

The future of charitable alternative food networks in the UK: An investigation into current challenges and opportunities for foodbanks and community markets

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11 **Abstract**

12 This study examines the potential of charitable alternative food networks (ANFs), specifically community
13 markets, as a complimentary solution to existing food aid efforts in response to food insecurity. While
14 foodbanks play a crucial role in providing emergency food aid, they often face challenges in terms of supply
15 shortages, limited food variety, and perpetuating dependency on food aid. Moreover, foodbanks may only
16 offer temporary relief without addressing the root cause of food insecurity. Community markets, on the other
17 hand, adopt a social economy approach and aim to empower local communities by providing affordable food
18 options to all community members. These markets operate on a different business model than foodbanks and
19 offer additional vouchers for those who cannot afford to purchase food. Community markets also focus on
20 promoting social and economic goals and often provide additional services and activities within the community
21 centres. By assessing the perspectives of beneficiaries of foodbanks and community markets, the paper
22 examines the dimensions of food security (availability, access, utilisation, and stability) in the context of both
23 charitable AFNs and highlights the potential of community markets and foodbanks to address these
24 dimensions. While there is ongoing debate about categorising food aid programmes as AFNs, both share the
25 goal of reducing food insecurity and promoting sustainable and equitable food systems. Ultimately the paper
26 argues that community markets offer a more sustainable and empowering approach to addressing food
27 insecurity by addressing its underlying causes and promoting community resilience.

28 **1 Introduction**

29 The Food and Agriculture Organization (FAO) defines food insecurity as the lack of “regular access to enough
30 safe and nutritious food for normal growth and development and an active and healthy life” (FAO, 2020). The
31 World Food Program (2022) estimates that approximately 828 million people go to bed hungry every night,
32 thereby, not having access to adequate safe and nutritious food. While acute global food insecurity has
33 increased from 135 million to 345 million since 2019, approximately 49 million people across forty-nine
34 countries have experienced famine-like conditions in 2022. To tackle this issue of food insecurity, many

35 economically developed countries have started relying extensively on charitable food aid programmes that
36 provide emergency food parcels to people in need. The most commonly utilized charitable food aid
37 programme is foodbanks (Middleton *et al.*, 2018a; Lambie-Mumford, 2019). According to a report by YouGov
38 Plc (2022), 18.4% of British households experienced moderate to severe food insecurity in September 2022
39 while one in four households with children had experienced food insecurity between the first two weeks of
40 lockdown and September 2022. The survey further indicated that households that were food insecure were
41 more likely to be affected by rising fuel prices - increasing energy costs led to 59.5% of households using less
42 appliances for cooking, 41.1% eating their meals cold, 18% washing dishes in cold water, and 6.8% turning
43 appliances such as refrigerators off. 68.1% of households in the UK were worried about the impact of the cost-
44 of-living crisis on their ability to be food secure and therefore to overcome household food poverty, many
45 households access foodbanks.

46 1.1 Foodbanks

47 Although foodbanks around the world play a critical role in providing food assistance to people in need, the
48 specific ways in which they operate vary based on the local context and available resources. For example, while
49 foodbanks in the US act as storage units that distribute food to food pantries, often through a network of
50 smaller agencies such as places of worship and community centres (Santini and Cavicchi, 2014; Charania and
51 Li, 2020; Byrne and Just, 2022), foodbanks in the UK usually have a more centralised distribution system (i.e.,
52 interacting directly with beneficiaries), resembling American and Canadian food pantries (Loopstra *et al.*, 2015;
53 May *et al.*, 2020). Foodbanks in Europe distribute food through a variety of channels – while some utilise their
54 own warehouses and distribution centres, others rely on partnerships with charities and social services
55 (European Food Banks Federation, 2022). The size and scale of food banks also differ between countries – the
56 largest food bank in the US, the Houston Food Bank, served more than 150 million meals in the 2021 financial
57 year (Houston Foodbank, 2022), while the largest network of food banks in the UK, the Trussell Trust,
58 distributed approximately 2.1 million emergency food parcels to people in crisis in the same period (The
59 Trussell Trust, 2022c). In 2021, the European Food Banks Federation (FEBA) fed approximately 11.8 million
60 individuals across 29 European countries (European Food Banks Federation, 2022).

61 According to The Trussell Trust (2022), 2.2 million emergency food parcels were distributed across the UK by
62 Trussell Trust foodbanks to individuals and families in need between April 2021 and March 2022. In addition
63 to the approximately 1,400 Trussell Trust foodbanks, the British population also relies on emergency food
64 parcels distributed by a network of at least 1,172 independent foodbanks (a part of the Independent Food Aid
65 Network – IFAN) (Irvine, Gorb and Francis-Devine, 2022). A large proportion of the beneficiaries accessing
66 foodbanks in the UK were in receipt of some form of state benefits such as Universal Credits (Lambie-Mumford,
67 2019; Independent Food Aid Network, 2022; The Trussell Trust, 2022a). While over half of the households on
68 universal credit experienced some form of food insecurity in 2022 (YouGov Plc, 2022), 94% of the foodbanks
69 associated with IFAN reported increased utilization of their services from other disadvantaged individuals
70 (Independent Food Aid Network, 2022). The adopted political-economic trajectory of social policy change has
71 contributed to increased austerity measures which when coupled with welfare reform, has resulted in
72 foodbanks being embedded within local welfare landscapes (Lambie-Mumford, 2019).

73 Foodbanks rely mostly on donations made by individuals, local fast-food outlets, and retail stores (Bennett,
74 Vijaygopal and Kottasz, 2021). However, even before the current financial crisis, demand at foodbanks often
75 outstripped supply (Iafrazi, 2016, 2018; Gharehyakheh and Sadeghiamirshahidi, 2018). The current situation
76 propelled by an incorrect assessment of the nature and consequences of shocks during a period of worldwide
77 instability, has caused a decrease in the volume of food donated (Gorb, 2022; The Trussell Trust, 2022c). This

78 has resulted in shortages in food supply, inflation leading to an increase in prices of food, and people being
79 unable to afford basic necessities such as food and energy (Harari *et al.*, 2022; Reis, 2022).

