

DUMFRIES AND GALLOWAY CITIZENS  
PANEL ON CLIMATE CHANGE

2021-2023

DRAFT FINAL REPORT  
(for internal purposes only)

# Executive Summary

In April 2019 the Scottish Government declared a national climate emergency. Recognising and taking the lead from this, in June 2019 Dumfries and Galloway Council announced their own ambitious target of reaching regional net zero by 2025, becoming the first local authority in the UK to do so. In their Declaration, the Council acknowledged this would represent a radical and comprehensive step change in their work and approach.

This report details the outcomes of the Dumfries and Galloway Citizens Panel on Climate Change, a key component of the region's strategy and route map for achieving net zero. Dumfries and Galloway Council's Declaration included a commitment to implement a 12-point action plan, and form a Climate Emergency Cross Party Working Group. Point 10 of this plan articulated the Council's aim to develop a Carbon Neutral Strategic Action Plan (Strategic Plan), incorporating their obligations under the Climate Change (Emissions Reduction Targets) (Scotland) Bill. The Strategic Plan was published in November 2021.

Point 9 set out the intention, scope and remit for a regional Citizens Panel to inform and influence the Strategic Plan:

*"We recognise that our pursuit of net zero carbon emissions is a challenge which all people who live and work in our region will share. Accordingly, we will establish a broad based and diverse Citizens' Panel, which will bring together representatives from across our region, harnessing the skills, experience and innovation our people possess to inform and influence the action we will take as a council."*

## **The Citizen Panel Process**

In August 2021, the Community Chartering Network (CCN) was commissioned to facilitate the formation and participation of this Citizens Panel. Five communities considered to represent the region were agreed with the Council - Dumfries, Stranraer, Langholm, Kirkconnel and Kelloholm, and St John's of Dalry. A representative Sub-panel of around 20 citizens were recruited for each between September 2021 and March 2022. Originally, Annan was also selected, but during recruitment it emerged the Town was to be engaged on a concurrent Climate Action Town project with similar aims. Efforts towards alignment were made to enable Annan's participation in this project, but unfortunately their Sub-panel never manifested.

The face-to-face phases of the Citizens Panel were held between March and June 2022, entailing full-day community events in each place. Additionally, these included youth engagements with 3 primary schools and a youth club, and 6 drop-in sessions to enable those who weren't available for the main event to contribute meaningfully. The project then moved online for 16 meetings held between September 2022 and January 2023. These began with collaboration across the different communities, followed by discussions with, and input from,

Expert Witnesses. Around half of these experts were officers from Dumfries and Galloway Council, while others had particular specialism or influence relevant to the citizens' themes and priorities.

## **Panel Participants**

260 people participated in the project overall. This included 96 citizens in the face-to-face phases, a third of whom (32) went on to represent their communities in the subsequent online phases. In addition, an Expert Witness Panel of 39 also contributed to these online discussions. 71 children and young people were also engaged across three primary schools and a youth club, but did not participate directly in the Panel.

Overall, The Citizens Panel entailed a roughly equal gender split (55% female, 45% males) across and within the community Sub-panels. Citizens involved a broad mix of age groups (from 9-91 years old), and of socioeconomic backgrounds and professions. They included farmers, landowners, businesspeople, community leaders, parents, academics, activists, and people currently out of work.

Young citizens (aged 18 and below) constituted 22% of the total Panel, over a third of whom contributed to the online phases. Each community was represented by a minimum of four young citizens, two primary and two high school aged students, including an active or past youth councillor. In three, the primary schoolers represented a map and set of priorities consensually agreed by their classmates in an earlier session, and one also involved the input of a youth club. The young citizens were selected as finalists in the Dumfries and Galloway Youth Awards 2022 on account of their invaluable and highly sophisticated contribution to the project.

## **Building Consensus**

A broad consensus on the project outcomes was reached between the Citizens Panel and expert witnesses. Specifically, these outcomes are a Regional Model for Net Zero Transition which breaks down into 6 Priority Themes and 22 Sub-priorities. These provide a guide of what those Strategic Actions and Commitments which form the Council's Strategic Plan might look like in action. They articulate vital opportunities, threats and considerations, and highlight exemplars of good, relevant work already underway. In totality, the outcomes serve as a rich and grounded lens through which to review the Carbon Neutral Strategic Plan (Strategic Plan). These have given rise to a number of recommendations and proposals for improvement.

## Report Structure

The findings of the report are divided into four main sections. The first sets out an overview of the Panel outcomes, and overarching recommendations.

The second revisits the Strategic Plan in light of these, proposing essential considerations and improvements to the Strategic Actions and Commitments.

The third section gives an overview of the process employed for the Citizens Panel. A more detailed account of, and rationale for, the consensus-building methodology employed is provided in a separate accompanying document. This could provide a model for partnership-working between the citizenry and authorities in the region, and further afield.

The fourth and final section entails Appendices detailing the final Sub-priorities agreed by the Panel for each of the 6 Priority Themes underpinning the Regional Model.

## Report Elements: Terminology, Coding and Referencing

Where there is a strong interrelationship between different elements of the report, these are highlighted in brackets and using the following terminology, thereby aiding navigation for readers with a specific interest.

- **Strategic Plan: Dumfries and Galloway's Carbon Neutral Strategic Plan**
  - **SA1-10:** Strategic Actions 1-10
  - **C1-7:** Commitments 1-7
- **Regional Model:**
  - **RM1-7:** Regional Model Features 1-7
  - **PT1-6:** Priority Themes 1-6, where details can be found in the Section 6 Priority Themes and in Appendices 1-6, respectively.
  - **SP:** Sub-priorities, which are numbered in accordance with their parent Priority Themes, e.g. detail of SP1.2 and SP6.5 are located in Appendices 1 and 6, respectively.

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# Main Outcomes of the Citizens Panel

## A Regional Model for Net Zero Transition

The overarching outcome of the Citizens Panel can be considered a Regional Model for Net Zero Transition. This describes how communities and systems across the region might pragmatically align with the Council's Strategic Actions and Commitments to meet net-zero ambitions.

The Model can be summarised as **a system of communities working towards greater self-sufficiency, overseeing and regulating their own optimal net-zero land use strategies, and interconnected by green active and public transport infrastructure.**

This Model emerged over the course of the project to become the fundamental goal and bedrock of regional net-zero. All of the priorities and projects articulated by citizens and expert witnesses can be seen as contributing in some way to the direction of travel towards it.

It is important to note at the outset that the Panel has drawn attention to thought-leading exemplars of all aspects of the Regional Model across the region. The Model should therefore also be seen as a celebration of this good work, and an integrative context and lens which can help cultivate greater recognition and consciousness of it. Bringing it into sharper focus, can ensure pioneering approaches and projects are enabled, supported, understood, built upon and replicated towards developing a regional system of learning and transition.

The Regional Model is underpinned by 7 interdependent Features agreed by broad consensus to be essential to its success, and which are labelled and referred to subsequently, as RM1-7. Together, the Regional Model and the Features underpinning it, can be viewed as the holistic context and foundation for the review of the Strategic Plan and all related recommendations. These are further supported by 6 Priority Themes (PT) and 22 Sub-priorities (SP).

There follows an overview of the Features, Priority Themes, and Sub-priorities in turn. More detail on each of the Priority Themes is provided in the Appendices (PT1-6). Sub-priorities are numbered in accordance with their parent Priority Themes, e.g. detail of SP1.2 and SP6.5 can be found in Appendices PT1 and PT6, respectively. Where information in the Appendices relates directly to the content, it is identified by PT or SP numbering in brackets.

## Core Features of the Regional Model:

**RM1: Effective partnership-working and responsibility-sharing between the Council, communities and other relevant stakeholders.**

*The most important Feature, and the one which precedes the others.*



There was general agreement that a successful and just transition was contingent on new models of partnership-working. Panel discussions demonstrated the journey to net zero to be essentially, hypothetical, exploratory and entering complex territory replete with unknowns. To add to this, was the sheer scope and scale of the endeavour, and a perfect storm of contextual challenges and constraints. The latter included evermore overstretched and underfunded public services, the fragility and/or inflexibility of many related systems, and the cost crisis.

Establishing the correct and safe route therefore necessitated collective wisdom and agile, adaptive collaboration, such as to enable iterative learning and improvement in response to feedback on-the-ground. The need for meaningful dialogue between the citizenry and authorities, and radical new approaches in support of this, was integral to all the Priority Themes. It surfaced specifically in Sub-priorities related to Flooding (SP4.1); Optimal Land Use and Management (SP5.6); Community Self-Sufficiency (SP2.2 and 2.8); Education (SP2.7 and 3.3); and Effective Transport (SP6.1).

In summary, identifying and replicating exemplars of effective partnership-working, and adapting current systems and practices to enable and support them, is the most important overarching need and recommendation regarding the Strategic Plan (PT1).

**RM2: Community-led Place Plans (CLPP) which articulate a consensual model of local transition, integrating and regulating matters related to place, planning, land use, education and community action.**

The Panel highlighted how enriched and subtly-reframed Local Place Plans might provide an essential mechanism for implementing just transition at the community level. The term Community-led Place Plans (CLPP) is used subsequently to refer to this enhanced conception of a Local Place Plan.

The Panel clarified the basic requirement for holistic plans of transition which are particular to each community and its specific opportunities, needs and context. Expert Witnesses endorsed this view, regarding these local plans as a prerequisite for efficient effective partnership-working and for a joined-up package of investment and support. They also considered them the only way to argue credible demand for development or services in support of a holistic local transitional strategy. Without this, provision is often only a narrow-view reaction to immediate circumstances and evidence of need. The Panel gave multiple examples of how this is already resulting in stagnation and decline. These included the loss of rural public transport services and schools based on 'bums-on-seats' metrics. Another, was the only recent new housing development in Langholm, built to cater for the ageing population, not to provide affordable homes to attract, retain or support young people and families. The Panel stressed the urgent need to identify and regulate these factors, and others related to national policy and land use, which were eroding the underpinnings of community-self-sufficiency (see RM6 below).

Local Place Plans were considered to provide the ideal vehicle for these local models of transition. This was particularly so, given the number of high-quality plans already developed or in development across the region (see SP1.2 and 2.2). Rather than being an extension of the Local Development Plan (LDP), it was envisaged that the CLPP could encompass strategic priority actions relevant to all aspects of a local net-zero strategy. These could include information on a land use and management strategy (SP5.6), flood risk management and response (SP4.1 and 4.2), journey needs and transport links (SP6.1), education (SP2.7), and community action, care and cohesion (PT2). A CLPP has the capacity to be updated iteratively and dynamically in response to new information, feedback learning, and environmental changes in a way that the LDP cannot. This groundedness, flexibility and responsiveness, could be a core enabler of systems change, informing and working in conjunction with the more stable direction of travel determined by the Council's LDP and Strategic Plan. Moreover, a CLPP endorsed by the Council also has the potential to provide a framework for monitoring and regulating transition closely and carefully at the local level. This is something it was felt that the nation and region lacks at present. This would require the CLPP and the community's consensual position on matters related to it, to constitute a weighty material consideration in formal decision-making (PT1).

### **RM3: Actively strengthening and supporting community councils, development trusts and other community liaison groups.**

Another essential Feature of a Partnership-working strategy for the Panel and Expert Witnesses was a strong intermediary layer of community partners. This layer is a necessary go-between between the citizenry and actions on-the-ground, and the Council and other third party support. A functional community council and development trust were viewed to be a bare-minimum prerequisite for a CLPP and coordinated local transitional strategy.

The Panel warned about the fragility of this layer at present, typically characterised by a small number of overburdened and underappreciated volunteers. Citizens in this position in their communities spoke about being stuck between a rock and a hard place. Below, they were having to deal with widespread public apathy, and above, relentless politics, red tape and fund-chasing. Their time and energy seemed spent more on 'running to a standstill' or resisting backsliding, than on positive forward motion for their communities. Figure 1 below represents the outcomes of a priority project by the Dumfries Sub-panel aimed at strengthening the intermediary layer and addressing these issues. Emboldened aspects were those emphasised in discussion.

The Panel was keen to emphasise all the hidden ways in which this intermediary layer could alleviate the Council's burden for transition. Giving the Dumfries Recycling project as an example, they highlighted the money and resources the Council might otherwise have spent on public outreach, communications, engagement, education and relations without the involvement and facilitation of community intermediaries. As such, it was strongly argued that strengthening this intermediary layer ought to be viewed more as an 'invest to save', than an additional cost.

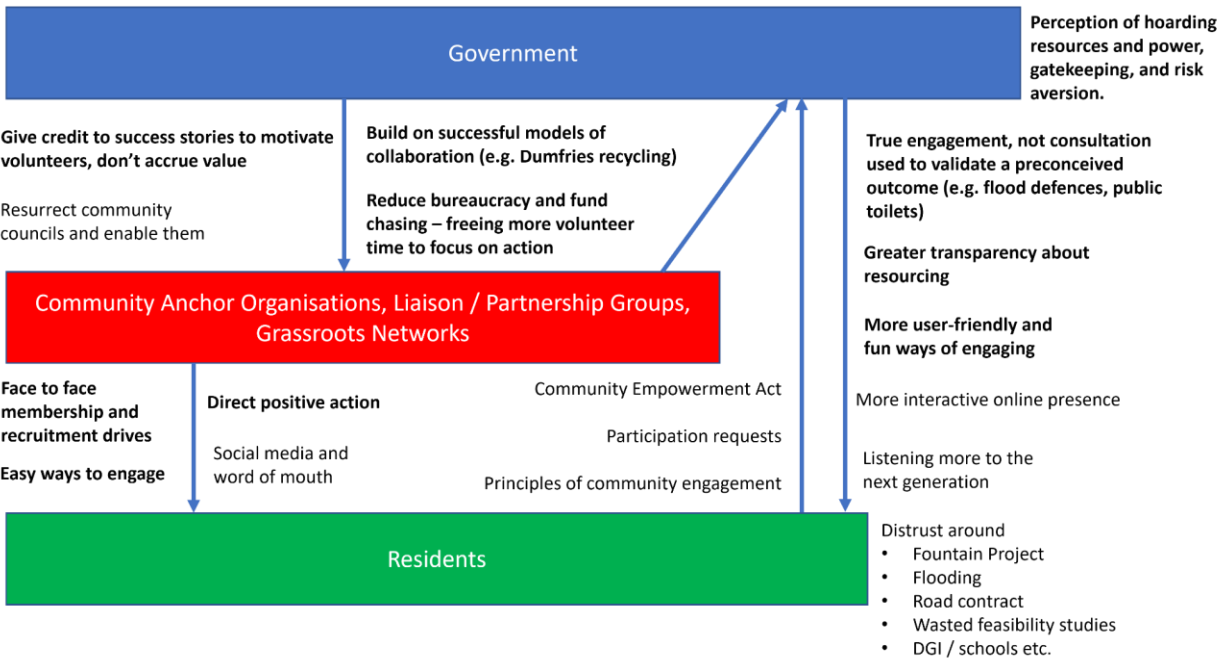


Figure 1. The Intermediary Layer in Partnership-working

Spaces, funding, support, facilitation and training which could enable this ‘mycelial’ layer to grow stronger, network and self-organise were therefore also considered a critical priority. It was suggested the concept of Locality Hubs could embody these needs and provide a base of operations for partnership-working and knowledge-sharing (see SP1.4).

**RM4: Redirecting capital and revenue streams towards wealth-building projects, which enable communities to lead on and fund their own just transition.**

A burning question for the Panel was how the herculean task of implementing local models of transition across the region would be financed. There was general recognition of the context of ever-shrinking Government budgets, fragile local economies, and the cost crisis. Concerns were expressed over the trend toward capital and profits from public and private money invested in or generated locally, increasingly benefiting larger corporations and parties outwith the region. This ‘extractive wealth’ was seen to be another drain on the finance desperately needed to build local capacities and economies (see SP2.1). It was generally acknowledged also that market dynamics were increasingly rendering communities’ essential development needs nonviable for the private sector, due to their un motivating profit margins, scale or risk. Particular emphasis was placed on the need for new, diverse and affordable housing and SME industrial units sufficient to attract enterprise, young people, and create local churn (see SP2.4). The Panel pointed to the immediate take-up of new local business spaces as unequivocal evidence of latent economic potential in each of the participating communities. They also stressed how golden an opportunity they believed this was for the Regional Model and Strategic Plan.

However, the general story was one of local economic stagnation and dependency resulting from a lack of investment and development tailored to communities' transitional needs and aspirations.

As such, the participating communities focused on schemes for activating latent local economic potential and generating income through wealth-building enterprises. This income could then enable and support them to take forward their models of transition independently. As communities cannot be expected to pull themselves up by their own shoelaces, channels of finance which might enable these schemes therefore emerged as an urgent overarching priority (see PT2).

Many ideas were put forward on how current flows of public and private money might be re-channelled directly into local community wealth-building schemes. These included the Council developing a 'best value' procurement framework, strategy and directory which prioritises regional self-sufficiency over cost. Others, entailed statutory community benefit or planning gain arrangements, and packaging and promoting community wealth-building and environmental restoration enterprises as private investment propositions.

Participating communities already receiving wealth-building investment were also keen to highlight a significant gap in support provision. This related to the business planning, capacity-building and revenue required for their enterprises to become a going concern (SP2.3). Resolving this 'revenue / capacities' gap -ideally, as part of a joined-up partnership-working package- emerged as a critical priority action and recommendation. Otherwise, community enterprises struggle, or are unable, to reach the point sufficient to generate income for reinvestment or contribute productively to peer-to-peer learning networks (SP2.1).

**RM5: A framework of policy, regulation, measures, research and support which is responsive to the needs and context of local Places, to ensure the Model is not undermined.**

The Panel identified an urgent need to better understand and address a number of dynamics arising from specific net-zero policies and metrics, which have negative consequences for the Strategic Plan. Participating communities highlighted the actual and potential impacts on regional farming of narrow carbon accounting. There were the sometimes irreversible changes of land use from farmland and peatland, to commercial forestry and renewables developments, due to the priority given to the latter under national climate policy. Citizens described the negative effects of local 'green clearances', land-grabbing and the property bubble resulting from private interests seeking to capitalise on these policies. Energy efficiency standards were also perceived to be a material factor in a shift from rental accommodation to AirBnB in rural areas which was displacing residents. In short, while related policies and metrics, on face value, would appear to promote action which contributes to net-zero, if unaddressed, their disintegrative impacts could threaten the underpinnings of the Strategic Plan.

For the Panel, an essential underpinning of an optimal 'net-zero' land management and use strategy is the a more coherent, effective and flexible policy, monitoring and regulatory framework. Addressing this need was deemed an overriding priority. This is particularly so with regard to the protection and promotion of peatland or organic soils, biodiversity, local farming systems, community-led environmental restoration projects, and natural flood management schemes (SP5.4). In addition, it must also safeguard or enable the provision of land and support for community wealth-building enterprises, particularly, affordable homes and business spaces for purchase and rent (SP2.4).

The Panel was unequivocal that an effective framework and set of measures necessitated research and partnership-working with citizens and farmers at a community level. This was considered essential for fully understanding how policies play out and interact on the ground to the benefit or disbenefit of each community (PT1; SP5.6). As mentioned in RM2 above, CLPPs could serve a vital role in this respect, by articulating the nuanced context and needs of local transition, and identifying and regulating policy dynamics that compete with these. By this, climate policy interpretations and applications which may constitute a significant threat to the Strategic Plan, might be transformed into its biggest opportunity.

**RM6: Realignment of education and youth services around local and regional priorities for communication, action and capacity-building.**

A Feature of the Regional Model arrived at separately by both adult and young citizens. This emphasises the need to bring communities more meaningfully into dialogue around the design, delivery and resourcing of education services. This includes primary, secondary and higher education, and work experience and apprenticeship programmes.

A key aim of this was to align education and youth services more closely with specific local or regional net-zero priorities. These priorities include those articulated or anticipated in CLPPs or the Strategic Plan. It was proposed that this be achieved through partnership-working between young people, the community, local schools, the Council and other stakeholders. By this, local service provision might then be tailored towards developing capacities, skills, work experience and communications relevant to current, or upcoming, employment or entrepreneurial opportunities. This could contribute to a number of the Regional Model's Priority Themes, including partnership-working, retaining young people, and building local wealth and capacities towards greater community and regional self-sufficiency.

For the young citizens, involving them in this dialogue was essential for aligning improvements with their own needs, aspirations and motivations. These included their strongly expressed desire for experiential learning and local work experience in primary and early secondary school. They also called for their more meaningful involvement in planning related to their schools and the evolution of education services. They stressed the importance of striking the right balance between online and face-to-face coursework, of their participating more fully in

difficult school resourcing decisions, and of facilitating local climate action through the Curriculum (see SP2.7).

**RM7: Promoting community care, cohesion and mental health as an underlying principle of net-zero strategy and action.**

A common theme and explicit objective of many community priority projects was the need to address increasing social isolation, fragmentation and mental health issues. These included projects to clean up and rejuvenate town centres, streets and greenspaces; to create a local nature reserve; to mobilise community food and energy schemes; and grassroots outreach, education and support programmes.

In the later online phases of the project, citizens frequently expressed exhaustion and despair at their lack of control over negative impacts on their communities and local environment. Indeed, this caused two citizens from one community to leave the group focusing on Building Self-Sufficiency (PT2). They declared how hopeless and depressed they felt at harmful local developments which had occurred in the short time since the face-to-face event. These had contributed to a loss of belief in the Panel's promise to influence change. For all who participated, hope that anyone would listen to the Panel's recommendations, or that anything would change as a result, was tempered by general scepticism, and lack of faith and trust in our institutions.

The 'win-win' capacity of community projects and partnership-working which contribute to the Regional Model and Strategic Plan, to also promote social interaction, cohesion, mental health, and civic trust, cannot be underestimated.

## Six Priority Themes

When the outcomes of the face-to-face Citizen Panel events were collated, it became apparent that their agreed priorities and projects for improvement fell under six themes common to all. The Priority Themes appear in Figure 2 overleaf, which can be viewed as a geographical Place seen from above. At the centre, the dark grey areas represent the socioeconomic hub of the community; the dark green, the land surrounding it. Moving outwards are green transport links with interdependent communities and the wider region (light green area), and then broader extra-regional considerations (blue). Cutting across all, is Enabling Partnership Working (yellow).

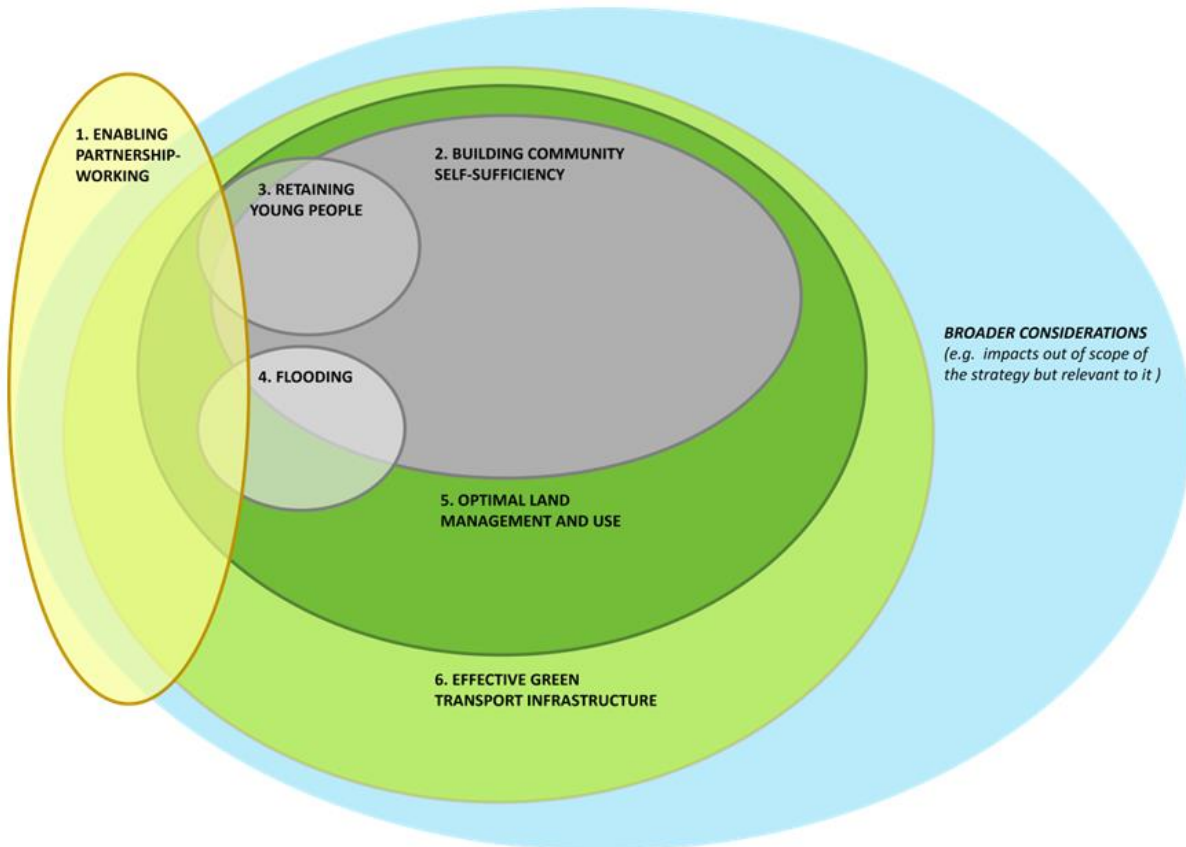


Figure 2. Six Priority Themes

### The 6 Priority Themes are as follows:

**PT1: Enabling Partnership-Working.** PT1 focuses on the need for and barriers to effective dialogue and collaborative action between communities, authorities, experts and stakeholders around transition. This Theme cuts across all the others, and is relevant to all. Almost half the Features of Regional Model (RM1-3) fall under PT1, and from the Panel's perspective, its fundamental importance to achieving the Strategic Plan cannot be overemphasised. The Dumfries Recycling Project was referred to as one exemplar of good partnership-working.

**PT2: Building Community Self-Sufficiency** can be viewed as the anchor for all remaining Themes. All participating communities focused on a priority project under this Theme. In all cases, these articulate strategies for building wealth, capacities and resilience sufficient to enable them to lead on their own local transition. In Dumfries, Stranraer and Langholm, rejuvenating the Town Centre provided a critical starting point for these strategies. The Midsteeples Quarter project in Dumfries providing a pioneering exemplar of related thinking and action. All the priority projects were characterised by what have been subsequently termed the 5 Pillars of Self-Sufficiency (see Figure 3 below), of which Public Transport merited a Priority

Theme of its own (PT6) and Building Capacities underpins a Feature of the Regional Model (RM6).

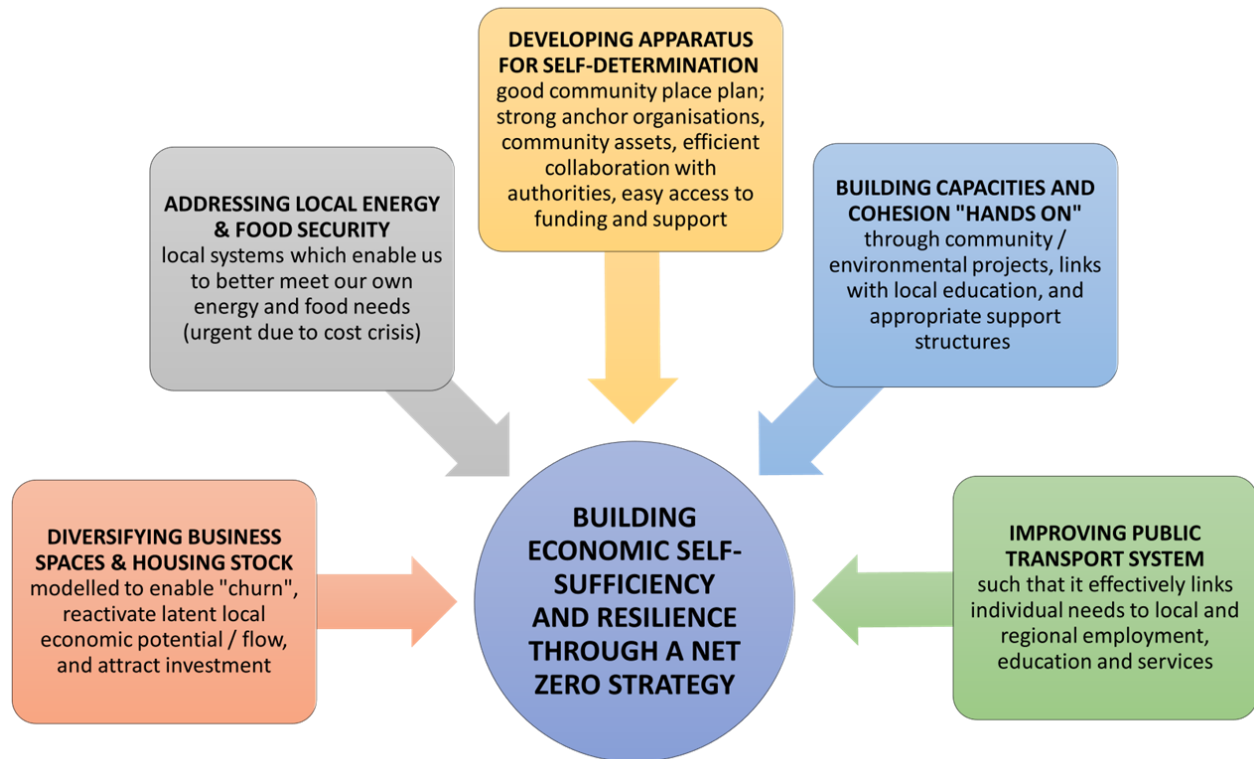


Figure 3. 5 Pillars of Community Self-sufficiency

**PT3: Retaining Young People** emerged as a vital underpinning of local self-sufficiency and a regional net-zero strategy. This is in light of the current perceived exodus of many young citizens from their communities and the region due to a number of factors. The young citizens led the discussion of strategies for encouraging and enabling them to stay or return to the region. These included greater participation in decision-making; better opportunities for them to play, learn, work and contribute locally; and improvements to education and public transport services. All of these were seen as cultivating a more positive experience of place. This was a key consideration when choosing where to make one's home- as well as capitalising on their invaluable imagination, motivation and entrepreneurship.

