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## **Title**

Cutting Nature to Fit: Urbanization, neoliberalism and biodiversity offsetting in England

## **Authors**

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24 urbanization, right to the city, right to nature, urban political ecology

25



51 In the UK, the housing market was considered as one of the biggest casualties of the  
52 2008 global economic crisis. Not surprisingly, both the Coalition government and the  
53 Conservative Government identified the rapid delivery of housing as a key priority<sup>2</sup>.  
54 To this end they put pressure on local authorities to release more land (Lockhart,  
55 2015) while emphasizing the urgency to cut ‘red tape’ and remove ‘unnecessarily  
56 complex regulations’<sup>3</sup>. This was also expected to facilitate the approval of  
57 infrastructure ‘megaprojects’<sup>4</sup>, such as railways, highways, and airports. Such  
58 schemes, and the role of private sector contractors in design and construction, are  
59 characteristic of neoliberal capitalism (Flyberg, 2003, Geddes, 2012) and in the  
60 context of the crisis, their transformation into an asset class that can yield substantial  
61 profits has intensified substantially (Hildyard, 2012).

62  
63 The UK applied the usual nostrums of neoliberal economics to urban affairs. The  
64 intensification of neoliberal urbanization (Brenner and Theodore, 2002, Harvey, 2012,  
65 Leitner et al., 2007, Swyngedouw et al., 2002) meant an extensive deregulation of  
66 land and property markets, the minimization of state interventions in planning and  
67 environmental legislation, further fiscal constraints and budgetary cuts upon local  
68 governments and cities, and an increasing reliance on private means of sustaining  
69 social reproduction.

70  
71 It is within this context that biodiversity offsetting emerged in the UK<sup>5</sup>, as a measure  
72 at the heart of the new governmental regime for development and environmental  
73 protection set out in a series of key policy documents (e.g. Defra, 2011, 2013, NPPF,  
74 2012). The government defined biodiversity offsets as ‘conservation activities that are  
75 designed to give biodiversity benefits to compensate for losses - ensuring that when a

76 development damages nature (and this damage cannot be avoided or mitigated) new  
77 nature sites will be created<sup>6</sup>.  
78  
79 Biodiversity offsetting is a paradigmatic neoliberal policy and part of the wider shift  
80 towards market-based conservation (Lockhart, 2015, Spash, 2015, Sullivan, 2013).  
81 Offsetting seeks to compensate losses to biodiversity in one place  
82 (and at one time) by creating equivalent gains elsewhere (Apostolopoulou and  
83 Adams, 2017). Its potential to facilitate the relocation of environmental compensation  
84 across space and time in line with the interests of developers has brought together  
85 major industries (particularly housing, mining, infrastructure, construction, oil and  
86 gas), governments, environmental brokers, investors, and NGOs (ten Kate et al.,  
87 2004) across the globe. Similarly, its adoption in the UK in the aftermath of the 2008  
88 financial crash was directly related to the Coalition government's recognition of the  
89 need to free up environmentally valuable land for urban development (Defra, 2013<sup>7</sup>,  
90 HM Government, 2013) and address urbanization's increasing environmental impacts  
91 (Latimer and Hill, 2007) simultaneously. The idea was that offsetting would be the  
92 end point in a 'mitigation hierarchy' that developers should follow only be undertaken  
93 once all possible measures to avoid or mitigate impacts had been taken (BBOP, 2009,  
94 Defra, 2013). However, experimentation with the policy triggered debates across the  
95 country on its scientific base and its effects on development decisions. Some cases,  
96 such as the Lodge Hill housing development in Kent or the new HS2 London-  
97 Birmingham train line, raised strong opposition that directly challenged the  
98 government's new 'win-win' rhetoric<sup>8</sup>.  
99

100 Critical scholars have so far analyzed the role of Defra offsetting metrics in the  
101 construction of exchangeability (Sullivan, 2013); the ideological dimensions of  
102 struggles over offsetting (Sullivan and Hannis, 2015); its use in the English planning  
103 system (Hannis and Sullivan, 2012) and the difficulty of delivering the promise of  
104 reconciling development and conservation (Lockhart, 2015). Here, by drawing on  
105 fieldwork across England we seek to contribute to existing analyses by offering a  
106 Marxist historical-geographical analysis (c.f. Harvey, 2011) of biodiversity  
107 offsetting's emergence and operation. Our starting point is the way the adoption of  
108 biodiversity offsetting relates to government responses to the economic crisis, and  
109 their aspirations for large-scale housing and infrastructure projects. By paying  
110 attention to the interplay between biodiversity offsetting, urbanization and the  
111 neoliberal reconstruction of conservation, we aim to extend the focus of the neoliberal  
112 conservation literature from the role of offsets as ecological 'commodities' (Büscher  
113 et al., 2012, Sullivan, 2013) to the way offsetting is used to support the production of  
114 space(s), place(s) and nature(s) in line with contemporary patterns of capitalist urban  
115 growth. In particular, we explore the ways in which biodiversity offsetting  
116 operationalized new ideas about non-human nature as a stock of biodiversity, how it  
117 allowed planning decisions to be streamlined to support extended urbanization, how it  
118 contributed to foreclosing public debate about controversial urban development  
119 projects, and how it reterritorialized nature-society relationships. We also consider its  
120 social and class implications by showing how the hegemonic rhetoric of offsetting, as  
121 primarily shaped by governments and the private sector, has been contested by local  
122 communities and environmental activists.  
123



124 By drawing attention on the way offsetting links the exploitation of non-human nature  
125 in the city and in the countryside and by adopting a Lefebvrian conception of  
126 urbanization, we aim to contribute to recent attempts to bring closer Urban Political  
127 Ecology and Political Ecology (e.g. Arboleda, 2015). We furthermore suggest that  
128 struggles against offsetting (even when apparently ‘rural’) may reflect the emergence  
129 of a new emancipatory politics that would encompass the ‘right to nature’, which we  
130 define as the right to influence and command the processes by which nature-society  
131 relationships are made, remade and disrupted by generalised urbanization and  
132 economic development, as a key element of struggles for the ‘right to the city’  
133 (Harvey, 2008, 2012, Lefebvre, 1968, 1996).

134

## 135 **2. Theoretical framework**

136 ‘Under the banner of progress, capitalism attempts the urbanization of the  
137 countryside’  
138 Smith (2010: 71)

139 The introduction of biodiversity offsetting in England needs to be understood in the  
140 context of processes of urbanization. The UK is one of the world’s most urbanized  
141 countries mainly due to its early industrial development, with 82 per cent of the total  
142 population urban<sup>9</sup> despite a substantial counter-urbanization movement in recent  
143 decades. In linking biodiversity offsetting and urbanization, we are reflecting long-  
144 standing calls for an integrated analysis of the linked political economies of urban and  
145 rural space (Hoggart, 1995, Urry, 1995), and on the importance of links between  
146 urban and rural nature and its conservation (Matless, 1998, Sheail, 1981).

147

148 We understand the term ‘urban’ in relation to the theory of capital accumulation and  
149 thus we use it to refer to the broad process of the creation of a material physical  
150 infrastructure for production, circulation, exchange and consumption (Harvey, 2012),  
151 and as such not confined to ‘cities’ (Harvey, 1996a). We follow the Lefebvrian  
152 process-oriented view of ‘generalised urbanisation’ (Lefebvre, 1970)<sup>10</sup>, to describe the  
153 multiscalar production and reproduction of the built environment regardless of  
154 population size or density (see also Arboleda, 2016, Angelo and Wachsmuth, 2015,  
155 Brenner and Schmid, 2015). Crucially, as Brenner (2013: 87) argues, generalised or  
156 extended urbanization involves new, increasingly large-scale morphologies that  
157 ‘perforate, crosscut, and ultimately explode the erstwhile urban/rural divide’.