80 Research investigating the limitations of food banks has been ongoing for over two decades (Poppendieck,
81 1999), although it has gained momentum recently (e.g., Loopstra *et al.*, 2015; McIntyre *et al.*, 2016; Bennett,
82 Vijaygopal and Kottasz, 2021; Byrne and Just, 2022; Dekkinga, van der Horst and Andriessen, 2022; Etherington
83 *et al.*, 2022; Williams and May, 2022). Current studies on foodbanks debate their impact on public health (e.g.,
84 Garthwaite, Collins and Bamba, 2015; Garthwaite, 2016), their correlation with religion, beliefs and religious
85 organisations (e.g., Cameron, 2014; Allen, 2016), their impact on social policy (e.g., Lambie-Mumford, 2019;
86 Bramley *et al.*, 2021), and their impact on an individual's identity, self-esteem and dignity (Hicks-Stratton,
87 2004; Soja, 2010; Booth, 2014; Pine, 2022; Riol and Robinson, 2022). The limitations of foodbanks can have
88 significant consequences, particularly for vulnerable populations who rely on food aid programmes.

89 The inability of such programmes to empower beneficiaries to become self-sufficient leading to dependency
90 among beneficiaries and long-term reliance on food aid has been highlighted as a critical drawback (Lentz,
91 Barrett and Hoddinott, 2005; Garthwaite, 2016). (Mould *et al.*; (2022) emphasise the phenomenon where
92 several governmental bodies are relinquishing their obligations to adequately allocate funds towards social
93 welfare by expecting mutual aid programmes (e.g., food aid programmes) to tackle national welfare-related
94 challenges without support from the state. Additionally, the reliance of food aid programmes on food
95 donations leads to limitations in the variety and quality of food provided (Tarasuk *et al.*, 2014; Drewnowski *et*
96 *al.*, 2020) resulting in poor nutrition and health outcomes (e.g., diabetes, asthma and obesity) among adults
97 and children (Cook *et al.*, 2004; Garthwaite, Collins and Bamba, 2015; Loopstra and Lalor, 2017; Nguyen *et al.*,
98 2017; Drewnowski, 2022).

99 Furthermore, some studies have associated food aid programmes with stigma and shame (Garthwaite, 2016;
100 Middleton *et al.*, 2018b), while seldom addressing the root causes of food insecurity such as racism (Bowen,
101 Elliott and Hardison-Moody, 2021), poverty (Drewnowski, 2022), inadequate access to education (Bowden,
102 2020), and lack of employment opportunities (Loopstra, Lambie-Mumford and Fledderjohann, 2019).
103 Consequently, food aid programmes may only provide temporary relief to hunger without addressing the
104 underlying systemic issues that perpetuate food insecurity. Thus, while food aid programmes that rely on the
105 foodbank model can provide relief to vulnerable populations, they should be implemented alongside other
106 interventions to address the underlying causes of food insecurity.

107 ~~Drawing on perspectives shared by beneficiaries of food aid programmes in the UK, this article identifies the~~
108 ~~need for alternative sustainable community feeding programmes.~~

109 1.2 Community markets

110 To overcome the pressures faced by foodbanks and their limitations in the UK, an alternative charitable food
111 aid model based on the principles of a social economy, called *community markets*, has been adopted by local
112 communities and community hubs. The purpose of these community food enterprises is to empower local
113 citizens through “collective mobilization of local resources” (Sonnino and Griggs-Trevarthen, 2013, p. 272).
114 The principles of community markets closely align with those of Community Food Systems (CFS) which is, ‘to
115 oppose the structures that coordinate the current food system and to create alternative food systems’ (Allen
116 *et al.*, 2003). Community markets demonstrate “the feasibility of a socially needs-based, humane and human-
117 centred economy within contemporary capitalism” (Hudson, 2009, p. 507). ~~Community-Theymarkets~~ often
118 adopt a different business model to that implemented by foodbanks. ~~Access to such markets is not means-~~
119 ~~tested – i.e., all people from a local community, regardless of their socio-economic status, are able to take~~
120 ~~advantage and are not required to obtain an agency referral, unlike food banks. However, those who are~~

121 unable to purchase food even at subsidised prices can be referred and are given a voucher with a
122 predetermined value based on household size. While there is no standardised operational model for
123 community markets, most follow an operational design that mimics a supermarket – i.e., beneficiaries are
124 allowed to choose items (food, toiletries, other household essentials and meats) at subsidized rates. Charitable
125 food distribution networks such as FareShare are subscribed to using revenue generated from beneficiaries,
126 allowing for a regular supply of food to be received. Additionally, community markets receive donations from
127 supermarkets, local producers and other local businesses such as alternative meal providers. Community
128 markets are often located within community centres. Hence, in addition to markets, these centres also provide
129 additional services (e.g., cooking, sewing, chair yoga and music classes). This allows engagement by a larger
130 section of the local community. Much like foodbanks, community markets prioritise~~ation~~ of social and
131 economic goals over profit generation. Additionally, community markets engage with local businesses (i.e.,
132 reduced food miles) to reduce food waste and carbon footprint (e.g., distribution of excess food to local fire
133 and police services), support local producers, and promote healthy food, community engagement and
134 education. This highlights the potential of community markets to ~~promote~~ contribute towards a reconstructive
135 green ~~political~~ economy (Smith, 2005, p. 275; Golob, Podnar and Lah, 2009).