**PT4: Flooding.** All of the Panel's participating communities referred to local flooding, and three are currently facing important issues related to flood risk. Two of these entail divisive and costly proposals for flood defences, which are perceived by many to impact negatively on assets important to their community's sense of place and visitor proposition. What emerged from discussions were legitimate concerns about decision-making processes and the completeness of the assumptions and hydrological models which underpin them. There was a strong desire for



more meaningful partnership-working and knowledge-sharing with communities around flood risk planning and response. This included a serious exploration of natural flood management alternatives (the reason why PT4 and PT5 overlap in Figure 2). Without this, the Panel felt flooding could become an increasingly estranging and expensive issue, at a time when public relations and money was needed for other actions under the Strategic Plan.

**PT5: Optimal Land Use and Management** encompasses a number of priorities for a land-based net-zero strategy. It emerged as the Priority Theme which may represent both the Strategic Plan's biggest unknowns and threats, and its greatest opportunities.

The Panel established the need to understand the ecology of land categories and uses around each community from the citizen's perspective as a prerequisite. This could then enable detailed discussion of how the categories and uses, and the interrelationships between them, contribute to or undermine Community Self-Sufficiency or other net-zero priorities. Only through careful research and partnership-working between communities, farmers, the Council and other stakeholders, did the Panel feel it possible to establish an optimal net-zero strategy and regulatory framework for each locality. All this has been embodied under a proposed new Commitment to add to the Strategic Plan (see C6 below).

The Panel emphasised an urgent need for caution in the interpretation and application of climate policy and carbon-accounting metrics, so as to avoid unintended harmful consequences. They highlighted sobering evidence strongly indicative of counterproductive dynamics, including loss of farmland and peatland to commercial forestry, renewables and land-grabbing for carbon-credits. Critical related priorities included hardwiring biodiversity measures into carbon accounting, developing a whole-systems framework for evaluating regional farming impacts, and independent research to address significant knowledge gaps.

At the same time, the Panel clearly articulated game-changing carbon-capturing opportunities represented by local optimal land use strategies, and without which regional net-zero is unattainable. These include restoration of peatland, organic soils, farmland, the marine environment, and biodiversity across all. A potent win-win is where these strategies link with community wealth-building propositions. Examples include the Langholm Moor buyout, or collaborating with farms towards rebuilding local food systems and security.

**PT6. Effective Green Transport Infrastructure** focuses on developing an effective active and public transport network which aligns with the Strategic Plan. A joined-up system constructed around individual citizens' journey needs was agreed to be fundamental to the Regional Model. This was considered to be one of the 5 Pillars of Community Self-Sufficiency (see Figure 3 above), vital for interlinking economically independent or interdependent communities sustainably, and enabling connection to town centres, essential services and opportunities to work or study.

Radical improvements were a high priority for all 5 participating communities, and for 3, formed the focus of a local priority project. The primarily rural nature of the region, together with ailing services and rising petrol costs, meant the need for an effective public transport system was growing in urgency. For some communities, the need could become an existential issue. Both Citizens and Experts acknowledged the barriers to progress, including the fragility and fragmentation of the current system, and the upfront investment required.

Notwithstanding this, broad agreement was reached on the benefits of a thorough review and overhaul of the current system determined by the needs of citizens and the Strategic Plan. Partnership-working was seen to be essential to success. So too was upfront investment in an effective journey-centred infrastructure, followed by incentivising the public to use it over their cars. The take-up of free bus travel by young people, and rising petrol prices, were both seen as potent leverage points for changing habits. However, this first required services which were already aligned with individual journey needs. With the parallel transition of fleets away from fossil fuels, a successful strategy would promote usage of public transport and vehicles powered by renewable fuels in one fell swoop (Strategic Actions 4 and 5 in the Strategic Plan). It would the same time strengthen one of the 5 pillars of community wealth-building and self-sufficiency (see PT2 above).

**Broader Considerations** pertains to matters identified during Priority Theme discussions as important or relevant to the Strategic Plan, but where it was unclear if they should be considered within or outwith its scope.

## Twenty-two Sub-Priorities

In turn, the 6 Priority Themes break down into 22 Sub-priorities held in common between the participating communities, and which appear in Figure 4 below. The Sub-priorities emerged from online discussions between the communities about each of the Priority Themes, and were then informed and honed by input from Expert Witnesses.

Those Sub-priorities highlighted in grey in the Figure were those which also emerged separately and more strongly under another of the Priority Themes. In the final Phases of the Panel, they were merged into one Sub-priority, incorporating the perspectives from both Priority Themes. The “Key Virtuous Links” column sets out key interrelationships and interdependencies between the Sub-priorities identified by the Panel. The “Strategic Plan” column shows where Sub-priorities link closely with, and might usefully inform, the Council’s Strategic Actions and Commitments for regional net-zero.

Priority Themes and Subpriorities	Key Virtuous Links	Strategic Plan
<b>PT1 ENABLING PARTNERSHIP-WORKING</b>		<b>SA1; C1</b>
SP1.1 Co-designing new models of partnership working (longitudinal, purposeful and 'agile')	All Priority Themes	
SP1.2 Cultivating Community-led Place Plans for a just transition (SP2.2)	All Priority Themes	
SP1.3 Public education on net zero and its relevance to citizen needs and values	All Priority Themes	
SP1.4 Enabling and supporting community groups, networks and anchor organisations	All Priority Themes	
<b>PT2 BUILDING COMMUNITY SELF-SUFFICIENCY</b>		<b>C2; 5</b>
SP2.1 Re-channelling of 'extractive' wealth into community wealth-building.		
SP2.2 Cultivating Community-led Place Plans for a just transition (SP1.2)		
SP2.3 Plugging the revenue / capacities 'gap' for community-led projects	SP1.1	
SP2.4 Diversifying community (SME) business spaces and housing stock	PT3	SA2;3
SP2.5 Addressing community food security	SP5.3	
SP2.6 Developing and enabling viable models for community energy schemes		SA3;6; C3
SP2.7 Tailoring education services to community / regional net-zero needs and plans	SP3.3; 1.1	
SP2.8 Effective regulation of erosive community / land use developments and dynamics	SP5.4	
SP2.9 Community education and action around refusing, reducing, recycling and reusing waste	PT1 & 3	SA7
<b>PT3 RETAINING YOUNG PEOPLE</b>		
SP3.1 Accessible, motivating local opportunities for young people	SP5.5	
SP3.2 Effective public / active transport routes based on citizens' personal journey needs	SP6.1	
SP3.3 Enabling more resilient adaptive schools and education through partnership working	SP1.4; 5.7; 5.5	
<b>PT4 FLOODING</b>		
SP4.1 Meaningful dialogue with communities around local responses to flood risk	SP1.1; PT2	
SP4.2 Proactive flood risk planning by communities: management, response and resilience	SP1.2; PT2; SP2.2	
SP4.3 Mobilising whole catchment Natural Flood Management schemes	PT5	
<b>PT5: OPTIMAL LAND USE AND MANAGEMENT</b>		<b>SA8;9; C4;5</b>
SP5.1 Coherent policies and action prioritising the protection and restoration of organic soils		
SP5.2 Integrating biodiversity as a core consideration and component of a net zero strategy		
SP5.3 Co-designing a whole-systems net-zero strategy to protect and support regional farming	SP2.1; 2.5	
SP5.4 Effective regulation of erosive community / land use developments and dynamics (SP2.8)		
SP5.5 Community-led environmental restoration as an investment / wealthbuilding proposition	PT2; SP3.1; 4.3	
SP5.6 Meaningful dialogue with communities towards developing optimal net-zero land stratagems	PT1	
<b>PT6: EFFECTIVE GREEN TRANSPORT INFRASTRUCTURE</b>		<b>SA4;5</b>
SP6.1 Effective public / active transport routes based on citizens' personal journey needs (SP3.2)	SP1.1; 3.2. PT2	C3;5
<b>BROADER CONSIDERATIONS</b>		
PT2 Short-term local emissions increase may indicate a successful long-term strategy		
SP2.6 Representative carbon accounting of renewables		
SP3.4 Emphasising the extra-regional and intra-regional benefits of reusing products		
SP4.3 Extra-regional benefits of natural flood management		
SP5.3 Impact considerations essential to an effective regional 'net-zero' farming strategy		
SP5.4 Whole supply chain impacts of Sitka forestry		
PT6 Fair accounting of transit traffic		

KEY: PT: Priority Theme      SA: Strategic Action  
 SP: Sub-priority              C: Commitment

Figure 4. 22 Sub-priorities

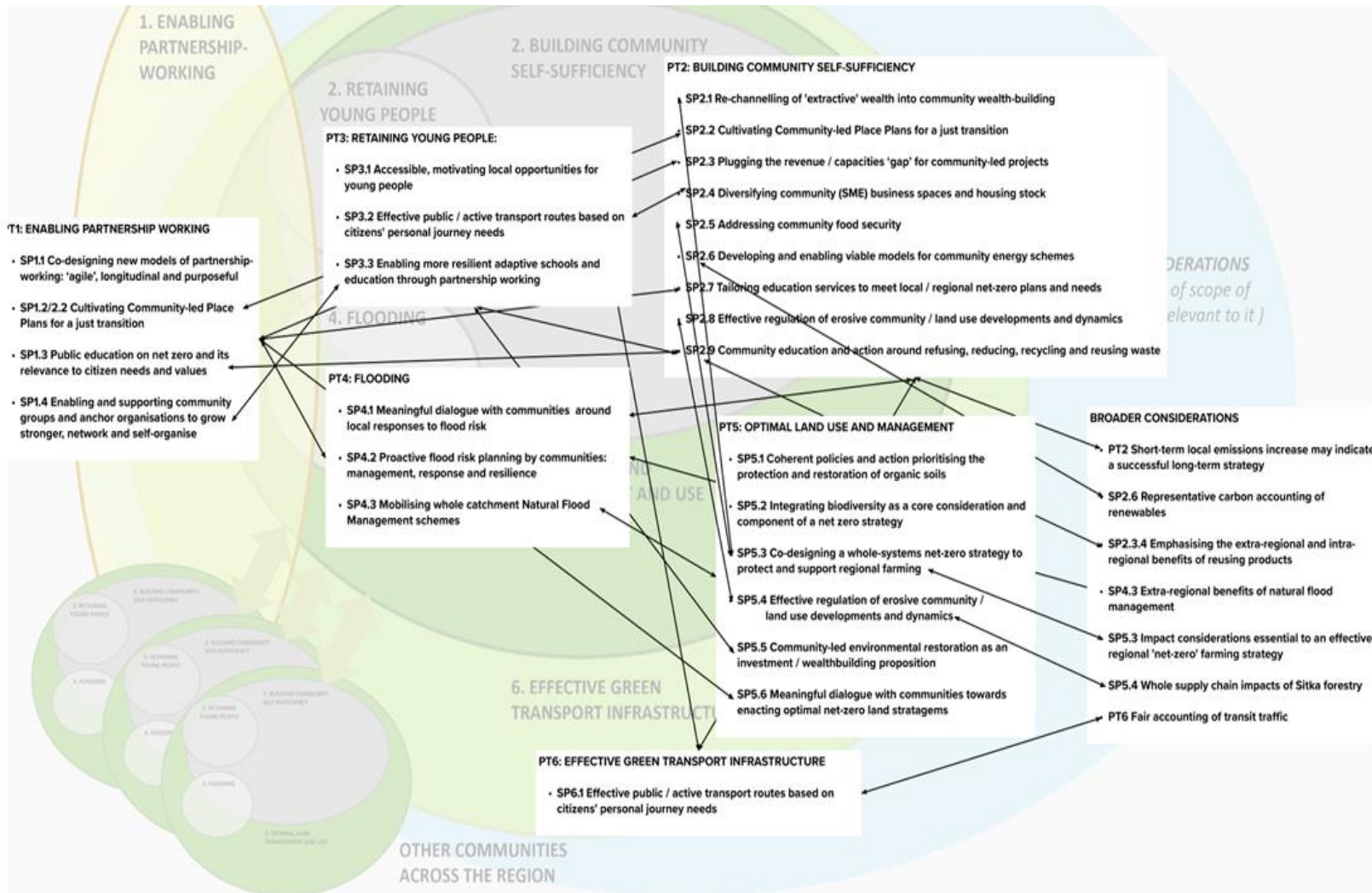


Figure 5. Virtuous Links Between Sub-priorities

Interrelationships between the Sub-priorities are represented visually in Figure 5 above. The Figure is not intended as a guide, but rather to emphasise the importance of interconnections and mutual influences between the Priority Themes when viewed from the specific context of Place. Considered from this holistic place-based perspective -such as might be articulated in a CLPP (see RM2 above, also SP1.2 and 2.2)- Sub-Priorities can be seen as bringing about virtuous synergistic transition and adaptation within local communities. Conversely, an overemphasis of one without regard to, or understanding of, its systemic interrelationships with the others can lead to vicious cycles of decline and degeneration.

Details for each Sub-priority are provided in the Appendix for the Priority Theme to which it relates. These include ideas and proposals for action, which in turn, draw on the priority projects citizens developed for their communities in the face-to-face phases.

## Implications for the Carbon Neutral Strategic Plan

The original Strategic Plan was summarised as a table of strategic actions against commitments (see Figure 6 below), where important relationships between them are indicated by a tick.

Commitment	Encourage understanding of how the way we live and work in the region impacts on climate change	Empower our communities and stakeholders to make significant changes to reduce emissions and adapt to a low carbon approach	Lead on the transition to cleaner and greener technologies	Promote and protect our region's natural environment	Contribute to a greener economy, maximising the region's green energy potential
Community engagement to encourage changes by individuals and businesses through collaboration across a wide variety of activities	✓	✓	✓		✓
Significant improvements in energy efficiency in buildings such as large scale installations of insulation including of solid walls, replacing windows and doors		✓	✓		✓
Installing zero carbon heating systems such as heat pumps and biomass, and the possible use of hydrogen in future.		✓	✓		✓
Changes in the way that we work and travel to reduce travelling and increased use of public transport and active travel.	✓	✓			
Large scale switching to electric vehicles.	✓	✓	✓		
Significant increase in renewable generation.		✓	✓		✓
Reducing waste	✓	✓		✓	
Changes in agricultural methods to reduce the use of nitrogen fertilisers, changes in animal feeds, reduced intensity of livestock production and improvements in waste management.	✓	✓		✓	
Maintaining and increasing the size of the forestry and grassland carbon sinks			✓	✓	

Figure 6. Summary of the Carbon-Neutral Strategic Plan (Strategic Plan)

This section will review the (Carbon Neutral) Strategic Plan through the rich lens and context provided by the Panel outcomes described above. It will do so in three steps:

1. **Reviewing existing Strategic Actions (SA) and Commitments (C).**
2. **Proposing new SAs and Cs.**
3. **Reviewing relationships between SAs and Cs.**

For existing Strategic Actions and Commitments some rewordings are proposed, and for both new and existing ones, essential considerations and recommendations are put forward pertaining to each. In all cases, these must be seen from a systemic place-based view, which while summarised in the Regional Model, remains rooted in citizens' priority projects and their lived experiences. Equally, all recommendations must always be seen in a context of partnership-working between communities and stakeholders. They cannot be seen as actions which the Council or stakeholders implement unilaterally without considering the broader place-based picture.

## Existing Strategic Actions and Commitments

There follows a review of the existing Strategic Actions (SA) and Commitments (C) in turn, and in light of relevant Citizens Panel (CP) outcomes. Proposed changes to the original wording are underlined.

### STRATEGIC ACTIONS

**SA1: Partnership-working with communities, including young people, to enable and support changes by individuals and businesses through collaboration across a wide variety of activities.**

*(Original wording; Engagement with communities to encourage changes by individuals and businesses to enable collaboration across a wider variety of activities.)*

The proposed new wording is to change the emphasis from encouraging communities to make changes, to working in partnership with them to enable and support adaptation. The explicit mention of young people is to ensure their inclusion. They have expressed a strong desire to be a part of the conversations, with good reason, and within this project have demonstrated the invaluable contribution they have to make.

The new wording supports a step change towards partnership between communities, the Council and other stakeholders, in taking forward the Strategic Actions and Commitments. The Panel concluded new and effective models of partnership-working to be a fundamental underpinning of all other Strategic Actions and Commitments. The models they envisaged are qualitatively different from typical approaches to public engagement and consultation. They are agile, co-creative, adaptive and involve continuity of relationships, dialogue and shared learning

around local strategies and projects. While such models might at first seem complicated and onerous, the Panel felt that in the long run they would prove more efficient for all concerned. It was predicted they would save time and money spent on communications, public engagement and relations, and misunderstandings and entrenchment on divisive issues.

Figure 7 below is a proposed partnership-working model that emerged from Priority Theme 1 discussions with Expert Witnesses (SP1.1). It draws heavily on the current approaches of the Dumfries and Galloway Council Community Engagement team, and is informed by citizens and council officers' experience of what has or hasn't worked with public engagement, and why. The model is characterised by partnership-working with a local community group which satisfies equality and diversity criteria, from the earliest stages of a project until its completion. It assumes shared leadership, and the flexibility for plans, objectives and actions to change en route. This contrasts with typical public consultations where what and how things are implemented, and the discussion scope, are often predetermined, and form just one discrete stage in an engagement process.

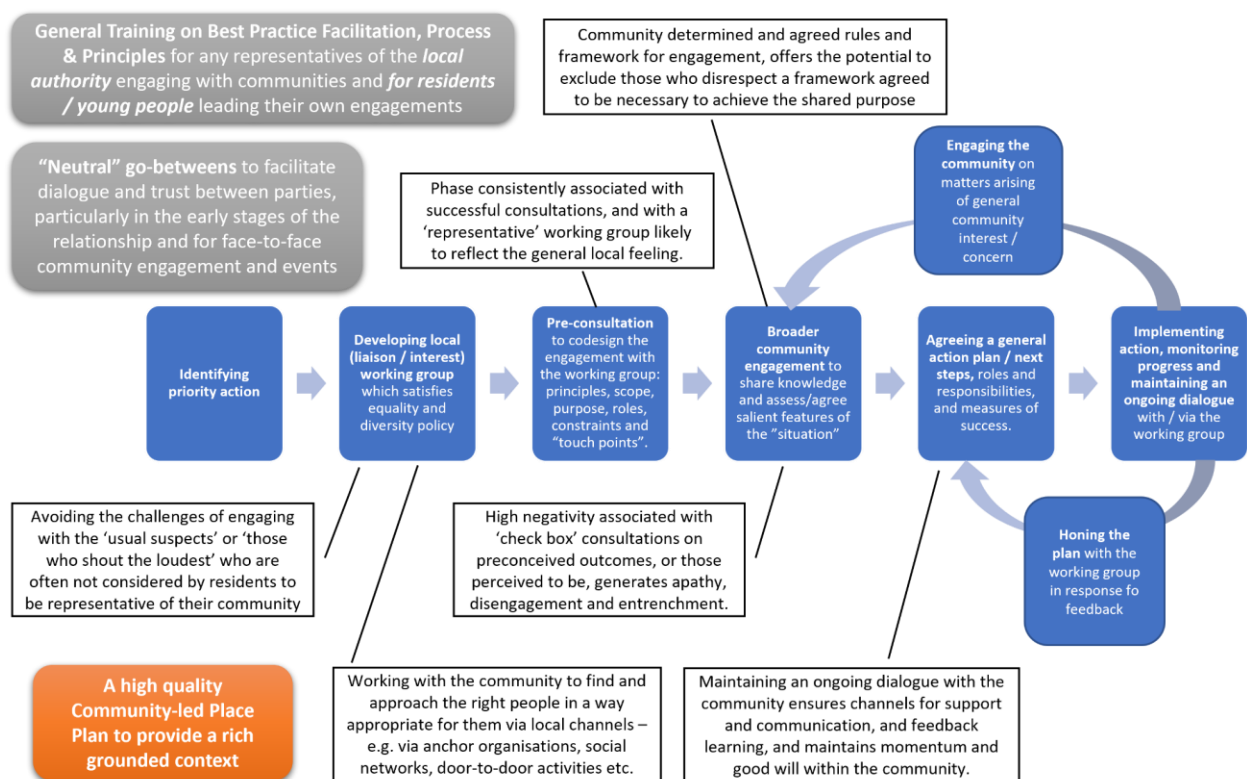


Figure 7. A New Model of Partnership-working

Panel discussions across the Priority Themes also highlighted other features and mechanisms important for enabling efficient and effective dialogue. These include a comprehensive Community-led Place Plan (see RM2 and SP1.2), strengthening anchor organisations and liaison groups to act as community intermediaries (see RM3 and SP1.4), and physical spaces

(e.g. Locality Hubs) which can provide a base for partnership-working and operations (see RM4 and SP1.4).

Nevertheless, the citizen's active hope for transition was tempered by a general scepticism that the Panel outcomes would be taken seriously, let alone inform implementation. Without meaningful evidence of commitment or implementation, any trust in and motivation for future participation, will turn quickly to apathy and disengagement. The severe implications of this for the Strategic Plan is why partnership-working became the foundation of the Regional Model, and the subject of a particular Priority Theme. It is also why this Strategic Action and its rewording cannot be underplayed.

While Priority Theme 1 has the greatest direct significance for this Strategic Action, the need for partnership-working manifested as a Sub-priority for many of the others. In discussions related to Flooding (PT4), the need for a meaningful dialogue around flood risk -management and response- emerged as the foremost Sub-priority. As such, it has been embodied in a new Commitment below (C7). Optimal Land Use and Management (PT5) also features a Sub-priority related specifically to the need for local partnership-working in developing and regulating optimal net-zero land use strategies. The strength of this feeling in communities about the related problems and opportunities cannot be overstated (SP5.6). Partnership-working is also an integral feature of Sub-priorities related to improving education and youth services (PT3), community wealth-building (PT2), and public education and campaigns (SP1.3; SP2.7 and 3.3).

## SUMMARY OF SA1 RECOMMENDATIONS

1. **Ensure that the Council recognises and upholds an ongoing commitment to the Citizens Panel; an elected member as Environment Champion (Declaration, Point 12); a Cross-Party Members Group (Strategic Plan); and a Council Officers Group to hold and represent the vision, priorities and progress of the Strategic Plan.** The Panel has identified a regional and local model of partnership-working to be the overriding priority for the Strategic Plan. These roles and groups were deemed an essential infrastructure for this partnership-working from the citizenry to the highest levels of decision-making around the Strategic Plan, and they remain so. Without them, the coordinated representation, collaboration, communication, education and monitoring required to progress regional net zero is inconceivable.
2. **Identify, model and replicate exemplars of effective partnership-working between and across communities, Dumfries and Galloway Council, the Third Sector, and other stakeholders,** including;
  - Strengthening anchor organisations and liaison groups to act as intermediaries (RM3).
  - Encouraging local campaigns to reduce, recycle and reuse waste (see SA7).
  - Facilitating multi-stakeholder groups around developing optimal land use strategies (see SA8 and SA9).



- Supporting local schools or colleges, young people, and communities towards aligning education and youth services around local wealth-building plans, capacity needs and opportunities (see SA10).
- Forming public education strategies, standalone or as a component of other projects and strategies (see C2).
- Supporting community-led enterprises which align with the Regional Model (see C5).
- Undertaking local monitoring, feedback on and regulation of net-zero strategies to identify and take action on harmful dynamics or unintended consequences of related policy (see C6).
- Facilitating Flood Liaison Groups to input on flood risk plans (see new C7).

Models such as Figure 7 can inform continuous, adaptable and flexible partnership-working, and iterative learning, including communities as integral long-term in enacting change.

3. **Provide guidance and support for the development of comprehensive Community-led Place Plans which model just transition in a local context**, including planning, community action and land use. A nuanced picture of local priorities and needs can facilitate partnership-working around adaptation and net zero targets, while providing a framework for regulating counterproductive dynamics and developments (see RM2, C2 and C6 for further context and details).
4. **Provide training support for best practice community engagement and facilitation; for all public-facing Dumfries and Galloway Council officers, community groups and intermediaries, and young people**. This could be informed by the experience of professional community facilitators within and outwith the Council, and the National Standards for Community Engagement. In particular, training citizens to facilitate their own engagement could represent multiple benefits, including greater buy-in around outcomes and cost savings.
5. **Employ external third-party facilitation for situations involving sensitive issues, or to initiate and mobilise partnership-working arrangements between Dumfries and Galloway Council, stakeholders, and communities**. Third-party perspectives can often identify opportunities not visible to those directly involved in a topic, while making it easier to manage conflictual or emotionally-charged situations.
6. **Prioritise the set-up of local hubs (e.g. enhanced Locality Hubs) and online networks**, to enable an interface and continuity of relationship between communities, the local authority and the Third Sector around local strategy and priorities. Essential criteria for an effective hub, includes:
  - space or storage for groups to use.

- a basis for ongoing community communication, outreach, engagement, education and liaison group recruitment.
- a channel for tailored funding or capacity-building support where required.
- peer-to-peer and expert networking and support.
- transparent conversations between Dumfries and Galloway Council and communities around resourcing, subsidiarity and shared responsibilities.

**SA2: Significant improvements in energy efficiency in building such as large scale installations of insulation including of solid walls, replacing windows and doors;**

**SA3: Installing zero carbon heating systems such as heat pumps and biomass and the possible use of hydrogen in future.**

No changes in wording are proposed for either of these two Strategic Actions. While neither was a direct focus for the Panel, discussions did highlight barriers and opportunities around implementation related to financing, support and education. Particularly in rural or deprived areas, the view was community wealth-building projects might help with outreach activities and funding support for local businesses and citizens. One win-win opportunity was a proposal that the Council might seek central funding to provide energy-efficient SME business spaces and affordable housing. This might include retrofitting existing underused elements of its estate and new developments. If provision was attuned to meet local need, this strategy would have the benefits of stimulating latent economic and wealth-building potential (see C2), while contributing to both of these SAs. Another proposal by the Dumfries subpanel was to support facilitating these changes via a door-knocking exercise conducted in partnership with communities, and which might be combined with other public outreach (e.g. the census). The aim of this was to listen to citizens, and learn about their household needs. The knowledge could then enable tailored support for energy efficiency improvements, while at the same time promoting community cohesion (RM7) and public education (C1).

**SA4: Change in the way we work and travel to reduce travelling and increased use of public transport and active travel;**

**SA5: Large scale switching to vehicles fuelled by renewable sources (e.g. electricity or hydrogen).**

*(Original wording: Large scale switching to electric vehicles)*

One change in wording is proposed to SA5 so as not to restrict renewable fuels to electricity only. The relative pros and cons of hydrogen-fuelled transport were also discussed by the Panel. The two SAs are grouped together to emphasise the win-win opportunity represented by an effective public transport system fuelled by renewable sources, This would have the potential to contribute significantly to SA5 through a strategy to achieve SA4.

