British Academy Project: Shared Understandings of a Sustainable Future (SSF\210084)

Developing a Grassroots Sustainable Futures Platform: Collective Participation in a Community-Based Cultural Organisation

Lead-Investigator: Dr. Lee Barron (School of Design, Northumbria University)

Co-Investigator: Prof. Sheng-feng Qin (School of Design, Northumbria University)

Co-Investigator: Dr. Jiayi Jin (School of Design, Northumbria University)

Research Assistant: Ziwen Zhu

Executive Summary

This project report outlines the academic context of the British Academy 'Developing a Grassroots Sustainable Futures Platform: Collective Participation in a Community-Based Cultural Organisation' research project, sets out the major findings, and considers recommendations for policy makers and future further research trajectories. The context and rationale for the research project is based on the exploration of community perceptions of net zero developments (and understandings of the concept of net zero) and sustainability to examine concrete ways of establishing a framework for meaningful public participation for a sustainable future through the grassroots approach. The researchers engaged with local cultural organisations and members of local communities to explore what concrete challenges in relation to sustainable development and governmental drives for a net zero future in terms of decarbonisation and greener industries and living strategies which represents a significant response to climate change to enable governments 'to reduce the usage of earth's natural resources and reduce environmental pollution' (Shahbaz et al, 2020: 2). In addition to community-based research based on co-creation workshops, surveys and semi-structured interviews, the project included an extensive literature review on the related subjects of net zero, sustainability and grass roots organisation and activism that has informed the design of the research and respondent engagement and has provided the foundation for current and future academic outputs.

Research Summary

Undertaken by an interdisciplinary research group at Northumbria University (with backgrounds in the social sciences, architecture, and design), the team worked with The Word: The National Centre for the Written Word, a cultural venue situated on the riverside in South Shields, a post-industrial town situated in the north-east of England. The Word served as a platform for a series of co-creation workshops with local social actors to gather reflections, ideas, and what they would like to see developed in the local area to enhance sustainability for the current, and future, members of the community and establish a net zero future for the South Tyneside area.

Net-zero emission is a crucial part of climate change policy and has become a major topic for government and corporate development strategies since the UN climate summit. Since the adoption of the Paris Agreement, which aims to keep global warming to 1.5 degrees Celsius (Black et al., 2021), a growing number of countries and even cities have announced their participation in net-zero action (Höhne et al., 2021). Net-zero emissions are linked to energy, land, industry, cities, transport and infrastructure, which means that these industrial systems need to transform and upgrade to achieve

net-zero CO_2 emissions by 2050 (Seto et al., 2021). The context of the research project is based on governmental net zero policy rollout. In the UK, this legislation is committed to reducing greenhouse gases (GHGs) to the extent that it fully decarbonises the country's power system by 2035 and reach a fully 'net zero' by 2050 (HM Government, 2021; O'Beirne et al, 2020 264), constituting an unprecedented plan of strategic change in these sectors (Garvey, Norman, and Barrett, 2022). Significantly, it is stressed that the key to achieving net zero will be the part played by businesses and by individuals and that governments need to build and maintain public engagement with net zero strategies, which will, and which will need to be, enacted in local communities (Sasse, Rutter, Norris, and Shepheard, 2020).

To explore understandings and views on net zero, the research team engaged with the public through co-creation workshops in The Word, with the latter being more engaging with respondents. The research team selected co-creation workshops as the primary practical design-based methodological tool as they 'provide participants with the flexibility and opportunity to make new discoveries, create new knowledge and develop ideas' (Benson et al, 2021: 2), are based on 'citizen-centric' approaches to social issues (Sharp et al, 2022) and represent both a 'community meeting and a workshop' (Gignac, et al, 2022: 9), and so they are a method with which to explore the issues of sustainable development and the implementation of net zero strategies in a community setting. To enhance creative participation, the research team adopted David Sibbit's (2010) recommendation to use materials such as stickers for ideation, which enabled participants to communicate key ideas quickly and effectively and enabled the research team to create visual mosaics of responses (see appendix 3).