136 1.3 Dimensions of food security

137 Food poverty refers to individuals' and households' inability to obtain an adequate nutritious diet whilst
138 maintaining dignity (Dowler, 2003), and is closely linked to an individual/household's economic standing,
139 where the two create a vicious cycle with each fuelling the other (Siddiqui et al., 2020). Food insecurity is a
140 broader concept that encompasses physical and economic access to food, as well as the availability, quality,
141 and safety of food, which can lead to inadequate or insufficient food consumption (O'Connell, Knight and
142 Brannen, 2019). Despite the intention of AFNs to address the issue of food insecurity (Cerrada-Serra et al.,
143 2018), the extent to which they fulfil the four dimensions of food security, namely availability, access,
144 utilisation, and stability, as outlined by FAO in 2008, remains unclear. These dimensions of food security are
145 applicable worldwide and provide a framework for evaluating the effectiveness of AFNs. *Food availability*
146 refers to the physical presence of food within a certain geographic area. It addresses the supply chain aspect
147 of food security (World Food Summit, 1996). When applied to the AFN context, it would measure the amount
148 of food made available to people within the food aid system. This would include the quantity and variety of
149 nutritionally balanced food available for distribution, as well as the frequency and consistency of food
150 donations. *Food access* refers to the physical and economic access to food that encompasses individuals and
151 households' ability to acquire and consume adequate, nutritionally balanced, and diverse diets (Dutko, Ver
152 Ploeg and Farrigan, 2012). In the AFN context, this would include physical and economic access to the food
153 provided by the AFNs. Physical access refers to the proximity of the AFNs to beneficiaries, and the ease of
154 transportation to reach it. Economic access refers to the affordability of the food provided by the AFNs. This
155 implies that even if the AFN provides nutritious food, if beneficiaries cannot afford transportation, energy (to
156 cook and store food), or if the food is not culturally appropriate, it is not accessible to them. *Food utilisation*
157 refers to the ability of households and individuals to utilise food effectively once it is available and accessible.
158 It includes the knowledge and skills to prepare and store food safely and use it in a way that promotes good
159 health and wellbeing (Food and Agriculture Organization, 2003). In the AFN context, it would encompass
160 having access to cooking facilities, availability of necessary resources such as utensils and ingredients, and the
161 knowledge to prepare and store food safely. In addition to providing food, AFNs may need to provide additional
162 support, where needed, in the form of cooking classes, recipes, and workshops on writing grants to secure
163 funding for purchasing cooking equipment. *Food stability* refers to the ability of individuals and households to
164 consistently access sufficient quantity and quality of nutritious and diverse food over time, without
165 experiencing food insecurity (Food and Agriculture Organization, 2008). In the AFN context it refers to the

166 ability of AFNs to provide food assistance on a regular and reliable basis while prioritising nutritious and healthy
167 food options and building resilience within communities such that they can withstand shocks and stressors
168 (e.g., inflation) that may affect food access and utilisation.

169 By drawing on the lived experience of beneficiaries of food aid programmes, this paper aims to explore and
170 evaluate community markets, an alternative community feeding programme, as a potential complementary
171 solution to an existing and widely utilised food aid effort, foodbanks, to address the multidimensional aspects
172 of food insecurity in the UK.

173 *1.4 Alternative Food Networks and Food Aid Programmes*

174 Alternative Food Networks (AFNs) are a range of food systems that aim to offer an alternative to the
175 mainstream industrialised food system by providing more ethical, sustainable, and equitable food options.
176 These diverse systems have emerged in response to the unsustainable practices within traditional industrial
177 food systems (Holloway *et al.*, 2006; Kizos and Vakoufaris, 2011) which have contributed to multifaceted
178 contradictions such as malnutrition, ecological and livelihood crises (Goodman, Melanie DuPuis and Goodman,
179 2012). According to Feenstra (1997), Jarosz (2008) and Ribeiro *et al.* (2021), AFNs are often associated with
180 values such as social justice, ecological sustainability, healthy eating and a closer relationship between
181 producers and consumers. These values are supported through various strategies such as farmer's markets,
182 community supported urban agriculture, and food cooperatives (Stella *et al.*, 2022).

183 There is a growing body of literature suggesting that foodbanks and other charitable food aid programmes can
184 be categorised as alternative food networks (AFNs) (DeLind, 2011; Brinkley, 2018). However, this
185 categorisation is not without controversy as some scholars argue that food aid programmes, especially
186 foodbanks, are fundamentally different from other forms of AFNs due to their reliance on surplus food
187 donations rather than direct sourcing from farmers and other local producers (Lambie-Mumford, 2013; The
188 Trussell Trust, 2023). Despite this debate, there are similarities between food aid programmes and AFNs in
189 terms of their shared goals of reducing food insecurity while ensuring environmental and localised socio-
190 economic impacts using hybridised and conventional systems through advocacy of collective action at different
191 levels (Goodman, Melanie DuPuis and Goodman, 2012; Midgley, 2014; van der Horst, Pascucci and Bol, 2014;
192 Cerrada-Serra *et al.*, 2018; Michelini, Principato and Iasevoli, 2018). Furthermore, the rise of alternative models
193 to the foodbank model, such as community markets, to supplement traditional operations and provide
194 sustainable solutions to food insecurity (Maric and Knezevic, 2014; Michelini, Principato and Iasevoli, 2018;
195 Knezevic, Skrobot and Zmuk, 2021), further highlights the association between food aid programmes and AFNs.
196 Therefore, it is reasonable to consider food aid programmes, such as foodbanks and community markets, as
197 types of AFNs and to evaluate their effectiveness in addressing food insecurity, as proposed in this study.

198 **2 Methods**

199 *2.1 Sample characteristics and participation*

200 Four senior leaders, each from a different charitable AFN, received information about the study via email
201 between February and April 2022. Upon agreeing to be involved in the study, senior leaders distributed flyers
202 with information about the research to stakeholders. These included beneficiaries (i.e., users accessing
203 services provided by charitable AFNs), volunteers, employees and senior leaders. All participants were
204 informed that their decision to/not take part in the study would have no impact on their association with the
205 organisation. Participants were recruited between May and July 2022.

206 *2.2 Recruitment*

207 Recruitment philosophy was inspired by the approach proposed by Urban and van Eeden-Moorefield (2018)
208 and Creswell and Clark (2017) who state that individuals considered best qualified to address the research
209 question appropriately should be recruited in a study. As the roles of stakeholders associated with charitable
210 AFNs varied, a sampling strategy suggested by Wilson *et al.*, 2015 (p. 2131) was adopted. Beneficiaries of food
211 aid programmes with varied but relevant experiences of utilising foodbank and community market services
212 were recruited from four food aid programme – three foodbanks (Leicestershire, Shropshire and Dorset) and
213 one community market (Leicestershire). Participants included beneficiaries who accessed AFNs for food as well
214 as other services (debt management and community classes) offered by the service provider.