Radical improvements to public and active transport were important for all participating communities, and formed a priority project for three of them. As well as meriting focus under its own Priority Theme (PT6) in the online phases, it was deemed one of the 5 pillars of Building Self-Sufficiency in Priority Theme 2 discussions. It also emerged as a separate Sub-priority in those related to Retaining Young People (PT3). Young citizens saw affordable access to study, leisure and employment opportunities from their communities as a material consideration in their decision to stay or leave.

PT6 discussions between the Panel and Expert Witnesses highlighted the fragile and fragmented state of the current public transport system. There were deep concerns that a perfect storm of factors was leading to a death spiral of bus and rail services. These included measures of success based on the profitability or efficiency of individual routes, rather than the integrity and utility of the system-as-a-whole. There were structural issues associated with privatisation and competition. Market dynamics tended towards consolidation and domination by a few operators whose service-related finances and decision-making were private and confidential. Moreover, non-competition clauses around proprietary routes limited the ability for the Council or communities to supplement insufficient service provision. The cost, red-tape and inflexible bureaucracy around commissioning new routes or modifying existing ones was identified to be another constraint on exploring more dynamic and adaptive approaches to provision. An additional recent pressure was the reduction of services following the COVID-19 pandemic, which had led to already attenuated lifeline routes becoming unworkable for residents (e.g. the X95 service to Carlisle). Citizens recounted a great many instances of the labours and inconveniences of having to use public transport. These included a 10-hour round-trip from Langholm to the Dumfries and Galloway Royal Infirmary for an Outpatients checkup, and insurmountable challenge for arrivals with mobility issues to Kirkconnel Railway Station. Several citizens had also trialled public transport once, and were permanently put off as a result of the negative experience.

The Panel was unanimous that the success of SA4 is contingent on *first investing* in a public and active transport system tailored to citizens' personal journey needs (SP6.1). Without this, encouraging citizens to try it out is “putting cart before horse”, and likely to result in aversion instead of increased usage. Service suitability, quality and tariffs precede the success of SA4, as do public education and incentivisation. This presumes two preliminary requirements. The first is a region-wide exercise to gain a detailed understanding of citizens' current and aspirational journey needs, and therefore, of near-and-long term levers for change. The second is upfront investment in infrastructural improvements and a joined-up transport system around these needs.

Figure 8 below summarises the 4-step strategy for achieving this proposed by the Panel (SP6.1). The arrows to the left indicate the iterative, rather than discrete, nature of these steps. The strategy presumes earlier stages are routinely re-visited in light of later learnings, in a cycle of continuous improvement.

**The 4 Steps are:**

1. Partnership-working with local communities to agree on a realistic theory of how to bring about SA4 in their Place.
2. Facilitating a high-response rate community survey to establish individual journey needs. (The questions appearing in the Figure were proposed by one young citizen from Langholm, and were later endorsed by all Panellists).
3. Collaborating with communities and private operators to tailor a joined-up service and route infrastructure to facilitate these journeys, and which integrates public and active transport options.
4. Working together with communities and operators to communicate, promote and incentivise take-up of the new services.

Regarding Step 4, the Panel highlighted incentivisation strategies with general applicability and value, and therefore worthwhile exploring at an early stage. This included removal of peak time charges for young people with free bus passes, which was felt to strongly defeat the object of the initiative. It was also suggested including rail travel in the free passes, and extending them up to 25 years to strongly embed use of public transport as a habit. An easy-payment travelcard scheme was another strong recommendation, with fragmentation of ticket purchasing and pricing across operators and services being a current disincentive. Finally, there was a call for good bike storage capacity by default on buses and trains, thereby guaranteeing space for those wishing to incorporate cycling for a leg of their journey. It was considered important to conceptualise, plan and communicate public and active transport as a joined-up system. This would always provide options for citizens journeys from A to B to combine different modes of transport, connected at key hubs. This concept underpinned the Dumfries Sub-panel's proposal for improving the town's transport system, covered in C2 and Figure 18 below.

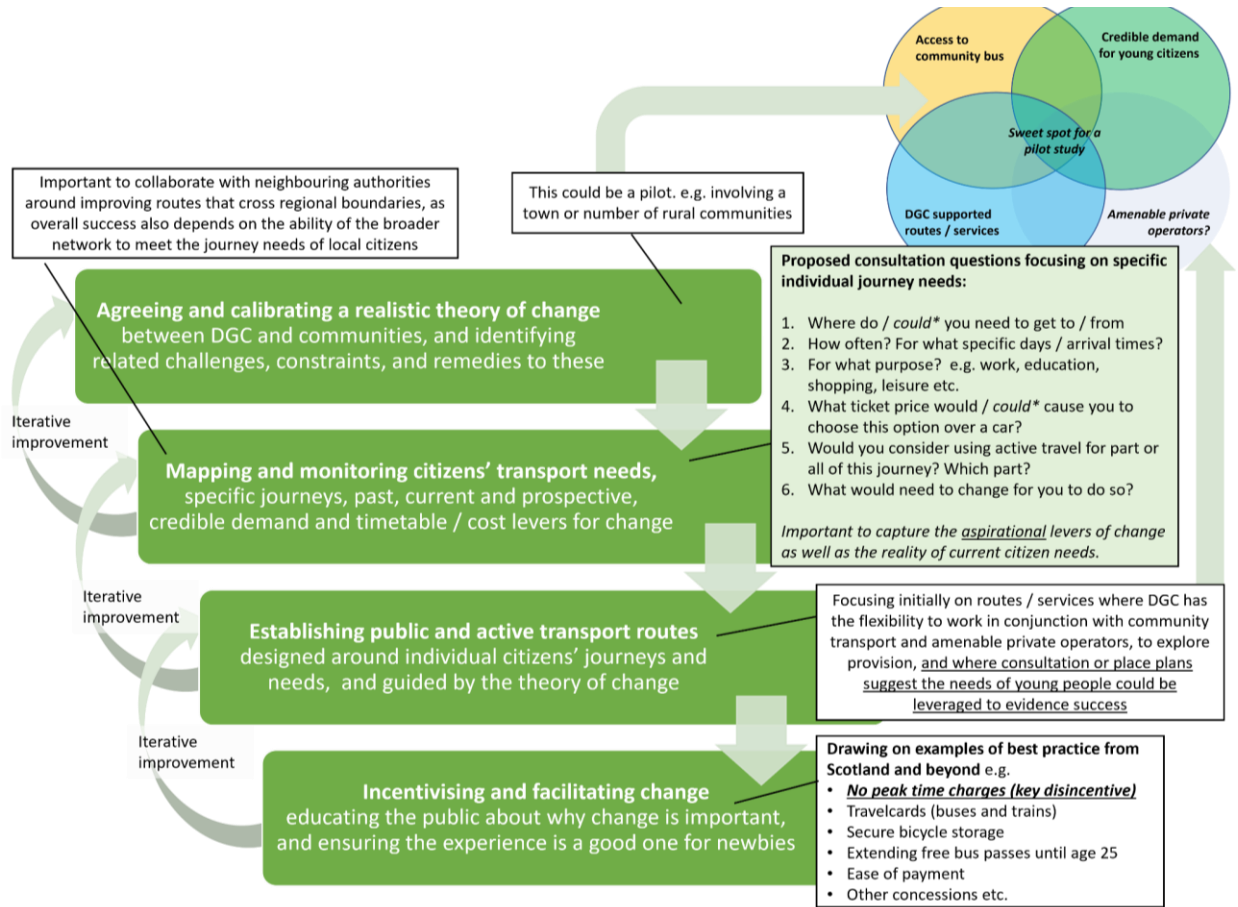


Figure 8. A 4-step Strategy to a Journey-centred Public and Active Transport System

The 4 Step strategy is considered suitable for a pilot or a region-wide application. Some **criteria to guide selection of a pilot** were implied by Panel discussions due to the need for immediate take-up and flexibility in service design. These were:

- Credible demand for services, particularly from young people.
- Availability of community buses.
- Council-supported routes unbound by non-competition regulations.
- And / or private operators amenable to open and transparent collaboration.

Of all Priority Theme discussions, PT6 features the strongest agreement and shared aspirations on ways forward between Citizens and Council Officers. The astonishing take-up of bus travel by young people since the introduction of free passes is felt to be an enormous opportunity and lever for culture change. As such, anywhere new bus routes align with young people’s journey needs, they can be expected to contribute significantly to SA4 (hence its inclusion in pilot selection criteria). Another key driver is rising fuel prices, which is putting growing pressure on household budgets, particularly for residents of rural communities lacking local services and employment. Older citizens spoke of public transport being the preferred option for many prior to the erosion of rural services since the 1980s.

Another key point made by the Panel with regard to SA5, was the need for sufficient EV charging points in rural communities. Community engagement around context for, and choice of, location was also deemed important. Citizens of Kirkconnel and Kelloholm spoke of how the lack of fast local charging points has caused huge inconvenience and delays for residents trialling electric vehicles. Moreover, many local homes lay some distance from car parking or potential charging locations, leading to concerns about the length or theft of cables, and whether suitable options were viable.

In summary, the Panel clearly identifies the low-hanging fruit of an effective green transport system more convenient and less expensive to use than petrol-fuelled cars. Habituating use of such a system by young citizens is seen to be a golden opportunity. Regarding SA4 and SA5, implementing the 4-step programme has the potential to kill two birds with one stone.

### **SUMMARY OF SA4 RECOMMENDATIONS**

1. **Pilot a project(s) to initiate a journey-centred public and active transport system using the iterative 4-step programme described above.** Application of the proposed selection criteria could help identify a fruitful area(s) for this. Glenkens and its communities, including St John's Town of Dalry, may be a suitable starting point. Extend or roll out the project across the region, leveraging evidence and learnings.
2. **Seriously explore enablers and barriers to implementing the general incentives towards use of public and active transport;** namely:
  - removal of peak time charges for young people using free bus passes.
  - extending young people's free bus pass to age-25 and to include rail travel.
  - Investigating easy-payment travelcard schemes across Dumfries and Galloway bus and rail services.
  - providing adequate space for bike storage by default on buses and trains, or in targeted stops and stations.

### **SA6: Significant increase in renewable energy generation.**

*(Original wording: Significant increase in renewable generation).*

The only wording change proposed is to add the word 'energy' for clarification. Otherwise, Panel outcomes give general support for this SA, on the basis of four interrelated provisos.

The first proviso is that the Strategic Plan only incorporates carbon accounting for renewable energy generated *and* consumed within regional boundaries. Dumfries and Galloway's broader contribution to national net-zero might be represented as 'added value' to be proud of. However, to include it directly in Strategic Plan calculations was regarded to be carbon-offsetting. This was felt to be misleading and incompatible with the vision of the 12-point plan, and could fuel a narrow focus on large-scale corporate developments.

The second proviso is that SA6 should also include an active emphasis and presumption in favour of community renewable schemes as a priority focus. In terms of the Regional Model, these were identified as having the threefold benefits of alleviating cost crisis pressures; building local self-sufficiency; and generating community wealth for reinvestment (e.g. for supporting local home and business energy efficiency). Participating communities were eager to set up community renewables schemes, but lacked the models, capacities and support required to progress them (see SP2.6).

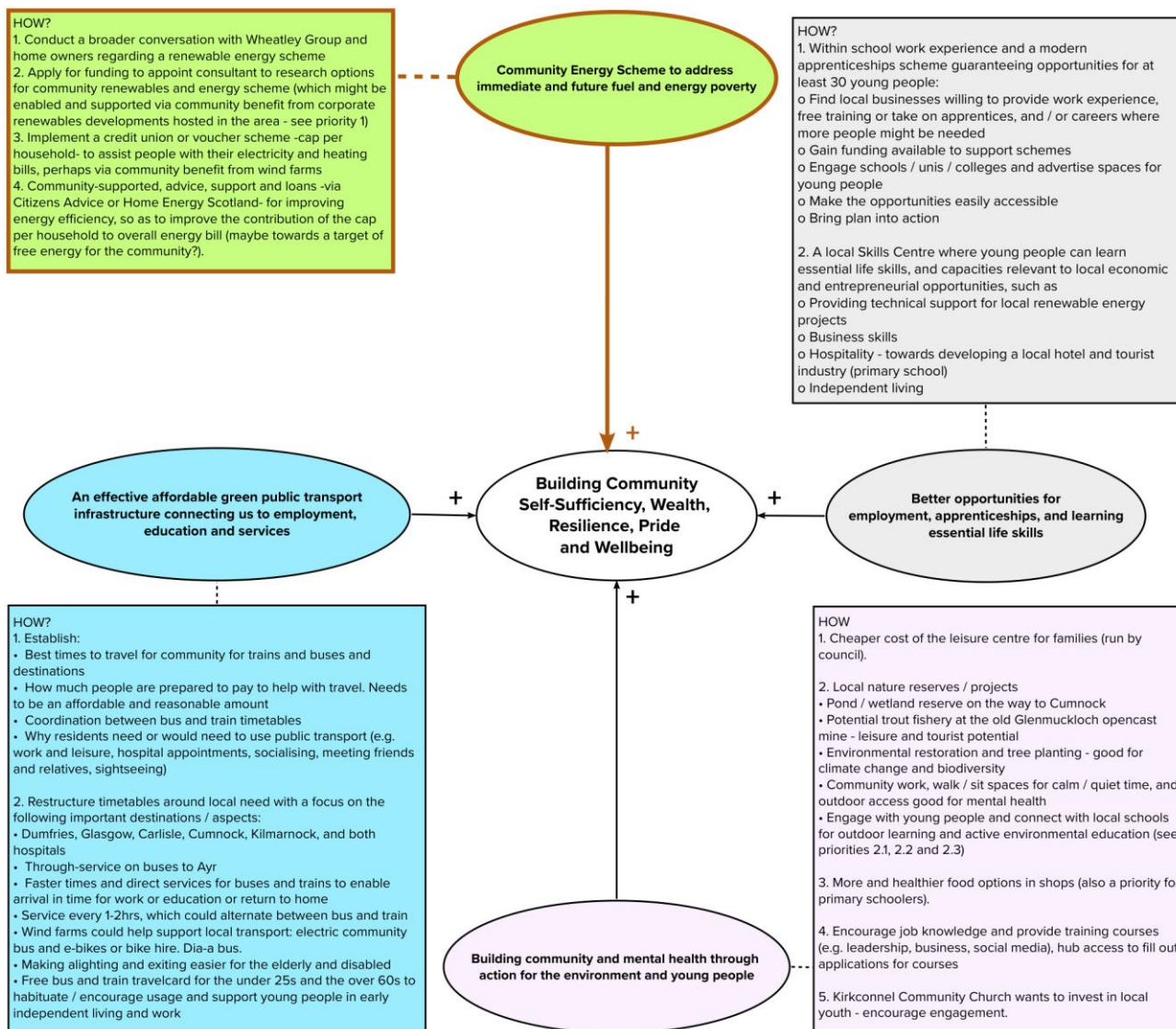


Figure 9. Kirkconnel and Kelloholm: community energy and wealth-building

Figure 9 above shows the outcomes of Kirkconnel and Kelloholm Sub-panel's priority project for community wealth-building and self-sufficiency. This includes as one of its four core features a project to mobilise a fair local community energy scheme. Many residents are struggling with rocketing electricity costs, in a Community where much of the skyline is lined by huge wind farms. The Figure also shows how alleviating energy costs and generating income aligns with other features of the wealth-building strategy. These include aspects contributed by the young citizens around upskilling to promote local employment and entrepreneurial opportunities (SA10), including a new Skills Centre. Also relevant, is a proposal for a community action around local environmental restoration projects. In terms of an overall integrated strategy, the fundamental importance of public transport improvements should also be noted (SA4; SA5).

The third proviso is a 'best value' framework which can ensure corporate renewables developments make a transformative contribution to the wealth-building strategies of their host communities. This framework could provide a range of options for contribution. These might include support for community energy schemes; statutory requirements for profit-sharing; community-benefit agreements unrestricted by corporate funding criteria; or commitment to upskilling rural communities towards their providing local technical support services.

Figure 10 below summarises a focused table discussion, also by the Kirkconnel and Kelloholm Sub-Panel, the participating community with the longest experience of negotiating with renewables developers. It sets out systems dynamics related to a transformative vs a tokenistic framework. Anecdotal evidence provided by the Panel suggests discretionary community benefit agreements are on the decline due to cost pressure claims, and that the first Scottish development with none in place was granted recently. With planning decisions for larger developments reserved by the National Government, there are concerns that this gives even less reason or motivation for corporations to engage meaningfully with local communities or the Council. The framework envisaged would not impose an unfair burden on the large corporations involved. Rather, it recognises that a portion of the profits of a large development easily absorbable by them, can be completely transformative for their host communities.

Kirkconnel and Kelloholm are a standout exemplar of the potential and the opportunities represented by strong agreements and relationships with local operators. As well as generating income towards those wealth-building aspirations shown in Figure 10, there was the idea that the new Skills Centre might align with the needs of local renewables developments. This, in turn, could enable a new community enterprise to provide technical support (discussed further under new Strategic Action 10). In either case this can be considered a win-win from the perspective of the Strategic Plan and Regional Model.



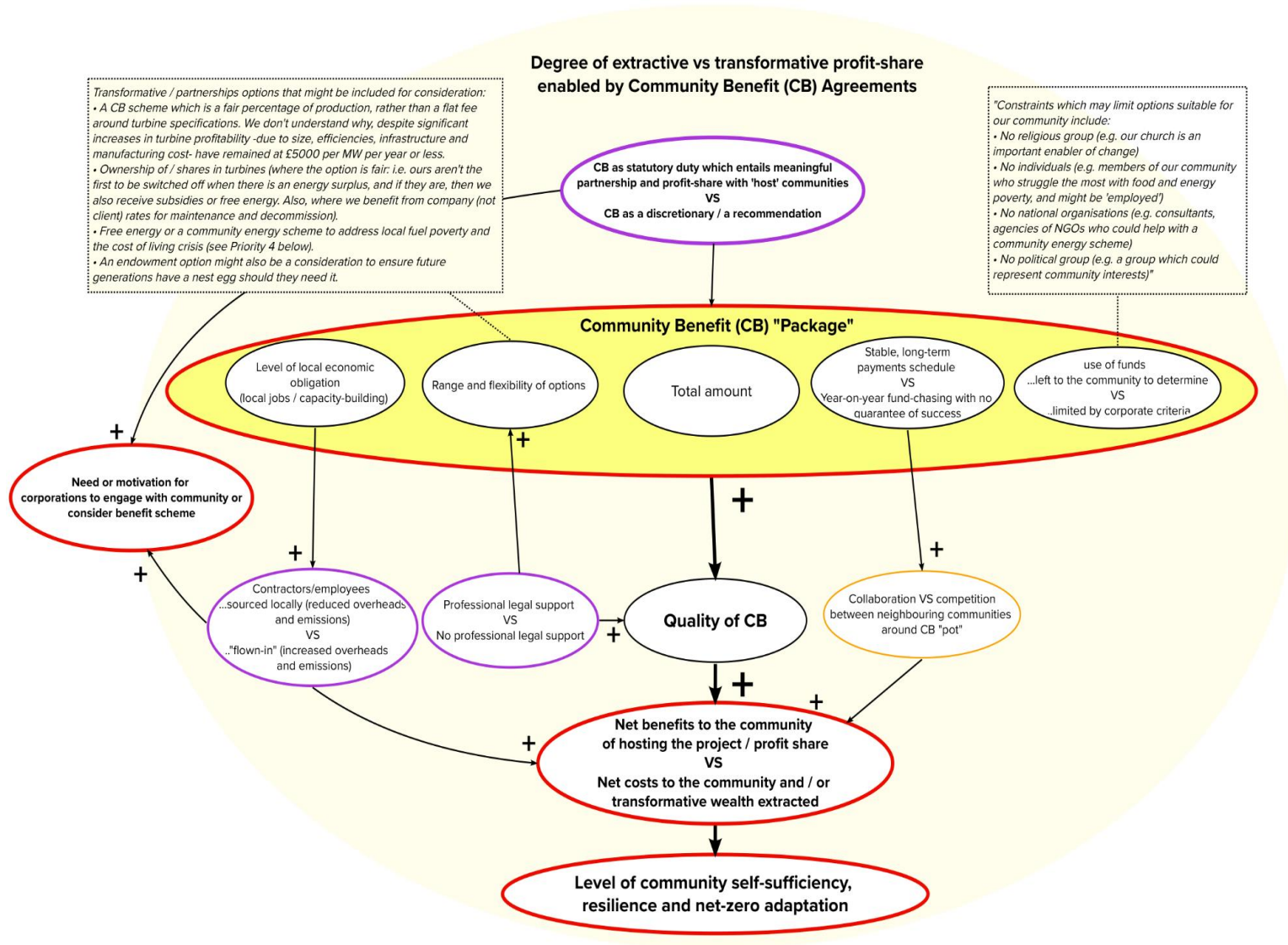


Figure 10. Community Benefit

The fourth and final proviso is greater appreciation and regulation of where renewables developments may compete with or undermine other core aspects of the Strategic Plan and the Regional Model. These include core elements of community wealth-building and self-sufficiency, such as farming (see SA8 and SP5.3); developments on farmland, peatland or organic soils (see SA9 and SP5.1); or local ecotourism or environmental restoration propositions (see C6 and SP5.5). Regarding the latter, one Panel proposal was that operators might be encouraged to bequeath sites to host communities for restoration post-decommissioning, while allowing for work to begin during operations. This would enable energy and environmental aspirations to be taken forward under the Strategic Plan concurrently.

To inform responsible evaluation and decision-making, the Panel made an urgent call for more independent research on the impacts of renewables developments. Key foci were those on local ecologies and economies, and of the whole lifecycle from manufacturing through to decommission. This was based on legitimate concerns and firsthand experience regarding the effects of developments on drainage, biodiversity, peatland soils, and of pollution from runoff and plastics leaching from blades. If the totality of these factors was fully understood, it was felt it would ensure a more careful approach to sites, design and practices. It might also temper any assumption that large-scale renewables developments were wholly consonant with the Strategic Plan. The vital importance of effective research and regulation is dealt with in more detail under the newly proposed Commitment 6 below.

In summary, the Panel has identified there may be significant risks associated with pursuing SA6 solely on face value. Successful application requires a careful and balanced consideration of how each development and overall measurements might contribute to or undermine local and regional transition strategies. The Panel has emphasised that research, and a deep understanding and respect for the nuance of local needs and context is fundamental to this. Without them, there can be no certainty that this SA is being implemented in a way consonant with the Regional Model and Strategic Plan.

## SUMMARY OF SA6 RECOMMENDATIONS

1. **Within the Strategic Plan only account for carbon reductions associated with renewable energy generated and consumed within the region**, to avoid carbon-offsetting in net zero calculations. Nevertheless, the wider energy contribution of the region to net zero might still be measured as an 'added value'.
2. **Emphasise community renewables and related support requirements in the implementation of the Strategic Action.** This is proposed on the basis of the essential contribution this would also make to a just transition, by building community wealth, self-sufficiency and resilience and alleviating the cost crisis. It is a golden opportunity highlighted by all communities participating in the Panel (see SP2.6).
3. **Implement and lobby for stronger measures which can ensure corporate renewables (and forestry developments) contribute transformatively on the transition plans of their host communities, not tokenistically or harmfully.** Ideally,

this would entail a statutory duty or 'best value' framework which requires collaboration around mutually beneficial and acceptable agreements. This can encompass profit-sharing arrangements; community benefit agreements; commitments to employment or upskilling communities towards technical support outsourcing; and / or bequeathing the site to the community upon decommission. Equally, where proposed developments could impact on a community's plans for wealth-building and just transition, their CLPP Plan and / or agreed position on the development, should be a material consideration which carries due weight in planning decisions.

4. **Investment in independent research to assess the impacts on renewables development on the local ecology and through whole project lifecycles.** Priority foci include pollution from run-off, impacts on water systems and organic soils, and carbon accounting associated with manufacturing, construction and the decommissioning process. This empirical evidence is necessary to establish a reliable assessment of the carbon benefits of SA8.

## **SA7: Reducing waste.**

No changes in wording are proposed.

SA7 also gains general support from Panel outcomes, and was central to two priority projects. Both of these were led by the youngest citizens, who see tackling litter and reducing waste as an important demonstration of community care and pride. For them, this is a foundation of positive experience of place, mental health and the motivation needed to take forward projects together as a community. They felt the lack of them contributes to local antisocial behaviour and their own decisions on whether to leave, stay or return when older. Figure 11 below sets out the details of the priority project for young citizens from Kelloholm Primary School (and includes a rap!).

Both priority projects to reduce waste include public education and partnership-working as core elements of their proposals. Panel discussions related to Partnership-working also highlighted the importance of this. Citizens spoke warmly of the Dumfries Town Recycling Project, where the community and Council had co-produced and implemented a successful waste management and communications strategy (see SP2.9). This was recognised to be an outstanding example of effective collaboration between the community and Council, and one to learn from, model and replicate.

PRIORITY PROJECT: A strategy to take action on litter and recycling in our villages, and educate residents on why it is important

AIM: A Community who cares as much as we do about litter and recycling

WHY IS THIS IMPORTANT?

- Litter makes us depressed as it looks horrible, spoils the places we use and play, and shows people don't have pride in or care about the place we live
- Waste is bad for the environment and climate change

HOW WILL WE DO IT?

- A local young-person-led campaign (THE BOOM SQUAD) to educate the local community on how we feel about litter and why it is important (we would use TikTok and YouTube and social media to get the message out - see our RAP and LOGO).
- Bins that walk and talk and encourage people to dispose of their litter and dog waste responsibly, or follow and shame those that don't! More dog poo bag dispensers and bins.
- Implement a local scheme where glass or plastic bottles are reused (refilled), or returned to the shop for money, rather than having people buy a new one (these are responsible for a lot of the local litter)
- Find ways of making useful things out of the plastic bottles: art or sculptures, or bins and containers
- Reducing use of single-use plastics and other non-biodegradable packaging in shops.
- Increasing the amount of food and biodegradable waste we compost locally.
- (YP) Introduce designated smoking areas to reduce litter and create more smoke free environments



THE BOOM SQUAD RAP (our campaign name and logo)  
 "Listen up friends, we have to help our planet  
 Or we could be living in a garbage can  
 Just save your glass and your tin cans and plastic  
 too  
 Recycling is the thing to do  
 Tell your brother tell your sister, and your mama too  
 Recycling is the thing to do  
 Gather up your paper, don't throw it away  
 Your plastic bottles could be used again someday  
 If you don't recycle the planet is going to go boom  
 boom boom one day"

Figure 11. The "Boom Squad"

Also implicit in the young citizens' priority projects is the aspiration to take greater responsibility for local waste management, with the Kelloholm Primary School project including local composting, recycling and reusing. Several participating communities expressed similarly on the basis of improved sustainability and convenience, in discussions related to Building Community Self-Sufficiency (PT1). Expert witnesses placed particular emphasis, and value, on reusing, as every item reused locally is one less that needs to be manufactured anew and shipped from elsewhere. Technically, related emissions reductions fall outwith carbon accounting for the Strategic Plan. However, this is an excellent example of where and why extra-regional impacts should be a material consideration in decisions around implementation. In this respect, Stranraer Recycling Shop was held up as an exemplar of a community successfully taking these challenges into its own hands. Facilities like these could provide the basis for replication and capacity-sharing through peer-to-peer learning, support and networking across the region.

## SUMMARY OF SA7 RECOMMENDATIONS

- **Identify, support and promote development of community-led recycling projects, and related peer-to-peer support networks.** Emphasise 'reusing' as the gold standard for the Strategic Plan, and where Stranraer Recycling Shop is an oft-mentioned exemplar.
- **(Incorporated into SA1 recommendations) Co-develop public education and campaigns to tackle and reduce local waste in partnership with communities and young people.** This recommendation recognises the importance that cleaning up

communities can have on civic pride and motivation in setting the ground for grassroots transition (see also C1).

## **SA8: Co-designing a whole-systems net-zero strategy to protect and support regional farming.**

*(Original wording; Changes in agricultural methods to reduce the use of nitrogen fertilisers, changes in animal feeds, reduced intensity of agricultural livestock and improvements in waste).*

A complete rewording is proposed, to widen the narrow focus on carbon emitters and to promote evaluating regional farming's net-zero impacts from a whole systems perspective.

Farmers representing all the communities except Dumfries participated throughout the Panel discussions. Outcomes would have been considerably poorer without their invaluable perspective and contribution. They have highlighted just how fundamental regional farming is to the Strategic Plan when viewed from a holistic perspective. It is essential to protecting and building food security, community self-sufficiency and rural skills. It mitigates emissions from 'offshoring' production and if the restoration of local food systems are supported, from those associated with the global food industry and imports. Farmers also highlighted the many hidden ways in which their practices might already be consistent with optimal net-zero land use approaches. These include stewarding the health of peatland, drainage systems, organic soils, and the ecosystems and vulnerable species (e.g. curlews) which have co-evolved with traditional practices. They have demonstrated just how vital this knowledge and experience is to the partnership-working needed to develop these stratagems, as already articulated in SA1 (see also SP5.6).

