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Applying neo-endogenous development theory to delivering sustainable local nature conservation

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Abstract

The environmental planning agenda is shaped by a range of top-down policies and directives, both nationally and internationally. Simultaneously, several local, often community-led, initiatives seek to enhance their local environments. This paper seeks to understand both synergies and dissonance between top-down and bottom-up actions within the environmental conservation and management domain of sustainable development. Four case studies of local voluntary initiatives in Lincolnshire (UK) are used as the basis to examine how the activities and stated goals of the groups align with wider policy goals and engage with formal planning systems. The analysis draws from the neo-endogenous development theory to offer recommendations about how to recognise and empower local initiatives within a multi-level governance approach to delivering sustainable development. Conclusions also suggest that the principles of neo-endogenous development can be applied more widely to capture greater value from community-led activities.

Keywords: Sustainable development; Neo-endogenous development; Nature conservation; Community-led local development; Community participation; Empowerment; Networking; Collaboration.

Introduction

The environmental planning agenda is shaped by a range of top-down policies and laws, both nationally and internationally. In the European context, these include both Regulations and Directives, (which incorporate global sustainability aims), as well as additional national and sub-national policies. Implementation occurs in the United Kingdom largely through the land-use planning system where proposals may be challenged on grounds of (un)sustainable development. The UK National Planning Policy Framework has a 'presumption in favour of sustainable development' and this Framework drives both Local Plans (produced by municipalities) and Neighbourhood Plans (produced by communities themselves). Under this suite of plans and frameworks, pro-active measures are required to support developmental projects while maintaining the integrity of the environment to bring about sustainable communities. Consistent with this, nature conservation actions, the subject of this paper, are most commonly integrated into other planning decisions, either as remediation for natural resource extraction or compensation for the loss of natural amenities associated with larger-scale building projects.

While the need for globally joined-up approaches to achieving sustainable communities influences transnational approaches and sees a heavily "top-down" approach, with sustainability goals informed by scientific research, there is a proliferation of local action groups engaging in nature conservation activities too. Many of these are community-led initiatives whose rationales and approaches to enhancing their local environments vary considerably and are not necessarily aligned with higher-level policy. If anything, most local Neighbourhood Plans can have a more active approach to nature conservation, not fettered by larger scale needs to balance environment with development. Such neighbourhood and

community perspectives also tend to have very focused geographies, often linked to cherished local environmental features, as well as clear objectives related to community well-being. Their diversity and their local focus make their contributions to local sustainable development hard to incorporate into the necessary generalisations required in higher level policy. Therefore, this research investigates the activities of four case studies of local nature conservation groups to identify their contribution to sustainable development policy objectives, within this Planning Framework – but often outside of it.

The question that we address in this paper is "how can small-scale and voluntary initiatives be incorporated into a multi-level governance approach to support sustainable development at a local level?" To address this question, the research investigates (i) the extent to which "top-down" sustainable development policies are reflected in the practices of community-led groups; and (ii) the extent to which community groups are empowered to participate in local planning decisions relating to nature conservation.

The complexity of designing approaches to integrate bottom-up and community-led initiatives into mainstream policy delivery has been examined elsewhere, notably in conjunction with rural housing (Gkartzios and Scott 2014), the European LEADER policy (Diaz Puente *et al.* 2007; Bosworth *et al.* 2015; Sisto *et al.* 2018) and wider rural economic development (Bosworth and Atterton 2012; Lowe *et al.* 1998). However, the neo-endogenous development (NED) framework that has emerged through this research over the past 20 years has not been applied to nature conservation and the environment. Given that sustainable development "should incorporate community participation and empowerment," according to the AGENDA 21 (UN 1992), NED offers a valuable conceptual tool to frame policy-makers' engagement with local and voluntary community groups.

The core principles of Sustainable Development and NED

Sustainable Development, widely defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission 1987), demands a long-term perspective to balancing economic growth, social justice and the conservation of natural resources. Meanwhile, NED has emerged out of European rural development scholarship as an approach to local development based on community-led, bottom-up action that is integrated into external networks and processes (Lowe *et al.* 1995). The evolution of these ideas into Global Sustainability Goals (UN 2015) and “community-led” (European Commission 2014) or “place-based” (OECD 2018) rural development approaches may sound divergent between a global or a local focus, but we suggest that these can, and should be complementary.

Sustainable Development and NED continue to influence planning and policy for rural development, yet the two concepts have often been applied independently despite some common philosophical foundations. In particular, the need to connect micro and macro scales of action are highlighted in each approach; sustainable development demands people to “think globally and act locally” (emerging from the 1980 World Conservation Strategy) while NED also emphasises the interaction between local and extra-local arenas. As Ray (2001) explains, NED is based on the principle that extra-local factors are essential for rural development but local areas should retain the potential to shape their futures. Ray (2006, p. 278) further explored the characteristics of NED and revealed that in this model, local resources, both physical and human, are utilised for economic and developmental purposes and the benefits from them are retained in the local territory.

The NED approach supports people-centred development, initiated and driven by local people (Lowe *et al.* 1995). This hybrid endogenous-exogenous model seeks to support rural communities to be self-reliant and to provide them with the capabilities to utilise extra-local factors to their advantage. As such rural communities cannot operate in isolation from forces outside the local area and the ability to generate extra-local connectivity through effective networks becomes a key feature of rural development (Lowe *et al.*, 1998; Ray, 2001). More recently, the importance of these networks has become the focus for the new concept that is "nexogenous development", placing linkages and collaborations across space at the very heart of social innovation and rural development (Bock 2016). This reflects calls for relationship-focused strategies within Sustainable Development (Moore 2010, p. 59) which can support community participation and empowerment.

