counter to studies showing the effective workings of alternative conduits of discarding, such as redistribution, because of the process of physical decay.

²² Regulation 1169/2011/EU of 25 October 2011 on the provision of food information to consumers [2011] OJ L304/18 2011, art 9(1).

by dates are for highly perishable foods likely after a short period of time to constitute an immediate danger to human health.²³ Food passed its use by date is ‘unsafe’, so that selling or donating such food constitutes an offence.²⁴ Best before dates are for lower-risk foods; it is lawful to sell and donate food passed its best before date, which is safe to consume if stored appropriately.

These aspects of food law have been implicated in driving levels of food waste. For example, some argue that food safety liability is a barrier to redistributing edible surplus food, either because actors in the supply chain poorly understand the regime, or its implementation is over-cautious when set against the aims of redistributing food and reducing waste.²⁵ Meanwhile, others argue that consumers confuse best before dates with use by dates,²⁶ or even that best before dates, as an indicator of quality not safety, are unnecessary for certain foods.²⁷ These issues are beyond the scope of this article’s primary concern with waste law. However, they do raise broader points that are thematically relevant to this article’s concern with regulating food waste in response to its structural causes, the significance of food-related legal line drawing, and the appropriate legal home for food waste.

First, food law polices what is a conceptually appropriate, if albeit imperfectly drawn, legal line as to when food is of value as food. ‘Unsafe’ food, or food past its use by date, is not suitable for human consumption. Food law is thus a legitimate constraint

²³ *ibid*, art 24.

²⁴ *ibid*, art 24; Food Safety Act 1990, s 8; General Food Regulations 2004/3279 (n 16), reg 4; Food Safety and Hygiene (England) Regulations 2013, SI 2013/2996, reg 19(1).

²⁵ See Environment, Food and Rural Affairs Committee (n 1); EU Committee (n 10); Caoimhín MacMaoláin, ‘Securing Safety, Controlling Crises: Development and Misapplication of Food Law’ in Antonis Antoniadis, Robert Schütze and Eleanor Spaventa (eds), *The European Union and Global Emergencies: A Law and Policy Analysis* (Hart Publishing 2011).

²⁶ Matt Watson and Angela Meah, ‘Food, Waste and Safety: Negotiating Conflicting Social Anxieties into the Practices of Domestic Provisioning’ (2012) 60 *The Sociological Review* 102.

²⁷ Emily Broad Leib and others, ‘The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America’ (NRDC 2013).

on food redistribution, rather than a ‘barrier’. Furthermore, best before dates are conceptually appropriate in view of the difference of food: food is perishable and subject to decay, with implications for human consumption and the value of food. However, the existence of best before dates, alongside a growing fetishising of aesthetic quality over nutritional value,²⁸ could undermine the importance and value of food. This is worthy of further research, and consideration in regulatory design. Nonetheless, food law’s legal line drawing around edibility is conceptually attuned to the importance and difference of food. This is not obviously the case with waste law.

Second, the labelling regime distributes responsibility for drawing lines between safe/edible and unsafe/inedible food, but arguably gives too much scope to industry. For example, whilst a use by date must be used for highly perishable food, beyond that, the Regulations do not indicate in what circumstances this label is required; businesses largely decide which label to use for particular foods.²⁹ Similarly, whilst some fruit, vegetables and bakery products do not require a label, retailers routinely date them.³⁰ The regime also leaves calculating time periods largely to industry, with manufacturers and retailers adopting large margins of error to safeguard against liability and reputational damage.³¹ The labelling regime thus leaves businesses considerable scope to adopt over-cautious approaches to labelling that protect from liability and increase profits, whilst undermining food waste imperatives. Given this line drawing embodies the resolution of trade-offs between commercial interests, food safety and food waste, it may be

²⁸ Susanne Freidberg, *Fresh: A Perishable History* (The Belknap Press of Harvard University Press 2009); Joanna Blythman, *Shopped: The Shocking Power of British Supermarkets* (Harper Perennial 2005). EU marketing standards for fruits and vegetables are similarly criticised: Walter Leal Filho and Marina Kovaleva, *Food Waste and Sustainable Food Waste Management in the Baltic Sea Region* (Springer 2015) 39.

²⁹ MacMaoláin (n 7) 176; EU Committee (n 10) 42.

³⁰ Stuart (n 13) ch 4; MacMaoláin (n 7) 177–9.

³¹ Richard Milne, ‘Arbiters of Waste: Date Labels, the Consumer and Knowing Good, Safe Food’ (2012) 60 *The Sociological Review* 84, 91.

problematic that this is determined by industry.³² In both food and waste law, we should pay attention to where legal line drawing, and associated allocations of responsibility, support commercial interests at odds with food waste (and other) imperatives, not least because those interests feed into the structural causes of food waste.³³

3. AD, Redistribution and the Value of Food

This section outlines the imbalance of support for AD over redistribution, used later in the article to explore limitations of waste law. Incentives for AD which do not distinguish between edible and inedible food (or measures which are ‘non-discriminatory’), combined with a dearth of measures to support food redistribution, actively remove edible food from the food supply chain, and represent a failure to value food as food.

3.1 Measures to support AD

Food, like other biodegradable material, releases climate change gasses when landfilled. The goal of keeping food in the food supply chain must therefore be balanced with ensuring that wasted food is kept out of landfill. AD, where microorganisms break food and other bio-waste down to produce biogas/biomethane (for non-intermittent renewable heat, electricity and transport) and digestate (solid material which can be used as a renewable fertiliser),³⁴ thus has obvious appeal. Diverting food waste from landfill to AD also helps the UK comply with a number of legal obligations. Member States must apply the waste hierarchy, a priority order at the top of which is waste prevention, followed by

³² See Marsden and others (n 7) on challenges arising from the multi-level governance of food.

³³ That retailers drive food waste *throughout* the supply chain in ways which benefit their bottom line is well-documented: Bradshaw (n 11).