215 To ensure a good working knowledge of charitable AFNs, beneficiaries with an active association with a
216 charitable AFN were recruited for the study. Recruitment was through voluntary response sampling, enabling
217 the involvement of participants who were willing to share sensitive information of their own accord (Murairwa,
218 2015). Table 1 highlights details of participants' background and association with charitable AFNs.

219

220

Take in Table 1

221

222 2.3 Data collection

223 A semi-structured interview schedule was developed and reviewed by both authors. It consisted of three
224 sections: section 1 included demographic questions that explored participants' financial status (i.e.,
225 employment status, debt and amount of disposable income); section 2 explored participants' experience with
226 the charitable AFNs; and section 3 consisted of questions associated with the four dimensions of food security.

227 A total of thirty-eight semi-structured interviews (n=38) were carried out between June and July 2022.
228 Interviews lasted between thirty and forty-five minutes and were digitally recorded.

229 2.4 Data analysis

230 Recorded interviews were de-identified and transcribed verbatim. Deidentified transcripts were imported into
231 a data analysis software package, QSR NVivo (Version 12). Using an inductive thematic coding approach as
232 described by Braun and Clarke (2006), the transcribed interviews were analysed to facilitate the identification,
233 analysis and reporting of patterns within the data (Flick, 2014). The adoption of this method allowed for the
234 grouping of themes to make comparisons between the data more straightforward. A preliminary list of codes
235 was developed by the first author. The codes were then reviewed by the second author. While both authors
236 are public health researchers, the first author has experience in food security and sustainability and the second
237 author has experience in nutrition particularly as it relates to food security. Upon identifying the preliminary
238 list of codes, the authors exchanged and reviewed the outputs. Any disagreements were resolved through
239 discussion until consensus was reached. The preliminary list of codes and the coding framework are highlighted
240 in Table 2.

241

242

Take in Table 2

243

244 2.5 Ethics approval

245 This research received approval from the relevant ethics committee where the two authors were employed at
246 the time of data collection. Written informed consent was obtained from all participants.

247 **3 Findings**

248 The subsequent section presents the findings of the investigation into the effectiveness of foodbanks and
249 community markets in addressing food security in the UK by exploring the lived experiences of beneficiaries.

250 *3.1 Food security, foodbanks and community markets*

251 Much like food (in)security, food poverty can be associated with the FAO's four dimensions as defined in 2008.
252 This section discusses the ability of foodbanks and community markets to address food poverty, and the four
253 dimensions of food security.

254 *3.1.1 Food availability*

255 Beneficiaries highlighted that the cost-of-living crisis had forced many UK-residents from low- and middle-
256 income households to rely heavily on food aid programmes.

257 Families needed to visit during very specific times to ensure food availability. If a narrow window was missed,
258 they often left the charitable AFNs without adequate food, thereby forcing them to spend money on cheap
259 and high fat-high sugar foods in supermarkets. An increasing reliance on such programmes coupled with a
260 reduction in the quantity donated resulted in furthering the food poverty and insecurity issue:

261 *"It all depends what time you come really because if you come just after a delivery [of donations] or very early,*
262 *you will have more food available. However, if you come at any other time once a lot of people have already*
263 *been, the stock levels are going to be low."* – Beneficiary 9

264 *Foodbanks*

265 Many foodbanks received food through donations made by the public. With increasing food prices, the
266 quantity of food donated decreased in 2022 (The Trussell Trust, 2022b) which led to a depletion in access to
267 foods such as tinned vegetables and meat:

268 *"Stock levels vary on the day because it depends on what they [community feeding programmes] get in. By*
269 *the time I visit the food hub... the food is virtually gone, the fresh stuff, in the fridge, meat and stuff. I know*
270 *they are all donations, so it all depends on what they're getting..."* – Beneficiary 8

271 Beneficiaries referred to foodbanks did not visit with the expectation of receiving vegetables and fruits as
272 access to such products was often limited. In addition, they were not always able to purchase these from
273 budget supermarkets as they are relatively more expensive. Consequently, fruits and vegetables were
274 commodities seldom consumed:

275 *"We don't always get vegetables and fruits here. The amount has reduced since everything has become*
276 *expensive. I guess it makes sense as people will struggle to donate these items. I go to the supermarket to see*
277 *if they have cheap vegetables and fruits for my children. However, sometimes I replace it with a cheaper product*
278 *[alternative] like tinned or packet food."* – Beneficiary 14

279 *Community markets*

280 Beneficiaries visited community markets to purchase a variety of food. However, fresh fruits and vegetables,
281 and frozen meat were a priority as these items were deemed to be nutritious and expensive in supermarkets
282 and unavailable in foodbanks:

283 *"I come here mostly for the carrots, potatoes, tomatoes and cucumbers. Most times they have these in stock.*
284 *Sometimes I also buy pasta and bread. It depends on what they've got. Sometimes they have meat in the*
285 *fridges."* – Beneficiary 1

286 *"I suppose really, it's the fresh meat which helps because it is cheaper here and obviously, I would buy it here.*
287 *It also reduces the amount I need to buy at supermarkets."* – Beneficiary 8

288 3.1.2 Food access

289 *Foodbanks*

290 Foodbank beneficiaries expressed gratitude for receiving free food in the form of food parcels, even though
291 they felt the loss of dignity due to the inability to choose the food items they received. Nonetheless,
292 beneficiaries found that food banks provided greater accessibility to food than sources such as supermarkets:

293 *"I am grateful for what the foodbank gives me as it means that I have some food for myself and my family,*
294 *especially when I cannot afford food from elsewhere. I don't know what I would have done without this...I*
295 *cannot afford to shop at supermarkets..."* – Beneficiary 36

296 Nevertheless, beneficiaries of foodbanks stated that there was a social stigma associated with accessing food
297 in the form of food parcels as it was free and distributed as pre-packed parcels. Many beneficiaries felt 'looked
298 down upon' by society and were 'ashamed' to mention that they received food parcels from foodbanks:

299 *"Well, it's a bit of a stigma. Sometimes it's very difficult [to visit a foodbank]. We've always worked and now*
300 *all of a sudden, we need to get free food. I feel ashamed to tell my friends..."* – Beneficiary 17

301 Referrals played an important role in ensuring access to charitable AFNS, both foodbanks as well as community
302 markets. Referrals were often in the form of food vouchers or online forms prescribed by referral agencies.
303 Beneficiaries perceived receiving referrals as a complicated process due to: (1) the lack of information on
304 referral agencies; and (2) a lack of awareness about the need for referrals in most cases.