158

159 Capitalist urbanization has always rested on uneven socio-ecological interactions and  
160 transformations. Policies that promote urban development and growth favor  
161 speculative capital over people and nature; what is defined as ‘success’ in terms of  
162 capital accumulation can have significant negative impacts on people (apart from a  
163 privileged class) and the environment (Harvey, 2012). The way nature is produced  
164 through urbanization is the focus of ‘urban political ecology’ (Heynen et al., 2005;  
165 Loftus, 2012; Swyngedouw, 1996). The field has been strongly shaped by Marxist  
166 logic, especially by the work of David Harvey (1996b) and by Neil Smith’s  
167 ‘production of nature’ thesis (2010) and has significantly contributed to urbanizing  
168 discussions of social-ecological metabolism (*Stoffwechsel*) (Heynen, 2013, Smith,  
169 2005; see also Foster, 1999, Marx, 1894). As Swyngedouw (2015: 609-610) argues,  
170 the key issue is ‘the capitalist form of urbanization of natures: the process through  
171 which all manner of nonhuman “stuff” is socially mobilized, discursively scripted,  
172 imagined, economically enrolled (commodified), and physically

173 metabolized/transformed to produce socio-ecological assemblages that support the  
174 urbanization process’.

175

176 Urban political ecology has approached the city as the key terrain for exploring the  
177 co-production of the social and the natural. However, in the context of generalised or  
178 extended urbanization, the way nature is produced through capitalist urbanization  
179 becomes increasingly relevant for many places that extend beyond the limits of the  
180 traditional ‘city’, in the form of infrastructure, housing, industrial or commercial  
181 development (Smith, 2010). Indeed, erstwhile ‘rural’ or ‘wild’ spaces are increasingly  
182 socially and environmentally transformed to serve the growth imperatives of an  
183 accelerating urbanization which extends beyond the limits of the ‘historical central  
184 city’ in the form of new ‘outer’ and ‘edge’ cities in what were formerly suburban  
185 fringes, in green field or rural sites and city regions (see Brenner and Schmid, 2015).  
186 These processes have profound implications for the implicated socionatures, reflected  
187 in recent arguments about the importance of urbanization for wider political ecologies  
188 (Arboleda, 2016, Angelo and Wachsmuth, 2015).

189

190 In order to understand the way that biodiversity offsetting influences the social-  
191 ecological transformations that urbanization brings about, both within and also  
192 beyond the ‘city’, it is necessary to consider its origins and characteristics. On the one  
193 hand, the existence of the offset site shows that nature is no longer an ‘open frontier’  
194 for capitalism (Katz, 1998). Developers have to compensate for the destruction of  
195 non-human nature by re-creating nature somewhere else. However, the way  
196 compensation is understood and calculated in offsetting (Apostolopoulou and Adams,  
197 2017), along with the fact that hitherto ‘protected’ natures or ecosystems of high

198 biodiversity value are not excluded from the process, corroborates the contradictory  
199 and ephemeral character of conservation under capitalism (Apostolopoulou and  
200 Adams, 2015). On the other hand, offsetting also shows that mainstream solutions to  
201 the environmental contradictions of capitalism tend to reproduce the same logic that  
202 created these contradictions in the first place. The increasing reliance on offsetting  
203 policies (both carbon and biodiversity) is a key part of the wider shift towards a  
204 ‘green economy’ (or ‘green’ capitalism), in the sense of the systematic application of  
205 market logic and market-based mechanisms to environmental management and  
206 governance (Corson et al., 2013). In the logic of market environmentalism, the  
207 delivery of inadequate compensation is the result of ‘market failure’ (Bayon et al.,  
208 2008), leading to moves to place an economic value on biodiversity and ecosystem  
209 services. Biodiversity offsetting is also tightly interwoven with the deregulation and  
210 the market friendly reregulation of environmental and planning legislation, both key  
211 processes in the neoliberalization of non-human nature (Castree, 2008).

212

213 The way urbanization and offsetting intertwine is also important from the perspective  
214 of social and environmental struggles. The ‘right to the city’ (Harvey, 2008, 2012,  
215 Lefebvre 1968, 1996, Purcell, 2002), defined as the right to claim some kind of  
216 shaping power in fundamental and radical ways over the process of urbanization  
217 (Harvey, 2012), has been inextricably linked to what kind of relationship to nature we  
218 desire (Harvey, 2008). Fights for access to public green spaces have always been at  
219 the core of many urban struggles. As urbanization extends beyond the limits of the  
220 traditional city and policies like biodiversity offsetting are being launched to address  
221 its increasing environmental impacts, new close links between urban and rural  
222 struggles are being created for three main reasons. First, offsetting explicitly links the

223 dynamics of urban expansion into the countryside to processes of the loss and creation  
224 of nature beyond the traditional city. Second, offsetting can be applied to  
225 development in rural areas in ways that are tightly linked to processes of urban  
226 production and consumption (e.g. fracking or mining). Third, offsetting can link the  
227 survival of public green spaces within existing urban boundaries to the survival of  
228 nature on the urban fringe or beyond. ‘Offsite compensation’ means that the  
229 development site can be an urban place and the offset site a rural place, or the reverse  
230 (although this is less common).

231

### 232 **3. Methodology**

233 Our analysis draws on 62 semi-structured interviews at national level, and in seven  
234 selected case studies (Table 1): i) 18 respondents involved in the establishment of  
235 biodiversity offsetting at national level, including conservation scientists,  
236 environmentalists, conservation bankers, consultants, and governmental officials; ii)  
237 27 respondents from local authorities, environmental administrations, private sector  
238 organizations, businesses, and NGOs; and iii) 17 respondents from civil society  
239 groups (Table 1). In line with our research objectives our aim was to select case  
240 studies where the link between urbanization and the introduction of offsetting was  
241 clear and also on areas where significant conflicts had arisen over the implementation  
242 of the proposed development and the delivery of compensation through offsetting. We  
243 thus included two of the Defra pilots and five other prominent projects (Table 1).

244 [TABLE 1]

245 Our interview guide consisted of two main parts: a general set of questions about  
246 offsetting that was common for every interviewee and a more detailed set referring to  
247 a specific case study. The general set was divided into five categories: (i) biodiversity

248 offsetting policy in England and Defra’s consultation document; (ii) the relationship  
249 between conservation and urban development and the role of offsetting; (iii) offset  
250 metrics and the equivalence of ecosystems and places; (iv) the implementation of  
251 offsetting in practice; (v) and questions about offsetting, conservation banking and  
252 market-based conservation. The more detailed set of questions explored how exactly  
253 offsetting has been implemented in each case study, the actors involved, the criteria  
254 used for the designation of the offsets, how offsetting influenced the planning process  
255 as well as issues related to rights of way, access to nature, and public participation.

256

257 Contacts were identified from reports and the Internet, and interviewees found  
258 through snowballing. Interviews were mostly with one person, some pairs of  
259 interviewees; seven were group interviews. Interviews lasted from 40 to 150 minutes,  
260 with one hour being the norm. All interviews were tape-recorded and transcribed  
261 verbatim. Notes were taken in parallel, and backed up by document analysis, and  
262 participation in local meetings. Verbatim interview quotes used in this paper are  
263 identified by letter codes (Appendix 1).

264

#### 265 **4. Urbanization, neoliberalism and biodiversity offsetting in England**

##### 266 **4.1. Biodiversity offsetting, neoliberal conservation and urban development:**

##### 267 **reframing non-human nature as a movable stock of biodiversity units**

268 Even though the first explorations of the concept of biodiversity offsetting started  
269 under the Labour government elected in 2007, as part of the discussions about the  
270 creation of new biodiversity markets (Adams et al., 2014, Defra, 2007, Lockhart,  
271 2015, Treweek et al., 2009), it was the Coalition government elected in 2010 which  
272 brought forward more specific proposals. The most important policy initiative was the

273 introduction of an experimental two-year scheme in 2012 consisting of six pilot areas  
274 in England (Devon; Doncaster; Essex; Greater Norwich; Nottinghamshire;  
275 Warwickshire, Coventry and Solihull). Construction companies, extractive industries,  
276 and ecological consulting firms were key participants to the scheme along with local  
277 authorities and NGOs (Carver, 2015) manifesting the willingness of the Government  
278 to make clear offsetting's pro-development character. Experimentation with offsetting  
279 was not, however, limited in the pilots: in many other areas, developers began testing  
280 its potential to compensate for the impacts of urban development projects.