³⁴ Energy and Climate Change Committee, *Low Carbon Network Infrastructure* (HC 2016-17, 267) 18.

preparing for re-use, recycling, (energy) recovery and disposal.³⁵ In the context of food waste, the hierarchy is supported by obligations to: divert proportions of biodegradable municipal waste from landfill; take ‘appropriate measures to encourage’ the separate collection of bio-waste with a view to composting and digestion; and take necessary measures ‘designed to achieve’ an increase in levels of household waste recycling to 50% by 2020.³⁶ The Climate Change Act 2008 imposes a binding target to reduce overall UK greenhouse gas emissions by 80% by 2050 (based on 1990 levels). Finally, the UK must ensure that renewable energy accounts for 15% of all electricity, heat and transport fuels by 2020.³⁷

An *AD Strategy and Action Plan* aims to increase AD capacity as the preferred option for ‘residual’ food waste; that is, unavoidable or unpreventable food waste (the inedible fractions of food) as opposed to edible food surplus or ‘avoidable’ food waste.³⁸ It outlines an extensive range of measures to support England’s AD capacity. This includes scope to legally exempt AD from regulatory waste controls, projects to develop markets in digestate, and innovation funding to support AD installations.³⁹ In addition to gate fees charged by AD operators for incoming waste,⁴⁰ AD also receives financial support through renewable energy subsidies, including the Renewables Obligation

³⁵ WFD (n 8), art 4, discussed further below. ‘Recycling’ means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes; ‘recovery’ involves making use of waste by replacing other materials used for a particular function with waste, for example by using waste principally as a fuel to generate energy; ‘disposal’ is a non-recovery waste disposal operation, such as landfill: *ibid*, arts 3(11), (15) & (19), and annexes I and II.

³⁶ Directive 1999/31/EC of 26 April 1999 on the landfill of waste [1999] OJ L182/1, art 5; WFD (n 8), arts 22 and 11(2). Food is a type of biodegradable/bio-waste, and AD of food waste could contribute to the household recycling target: DECC and Defra, *Anaerobic Digestion Strategy and Action Plan* (Crown Copyright 2011) 6.

³⁷ Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources [2009] OJ L140/16, arts 3(1) & (4) and annex I.

³⁸ Defra and DECC, *Energy from Waste: A Guide to the Debate* (Crown Copyright 2014) 14–15. AD food waste capacity is predicted to rise to 5m tonnes: DECC and Defra (n 36) 19.

³⁹ Defra, *Anaerobic Digestion Strategy and Action Plan Annual Report 2014* (Crown Copyright 2015); DECC and Defra (n 36).

⁴⁰ Defra (n 39) 8.

(RO),⁴¹ Feed-in Tariffs (FITs),⁴² the Renewable Heat Incentive (RHI),⁴³ and the Renewable Transport Fuel Obligation (RTFO).⁴⁴ However, whilst the stated preference is to increase AD capacity for recovering *residual* waste, renewable energy subsidies do not reflect this.⁴⁵ AD subsidies apply indiscriminately to edible food surplus/avoidable food waste (which should be/should have been redistributed) and inedible or unavoidable food waste (residual food waste which we may wish to divert to AD).⁴⁶ The non-discriminatory nature of subsidies is particularly problematic when combined with the dearth of measures to support redistribution (explained below). Nonetheless, measures to support AD means that capacity has grown dramatically, and continues to grow despite cuts to FITs.⁴⁷

3.2 Dearth of measures to support redistribution

Notwithstanding the potential climate benefits of energy from food waste, redistributing food to humans (and animals) is generally more resource efficient than sending it to AD.⁴⁸ Furthermore, by keeping food in the food supply chain, redistribution values food as food, rather than valuing food as a fuel. AD (a form of energy recovery), thus sits below food

⁴¹ The RO closed to new entrants in April 2017 (replaced by Contracts for Difference) but remains open until 2037 for existing participants: The Renewables Obligation Order 2015, SI 2015/1947; Renewables Obligation Closure Order 2014, SI 2014/2388; The Contracts for Difference (Electricity Supplier Obligations) Regulations 2014, SI 2014/2014; Electricity Act 1989 ss 32LC-32LL; DECC, *2010 to 2015 Government Policy: UK Energy Security* (Crown Copyright 2015).

⁴² Feed-in Tariff Order 2012, SI 2012/2782; Feed-in Tariff (Amendment) Order 2017, SI 2017/131; Energy Act 2008 ss 41–3.

⁴³ The Renewable Heat Incentive Scheme Regulations 2011, SI 2011/2860 2011; Energy Act 2008.

⁴⁴ Renewable Transport Fuel Obligation Order 2007, SI 2007/3072; Energy Act 2004 s 124.

⁴⁵ See RO Order 2015 (n 41); FIT Order 2012 (n 42); FIT Amendment Order 2017 (n 42); RHI Regulations 2011 (n 43); RTFO Order 2007 (n 44).

⁴⁶ Food should not be permitted to deteriorate beyond edibility, so that it can only be handled as food waste (digesting avoidable food waste), nor should edible food be treated as waste (digesting edible food).

⁴⁷ Anaerobic Digestion & Bioresources Association (ADBA), 'Anaerobic Digestion Market Report' (ADBA 2016) 32; James Parsons, 'AD FITs Cut despite Industry Criticism' (*The ENDS Report*, 13 February 2017) <<http://www.endsreport.com/article/55457/ad-fits-cut-despite-industry-criticism>> accessed 25 August 2017.

⁴⁸ EU Committee (n 10) 48.

redistribution ('re-use', a form of waste prevention) on the waste hierarchy.⁴⁹ In view of this, one might expect policy in this area to match support for AD with similar support for food redistribution. This is not the case in England.⁵⁰ Indeed, redistribution receives only limited support, comprising a relatively unambitious voluntary target to double food redistribution by 2020,⁵¹ together with a food redistribution working group chaired by the Waste and Resources Action Programme (WRAP).⁵² Compared with the range of measures to support AD, this softer work on redistribution is underwhelming, and includes nothing akin to the legal exemptions or financial incentives supporting AD.

Indeed, whilst barriers to increasing redistribution include network development, infrastructure requirements and collection logistics, cost is the most significant (particularly compared with the costs of digesting food waste).⁵³ A number of commentators have thus made calls for financial interventions to 'level the playing field', including subsidies or loan support, VAT exemptions, or the better publicising of other tax relief for donating unsold food.⁵⁴ Similar to regulatory exemptions for AD, interventions and clarifications around food safety liability and date labelling could make food redistribution easier. French law has gone further, prohibiting supermarkets from

⁴⁹ WFD (n 8), art 3(13) defines 're-use' as 'any operation by which products or components that are not waste are used again for the same purpose for which they were conceived'. AD of food waste performs better environmentally than composting, so that recovering rather than recycling food waste is a permissible departure from the waste hierarchy: DECC and Defra (n 36) 10–11.

⁵⁰ Waste is devolved. It is beyond the scope of this paper to consider other devolved nations.

⁵¹ With a low baseline of 15,000 tonnes in 2015; cf the *Grocer's* campaign to increase redistribution to 100,000 tonnes: Environment, Food and Rural Affairs Committee (n 1). The redistribution target was agreed in January 2017 within the context of the Courtauld Commitment (CC) 2025, a voluntary agreement between WRAP (a government-funded not-for-profit company) and 95% of the UK food and drink industry. CC 2025 includes a pledge to reduce food and drink waste by 20% by 2025.