305 Despite food banks limiting the number of visits by an individual or household, some beneficiaries found a
306 loophole in the referral process by receiving multiple referrals from different agencies, which allowed them to
307 access food from different food banks and receive more than one food parcel per week:

308 *"Currently, I am using two foodbanks around Leicester city. I just go to two different agencies, my doctor and*
309 *housing officer, to get two separate referrals...This helps me feed my family for a longer period"* – Beneficiary
310 12

311 Beneficiaries visited foodbanks not just for access to food, but also for information on other agencies that
312 could provide additional help such as debt management. However, advice on debt management was not a
313 service associated with community markets:

314 *"Once I get food from here [foodbank], I visit the person offering debt management advice to get help with*
315 *paying off outstanding bills. The staff here are very informative and often share information about other places*
316 *where I can get help. I can get in contact for fuel and food vouchers for like Asda and things like that so you can*
317 *get fresh food – this is amazing."* – Beneficiary 19

318 In addition, foodbanks added social value as they helped beneficiaries meet other people in the same financial
319 situation as themselves:

320 *"...Whenever I have no work, I always come here and collect whatever food I can get... It helps to know that*
321 *there are other people experiencing similar difficulties, and that I am not the only one who is unable to feed my*
322 *family sometimes."* – Beneficiary 13

323 *Community markets*

324 Although community markets receive donations of fresh fruits, vegetables and dairy, physical access is often
325 limited due to unsuitable storage conditions:

326 *"...there's not a lot of fresh things mainly because there is nowhere to store it for too long. A few weeks ago, I*
327 *came and there was just lettuce, so I could not get any fresh products...I have never seen fresh cold milk here..."*
328 – Beneficiary 10

329 Community markets offers food at a subsidised rate, enabling beneficiaries to purchase a wider range of items
330 within their limited budget:

331 *"I can buy different food and other household essentials here [community market] although I come here on a*
332 *budget...If I go to a supermarket, I will hardly get even half the shopping done...I have accessed food from*
333 *foodbanks, but the variety was nowhere close..."* –

334 Beneficiaries preferred the approach adopted by community markets where they had the option of choosing
335 food and paying for goods as opposed to being given a pre-prepared parcel for free as not only did they get to
336 choose the products based on their preferences, but also felt a sense of dignity in not being handed out free
337 items:

338 *"...I can choose fresh and healthy food from here [community market]. I can buy what I will eat. However, I*
339 *would not be able to choose at a foodbank and would end up wasting food and not eating things I did not like."*
340 – Beneficiary 9

341 *"I very much prefer being able to choose my food instead of being given parcels like at XY foodbank, It just feels*
342 *dignified to be able to pay for goods, even if it is at subsidised rates, and then being able to choose what I want*
343 *based on what I would like to eat."* – Beneficiary 17

344 As access to community markets is not means-tested, people from across socio-economic backgrounds visited
345 the markets. This often led to people from different walks of life interacting with each other. They valued the
346 'sense of community' and other services offered and developed new friendships and social circles by visiting
347 the community hub while attending classes and the market. It also helped to combat loneliness and feelings
348 of isolation:

349 *"The other thing that being at SS1 [community market] is that it has really opened my eyes to different people*
350 *who come for different reasons, but they are not what I expected. This is going to sound very class*
351 *conscientious, but I thought that people who would come to the market...would be very needy, not only*
352 *financially but mentally as well but it isn't like that...I have realised that all of us could go through similar mental*
353 *health-related issues regardless of our income level..."* – Beneficiary 6

354 *"You get a sense of community here... because they [food market and community hub] serve the local*
355 *community. If we lost this [market], it would be a shame because they bring so much to our lives. My daughter*
356 *comes here for the playschemes. Because I'm a single mum it just gives me that bit of a break in holidays. It will*

357 *be a shame if it ever goes. Food-wise its somewhere I can come and get some if I'm short one month. I know I*
358 *can come here and get some good quality food for less than what I can get in the shops.” – Beneficiary 1*

359 Limited opening hours was highlighted as a key issue as this made it difficult for beneficiaries with busy
360 schedules to access community markets:

361 *“I wish the market was open on more days. By the time I finish work, I am hardly able to visit the market before*
362 *it closes...it is only open two days a week, that too only for a few hours each day...” – Beneficiary 6*

363 3.1.3 Food utilisation

364 With increasing food prices, many households did not have much access to nutritional diversity. Adults had
365 further limited access to healthy nutritious food as in many households, they had no option but to eat food
366 left-over from their children’s plates, with some adults skipping meals to feed their family. This was a common
367 theme across foodbanks and community markets:

368 *“There have been a few times [since the prices have gone up] that I’ve had had little and whatever was left in*
369 *my daughter’s plate. Because as far as I’m concerned, she has priority over me. I always make sure she’s fed. I*
370 *cannot afford to waste money.” – Beneficiary 16*

371 Although most adults were cognizant of the importance of nutritious meals, many felt that it was something
372 they could not afford to prioritise:

373 *“Nutrition is an important concept in my family. I have been taught about the importance of eating different*
374 *food groups...I cannot afford to buy fresh fruits, vegetables and fish as their prices have gone up a lot. This is in*
375 *addition to having to pay for increased electricity and gas bills.” – Beneficiary 15*