281

282 The same year, the Environment Bank (EB), the first private compensation brokering  
283 and consultation company in the UK<sup>11</sup> and a keen supporter of offsetting, launched  
284 the Environmental Markets Exchange (EME) to provide a 'one-stop-shop' for the  
285 registration of offset sites and the measurement of their credit value (Environment  
286 Bank, 2012). The Environment Bank had strong links with the State (its founder was  
287 a Board Member of Natural England and of the Joint Nature Conservation  
288 Committee) and the Government:

289 'During the early part of 2009 we contacted the Conservative Party to provide advice  
290 on 'biobanking' [...] The reception we were given was tremendous and the concept  
291 'Conservation Credits' found its way into the Conservative Party manifesto  
292 (Environment Bank 2010<sup>12</sup>).

293 The Bank hoped that the EME would pave the way for an offsetting market and  
294 formed partnerships with AB Agri (the agricultural division of Associated British  
295 Foods) to identify more offset sites and with Shell Foundation to pilot the use of  
296 credits<sup>13</sup>.

297

298 A key step in the attempt to reframe non-human nature as a movable stock of  
299 biodiversity was the publication of a government Green Paper on biodiversity offsets  
300 (Defra, 2013) in 2013. This set out a metric whose scope was to quantify habitat value  
301 on the basis of distinctiveness, quality and area in hectares, and calculate it in  
302 ‘biodiversity units’ (Table 2). It was hoped that the conversion of an assessment of  
303 overall biodiversity into ‘units’ would emphasize ‘biodiversity per se’ rather than the  
304 value of the benefits flowing from biodiversity, which was considered to be ‘highly  
305 geographically specific’ and difficult to measure (HM Government, 2013: 9). This  
306 was in line with the fact that offsetting’s primary aim was to keep the overall ‘stock’  
307 of biodiversity constant by achieving a quantitative balance of biodiversity lost due to  
308 development and ‘saved’ through offsetting echoing the new emphasis of UK  
309 conservation on the maintenance of the country’s ‘natural capital’.

310 [TABLE 2]

311 The aim to use standardized and strictly quantitative descriptions of biodiversity,  
312 along with Defra’s constant search for ‘simplicity’ and ‘efficiency’, undermined even  
313 the Scoping Study on which the metric had been based:

314 ‘The scoping report was a very preliminary version. It was developed incredibly fast  
315 and there’s been no follow-up to actually underpin it and test the metric itself. All the  
316 pilots were concerned more with how to make the metric attractive to developers  
317 rather than actually look at it’ (Interview CE1).

318

319 Indeed, Defra (2013) promised that its metric would allow complex ecosystem  
320 processes to be measured ‘in as little as 20 minutes’ creating serious concerns about  
321 the quality of the whole process:

322 ‘Firstly we had to assess the proposed offset site. We couldn’t do it at the optimal  
323 time, we had to do it in a very sort of narrow window because the argument was that



324 the developer was losing money as time was passing by. So it may look like it might  
325 be suitable but you don't know. There may be a protected species on it, there may be  
326 something good there already, you don't want to change it, who knows?' (Interview  
327 ENGO1).

328 The short time frame within which calculations had to be made to justify the use of  
329 offsetting, along with the fact that the metric was based on several problematic  
330 assumptions, including considering habitat area as a proxy of unmeasurable  
331 biodiversity, received strong criticism:

332 'This turns up to be a very crude way of measuring impacts. There's nothing about  
333 species or connectivity in the metric, there's nothing about edge effects. [...] In one  
334 reserve recently there was a developer building a block of flats. Literally the reserve  
335 is here and the block of flats is just next to it. And as far as biodiversity offsetting  
336 goes because it's outside of the footprint of the development there would be no  
337 impact' (Interview CS2).

338

339 Several interviewees provided evidence on the subjectivity involved in the offsetting  
340 process mentioning cases where interpretations of what constituted an 'acceptable'  
341 trade, or whether it was technically feasible to restore habitats lost due to  
342 development differed substantially. Characteristic examples included whether ancient  
343 woodlands on the HS2 train route could be compensated by planting new woodlands  
344 and whether nightingale breeding habitat could be successfully recreated to  
345 compensate for losses from the housing development at Lodge Hill.

346

347 Worries were also expressed about questions of local distinctiveness, and the  
348 possibility that balancing losses and gains at a national scale would lead to the  
349 creation of standardized habitats everywhere, and possibly the cheapest ones to

350 recreate. In Lodge Hill, for example, the offset metric calculation showed that nature  
351 to be lost was of high biodiversity value and that offsetting would demand extensive  
352 land acquisition and management. Developers initially proposed to use offsetting at  
353 the time of seeking planning permission, but they subsequently abandoned it because  
354 of the cost:

355           ‘... We used the Defra metrics and the figures we were getting were higher and higher  
356           and higher - our clients just said “well this is just getting ridiculous and out of hand,  
357           we need a more realistic, common sense approach to the offsetting of this’ (Interview  
358           CE2).

359 This opportunistic behavior of developers was mentioned by several interviewees as a  
360 key reason for the failure of many of the Defra pilots:

361           ‘In a sense you had to convince developers that impact assessments would be  
362           straightforward and fast otherwise they could see no scope in getting involved. I think  
363           this was why the Environment Bank launched its calculator and its guidelines for  
364           developers; it makes ecology to look like super-easy accounting’ (ENGO2).

365

366 For some interviewees, the representation of biodiversity in terms of simply defined,  
367 priced units was offsetting’s strong asset since it provided a basis for the economic  
368 valuation of biodiversity and ecosystem services. For others, this was deeply  
369 problematic since it was seen as equating the value (meaning the use value) of nature  
370 with a price (the exchange value) deepening the commodification and privatization of  
371 non-human nature:

372           ‘Putting a price to nature or creating an Environment ‘Bank’ means that someone  
373           could make a massive business out of biodiversity offsetting. But nature is not a  
374           commodity, you cannot buy nature – because who does nature belong to at the end of  
375           the day? It belongs to everyone’ (Interview HS1).

376

377 **4.2. Streamlining planning through biodiversity offsetting to support extended**  
378 **urbanization**

379 A key part of government plans for promoting urban development post 2010 was the  
380 restructuring of the planning system. The National Planning Policy Framework  
381 (NPPF) introduced in 2012 included a ‘presumption in favour of sustainable  
382 development’ which would run as ‘a golden thread’ through both plan- and decision-  
383 making (NPPF, 2012: 3, 4, 13, 28, 37, 46). This presumption was described ‘as a way  
384 of cutting back on red tape and endless planning documents to focus on what people  
385 care about: local roads, schools and homes that meet their needs’<sup>14</sup>. In all our cases  
386 studies, this was translated on the ground as a clear encouragement of housebuilding  
387 and other forms of urban development, including large infrastructure projects (see  
388 Table 1). This explicit prioritization of further urban growth inevitably involved  
389 severe environmental impacts, including alterations to the Green Belt<sup>15</sup> boundaries (as  
390 happened for example in our case study in North Tyneside, on the grounds that the  
391 ‘objectively’ assessed housing needs, constituted ‘an exceptional circumstance’<sup>16</sup>),  
392 and expansion of urban development into greenfield areas and the countryside. In  
393 Kent, respondents commented:

394 ‘Only during the last month we’ve got a bid on a green valley which is an area of  
395 local landscape importance for about 480 houses. And just last week there’s another  
396 one for about the same number, 470 .... on some green farmland’ (Interview LH1).

397 &

398 ‘Developers already held permission to build almost 7,000 houses yet they were  
399 sitting on them because they’re in brownfield sites and they don’t want to build them  
400 because it would be much better getting Lodge Hill, a greenfield site’ (Interview  
401 LH2).

402

403 Biodiversity offsetting was understood by all our respondents as an integral part of the  
404 above reforms:

405 'Offsetting clearly relates to the new Local Plans, to all the land release that the  
406 government plans to enable; the greenbelt release sites that are coming up. Because  
407 there would be lots of ecological issues on those that they think can be achieved from  
408 offsetting' (Interview LA1).

409 &

410 'The local plan was almost a blank cheque being written for development. The  
411 developers saw it and thought 'get in, we can do that'. Three speculative applications  
412 came up immediately - all of them on sites that are environmentally sensitive and all  
413 of them mentioned biodiversity offsetting' (Interview NT1).