⁵² WRAP, 'New Food Redistribution Industry Working Group Is Launched' (*WRAP*, 28 January 2013) <<http://www.wrap.org.uk/content/new-food-redistribution-industry-working-group-launched>> accessed 25 August 2017.

⁵³ The cost of redistributing food is approximately £100/tonne (£70 for labour), including the costs of keeping food fit for human consumption through segregation, storage and handling: Environment, Food and Rural Affairs Committee (n 1) 21 and written evidence.

⁵⁴ FareShare, 'FareShare Encourages a Level Playing Field for Food Disposal' (*FareShare*, 8 September 2015) <<http://www.fareshare.org.uk/fareshare-encourages-level-playing-field-for-food-disposal/>> accessed 25 August 2017; Environment, Food and Rural Affairs Committee (n 1).

throwing away unsold food, and requiring certain retailers to enter into donation agreements to redistribute food.⁵⁵ The 2015-16 Private Member's Food Waste (Reduction) Bill included a similar proposal,⁵⁶ although such measures may be premature in England, as compelling donation could swamp the voluntary sector.

Nonetheless, despite the range of options available and calls for a level (especially financial) playing field, only limited measures support food redistribution. This dearth of measures exists despite many redistribution networks operating charitably, and without the capacity to cope with demand for surplus food redistribution.⁵⁷

3.3 The AD/redistribution imbalance: removing food from the food supply chain

The AD/redistribution imbalance - extensive support for AD, including non-discriminatory subsidies, combined with limited support for redistribution - creates an alternative to redistribution which incentivises, and actively removes edible food from the food supply chain.⁵⁸ Far from being a 'positive solution to food waste',⁵⁹ this is a gross failure to value food as an important resource. Additionally, AD subsidies create artificial demand for food as a fuel,⁶⁰ with which an already existing demand for redistributed food must then compete. Given the AD infrastructure already developed, its feedstock requirements, and increasing dependence on its renewable outputs, this demand for 'food as fuel' will continue for years to come, and beyond the need for AD to be subsidised for capacity-development. Of course, the UK arguably needs some AD

⁵⁵ Angelique Chrisafis, 'French Law Forbids Food Waste by Supermarkets' *The Guardian* (4 February 2016).

⁵⁶ Food Waste (Reduction) Bill 2015-16/67, s 2(1)(e).

⁵⁷ Andrew Forsey, 'An Evidence Review for the All-Party Parliamentary Inquiry into Hunger in the United Kingdom' (The Children's Society 2014) 96-7; Alexander and Smaje (n 20).

⁵⁸ Environment, Food and Rural Affairs Committee (n 1) 21, noted how surplus food that could legally go to people was often sent for AD. There was no awareness of the non-discriminatory nature of subsidies.

⁵⁹ Defra, Government Review of Waste Policy in England 2011 (PB 13540, Crown Copyright 2011) 9.

⁶⁰ As evidenced by the German experience, where crops are grown to feed AD, with implications for food prices and the food system broadly: Defra (n 39) 13.

capacity for unavoidable food waste, together perhaps with some interim capacity for avoidable food waste. The argument is therefore not ‘redistribution good, AD bad’. The problem is not subsidies for AD *per se*. Rather, the problem is the non-discriminatory nature of subsidies coupled with a lack of meaningful support for redistribution. The reduction in tariff levels for AD subsidies⁶¹ is thus not necessarily welcome when there remains a dearth of measures to support food redistribution and a stock of AD capacity in existence.

Furthermore, climate change and energy imperatives should not overshadow the broader symbolic and distributional consequences here. The AD/redistribution imbalance amounts to a codified preference for profitable waste management (AD) over charitable waste prevention (food redistribution), which favours commercial interests over the interests of the hungry.⁶² Embedded within the AD/redistribution imbalance are as yet unacknowledged distributional consequences; consequences rendered more profound in the context of food’s importance as a resource. This is not to suggest that food donation is the solution to food poverty. Clearly, surplus food cannot easily and always be fed to the hungry. Furthermore, responses to food poverty may more appropriately reside within the welfare state, as opposed to donating to impoverished sections of society what culturally might be considered ‘waste’. However, the connections between food abundance, food waste and food poverty are real,⁶³ and that abundance is imbued with an economic agenda somewhat divorced from the intrinsic value of food and its importance as a resource.⁶⁴ As will be argued, rather than helping to unpack this problematic

⁶¹ Parsons (n 47).

⁶² AD need not be profitable, nor redistribution charitable, but this is the current model.

⁶³ Evans (n 5); Bloom (n 6); Stuart (n 13).

⁶⁴ Marie Mourad, ‘Recycling, Recovering and Preventing “Food Waste”’: Competing Solutions for Food Systems Sustainability in the United States and France’ (2016) 126 *Journal of Cleaner Production* 461; Martin O’Brien, ‘A “Lasting Transformation” of Capitalist Surplus: From Food Stocks to Feedstocks’ (2012) 60 *The Sociological Review* 192.

AD/redistribution imbalance and its broader consequences, waste law is part of the problem.

4. The Role of Waste Law

This section explores how waste law's key architecture applies to food, and how this squares with structural causes of food waste. By examining waste law's role in framing, validating and underpinning the AD/redistribution imbalance, it shows how, rather than providing the legal and analytical tools to address food waste, waste law is actually part of the problem. These problems are a familiar story within waste law, but exacerbated by food's importance and difference as a resource.

Before exploring the waste hierarchy, the definition of waste, and the structural work done by this key architecture, it is worth outlining the aims of waste law: waste management and waste prevention.⁶⁵ Waste management is the collection, transport and treatment of waste, together with the after-care of waste sites.⁶⁶ EU law requires Member States to regulate those who produce, hold, transport, broker and treat waste for commercial purposes.⁶⁷ In the UK, this includes permitting, registration, inspection, and record-keeping requirements, together with a waste duty of care.⁶⁸ Waste prevention, by contrast, concerns measures taken before a substance, material or product has become waste that reduce the quantity of waste or the adverse impacts of waste generation.⁶⁹ Waste prevention acknowledges that the presence of waste itself can indicate a failure to use resources effectively. It can imply radical adjustments to the structure of societies,

⁶⁵ Mapped in the two waste planning obligations, the waste management plan and the waste prevention programme, WFD (n 8), arts 28 and 29.

⁶⁶ *ibid*, art 3(9). Waste treatment is the recovery or disposal of waste, *ibid*, art 3(14).

⁶⁷ WFD (n 8), chs III-IV.

⁶⁸ See Stuart Bell and others, *Environmental Law* (9th edn, OUP 2017) ch 18.