The recent widening of the remit of Sustainable Development has seen the United Nations' 17 Sustainable Development Goals (UN 2015) incorporating health, education, gender equality and peace alongside other social, economic and environmental objectives. A number of these new Goals are difficult to deliver at a local level, highlighting the need for multi-scalar networks and governance (Hennebry *et al.* 2018; Lawhon and Patel, 2013) that can engage the right mix of local stakeholders to enact change (World Economic Forum 2015). Furthermore, we should ask whether the responsibility to identify and engage with local stakeholders lies with national or international governmental organisations or whether there could be more progressive means for engagement to be initiated by local community groups who may hold very different beliefs about their preferred future development trajectories.

Mirroring these global-local challenges, Gkartzios and Scott (2014, p. 257) identify a key challenge within NED as "balancing local needs while competing for extra local resources".

NED advocates local control of resources, an approach reinforced in the OECD rural development framework (OECD 2018), on the presumption that rural communities can use these most effectively to generate positive development outcomes. Both local knowledge and local buy-in for projects through a participatory approach can increase their chances of success (Sisto *et al.* 2018). However, at a national or global scale, the prudent use of natural resources must be viewed differently with scarce and geographically concentrated resources demanding alternative governance models that support involvement and collaboration of relevant stakeholders. The negotiation between micro and macro scale sustainability demands the creation of effective spaces for local participation, but local areas can only participate effectively if they have the necessary political and institutional capital. In addition, any growth in the application of models of neo-endogenous development implies a concomitant growth in what Bourdieu (1986) terms cultural capital (Ray 2006). A growth in cultural capital within the community, in turn, invariably leads to community-driven environmental action (Dalziel *et al.* 2009). Thus, NED and sustainable development goals must promote local human and cultural capital, and institutional capacity to achieve the aims of local community empowerment.

To what extent are the concept of sustainable development and neo-endogenous development theory complementary or conflicting?

Drawing from the literature on the principles of Sustainable Development and the theoretical framework for NED, Table 1 below compares and contrasts the core principles of each. This is presented in line with previous illustrations of NED in the literature (Ward *et al.* 2005; Gkartzios and Scott 2014; Bosworth *et al.* 2016).

Table 1: A sustainable development-neo-endogenous development model for rural development and nature conservation

	Sustainable development	Neo-endogenous development
Key principles	<p>Living within environmental limits, which requires prudent use of resources to achieve development that does not lead to environmental degradation. Therefore, the concept of sustainable development is guided by the following key themes;</p> <ul style="list-style-type: none"> ▪ Importance of long-term view, ▪ Agreement on some sort of balance between economic, social and environmental needs, ▪ Inclusion of quality of life, ▪ Intra and intergenerational equity, and ▪ Prudent use of natural resources/environmental conservation. 	<p>Maximising the value of local resources (Bosworth <i>et al.</i>, 2015). This would involve harnessing of local and extra-local natural, cultural and human resources for local development that is sustainable.</p>
Scale	<p>Recognise the Interdependence between local and global activities ‘think global and act local’</p>	<p>Local-scale focus, extra-locals used to benefit local development</p>
Driving forces	<p>Community participation and empowerment at all levels of society to plan natural resource use for development AGENDA 21 (UN, 1992)</p>	<p>Driven by local participation, but also the contribution that is made by the extra-local people (Ray, 2000). Therefore, the networks that exist between local actors and their connection to extra-local influences is important to achieve local development</p>
Major rural challenges	<ul style="list-style-type: none"> ▪ Population growth, versus environmental limits, ▪ Lack of participation and empowerment ▪ Climate change challenges ▪ Economic crisis 	<ul style="list-style-type: none"> ▪ Population growth, versus environmental limits, ▪ Lack of participation and empowerment ▪ Climate change challenges ▪ Economic crisis ▪ Rural marginalisation (Wiest 2015, Bock, 2016)
Focus for rural development	<p>Promoting participation and empowerment of local and global communities Adapting to climate change and living within environmental limits</p>	<p>Promoting participation and empowerment, of local communities Overcoming marginalisation and promoting social inclusion</p> <p>Promoting innovation of local communities Adapting to climate change and living within environmental limits</p>

While NED and sustainable development have a number of similarities their origins are very different and thus the two approaches have been applied independently in supporting rural developmental initiatives. This study, therefore, brings the two together to investigate how small-scale and voluntary initiatives can be incorporated into a multi-level governance approach to support sustainable development at a local level.

Community-led Nature Conservation: Empowerment and Action

The continuing loss of biodiversity, which is perceived to have been accelerated by human activities that degrade ecosystems and affect the climate (Fetene *et al.* 2012; Hansen *et al.* 2016) is a global concern that also demands local actions. Evidence from the United Kingdom indicates that priority habitats have deteriorated, only 37.5 per cent of Sites of Special Scientific Interest (SSSI) were deemed to be in a favourable condition in 2013 (DEFRA 2013). This calls for an integrated approach that sees nature conservation issues being incorporated in spatial planning (Simeonova and van der Valk 2016). Moreover, there is growing support for grassroots innovations and community-led solutions in environmental protection based on the value of local knowledge for nature conservation and the sustainable use of natural resources (Kelemen *et al.* 2008; Fetene *et al.* 2012; Ocholla *et al.* 2016).