414

415 The government's view of controls over planning as 'environmental red tape' and  
416 'unnecessary bureaucracy', along with their belief in markets instead of state  
417 regulation, rendered neoliberal conservation policies such as offsetting particularly  
418 attractive. The policy was explicitly framed as capable of making the process of  
419 granting planning permission and delivering biodiversity requirements more  
420 development-friendly showing that the government's main concern was to unblock  
421 development from environmental constraints (see also CIWEM, 2013<sup>17</sup>) and to  
422 legitimize the expansion of urbanization into rural areas under the banner of 'No Net  
423 Loss'.

424

425 The Environment Bank (EB) and the Ecosystem Markets Task Force (EMTF) took an  
426 almost identical line of argument and tried to attract developers to offsetting by  
427 reassuring them that the whole process could save them both time and money through

428 reduced risk and uncertainty, streamline planning approval, enable access to land and  
429 bring reputational benefits (EMTF, 2013, Environment Bank, 2014, 2016a).

430 Developers were advised that any upfront costs would be factored into residual land  
431 values which would be substantially uplifted as a result of planning permits (see also  
432 Duke et al., 2013, EMTF, 2013).

433

434 Not surprisingly, most interviewees saw such streamlining of planning approval as  
435 offsetting's main purpose. As a local authority planner with more than two decades of  
436 experience put it:

437       ‘It seemed the government proposed offsetting to loosen up, cut away the constraints  
438       of planning and the terrible red tape that we, the enemies of enterprise (laughing),  
439       impose’ (Interview LA2).

440 Similarly, an interviewee from a conservation NGO commented:

441       ‘During initial discussion on offsetting as an innovative, novel, approach, we were  
442       suddenly faced with the fact.... that for many, including the Treasury, this was not at  
443       all about compensation, it was about speeding up development’ (Interview ENGO3).

444

445 The role that the UK government expected offsetting to play in supporting urban  
446 development, and the expectations it created in interested parties, are well  
447 demonstrated by the Essex Pilot. A member of the Steering Committee explained that  
448 Essex was selected as a pilot because it was expected that the South of the County  
449 would be the focus of significant large-scale housing and industrial developments.

450 The County Council, advised by the Environment Bank, proposed a broker-led  
451 scheme:

452       ‘We got a pilot officer paid for by the Environment Bank, that was quite unusual. Her  
453       job really was as a kind of marketing exercise to encourage developers to try

454 offsetting, speak to planners to try and get them familiar with the process and  
455 landowners to see if they might like to register offset sites' (Interview LA3).

456 The critical attraction for developers was that:

457 '...offsetting would save them money in simplifying the process and reducing those  
458 meetings with the planning authority' (Interview LA4).

459 Offsetting's pro-development character was also a key element of the offsetting  
460 strategy in the Warwickshire Pilot, where the main goal, a conservation broker  
461 explained to us, was to convince developers that 'a balanced playing field' for them  
462 could be created (Interview CB1).

463

464 Crucially, offsetting is a form of compensation for loss that cannot be avoided or  
465 mitigated on site and thus the NPPF (2012, para 118) sees it as an option that may  
466 avoid refusal of permission<sup>18</sup>. Local community opponents of attempts to use  
467 offsetting to respond to an initial refusal of planning permission explained to us that  
468 offsetting played into the hands of developers, giving them 'an excuse to do what they  
469 want and then use biodiversity offsetting as a tool to compensate afterwards'  
470 (Interview CG1).

471

472 The way in which offsetting can be used to ease the granting of planning permission  
473 is shown by the application by Bellway Homes to North Tyneside Council for 366  
474 executive homes at White House Farm, West Moor, Killingworth. This was refused in  
475 April 2012, in part due to its adverse indirect impacts on biodiversity in the  
476 neighboring designated wildlife corridor and Gosforth Park SSSI, as well as an  
477 adjacent Site of Local Conservation Interest. The applicant appealed, citing a scoping  
478 report prepared by the Environment Bank that the creation of an offset site would be  
479 sufficient to address the extensive biodiversity impacts. In September 2013, the

480 Secretary of State granted planning permission, subject to a condition specifying the  
481 offset. As one representative of a local NGO explained to us:

482 ‘When we walked into the room the first words the developers said was: ‘We are not  
483 here to talk about a 106 agreement, that is something that is not on the table, we are  
484 going to go with the offsetting’. We were surprised by their insistence but then we  
485 thought they felt that they could gain planning permission by shifting the discussion  
486 around a new, powerful (in their minds) idea. But also because no one had really  
487 done it before they could almost set the rules and there was no real guidance. And  
488 this is what happened: their application gained approval due to the offsetting  
489 proposal’ (Interview ENGO4).

490

491 Sometimes, the very existence of offsetting led to an underuse of the mitigation  
492 hierarchy’s earlier stages. The case of housing development at Lodge Hill was  
493 repeatedly mentioned during our interviews as an example of this:

494 ‘Our concern is that the Government tried to circumvent the common mitigation  
495 hierarchy and make it easy for developers to proceed on the basis that they could  
496 compensate. This is what happened in Lodge Hill. The decision as to whether or not  
497 you should offset is entirely dependent on whether or not you can avoid the harm but  
498 they never seriously discussed that. And the NPPS also says the first step is to  
499 examine the alternatives, but they haven’t done that either. So, how a council can  
500 vote to approve something when all that information is missing?’ (Interview  
501 ENGO5).

502

503 However, the strategic use of offsetting to gain permission did not always succeed. In  
504 the Coventry Gateway, Warwick Council favoured development and suggested  
505 alterations of the Green Belt to allow it, accepting that the developer’s proposed offset  
506 would offer sufficient compensation. However, the Secretary of the State called in the

507 proposal and rejected it, *inter alia* on the grounds of its severe environmental impacts.  
508 The Secretary recognised that offsetting could not fully address development impacts,  
509 including the permanent loss of Green Belt, and the loss of the intrinsic character of  
510 the countryside. This was one of the decisions which vindicated the struggle of local  
511 residents opposing the development on the grounds of its economic, environmental,  
512 public health and social impacts.

513

#### 514 **4.3. Foreclosing the public debate on the impacts of controversial urban** 515 **development projects**

516 The NPPF also reflected the government's political agenda of localism (HM  
517 Government, 2010, Maclennan and O'Sullivan, 2013) by reinforcing the status of  
518 Local Plans. Local Plans set out 'a vision and a framework' for future development  
519 that frame consideration of individual planning applications<sup>19</sup>. The Government  
520 hoped that a tight link would be established between local interests and support for  
521 urban growth, an effect of austerity localism (Apostolopoulou et al., 2014,  
522 Featherstone et al., 2012). The key claim was that a combination of autonomy and  
523 specific incentives would unleash a desire to enable development (Cowell, 2013,  
524 Conservative Party, 2010). As Allmendinger and Haughton (2013) argue, the  
525 transition from spatial planning to localism, constitutes a form of, and contributes to,  
526 neoliberal spatial governance. The 'new' neoliberal vision was not very different from  
527 Thatcher's 'forged consent' through the cultivation of a middle class that relished the  
528 joys of home ownership, private property, individualism, and the liberation of  
529 entrepreneurial opportunities (Harvey, 2005).

530



531 Biodiversity offsetting formed part of wider processes of deregulation of planning and  
532 environmental legislation, decentralization and pro-market localism (Allmendinger  
533 and Haughton, 2013, Hannis and Sullivan, 2012) and clearly favored private funding  
534 for conservation and public-private partnerships. As became obvious from our  
535 interviews, in the context of prolonged austerity and economic recession and in the  
536 face of decreasing public budgets and increasing competition, many local councils  
537 were positive towards the idea of finding a way to speed up development while were  
538 also hoping to benefit from increased investment from offsets (Apostolopoulou,  
539 2016).