⁶⁹ Prevention also includes measures that reduce the content of harmful substances in materials/products, WFD (n 8), art 3(12).

such as limiting consumption, but also less radical interventions like extending the life of resources through reuse and repair.⁷⁰ Unlike waste management, concerned with what we do with ‘stuff’ once it becomes waste, waste prevention prevents that stuff from becoming waste in the first place.

4.1 The Waste Hierarchy

Waste management and prevention feature in the centrepiece of waste law, the waste hierarchy, with prevention at the top, and numerous waste management options at the bottom. However, government deploys the hierarchy to legally validate, rather than condemn, the AD/redistribution imbalance. This distracts from meaningful engagement with food waste prevention, and exemplifies the hierarchy’s limited legal and analytical utility. The hierarchy, together with an economic agenda it underpins, fail to accommodate food’s special status, and are at odds with structural causes of food waste.

Member States, and those subject to waste obligations, are legally required to apply the waste hierarchy.⁷¹ Arguably, sending surplus food to AD, rather than redistributing it, fails to comply with that legal obligation, given AD sits below redistribution on the hierarchy. However, waste holders are required to take all ‘reasonable’ measures to apply the waste hierarchy, taking into account technical feasibility and economic viability.⁷² Given the problematic incentive structure created by the AD/redistribution imbalance, sending food to AD may be ‘reasonable’. But the manner of implementation does not help, with waste holders demonstrating compliance with the hierarchy by ticking the

⁷⁰ Johan Hultman and Hervé Corvellec, ‘The European Waste Hierarchy: From the Sociomateriality of Waste to a Politics of Consumption’ (2012) 44 *Environment and Planning A* 2413.

⁷¹ WFD (n 8), art 4; Waste (England and Wales) Regulations 2011, SI 2011/988, reg 12.

⁷² Waste Regulations 2011 (n 71), reg 12.

relevant box on ‘written information’ provided when transferring waste.⁷³ Neither the Environment Agency nor government more widely has shown much appetite for enforcing the hierarchy in this context, to the dismay of the House of Commons’ Environment, Farming and Rural Affairs Committee.⁷⁴ However, it is not clear what meaningful enforcement might look like.

By targeting interventions at AD over redistribution, one could argue that the AD/redistribution imbalance itself represents Member State non-compliance with the hierarchy. As campaigners have argued, ‘we have a waste hierarchy that is completely out of kilter with the economic hierarchy that sits alongside it’.⁷⁵ However, the waste hierarchy operates as a ‘priority order’.⁷⁶ Failing to specify when an option at the top of the hierarchy is exhausted leaves considerable scope for avoiding hierarchy obligations.⁷⁷ Furthermore, whilst Member States may depart from the hierarchy for life-cycle reasons, and must take into account technical feasibility and economic viability,⁷⁸ government does not attempt to justify the AD/redistribution imbalance on any of those relevant bases. Brought together, this raises questions about the hierarchy’s legal utility, especially if ‘important voter concerns like costs’ can invalidate it.⁷⁹ Ludwig Krämer thus characterises the hierarchy as a policy recommendation, describing legal action against Member States for not respecting the hierarchy as ‘unthinkable’.⁸⁰

⁷³ Formerly waste transfer notes, *ibid* reg 35(2)(d); The Waste (England and Wales) (Amendment) Regulations 2014, SI 2014/656, reg 6; Elizabeth Fisher, Bettina Lange and Eloise Scotford, *Environmental Law: Text, Cases & Materials* (OUP 2013) 704.

⁷⁴ Environment, Food and Rural Affairs Committee (n 1) 7–8 & 21–22.

⁷⁵ EU Committee (n 10) 46.

⁷⁶ WFD (n 8), art 4(1).

⁷⁷ S Van Ewijk and JA Stegemann, ‘Limitations of the Waste Hierarchy for Achieving Absolute Reductions in Material Throughput’ (2016) 132 *Journal of Cleaner Production* 122.

⁷⁸ WFD (n 8), art 4(2).

⁷⁹ Van Ewijk and Stegemann (n 77) 126.

⁸⁰ Ludwig Krämer, *EU Environmental Law* (8th edn, Sweet & Maxwell 2015) 361.

Ironically, however, government deploys the hierarchy to legitimatise rather than condemn support for AD as a less bad alternative to landfill.⁸¹ This misuses the hierarchy, by comparing AD only with other waste management options and ignoring prevention. Nonetheless, the very inclusion of an option on the hierarchy legitimises that option, and the comparative preference of AD over landfill is a narrative that the hierarchy tends to facilitate, at least in common parlance and as a result of its limited enforceability. Whilst the legal imperative is to prioritise prevention, the practical imperative is to ‘move up’ the hierarchy: devoting considerable resource and effort to move up the hierarchy, only a little, from landfill to energy recovery (addressing what we do with food once it becomes waste), as opposed to a more fundamental shift to the top priority of prevention (seeking to stop food from becoming waste in the first place). As a heuristic, the hierarchy tells us not whether the option adopted is ‘good or bad’ *per se*, simply whether options are relatively better or worse: diverting food waste from landfill to AD is ‘relatively good’, whereas food redistribution is ‘relatively better’.⁸² This undermines the hierarchy’s utility as an analytical and legal tool in addressing food waste: the centrepiece of waste law is deployed to provide *legal* validation to a policy landscape that fails to value food, but which, as only problematically enforceable (if at all), is seemingly beyond legal control.

Used this way, the hierarchy becomes the waste *management* hierarchy, representing broader conceptual problems with prevention in waste law.⁸³ Energy from waste policy documents setting out the principles for AD and food waste focus on the bottom of the hierarchy, particularly with a fixation on recycling efforts (as opposed to prevention) when moving up the hierarchy.⁸⁴ The legal obligation to prioritise prevention

⁸¹ See especially Defra (n 39) 6.

⁸² Van Ewijk and Stegemann (n 77).

⁸³ Eloise Scotford, ‘Trash or Treasure: Policy Tensions in EC Waste Regulation’ (2007) 19 *Journal of Environmental Law* 367.

⁸⁴ See, for example, Defra and DECC (n 36) paras 58, 213, 228 & 295.

is lost in this shift towards waste management, a side effect of which is a failure to engage with food waste prevention. For example, the aim of ‘managing discarded resources back into the economy’⁸⁵ is a glib assertion that ignores bigger questions of whether those resources should have been discarded or wasted at all. In turn, this distracts from ensuring that energy from waste does not undermine waste prevention: the *AD Strategy* pays no attention whatsoever to the relationship between AD subsidies and food redistribution. This frames food waste as a waste management problem, rather than a resource management problem, which in turn fails to engage with the structural causes of food waste around how, as a society, we value and manage food. Indeed, as others have argued with respect to the waste hierarchy generally, given that waste prevention concerns what we do with ‘stuff’ before it becomes waste, waste prevention actually has little to do with waste, so that in turn waste law has a limited role in preventing waste.⁸⁶ That critique of waste law and the waste hierarchy exposes a limitation in addressing structural causes of food waste, because behaviour that gives rise to food waste is not necessarily waste-related.⁸⁷ This suggests a conceptual and inherent limitation within waste law to address the causes of food waste.