The researchers also designed a short questionnaire based on how individuals engage in sustainable behaviour and how they see the value of cultural spaces as venues for collective action accessible through a QR code or completed as a physical copy. Additionally, the team conducted a research session at Newcastle Central Library to gain a comparison in terms of insights from a major city and conducted semi-structured interviews with South Tyneside local authority carbon reduction officer and manager. The choice of a cultural space as a focus for the investigation was based on a growing body of literature stressing the efficacy of cultural locations, such as museums and heritage organisations, as prime sites to focus community engagement with sustainability initiatives (Brown, 2019). This is because they 'empower citizens to reflect on the challenges facing society' (Lanzinger and Garlandini, 2019: 47) which includes sustainability through the focus on local heritage and community engagement (Sutter, 2019) and represent spaces of 'cultural learning and intergenerational transmission' (Walters and Vežić, 2019: 122). This literature enabled the research team to construct a conceptual framework in which to contextualise and stress the ways in which a cultural organisation like The Word can represent a community-based and community-used space that can serve as a means by which to enhance the understanding of net zero and sustainability challenges and planning in the local area. Respondents indicated that a cultural space like The Word was 'a good space for local information exchange' in terms of locally focused sustainable developments, communication, and engagement and as a potential venue for the establishment of a community-based 'grassroots' organisation. Grassroots movements and organisations have played a longstanding role in campaigning for environmental justice (Bullard and Johnson, 2000; Martinez-Alier et al, 2014) and as Feola and Butt argue, grassroots movements 'can be influential agents of change in a transition to sustainability' (2017: 16) as for effective sustainability changes, voluntary associations of committed activists and local citizen stakeholders need to be engaged with (Hargreaves, Hielscher, Seyfang, and Smith, 2013; Mihaylov and Perkins, 2015; Morrissey, Schwaller, Dickson, and Axon, 2020). Therefore, grassroots actors are seen as 'critical agents in the transition to sustainability' (Sass Ferguson and Lovell, 2015: 38) as they generate 'novel bottom-up solutions for sustainable development' (Smith and Seyfang, 2013: 1) as they 'respond to the local situation and the interests and values of the communities involved' (Seyfang and Smith, 2007: 585). This is significant as

grassroots community-based engagement with net zero strategies and future change is essential to ensure that local people feel empowered to act on climate change rather than the measures simply implemented in a top-down process by external agents (Taylor, 2021).

The four workshops gleaned data from approximately thirty respondents. A common reaction from respondents was that while they reported that initiatives for sustainable development in both national and local context were positive, the concept of 'net zero' was not always fully understood or recognized to the point that, while still a relatively new category, it was viewed as being potentially a governmental 'buzzword,' whereas the term sustainable development was readily clear to respondents. Findings indicated that the practical achievement of positive developments had to be through a combination of individuals taking personal action, but also being cognisant of wider structural policy changes. As such, the key issues of direct importance to respondents included:

- Better recycling facilities and services because "recycling is important for sustainability"
- Increasing education about net zero and alternative ways of living so that local people benefit in their communities
- More investment in cycling infrastructure to reduce car use to develop central urban areas into being more walkable spaces
- More investment and development in green spaces and environments that enhance wildlife and the management of threats to existing greenspaces
- More efficient public transportation that is electrically powered
- More investment in and visibility of renewable energy technologies (wind turbines, for example) and technological and policy assistance granted to companies to reduce the manufacture and use of plastics
- The provision of more charging points in the town to enhance electric car purchase and use
- The redesign of the built environment, including the planting of more trees alongside roads, more efficient cleaning of streets, and making existing greenspaces more physically accessible
- Investment in community renewable energy, such as the expansion of solar panels in buildings
- The protection of the coastal line and investment/promotion of sustainable tourism
- The increased use of libraries and other public bodies to promote environmentalism