540

541 Using such arguments, the government hoped to create a broad consensus on the  
542 implementation of offsetting. The rhetoric that ‘we all want development’ was  
543 continuously used by offsetting’s supporters during our interviews along with the  
544 acceptance of urban development as inevitable:

545       ‘Is the railway going to be built? Yes. Is it going to destroy ancient woodland? Yes.  
546       Can we do something about it? No. We all want development but we need to make  
547       sure that we will hit those biodiversity targets that we keep setting. Biodiversity  
548       offsetting can do exactly that’ (Interview CB2).

549

550 The role of the Environment Bank was key in the manufacture of consent:

551       ‘The representative of the Environment Bank and an ecological adviser were writing  
552       the minutes of the meetings and they were focused on the consensus stuff and were  
553       really trying to make out from the minutes that there was an agreement even on areas  
554       where we completely disagreed. Many of us said ‘where did you get this notion that  
555       this was agreed? Have you got any quotes on this?’ He said he didn’t want it to turn

556 into who said what. [...] So by the end of his report which he had to produce for the  
557 inspector we had a document that virtually was his opinion' (Interview LH3).

558

559 In other cases, offsetting was used as stratagem to shift discussion from the impacts  
560 and scope of controversial urban development projects to the narrower question of  
561 appropriate compensation, in an attempt to foreclose and depoliticize public debate  
562 (c.f. Apostolopoulou and Adams, 2017, Spash, 2015):

563 'In North East England the population is declining but the planners still want to build  
564 more houses rather like nesting boxes to attract people in [...] We had three  
565 speculative planning applications from three different developers, these were not  
566 aimed at providing houses for those people who need them but 'executive'  
567 homes/villas, you see social housing is out of the question these days. These are the  
568 concerns of the local population but these questions were never seriously addressed;  
569 instead we caught up in endless technical disputes about offsetting calculations'  
570 (Interview LA5).

571 &

572 '...when offsetting was put on the table, the discussion suddenly shifted from how to  
573 avoid the extensive biodiversity impacts on how we'll find the ideal offset. This  
574 alerted us to the role they had in mind for offsetting; this wasn't a railway, there was  
575 no overriding public interest or any other serious reason for not locating it somewhere  
576 else but the idea that we would end up with a 'net gain' of biodiversity changed the  
577 rules of the game: this wasn't an environmentally destructive project any more but a  
578 blessing for our degraded countryside' (Interview NT2).

579

580 The highly technical character of discussions further disempowered many  
581 communities who lacked the expertise and money to challenge the offset calculations  
582 from consultants working for the developers. Some received help *pro bono* (e.g. in

583 North Tyneside, where local activists were helped by a Professor of Law from the  
584 University of Newcastle). Others were less fortunate or even found themselves  
585 completely excluded from negotiations in which consultants and other unelected and  
586 unaccountable commercial actors (Apostolopoulou et al., 2014) like the Environment  
587 Bank had been given a prominent role:

588       ‘We now have to deal with confidential commercial transactions over land for the  
589       creation of offsets. Negotiations were taking place between the Environment Bank  
590       and landowners and we were kept in the dark – even members of the pilot steering  
591       committee were kept in the dark. We never really know what was happening’  
592       (Interview ES1).

593       &

594       ‘We started to meet regularly with the local authority, the developer, the consultants,  
595       and the Environment Bank. What was missing was any representation from the local  
596       residents despite -or maybe due to!- their strong opposition’ (Interview ENGO4).

597

598 This exclusion of local people echoes Swyngedouw’s et al. (2002) observation that  
599 neoliberal urban policies and their selective ‘middle- and upper-class’ democracy are  
600 mostly associated with elite-driven priorities and an undermining of local democratic  
601 participation.

602

#### 603 **4.4. The uneven reterritorialization of nature-society relationships**

604 A key feature of biodiversity offsetting for developers and the state was that the  
605 policy could potentially yield valuable net developable areas in desirable locations by  
606 favoring offsite mitigation. The results of this varied in practice. In some cases, offset  
607 sites have been selected to facilitate the concentration of areas for conservation and  
608 urban development deepening a rural/urban divide. Thus sites close to already

609 existing protected areas, areas of high nature value, or just places away from heavily  
610 urbanized areas, were given priority:

611 'If there's an offset over the road, brilliant, but if not, this could mean that all of the  
612 green space within London will have to be pushed out to the edges' (Interview CE4).

613 Moreover, under a rhetoric of providing compensation 'for nature and not for people'  
614 (Interview CA3), and guided by the imperative to avoid costly choices and thus places  
615 which would require intensive management to keep their biodiversity targets, there  
616 was a clear preference for sites where public access would be either forbidden or  
617 restricted:

618 'A community park would have been a great idea for the offset site but we couldn't  
619 bear the cost for its maintenance or the risks from a misuse of the park from its  
620 visitors' (Interview CE5).

621

622 The case of North Tyneside offers a characteristic example of the outcomes of such  
623 choices. Even though the new 'executive' houses would destroy one of the last green  
624 spaces in a highly urbanized area, the developer proposed to locate the offset site  
625 three miles from the development site, in an area which was in proximity to a  
626 Northumberland Wildlife Trust reserve, and which the developer already owned. The  
627 offsetting report suggested that accessing the site itself would be restricted with  
628 barriers such as ditches and hedge banks:

629 'They probably said "well we can do a swap, we can drive out biodiversity in this  
630 area and we'll set up something in the middle of Northumberland" – you know the  
631 site is not in North Tyneside and is not accessible. You see that's the whole point,  
632 city people have a right to enjoy biodiversity on their doorstep, without having to  
633 drive into the middle of nowhere' (Interview NT3).

634

635 A similar logic prevailed at Lodge Hill, where one of the key arguments of the  
636 developer's ecologists for locating the offset in Shoeburyness/Foulness in Essex  
637 (more than 100 miles from Lodge Hill, adjacent to Natura 2000 and Ramsar sites of  
638 the Crouch and Roach Estuaries and Foulness Coast) was the area's ownership by the  
639 Ministry of Defense, which would prevent 'public disturbance':

640 '...one of the beauties of that site from a conservation point of view is, number one it  
641 is an island, number two is an island owned and protected by the Ministry of Defense  
642 so there is no right of public access at all which means that any nightingale  
643 compensation that we provide would be completely secured. Not subject to any  
644 disturbance' (Interview CE3).

645 &

646 'The local population should understand that we are not providing compensation for  
647 them, we are providing it for the birds' (Interview CE6).

648

649 This was not the only occasion where offsetting's proponents adopted a strict division  
650 between 'nature' and 'people'. As a conservation broker argued, incorporating the  
651 social, historical or cultural significance of a site would 'skew' the biodiversity  
652 'portion' of the metric:

653 'Although the human aspect is important, we're actually not dealing with that at the  
654 moment, we are dealing with habitats and nature. Hopefully all offsets will be within  
655 the same local authority borough so we won't be removing people but this will be a  
656 secondary level of decision-making' (Interview CB3).

657

658 Concerns that offsetting was disconnecting nature from local communities were also  
659 expressed by the Environmental Audit Committee and from local authorities  
660 employees with long experience in planning:

661 'As offsetting has been played out in practice we have seen that it is the ecologist, the  
662 consultant or the broker that have the first role in deciding the location of the sites.  
663 They all are much more amenable to a site further away from the application site  
664 because there is no measurable political cost for them for ignoring local community  
665 demands' (Interview LA2).

666

667 The way in which offsetting reproduced the asocial logic of market environmentalism  
668 to enable the relocation of non-human nature cut little ice with local activists who  
669 rejected the reductionist premises of offset calculations:

670 'So the whole idea of offsetting is you can take it away to more suitable locations.  
671 But for example here our woodland is not just a bit of habitat, it's an amenity. We use  
672 it, kids use it, walkers use it, it's a real local amenity, a part of our life. So if  
673 offsetting were done elsewhere we'd obviously be losing our amenity' (Interview  
674 HS2).

675

676 In the Coventry Gateway, the development proposal involved converting  
677 predominantly open countryside into an industrial site, resulting in the complete loss  
678 of natural habitat. The proposal was to offset existing ecosystems with a 'country  
679 park'. As a member of the committee against the Gateway, explained:

680 'The Green Belt is Green Belt. And what the applicant says is we are going to build a  
681 country park where local people can have access to, so that will be your gain, you get  
682 a country park out of it... but we cannot have birds in the country park because it's  
683 going to be around the airport: they are going to put nets over the water bodies to stop  
684 birds going there, they are going to electrocute the fish on a regular basis so there is  
685 no food for the birds...but you can walk around and look at the flowers. [...] You can  
686 say to the developer: "thank you for your offer for the country park, but we don't  
687 want it. We want the countryside that surrounds us as it is"' (Interview CG2).