This lack of engagement further up the food waste hierarchy fits with shifts from seeing waste as a problem, to seeing waste as a resource, and even an economic opportunity.⁸⁸ The waste hierarchy has been central to this shift, particularly by emphasising and legitimising recycling and recovery. As outputs with economic value (transforming waste into a resource), recycling and recovery processes work within

⁸⁵ *ibid* 213.

⁸⁶ Eloise Scotford, ‘The New Waste Directive - Trying to Do It All...an Early Assessment’ (2009) 11 *Environmental Law Review* 75.

⁸⁷ Evans (n 5) 95.

⁸⁸ EU Commission, ‘Closing the Loop - An EU Action Plan for the Circular Economy’ (Communication) COM (2015) 614 final, 2 December 2015; Nicky Gregson and others, ‘Interrogating the Circular Economy: The Moral Economy of Resource Recovery in the EU’ (2015) 44 *Economy and Society* 218.

prevailing norms of economic growth.⁸⁹ When waste becomes a resource, it also becomes unproblematic, or less problematic: framing waste as a resource ‘is an answer to the question of waste as a problem ... so, in a way, the more waste, the better’.⁹⁰ However, turning waste into a resource works against waste prevention and redistribution, which, with a decrease of outputs with economic value, are qualitatively different from recovery.⁹¹ AD produces biogas and digestate, outputs with capital value, so that food waste becomes a resource, and un- (or less) problematic. In contrast, food redistribution produces nothing (or very little) of economic value.⁹²

The AD/redistribution imbalance thus fits within, is even explained by a broader agenda seeking to construct waste as a resource; an agenda to which the waste hierarchy is central, and provides legal validation. It should thus come as no surprise that interventions in this area prefer capital-intensive methods of waste management to charitable methods of waste prevention. We might be comfortable with this for resources not distinguished in their significance by basic human need. But the preference for economic value (AD) over non-value (redistribution) looks unpalatable in the context of a resource as important as food. By failing to value food as food, this agenda is also at odds with the structural causes of food waste. The limited practical and legal utility of waste hierarchy, together with the ‘waste as a resource’ approach it validates, adds to problems surrounding food waste, rather than providing tools to disrupt them.

⁸⁹ Hultman and Corvellec (n 70) 2415; Marie Mourad, ‘Thinking Outside the Bin: Is There a Better Way to Fight “Food Waste?”’ (2015) 59 *Berkeley Journal of Sociology (Environment & Society)* <<http://berkeleyjournal.org/2015/11/thinking-outside-the-bin-is-there-a-better-way-to-fight-food-waste/>> accessed 9 April 2018.

⁹⁰ Hultman and Corvellec (n 70) 2420 & 2417.

⁹¹ Nicky Gregson and Mike Crang, ‘Materiality and Waste: Inorganic Vitality in a Networked World’ (2010) 42 *Environment and Planning A* 1026; Zsuzsa Gille, ‘Actor Networks, Modes of Production, and Waste Regimes: Reassembling the Macro-Social’ (2010) 42 *Environment and Planning A* 1049.

⁹² Perhaps savings from fewer hungry people.

4.2 The Definition of Waste

The limitations of waste law are also exemplified by the role which the legal definition of waste plays in the AD/redistribution imbalance. The holder-specific definition of waste applied to food is over inclusive, capable of labelling perfectly edible food as ‘waste’. Whilst this is not a problem unique to food, no consideration has been given to whether the definition’s regulatory logic applies to a resource as important as food. There are two concrete albeit narrow legal problems flowing from this in the context of AD and redistribution, where the definition of waste underpins non-discriminatory AD subsidies whilst also acting as barrier to redistribution. More broadly, the over inclusive definition of waste is uniquely powerful in reflecting and reinforcing how as a society we value food. With the central operative concept in waste law ill attuned to the special status of food, we should query whether generalised waste law is the appropriate home for food waste.

4.2.1 Waste law’s regulatory logic: ‘food’ ‘waste’

The legal definition of waste is over inclusive, and underpinned by a regulatory logic not obviously conceptually appropriate in the context of food. There is no commonly accepted definition of ‘food waste’.⁹³ Instead, the definition of waste applies indiscriminately to food, so that we have only a composite legal definition by applying the definition of ‘waste’ to the definition of ‘food’. ‘Food’ ‘waste’ is thus any substance, object or product intended or reasonably expected to be ingested by humans (food),⁹⁴ which the holder discards or intends or is required to discard (waste).⁹⁵ There is some disagreement in the literature as to whether the definition of waste is ‘subjective’, owing

⁹³ EU Committee (n 10) 11–14.

⁹⁴ General Food Law (n 7), art 2.

⁹⁵ WFD (n 8), art 3(1).

to the centrality of the holder's intentions,⁹⁶ or 'action-based', given the significance of the verb 'discard'.⁹⁷ Either way, the definition of waste is *holder-specific*. The potential economic or other value in a particular substance/object is irrelevant to the legal question of whether something is waste.⁹⁸ Furthermore, given the definition turns on whether *any* substance/object is discarded, the definition of waste is not substance-based.⁹⁹ The objective characteristics of a substance are irrelevant to the legal question of whether something is waste.¹⁰⁰

Underpinning the holder-specific definition of waste is a logic derived from a conceptualisation of the problem posed by waste specifically, distinct from pollution generally.¹⁰¹ From a waste management perspective, the harm of waste is the *potential* for pollution that arises when a holder no longer has any use for an object, nor perceives any value in it. When the self-interest to handle an item with care is removed, an inherent probability arises that the item will be dumped, or treated unsafely. Regulatory obligations attaching to 'waste' kick in when that risk arises: at the point of intended, required or actual discard. The holder-specific point of discard also allocates initial responsibility for safe waste treatment: whoever 'produces' waste, or is in possession of an object when it becomes waste,¹⁰² must ensure that waste is safely handled and treated. Driven by a regulatory logic concerned with safe waste management, the holder-specific definition of waste thus (i) draws a legal line between waste and non-waste, and (ii) allocates initial legal responsibility for waste treatment.