The findings identified both locally-focused sustainability issues and more macro net zero-oriented factors and many respondents agreed that a grassroots/community-focused approach was an effective means by which partnerships could be formed to enact positive changes, but also flagged the practical challenges facing them in terms of work and life commitments that would make regular involvement in grassroots groups difficult, yet they would still make individual changes to reduce their carbon footprint. On the one hand, respondents reported that sustainability-focused school clubs based in The Word would be effective in fostering grassroots activity and that regular meetings and debates could take to explore and debate community-based sustainability issues. However, respondents also suggested ideas for effective grassroots organisation in terms of moving away from face-to-face engagement to online community interaction as they are more flexible and so positioned to enhance participation and positive communal action. As one respondent stated: "I would join an online group that could talk about ways to improve their sustainability as it may be too time consuming to commit weekly." However, there were bleak views expressed, such as one respondent stating that they were glad that they were in their seventies as environmental conditions seemed so irreversible, therefore, the need for visible, concrete sustainable action is important to mitigate against feelings of fatalism.

In the face of such potential obstacles to direct activism and a concrete form of grassroots mobilisation, practical suggestions from respondents to form workable community-oriented groups flagged the efficacy of social media platforms such as Facebook and TikTok to debate sustainability

issues and explore concrete solutions to the challenges. This was especially significant in that a challenge to the engagement in sustainable action and debate is the risk of people simply focusing on the present rather than the community of tomorrow. Therefore, while the ways in which the locus of sustainability-based grassroots activism differs, a key finding of the project is that a community voice in sustainable development and net zero technological and strategic change is a crucial factor. Yet, as a respondent from the Newcastle Central Library event stated, the use of physical and social media platforms ensures wider inclusivity in terms of access to net zero information and guidance:

> "I think definitely with the older people. If they need to know something that is more ingrained go to the library… Like Yeah, if we need to know something, try using online resources beforehand because it's been more accessible for us for a while growing up. I don't know. Like there's no library for you in the small council estate don't really have like a library or similar there's like, there's an asset and that school, and that's about it. Whereas I've had a computer since I was 11. So, like whenever I needed to know something instead of going to a local place of knowledge, we just use the computer because I don't really have access to it."

Professionals involved with local authority carbon reduction and sustainability recognised the role that community-based cultural institutions like The Word can play a key role in communicating the net zero message:

> "Oh, I mean I just think it's a fantastic way to reach lots of, lots more people…It's quite easy to reach people who are already interested in the environment and so you can put posts out on social media and put events on and people who are interested will come, whereas if put something on at The Word people are going to be at The Word anyway so you can reach people who would necessarily come to events ordinarily, or, yeah, I do think a really important thing is reaching communities that are harder to engage in general."

Interviews at Newcastle's Central Library in terms of the value of cultural organisations for the communication of net zero information supported this point:

> "I think libraries are a good place, because you can get a different like, age range. Lots of people of different ages come here to study or do whatever. So yeah, if you have a bigger demographic to reach. I think the library is really good because it's also the centre so it's more accessible to people if it was someone further away."

An interview with the South Tyneside local authority Head of Environment explained the approach of the council regarding communication of what the local carbon reduction agenda is:

> "I think we've always been keen to develop a communications plan set behind that and how we get those messages out there. So, in South Tyneside three times a year, the council issue residents' newsletters to that hits every household in South Tyneside, and we do have dedicated climate change pages within those publications where we will try and get some of the key messages out there some of the work that we're doing as a local authority."