376 It was highlighted that while increasing food prices had directly impacted the amount and type of food
377 accessible to the average UK household, the cost-of-living crisis had flexed cooking habits. Increasing electric
378 and gas (i.e., fuel) prices required many households to purchase foods that could be prepared without the use
379 of a hob and/or oven. The sales of air fryers and slow cookers has increased as they utilise less electricity (Al-
380 Habaibeh, 2022). Subsequently, this has led to families accessing community markets purchasing foods that
381 could be used in this way:

382 “...I don’t buy half as many ingredients as I used to from here [community market]...I only use my slow cooker
383 once rather than putting the oven on every day and I have bought an air-fryer as well...” – Beneficiary 4

384 Foodbanks

385 Beneficiaries with co-morbidities such as hypertension and diabetes often struggled with food received in
386 foodbank parcels as they found it difficult to manage their salt and sugar intake:

387 *“A lot of the tinned foods is quite high salt which I can’t take at the moment because of certain health issues*
388 *that I suffer from.” – Beneficiary 20*

389 Limited food access and availability in foodbanks led to an over-reliance on carbohydrates due to their
390 relatively lower costs and longer shelf lives but also compounded a diet anchored in monotony:

391 *“Sometimes there is enough options, but very often, the options are the same. This can be good for a while as*
392 *it helps me decide what I am going to eat, but it gets boring. I cannot do anything about it as it comes in my*
393 *food parcel as that is what foodbanks get donated.” – Beneficiary 23*

394 The lack of beneficiary choice regarding food items in food parcels at foodbanks resulted in some items being
395 incompatible with air fryers and kettles, leading to non-utilisation due to the inability of affording to cook
396 them:

397 *“There are times when I am unable to cook the food that I get in parcels because I only have a kettle and a*
398 *small air fryer at home. I cannot make a decent meal using the ingredients I get given in them...”* – Beneficiary
399 35

400 *Community markets*

401 The ability to choose their own food at community markets allowed beneficiaries to have more autonomy and
402 select foods more in tune with their lifestyle. Cooking classes were conducted twice a week by volunteer chefs
403 who taught beneficiaries how to cook a meal with ingredients available in the market on a particular day:

404 *“I particularly enjoy learning how to cook with what is available in the market on that day...It is helpful that*
405 *these are free to attend and that the chefs are based within the market on both days...”* – Beneficiary 5

406 3.1.4 Food stability

407 Shocks such as economic and/or climate crises and cyclical events (seasonal food insecurity) should not risk
408 access to and availability of food (Food and Agriculture Organization, 2006).

409 *Foodbanks*

410 Stable access to fresh food was identified as a key issue for food stability in foodbanks with increasing food
411 prices leading to reduced donations identified as a key contributory factor:

412 *“I heard from the volunteer team that the amount of donations they receive has been dropping since everything*
413 *started becoming expensive...it makes sense as ever since this problem, the variety and size of the food parcels*
414 *has not been consistent.”* – Beneficiary 31

415 *Community markets*

416 While community markets had a relatively smaller issue related to food, reliable access to fresh food was
417 identified as a key challenge:

418 *“Sometimes it’s a struggle, especially having fresh fruit from here [community market]...however, other types*
419 *of food are fairly consistently available...”* – Beneficiary 3

420 **4 Discussion**

421 While the economic unsustainability of foodbanks and charitable giving is established in prior research, the
422 ability of AFNs to address all four dimensions of food security is seldom explored. The most commonly
423 discussed charitable AFN other than foodbanks is social supermarkets, with most papers evaluating the
424 advantages and efficiency of such enterprises (e.g., Holweg, Lienbacher and Schnedlitz, 2010; Holweg,
425 Lienbacher and Zinn, 2010; Klindzic, Knezevic and Maric, 2016; Wills, 2017).

426

427

Take in Table 3

428

429 This research expands the debate and presents data evaluating the effectiveness of two charitable alternative
430 food network (AFN) models, foodbanks and community markets, to address the problem of food insecurity in
431 the UK. It has explored the lived experience of beneficiaries and placed significant emphasis on giving a voice
432 to a group of individuals whose perspectives are often underrepresented and seldom heard.

433 Evidence from this study shows that unlike other charitable AFNs such as community markets, beneficiaries of
434 foodbanks felt that the loss of autonomy (i.e., ability to choose their own food and pay for products) led to a
435 loss of dignity – this aligns with findings in other studies (e.g., Pine, 2022; Riol and Robinson, 2022). The findings
436 highlight that while there are clear social and economic benefits associated with both food-banks and
437 community markets, beneficiaries preferred the community market model as it allowed them to choose an
438 acceptable quantity of good quality and nutritious food at subsidized prices. This was not a possibility at food
439 banks where food was largely prepared into parcels by volunteers and handed to beneficiaries – in this model,
440 beneficiaries lacked the complete freedom of choice. While both business models enabled beneficiaries to
441 save money and visit budget supermarkets either to top-up their shopping or purchase other household
442 essentials, the community market model added value by offering lifestyle workshops and a sense of
443 community cohesion.

444 Beneficiaries benefited from charitable AFNs that provided additional services (e.g., sewing and gardening
445 classes) as for many, it was their primary form of interacting with the wider community. Additionally, it helped
446 improve beneficiaries' mental health and wellbeing. Not all foodbanks provided additional services.

447 Fresh fruits and vegetables were in high demand in foodbanks and community markets. However, with
448 charitable AFN relying on donations (Byrne and Just, 2022) which are fast depleting due to inflation these were
449 not always available. Clearly, there is a nutritional consequence to this where adequate consumption of fruit
450 and vegetables are fundamental to a healthy balanced diet. Nevertheless, a solution could be the provision of
451 frozen alternatives which offer a rich source of nutrients as they are processed at the peak time of ripeness
452 and nutrient profile. The implication would be for both food-banks and community markets to invest in the
453 storage ability to accommodate frozen goods.