688

689 Crucially, offsetting's rearrangement of nature to fit around the patterns of urban  
690 growth was not seen by local activists as politically or socially neutral but rather the  
691 opposite:

692 'Somebody having to get into a car to go and see wildlife it's not a sustainable  
693 solution; green places are good for your soul, they are the lungs of the city. Town  
694 planning was trying to address those issues and now it seems to be about how do we  
695 grow everything? What we see is that offsetting is trying to facilitate that. But the  
696 policy is not class neutral: the same time they take away the last green space from the  
697 local community they give villas with gardens to other social classes by creating  
698 executive homes' (Interview NT4).

699

700 The idea of offsetting at a national scale also raised questions of socio-spatial  
701 unevenness across the country since it would allow developers to locate offsets:

702 'where it is cheapest for them: development land in the South East is very expensive.  
703 Whereas mitigation might be cheaper in the North, for example. So we risk ending up  
704 with a very uneven result' (Interview CS1).

705

706 Importantly, the location of offsets did not always follow specific criteria but has been  
707 significantly influenced by competition over land and space and hence price:

708 '...by talking to the landowners you automatically alert them to the fact that there is  
709 some interest for their land. As soon as the Environment Bank talked to the  
710 landowner about the proposed site he was interested, we were moving forward and  
711 then he found out that ... (he mentions the developer) were involved and tripled the  
712 price' (Interview ENGO6).

713

714 At the worst, the search for an economically realistic option could ‘just create wildlife  
715 sites somewhere randomly in the countryside’ (Interview CS3):

716 ‘When the developer realized that the proposed site was very expensive they went  
717 and looked at somewhere else but they didn’t tell anyone about it. They chose a site  
718 that we have never discussed about and which wasn’t ideal from many aspects – it  
719 even had a railway. They did that because this site was already on the market so they  
720 knew how much it was going to cost’ (Interview ENGO6).

721

#### 722 **4.5. Urban development as environmental improvement: a new ‘win-win’**

##### 723 **rhetoric for neoliberal conservation and neoliberal urbanization**

724 Many conservationists initially supported offsetting, seeing in it not only the  
725 opportunity to receive additional funding for conservation in the context of a post-  
726 2008 austerity agenda (Comerford et al., 2010) but also the possibility of gaining  
727 access to new land through the creation of habitat banks. In the influential *Making*  
728 *Space for Nature* Review, Lawton et al. (2010) argued that offsets required for  
729 separate small developments could be pooled into larger habitat blocks without  
730 imposing additional burdens on developers, while also funding conservation via the  
731 sale of credits to developers (see also England Biodiversity Group, 2011).

732 Governmental documents drawing on the Review also introduced offsetting as a  
733 means to deliver a landscape-scale approach to conservation. However, for this to  
734 succeed, governmental officials argued that offsets had to be produced according to  
735 the needs of developers to provide compensation:

736 ‘...it’s important to get the supply and demand matched. You have to be careful to  
737 avoid having people going around and looking for an offset which doesn’t exist. But  
738 equally not to encourage offset providers to be flooding the market with things that  
739 are not required’ (Interview CA1).



740

741 Conservation brokers were even more explicit agreeing the clever thing to do is to  
742 build a clear alliance between development and conservation:

743 'If HS2 gives 300 million pounds for environmental compensation we could have an  
744 extraordinary wood planting scheme. Would it actually replace the Ancient  
745 Woodland that has been lost? No, not in my lifetime or in my grandchild's lifetime.  
746 But in 50 years time we could have a tremendous young wood growing in, and you  
747 see, for me, the counterfactual is that if you don't apply offsetting for HS2 is it going  
748 to prevent HS2 from being built? No! And finding the money to build huge national  
749 forests is actually a very exciting thing to do' (Interview CB2).

750

751 The desire to make offsetting a policy that conservationists would embrace was also  
752 obvious in the decision to locate many offsets near existing PAs. This would facilitate  
753 their management by environmental NGOs potentially gaining their consensus (for  
754 example the developer in North Tyneside promised to 'gift' the offset land to a  
755 conservation organization):

756 'The last couple of years have been some of the most difficult years in my career,  
757 because everything we'd worked very hard to gain has been sort of torn up and  
758 thrown away in their search for economic growth. This is what we felt with  
759 offsetting: they increasingly imply to us that if won't cooperate with developers then  
760 there will be no money for conservation' (Interview ENGO4).

761

762 A key part of the attempt to portray offsetting as environmentally friendly, improving  
763 inter alia the profile of the corporations that would implement it and practice their  
764 corporate social responsibility, was to prove that it was actually creating 'better  
765 nature' that the one that was being lost due to urbanization. The Thameslink

766 Programme (TLP) provides an indicative example of this. The railway route North-  
767 South across London affects habitats ranging from scrub-covered railway  
768 embankments within Greater London to wooded land in open countryside. Starting  
769 from the need to compensate for biodiversity losses, particularly in rural areas, the  
770 upgrade of the line ended up being considered as delivering ‘a net gain of  
771 biodiversity’ by ‘upgrading’ habitat of lower ecological value (in areas owned by  
772 Thameslink), by planting woodland on other sites. The company even suggested that  
773 it would ‘bring nature back to London’ and succeeded in making the offset on  
774 Streatham Common in Lambeth, South London<sup>20</sup>, (where biodiversity loss in  
775 suburban areas would be compensated), part of a complementary pilot (Collingwood  
776 Environmental Planning Limited, 2014), to test, among other things, the possibility of  
777 finding offset sites within highly urbanized contexts to compensate for development  
778 in suburban areas. Similarly, in North Tyneside, offsetting was framed by the  
779 Environment Bank as a ‘trade up’, because the development site consisted of  
780 ‘common’ farmland, while the offset site would be restored to lowland meadow, a  
781 habitat expected to have higher biodiversity values, and thus be capable of delivering  
782 more credits (135.8) than needed (122.5) (Interviews CB1, CA2, ENGO6).

783

784 Following the same line of argument, offsetting officers and the local council in  
785 Warwickshire argued that the long-term goal was to make offsetting a funding  
786 mechanism for improving the ‘Green Infrastructure’ of the county, and even  
787 suggested that in the future most of the biodiversity enhancement of the county would  
788 come through biodiversity offsetting. One offsetting advocate said:

789 ‘If our plan for conservation banking works we will be creating 1000 hectares of low-  
790 flower meadow restoration in Warwickshire which is more than the environmental  
791 movement has ever done in any decade ever’ (Interview CB2).

792 This notion received strong criticism from local activists:

793 ‘The local council effectively opened the gate to potential developers, saying that  
794 ‘Ah, right, if that is the view of the county council, then that’s the direction we will  
795 go with our application. If we do a biodiversity offsetting exercise we can tick the  
796 box and be good boys with the county council and all those support our planning  
797 application’ (Interview CG3).

798

## 799 **5. Discussion**

800 Lefebvre’s (1970) observation of urban areas exploding relentlessly beyond their  
801 boundaries, producing a highly uneven urban fabric that ceaselessly extends its  
802 borders across non-urban geographies, could have been written to describe the context  
803 within which biodiversity offsetting emerged in the UK. In the post-2008 period, the  
804 UK saw an expansion of urban development into the Green Belt and the wider  
805 countryside, triggering clashes between urbanization and environmental protection  
806 across the country. Within a context of prolonged austerity and by following a clearly  
807 neoliberal path, urban development has mainly served the interests of landowners and  
808 of the housing and infrastructure industry, and has often been forcefully opposed by  
809 local communities. The pressure for residential development in peri-urban and rural  
810 areas ‘has transformed the rural environment on the periphery of many of Britain’s  
811 cities into a battle ground’ (Pacione, 2013: 61).