The authority is also putting resources into sustainable messaging in schools as young people will be the main drivers of future action and they 'will be the generation that will bear the consequences of our actions now.' Therefore, a key suggestion for the creation of grassroots activism is to inspire it in

young people from the perspective of workshops and educational 'toolkits' to provide practical information and guidance for young people. Moreover, while there was support for view that cultural institutions can play a key role in outreach, they are not the only venues as community engagement needs to be more fully networked, using sustainability messaging and engagement at community-based festivals that attract large numbers, for example. Therefore, the workshops and interview-informed approaches indicate that successful communication and facilitation of net zero developments requires an ongoing integration of policies of national government communicated through an interactive nexus of local government and their local communities (including liaisons with local business).

How to integrate these bodies can be through the effective use of cultural spaces and events are valuable venues in which to bring these groups together and the use of initiatives held in central locations enables differing agencies to meet and raise individually focused concerns and wider social factors relating to sustainable development and engagement with net zero policies and initiatives. A positive outcome from the project was that representatives of cultural venues were immediately positive about the staging of net zero-based research activities and so other researchers and agencies will find engaging in similar research to be feasible. From interviews with members of the community and local authority officers and managers responsible for the delivery of carbon reduction, effective and clear communication is vital to generate engagement and potentially form physical and online discussion groups in the community to enhance understanding of key issues (from effective and correct recycling to infrastructure changes in energy production) and foster community engagement with net zero actions and policy.

Lessons Learnt

A common theme from engagement with respondents was that the concept of net zero is abstract and so it is an idea that the government needs to communicate more precisely and more clearly in terms of what exactly government policy goals are to reach net zero goals by 2050. In practical terms, while venues like libraries are valuable cultural spaces, and did enable the research team to access a good range of respondents in terms of inclusivity, they are nevertheless challenging environments in which to engage respondents. The first room-based co-creation workshop was based on adherence to the typical method (and extended 1 hour + time frame) and was advertised weeks in advance but did not yield any respondents and so the team invited visitors present in The Word to join the sessions throughout the day, which did result in participants taking part and providing good and critical responses. This led the team to develop the pop-up approach (a method successfully used by the local authority Carbon Reduction team) and to set up a space in the foyer with a banner that served as a research probe (providing definitions of net zero, sustainability and grassroots activism) and a range of images relating to net zero which did motivate participants to approach the research team and engage in discussions with the core research questions. This method was effective, and the definition of net zero did immediately clarify the nature of the concept and the policy for carbon reduction that underpins it. Therefore, in terms of interactive and engaging outreach by government bodies to enhance understanding and enhance buy-in from local communities, public spaces that bring together members of the local community are effective venues to do this.

The research activity at Newcastle Central Library yielded limited but good interview responses, but a practical issue with both locations is that it can be difficult to engage participants in such spaces as they are motivated to visit the centres for very specific and often time-limited reasons, and so there were potential respondents who were interested in the project but could not spare the time to contribute (even the promise of free refreshments did little to alter this). Consequently, the pop-up style of co-creation workshop did prove to be an effective way of enhancing contact and gleaning responses to net zero and sustainable development in a local context, but engagement is challenging.

Finally, while the team has and will engage in a further exhibition to communicate the findings of the research directly to the community, the limitations on space meant that the initial ambitious plan (and costing) was not ultimately feasible. However, the research has been converted into text and graphics on a series of banners which have been displayed in the School of Design at Northumbria University (and live streamed to several universities in China as part of the *Better Integration of Urban and Rural Development with Advanced ICT Technologies and Services* international research workshop and exhibition) and will be displayed (with examples of upcycled artefacts) at The Word in early August. One outcome from an interview with a user of The Word was the importance to feed back the outcomes of the research project to the community, and while more modest than initially planned, the team will continue to do this throughout the summer of 2022. The biggest lesson has been the far more limited opportunities to use the allocated budget than anticipated. So, while the team has not used much of the funds awarded, the team has done everything that it needed to do and planned, simply in more practically modest ways given the local nature of the research and the proximity of the researchers to The Word research location.