A challenge for planners and policy-makers is to engage local actors within a policy framework that has been developed to implement national and international policies and directives on nature conservation. The creation of appropriate spaces for community participation and the incorporation of local knowledge in environmental conservation policy-making and implementation should therefore be a priority (Marsden 2006; Curry and Kirwan 2014; Hansen *et al.* 2016). Public participation in environmental policy-making improves policy delivery by providing democratic scrutiny of the planning process (Rydin and Pennington 2000; Bocher 2008). Community insights also make environmental decisions more efficient, effective and acceptable by the local community concerned which positively impacts on environmental protection (Wurzel 2008; Keulartz 2009; Grodzińska-Jurczak and Cent 2011).

While public participation has many benefits, the value of local knowledge and appropriate mechanisms for public engagement in policy-making remain contested. In some cases, community involvement may be seen as little more than a mechanism to legitimise decision making that remains within the gift of higher authorities (Lane and Williams 2008), often distant from the place where the policy is being implemented (Moran 2002). Another concern is that 'not all types of local knowledge are in harmony with the local ecosystems' (Murdoch and Clark 1994), and some indigenous people have been reported to be responsible for degrading the environment (Thrupp 1989). Murdoch and Clark (1994) further caution that some local knowledge can be superseded by changing social or environmental contexts, thus diminishing its effectiveness. Sustainable knowledge should therefore comprise a mixture of local and scientific knowledge coalesced around critical development issues and supported by the necessary social, technical and environmental expertise for appropriate actions (Bruckmeier and Tovey 2008; Raymond *et al.* 2010; Hill *et al.* 2012; Phillipson *et al.* 2012; Tengö *et al.* 2014).

The importance of community participation in decision making is recognised and emphasised in the United Kingdom through various national policy directives. This includes the Rural White Paper of 1995 (Department of Environment 1995) which introduced community participation initiatives such as the Village appraisals, aimed at promoting the inclusion of the visions and aspirations of local communities in planning decisions. The Localism Act of 2011 further emphasised the need for community participation in local planning, stating that 'Voluntary and community groups often find that their potential contribution is neglected, when, in fact, they carry out some of the most innovative and effective work in public services

and we should be encouraging them to get more involved' (Department for Communities and Local Government 2011, p. 9).

In 2014, the European Union introduced the community-led local development (CLLD) approach to complement other developmental strategies and tools at a local level that support the participation of local communities in delivering national and EU policies. The CLLD approach aims to:

“Promote community ownership by increasing participation within communities and build a sense of involvement and ownership that can increase the effectiveness of EU policies; and assist multi-level governance by providing a route for local communities to fully take part in shaping the implementation of EU objectives in all areas” (European Commission 2014, p. 3).

This approach builds on the experience of LEADER under rural development, intending to increase efficiency and effectiveness of development strategies. In the late 1980s there was pressure to direct agricultural production in rural policy by ensuring that all rural actors are included (Ray 2006). To achieve this, funds were released by the EU to support the LEADER initiative which was an experiment in an approach that is territorial and therefore in line with NED. This approach advocates for area-based strategies that are delivered by Local Action Groups (LAG), who are representatives of local private and public actors in the territories concerned (European Commission 2014). CLLD calls for the creation of spaces for participation of local communities in planning for local development and the identification and adoption of effective participatory approaches. In line with delivering CLLD, recent studies by Sisto *et al.* (2018) identified backcasting (where participants conceive of approaches to achieve desired imagined future scenarios for their communities) as one of the

participatory approaches that can be used to fulfil the requirements of CLLD. Such approaches can be both empowering and participatory and contribute to the design of local plans and policies that are informed by (and address) the needs and priorities of those concerned.

Meanwhile, the role of local communities in policy-making continues to stimulate debate among scholars, there is a consensus that local communities should participate in some way (Lane and Williams 2008; Grodzinska- Jurczak and Cent 2011). It is recognised, however, that changing the top-down approach to public participation in planning is especially difficult in the European context (Grodzinska-Jurczak and Cent 2011). As such, the decisions made are usually based on scientific knowledge from the experts and not on knowledge associated with local customs, values, beliefs and culture (local knowledge). The interface between local knowledge and scientific knowledge is required to support local planning and environmental governance that will generate implementable local plans and policies.

Therefore, designing policy frameworks that enable community participation must address questions about the appropriate scale for "local" action as well as recognising that some decisions transcend local decisions and must give greater weight to national or international interests. However, so long as the remit of local actors is clear, this need not diminish empowerment. Research into LEADER groups in England showed that clarity about the scope of their decision-making powers increased empowerment to take action independently which led to significant improvements in the delivery of local LEADER programmes (Bosworth *et al.* 2015).

This research seeks to identify a similar balance in nature conservation activities. At its heart lies the question of how meaningful local action can be valuably engaged while simultaneous

acknowledging that national and international policy objectives on environmental sustainability and biodiversity demand multi-scalar interventions. In the light of two decades of political rhetoric in the UK and Europe moving towards community-led action, this research examines the effectiveness of policy instruments that advocate for local communities to actively participate in local planning and development.

Methodology

The methodology was developed to capture both bottom-up (as demonstrated by voluntary community-led nature conservation groups studied) and top-down (as demonstrated by the nature conservation policies and local plans studied) perspectives. Specifically, questions focus on: (1) What motivates community participation and action; (2) what this looks like on the ground; and (3) how this local engagement and action can be mobilised to support wider planning policy agendas.