At the same time, farmers expressed grave concerns about the fragility of current systems. They highlighted a perfect storm of market and policy pressures which together, could represent an existential threat to regional farming. Significant among these, were those associated with the national net-zero strategy. These include persecutive carbon accounting, 'land-grabbing' for carbon credits, and use of good farmland for renewables and commercial forestry developments. The latter was flagged as a material concern, as it constitutes an irreversible change of land use and permanent reduction in regional farming capacity. Impacts and risks are clear and present, with all the participating rural communities citing the recent loss of farms. One (Langholm) lost five in the few months between the face-to-face and online phases of the project (Sub-priorities 5.3 and 2.5). The urgent need to understand and regulate these disturbing dynamics is dealt with under Commitment 6.

The Panel articulated three vital considerations towards implementing SA8 responsibly and safely. The first is the need for a fair, representative, and effective framework of carbon-accounting. This requires simple easily-repeatable and generalisable measures, where ideally,

one assessment could satisfy council and multiple supply chain carbon-reporting requirements. The burden of the latter grows ever more onerous for farmers. Most importantly, it needs at the same time to be sufficiently adaptable to unique and diverse farming contexts and practices. This is necessary to ensure local or historical factors which might be prejudicial, or missing, from the perspective of a generalised carbon assessment, are appropriately considered. One example farmers was the shallow soils and lack of woodland and hedgerows in the Rhins due to natural or historical factors. Another, was the role that light grazing and controlled burning plays in maintaining wet peatland and local species in the uplands. They also mentioned the use of clover and silage instead of fossil-fuel fertilisers, which saves on the significant extra-regional emissions associated with production of the latter. This is another example of how practices benefiting regional *and* global transition might be overlooked if carbon impacts outwith the specific remit of the Strategic Plan do not remain a material consideration.

The farmers also argued that a fair framework must also incorporate impacts associated with the global food system, of which their farms typically constitute relatively tiny and sustainable nodes. Again, although related emissions are not technically included within the Strategic Plan, they focus SA8 on the comparative benefits of two net-zero scenarios which are of direct import to it. The first of these is the 'local' vs 'global' farming scenario. This highlights the advantages of a more localised food system to building community self-sufficiency, wealth and resilience, and of the reduction of food miles and overall global supply chain emissions. The second is a 'farm' vs 'no farm' scenario. Here 'no farm' results in the loss of the opportunities described for the first. It also 'offshores' emissions by displacing production to locations where the consequences are frequently even worse for nature and the climate. Neither the 'global' nor the 'no-farm' scenario are at all consistent with the purpose and principles underpinning the 12-point plan.

Figure 12 below gives an overview of a framework which emerged from a focused table discussion of farmers. The first image and box to the left represents how their farms are viewed prejudicially under the previous SA8. The second and third provide ideas and guidelines for how their net zero impacts and contribution might be properly assessed from a whole systems perspective. Here, scenarios and supply chain impacts might be considered in the form of a 'carbon plus' consideration.

The Panel took the view that this framework necessitated grounded ecologically-valid research with farmers, in order to ensure a rich systems perspective which incorporates local knowledge and ecosystems. It also presumes a greater appreciation of the features, dynamics and impacts of the global food system, and the region's role in this. Figure 13 below summarises the steps a research programme might take to consider these parallel objectives. In summary, without enriching and broadening the context for a carbon accounting framework, the Panel has identified the significant risk of demonising or deprioritising regional farming. The result could be irreparable harm to the region's farming capacity, when the systems' perspective shows it to be a keystone of self-sufficiency and a net-zero strategy.

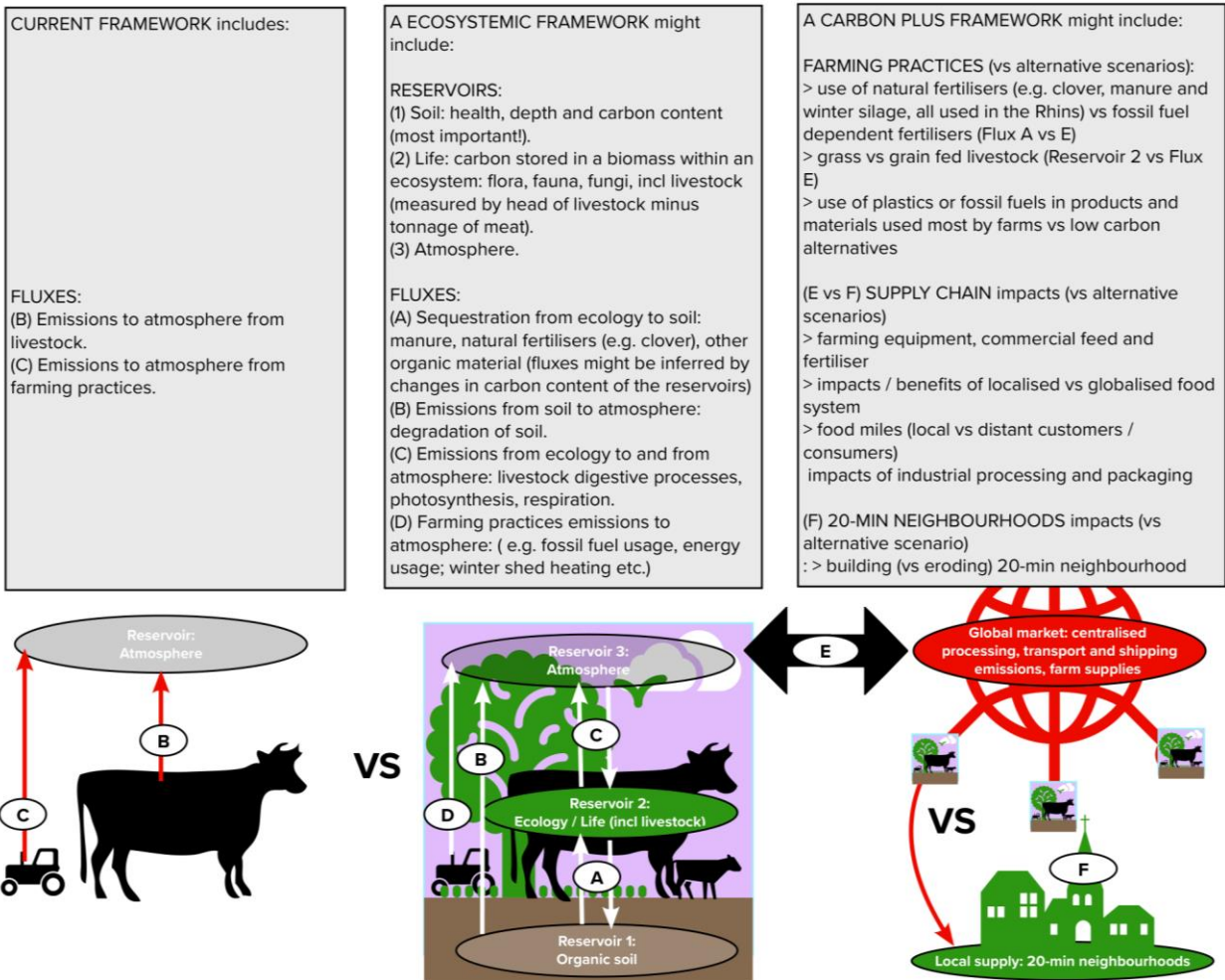
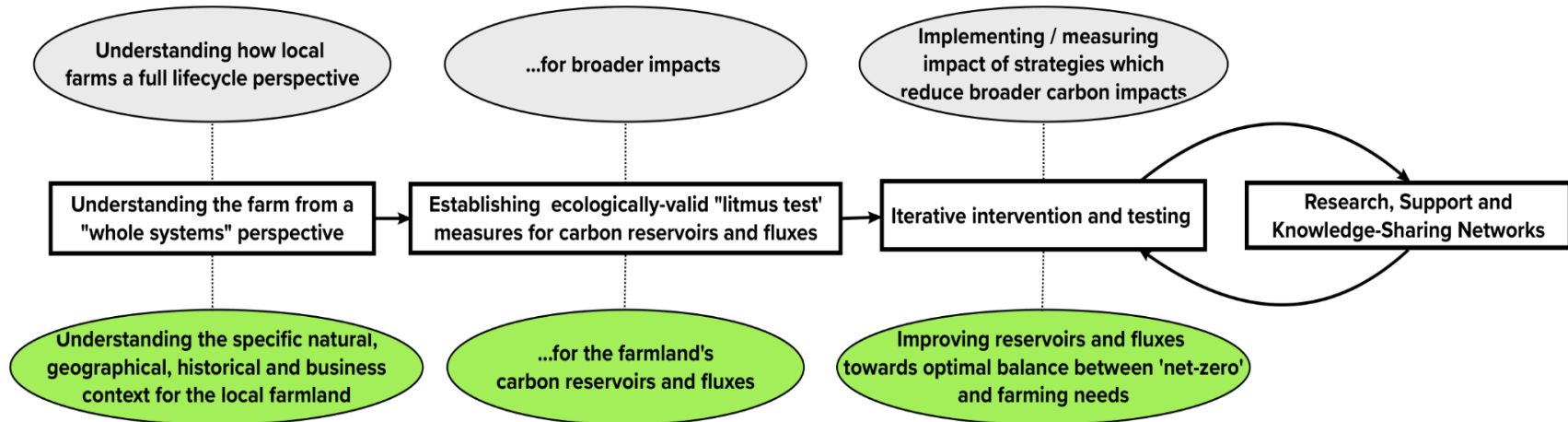


Figure 12. Proposal for a Fair, Representative and Effective Carbon Accounting Framework for Farming

The Panel's second consideration relevant to SA8 is the potential to re-establish local food systems. Farmers spoke of market forces and food costs which had reached a point where this may again be financially viable for them and their communities. They also highlighted the need to restore the local infrastructure necessary to enable this, and which had been lost over the decades (e.g. abattoirs, dairies and processing facilities).

Regarding this, farmers proposed a key intervention point could be to devolve public sector food procurement to local schools and offices, incentivising purchasing from local producers. In their view, a few large customers could reduce risk, and provide an essential beachhead for re-establishing the local food supply, around which enabling infrastructure might take shape. Partnership-working with local farmers towards co-producing a local food strategy aligns with this intervention, and could form a core element of Community-led Place Plans. These proposals are dealt with in more detail under Commitment 2 (see also SP2.1).

**FARM SYSTEM ASSESSMENT:**



**FARMLAND ASSESSMENT:**

FARM SYSTEM ASSESSMENT: IDEAS FOR RESEARCH AND SUPPORT:

- Establishing contextually specific case studies and simple measures of carbon impacts of farm produce from a longitudinal / lifecycle perspective, e.g. livestock from birth, through processing, to end-use and consumption.
- Research Supply Chain - where is biggest impact that can be made
- Supporting the setting up and development of knowledge-sharing networks: traditions and research.
- Researching traditional uses of natural fertilisers – clover and winter slurry spreading, peas, rye, seaweed– which recycle or capture carbon, and establishing measures for comparing them with fossil-fuel based ones.
- Supporting farmers in transitioning to more carbon-friendly options for the bought-in materials they most use -e.g. locally-sourced feed, effective recyclable plastic wrappers for hay bales.

FARMLAND ASSESSMENT: IDEAS FOR RESEARCH AND SUPPORT:

- Understanding and measuring "Life" -biomass / biodiversity- as a carbon reservoir, and its associated fluxes, and incorporating as an essential component of a net-zero strategy
- Understanding the farm from an eco-systemic perspective, and how farming has coevolved with and relates to the health of local habitats, soil and biodiversity.
- Establishing ecologically-valid measures of livestock emissions, which take into consideration context-specific conditions and diet.
- Developing a simple and inexpensive framework and methodology for measuring soil health and carbon content for farms or farming regions.

Figure 13. Steps to Establishing Fair, Representative and Effective Farming Measures



The third and final consideration is the fundamental limit pricing imposes on farmers' freedom and ability to implement change. They spoke about how market-driven efficiency and specialism, overseas competition, and the cost crisis, are attenuating margins to breaking point. Many are unable to employ staff beyond their immediate family or comfortably cover overheads, let alone invest in a net-zero strategy. Higher-pricing or subsidies which incentivise related improvements could, and are, making a difference. Farmers in the Rhins talked highly of Nestle's "First Milk" as a local private sector model, which rewards evidence of climate action with higher pricing. The Panel also highlighted areas where farmers might usefully be subsidised for practices which contribute to a local net-zero land use strategy. These include restoration of peatland (SP5.1) and biodiversity (SP5.2), or natural flood management (SP4.3).

## SUMMARY OF SA8 RECOMMENDATIONS

1. **Establish a framework for fair, representative and effective carbon accounting in partnership with local farmers;** referred to also under the Recommendations for SA1. Broadening the scope of the carbon accounting framework to reflect the benefits afforded by local farming practices and contexts across the region (e.g geography, ecosystems and traditional practices). This includes whole-systems carbon and 'carbon plus' accounting, and the advantages of a local/regional food system in relation to local wealth-building, food security and emissions reductions.
2. **Coproduce and implement a pilot(s) towards re-establishing a local food system in partnership with farmers, the NFU, local schools and communities, and which includes devolving food procurement to local schools and Council offices.** A pilot should also seek to satisfy the carbon and 'carbon plus' measures for net zero farming proposed above, and explore opportunities to fill gaps in the regional supply chain infrastructure (e.g. processing and packaging), supporting their re-/establishment as part of local wealth-building and education strategies. The outcomes of a successful pilot could provide the basis for a regional roll out, while clarifying key considerations for enabling a net-zero farming strategy and system.
3. **Review, endorse and / or implement higher-pricing or subsidy models which can help incentivise net zero farming and local food strategies.** This recommendation is in recognition of the challenge that market-driven efficiencies, global competition and increasing overheads place on farmers. Examples include introducing higher pricing models through public procurement and subsidies for land use strategies aligned with adaptation and the net-zero strategy (see PT5). Nestle's "First Milk" in the Rhins was held up as a good exemplar of a higher pricing model.

## **SA9: Maintaining and increasing the size of peatland, wetland, organic soil, marine, forestry and grassland carbon sinks.**

*(Original wording; Maintaining and increasing the size of forestry and grassland carbon sinks.)*

'Peatland', 'organic soils', and 'marine' are added, as the Panel identified them as significant carbon sinks it would be useful to focus on as separate categories.

Peatland is distinguished from wetland and named first to emphasise the Panel's view that it represents the Strategic Plan's single greatest 'low-hanging fruit' carbon-capturing opportunity. The integrity and extent of peatland across the region was noted, as was the unequivocal evidence regarding the importance of soil health to global climate aims. Given this, there was a unanimous call for widespread action on restoration and stronger policy protections.

With regard to policy, the Panel argued strongly for the need for coherent overriding policy protections for peatland. They highlighted the incidence of large-scale local commercial renewables and forestry development on peatland, due to climate policies which prioritise the former, trumping those intended to protect the latter. It was considered important for peatland value to be defined in policy by *extent* at a large scale, not by *depth* at a small-scale. A focus purely on depth permits developments on patches of shallower soil which risk fragmenting and degrading larger areas. It also obscures the potential of collaboration around restoration between farmers and landowners across property boundaries. In addition, the Panel proposed these policy presumptions of care should extend in some way to *all* organic soils in the region. This was on the basis of their value as a carbon captor and reservoir. It may also draw attention to the essential role farmers play in stewarding soil health (see SA8).

The Panel warned strongly that without urgent policy and action, there was a significant risk peatland could turn from the region's biggest potential carbon sink, into a major emitter. Panellists highlighted the large developments, summer droughts and the loss of hill farm management and grazing, and how these were promoting peatland fragmentation, drying and the risk of catastrophic fires. Regarding the latter, the widespread Fylingdales Moor blaze was given as an example of the devastation and permanent damage that can result.

Forestry was acknowledged to be a vital carbon sink and strategic priority. Nevertheless, the Panel also argued strongly of the risks of too narrow, simplistic and uncritical a view on the benefits of commercial forestry. They identified an urgent need for a more effective framework of research, policy and regulation to ensure commercial forestry does not unintentionally undermine the Strategic Plan in other ways. Areas of serious concern are where large-scale developments entail permanent conversion of peatland or farmland (see SA8), or compete with the transitional needs of host communities (see C2). Another, is the predominance of Sitka Spruce plantations over mixed native woodland. A strong point was made about the susceptibility of monocultures to disease and the evidence of the devastation this can cause from elsewhere. There were fears that a single epidemic could rapidly transform commercial forests across the region from vast carbon sinks into vast emitters.

Furthermore, compared with native or mosaic forests, panellists noted Sitka's relative lack of native biodiversity, and negative impacts on the water and soil environment. The need to consider this factor is one reason why the Panel prioritises the need to incorporate biodiversity measures into carbon-accounting (see C4 below). It was felt that there was a lack of genuinely critical research regarding the impacts and comparative merits of Sitka plantations in the literature, and this gave the impression of confirmation bias. All this considered, the Panel felt market economics and a 'quick-win' mentality may be more the guiding principles in related decision-making, than a true, careful commitment to net zero. The general and urgent need for an effective framework of net-zero research, policy and regulation is dealt with under the new proposed Commitment 6 below.

Finally, the Panel highlighted the golden opportunity blue carbon could represent for the Strategic Plan. This was argued most strongly by the Stranraer Sub-panel and most vocally, by its youngest citizen. For Stranraer, blue carbon constituted an exciting, significant and largely-unexplored route for the Strategic Plan. The restoration of local seagrass beds was mentioned, as was the potential of resurrecting use of seaweed as a substitute for industrial fertilisers. With a coherent programme of research and action, it was argued the restoration of Dumfries and Galloway's coastal environment could make a huge contribution to balancing its greenhouse gas inventory. Also highlighted, was the potential for this to align with community wealth-building strategies by opening up new market and / or educational opportunities.

## SUMMARY OF SA9 RECOMMENDATIONS

1. **A coherent policy and strategy to prioritise protection and restoration of peatland and organic soils;** through policies/subsidies which prioritise extent of soil cover as well as depth. An integrated land management strategy must recognise the importance of traditional farming (e.g. light grazing) and estate management (e.g. heather burning) in maintaining peatland health, and the enormous potential of Tarras Valley Nature Reserve as an exemplar for community-led environmental restoration.
2. **Comparative analysis of the benefits of Sitka plantations vs other diverse/mosaic forestry approaches.** These include impacts on biodiversity, water quality, flooding, soil health, and whole supply-chain assessment (e.g. longevity of products and contribution to waste). Impacts on local land use needs and wealth-building strategies should also form part of the assessment criteria.
3. **Active investment in, and exploration of, opportunities related to blue carbon; including the currently unaccounted for potential for carbon-reduction.** Here, restoration of sea grasses and other species/ecosystems could provide a wealth-building opportunity for coastal (or other) communities, using a similar model of community-led environmental restoration. This offers another way for Dumfries and Galloway to lead on net zero: by activating new research and market opportunities around blue carbon reduction practices.

## COMMITMENTS

### **C1: Encourage understanding of how the way we live in the region impacts on climate change.**

No change in wording is proposed, and the Commitment is supported by the Panel.

However, the Panel argued strongly that effective public education requires collaboration between communities, authorities and experts. Discussions under every Priority Theme have surfaced significant oversimplifications, misunderstandings, knowledge gaps and differences of perspective with regard to regional climate impacts, on both sides of the table. They have shown how differently climate impacts are perceived and expressed from the community perspective, and how this can vary between Places. This has highlighted the dangers of general assumptions with regard to remedies and messaging, and the need for a more nuanced and collaborative approach to public education. The ideal is the shared local awareness and conception of impacts which emerges through partnership-working around Community-led Place Plans, or codesign and implementation of the Strategic Actions (RM2). This embeds understanding of how citizens impact on climate change in their day-to-day lives, experiences and language, in ways more likely to motivate dissemination and change. The Panel stressed the benefits of developing net-zero strategies, campaigns and messaging in partnership, and to the Council of sharing the burden of public relations (see SP1.3). The Dumfries Recycling Project was frequently cited as a successful example of this, and indeed as a good model for partnership-working in general. In summary, the word ‘understanding’ within this Commitment should be considered to apply to both authorities and communities equally, and be a product of partnership-working, not of one party ‘educating’ the other.

#### **SUMMARY OF C1 RECOMMENDATIONS**

- **Co-develop net-zero communications, messaging and public education through local partnership-working.** Recognising that while climate change and net zero are abstract and divisive subjects, community sustainability is usually a goal shared among citizens. As such, public education can be most effective when it is intrinsic to local wealth-building strategies and/or concrete actions arising from Community-led Place Plans or similar engagements. This enables citizens to develop and promote an understanding of net zero and transition through the lens of specific grounded local needs and priorities, employing their own terminology and rationale (see Recommendations for SA7 and SA1). From the citizens perspective, the Dumfries Recycling Project is considered a standout example of where this approach has worked well, and a model to understand and replicate.

## **C2: Working in partnership with communities, including young people, and stakeholders, to make significant changes to reduce emissions and adapt to climate change and a low carbon approach.**

*(Original wording: Empower communities and stakeholders, to make significant changes to reduce emissions and adapt to a low carbon approach)*

Several wording changes are proposed to Commitment 2 to better align it with Panel outcomes. The first replaces ‘*empower communities*’ with ‘*working in partnership with communities*’. This is to further reinforce the approach the Panel considers to underpin the design, actioning, evaluation and regulation of all adaptation projects envisaged under the Regional Model. From the Panel’s perspective, therefore, this provides the opportunity for the Council to realise this Commitment through the implementation of every Strategic Action, and particularly, SA1. ‘*Young people*’ has also been added to embed their desire and right to participate, and in recognition of their distinct and essential contribution to Panel outcomes. Finally, ‘*adapt to climate change*’ is included. This is because some of the Regional Model’s Features or Sub-priorities do not focus directly on carbon reduction, but rather on facilitating systemic changes which necessarily underpin a low carbon approach. In the early stages of the most logical local transition plans, emissions may increase in the short-term. For example, as a result of community wealth-building projects or investment in public transport infrastructure. As such, the Commitment has been reworded to ensure that carbon reduction remains the overarching strategic objective, but does not inadvertently restrict the totality of adaptive actions required to achieve it.

This is the Commitment which aligns most closely with the Regional Model’s overarching priority of promoting adaptation and a low carbon approach by building greater community self-sufficiency. This was the subject of a priority project for every participating community, and related discussions between Panellists and Expert Witnesses fell principally under Priority Theme 2 (PT2). Acknowledging the context of the cost crisis, public spending cuts and profit-driven market dynamic, their first Sub-priority addressed the question of how ‘significant changes’ at the local level would be financed (SP2.1). The Panel concluded that, given communities cannot be expected to pull themselves up by their own bootlaces, the Strategic Plan must focus on a strategy for helping them to help themselves. As such, the principal focus of this Commitment needs to be how to support community enterprises to build wealth and capacities sufficient to enable them to finance their own transition.

Figure 14 below summarises the Panel’s discussions regarding sources and flows of money relevant to this goal. The objective was to identify strategies for rechanneling flows of ‘extractive wealth’ (the red arrows) towards community wealth-building (the reinforcing cycle bottom left of the picture), where three main channels were proposed (green text boxes and dotted arrows). So central is this need to the Regional Model, it is embodied as one of its 7 Features (RM4).

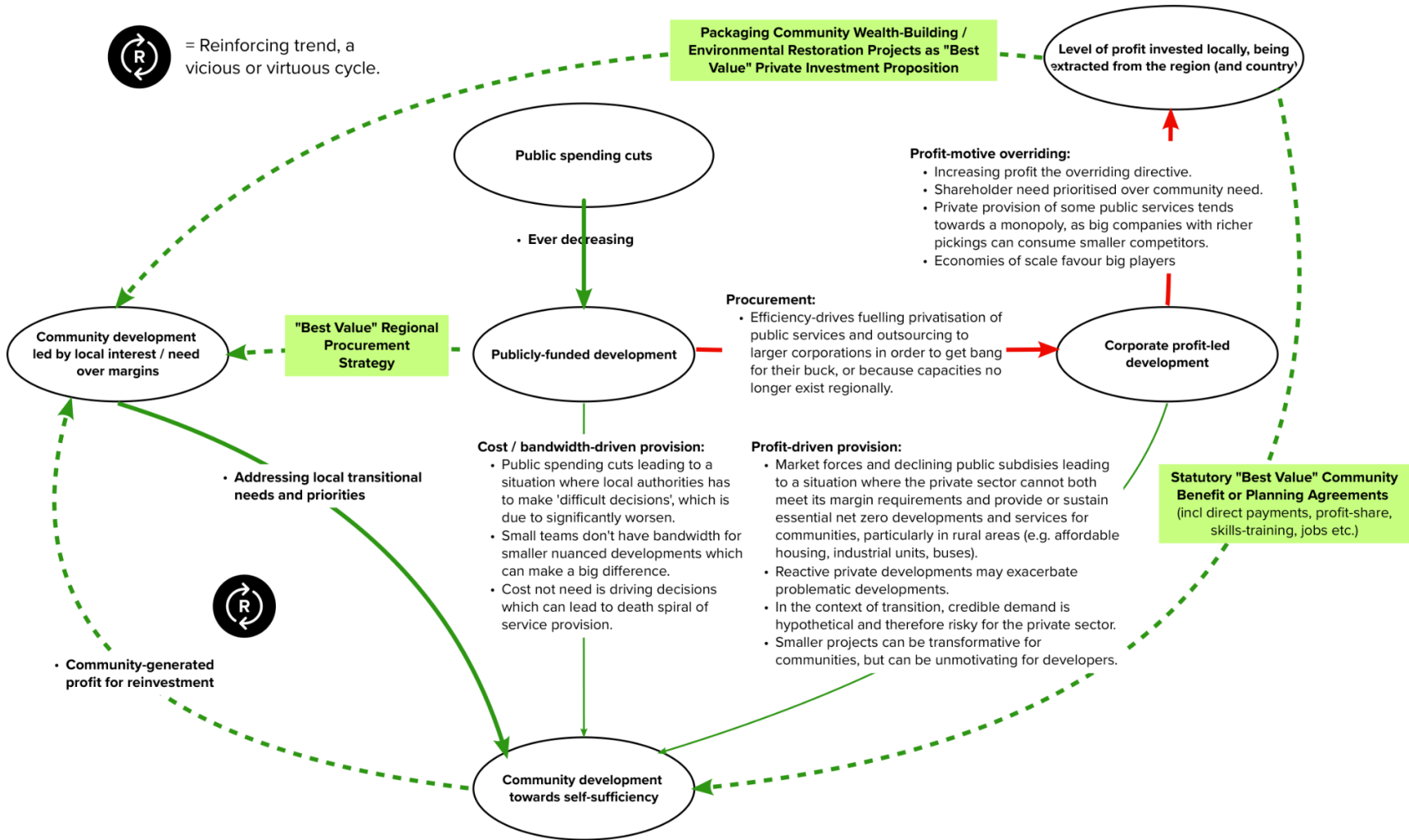


Figure 14. Extractive vs Transformative Wealth

The first channel relates to public funding, and is a “Best Value Regional Procurement Strategy”, one prioritises contractors’ contribution to building regional self-sufficiency and capacities over cost. Towards developing an effective strategy, the Panel suggested the Council might conduct an audit of its subcontractor needs, then compile a directory of potential contractors across the region (of all sizes). In addition to the difficulty local businesses have competing with large corporations on cost, Panellists highlighted how the time and complexity associated with tendering can be a further deterrent. Some felt this might be overcome with a better understanding of the barriers, related improvements to process, and active support and encouragement to apply or form consortiums for larger bids. As a result of frequent references to the Preston Model, the Consultancy involved in its development participated in the Expert Witness Panel discussions. It is understood that a similar project to develop a ‘best value’ procurement strategy is already underway within the Council. The Panel outcomes reinforce the vital importance of this work in ensuring public investment in the region stays and multiplies in the local economy. They also demonstrate the value of involving citizens in the related thinking, design and identification of potential opportunities. Regarding the latter, an example is the key role devolved public sector food procurement might play towards rebuilding local food systems and supporting regional farming (see SA8 above).