Outputs

Lee Barron. Jiayi Jin. Sheng-feng Qin. (2022) A Collective Participation: Building Long-term Sustainability through the Grassroots Approach. Just sustainable futures in an urbanising and mobile world, *Development Studies Association (DSA)*, 6-8 July 2022: Online Conference at University College London.

Lee Barron. (2022) Developing a Grassroots Sustainable Futures Platform (Towards smart city futures). *International workshop on "Better Integration of Urban and Rural Development with Advanced ICT Technologies and Services*," July 16, Northumbria University. This event and the delivery of the paper was live streamed to universities in China and the research project is part of an exhibition in the School of Design.

The research team is developing two additional academic papers with the completion of the project that examine the central findings of the project in relation to net zero community engagement and the practical issues of engaging social actors in net zero discussions using co-creation workshops.

In terms of further research, interviews with local authority representatives, developments are underway to use mine water in the now decommissioned coal mining tunnels as an energy source (using the Tyne River), which raises interesting issues regarding new and cleaner forms of energy production that are based on previous fossil fuel industries and historic industrial locations and would be worthy of further research (as would the use of local authority arts and culture events). Furthermore, the next stage of the research is to consider the role of technology in the delivery of net zero and the Lead Investigator is developing research examining the impact of smart technologies in the context of smart city development that would look at a wider urban level and involve city-to-city comparative research (using Northumbria University campuses in London and Amsterdam and linking with research partners in China).

Costs

Research Assistant	8,580.00	2,054.32	6,525.68
Travel and Networking	5,630.00	147.29	5,482.71
	15,290.00	**2,201.61**	**13,088.39**

The University's RIS department states that there is still an accepted further month for outstanding materials costs to be submitted (incurred in June). Karen Findley from RIS will be sending the final budget and details of bid refund to the British Academy in the next month. The key costs were the hours for the Research Assistant, but the necessary work did not ultimately need to be as expensive as forecast.

The project therefore met all its objectives (and engaged in further research activity) and has produced two academic outputs so far, but the local scope of the research meant that the original estimate of spending was not ultimately viable. Furthermore, the scope of the exhibition could not ultimately be delivered due to space and staging constraints and networking costs were much lower than anticipated (largely due to the proximity of the area of study by the Lead Investigator and the relatively low costs for the research team to visit The Word),

Appendix 1: References

Benson, Tony. Pedersen, Susanne. Tsalis, George. Futtrup, Rebecca. Dean, Moira. Aschemann-Witzel, Jessica. (2021) Virtual Co-Creation: A Guide to Conducting Online Co-Creation Workshops. International Journal of Qualitative Methods, Vol. 20, pp. 1-15.

Black, R., Cullen, K., Fay, B., Hale, T., Lang, J., Mahmood, S., Smith, S.M. (2021). Taking Stock: A global assessment of net zero targets, Energy & Climate Intelligence Unit and Oxford Net Zero.

Brown, Karen. (2019) Museums and Local Development: An Introduction to Museums, Sustainability and Well-being. Museum International, Vol. 71, No. 1-13, pp. 1-13.

Bullard, Robert. D. Johnson, Glee. S. (2000) Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making. Journal of Social Issues, Vol. 56, No. 3, pp. 555-578.

Feola, Giuseppe. Butt, Anisa. (2017) The diffusion of grassroots innovations for sustainability in Italy and Great Britain: an exploratory spatial data analysis. The Geographical Journal, Vol. 183, No. 1, pp. 16-33.

Garvey, Alice. Norman, Jonathan. B. Barrett, John. (2022) Technology and material efficiency scenarios for net zero emissions in the UK steel sector. Journal of Cleaner Production, Vol. 333, pp. 1-15.

Gignac, Florence. Righi, Valeria. Toran, Raül. Paz Errandonea, Lucia. Ortiz, Rodney. Nieuwenhuijsen, Mark. Creus, Javier. Basagaña, Xavier. Balestrini, Mara. (2022) Co-creating a local environmental epidemiology study: the case of citizen science for investigating air pollution and related health risks in Barcelona, Spain. Environmental Health, Vol. 21, No. 11, pp. 1-13.