812

813 Biodiversity offsetting in the UK emerged within a context characterised by the  
814 entrenchment of neoliberal policies coupled with rampant urbanization and it was  
815 expected to facilitate urbanization, increase land availability for development and  
816 contribute in foreclosing discussion of the extent and impacts of urbanization. Despite  
817 governmental intentions, in practice, outcomes varied: offsetting in some cases failed

818 to stimulate or facilitate development and growth while in other cases it succeeded  
819 (and still does, see Environment Bank, 2016b). The expectations of its proponents that  
820 offsetting would unconditionally facilitate development are confirmed by the cases  
821 we documented where developers who had previously embraced offsetting,  
822 abandoned the idea once it became clear that offsets would be prohibitively expensive  
823 or difficult to find.

824

825 Even though a market in biodiversity has not yet been established in the UK, the  
826 discourse of market environmentalism has strongly shaped the rhetoric of offsetting's  
827 supporters, serving an important ideological and material role: to reframe non-human  
828 nature in line with the needs of capital (Robertson, 2006, Sullivan 2013, Sullivan and  
829 Hannis 2015), as a movable, interchangeable and asocial stock of biodiversity assets  
830 which can be exchanged across space and time corroborating political ecology's  
831 critique of market-based (or 'mainstream') conservation as being materially and  
832 ideologically aligned with capitalism (Apostolopoulou and Adams, 2015, Igoe et al.,  
833 2010, Neumann, 2015, Neves and Igoe, 2012). Moreover, the emphasis on 'No Net  
834 Loss' and the choice of the word 'offsetting' were not coincidental. The term  
835 deliberately portrays the social and eco-spatial rearrangement of non-human nature to  
836 fit urban development, and the interests of the different sections of capital that pursue  
837 it, as socially neutral and as potentially positive for nature. Offsetting seems to offer a  
838 way in which the very processes that are responsible for biodiversity loss can become  
839 the drivers of environmental improvement. So the loss of habitat under rail lines or  
840 major residential developments across the UK can actually *improve* the position of  
841 nature overall (Environment Bank, 2016b). The implications of this are profound.  
842 Firstly, nature conservation is reconstituted as *development-led* (Hannis and Sullivan,

843 2012, Sullivan, 2013, Lockhart, 2016), since demand for and funding of offsets  
844 depends on environmentally harmful development. Secondly, ecosystem degradation  
845 caused by extended urbanization is now represented as a conservation opportunity  
846 (Apostolopoulou and Adams, 2017) implying that the best thing for conservation in  
847 the era of the ‘Anthropocene’ is to ally with major industries.

848

849 Biodiversity offsetting, therefore, seems to bring together a bundle of reactionary  
850 ideas about nature-society relationships. It deliberately frames nature as external to  
851 society and ignores both the importance of place and the profound socio-ecological  
852 transformations which urbanization involves by being based on an extreme  
853 reductionism which sees biodiversity as completely divorced from its context. In  
854 offsetting, nature is progressively produced as part of ‘second nature’ (Smith, 2010):  
855 representing non-human nature through simple numerical scores or priced credits  
856 enabled the reterritorialization of nature-society relationships in line with the patterns  
857 of an increasingly ecologically disruptive and socio-spatially uneven urban growth.  
858 As our case studies showed, this had profound implications for the involved  
859 socationatures: offsetting often deepened longstanding divisions between ‘common’  
860 and ‘unique’ nature, protected and non-protected areas, and ultimately society and  
861 nature by favoring the creation of more ‘net development’ and more ‘net conservation  
862 areas’. It also changed the ability of different social groups to access green space,  
863 separating them from nature where they live and work. Offsetting clearly ignored  
864 social and cultural ties between communities and places and it often led to a  
865 redistribution of areas of conservation value from urban to rural areas (see also Ruhl  
866 and Salzman, 2006), ultimately creating uneven outcomes environmentally, socially  
867 and spatially (Apostolopoulou and Adams, 2017; Seagle, 2012) echoing Smith’s

868 observation that uneven development is the concrete process and pattern of the  
869 production of non-human nature under capitalism (Smith, 2010). Biodiversity  
870 offsetting is thus an indicative example of how neoliberal conservation policies  
871 designed to address the environmental contradictions of capitalism further deepen  
872 existing contradictions while also creating new ones.

873

874 Importantly, in England, biodiversity offsetting needs to be understood as the product  
875 of an essentially urban policy, even where the land affected is outside existing urban  
876 limits. The priority given to urbanization means that offsetting has involved the  
877 production of nature in ways that primarily serve the interests of bid building  
878 contractors, real estate and infrastructure companies. The consequent reworking of  
879 nature reflects the way landlords and the different sections of capital govern the uses  
880 of urban and rural space for profit (Smith, 2010) testifying the class character of the  
881 policy. Offsetting acknowledged and respected the geographical specificity of  
882 urbanization and the fact that the production of space and spatial monopolies are  
883 integral to the dynamics of accumulation in the nature of the created and produced  
884 spaces and places over which commodity flows occur (Harvey, 2012: 42). It has not  
885 respected the geographical specificity of non-human nature and nature-society  
886 relationships. The urbanization of the rural in England is thus tightly interwoven with  
887 corporate interests. It also reflects a consumerist approach to nature as a destination  
888 for weekends and countryside leisure, and a frame for leafy, sprawling, suburbs (as  
889 Lefebvre 1970, 1991 has long ago observed).

890

891 However, offsetting's limited acceptance in most of our case studies shows that  
892 'actually existing' neoliberal conservation does not emerge in laboratory conditions

893 but have to confront political, social and environmental realities that are often  
894 uncooperative. Indeed, the uneven outcomes of the production of nature out of  
895 capitalist relationships, both through neoliberal urbanization and neoliberal  
896 conservation, have met strong social opposition. This shows that as urbanization in  
897 the UK extends beyond the limits of cities into areas that were part of the Green Belt  
898 and the wider countryside transforming the landscape, struggles for the ‘right to the  
899 city’, also expand beyond the limits of the traditional city.

900

901 Lefebvre predicted in *La révolution urbaine* (1970) that due to urbanization, the clear  
902 distinction between the urban and the rural is gradually fading into a set of porous  
903 spaces of uneven geographical development, under the hegemonic command of  
904 capital and the state (Harvey, 2008). Therefore, the right to the city for Lefebvre had  
905 to mean the right to command the whole urban process (even the production of  
906 space), which was increasingly dominating the countryside (Lefebvre, 1996).

907 Crucially, as urbanization increasingly impacts on natural areas, it brings to the  
908 forefront environmental struggles over the quality of everyday life and access to green  
909 spaces and ecosystems. Biodiversity offsetting can be seen as part of urbanization’s  
910 ‘creative destruction’ (Brenner, 2013, Lefebvre, 1970) that dispossesses the public of  
911 any right not only to the city (Harvey, 2008) but also to the production of space and  
912 nature. The interplay of offsetting and urbanization in England leaves little room for  
913 seeing nature as anything more than a good background for executive housing, as  
914 carefully planned city parks, or as protected area museums where public access is  
915 restricted polarizing humans and non-human nature into ever-more separate locations.

916 Our interviewees, fighting speculative development and the creation of new urban  
917 enclaves, considered opposition to biodiversity offsetting a key part of their struggles

918 which by challenging the symbolic, material and social meanings of common urban  
919 and non-urban (green) spaces, seek to defend not only the ‘right to the city’ but also  
920 the ‘right to nature’. This suggests that the right to influence and command the  
921 processes by which nature-society relationships are made, transformed and disrupted  
922 by urbanization (and economic development), is increasingly becoming a key element  
923 of struggles against capitalist urbanization (Brenner and Schmid, 2015) and thus an  
924 integral part of struggles for the right to the city.

925

926 We thus believe that the term ‘right to nature’ is crucial for the potential of the  
927 environmental movement and social struggles to challenge the extent of urbanization  
928 and neoliberal solutions to its increasing environmental impacts. This is of major  
929 political importance because it reveals that as biodiversity loss due to urbanization is  
930 increasingly related to the threatening of the quality of life of many local  
931 communities, the ‘right to nature’ (as defined in this paper) is increasingly becoming  
932 an issue of major social and political significance. Moreover, the idea of a ‘right to  
933 nature’ and to the ‘production of nature’ could provide the theoretical basis for a  
934 conservation that is not neoliberal (c.f. Büscher et al., 2012).