The remaining two channels pertain to the private sector. Here, the Panel argues that policy or statutory levers are needed to ensure a greater contribution of corporate profit invested or generated within the region is rechannelled directly into community enterprises. The first of these channels relates to community benefit or planning gain arrangement with host communities (far right of the Figure), already discussed in relation to corporate renewables (SA6). The other channel represents the idea that community wealth-building projects might be ‘packaged’ as net-zero or carbon-offsetting investments, e.g. community energy, enterprise, woodlands or environmental restoration. Both channels work on the assumption that a small portion of the profits of large corporations could be transformative for many communities, while noting that these developments also typically benefit from public subsidies.

Another critical Panel outcome is the realisation that many wealth-building projects fundamental to the Regional Model are unlikely to be motivating for the private sector. As such, they may only be achievable through not-for-profit partnerships between communities, the council and the third sector. Experiences shared across the participating communities strongly suggest market forces have reached a point where risk and margin considerations are limiting essential developments. These include the construction of affordable housing, industrial units and business spaces (see SP2.4); and the provision of public transport services (see SP6.1). Farmers also stated they would be unlikely to diversify into market gardening for similar reasons. This meant responsibility for this core element of local food security may lie primarily with communities (see SP2.5). In short, it appears that development needs and aspirations important for local models of transition are unlikely to be motivating for the private sector, and the situation is worsening. This is particularly so for rural or remote locations; where demand is small-scale or aspirational; or the economic outlook is uncertain. The Panel has highlighted that these factors are already obstructing progress, restricting local economies and causing undue decline and pressure. This challenge further emphasises not-for-profit partnership-working as a

basic underpinning of the Strategic Plan (SA1). It also hammers home the need to re-channel money flows directly into community wealth-building.

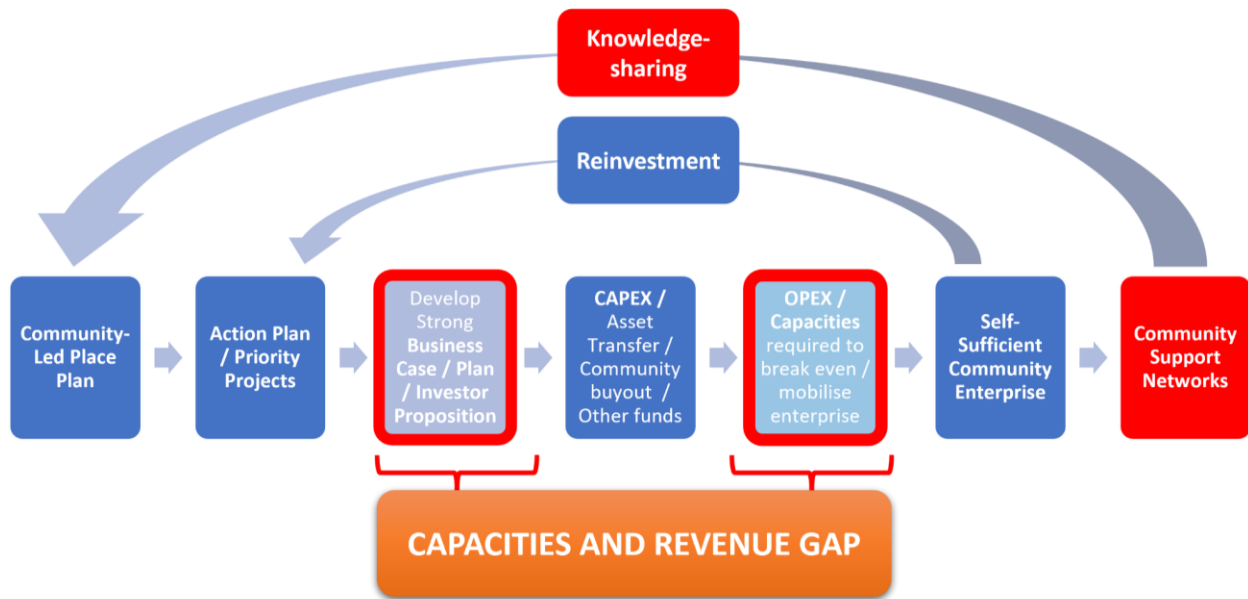


Figure 15. A Joined-up Package of Partnership Working

The Panel argued that a more joined-up package of not-for-profit partnership-working was necessary to enable wealth-building projects efficiently and effectively. Figure 15 above summarises the model for an ideal package which emerged from PT2 discussions. This presumes a Community-led Place Plan (RM2), or similar, as a catalyst for partnership-working and investment. It ends with a virtuous wealth-building cycle of community-led reinvestment and peer-to-peer knowledge-sharing. The latter, coloured red, might be enabled by strengthening the ‘intermediary community layer’, support networks and locality hubs. Two intermediate stages in the process -labelled the capacities and revenue gap- have been highlighted by the Panel as particularly problematic, and a significant barrier to progress. These relate to the urgent need for tailored support for communities to develop the business plans and capacities, and access the revenue needed to get profitable enterprises through to breakeven.

Bridging the capacities and revenue gap emerged as one of the foremost Sub-priorities from PT2 discussions (SP2.3). Notably, these included Panellists with experience of partnership-working with Borderlands and the Scottish Land Fund. These praised other aspects of this relationship, such as access to consultancy to prepare applications, capital investment and place-planning support. However, without the business support, capacity-building and revenue they needed to maintain momentum and reach breakeven, the virtuous cycle of building wealth and momentum inevitably ground to a halt.

The Panel emphasised the importance of relationship and funding continuity to a partnership-working package. From the community perspective, this was essential for overcoming the gap and facilitating an end-to-end package efficiently and effectively. Panellists cited good experiences of partners who, over and above the call of duty, had helped them negotiate the



barriers and access tailored support. The latter had saved citizens (sometimes with decades of community development experience) considerable time and energy compared to hunting through or being directed to services largely irrelevant to their specific need. However these relationships were considered the exception rather than the rule. In response, Expert witnesses said circumstances could be more favourable to joined-up partnership-working if resources and facilities necessary to bridge the gap were given or devolved to local authorities. In any case, it was agreed to be worthwhile identifying and modelling those situations where communities felt authorities had supported and committed to enabling plans against the odds.

For the Panel, a critical current focus for not-for-profit partnerships was addressing the need for greater diversity of SME business spaces and affordable housing, sufficient to generate churn. Panellists said that whenever these become available, they are snapped up immediately, and took this as a strong indication of untapped local economic potential. One example, was an a leaky Annan warehouse opened up for low rent. It has since been fully occupied by start-ups since, including several who have since graduated to larger premises. However, the general picture was one of economic stagnation due to lack of appropriate development, demonstrable credible demand and private developer motivation. This means citizens with expanding businesses or families must relocate elsewhere. Or if they do not want to move away from their communities, to stay put, thereby limiting spaces available for others. Either way, this is a lost opportunity for community wealth-building, and therefore, for the Regional Plan.

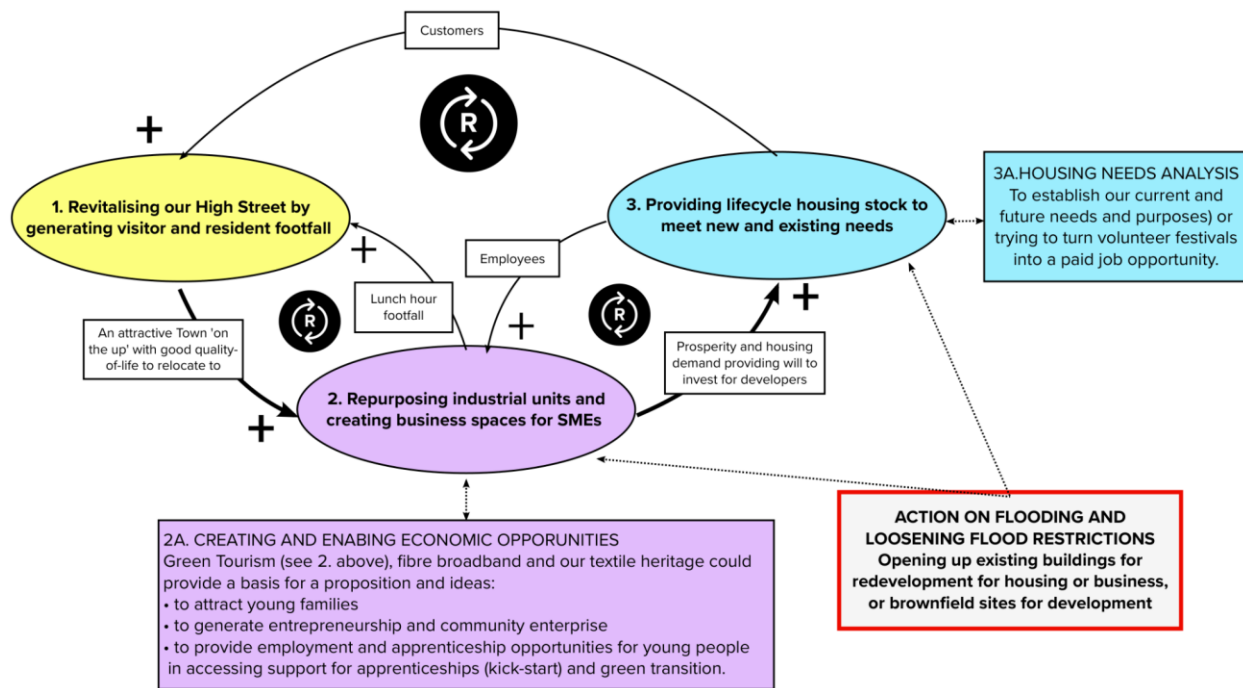


Figure 16. Housing and Business Space Development for Langholm's Wealth-building Strategy

The importance of business space and housing appropriate to local needs is illustrated by Figure 16 above. This summarises the priority wealth-building project for Langholm, and demonstrates these reinforcing interrelationships between place-planning, and business and housing developments. The Langholm Sub-panel envisioned a holistic wealth-building strategy

which entailed three interdependent aspects, with an overlapping order of priority. This begins (again) with rejuvenating the centre, where here the aim is to ‘capture’ border-crossing tourists via car new parking to the south of the village. The second aspect is the repurposing or new development of local industrial units. This would provide diverse business spaces for entrepreneurs attracted by a good-looking village with emergent economic opportunities (see Figure 17 below)<sup>1</sup>. The third, is diverse affordable housing stock needed to accommodate incomers and enable the necessary churn. Panellists saw these developments as essential for meeting other priority wealth-building needs, not least, the affordable homes and local employment needed to retain and attract young people (see PT3). Currently, these aspirations are frustrated by the dynamics described, as well as by other strangleholds on related development including flooding restrictions and unequal patterns of property ownership in the village.

The Panel felt that the priority need for, barriers to, and huge potential of, smaller-scale business and housing developments, could represent a golden strategic opportunity for the Council. This centred on the idea that not-for-profit partnerships might initiate a programme for retrofitting council stock, or enabling new developments, which meet energy efficiency standards *and* community wealth-building needs. Landlordship responsibilities might lie with the Council, community enterprises, or third sector parties. Expert Witnesses made the point that currently, Council properties ordinarily are made available on a leasehold basis, where the burden of responsibility for maintenance and upgrading falls on the lessee. In the current climate, this was considered a huge deterrent to SMEs and a lose:lose scenario from the perspective of the Regional Model. On this basis, it was considered a strong case might be made to the National Government for implementing a not-for-profit rental model for business and housing. This might be enabled by zero-interest long-term loan arrangements. Data on take-up and occupancy could provide ample evidence and argument for latent economic potential, credible demand and a low-risk investment with a guaranteed long-term return. It was also noted that although business and housing developments are typically dealt with by different Government departments and sectors, from the community perspective, they were intimately interrelated as Figure 16 demonstrates. As such, an initiative such as is proposed could integrate both. This might be framed and funded by local and national Government as a standalone net-zero economic regeneration programme, one with ‘win-wins’ for Strategic Actions 1, 2 and 3, and Commitments 2, 3 and 5.

A final wealth-building need and opportunity common across the participating communities, and implicit in these Sub-priorities, is infrastructure sufficient to enable good general mobile and broadband access. Some Panellists, particularly those in rural communities, highlighted that while this had improved hugely in the settlements, it was often unworkable for citizens on the outskirts or in outlying dwellings. The burgeoning hidden homeworking economy enabled by these improvements was considered to have huge wealth-building potential. This potential has relevance to PT2, 3 and 6, by connecting remote and rural dwellings into the regional, national and global economy and employment opportunities.

In summary, Panel outcomes show Commitment 2 to be fundamental to achieving the Strategic Plan from the community perspective. An assumption underpinning the Regional Model is that

success is contingent on a just transition to greater community self-sufficiency. Another, is that given a perfect storm of contextual factors, community wealth-building and reinvestment activities will be needed to finance this. Mobilising these activities, in turn, requires new direct sources and channels of seed investment, not-for-profit partnership-working approaches and new community enterprise models. Efficient and effective project delivery is dependent on two things. The first is a joined-up end-to-end package of funding and support. The second is peer-to-peer support structures, sufficient to enable self-sustaining community enterprises and grassroots knowledge-sharing. Within this, an overriding priority is resolving a need for the capacity-building support and operational revenue required to breakeven, which currently constitutes a significant barrier to progress. A basic underlying principle is the importance of appreciating the specific, deeper place-based needs and context of wealth-building projects, and tailoring partnership-working packages and systems around these. Given the Panel outcomes, a 'one size fits all' service-based mentality or approach to these requirements seems destined to waste time and resources. This is at a juncture in history when neither is in good supply. It would therefore be worthwhile to unearth and model those 'exceptions to the rule' where a partnership enabled communities to overcome the barriers, in spite of the barriers. These are likely to provide invaluable insights regarding the design of an ideal package, and the structural changes needed to support it.

## SUMMARY OF C2 RECOMMENDATIONS

1. **Policy and/or statutory requirements which enable greater private sector contributions to communities.** While policy is the remit of the Scottish Government, it would be efficacious for the Council to initiate discussion and action. The driver is the urgency of adaptation and necessity for direct investment into communities to enable this. Key levers include:
  - Stronger Community Benefit or Planning Gain Agreements, which provide communities with transformative opportunities and greater freedom on how to shape these around local needs.
  - Encouraging the private sector to invest in transitional community wealth-building or environmental restoration projects, and supporting communities to package their propositions appropriately.
  
2. **Develop and implement a 'best value' procurement strategy; with selection criteria which prioritises building community wealth, self-sufficiency and local capacities, over cost-savings.** The following two stages are recommended;
  - Compiling a directory of local contractors, following an audit of current demand for services, and prospective demand in relation to key net zero activity.
  - Identifying and reducing barriers to tendering. This might be achieved by working with SMEs and local businesses to understand the barriers and remedy them (e.g support with applications, forming consortiums and restructuring payment schedules).

3. **Co-produce a joined-up package of partnership-working and funding support between Dumfries and Galloway Council, communities and the third sector;** around enabling wealth-building projects. Opportunities for development can be guided by Community-led Place Plans taking a longitudinal view of wealth-building. Projects which are otherwise unattractive to private sector investment due to the lack of profit-incentive should be prioritised.
4. **Address the ‘capacities and revenue gap’ in funding for community wealth-building projects;** coherent funding packages are a priority enabling the success of community wealth-building projects. Long-term relationships based on a shared understanding of projects between community groups, Dumfries and Galloway Council and the Third Sector can help identify funding needs. Examples of good practice can be used to evidence the need for more coherent funding streams and where possible the design of support packages devolved to Dumfries and Galloway Council.
5. **Address as priority (possibly as a standalone Government programme) local retrofitting, new business space and housing developments sufficient to enable ‘churn’.** Evidence suggests a high level of demand for affordable housing, business spaces and industrial units with potential to activate latent economic potential. Long-term low interest government loans could be usefully harnessed to provide seed capital for investments where developments are evidenced to be low risk. The recommendation brings twin benefits of tackling energy efficiency and wealth-building.
6. **Extending good broadband and mobile infrastructure to all properties across the region.** This recommendation is in recognition of the enormous wealth-building potential of enabling effective rural home-working which connects to the economic opportunities represented by the world-wide web.

### **C3: Lead on the transition to cleaner and greener technologies.**

No changes in wording are proposed and the Commitment is supported. However, again the Panel stresses that any application must first be subject to careful consideration of the specific context of the ‘transition’. This is to ensure it does not inadvertently undermine other core aspects of the Regional Model and Strategic Plan, by failing to take into account the context and goals of adaptation from a holistic longitudinal perspective. Inappropriately-located renewables or developments is one example already given (see SA6). Others include net-zero strategies proposed for improving public transport services or community self-sufficiency, where initial steps may not immediately involve the transition to cleaner and greener technologies, but rather provide the necessary foundations and finance for it.

## **C4: Promote and protect our region's natural environment and biodiversity.**

*(Original wording: Promote and protect our region's natural environment.)*

'Biodiversity' has been added to emphasise the Panel's conclusion that incorporating it unequivocally into carbon accounting frameworks was a critical priority. Without it, they argued, the Strategic Plan and related decision-making was missing an essential element.

The difficulty of quantifying biodiversity's role as a carbon sink was fully acknowledged by the Panel. However, despite this, it emerged as a top Sub-priority from discussions under the Optimal Land Use and Management Priority Theme (SP5.2). Panellists called for an urgent focus on establishing reliable place-specific carbon measures of ecosystemic biomass. In the meantime, it was proposed biodiversity might be incorporated as a 'carbon plus' material consideration in plans and decisions related to land use. In addition, they suggested measures should apply to all land use categories. It should not exclude any assumed to have a specific economic focus, such as commercial forestry or agriculture (discussed further under new Commitment 6).

If biodiversity is not hardwired into the Strategic Plan, the Panel argued there was a risk of decisions which cause harm to the natural environment, instead of protecting and promoting it. Examples of this have already been mentioned in relation to Strategic Actions SA8 and SA9, and represent opportunities for actualising this Commitment through implementation. Commercial forestry was one (SA9), where development, operational and research choices might be completely different with biodiversity as a core consideration, as well as speed and volume of wood production. Biodiversity measures could also promote a richer ecological perspective of farmland, one which includes livestock, crops *and* species that have co-evolved alongside practices (SP5.3). This has the potential to draw attention to the ecosystem services many farmers already provide, such as maintaining soil or peatland health (SA9). It could also inform partnership-working around establishing best net-zero practices and a more balanced assessment of regional farming's carbon impacts (SA8).

As with all strategic elements of the Strategic Plan, the Panel felt the Council should also assume partnership-working as a guiding principle for Commitment 2 (SA1). Panel discussions have highlighted how essential local knowledge is in developing an optimal strategy for promoting, protecting and monitoring local habitats and biodiversity (SP5.6). Clear reasons were articulated for why specific habitats, places and geographies necessitate their own carefully tailored approaches. Each requires the identification of launchpads and opportunities for biodiversity and environmental restoration, to observe, understand, work with and build upon. Many citizens expressed their deep desire and motivation to participate in this work (SP5.6), and conspicuously so, the young citizens (SP3.3). They led the Panel's clearest priority project

around this Commitment, represented in Figure 17, where the starting point was the box labelled “Net-zero Restoration Strategy” (C5). They also argued that local youth-led experiential-learning projects to restore the natural environment ought to be incorporated meaningfully into Curriculum for Excellence and the Learning for Sustainability agenda (SA10).

Another Panel proposal was to co-develop a net-zero land categorisation framework, for assessing the value of land in terms of its actual or potential contribution to the Strategic Plan. This could overlay or merge with standard land-use categories, to balance their emphasis on economic activity or value. Panellists felt this could ensure the orthodox economic perspective does not prejudice or obscure opportunities relevant to this Commitment and to the Strategic Plan. For example, land which would be categorised as ‘high-value’ from a net-zero perspective, such as peatland, is often classed as ‘marginal’ from an economic viewpoint. Net-zero land-use categorisation could also surface opportunities for biodiversity restoration which dovetail with economic use, such as agriculture, commercial forestry or wind farms. The new market opportunity represented by community-led environmental restoration was the biggest potential win-win identified by the Panel in this respect, and possibly for the Strategic Plan overall (C3; SP5.5). The Greenhouse Gas Inventory compiled to inform the Strategic Plan is clear that even with the most ambitious emissions reductions, regional net-zero remains contingent on carbon capture on a huge scale. This is only achievable through a massive coordinated exercise in restoring the region’s natural environment and biodiversity, one which is wholly inconceivable without harnessing its citizenry as a resource.

Regarding this, a significant and non-trivial finding of the project is how under-resourced Dumfries and Galloway Council is in terms of capacity to monitor or influence a net-zero land use strategy. Arguably, the planning system is the only mechanism by which it might enable or support developments and activities, and this is not conducive to proactive focussed participation. If the Council cannot take a meaningful role in progressing the ‘carbon-capture’ half of the net-zero balance, then ultimately, it remains a hostage to fortune as to the success or failure of the Strategic Plan. There is therefore an argument for investing in a larger Environment Team, and related capacity-building. This Team might take responsibility for holding the vision of optimal land use under the Strategic Plan. Related activities might include facilitating, or participating in, partnership-working around environmental assessment; restoration and regulation; improving farming systems; natural flood management schemes; and related research, policy regulatory and carbon-accounting frameworks.

## SUMMARY OF C4 RECOMMENDATIONS

1. **Incorporate biodiversity measures directly into the core Strategic Plan in assessing activities under this Commitment.** Ideally, research can soon establish a reliable carbon-accounting measure for biomass with general applicability to local context, geography and ecosystems. In the meantime, or failing a direct and adaptive carbon accounting measure, incorporate biodiversity as a ‘carbon-plus’ material consideration which applies to all land use categories and decision-making.

2. ***(Incorporated into SA1 Recommendations)* Invest in a dedicated Environment Team and resources to enable partnership-working around developing coherent land use strategies to enact this Commitment.** Without this, Dumfries and Galloway Council cannot meaningfully influence key opportunities and threats relevant to harnessing the carbon-capturing potential of the region under the Strategic Plan. Partnership-working with communities, farmers and other stakeholders is essential to co-developing and monitoring the optimal net-zero land use strategy most appropriate for each Place. The remit of this team might include natural flood management, local food strategies, local environmental assessment, monitoring and regulation, and environmental restoration projects.
3. **Develop a new land categorisation model based on ‘net-zero’ value.** This might overlay or merge with the current economic land use categorisation, informing the assessment of local opportunities, developments and practices in taking forward this Commitment.

## **C5: Contribute to a greener economy, maximising the region’s green energy potential.**

The Regional Model frames “a greener economy” as one where communities are to the extent possible, economically, energy and food self-sufficient at a local level, and interconnected by an effective green transport system. The Panel has articulated the importance of community wealth-building enterprises and developments as enablers of a transition to this greener economy. It has also identified basic underlying support needs with regard to this. Particularly, there are for joined-up tailored packages of seed funding, capacity-building, and partnership-working between communities, Dumfries and Galloway Council, and the third sector (see C2 above).

Community energy schemes are a green economic development considered a key wealth-building priority by all participating communities. SA6 articulates how these may provide an ideal framing for ‘maximising the region’s green energy potential’, due to their contribution to multiple aspects of the Strategic Plan. Another opportunity for actualising this Commitment identified by the Panel, is the retrofitting or construction of business spaces and affordable housing such as can enable local churn and latent green economic potential (see C2).

Panellists have also brought into clear focus a number of pioneering community-led wealth-building enterprises in the region, and the potential these represent for the Strategic Plan. These are endeavouring, in spite of significant systemic constraints, to mobilise new market opportunities which align wholly with the Regional Model. While they might be mistaken for standard business propositions on face value, they share characteristics and an embeddedness in Place which renders them very distinctive in nature. Because they have emerged from a holistic systemic conception of their community and its needs, they address multiple interlinked

local priorities through their design, implicitly and explicitly. They also combine aspects of the local history and heritage, with leading-edge innovative thinking, to create something new. These could represent genuinely game-changing models for the region, and thus, every effort should be made to learn from them and provide support tailored to their needs. They also represent ideal pilots for exploring and developing new packages of partnership-working, funding and capacity-building, and for realigning systems such as to enable and facilitate them.

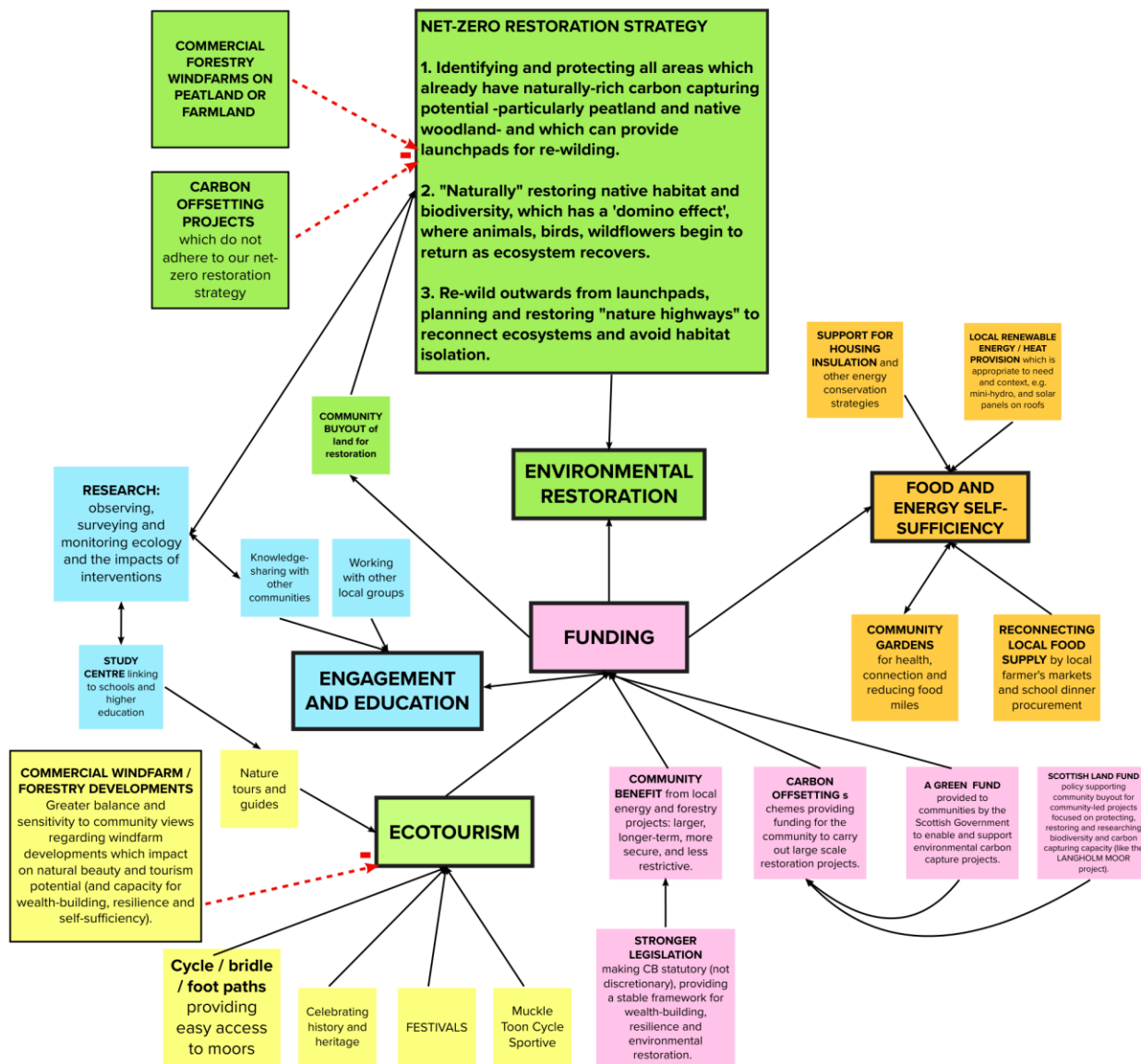


Figure 17. Environmental Restoration as Wealth-building and New Market Opportunity

A standout exemplar is the Tarras Valley Nature Reserve (TVNR) project in Langholm. This is seeking to actualise community-led environmental restoration as a new market opportunity (C4;



SP5.5). Figure 17 above is a representation of a hand-drawn systems diagram made by a young citizen which summarises a priority project towards fully realising the proposition. This clearly illustrates related opportunities, challenges and threats, and how intimately these link to other pillars of local self-sufficiency. TVNR incorporates farming and practices into its plans. This exemplifies a braiding of tradition and innovation also common to Langholm's re-emerging bespoke textile industry, new Chili Festival, and the radical diversification of some local farms. To further emphasise how interdependent the Priority Themes are in a local context, it is important to note that effective green public and active transport was also a priority project for Langholm. A strong point was made regarding the contradiction of having a flagship ecotourist proposition which can only be reached by car.