This study was carried out between 2014 and 2018 with four case studies of best practices in voluntary community-led nature conservation in Lincolnshire, England. The selection of case studies took two forms, that is, criteria sampling and snowballing sampling. The specific criteria used to select cases were as follows:

- Nature conservation projects initiated and run by voluntary members of the community (as opposed to volunteering in already existing environmental projects that are administered by the government and NGOs) constituting informal bottom-up initiatives.

- Cases that have not come about directly as a result of a policy, but are established by the community with no causal influence of government policy and the project is owned and run by the voluntary community group independently.
- Projects recognised in the county as being nature conservation oriented and demonstrating examples of best practice in social, environmental or community-based work, identified through commendations or awards received from public or environmental bodies.

It should be noted that these self-organised voluntary groups can grow into more formal organisations, network or partner up with a bigger organisation while tackling local needs and taking control of local development. This would be conceptualised as neo-endogenous development in which extra-local factors are recognised and regarded as essential but which retains belief in the potential of local areas to shape their future' (Ray 2001, p. 4).

The voluntary nature groups studied have been given pseudonyms to conceal their identities but the names have been selected to represent the types of activities as closely as possible. No participant names are used to further protect the groups' identities. The groups that participated in the research include a "*Community Orchard*", based in a market town, a village-based "*Woodland Group*", a "*Community Wood*" and a "*Community Gardening*" project. The organising committees of each group consisted of locally-based members of 10, 7, 8, and 14 respectively. In recent years, the nature groups have registered as charity organisations, with the exception of *Community Wood*.

All cases generally consisted of mixed groups in terms of age and gender and also mixed with regards to general skills and knowledge. The groups also included a number of members of the local community who were marginalised or socially isolated in other aspects of their lives. What was common between them was that they were all locally-based community members who are familiar with their local environment, and have similar interest in helping their local environment, and have come together to form groups that conduct activities that contribute to nature conservation in their local community. Also, the nature groups have actively sought the support of extra-local people, in the form of financial assistance, advice and skills to promote their nature conservation projects. It should be noted that these self-organised voluntary groups can grow into more formal organisations, network or partner up with a bigger organisation while tackling local needs and taking control of local development. This would be conceptualised as NED in which extra-local factors are recognised and regarded as essential but which retains belief in the potential of local areas to shape their future (Ray 2001).

The cases were studied to gain an in-depth understanding of the nature conservation activities and the motivations of the participants for volunteering in community-led nature conservation. The extent to which the voluntary community-led nature conservation groups participate in formal planning systems and decisions relating to environmental conservation and management in delivering sustainable development at a local level was also investigated. Using the selected cases, the study examined participation of voluntary and community-led nature conservation groups in Neighbourhood planning and District Local Planning.

Constitution documents of the cases studied were analysed to understand the aims and objectives of the nature conservation groups. A total of 26 in-depth, semi-structured face-to-

face interviews were conducted with the members of the nature groups who were selected to include key informants such as the chairperson, secretary, and the treasurer of the group (expected to provide more detail about the running of the group or project). The aim of the interviews was to understand the activities of the nature conservation groups, the motivations for volunteering in nature conservation, and the extent to which the nature groups participate in local planning.

The interviews were supplemented by four group observations, which involved taking part in different activities of the group, as planned by the group members, while paying attention to the conversations taking place and informally asking questions about the activities informally. Observations helped to understand and verify the activities of the nature groups along with the values and priorities of the participants, as prescribed in the constitution documents and as demonstrated in the face-to-face interviews.

In addition, two sets of semi-structured face-to-face interviews were conducted with:

- Six local planning practitioners
- Managerial level representatives from two key regional stakeholders in local planning
- Two Parish Councillors representing the parishes of *Woodland Group* and *Community Wood*

The first set of interviews focused on investigating the extent to which community groups are recognised and empowered to participate in planning decisions relating to nature conservation and sustainable development. The aim of the second set of interviews was to establish the views of the planning policy practitioners, key stakeholders in local planning and the Parish Councillors on how the findings made from the case studies on the goals and

motivations of the participants in volunteering in nature conservation can inform policy and planning processes and actions to deliver sustainable development.

A thematic approach was used to analyse interview data with recurrent patterns informing the coding process. Through reading and re-reading data, codes were defined, categorised and combined into overarching themes that cut across data from all four cases collectively. This was followed reflective reanalysis and interpretations of the individual cases to understand their distinctive, as well as common, features. The findings from the case studies on the motivations and goals of the nature conservation voluntary groups were compared with the characteristics and aims of Sustainable development and NED set out in Table 1.

To what extent are "top-down" sustainable development policies reflected in the practices of community-led nature conservation groups?

This study investigates the extent to which the principles of sustainable development that guide "top-down" policies are reflected in the practices of non-policy driven community-led nature conservation groups. Qualitative research built around local engagement with four of these groups reveals new learning and insights about how bottom-up approaches to nature conservation can inform local planning for sustainable community development.

The case studies of voluntary community-led nature conservation activities each showed features of the key principles for sustainable development identified in the literature (see Table 1). These were revealed in the motivations of the participants for volunteering in nature

conservation and the objectives of the voluntary nature conservation groups, as prescribed in the constitution documents of the voluntary groups. However, the interviews revealed that the nature conservation groups differed on the extent to which their motivations and objectives for volunteering in nature conservation align with the key principles for sustainable development. Some emerging themes were noted.