Hargreaves, Tom. Hielscher, Sabine. Seyfang, Gill. Smith, A. (2013) Grassroots innovations in community energy: The role of intermediaries in niche development. Global Environmental Change, Vol. 23, pp. 868-880.

Höhne, Niklas. Gidden, Matthew J. den Elzen, Michel. Hans, Frederic. Fyson, Claire. Geiges, Andreas. Jeffery, M. Louise. Gonzales-Zuñiga, Sofia. Mooldijk1, Silke. Hare, William. Rogelj, Joeri. (2021) Wave of net zero emission targets opens window to meeting the Paris Agreement. Nature Climate Change, Vol. 11, pp. 820-823.

HM Government. (2021) Net Zero Strategy: Build Back Greener. OGL.

Lanzinger, Michele. Garlandini, Alberto. (2019) Local Development and Sustainable Development Goals: A Museum Experience. Museum International, Vol. 71, No. 3-4, pp. 46-57.

Martinez-Alier, Joan et al. (2014) Between activism and science: grassroots concepts for sustainability coined by Environmental Justice Organizations. Journal of Political Ecology, Vol. 21, pp. 20-60.

Mihaylov, Nikolay. L. Perkins, Douglas, D. (2015) Local Environmental Grassroots Activism: Contributions from Environmental Psychology, Sociology and Politics. Behavioral Sciences, Vol. 5, pp. 121–153.

Morrissey, J. Schwaller, E. Dickson, D. and Axon, S. (2020) Affordability, security, sustainability? Grassroots community energy visions from Liverpool, United Kingdom. Energy Research & Social Science, Vol. 70, pp. 1-16.

O'Beirne, Patricia. Battersby, Francesca. Mallett, Amy. Aczel, Miriam. Makuch, Karen. Workman, Mark. Heap, Richard. (2020) The UK net-zero target: Insights into procedural justice for greenhouse gas removal. Environmental Science and Policy, Vol. 112, pp. 264-274.

Sasse, Tom. Rutter, Jill. Norris, Emma. Shepheard, Marcus. (2020) Net zero: How government can meet its climate change target. Institute for Government.

Sass Ferguson, Rafter. Lovell, Sarah. T. (2015) Grassroots engagement with transition to sustainability: diversity and modes of participation in the international permaculture movement. Ecology and Society, Vol. 20, No. 4, https://www.jstor.org/stable/26270300.

Seto, K.C., Churkina, G., Hsu, A., Keller, M., Newman, P.W.G., Qin, B., Ramaswami, A. (2021) From Low- to Net-Zero Carbon Cities: The Next Global Agenda. Annual Review of Environment and Resources, Vol. 46, pp. 377-415.

Seyfang, Gill. Smith, Adrian. (2013) Grassroots Innovations for Sustainable Development: Towards a New Research and Policy Agenda. Environmental Politics, Vol. 16, No. 4, pp. 584-603.

Shahbaz, Muhammad. Ali Naz, Muhammad. Hille, Erik. Kumar Mahalik, Mantu. (2020) UK's net-zero carbon emissions target: Investigating the potential role of economic growth, financial development, and R&D expenditures based on historical data (1870-2017). Technological Forecasting & Social Change, Vol. 161, pp. 1-15.

Sharp, Darren. Anwar, Misita. Goodwin, Sarah. Raven, Rob. Bartram, Lyn. Kamruzzaman, Liton. (2022) A participatory approach for empowering community engagement in data governance: The Monash Net Zero Precinct. Data & Policy, Vol. 4, pp. 1-25.

Sibbet, David. (2010) Visual Meetings: How Graphics, Sticky Notes & Idea Mapping Can Transform Group Productivity. Hoboken: John Wiley & Sons Inc.