Notwithstanding this, there is arguably no green economic model more attune with the Strategic Plan than TVNR. It proposes building community wealth, capacities and resilience through large-scale promotion of carbon-capture, biodiversity, net-zero research and education. If community-led environmental restoration can be established as a viable business model and investment proposition, this would constitute a step change in the progress of the Strategic Plan. As such, focus on developing the policy, frameworks and business support required to enable this should be considered of the highest priority.

Another visionary exemplar is The Midsteeples Quarter Project in Dumfries (MSQ), whose representatives also had involvement in the Panel. MSQ is in the process of bringing eight underused Town Centre properties under community control to provide spaces for living, enterprise, socialising and learning. As such, it is a model built around local needs and for community benefit. The goal of bringing the civic centre back to life as a starting point for local economic rejuvenation, was a common underlying theme of Sub-panel discussions in Langholm (Figure 16 above) and Stranraer (Figure 19 below). It was also shared by *all* of the other priority projects developed by the Dumfries Sub-panel. For example, Figure 18 below shows the outcomes of a one to improve Dumfries active and public transport system. This coincides at a central transport hub, and reconnecting and reanimating the Town Centre is a key underlying principle of the overall design. Another priority project which looked at community wealth-building and cohesion, concluded that all important festivals, events or markets should be directed towards a Town Centre location. In the interests of civic rejuvenation, it was proposed the Council should consider implementing a local policy presumption in favour of this. Lastly, the Dumfries young citizens' priority project focused on addressing Town Centre antisocial behaviour and litter, towards restoring civic pride and a positive experience of place (Figure 22 below and SA7 above).

Although it was not possible to involve Annan in the Panel, preliminary engagements did involve the Annan Harbour Action Group, another nascent community-led enterprise. This seeks to promote local regeneration and greater self-sufficiency through tourist proposition rooted in the community's heritage and needs. It is another innovative and pioneering model which shares similar qualities and potential to the others mentioned, as well as facing similar challenges and systemic constraints.

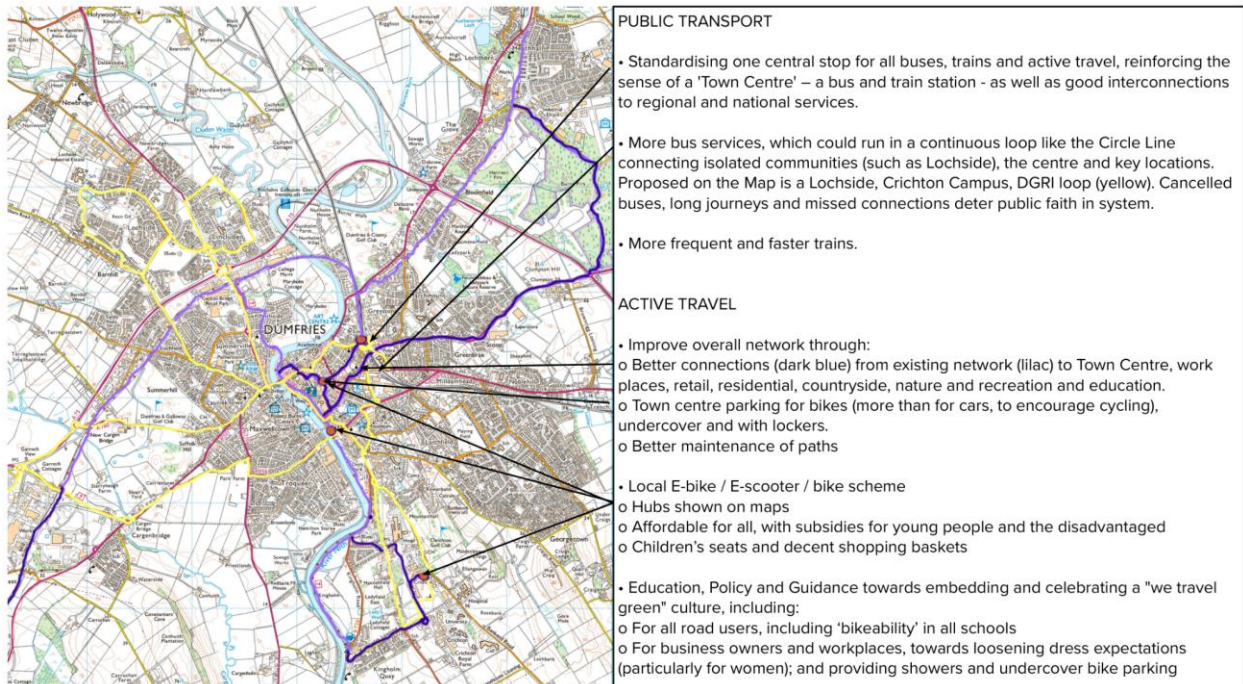


Figure 18. A Transport System Towards Bringing Dumfries' Heart to Life

In summary, the Panel calls for an emphasis on the Regional Model and those community wealth-building priorities articulated under C2, in the interpretation of 'a greener economy' and 'green energy potential' under this Commitment. Three pioneering community enterprises in the region are given as exemplars of this interpretation, all underpinned by the holistic identity, needs and priorities of their Places. The importance of supporting and building upon exemplars like these cannot be underplayed, given the potential their success and related learnings represent for the Strategic Plan.

### Summary of C5 Recommendations

1. **In the actualisation of this Commitment, emphasise an interpretation of 'green economy' and 'green energy potential' based on the Regional Model as proposed by the Panel.** That is, an economy which focuses on building community economic self-sufficiency, resilience and strategies, and restructuring and activities which work in support of this such as those articulated in the C2 Recommendations.
2. **Identify and support pioneering examples of community-led enterprise which align with the Regional Model,** on the basis of their potential significance for and contribution to the Strategic Plan. Recognise and take advantage of the opportunity they represent for piloting and co-developing efficient and effective packages of funding and partnership-working, and for realigning systems around their needs and feedback learning. See also Recommendations for SA1 and C2.

3. **Working with the Scottish Government, explore the packaging of community environmental restoration and wealth-building as an investment proposition.**

## New Strategic Actions and Commitments

There follow three proposed additions to the Strategic Plan for consideration: one Strategic Action and two Commitments. These address areas relevant to a net-zero strategy that emerged as vital to the Regional Model, but which are not explicitly or sufficiently covered under the other Strategic Actions and Commitments.

### STRATEGIC ACTIONS

#### **SA10: Bringing communities and young people into the design and delivery of our education and other youth services, to align it more closely with local and regional needs.**

The purpose of this new Strategic Action is to tailor the provision of Skills, Education and Learning in the region towards giving greater support to the Regional Model. Specifically, this means partnership-working with communities to identify opportunities for local education and youth services to contribute to promoting local wealth, and building the relevant capacities and skills. Broad agreement regarding the vital importance and potential of this for the Regional Model emerged in two separate Priority Theme discussions: Building Community Self-Sufficiency (PT2) and Retaining Young People (PT3). As a consequence, it forms one of the core Features underpinning the Regional Model (see RM6).

In PT2, the Panel emphasised the value of involving local young people, schools and businesses, and the Council, in partnership-working around local or regional transition and related wealth-building developments. This enables the identification and shared awareness of employment needs and opportunities that align with these. It also highlights how relevant skills and capacities can be developed through the Curriculum, work or project experience, or apprenticeship schemes. Local education strategies co-produced in this way might form a key element of those local models of transition it is suggested could be incorporated into Community-Led Place Plans (RM2). This would allow for them to adapt in response to changing local circumstances and emergent opportunities. Involving young people meaningfully in the co-production enables them to consider and actualise study and career choices towards employment and entrepreneurial opportunities which address the needs of their communities and local transition. The 'best value' procurement framework already proposed under C2 can be considered to provide an essential, mutually-beneficial counterpart to these strategies. It would

make little sense to build capacities around local wealth-building needs and opportunities, only then to outsource related developments to extra-regional corporations based on cost.

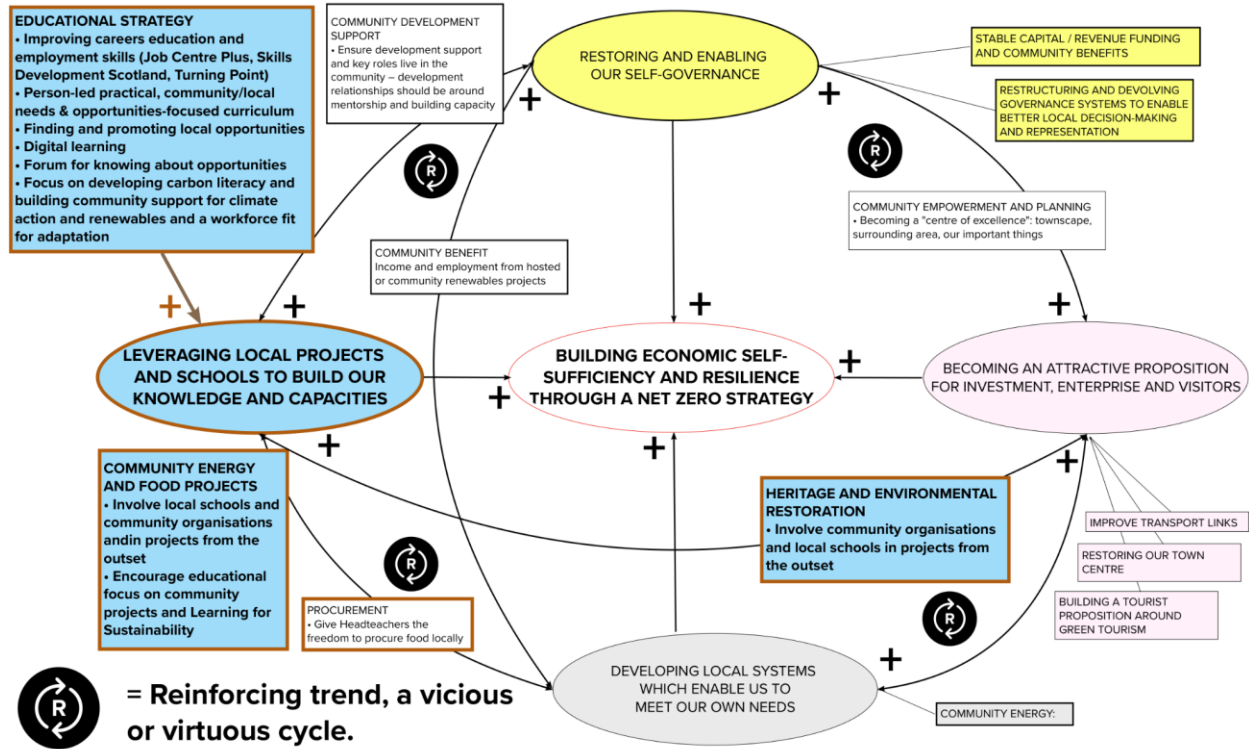


Figure 19. Overview of a Stranraer Priority Project towards Greater Self-Sufficiency

Figure 19 above is a systems diagram which represents the Stranraer Sub-panel's priority project for building greater economic self-sufficiency. Features relevant to this Commitment are coloured blue with a red border. A local education strategy constitutes one of the four main themes for action. As well as the direct support this gives to the overall goal (e.g. through youth participation in local projects), Panellists also saw it supporting the contribution of the other three themes via virtuous (or vicious) reinforcing effects. These effects include building local capacities associated with construction, renovation, environmental restoration, ecotourism, energy, food and community development.

Stranraer is currently engaged in wealth-building strategy as a part of the Borderlands Inclusive Growth Deal, a project involving some of the Panellists. The same is true for another of the participating communities: Kirkconnel and Kelloholm. Their wealth-building priority project, shown in Figure 9 and which is informing Borderland discussions, also includes a local education strategy as a core feature. This includes plans to set up a Skills Centre which can support local capacity-building and economic diversification, and where a key opportunity identified is technical support provision to local renewables developments. The TVNR environmental restoration project in Langholm (see Figure 17 above) and opportunities around

the bespoke textile industry, new festivals and farm diversification have already been mentioned in relation to C5. The three examples demonstrate how economic opportunities associated with wealth-building strategies can be distinct to each community, and why involving local schools and young people in educational strategies tailored around them could have far-reaching potential. It is suggested young people, and local education and youth services, might usefully be included in community discussions to develop a strategy such as is proposed. The Borderlands projects, particularly, represent an ideal opportunity to pilot partnership-working approaches which might inform a more general application of this Strategic Action throughout the region. This can also ensure opportunities represented by related plans, developments, and community needs such as appear in Figure 19, contribute to building local wealth and capacities, and the retention of young people, in the long-term.

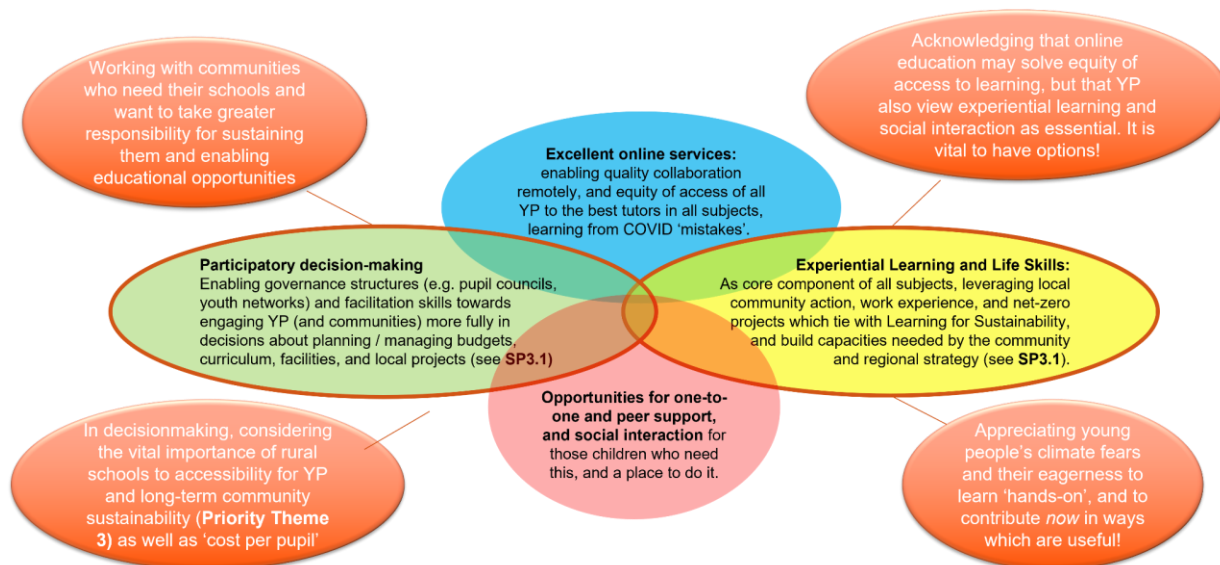


Figure 20. Elements of an Adaptive Education System from Young Citizens' Perspective

In PT3 discussions, young citizens arrived at a similar conclusion, albeit by a different route. For them, improvements to education and youth services were essential to motivating and retaining young people (see SP3.3). They also fully took on board the cumulative contextual constraints of rising costs and shrinking public service budgets introduced and emphasised by Expert Witnesses. Figure 20 above provides an overview of the solution broadly agreed between them. A core element of this is quality online services which could save costs, while enabling self-directed learning and equality of access to all subjects. This was embraced by young citizens because it meant they wouldn't have to leave their communities to study subjects unavailable at their local schools. This factor was common to several of their priority projects.

However, both primary and secondary schoolers were unanimous in an even stronger desire for more experiential approaches to the Curriculum. This included experiential learning across all subjects, opportunities to learn life skills and gain work experience from an early age, and hands-on practical local projects towards addressing transition and the climate crisis. Regarding the latter, they perceived a disturbing and unnecessary disjunct between schoolwork and the burning need to act now on issues of material consequence to their future. Many expressed a

deep frustration at not being able to take a more immediate active role in their communities towards addressing these issues and their fears about climate change. They saw enormous value in the life skills and learning derived from such experiences, as well as the benefits for their wellbeing and of early reflection on study and career choices. All of these ideas are wholly consistent with the national aims and agenda embodied in Curriculum for Excellence, Learning for Sustainability and Skills 4.0.

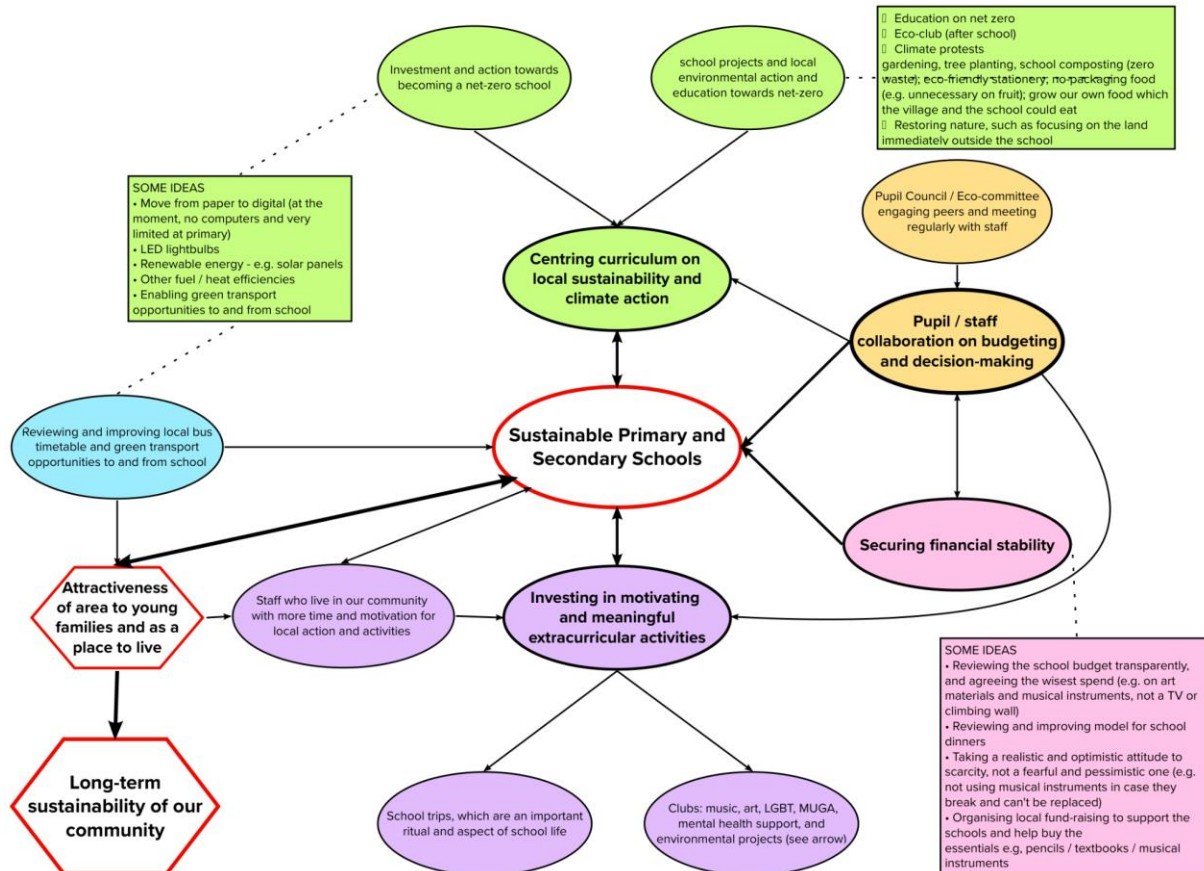


Figure 21. Making Dalry's Primary and Secondary School Sustainable

Equally important to the young citizens as experiential learning, was their meaningful participation in decision-making. They emphasised the critical importance of supporting strong pupil councils and the Youth D&G network to act as youth-led intermediaries and representatives. Structures like these can enable the facilitation and articulation of the needs and ideas of and by local young people. It also supports meaningful dialogue with institutions and communities around adapting local services in response to them.

In Dalry, the four young citizens' call for participation was driven by legitimate concerns about losing their local primary and secondary schools, and the consequences this would have for them and their community. All were S1 or younger, and Figure 21 above summarises the outcomes of their priority project to address this. The Figure clearly demonstrates their view of

the schools as a vital organ and hub of their community, including for attracting and retaining young people and for progressing local climate action. It also shows how central they consider their meaningful involvement in strategic and budgetary decision-making. This is both in terms of their rights and the value this would have towards achieving wise, fair and motivating outcomes.

Following the final Panel meeting, an additional online call was arranged with these four young citizens. As none had participated, it was considered important to give them an opportunity to comment on two points agreed which were of significance to their priority project. The first, was that that cost-per-pupil was the fairest approach to distributing a limited budget. The second, was that heating underpopulated rural schools was inefficient and inconsistent with the Strategic Plan. The young citizens fully endorsed these points, but remained unwavering in their position. They still maintained a mutually-agreeable solution other than school closure might be found if their community could be meaningfully involved in decision-making, and that the matter was fundamental to its long-term sustainability.

Another common theme of young citizens' priority projects and PT3 discussions was a need for motivating, affordable and accessible local opportunities for young people. This appears in Figure 21 as 'motivating and meaningful extracurricular activities' (see SP3.1). They linked the lack of these to local antisocial behaviour and a negative experience of place. These, they considered a key determinant in young people's decision to stay or return to contribute to their community. This is illustrated by Figure 22 below, which summarises a priority project to address antisocial behaviour in Dumfries Town Centre by young citizens. They said routine experiences of it made them feel unsafe and depressed, and described several troubling incidents, including drunkenness and racism.

Their discussion surfaced the critical role more affordable opportunities for local young people played in their solution (highlighted in red). They also saw these as providing the context for them to experience, practice and influence more constructive cultural role models. Their project also provides a further example of how young people link action on litter and reducing waste to civic pride and rejuvenation, and a positive experience of place (SA7). It is towards the retention of young people, and the potential for these opportunities to contribute to a positive experience of place and local climate action, that they are linked to the broader strategy.

By general agreement, the young citizens considered Youth D&G's work in enabling these necessary conversations and changes as essential. This pioneering and inspiring model of youthwork and networking genuinely blazes a path for the rest of Scotland, and the UK. Every youth councillor who participated in the project applauded the transformative personal impacts it has had for them: on their skills, confidence and outlook. It is a non-trivial fact that several had chosen youthwork as a career path as a result. Indeed, it might be extrapolated from this that early positive work experiences in other professions might be expected to have a similar effect, such as is proposed under this Strategic Action.

## WHAT NEEDS TO HAPPEN...

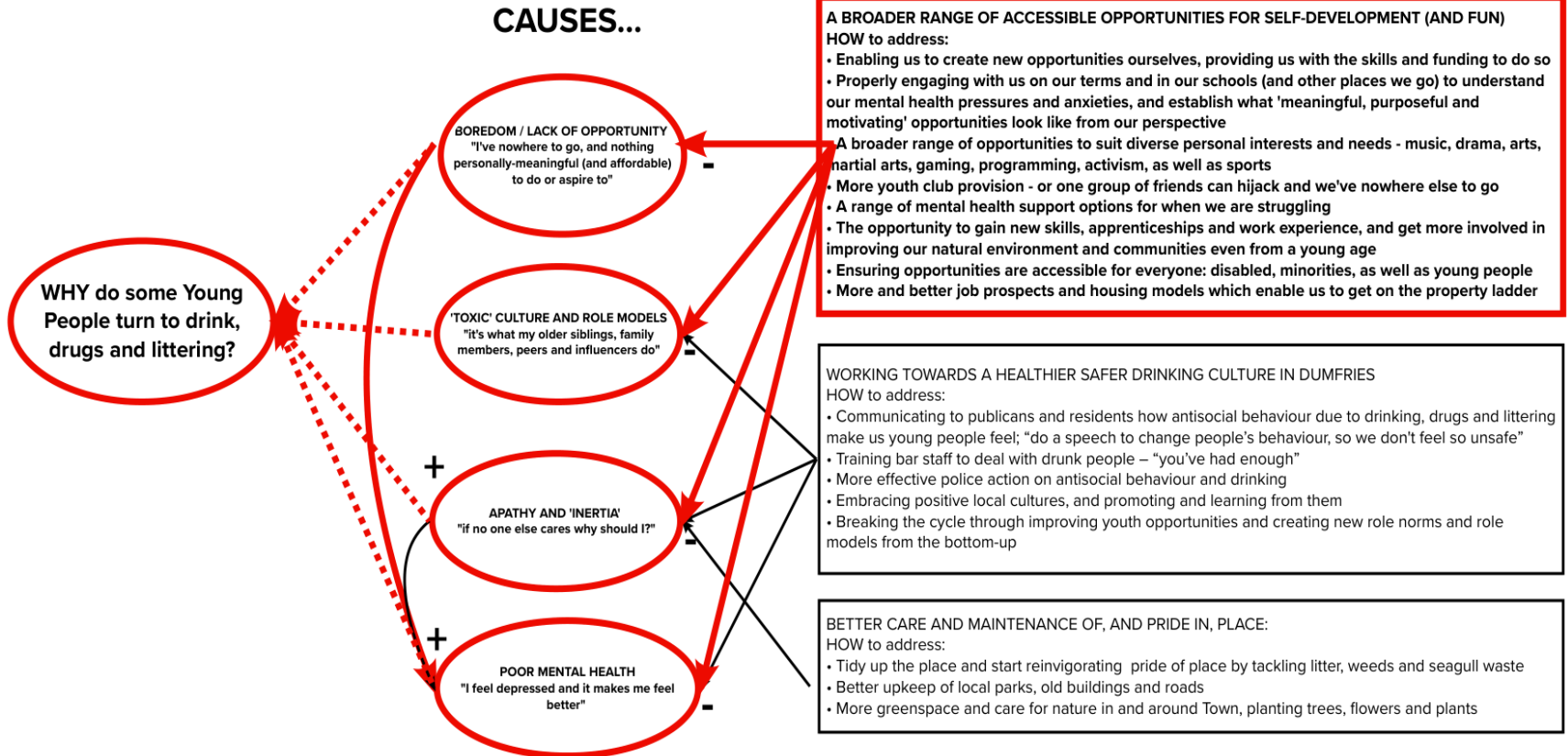


Figure 22. Addressing Anti-social Behaviour in Dumfries Town Centre



In summary, the Panel saw aligning education and youth opportunities more closely with the current and future needs of transition as a way of retaining wealth and young people in the region. It would achieve this by cultivating local capacities, soft skills, jobs and entrepreneurship, as well as motivating young people and promoting a positive experience of Place. Underpinning this is the same local partnership-working models proposed under SA1, and a number of other Strategic Actions and Commitments. Communities where partnership-working arrangements are planned or in process offer an ideal opportunity to pilot involving young people and local schools directly in changes towards enabling them. Towards enabling this dialogue, strengthening youth councils and networks is important for providing an intermediary youth-led layer to engage and represent young people in discussions (SA1). Success would represent the significant ‘win-win’ of helping to retain young people in the region while also building skills, capacities and businesses. This in turn, can support a more localised procurement, wealth-building and transitional strategy. It is worth noting in this respect, that some council officers who participated in the Expert Witness Panel expressed frustration at having to commission expertise from outwith the region, because it was not available locally, or ideally, within their own teams.

## SUMMARY OF SA10 RECOMMENDATIONS

1. ***(Incorporated into SA1)* Enable and support a pilot of partnership-working between local schools or colleges, young people, and communities towards aligning education and youth services around local wealth-building plans, capacity needs and opportunities.** Here Stranraer, and Kirkconnel and Kelloholm, may represent ideal strategic opportunities given current planning activities around the Borderlands Deal, and strong local youth representation. This recommendation can be beneficially aligned with the regional ‘best value’ procurement strategy (see Recommendation 2, C2).

## **C6: A framework of research and regulation to assure the Strategic Plan.**

This newly proposed commitment emphasises the Panel’s call for an evidence base and regulatory framework sufficiently effective and ecologically-valid that it can ensure the Strategic Plan achieves its goals. This was considered so fundamental to the success of the Regional Model, it is embodied as a key Feature (RM5).