⁹⁶ Ilona Cheyne and Michael Purdue, 'Fitting Definition to Purpose: The Search for a Satisfactory Definition of Waste' (1995) 7 *Journal of Environmental Law* 149; Ilona Cheyne, 'The Definition of Waste in EC Law' (2002) 14 *Journal of Environmental Law* 61.

⁹⁷ Scotford (n 83).

⁹⁸ Krämer (n 80) 371.

⁹⁹ Scotford (n 83) 375.

¹⁰⁰ Joined Cases C-418/97 & 419/97 *ARCO Chemie Nederland v Minister Van Volkshuisvesting* [2000] ECR I-4475.

¹⁰¹ David Wilkinson, 'Time to Discard the Concept of Waste?' (1999) 1 *Environmental Law Review* 172.

¹⁰² WFD (n 8), art 3(4). This may entail ensuring waste's safe handling or treatment by another party.

From a resource management perspective, however, the harm at the point of discard has already occurred: resources have been used, and squandered if not used effectively. In order to value food as food, edibility is a (if not *the*) key touchstone in determining when food is acceptably removed from the food supply chain. From a waste prevention/resource management perspective, only inedible food should thus be labelled as ‘waste’ (unavoidable/residual food waste). Instead, the legal definition of waste ignores food’s edibility *unless* the holder is minded to seek re-use opportunities. Otherwise, ‘food’ becomes ‘waste’ at the point of discard, irrespective of whether that food is still (or once was) edible. From a resource management perspective, the definition of waste tells us little about whether food ought to be waste. By leaving wasting food unquestioned,¹⁰³ the central operative concept within waste law does limited analytical work.

This exposes how the definition of waste embodies a conceptual tension within waste law between waste management and waste prevention/resource management.¹⁰⁴ Once material is labelled as ‘waste’, it is necessarily managed rather than prevented, and can subject beneficial activities (such as recycling and recovery) to the costly regulatory and stigma burdens attaching to ‘waste’ in ways which dis-incentivise waste reduction.¹⁰⁵ Despite the legal priority given to prevention, the definition of waste naturally lends itself to end-of-pipe approaches to waste, often missing opportunities higher up the hierarchy.¹⁰⁶ These problems are not unique to food. However, little (if any) work has been done to consider whether this regulatory logic applies with the same force to food.

¹⁰³ Van Ewijk and Stegemann (n 77) 125.

¹⁰⁴ Scotford (n 83); Robert Lee and Elen Stokes, ‘Rehabilitating the Definition of Waste: Is It Fully Recovered?’ (2008) 8 Yearbook of European Environmental Law 162.

¹⁰⁵ Seen especially in by-products litigation. For a full account, and in addition to articles cited above, see Fisher, Lange and Scotford (n 73) ch 16. See also Stephen Tromans, ‘EC Waste Law—A Complete Mess?’ (2001) 13 Journal of Environmental Law 133; *ARCO* (n 100).

¹⁰⁶ Harriet Bulkeley and Kye Askins, ‘Waste Interfaces: Biodegradable Waste, Municipal Policy and Everyday Practice’ (2009) 175 Geographical Journal 251.

There is value (how much?) in seeking to prevent harm arising from inappropriate food waste management. However, if, for reasons of waste management, edibility should not solely determine when food becomes waste, it does not follow that edibility should be entirely irrelevant. There should be overt deliberation on how to balance food waste management risks with the goal of keeping such an important resource in the food supply chain. The over inclusive definition of waste is not attuned to this, and with a composite definition of ‘food’ ‘waste’, waste law overrides the conceptually appropriate line drawing of food law, and fails to accommodate the special status of food as a resource.

4.2.2 Narrower problems: AD and food redistribution

The over inclusive definition of waste is more than a ‘mere’ conceptual problem operating at an abstract level. Two narrow but concrete legal problems flow from the use and operation of the holder-specific definition of waste in the context of AD and redistribution, helping us to better understand the limitations of waste law in addressing food waste.

The first problem concerns the definition’s inappropriate line-drawing role in underpinning subsidies for AD. AD policy discussion features mainly in the context of energy from waste, which is naturally waste management-driven. However, this management-centricity is satisfactory only if the starting principle—to encourage energy from *residual* waste—is followed through in implementation. Otherwise, this fails to give priority to prevention. Subsidies do not make this distinction, available indiscriminately for edible food/avoidable food waste and inedible food/unavoidable food waste. Making such a distinction might seem like regulatory overkill, but whilst the receipt of renewable energy subsidies for certain installations is subject to exacting sustainability criteria, these

criteria do not apply in the context of food waste: energy from ‘waste’ (over inclusively defined, as above) is exempt from these criteria, and thus deemed ‘sustainable’.¹⁰⁷

The regulatory logic of the holder-specific definition of waste, concerned with when waste obligations apply, is very different from the logic which ought to underpin the award of subsidies for energy from waste. The *AD Strategy* seeks to support the development of energy from residual waste, not all waste, and so subsidies ought to be discriminatory. The different purposes that the definition of waste might serve (here, regulatory versus fiscal) are not acknowledged, and the regulatory logic inappropriately prevails. In this context, the line drawing is conceptually inappropriate. Of course, there are limits to the goals that specific sectors of environmental law can conceivably achieve. The renewables regime is perhaps rightly unconcerned with waste prevention, but only because it relies on waste law to do analytical work which, as above, it is presently incapable of doing. Instead, the definition of waste not only underpins, but in view of the uniquely powerful role of *legal* categorisation,¹⁰⁸ legitimises the incentivised removal of edible food from the food supply chain. This is especially problematic in the context of a resource as important as food, and at odds with structural accounts of food waste: waste law underpins and legitimises a failure to value food as food.

The second problem with the definition of waste exposed by exploring AD and redistribution concerns indirect barriers to food redistribution created by the definition of waste’s allocative role. Donating food for redistribution (‘re-use’) is not an act of

¹⁰⁷ These sustainability criteria are concerned with land use and greenhouse gas savings RO Order 2015 (n 41); Ofgem, ‘Renewables Obligation: Sustainability Criteria (Guidance)’ (Ofgem 2016) 10–16, 85; FIT Amendment Order 2017 (n 42); Ofgem, ‘Feed-in Tariffs: Guidance on Sustainability Criteria and Feedstock Restrictions’ (Ofgem 2017) 9–10 & 66; RHI Regulations 2011 (n 43); Ofgem, ‘Non-Domestic RHI Sustainability Self-Reporting Guidance (Version 2)’ (Ofgem 2016) 16–21 & 62. Under the RTFO, biofuels from waste are double counted, and waste is automatically exempt from the land-use criteria only, RTFO Order 2007 (n 44); Department for Transport, ‘RTFO Guidance Part Two: Carbon and Sustainability Guidance’ (Crown Copyright 2014).