Long-term view/future orientation

The findings reveal that the participants in voluntary community-led nature conservation activities have a long-term view on nature conservation and therefore their nature conservation activities are future-oriented. The voices of the participants revealed their values for heritage and traditions, and willingness to share these values with the current and future generations as revealed by the following quotes:

I am very interested in protecting the environment, thinking about, not only today but the future so that we still have these things to show future generations. I feel that being a member I can contribute towards promoting and helping to re-establish something that is part of our heritage, also some of our important ecosystems. (Volunteer 2, Woodland Group)

We have lectures in schools to try to bring awareness about apples and the orchard. We transfer from generations back as well as generations going forward. (Volunteer 3, Community Orchard)

We are pressing for getting the SSSI status for the Wood through Natural England, that way it would be available for the future generations to enjoy. (Volunteer 2, Community Wood)

The value for heritage demonstrated by the participants and the keenness to preserve heritage, reveals that they are future-oriented, caring about the well-being of the future generations by

awarding them the opportunity to enjoy what the current generations enjoy and benefit from nature (*Community Gardening*) and ancient fruit (*Community Orchard*) and woodland tree varieties (*Community Wood & Woodland Group*). Future orientation and intra- and intergenerational equity are some of the key themes of sustainable development which promote prudent use of resources and a 'self-supporting' system to ensure that the interests of the present generation are met without compromising the future generations to enjoy the same benefits from the environment (WCED, 1987: 43; Berke and Conroy 2000; Gorlach and Adamski 2007). Caring for the future generations, as demonstrated by the participants of the cases studied is in line with the set of values (Dresner 2002, p. 64) and (Byrch 2007) and principles of moral aspects with a vision for the future (Ekins 2000; Byrch 2007) which are fundamental to achieve sustainable development.

Improving the quality of life

The cases studied reveal that improving the quality of life, of the participants and that of the wider communities is one of the motivations for starting nature conservation projects. Testimonies on the impact of the nature conservation projects on the volunteers' lives were revealed as follows:

Community Gardening has given me the chance to get outside and enjoy the wildlife, greenery which of course has other health benefits. I suffer from hypertension; it helps me to have something to concentrate on and gives me something to help me relax. (Volunteer 2, Community Gardening)

The lily has worked for me, I used to struggle to get some peaceful sleep, but not now.
(Volunteer 6, *Community Gardening*)

The outdoor life, the smells, the sound, the changing season, the animals, the healthy walking, it just gives you that vibrant push to be out in the wood, every day is different. (Volunteer 3, *Community Wood*)

Personal health, personal balance, this is different from my day job, which involves teaching. I don't feel useless yet. Also, I sleep well when I have been out in the fresh air (Volunteer 5, *Woodland Group*)

The green spaces created by the participants of the cases studied benefit their local communities whilst also allowing access to people from outside the locality and contributing to wider environmental value. Generally, all the cases studied promote relaxation and exercise by providing green spaces for recreation, walking, picnicking, cycling and bird watching. This type of contact with green space in a relaxing and restorative environment has been shown to enhance mental and physical well-being (Mind 2007; Quayle 2007; Sempik 2008). The shifts in consumption from goods to experiences (such as conservation work for its therapeutic benefits) is likely to become significant (Wallman 2015). Moreover, a renewed concern for local environments (Figge *et al.* 2016) is associated with greater sense of belonging (Berg and Johansen 2017).

The participants also revealed that while they are keen to protect the environment for the benefit of human beings, they also acknowledge the need to maintain ecosystem and wildlife wellbeing for human beings to benefit in turn, as read in the participants' voices as follows:

The health of an ecosystem will also impact on our health, for me... that's important to me. I think I can help with that. (Volunteer 1, Woodland Group)

I suppose what we are doing is trying to maintain the wood in a way that supports wildlife and its value for the communities, for the future (Volunteer 1, Community Wood).

The project aims to get wildlife, like butterflies, bees and wasps and all of the insects to come, just to get them to pollinate plants and to make this planet worth living on and better (Volunteer 3, Community Gardening).

Therefore, the participants view achieving human well-being to be associated with maintaining a healthy ecosystem where humans and nature benefit from each other. This motivates the participants to commit to nature protection for the benefit of their local and extra-local communities, creating a positive balance between satisfying people's needs and nature protection (Brechin *et al.* 2003).

Social cohesion

Social cohesion emerged as a motivation for participating in nature conservation activities. The projects studied attract all members of the community including the marginalised groups.

The key aspects of social cohesion identified from the cases were task relations¹ and creating social networks and friendship, as confirmed by the participants as follows:

It's interesting... I have made friends, acquaintances, I have met a lot of people from Apple Day.

... Being in a group is beneficial because we share the work and we have differently specialised people (Volunteer 4, Community Orchard)

Well, I know people that live on the same street as me that I met here. So, I would have never have met them (Volunteer 2, Community Gardening).