454 In practice, rising food insecurity in the UK is one of the contributory factors for the increase in number of
455 referrals made to food banks, notwithstanding they are not a sustainable solution in the long-term (Williams
456 *et al.*, 2016; Iafrati, 2018). ~~Evidence from this study shows that unlike other charitable AFNs such as community~~
457 ~~markets, beneficiaries of food banks felt that the loss of autonomy (i.e., ability to choose their own food and~~
458 ~~pay for products) led to a loss of dignity.~~ Foodbanks were designed as a short-term solution (Renzaho and
459 Mellor, 2010; Handforth, Hennik and Schwartz, 2013; Middleton *et al.*, 2018c) and there needs to be a more
460 resilient solution. One such growth area of re-distribution is observed in app and software development (~~for~~
461 ~~example e.g., 'Too Good To Go' and 'Donation Genie').~~ This social media innovation gained momentum during
462 COVID-19, but re-deployment of local food surplus has now become common place within communities,
463 notwithstanding ~~evident~~ geographical differences ~~are evident~~. Beneficiaries in this study did not mention any
464 apps ~~or software;~~ and therefore, ~~it is~~ clearly a nascent model of impact. ~~However,~~ its fundamental principle
465 mirrors the community market of procurement, ~~which is~~ a preferred structure by consumers to overcome food
466 insecurity.

467 **4.1 Summary of findings**

468 The strengths and challenges associated with foodbanks and community markets in terms of the food security
469 dimensions are summarised in Tables 4 and 5.

470

Take in Tables 4 and 5

471

472

473 It is evident that community markets have the potential to act as a complementary solution to foodbanks to
474 address the multidimensional aspects of food insecurity in the UK. They provide access to nutritious food,
475 fostering healthier diets and nutrition. These markets promote dignity and empowerment by allowing
476 individuals to actively participate and contribute their skills, thereby facilitating community engagement, social
477 support, and knowledge sharing, strengthening community bonds and combating social isolation. Additionally,
478 they contribute to local economic development by supporting local producers and entrepreneurs. Hence,
479 collaboration through partnerships between (national and local) governments, local food aid programmes
480 (e.g., foodbanks and community markets), and local businesses must be encouraged to increase food aid
481 funding, food supply and strengthen support networks.

482 5.04.2 Policy implications

483 It is estimated that 87% of adults living in Great Britain reported an increase in their cost-of-living in Autumn
484 2022, 96% of whom recorded an increase in the cost of their food shopping with a further 44% reducing their
485 spending on essentials including food (Office for National Statistics, 2023). A 2022 report by Statista (Clark,
486 2022) approximated that 2.17 million people in the UK relied on community feeding programmes in 2021/22.
487 This added pressure on charitable AFNs to increase assistance.

488 With referrals to foodbanks at an all-time high, there must be a policy shift aiming at reducing poverty by for
489 example ensuring that food and energy supply is cheap, reliable, and resilient, supporting education on local
490 growing (including revamping the school curriculum) and creating resilient and transparent labour supply
491 chains to work in the agriculture sector (see Nayak, Hartwell and Bray, 2022). Findings from this study further
492 highlight the need for a review of Universal Credits as current eligibility criteria do not reflect the impact of the
493 cost-of-living crisis and increasing food prices on households and individuals. This has contributed to food
494 insecurity across the UK with many households at risk of having no access to sufficient food. Additionally,
495 wrong referrals due to a poor understanding of the various charitable organisations and the services they
496 provide contributed to the increase in number of referrals. This calls for mapping the referral process to
497 investigate the challenges faced by agencies and to identify opportunities to improve the process. Clearly, the
498 food bank model is not sustainable, and a new long-term solution needs to be found, from this research
499 community markets could be the answer with targeted investment in infrastructure such as freezers.

500 One key limitation of the policy implications of the study is the lack of evidence on the impact of one modality
501 of assistance on another (i.e., the effect of the rise in Universal Credit, the UK government welfare benefit
502 programme, on the need for food aid from food aid programmes). Although the UK's benefits system,
503 Universal Credits, was designed to reduce household and individual poverty, the waiting period for the first
504 payment as well as eligibility criteria pushed people into hardship (Thompson, Jitendra and Rabindrakumar,
505 2019). Further studies are required to assess the potential impact of revising the Universal Credit system on
506 the pressures faced by charitable AFNs in the UK.

507 65 Conclusions

508 Food insecurity affects physical and mental health, and social and emotional wellbeing. This study analyses the
509 impact of the cost-of-living crisis on beneficiaries of charitable AFNs in the UK while identifying the
510 opportunities and challenges associated with two business models, foodbanks and community markets. The

511 recent pandemic highlighted the importance of resilient and sustainable supply chains where the role of
512 community cohesion was evident. Although several factors influence food security, a focus on identifying the
513 provision point i.e. the place at which communities access food within their locality has been poorly addressed
514 both in research and policy. Public health benefit emerges through ensuring all consumers including society's
515 most vulnerable have access to food, but further the anxieties and mental health challenges that many
516 experience are alleviated. The notion that foodbanks, as charitable emergency response-based entities, are in
517 a position to offer a food supply that can sustainably meet wider community demand and provide for individual
518 needs, is problematic (Iafrati, 2018). This article suggests the development and support for community
519 markets could provide a more sustainable and appropriate solution allowing for individual dignity and societal
520 cohesion bringing benefit to society by providing mutual support and enabling all to work together for a
521 positive future.

522 **76 Conflict of Interest**

523 The authors declare that the research was conducted in the absence of any commercial or financial
524 relationships that could be construed as a potential conflict of interest.

525 **87 Author Contributions**

526 RN and HH conceptualized the study. RN wrote the first draft of the manuscript. HH wrote the Conclusions
527 section of the manuscript. Both authors contributed to manuscript revision, read, and approved the
528 submitted version.

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Table 1: Study participants' backgrounds and associations with charitable AFNs

Stakeholder type [Employment]	Number of participants	Income source [Left over after paying energy bills¹]	Income left over after paying energy bills and rent/mortgage instalments (foodbanks)	Income left over after paying energy bills and rent/mortgage instalments (community markets)
Beneficiary [Retired]	4	Pension	£0	<£100
Beneficiary [Not working due to disability]	8	Universal Credits	£0	£0-£40
Beneficiary [Unemployed]	8	Universal Credits	£0	£0-£40
Beneficiary [Volunteers at other charities]	6	Universal Credits or Partner	£0	£0
Beneficiary [Working full time]	5	Primary jobs	£0-£150	£200-£3000 ²
Beneficiary [Zero-hour contract]	7	Primary job and Universal Credit	£0-£20	NA

¹ As of summer 2022.