**CURRENT TRENDS /  
WORST CASE SCENARIO**

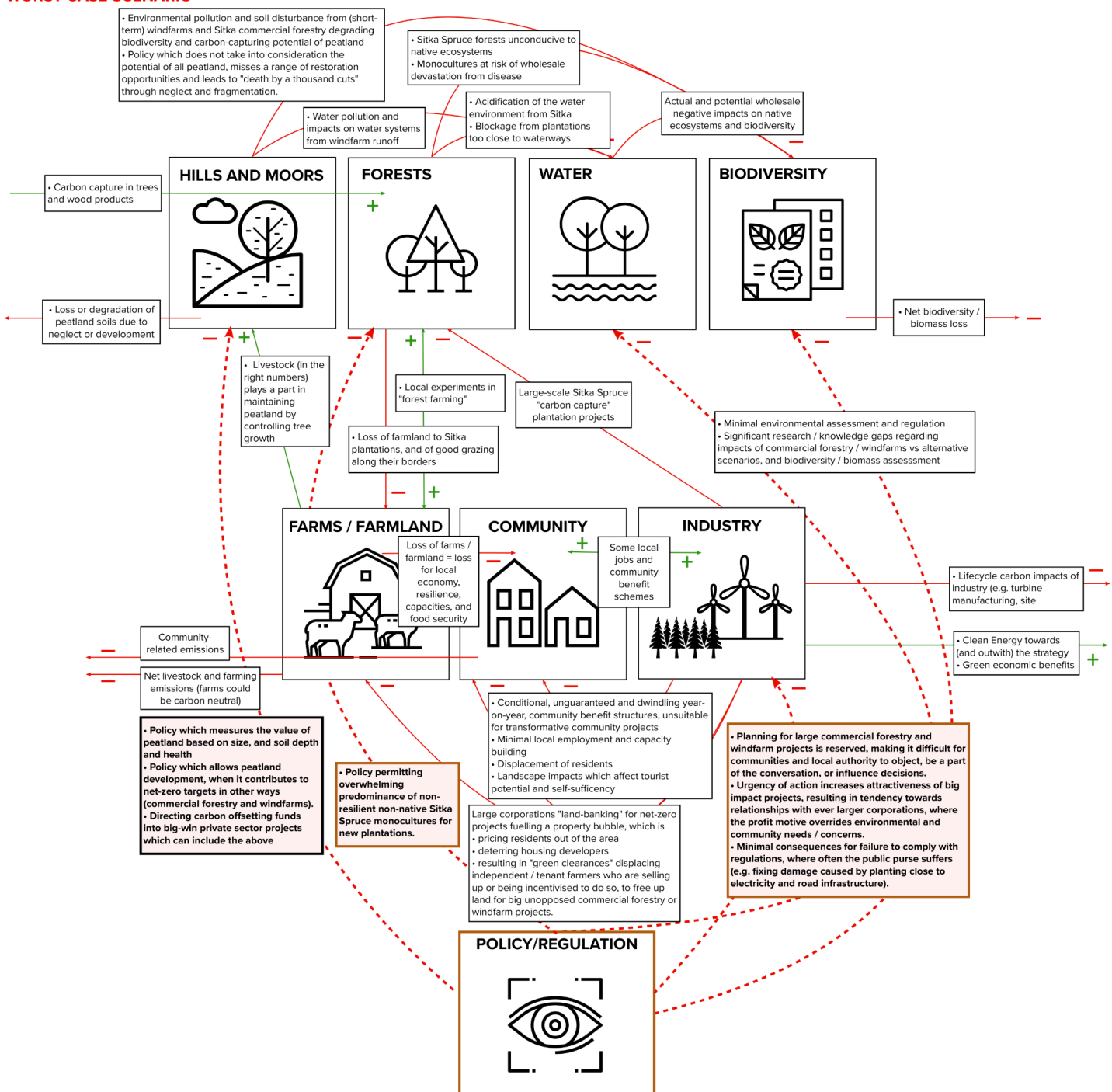


Figure 23. Vicious Cycles of Local Impacts of National Climate Policies

Across the Priority Themes, the Panel identified a number of dynamics, knowledge gaps and confirmation biases associated with national climate policies which are having consequences that undermine the Strategic Plan. Outcomes attributed these to two causal factors. The first is a generalised interpretation and application of policy which fails to take into full account the nuanced, complex and systemic realities of Place. The second is a conspicuous lack of on-the-ground regulation of policy-in-action capable of effectively identifying, monitoring and responding to abuses or unintended consequences.

Figures 23 and 24 serve to illustrate the complexity of this situation from a place-based perspective. These represent the consensual outcomes of the Dalry Sub-panel's priority project to develop an optimal net-zero land use strategy. The focussed table discussion encompassed diverse resident perspectives, including farmers, renewable energy companies, local environmental projects, and artists. The citizens' approach was to first break the land down into intuitive 'net-zero' action categories. They then explored optimal stratagems for each, the interrelationships between them, and related barriers and remedies. These are represented in the Figures as worst and best-case future scenarios.

The worst-case scenario, shown in Figure 23 above, is what Panellists predicted could result if current vicious dynamics remain unaddressed and unregulated. These dynamics were common to all participating rural communities, and are associated particularly with national policy priorities related to commercial forestry, renewables and carbon credits (related features are coloured red). This is promoting loss of peatland and farmland, and a 'land grab' and property bubble which is displacing long-term residents (including the family of one young citizen). These disturbing impacts were referred to as "the green clearances".

On top of this, the Panel highlighted vicious dynamics affecting the availability of rural housing. This included the alarming decline in rental properties. This was attributed to uncontrolled rent rises, and energy efficiency standards inducing landlords to sell or transition to AirBnB to avoid the expense of retrofitting old rural buildings. Another contributory factor is the absence of policy controls on rural second homes and AirBnB. Dalry Panellists talked about how local properties get snapped up the moment they go on the market, often by cash buyers. Panellists also spoke about how the allocation of scarce social housing was frequently insensitive to local needs. In Kirkconnel and Kelloholm, the recent arrival and increase of antisocial behaviour locally was attributed to the 'social dumping' of troublesome citizens from far afield who had little interest or reason to engage with their community.

**FUTURE TRENDS / BEST CASE SCENARIO**

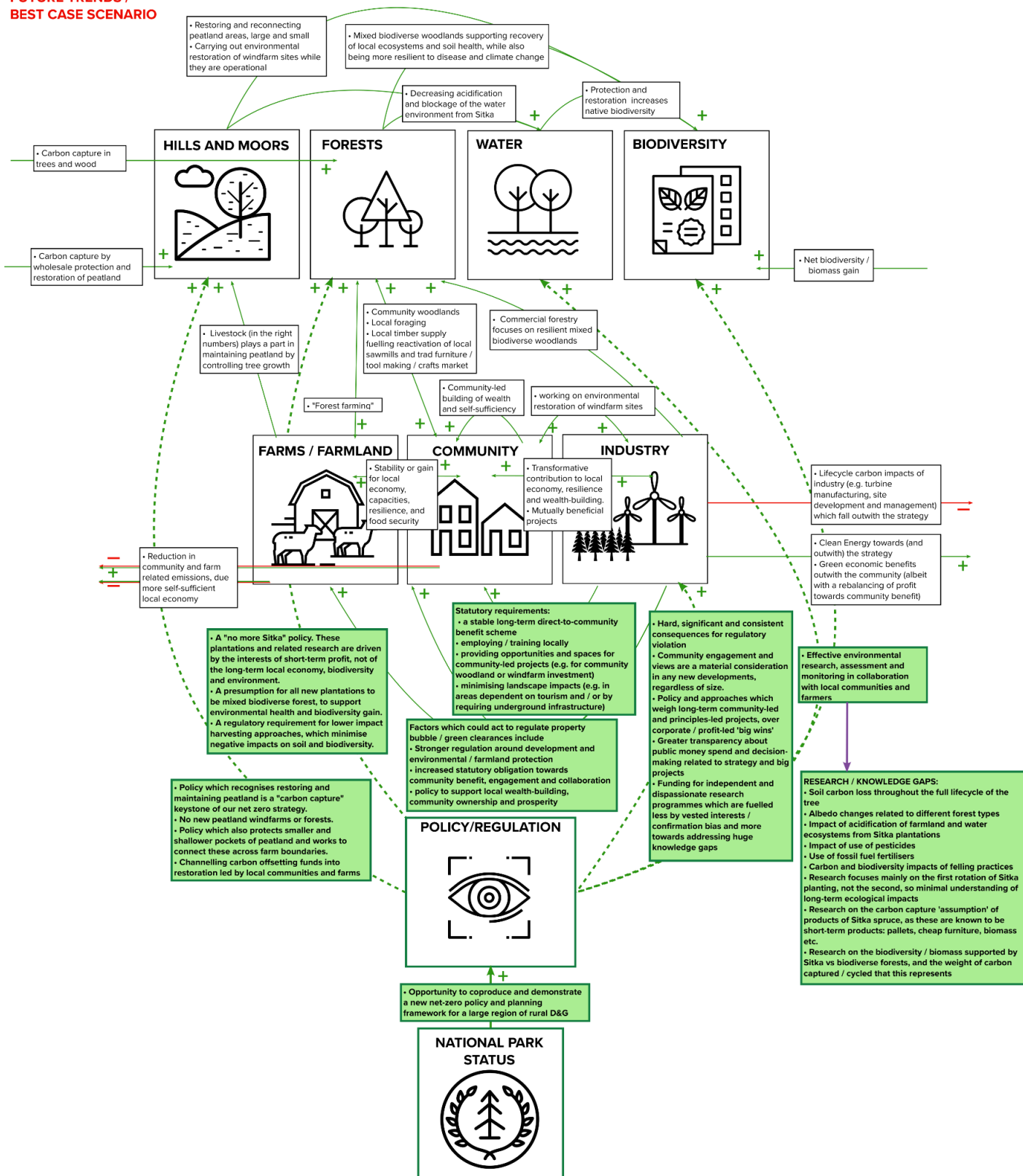


Figure 24. An Optimal Net-Zero Land Use Strategy

To add to this, already mentioned, is the private sector's growing lack of appetite to invest in housing developments appropriate to local needs and aspirations (C2). Taken together, these factors and dynamics amount to a perfect storm of disintegrative pressures. For illustration, the family of one young Dalry citizen recently had to move out of their long-standing home to provide rooms for workers on a new corporate commercial forestry development. Another local family that had been removed from their home between the face-to-face and online phases of the Panel, and were currently living in a teepee on a friend's property awaiting appropriate rental. In short, without effective policy and regulatory interventions, this very disturbing situation will continue to shackle and erode communities' wealth-building capacities in the short-term. In the long-term, it could well constitute an existential threat.

Figure 24 above proposes an alternative best-case scenario where vicious dynamics become virtuous through a more adaptive, effective and place-sensitive framework of policy, research and regulation. The remedies discussed and agreed by the Panellists appear in the green-coloured boxes and are articulated in the Recommendations (many of them already detailed already under other Strategic Actions and Commitment).

The Panel was unequivocal that partnership-working with citizens and farmers was essential for developing an effective regulatory and research framework, and ensuring it manifests improvements as intended. Without this, authorities have no way of appreciating clearly how new policies play out and interact to the benefit or disbenefit of each specific community. Nor are they able to respond appropriately and swiftly to negative consequences (PT1, SP5.6). Granted sufficient weight in formal decision-making, community-led net-zero land-use stratagems, such as that proposed by Dalry, could provide an essential regulatory mechanism. As mentioned, these stratagems could form a core element of Community-Led Place Plans (C2; RM2), and might reasonably fall under the remit of an expanded Environment Team (C4). As such, the Panel assumes this new Commitment to be actualised mainly through the implementation of SA1. This would entail partnership-working with communities to identify and monitor negative policy impacts or trends, and conduct local research and regulation, to inform the continuous improvement of related frameworks.

Some Panel discussions focused on why and how policies and measures which on face value work contribute to net-zero, are in reality, undermining a just transition. Represented in Figure 25 below, are some systemic assumptions, pressures and dynamics within Government which they felt might lead to this. Panellists speculated a key factor could be the urgency of the need to respond to the climate emergency, in a context of increasing austerity and resourcing pressures. This could be causing a narrow focus and confirmation bias on the apparent big-and-easy wins represented by large-scale private sector projects. Underpinning all, is a relentless drive towards maximising profit and efficiency, where it is not in the interests of parties to accommodate complexity, non-essential externalities (e.g. community engagement) or research which challenges assumptions. In parallel, declining investment in core-funded regulatory bodies is leaving them overstretched, over-reliant on corporate self-regulation, ignorant of abuses, and toothless in responding to them.

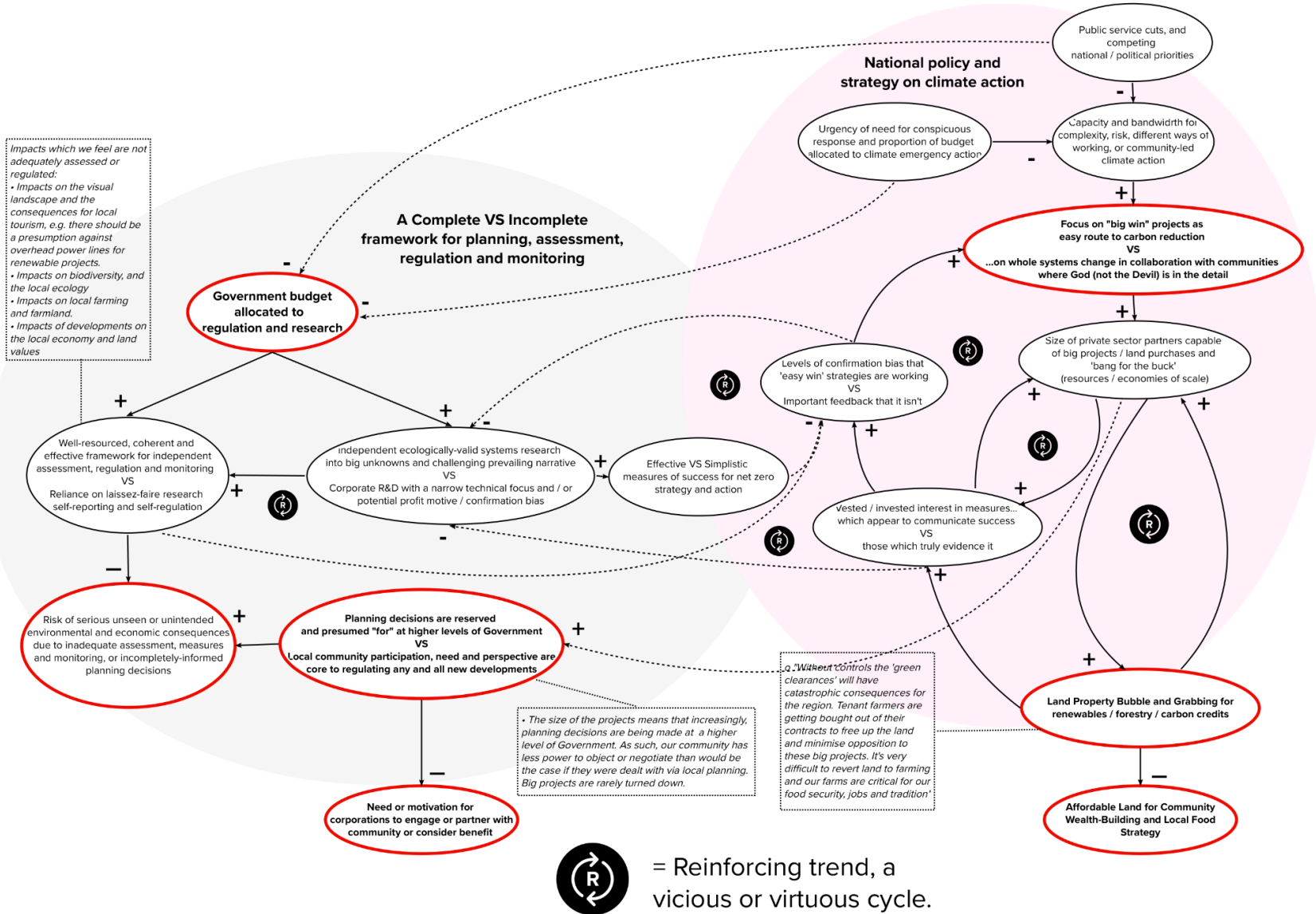


Figure 25. Dynamics Associated with Government's Net-Zero Policy Strategy and Regulation

The Figure supposes all this could lead to Government groupthink and confirmation bias regarding correct policy interventions, and an accompanying blindspot to abuses or unintended pernicious consequences. The result is that negative impacts and vicious dynamics are unnoticed, unappreciated or underplayed, until great, possibly irreversible, harm is done. As such, policies and strategies intended to promote a just transition through economic diversification (as is articulated in the Regional Model), instead contribute to market and wealth consolidation, and the disintegration of the deeper foundations of regional net-zero.

In summary, the Panel identified an urgent need to understand and take action on a number of 'counterproductive' net zero policies and measures, and the vicious dynamics these may be fuelling. Those related to the "green clearances" and the loss of good farmland and peatland are the most urgent to address. Dynamics and metrics affecting rural housing and farming are also critical priorities. The Panel proposes these may relate to a mindset and confirmation bias towards what appear to be the big-and-easy net-zero wins, combined with an absence of on-the-ground monitoring and feedback. The issue emerged as potentially both the Regional Model and Strategic Plan's biggest threat and, if resolved, its biggest opportunity. For the Panel, this necessarily requires partnership-working with communities around local regulation and research. Here community-led land-use stratagems and place plans could play a vital role if granted sufficient weight. Without a more coherent, effective and flexible framework towards ensuring an optimal 'net-zero' strategy for communities and the land, then irreparable damage could be done in a short time.

Finally, the Panel noted the aspiration to establish a Dumfries and Galloway National Park. This, they believe, represented a golden opportunity for co-designing a new framework of net-zero policy, research and regulation. This could integrate many of the community and land use net-zero strategies which underpin the Regional Model. It could also provide a pilot for an agile partnership-working approach which ensures improvement and transition are brought about exactly as intended. A smaller-scale sandbox for experimentation may prove more adaptive and less disruptive, while ultimately producing a road-tested model for rollout at a regional level.

## SUMMARY OF C6 RECOMMENDATIONS

1. **Review policy across all those areas highlighted in bullet points below.** These articulate regulatory gaps or policy interpretations in relation to the Strategic Plan, which the Panel recommended towards transforming the worst into the best-case scenario.

### **Forestry (SA9; C4):**

- Controls on predominance of Sitka Spruce plantations. Panellists believed commercial developments and research to be driven more by short-term profit needs, than those of the long-term local economy, biodiversity and environment.

- A presumption for all new commercial plantations to be mixed or mosaic forest, to support environmental health and biodiversity gain.
- Requirements for lower impact harvesting approaches, which minimise negative impacts on soil and biodiversity.
- An effective system of penalties and enforcement, e.g. for planting in buffer zones designed to protect roads, rivers and important infrastructure from fallen trees. Panellists argued that these zones are routinely ignored by developers, possibly towards maximising yield, but others bear the cost of related blockage (e.g. of country roads) or damage (e.g. to electricity or phone infrastructure).
- Independent research into the following
  - Soil carbon loss throughout the full lifecycle of different forest types.
  - Albedo changes related to different forest types.
  - Impact of acidification of farmland and water ecosystems from Sitka plantations.
  - Impact of use of pesticides on commercial plantations.
  - Use of fossil fuel-based vs natural fertilisers.
  - Carbon, soil and biodiversity impacts of felling practices.
  - Ecological impacts of the second rotation of Sitka plantations.
  - Supply chain, environmental and lifecycle emissions impacts of commercial forestry, including longevity of 'carbon capture' in products.
  - Comparative biodiversity or biomass supported by Sitka vs mixed forests, and the weight of carbon captured or cycled that this represents (C4).

#### **Peatland (SA9):**

- Restoring and maintaining peatland as an overarching priority, the "carbon capture" keystone of a net-zero strategy.
- No commercial renewables or forestry developments on peatland.
- Policy which focuses on peatland extent, not depth, protecting smaller and shallower pockets and working to connect these across property boundaries.
- Channelling carbon-offsetting funds or other investment into restoration led by local communities (C2; C5).

#### **“Non-extractive” relationships between corporations and host communities (SA8; C2):**

- Stable long-term direct-to-community benefit schemes, governed by wealth-building project purpose and criteria agreed by the residents.
- A commitment to local employment, training and capacity-building.
- Opportunities or spaces for community-led projects (e.g. for community woodland or wind farm investment).
- Minimising landscape impacts, ideally by requiring underground infrastructure, to mitigate impact on wealth-building strategies which are dependent on tourism.

#### **Important interventions for regulating the property bubble and green clearances:**



- Incorporating and leveraging local communities, liaison groups and Community-led Place Plans as an essential part of the regulatory system.
  - Ensuring Community-led Place Plans, local engagement and consensual outcomes of this are always a material consideration in decisions related to new developments, regardless of size.
  - Incorporating and leveraging local communities, liaison groups and their Community-led Place Plans as an essential part of the system of monitoring and regulating the Strategic Plan.
  - Controls on AirBnB and second homes.
  - Rural social housing allocation which is more sensitive to local needs, for example, prioritising long-standing residents, and having greater awareness of the disintegrative impacts of 'social dumping'.
  - Energy-efficiency standards for rentals and homeowners which take into greater consideration the specific rural context.
  - Stronger protections for farmland and peatland (see SA9)
  - Statutory requirements for ensuring corporate developers collaborate and contribute financially to host communities in ways which further their transitional plans (SA8; C2).
  - "Best value" frameworks for procurement, planning, investment and partnership-working. These should prioritise and support local wealth-building developments, notably community-owned land, energy, business spaces and housing (C2).
  - Hard, significant and consistently applied consequences for regulatory violation
  - Policy and approaches which weigh long-term community-led and principles-led projects, over corporate or profit-led 'big wins.'
  - Commitment to greater transparency about public money spend and decision-making related to strategy and big projects.
  - Genuinely independent and dispassionate research uninfluenced by vested interests or confirmation biases.
  - Effective environmental research, assessment and monitoring in collaboration with local schools, communities and farmers (SA10).
2. **Make recommendations to the Scottish Government regarding the fundamental importance of investing in regulatory agencies, to enable effective on-the-ground regulation, and penalties for abuses.** Without this there is no effective stewardship of climate policies in action, no essential feedback on harmful interpretations or consequences of them, nor ability to respond adaptively to these or to the local needs and context. Achieving regional and national net zero is dependent on these functions operating effectively. The Panel has highlighted a weight of evidence which supports the assumption that the current regulatory framework is failing in all three.
3. **Make recommendations to the Scottish Government, and seek as a Council to involve communities as local partners in regulating and monitoring net zero policies and strategies.** This includes harnessing CLPPs, and agreements made in relation to them, as material considerations in formal decision-making. This is necessary

to ensure they carry sufficient weight to enable an effective response to impacts which are detrimental to the net-zero aims and related community wealth-building strategies. Develop frameworks and arrangements with communities as stewards of regulation at a local level, where reports on harmful impacts and policy interpretations are treated with due seriousness and elicit a swift and effective response. This involvement of communities could dovetail with and support the previous Recommendation.

4. **Investment into independent research which truly challenges net-zero assumptions and seeks to address knowledge-gaps.** This is best informed by partnership-working to identify local impacts and specificity, and citizen science, such as those articulated under the Forestry section in 1. above.
5. **Consider the setting up of a new National Park to co-develop and pilot a net-zero planning and regulatory framework in partnership with communities.** This might provide a smaller-scale testbed for experimentation and adaptation. Success would constitute a proven model for changes towards adaptation at a regional level.
6. **Provide evidence to the Scottish Government that an oversimplified generalised focus on ‘big-and-easy-win’ carbon reduction strategies, and policy priorities, are contributing to dynamics and systems that compete with the agenda around land reform, community-wealth-building and a just transition.** This greater awareness of, and responsiveness to, the how national priorities play out on the ground in ways which compete with and erode more holistic and thorough community net-zero strategies. To reiterate, Panel outcomes imply the latter is the only way of achieving the Strategic Plan through a just transition.

Equally, the Panel also identifies the need for Government at all levels to consciously scrutinise and reflect upon their assumptions and decision-making from a whole systems perspective. This is essential for establishing the process by which well-intended policies critical for our future can have significant harmful consequences on the ground. Identifying key intervention points, and implementing the checks, balances, feedback learning and regulatory mechanisms, is fundamental for ensuring a successful transition proceeds as the Scottish Government intends.

## **C7: Partnership-working with communities around flood risk management and response.**

This new Commitment reflects the degree to which solutions to flooding were a priority for the Panel, and of their consensus on approaches to these. As touched upon under SA1, the overriding Sub-priority emerging from discussions under the “Flooding” Priority Theme (PT4) was a meaningful dialogue between communities and authorities around local flood risk planning, management and response (see SP4.1). The experiences of two participating

communities -Dumfries and Langholm- highlighted quite how divisive a top-down approach to flood risk and defences can be. They also clarified how the cost of entrenchment and extreme flooding events is a relatively new and ever-growing burden on overstretched public budgets.

Citizens identified a number of potential 'win-wins' associated with the Council and SEPA, which are considered to be permissible under the Flood Risk Management (Scotland) Act 2009. These involve engaging with community flood liaison groups early in the co-production of flood risk management plans (SP4.2) and included greater opportunity to consider and integrate vital local research and knowledge, and to address important local factors which lie outside the scope of hydrological models. It would also enable communities to gain a better understanding of the strengths of hydrological models, their supporting evidence, and the rationale of formal decision-making processes.

Flood liaison groups might also help to alleviate some of the Council's burden of responsibility for community engagement, public relations and enable partnering around some of the public safety duties under the Civil Contingencies Act. While all Panellists recognised the Council's obligations to and liability under the Civil Contingencies Act, two Expert Witnesses mentioned that the more confident the authorities felt regarding a community's volunteer capacity to fulfil these duties and to understand flood risk, the more likely they would be to engage in a dialogue around solutions. Examples of such collaboration were also cited in two communities in Scotland.

Another of these 'win-wins' is the opportunity represented by natural flood management. Natural flood management emerged as a Sub-priority in two separate Priority Theme discussions: Flooding (SP4.3) and Optimal Land Use and Management (SP5.5). In both cases, there was strong consensus on the need for serious investment in exploring and implementing schemes for the region's five major catchments. Expert witnesses indicated the growing body of empirical evidence to demonstrate the effectiveness of natural flood management, where the Tweed Forum was often referenced as a local exemplar. While differences exist between the hydrological regimes of the Tweed catchment and the Nith (Dumfries) and Esk (Langholm), as well as in the other catchments in Dumfries and Galloway, it was felt that the community-led approach and learnings of the Tweed Forum may entail knowledge which is transferrable or that has general relevance for projects in a neighbouring region. Successful implementation of the approach is understood as a cost-effective response with multiple knock-on benefits mostly environmental in nature. Emphasised among these were 'low hanging fruit' crossovers with optimal net-zero land use approaches including; rewetting peatland (SA9), rewilding watersheds (C4), farming subsidies (SA8), and providing statistical data to fill gaps in hydrological modelling. As such, progressing natural flood management in the region might reasonably fall within the remit of an expanded Environment Team within the Council, such as is recommended under C4.