Smith, Adrian. Seyfang, Gill. (2013) Constructing grassroots innovations for sustainability. Global Environmental Change, https//dx.doi.org/10.1016/j.gloenvcha.2013.07.033.

Sutter, Glenn. C. (2019) When Global Changes Hit Home: Museums as Catalysts for Local Development. Museum International, Vol. 17, No. 3-4, pp. 76-87.

Taylor, Matthew. (2021) How grassroots schemes across UK are tackling climate crisis. Guardian.com, Wednesday, 10th March.

Walters, Diana. Vežić, Aida. (2019) Join us in joining hands: The Balkan Museum Network and grassroots activism. Museum International, Vol. 17, No. 3-4, pp. 118-129.

Appendix 2: Co-creation workshop research images

Building a Net-Zero/ Sustainable South Shields - Energy
What is your vision for South Shields's Net-Zero Emissions/ Sustainable Future on Energy Production and Consumption?
In the Next Year (2023)
In the Next 8 Years (until 2030)
In 20+ Years (until 2050)

Social media
"Tik Tok"
"facebook groups"
Education
Generational attitudes
Travel
making recycling more accessible in public spaces, not "everywhere" others separate bins for rubbish.
Introduce more solar panels, reduce unecessary energy consumption
Transportation
• Add wind turbines to South Tyneside coast. Lots of them!
• Continue Hebburn + Jarrow energy project. Keep funding going
• Increase use of electric vehicles, including buses.
• Electric vehicles - add more charging points in the town but also in coastal car parks as more space and rarely full.
• Increase pressure on central govt. to follow its own COP26 promises.
- TRANSPORTATION
- EFFICIENT HOUSES
- SUSTAINABLE ENERGY
- FUTURE OF WORK
Transformation
Getting People on board: Recycling
Protect the coastal line & promote sustainable Tourism.
driving
More reliable public transport e.g. metros and buses arriving same.
Lifestyles
• School / Seasons
local organisation ??
facebook groups
Saving energy
Supporting sustainable products
Investing in green energy
Using public transport
Using libraries and other public bodies to promote environmentalism
bus transport in South Shields
Every 1 hr has 20 mins
Not as good as before Covid
Area-Focused
Thinking beyond own interests
Recycling
use bicycle
Overconsumption
• more and better cycle paths everywhere, especially in town centres.
to Plant more trees in the roads
Retail area down King Street run down.
Not enough housing built (Economy)
Investment in Community Renewable Energy.
Recycle Rubbish need to be all of the plastic
• example banana plastic can't go to the recycle bin.
- Transport need ~~more~~ motive to much petrol
- Clean all the streets
Interest in the here and now
Local food market & ~~Economy~~ Circular Economy
Recycling
Pre and encourage less driving, Shields is very walkable for those that are able and there are public transport options so
Decentralisation.
• Continue good recycling including very efficient 'tip'
• Transport - make metro train and stations safer (more staff patrolling, especially at night or in the dark.

Developing a Grassroots Sustainable Futures Platform
Collective Participation in a Community-Based Cultural Organisation
Overview
Net Zero Carbon City Agenda
Building effective and meaningful platforms for a collective participation
Co-creation Toolkit
Co-creation Toolkit
Interviews with Local Authority Carbon Reduction Officer and local communities
Conclusions
DELIVERING NET ZERO AND A SUSTAINABLE FUTURE THROUGH THE COMMUNITY
Net-Zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away.
Environmental Sustainability is the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future.
Community Engagement is based on the democratic idea that everyone who is affected by an issue that impacts their community should have a say in the decision making around it.
What actions can we take?
1 TO RECONSIDER HOW YOU TRAVEL
2 HOUSEHOLD WASTE SORTING AND REDUCTION
3 USE RENEWABLE ENERGY RESOURCES
4 TURN OFF LIGHTS AND SAVE ENERGY
What is your idea?
NORTHUMBRIA
Pick up your copy today