² This was a dual income household with both adults in full time jobs.

Table 2: Coding framework

Themes	Sub-themes
Benefits of charitable AFNs	Economic Social
Challenges associated with charitable AFNs	Cost-of-living crisis Social stigma
Food poverty	Food access Food availability Food utilisation Food stability
Referrals	Importance of referral agencies Referral process

Table 3: Differences between social supermarkets and community markets

Sources: Field, (2009); Holweg, Lienbacher and Schnedlitz, (2010); Holweg, Lienbacher and Zinn, (2010); Renobales, San-Epifanio and Molina, (2015); Knezevic, Skrobot and Zmuk, (2021); Nkegbe and Mumin, (2022).

	SOCIAL SUPERMARKETS	COMMUNITY MARKETS
CONCEPT	Source surplus food (e.g., damaged packaging and missing/incorrect labels).	Prioritise local sourcing, sustainability and community engagement.
TARGET AUDIENCE	Individuals and families on low incomes and/or are facing food and financial insecurity.	Open to the entire community including individuals with different income levels.
BUSINESS MODEL	Non-profit organisations Rely on partnerships with food suppliers, financial donations, and grants for sustenance.	Operate as cooperative or community-led initiatives with the involvement of local producers, industries and vendors. May rely on membership fees.

It is important to note that specific characteristics and practices of community markets and social supermarkets may vary depending on the context and region in which they operate.

Table 4: Strengths and challenges associated with foodbanks

	STRENGTHS	CHALLENGES
FOOD AVAILABILITY	Affordable food: Due to relying on a subscription	<p>Limited food variety: Reduction in amount of food donated has led to a depletion in the quantity and variety of nutritionally balanced food in food parcels.</p> <p>Inconsistent supply: Fruits and vegetables are seldom available in food parcels.</p> <p>Restrictions on frequency of visits: Trussell Trust and Independent foodbanks had varying policies on the number of visits allowed to foodbanks, leading to restriction on beneficiaries' access to emergency food.</p>
FOOD ACCESS	<p>Physical access to free food helps beneficiaries feel less worried about hunger.</p> <p>Partnership with other services: Foodbanks often partner with financial and debt management charities and services, providing clients with addition resources.</p> <p>Building community: Foodbanks add social value as they help beneficiaries meet other people in the same financial situation as themselves, reducing social isolation.</p>	<p><u>Referral process: The need for a referral from a third-party agency creates barriers for those who are not aware of the referral process or have difficulty accessing referral agencies, thereby, limiting accessibility of foodbanks.</u></p> <p><u>Lack of uniformity: Loopholes in the referral process and a lack of uniformity and transparency meant that some beneficiaries accessed more than one foodbank within a local area.</u></p> <p><u>Geographic limitations: Beneficiaries who lived in areas without a local foodbank service needed to travel longer distances using public transport or a taxi due to the creation of food deserts.</u></p> <p><u>Social stigma: Beneficiaries experience feelings of shame and embarrassment due to the perception that they are unable to provide for themselves and their families, and as they were not afforded the ability to choose food.</u></p>

**FOOD
UTILISATION**

Nutritional support: Food parcels distribute a variety of food items, with many foodbanks ensuring a nutritional balance.

Nutritional imbalance: Limited availability of certain food groups and limited access to energy and cooking equipment forces beneficiaries to over-rely on carbohydrates leading to a diet anchored in monotony.

Public health: Prepacked parcels has the potential for causing adverse health impacts on beneficiaries with comorbidities.

**FOOD
STABILITY**

Short-term relief: Stability in the short-term provides many beneficiaries with the assurance that households have access to food and other household essential during times of crises.

Community resilience: The focus on short-term support fails to address long-term food poverty and build a community resilient to food and financial insecurity.

Reduced donations: Donations made to foodbanks are unpredictable due to their dependence on donations.

Table 5: Strengths and challenges associated with community markets

	STRENGTHS	CHALLENGES
FOOD AVAILABILITY	Availability of fruits and vegetables: In addition to other food items and household essential being available, fruits and vegetables were available every week.	Limited stock: Items within community markets are in high-demand due to the subsidised rates. This leads to markets running out of stock quickly, leaving some beneficiaries without access to certain foods.
FOOD ACCESS	<p>Affordability: Food and other household items were sold at subsidised rates.</p> <p>Dignity: Beneficiaries did not feel ostracised or ashamed as they are offered a shopping experience that allows beneficiaries to choose their own food items and other household essentials, which helps restore dignity and a sense of control over their choices.</p> <p>Building community</p> <p>Savings: Subsidised rates of items allows beneficiaries to visit budget supermarkets to purchase items that were not available at the community market, thereby enabling diversity in diet.</p>	<p><u>Referral process: The need for a referral from a third-party agency for those who are unable to pay subsidised rates coupled with the unawareness of the possibility for a referral among certain beneficiaries resulted in their inability to attend the market during times of financial distress</u></p> <p><u>Flexibility: Limited opening hours can make it difficult for beneficiaries with busy and/or conflicting priorities.</u></p>
FOOD UTILISATION	<p>Education: Educational programmes in the form of cooking classes that teach beneficiaries how to prepare nutritious meals with the available ingredients improves food utilisation.</p> <p>Quality, health and freshness: Availability of fruits and vegetables encourages beneficiaries to consume more nutritious food and make healthier food choices.</p>	Storage and cooking equipment: Lack of appropriate storage facilities and cooking equipment restricts utilisation of certain food groups.

**FOOD
STABILITY**

Long-term relief: Consistent access to affordable and nutritious food contributes to stable access to food and other household essentials.

Reliance on subscription models: Reliance on food from subscription to charitable food ~~reduction-distribution~~ charities networks leads to a small degree of unpredictability in the quality of food, despite the utilisation of a subscription model.