It gets me out, making friends, of different ages and inabilities (Volunteer 4, Community Gardening)

As a group you can share ideas, being a group means you have lots of different ideas and we all bring ideas from different areas. We work together as a team and I think we do have a good blend. (Volunteer 3, Community Wood)

Although I am the treasurer for the group I get involved in the practical work. I have made some good friends. (Volunteer 4, Woodland Group)

The participants of *Community Gardening* appeared to value friendships that develop through volunteering in nature conservation, while *Community Orchard* and *Community Wood* participants valued friendship and task relations. Therefore, the nature conservation groups act as a medium for promoting a sense of belonging and social inclusion, and overcoming marginalisation, thereby enhancing the quality of life. Interactivity, co-operation

¹ Task relations is an element of social cohesion whereby group members commit to working together, sharing ideas and drawing from individual experiences to complete tasks with the aim of accomplishing a common goal.

and connectedness are some of the key elements of a community (Day 2006; Somerville 2011), and these social factors have shown to positively influence volunteer commitment to nature conservation (Ryan *et al.* 2001; Measham and Barnett 2008). Community cohesion and social action are therefore becoming part of the community's view of sustainable communities. Moreover, nature conservation projects are open to local and extra-local communities, thereby promoting social interactions.

Integration of the economic, social and environmental pillars

From their activities, the case studies indicated that to some extent the pillars of sustainable development (social, environmental and economic) are integrated in practice. For example, with the *Community Orchard* case study, volunteer (6) stated that social events such as Wassailing and the Apple Day contribute to making the *Community Orchard* activities known to local and extra-local communities. Behind the wassailing event are the preservation of old apple tree varieties and the biodiversity that comes with them. Demonstrations on apple pressing and cider making are also conducted in schools and the local community to create awareness about the prudent use and also the preservation of apples. Wassailing and Apple Day attract extra-local communities and allow for the creation and maintenance of networks that benefit environmental conservation and local development. *Community Orchard* has networked with organisations such as Orchard networks and East of England Orchards and sought sponsorship to these social events, which aim at creating awareness about the preservation of old apple varieties and the wildlife that comes with them. During Apple day, Apple experts (local and extra-local) are invited to identify apples that the community members (at large) bring along, as one of the objectives of *Community Orchard*

is to identify old apple varieties and promote their growth. Moreover, researchers and apple experts are consulted regularly for DNA testing to identify apple varieties. This extension of local networks to bring in external expertise epitomises neo-endogenous practice. The activities of the voluntary nature conservation groups have a local focus but they are driven by a collaboration between local actors and extra-local contributors to benefit nature conservation.

Similarly, the woodlands maintained by *Community Wood* and those created by the *Woodland Group* are used for recreational purposes, promoting wildlife conservation, facilitating health exercise and promoting the involvement of the community in developing their local communities. Through the provision of events such as Spring flower walks, insect and small animal hunts, a forest fruits walk and children's activities, that are supported (financially and technically) by local and extra-local organisations and personnel, *Community Wood* offers the community an opportunity for people to meet and experience the resources that the woodland can offer. Participants can also learn (informally) about environmental conservation. Meanwhile, *Woodland Group* invites school children and members of the local community to participate in tree planting events, and also promote activities in the woodland such as bird watching, picnicking, cycling and walking.

Some participants indicated that they enjoyed doing gardening activities to enhance nature and wildlife, for health benefits, to grow and eat home-grown food, and for social cohesion. This indicates that nature conservation projects are not only focused on environmental protection but to some extent enhance social and cultural sustainability at a local level. Through protecting the environment and also getting health benefits from it, the nature

groups positively contribute to supporting the health sector in the UK, which is currently under pressure. As such any additional options that are economical and can complement or provide an alternative to medical health treatments through 'green' exercise and relaxation and the use of herbs and shrubs would be useful.

This study shows that the balance of local social, economic, and ecological systems demonstrated by the nature conservation activities promote sustainable development (Berke and Conroy 2000; Mawhinney 2002; Gibson 2006; Moldan *et al.* 2012). These are the areas for the planners to focus and attempt to integrate, that is to achieve economic development and social equity while protecting the environment (Jepson 2001; Berke and Conroy 2000) regardless of the level at which planning is conducted, and they should be reflected in the plans. Having said that, these values can be complementary or competing, as such their balance will involve compromise and negotiation around problems that face associated areas, so that the current and future generations can get the same benefits from the environment.

The nature groups also provide an informal supplement to environmental education. This is in line with the United Nations sustainable development goals (13, 14 and 15) which promote environmental education on climate action, life below land and life on land respectively (UN, 2015).

Besides, the findings from the interviews, the constitution documents of the voluntary nature conservation groups reveal that the case studies bear some similarities with regards to the group objectives and achievements. Common aspects stated in the constitution documents as the key contributions the groups intend to make in their local communities are:

- Habitat creation and conservation of wildlife

- Preserving heritage and tradition
- Creation of an amenity for local and extra-local communities
- Conducting environmental education activities

The objectives of the groups are future-oriented (preserving heritage and tradition), focused on environmental conservation (habitat creation and conservation of wildlife; conducting environmental education activities) and also on improving the quality of life through providing facilities for relaxation and social interaction (creation of an amenity for local and extra-local communities). This contributes to achieving sustainable communities, in line with the principles of sustainable development (as listed in Table 1). Meanwhile, local planning and development is guided by top-down directives and regulations that also draw from the principles of sustainable development. Having said that, the community-led nature conservation groups studied are non-policy driven, yet they share the same visions as the policy practitioners and local planners on achieving sustainable communities. This calls for the creation of spaces in local planning and the empowerment of community groups to participate in making plans and policies that shape their local communities.

To what extent have the local communities participated in local planning and decision making on nature conservation in Lincolnshire?