¹⁰⁸ Discussed below.

discarding caught by the definition of waste,¹⁰⁹ so that waste law directly protects the redistribution of surplus food. The definition's line-drawing role is not problematic here in the way it had been in the circumstances surrounding litigation on by-products, where the over-inclusive definition of waste constituted a barrier to better use.¹¹⁰ However, the holder-specific definition of waste allocates initial legal responsibility for waste treatment to the first waste holder, i.e. whoever is in possession at the point of discard. This inevitably allocates initial responsibility to food redistribution organisations for disposing of any unused surplus food accepted from retailers. This then creates disincentives to accept that food in the first place. As explained by Alexander and Smaje, the perishability of food particularly increases the risk of being responsible for unused surplus, so that the disincentive to accept perishable food is greater.¹¹¹ The holder-specific definition of waste's allocation of responsibility can thus act a barrier to food redistribution, rather than an obviously conceptually appropriate limitation. The problem is exacerbated by food's perishability (and waste law's failure to accommodate that objective characteristic), and adds to the AD/redistribution imbalance.

Furthermore, the definition of waste allocates waste obligations irrespective of the relative responsibilities for generating that waste. In the case of unused donated surplus, this releases retailers from the responsibility for disposing of food waste which they are structurally complicit in causing.¹¹² By not spreading responsibility for the disposal of food waste across the food supply chain, the holder-specific definition of waste is at odds with structural causes of food waste. Furthermore, as is a continual theme, with charitable

¹⁰⁹ WFD (n 8), art 3(13).

¹¹⁰ Fisher, Lange and Scotford (n 73) ch 16.

¹¹¹ Alexander and Smaje (n 20) 1291.

¹¹² It is well-documented that supermarkets drive food waste in their supply chains: Bradshaw (n 11); Stuart (n 13). Waste obligations can cover a large chain of actors, but only in respect of holders and producers of 'waste': WFD (n 8), arts 3(5) and (6). When surplus food is donated for re-use, it is not waste.

rather than for-profit models of food redistribution, this allocation of responsibility inevitably benefits commercial interests at the expense of food waste imperatives, for the reasons explained above.

4.2.3 Legal definitions matter

Arguably, these two narrower problems arise not from an inherent problem with the definition of waste itself, but from its inappropriate use in other regulatory regimes (renewables subsidies), or the legal consequences flowing from definition (initial responsibility for waste treatment). However, the conceptual problems with the definition of waste of applied to food (outlined above) are rendered more broadly problematic when squared with the structural causes of food waste.

The definition of waste has inescapably normative implications.¹¹³ This process of categorisation is inherently value-laden, partly because waste can have positive and negative value. This is central to Michael Thompson's conceptualisation of waste as a 'region of flexibility' with scope for varied resource valuation.¹¹⁴ This region of flexibility is central to understanding how perceptions of value are not only complex and contingent, but malleable. It follows that categorising food as waste is not a value free or apolitical exercise.¹¹⁵ As we have seen, lines between edible food surplus and inedible food waste are subject to vested economic/commercial interests with distributional consequences. Alongside this, a rich body of scholarship on waste documents how the process of labelling things as waste is part of a wider system of resource valuation.¹¹⁶ The process

¹¹³ Gay Hawkins, *The Ethics of Waste: How We Relate to Rubbish* (Rowman & Littlefield Publishers, Inc 2005) vii.

¹¹⁴ Michael Thompson, *Rubbish Theory: The Creation and Destruction of Value* (OUP 1979).

¹¹⁵ Evans (n 5) 3, Gille (n 91) 1056.

¹¹⁶ Thompson (n 114); John Scanlan, *On Garbage* (Reaktion Books 2004); Susan Strasser, *Waste and Want: A Social History of Trash* (Holt Paperbacks 2000); O'Brien (n 64).

of categorising and defining food waste is thus a profound manifestation of how a society values food: waste is ‘both expressive of social values and sustaining to them’.¹¹⁷

We should thus be cognisant of the way that law, by intervening in that region of flexibility, reflects and scaffolds broader structural failures to value food. That waste can have positive and negative value also underpins the regulatory logic of a holder-specific legal definition. However, assessing the definition only in terms of its narrower regulatory function ignores the broader, uniquely powerful symbolic and structural work that *legal* categorisation does.¹¹⁸ Given that rich waste scholarship, it is unhelpful that the definition of waste tells us little about whether food waste is legitimately ‘waste’. The limited analytical work done by the legal definition provides little assistance in navigating or unpacking the structural challenges surrounding food waste.

4.3 Alternatives to the deeper embedding of structurally problematic concepts

The problems highlighted with the key architecture of waste law exposed by the AD/redistribution imbalance are more than isolated regulatory problems ‘of the moment’. Law is complicit in the structural causes of food waste: legal norms can become embedded, so that law, and not just the contemporary regulatory landscape, makes the structural causes of food waste more difficult to disrupt. This is reflected in the central role retained for the waste hierarchy and the definition of waste within forthcoming EU legislation on food waste.¹¹⁹ While detailed discussion of only provisionally agreed legislation is beyond the scope of this article, two brief points might be made regarding

¹¹⁷ Gregson and Crang (n 91) 1027.

¹¹⁸ Anna Krzywoszynska, ‘“Waste? You Mean by-Products!” From Bio-Waste Management to Agro-Ecology in Italian Winemaking and Beyond’ (2012) 60 *The Sociological Review* 47.

¹¹⁹ European Parliament, ‘Proposal for a Directive Amending Directive 2008/98/EC on Waste: Provisional Agreement of 23 February 2018 Resulting from Interinstitutional Negotiations’ PE618.285.

revisions to the WFD which in turn raise broader questions as to whether waste law is the appropriate legal home for food waste.

First, under the provisionally agreed revised WFD, the waste hierarchy remains central to a range of specific food waste obligations placed on Member States. This includes to make use of economic instruments to incentivise compliance with the waste hierarchy, ‘such as’ fiscal incentives for food donation,¹²⁰ take measures to reduce food waste across the supply chain ‘as a contribution’ to UN Sustainable Development Goals,¹²¹ and ‘encourage’ food donation and other redistribution, prioritising human use over reprocessing into non-food products.¹²² Whether any of these obligations are strong enough to condemn the AD/redistribution imbalance is unclear, particularly in view of the use of softer language (‘such as’, ‘making a contribution’ and ‘encouraging’). Furthermore, economic incentives for food waste donation are neither necessary under the proposed text,¹²³ nor likely (alone) to be sufficient.¹²⁴ Most fundamentally, while prioritising the human use of food recognises the perversity of diverting edible food to AD, framing the AD *v.* redistribution debate by reference to the waste hierarchy, seemingly masks more fundamental questions as to whether we should be producing the quantities of food, in the way and places that we do, that the AD or redistribution of food surplus is even necessary.