935

936 A political ecology that purposes to understand and transform uneven socio-  
937 ecological relations *qua* urbanisation, has to embrace the non-urban as constitutive of  
938 the urban, and understand how the former is related to the latter – and how struggles  
939 for the city and for nature in dense city cores and in seemingly ‘remote’ (rural or  
940 natural) areas (see Brenner and Schmid, 2015) are often interrelated. This has crucial  
941 implications for the political ecology of Global North. In the Marxist tradition,  
942 environmental and urban struggles are usually construed as being about issues of



943 reproduction rather than production, and therefore not about class, and thus dismissed  
944 as devoid of revolutionary potential or significance (Harvey, 2012). Similarly, in the  
945 neoliberal conservation literature, the emphasis often rests on protected natures or  
946 areas of high nature value and environmental struggles in the Global South. However,  
947 given that urbanization is crucial in the history of capital accumulation, then political  
948 and class struggles, no matter whether they are explicitly recognized as such, are  
949 inevitably involved (Harvey, 2012, Lefebvre, 1970) and thus the question of whose  
950 nature is or becomes urbanized, must be at the forefront of any radical political action  
951 (Heynen et al, 2005). As urbanization extends beyond cities in association with  
952 policies like biodiversity offsetting which aim to rescript natures as placeless, these  
953 struggles will increasingly involve environmental aspects. An important strategic  
954 political question that reaches well beyond our discussion here, is therefore: to what  
955 degree should anti-capitalistic struggles explicitly focus and organize on the broad  
956 terrain of the right to the production of nature as well as space?

957

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- 1175 **Endnotes**

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<sup>1</sup> In 2010 a Labour administration was replaced by a coalition between the Conservative and Liberal-Democrat Parties.

<sup>2</sup> <https://www.gov.uk/government/publications/2010-to-2015-government-policy-house-building/2010-to-2015-government-policy-house-building#background>

<sup>3</sup> <https://www.gov.uk/government/news/government-going-further-to-cut-red-tape-by-10-billion>

<sup>4</sup> Megaprojects are commonly understood to be projects that cost at least a billion dollars.

<sup>5</sup> In common with other aspects of environmental policy, government approaches to offsetting differs across England, Wales, Scotland and Northern Ireland within a standard neoliberal frame established by the UK government. This paper addresses offsetting policy within England, where it was developed earliest and most extensively.

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<sup>6</sup> <https://www.gov.uk/government/collections/biodiversity-offsetting>

<sup>7</sup> <https://www.theguardian.com/environment/2013/nov/12/biodiversity-offsetting-license-trash-nature>;

<https://www.theguardian.com/environment/georgemonbiot/2012/dec/07/biodiversity-offsetting-unleash-wildlife-destruction>

<sup>8</sup> <http://www.telegraph.co.uk/news/uknews/road-and-rail-transport/10158697/Minister-digs-in-to-replace-ancient-woods-lost-to-HS2.html>;

<http://www.theguardian.com/environment/2014/sep/25/-sp-nightingales-lodge-hill-sanctuary-conservation-britain>)

<sup>9</sup> <https://www.statista.com/statistics/270369/urbanization-in-the-united-kingdom/>

<sup>10</sup> Brenner (2013, p. 96) refers to ‘extended’ urbanization, as encompassing the processes of sociospatial and socioenvironmental transformation that facilitate and result from urban development across places, territories, and scales.

<sup>11</sup> <http://www.environmentbank.com/about.php>

<sup>12</sup> <http://www.environmentbank.com/docs/Environment-Bank-Newsletter-SpringSummer-2010.pdf>

<sup>13</sup> <http://www.shellfoundation.org/Our-Focus/Partner-Profiles/Environment-Bank/Summary>

<sup>14</sup> <https://www.gov.uk/government/news/prime-minister-councils-must-deliver-local-plans-for-new-homes-by-2017>

<sup>15</sup> The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open (see NPPF, 2012, p. 19).

<sup>16</sup> <http://www.cpre.org.uk/magazine/opinion/item/3845>

<sup>17</sup> <http://www.ciwem.org/wp-content/uploads/2016/04/Environmental-Audit-Committee-Biodiversity-offsetting.pdf>

<sup>18</sup> <http://www.essexbiodiversity.org.uk/planning-and-development/nppf>

<sup>19</sup> <http://planningguidance.communities.gov.uk/blog/guidance/local-plans/local-plans-key-issues/>

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<sup>20</sup> <http://streathamcommon.org/new-trees-common/>;

<https://environmentonsite.com/39653/questions-raised-over-streatham-common-offsetting-project>

### Highlights

- Biodiversity offsetting relates to UK government's urban development aspirations
- Offsetting enables a social and spatial reterritorialization of socionatures
- Offsetting portrays urban development as the driver of environmental improvement
- Biodiversity offsetting in England is widely contested by local communities
- Struggles for the 'right to the city' should expand to embrace 'rights to nature'

Table 1. Background information on the seven case studies.

| Case study  | Basic information  | Civil society Groups  |
|---|--|---|
| Essex biodiversity offsetting pilot                               | Chosen as one of the 2012-2014 six national pilot areas to trial biodiversity offsetting. Various housing developments in the area.  | Residents participating in 'Hands off Thaxted' group.                 |
| Warwickshire, Coventry and Solihull biodiversity offsetting pilot | One of the six Defra national pilot areas to trial biodiversity offsetting. One of the most advanced and pro-offsetting pilots.      | Local community groups against the Coventry Warwickshire Gateway.     |
| Lodge Hill housing development                                    | Development of 5,000 houses, retail centre, and related amenities (education, health, sports areas, open spaces and 5,000 new jobs). | Local community groups opposed to the Lodge Hill housing development. |
| High speed rail network   | Phase 1 (London-West Midlands) of  | STOP HS2 and local authorities  |

|   |  |  |
|---|--|--|
| (HS2)   | High Speed 2 (HS2),<br>railway. The route<br>covers both urban<br>and rural localities.  | participating in 51m.  |
| North<br>Tyneside<br>housing<br>development<br>(NE England) | Development of 366<br>executive houses,<br>ancillary commercial<br>unit and landscaping.   | The ‘Save Gosforth<br>Wildlife Campaign’<br>and the West Moor<br>Residents<br>Association. |
| Thameslink<br>project                                       | The route runs from<br>Bedford in the North<br>to Brighton in the<br>South through<br>Central London. It<br>covers both urban<br>and rural localities. | Local community<br>groups in Lambeth.  |
| Coventry and<br>Warwickshire<br>Gateway                     | Commercial<br>development scheme<br>around Coventry<br>airport.  | Local community<br>groups opposed to<br>the Coventry<br>Warwickshire<br>Gateway.           |

Table 2. The Defra Biodiversity Offsetting Metric (Defra, 2013).

| Value of 1 ha in 'biodiversity units' |              | Habitat distinctiveness |            |          |
|---------------------------------------|--------------|-------------------------|------------|----------|
|                                       |              | Low (2)                 | Medium (4) | High (6) |
| Habitat quality                       | Good (3)     | 6                       | 12         | 18       |
|                                       | Moderate (2) | 4                       | 8          | 12       |
|                                       | Poor (1)     | 2                       | 4          | 6        |



Appendix 1: Categories of interviewees and corresponding interview codes.

| Category of Interviewees  | Interview Code |
|---|----------------|
| Conservation brokers  | CB             |
| Conservation scientists   | CS             |
| Environmental NGOs  | ENGO           |
| Consultants (ecologists)  | CE             |
| Central administration  | CA             |
| Local authorities   | LA             |
| Local community groups<br>opposing the Coventry<br>Warwickshire Gateway         | CG             |
| Local community groups<br>opposing the Lodge Hill<br>housing development        | LH             |
| Activists and local<br>community groups<br>participating in STOP HS2            | HS             |
| Local community groups<br>opposing the North<br>Tyneside housing<br>development | NT             |
| Residents participating in<br>'Hands off Thaxted' group<br>in Essex             | ES             |

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