This study investigated participation of the voluntary community-led nature groups in making Neighbourhood Plans and the District Council's local plans. The findings reveal that the community groups, such as the voluntary community-led nature groups have local

knowledge based on traditional and cultural-ecological knowledge, personal experiences and everyday human-environment interaction and this knowledge can inform local plans and actions. Investigations made through this study reveal that *Woodland Group* and *Community Wood* have been actively involved in the local planning process, particularly in neighbourhood planning and there is evidence that their participation has enhanced the knowledge base. This is more pronounced with the *Woodland Group* case where their impact is being felt in the form of policy statements derived from the evidence they provided regarding environmental protection in their local communities. *Woodland Group* participated in making their village Neighbourhood Plan since 2011 and the Group's impact is evident in written policies including one requiring that, "*New development adjoining the Beck should seek to; respect and protect the amenity, biodiversity and recreational value of the Beck. All future developments should include consideration of the strategic aspirations and Plans of local environmental organisations, e.g. Woodland Group.*" In a later section of the Plan, it further states: that "*the Parish Council will work with Woodland Group to ensure that wildlife and the countryside surrounding [their village] is protected and preserved*".

The interviews conducted with the local Parish Councillor confirmed the contributions made by the *Woodland Group* in making the village neighbourhood plan as revealed below:

Woodland Group has had a major input in the neighbourhood plan. We have produced an ecological view of the community, which was produced by the Woodland Group. The Neighbourhood Plan has been sent to West Lindsey District Council and is already being used as part of the evidence base and some planning applications have already been rejected based on the evidence found in the neighbourhood plan, so it's already having an impact.

(Parish Councillor, local village)

Meanwhile, the representative of *Community Wood* confirmed their involvement in neighbourhood planning as follows:

I'm covering the conservation/environmental impact side and, if all goes according to plan, will draw on the expertise of many other Friends in the ensuing stages. With regards to the actual questionnaire, I made contributions to the environmental questions in the natural and built environment section 7 of the [local town's] Neighbourhood Plan survey of 2016 (Volunteer 1, Community Wood)

A local Parish Councillor further confirmed the involvement of *Community Wood* in neighbourhood planning as follows:

Their (Community Wood's) involvement in the making of our Neighbourhood Plan is very comforting, they are the champions of our Woods and all the wildlife and fauna within it. Our woods are a very important part of the Neighbourhood Plan and everything is being done to make sure they are being protected and enhanced, making them richer than ever and home to many rare species. Community Wood is a very dedicated band of tireless members; I am hoping they will get involved in local planning more and more (Parish Councillor)

This concurs with earlier studies that argue that the involvement of local communities has proved to enhance the knowledge base and, when combined with scientific knowledge, solutions to complex societal problems can be found (Wurzel 2008; Keulartz 2009; Grodzińska-Jurczak and Cent 2011). Therefore, neighbourhood planning allows a paradigm shift from a top-down, expert-driven approach to planning and policy-making, to a hybrid policy model, that sees local knowledge being used to complement the knowledge of the policy practitioners in making local policies. Moreover, a hybrid policy model will see local communities being pro-active in making decisions about their local areas. This approach is

more likely to result in local action, as it enhances a sense of ownership of the policies by the local community.

Meanwhile, the consultation process at the district level takes account only of the views from individual members of the community and not the views of particular groups within the community. As such this approach accommodates individuals, but at the same time it excludes community groups. Therefore, the involvement of the individuals from the nature conservation groups in the consultation process is not associated with the nature group, as established from the interviews with the planning policy officers, that there is no particular attention given to the comments made by the members of the local nature groups.

The findings from this study show that *Community Orchard* participants (as individuals or a group) are not consulted for the District-level local planning. The participants interviewed revealed their lack of involvement in the consultation process as follows:

No, I am not involved in the consultation process of the District local plan, I have not had an opportunity to be invited to participate in the consultation process for District plans (Volunteer 2, Community Orchard)

We are not involved, and we don't know what they are (Volunteer 4, Community Orchard)

The local planning practitioners also revealed that, where the locals participate in the consultation process of local planning, they do not take an active role. The local communities are represented by the local councillors or politicians and therefore do not have a dialogue with the policy practitioners, which would see them express their views fully. They also take part in already designed surveys before and after implementing the local plans. These surveys

look for specific information, which may not necessarily be what the local communities are interested in.

Moreover, not all the views of the locals are taken into account as revealed by the planning practitioner as follows:

Some of the information provided by the local community about the area is overlooked when it comes to making decisions regarding planning policies. This is because people focus on what they want to be done on the site forgetting some facts about the site that would not favour a proposed project (Planning policy officer, 4).

Therefore, there is a high likelihood that what matters to the community concerned can be ignored in local plan-making, yet the locals can be actively involved in local planning if spaces for community participation are created by the policy-makers and shaped by the communities themselves. This will require a survey to be conducted by the local planning officers to identify local community groups and invite them to participate (through a representative) in local planning, to attend planning meetings that involve local plan-making (before sending out the consultation document for comments by the general public). Although there may be conflicting views within the community groups and between the community groups and the planning practitioners, some common ground could be reached, that would see local plans and policies that are 'people-oriented', incorporating the views, values and concerns of local people in shaping their local communities to ensure sustainable community development.