¹²⁰ *ibid*, art 1(3) and Annex IVa(3).

¹²¹ *ibid*, art 1(9). The UN Sustainable Development Goals include a target which calls for halving per capita global food waste at the retail and consumer levels and reducing food losses along production and supply chains by 2030.

¹²² *ibid* art 1(9). Food waste prevention measures are to be supported by the adoption of a specific food waste prevention programme: *ibid* art 1(17).

¹²³ They are one example of the economic instruments / other measures which may be used under the harder obligation to apply economic instruments to incentivise the waste hierarchy.

¹²⁴ As I have argued elsewhere, economic/market approaches to food waste will not be without problems, see ‘Food Waste Narratives’ (in progress/forthcoming) and Bradshaw (n 11).

Second, the provisional agreement to adopt the type of composite definition of ‘food’ ‘waste’ explored above,¹²⁵ means that the definition of waste remains holder-specific, thus capturing edible food and avoidable food waste. This is sensible for a common reporting methodology (such food has been ‘wasted’).¹²⁶ However, it fails to address: the inherent conceptual problems with an over-inclusive definition of waste which are not unassailably justified, in the context of food, by waste management regulatory logic; the narrow legal problems with the definition underpinning AD subsidies whilst indirectly dis-incentivising redistribution; and the broader structural problems of a legal definition which leaves the act of wasting unquestioned.

If food waste’s home is to remain within waste law, the starting point in addressing these challenges must be within the key architecture and normative touchstones of waste law itself, arguably starting with definitions.¹²⁷ This is not only because so much hinges upon the definition of waste, including the entirety of waste law, the implementation of waste policy, and an underpinning role in other regulatory regimes. It is also because legal categorisation reflects and shapes structural valuations of food. In light of food’s importance and difference as a resource, there may be a case for special regulatory treatment within waste law. This might involve granularity in the definition of waste when applied to food, and/or an entirely separate prevention regime for food waste, such as extended producer responsibility (EPR).¹²⁸

¹²⁵ Where the legal definition of ‘waste’ is applied to the legal definition of ‘food’, see European Parliament (n 119), art 1(2)(d).

¹²⁶ On measurement definitions, see Food Loss and Waste Protocol Steering Committee, ‘Food Loss and Waste Accounting and Reporting Standard’ (World Resources Institute 2016).

¹²⁷ Such as value-based conceptions of waste, under which it is inappropriate to classify as ‘waste’ items which have value to another, eg David Pocklington, ‘Opening Pandora’s Box - the EU Review of the Definition of “Waste”’ [2003] *European Environmental Law Review* 205.

¹²⁸ On EPR for other waste streams, see Fisher, Lange and Scotford (n 73) 710–1.

At the same time, the provisionally agreed WFD forms part of a broader ‘circular’ economy package.¹²⁹ The idea of the circular economy involves recovering valuable resources back into the economy, rather than simply making and disposing of products in a ‘linear’ fashion. This economic agenda is behind the problematic shift to seeing waste as a resource, capturing the imagination of policy makers and waste professionals to such an extent that seeing ‘waste as a resource’ is now conventional wisdom.¹³⁰ With the waste hierarchy and the definition of waste underpinning that apparent wisdom, the key architecture of waste law is central to a deeper embedding of structural failures to value food, compounding rather disrupting the problem of food waste.

The limited analytical and conceptual utility of both the definition of waste and the waste hierarchy raises questions as to whether waste law is the appropriate home for food waste. A comparison here with food law is apposite. Whilst food law is not concerned with resource management, it does accommodate the importance and difference of food by drawing conceptually appropriate lines between food and non-food by reference to edibility, the key determinant of food’s resource value as food. Leveraging food law for food waste thus warrants examination. Either way, at present, waste law fails to provide the analytical and legal tools appropriate for framing and underpinning food waste interventions.

5. Conclusion

¹²⁹ EU Commission (n 88).

¹³⁰ Alan Murray, Keith Skene and Kathryn Haynes, ‘The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context’ (2017) 140 *Journal of Business Ethics* 369; Gregson and others (n 88).

This article identifies problems with the key architecture of waste law applied to food, a resource worthy of special status. The waste hierarchy and the definition of waste frame, underpin and provide legal validation to a problematic imbalance of support for AD over the redistribution of food. The combined effect of this imbalance is the incentivised removal of edible food from the food supply chain. It is thus important to query whether waste law, by reflecting and scaffolding a failure to value food as food, adds to the structural causes of food waste, rather than providing tools to address it.

Indeed, the waste hierarchy and the definition of waste have been powerfully complicit in narrowing food waste (and indeed, other waste problems) into an end-point problem of waste management, rather than an upstream problem of resource management. This is at odds with structural accounts of food waste, and distracts from proper engagement with underlying problems of how, as a society, we value food. For example, framing the AD *v.* redistribution debate by reference to the waste hierarchy masks more fundamental questions as to whether we should be producing the quantities of food, in the way and places that we do, that the AD or redistribution of food surplus is even necessary. Debates framed by the waste hierarchy distract from bigger systematic failures within our food system. De-problematizing food waste by recasting it as a resource similarly renders waste law limited as a framework for addressing food waste.

Furthermore, narrowing food waste into a downstream waste management problem creates a legally constructed policy space ripe for blaming those at the end of the supply chain: it becomes easier, even legally legitimate, to blame consumers for food waste in ways which research has already told us is inaccurate and ineffectual. Meanwhile, the legal lines drawn and shaped by law between edible surplus and inedible waste, together with associated allocations of responsibility, support vested commercial interests over the imperatives of food waste reduction and the interests of the hungry. Unless we have

proper conversations about food as a resource (and a legal framework enabling this), rather than just a conversation about food waste, it will be difficult to offer meaningful interventions.

In some ways, this is a familiar story within waste law. However, in the context of food's importance and difference as a resource, this struggle becomes profound and urgent: food waste's special status exacerbates waste law's problems. Full consideration of responses to these problems is beyond the scope of this article. Nonetheless, food waste arguably warrants special regulatory treatment. Either within or outwith waste law, law should do more to interfere with the framing and legitimation of food waste as a waste management problem. Within waste law, this might include an EPR regime, but challenges will inevitably remain, including whether waste law can meaningfully address the challenges of waste management, waste prevention and resource management simultaneously, to provide conceptually appropriate tools for unpacking the structural causes of food waste. It may be that a body of law concerned with waste is inherently incapable of meaningful concern for resources. An alternative regulatory home may be apposite, perhaps by making space for waste in food law.

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