The policy practitioners and key stakeholders also acknowledge that it is key to involve local communities in local planning, as revealed by one key stakeholder as follows;

If policymakers understood people's motivations and if local plans are more local, they would incorporate local knowledge and they will be more accepted by the people if they take part in developing them. The policymakers could also target their consultations better, they always struggle to get meaningful responses, so would be able to make meaningful and informed decisions if they knew the motivations of the local people (Regional planning stakeholder, 2)

This corroborates studies conducted by Coburn (2003) and Grodzińska-Jurczak and Cent (2011) revealing that community insights make environmental decisions more efficient, effective and acceptable by the local community concerned with positive impacts for environmental protection. In this regard, the community also has the privilege of implementing solutions that are better, in their opinion, to deal with environmental problems (Grodzińska-Jurczak and Cent, 2011). Engaging local stakeholders in early stages of policy making can generate more innovative ideas targeted to local conditions. This approach helps to integrate local knowledge and encourages participation (Wurzel 2008). This will see local knowledge and scientific knowledge about nature conservation being integrated into formulating and implementing policy objectives. However, biodiversity governance remains controversial with regards to who should participate in conservation and how, where and when. This calls for changes in dominant power structures to acknowledge diverse perspectives, conflicting interests as well as social-natural relationships and practices involving living with nature (Apostolopoulou and Paloniemi 2012; Turnhout *et al.* 2013).

It is therefore argued that the nature groups should be given an opportunity to share their knowledge on nature conservation through early involvement and active participation in local

plan-making (as opposed to being consulted when the plan survey or plan has already been made), with neighbourhood planning (which feeds into the District plans) being a more appropriate starting point to cultivate this participatory process. This approach to policy-making would see local knowledge as well as the motivations of local communities to participate in nature conservation shaping local policies and plans. Active involvement of the local community in planning is more likely to result in the successful implementation of local policies, as there is a high likelihood that the local community will commit to achieving the goals of the plan, as they would have a sense of ownership of the local plan and policies that come with it.

Conclusions

This study has investigated community participation and empowerment in local planning for sustainable development. The analysis draws from NED theory to offer recommendations about how to recognise and empower local initiatives within a multi-level governance approach to delivering sustainable development. The findings show that the key principles of sustainable development and NED are embodied in the nature conservation activities and the multiple motivations of participants. However, the motivation for participation in nature conservation is more variable and often not directly connected to the goals of local planners and policy-makers, which are often influenced by extensive national and international regulations and directives. At the same time, local plans are the key to delivering sustainable development, and should be *developed with local communities so they reflect local aspirations* (Ministry of Housing, Communities & Local Government 2018, p. 125). This extends the challenge of creating effective processes and spaces to engage these self-

organised community groups in local planning, through which mutual learning and collaborative action can occur to deliver sustainable development at local level.

The study demonstrates the capabilities of local communities to manage their local resources and contribute to local development that is driven by local participation. Therefore, if voluntary nature groups actively participate in local planning, their knowledge of nature conservation and sustainable development can be incorporated in policies and plans that will be developed in the local context and social structure, making them relevant and more acceptable to the local community. Parish councillors can play pivotal roles in identifying best practices of community-led groups and invite them to participate in local plan making, with Neighbourhood Planning being a good starting point to cultivate this participatory process. Such local participation, of course, is variable across different places depending on a range of factors including education, income, occupational status and levels of social capital. NED can have a role in ‘evening up’ these distributional differences by bringing in such things as training and awareness from the outside.

Regardless of their rationale, individuals’ participation constitutes an endogenous resource (Müller *et al.* 2020), but, as with all endogenous resources, its potency increases with strong external networks and appropriate spaces for mixed interactions. Earlier NED research identified that rural economies benefit from interactions between local and more outwardly-facing businesses (Bosworth and Atterton 2012) and social innovation is also enhanced by socio-political connectivity that value both endogenous and exogenous resources (Bock 2016). Gkartzios and Scott (2014) noted that sustainable development could not be delivered

through solely exogenous (lacked local knowledge of housing demand) or pseudo-endogenous (susceptible to manipulation and corruption) approaches in relation to housing policies.

Confirming these earlier studies, this research identifies that local participation can contribute to sustainable development outcomes by introducing local knowledge, volunteer effort and commitment to the nature conservation planning and policy arena. Rather than a barrier to NED, however, the case studies illustrate that effective outcomes can be achieved by capitalising on the energy and passion of voluntary groups, for whom the benefits can be enjoyed as tangible and intangible assets in their local communities. Allowing the groups to retain a local *raison d'être* based around the social cohesion, education and quality of life themes identified here can avoid bureaucratising or politicising their activities while simultaneously allowing less formalised spaces for engagement and knowledge sharing to emerge.

Effective NED is not just about local action for local objectives, nor is it a one-way process of local groups being consulted to support higher-level policy design or implementation. Participants indicated that they have benefited from external influences, in the form of financial assistance, technical advice and practical skills, to promote their nature conservation projects. The focus, however, remains on local participation and local determination of key priorities, reflecting the philosophy of NED. This is currently reflected in significant growth in the social economy and related sub-regional strategies (Scottish Government 2016; Heap *et al.* 2017) with increasing inclusion of sustainable development

and environmental imperatives at the community level. In the UK context, the replacement of the European Structural Funds with the proposed Shared Prosperity Fund could provide a theatre for heightened local environmental action (House of Commons Library 2020), but this will depend upon effective strategies to engage local groups and enable different forms of knowledge to be shared, and where necessary translated.

While the case studies developed in this study were considered to be relatively inclusive within their communities, the need for wider inclusion across different rural communities presents an additional challenge for local planning seeking to implement NED approaches. Findings here suggest that innovative techniques to separate participation in nature conservation (or any other voluntary community groups) from participation in a formal planning or policy-making process offers a significant opportunity to capture the energy and the voices of local people in a constructive, place-based and community-led process.

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