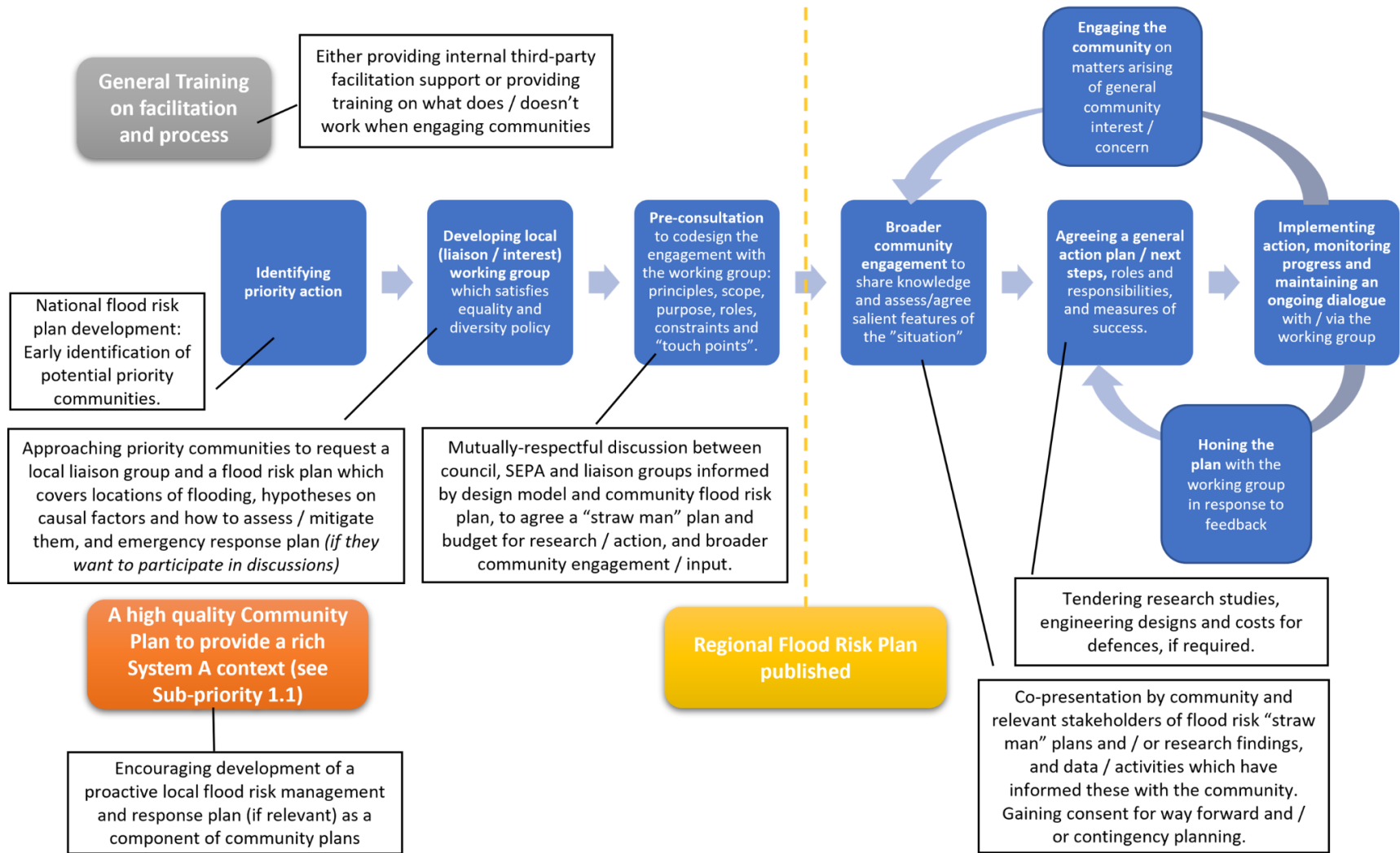


Figure 26. New Model of Partnership Working: Flooding

The Langholm Sub-panel expressed a strong desire to explore natural flood management, and could present an ideal opportunity for a pilot scheme. While the village has yet to experience an extreme flooding event, both the potential risk and the flood defences proposed as a solution have negative implications for their wealth-building strategy. The risk restricts the development of industrial units to provide much-needed new housing and business space.

The proposed defences would impact significantly on riverside views and a celebrated local walk, both treasured assets deemed vital for their tourist proposition. It is for these reasons that Langholm is so eager to explore partnership-working around a natural flood management scheme as a first port of call.

Figure 26 above is the possible partnership-working approach to flooding that emerged from PT4 discussions, and which applies the model outlined in SA1 to the specific context. It proposes communities identified by the authorities as being a priority risk, or requiring flood research, are approached and invited to form flood liaison groups as a preliminary measure. These groups are subsequently supported in co-developing draft local flood risk plans from the community perspective, to provide evidence to inform their participation in decision-making processes. Such plans might also contribute to Community-led Place Plans, for example, by addressing matters of resilience relevant to local models of transition (SA1; RM2).

Figure 26 proposes that communities become partners in the co-production of formal flood risk plans prior to publication, and to tendering for flood research or defence engineering proposals. Currently, public consultation typically takes place after all this. By this time, the scope for deliberation is largely predetermined, with narrow degrees of freedom, and despite known weaknesses, hydrological models are granted prevailing authority. This results in public perception of these proposals as a 'fait accompli', which for the Panel is the root of related discord. The Panel has highlighted how costly for the Council this has been in terms of institutional trust, reputation and budget. This is at a time when the Strategic Plan advocates for, and is contingent upon, outcomes which are the diametric opposite of this. PT4 discussions surfaced that the deeper principles of community sustainability and safety are shared between citizens, the Council and SEPA, which if made explicit, provide a strong foundation for dialogue.

The Panel has shown problems are rather a material mismatch between the institutional and community perspectives on solutions, and the evidence each feels is important in informing them. Moreover, when solutions stand to impact significantly on their community, the Panel is adamant regarding its citizens' right to be meaningfully involved in decision-making, and where material harm is perceived, to have a significant and meaningful say in the process.

While there is currently no requirement or recommendation within the Flood Risk Management (Scotland) Act 2009 to engage with community groups and/or their resident-led plans in the early stages of the development of flood risk management plans, it is considered technically permissible by the legislation. There are interpretations of, indeed provisions within, the Act which might allow for early community collaboration and input, and there is no legislation which forbids it. In other respects, the model assumes, aligns with, and seeks no changes to, later-stage statutory requirements and consultation processes specified by the Act. It is rather that

the Panel perceives that without greater collaboration earlier in the process, these have proved ineffective alone at facilitating meaningful and democratic dialogue between all parties, and mutually-acceptable outcomes. While it is understood that decisions ultimately rest with elected members requiring agreement by committee, previous experience of costly entrenchment have led the Panel to the view that participatory democratic routes proposed in Figure 26 can better synthesise different perspectives and types of knowledge, and facilitate later public consultation processes.

Another of the participating communities, Kirkconnel and Kelloholm, could provide an opportunity for piloting an approach like this. They experience extreme flooding events with growing regularity, one during this project, and have developed an effective grassroots emergency response to incidents. Their Sub-panel produced a flood management proposal as one of their priority projects, and participated throughout the PT4 discussions. However, they have had no engagement around solutions with the Council or SEPA as of yet. In all these respects, they might be considered to meet much of the criteria for a good pilot for an end-to-end partnership-working model.

### Summary of C7 Recommendations

1. **Pilot the newly proposed model of partnership-working around flood risk planning, management and response;** working with a community identified as being under flood risk by national or regional flood plans. For a number of reasons, Kirkconnel and Kelloholm might be considered a good opportunity for this. See Figure 26 (C7 model). This recommendation is represented by the crossover between SA1 and C1 in the matrix of Strategic Actions against Commitments.
2. **Employing a partnership-working model, pilot a natural flood management scheme in one or more region's 5 river catchments, in order to research and assess their potential benefits.** Drawing on and learning from the growing evidence base, and similar projects, such as the work of the Tweed Forum. This might reasonably fall under the leadership or remit of an expanded Council Environment Team (Recommendation under C4). Langholm could be an ideal community to work with for the Esk, given the community's location, motivation and rationale for exploring such schemes, and their good landowner relations. Natural flood management might also be an element of a full end-to-end pilot of Recommendation 1 with Kirkconnel and Kelloholm.

## Relationships between all Strategic Actions and Commitments

Figure 28 below is an updated table showing the Strategic Actions against Commitments, and which incorporates proposed rewordings. Highlighted cells indicate beneficial alignments which have emerged from the Panel discussions, which were not identified in the original Strategy. New synergies highlighted between the existing Strategic Actions and Commitments all pertain to new market, research, and educational opportunities represented by partnership-working with communities around a net zero land use and management strategy. These have been detailed above in relation to the relevant Strategy Actions or Commitments. The fact that the region is hosting some pioneering early-stage exemplars of these (particularly TVNR in Langholm) cannot be overemphasised. With investment and focus, Dumfries and Galloway Council has the potential to lead the field of these emergent game changers by capitalising on the win-wins of a huge exercise in environmental and economic rejuvenation. Without this exercise, their net zero ambitions are unachievable.

It is proposed that new Strategic Action 10 has the potential to enable and support the Council in fulfilling every one of its priority Commitments under the Strategic Plan. It can achieve this by working in partnership with communities, including young people, and stakeholders to tailor education and youth services more closely to local plans, needs and opportunities around a just transition. Through this, it can promote the building and retaining of regional wealth and capacities. New Commitment 6 highlights those Strategic Actions where effective research, monitoring and regulation is necessary to ensure they always work in the interest of the Strategic Plan, and do not undermine it through unintended systemic consequences. The ways in which related national policies may already be doing so by failing to take into account essential considerations and contextual details are covered in more detail under the relevant Strategic Actions. Finally, by supporting the meaningful involvement of communities in the management and response to flood risk, Commitment 7 contributes to inherent Strategic Actions related to local partnership-working and education. Also highlighted are those Strategic Actions related to net-zero land and farming strategies, pertaining specifically to aspirations and opportunities associated with natural flood management schemes.

	C1: Encourage understanding of how the way we live in the region impacts on climate change	C2: Working in partnership with communities, young people, and stakeholders to make significant changes to reduce emissions and adapt to climate change and a low carbon approach	C3: Lead on the transition to cleaner and greener technologies	C4: Promote and protect our regions natural environment and biodiversity	C5: Contribute to a greener economy, maximising the region's green energy potential	C6: A framework of research and regulation to assure the Strategic Plan	C7: Partnership-working with communities around flood risk management and response
<b>SA1: Partnership-working with communities, and young people, to enable and support</b> changes by individuals and businesses through collaboration across a wide variety of activities	✓	✓	✓	✓	✓	✓	✓
SA2: Significant improvements in energy efficiency in building such as large scale installations of insulation including of solid walls, replacing windows and doors		✓	✓		✓		
SA3: Installing zero carbon heating systems such as heat pumps and biomass and th possible us of hydrogen in future		✓	✓		✓		
SA4: Change in the way we work and travel to reduce travelling and increased use of public transport and active travel	✓	✓			✓	✓	
SA5: Large scale switching to electric vehicles	✓	✓	✓		✓		
SA6: Significant increase in renewable generation		✓	✓		✓	✓	
SA7: Reducing waste				✓	✓		
<b>SA8: Co-designing a whole-systems net-zero strategy to protect and support regional farming</b>	✓	✓		✓	✓	✓	✓
SA9: Maintaining and increasing the size of <b>peatland, wetland, organic soil, marine</b> , forestry and grassland carbon sinks	✓	✓	✓	✓	✓	✓	✓
<b>SA10: Bringing communities and young people into the design and delivery of our education and youth services, to align it more closely with local and regional needs</b>	✓	✓	✓	✓	✓	✓	✓

Figure 27. Proposed Amended Table of Strategic Actions Against Commitments



# Overview of Design and Methodology

This section provides a high level overview of the Design and Methodology for the project. For more detail, please refer to the accompanying document: **Dumfries and Galloway Citizens Panel on Climate Change: Methodology Guidance and Materials**.

## Overarching Aim, Purpose and Measure of Success

The principal aim of the regional Citizens Panel was to bring together citizens who broadly represent the population, demographics, geographies and ecosystems of the region. These would deliberate on their community's needs and priorities, and make informed recommendations on the Council's Carbon Neutral Strategic Plan. The agreed purpose and measure of success was evidence of the implementation and evaluation of the Strategic Actions and Commitments arising from the recommendations.

## Underlying Principles

A number of foundational Principles undergird the design and delivery of every aspect of the Citizens Panel. These are:

- **Place.** The living totality of a community, and the land and natural environment which it holds dear. The project took a place-making approach.
- **Lived Experience.** The personal lived experiences of the citizens of a community and which forms the building block for a shared conception of Place
- **Unity-in-Diversity.** That the unity of Place (including a region) is best expressed through a requisite diversity of the perspectives and lived experiences of its residents. This required that, to the extent possible, the Panel should seek to be representative of the region in terms of those communities selected to participate. Equally, in each community, Sub-panel members should represent the diversity of their populace.
- **Emergence.** The methodology and direction of travel is determined by the citizens and the outcomes emerging from their conversations, not the other way around.
- **Care** for the integrity, health, welfare, maintenance, and protection of the principles and those participating in the project.

## Design Criteria and Rationale

The design criteria which underpinned the Citizens Panel, the Sub-panels, and their rationale, were as follows:

- It should be composed of residents.
- Members should be willing and capable of acting as a representative of their community or area therein, as opposed to pursuing a personal or organisational interest.
- To the extent possible, it should represent the requisite social, economic, geographic and demographic diversity of the Place and region as a whole.
- Conversations would not be limited to climate change or net zero, but determined by citizens’ broader conceptions of community sustainability.
- Group sizes should be conducive for effective collective decision making face-to-face and online.
- It should articulate what a net-zero strategy looks like on the ground, including ideally, simple heuristics or measures of progress.
- It should be on hand, if necessary, to act as a long-term partner in and enabler of the Strategic Plan.

## Methodology

The Citizens Panel took shape over 4 Phases, which appear in the Figure below:

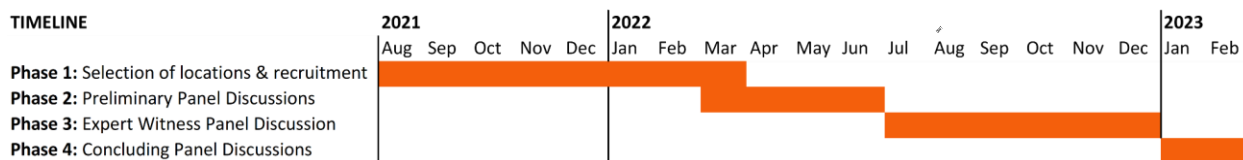


Figure 28. D&G Citizens Panel Timeline

## Phase 1: Selection of Locations and Recruitment (August 2021-March 2022)

Six communities were agreed to represent the region in the Panel: Dumfries, Stranraer, Annan, Langholm, Kirkconnel and Kelloholm, and St John’s Town of Dalry. In November 2021, Annan was deselected on account of it being selected to participate in a similar alternative project.

Once the communities were selected, desk research and learning visits were conducted. This was to gain a deeper understanding of each Place sufficient to ensure a representative selection of residents for their Sub-panel, and begin the recruitment.

Potential Sub-panellists were contacted on a one-to-one basis to learn more about local issues and perspectives. Agreement was reached with each community on twenty citizens considered representative of the diversity of the population as a whole. These included a minimum of 4 young citizens: 2 primary and 2 secondary schoolers.

## Phase 2: Preliminary Panel Discussions (March - June 2022)

Phase 2 consisted of a series of full-day meetings in each of the participating communities, with an additional drop-in day for those citizens who were unable to attend on the date.

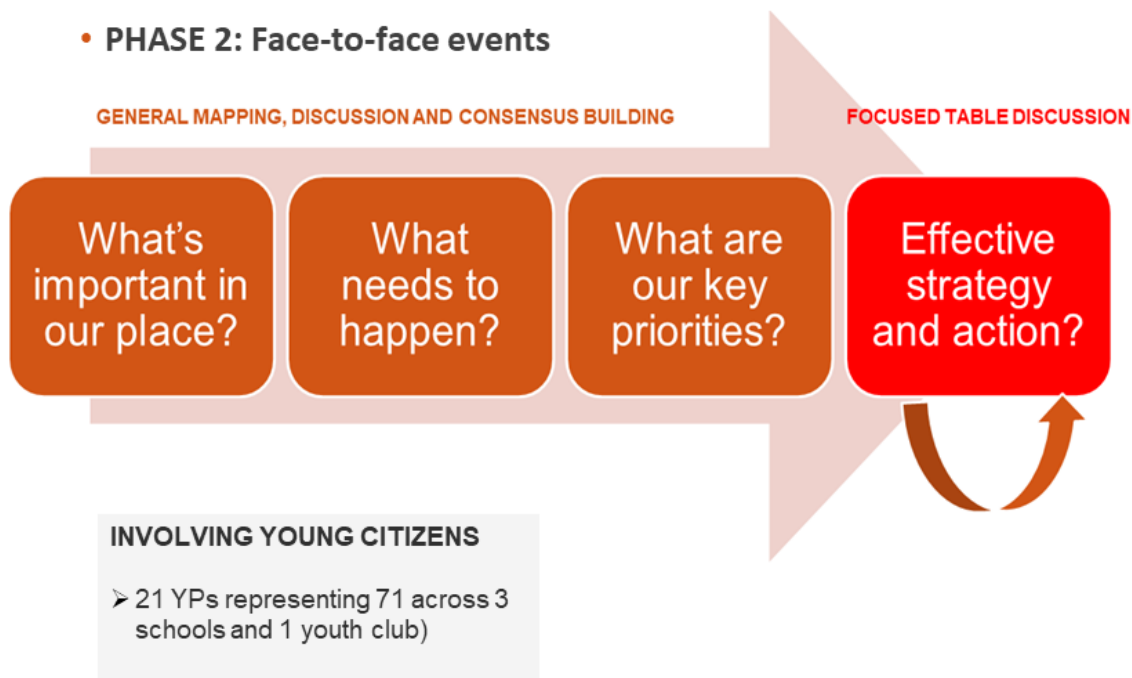


Figure 29. Building Consensus Around Local Priorities

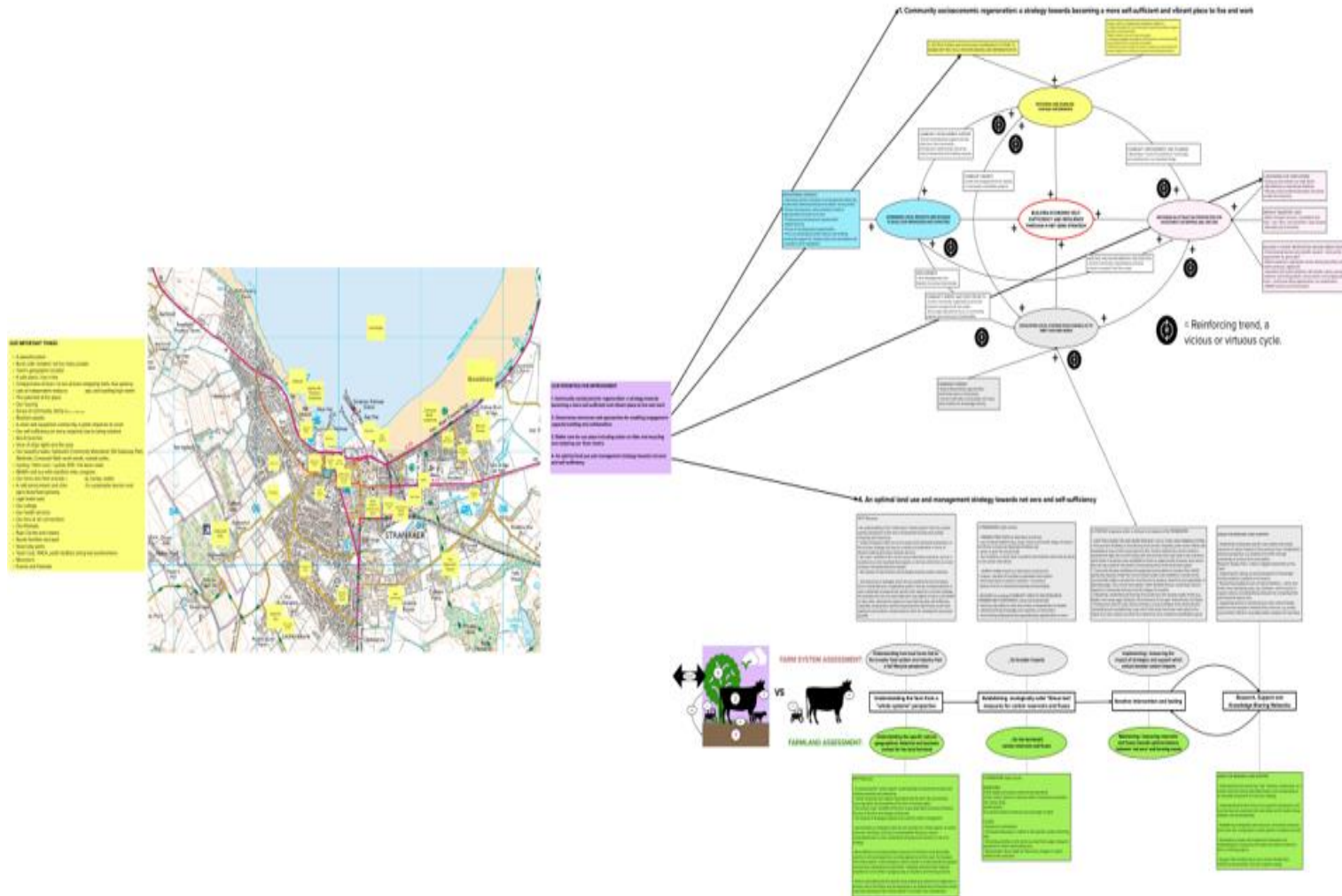


Figure 30. Example of a Mural board showing Phase 2 outcomes for Stranraer

These entailed consensus-building processes which began with agreeing important assets and qualities of Place, and key priorities for improvement. The second half of the session involved splitting into sub-groups to develop projects to address the highest priorities (see Figure 29 above).

In three communities, these events were preceded by engagements with the local primary school, (and in one, with the youth club also) which were represented by the young citizens on the Panel. The important contribution of young people to the Panel cannot be overemphasised. Key outcomes, including strategies around waste, public transport, environmental restoration, and in particular education and capacity building, were mainly attributable to them. Indeed, often the youngest Panellists made the most informative contributions.

The outcomes for each community were shared with all the participants via an online Whiteboard for comment and verification that they constituted a faithful and accurate representation of their deliberations. One example of these outcomes is given in Figure 30 above and shows the asset mapping on the left, and the priority projects represented as systems diagrams on the right.

As described in the section 6 Priority Themes above, the Priority Themes emerged from those foci of priority projects which were common across the 5 participating communities.

### Phase 3: Expert Witness Panel (October - December 2022)

Phase 3 involved a programme of online discussions of between 1.5-2hrs consisting of 2 substages. For the first substage, Panellists from each community came together to discuss each of the 6 Priority Themes, and decide on common Sub-priorities to take forward to the second substage.



Figure 31. Building Consensus Around Effective Strategies and Action

In the second substage, the group of citizens involved in each Priority Theme were joined by Expert Witnesses. These were selected for specialist knowledge relevant to the discussion, and to help inform and improve the Sub-priorities. A similar model underpinned both substages and the final Phase 4 of the project, and is shown in Figure 31 above.

39 Expert Witnesses directly participated in these conversations, with a further 10 contributing informally or anonymously to help clarify or strengthen the factual context or considerations. Due to the selection criteria (see below), half of these experts were council officers. The remainder were academics, specialist or high-level representatives of core agencies, or directors of NGOs with relevant pragmatic focus.

**The criteria agreed and applied in the selection of the experts for the Expert Witness Panel (EWP) were:**

- **Commitment to showing up**, to ensure full attendance, participation and continuity during the project, and potentially beyond.
- **Technical or practical know-how** relevant to one or more of the Priority Themes and be able to contribute meaningfully to co-developing citizens' Sub-priorities and priority projects.
- **'Changemaking' potential**, and ability to directly influence or implement changes critical to the Model or Strategic Plan.
- **Access to changemaking networks**, enabling them to source the necessary expertise or disseminate essential information where necessary.
- **Genuine belief in the process and the possibility of change**. Essential to the credibility of the Panel to citizens.
- **Interest in and motivation** for one or more of the Priority Themes, to help identify synergies between them in the concluding Phase.

The outcomes of Phase 3 were the 22 Sub-priorities under the 6 Priority Themes (see Section: Twenty-two Sub-priorities above and related Appendices for the Priority Themes).

## **Phase 4: Concluding Panel Discussions (January - February 2023)**

Phase 4 consisted of a final meeting on January 30th between a distilled selection of Panellists and experts. This was to review and improve the Sub-priorities, and to consider common themes and important synergies between them and across the Priority Themes. Numbers were limited to ensure a rich conversation and successful collective decision-making.

During the final online meeting citizens and experts split into breakout groups of those selected for each Priority Theme, to refine Sub-priorities and identify important synergies with the other Priority Themes. The breakout groups then reconvened for a final summing up, and the

amended outcomes were sent out to participants for a final confirmation. These included a number of follow-up online meetings where further discussion was required.

The outcomes of Phase 4 were the Regional Model, the final improved set of 22 Sub-priorities under the 6 Priority Themes (see Section: Twenty-two Sub-priorities above and related Appendices for the Priority Themes), and considerations and recommendations under the Strategic Actions and Commitments.

## Relating Methodology to Place and Principles

Figure 32 below illustrates the importance of the Principles underpinning the Citizens Panel methodology. The figure is a conceptual representation of the Panel design and process through the 4 Phases, starting from the bottom up. It is intended to show how the Regional Model was reached through a process of Emergence which began, and at all times sought to maintain, its roots in the Lived Experience of Place. The aim was that the Region as a whole might express itself authentically through a requisite diversity of the communities and citizens therein, participating throughout the Panel phases (Unity-in-Diversity).

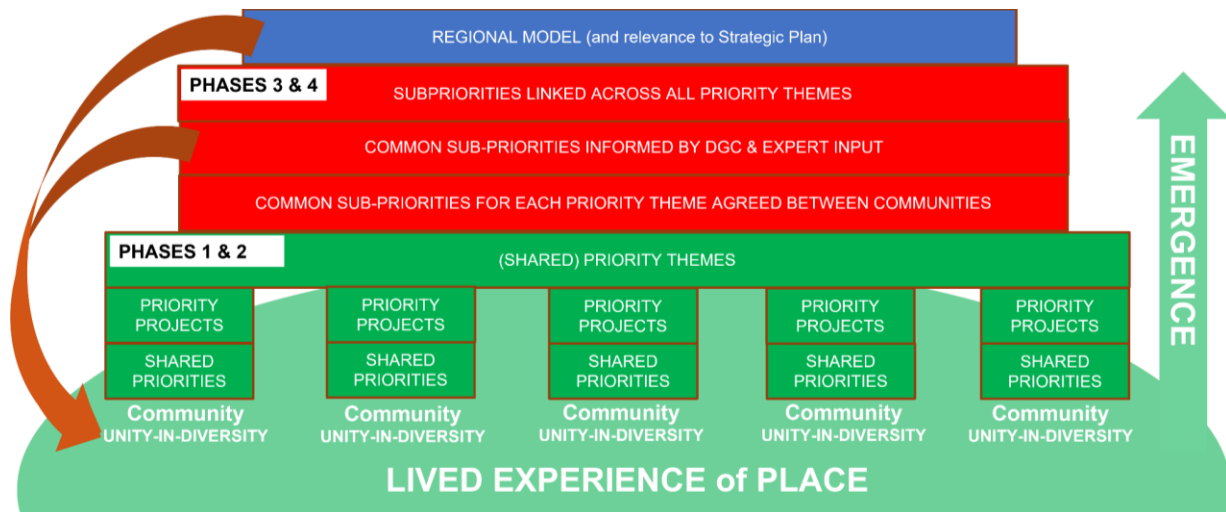


Figure 32. Relating Methodology to Place and Principles

The brown arrows to the left emphasise the iterative nature of the dialogue. This always sought to test and refine emergent outcomes by referring them to realworld experiences and events. It asked what these ideas look like and how they play out in the messy, nuanced and systemic context of Place, in real day-to-day lives. At all times, efforts were made to resist the urge to oversimplify, talk in the abstract or from organisational perspectives.

## System A and System B

The colour coding used in the Figure 33 below depicts a useful way of thinking about the dialogue between council and experts, and citizens, one that has been much clarified by Panel deliberations. This posits that perceptions of Place can be thought of in terms of two qualitatively different systems: System A and System B, as represented in Figure 33 (see also Priority Theme 1).



Figure 33. System A / System B

**System A** (green) represents the grounded, lived-experiential, perception of Place. This is held by Citizens with regard to their communities, and by each and every one of us, about the place we and our families make our home. Given the familiarity and depth of knowledge we have of our communities, this perspective is always nuanced, dynamic and non-hierarchical, and formed and informed by our memories, everyday experiences and relationships with our Place. It instinctively understands and can simulate a range of dynamics informing and influencing the functioning and make up of our Place.

Where deliberation about the priorities or future prospects of a Place is grounded in this perception, collectively-agreed decisions are informed by this understanding and intuitive wisdom. It can take on the characteristics of being led by Place, on shared local needs and aspirations, built on the principles of common good for all residents.

**System B** (blue) is the abstract understanding of Places from a management or departmental perspective. This is determined by policy levers, a suite of services, performance targets and indicators, reporting, processes and procedures, profit-and-loss, risk assessment, rules and regulation etc. When we enter the realm of work, we often move from System A to System B.



This results in a more targeted perspective of the world and a narrower view associated with problem-solving specific tasks.

System B is defined by national governance and law, and vertical departmental structures with multi-tiered hierarchies, which are driven by cost or efficiency measures. The abstract generalised ideas and targets which drive decisions about Places, and the decisions themselves, are often detached and distant from the living realities of System A, and inflexible to the nuanced dynamic local context. In System B mode, decision-makers can disregard or distrust guidance or feedback from System A, reverting instead to interpretations of abstract policy or law, arguments for economic growth, or to concepts of individual rights to reach conclusions.

**‘Meaningful Dialogue’** (red). The key to bridging the gap between System A and B necessary for partnership-working, is the recognition that they are fundamentally incompatible. Each cannot work to the rules of the other without losing what makes it valuable for adaptation and transition, and seeking a compromise could weaken them both. System B can provide the stable vision, direction-of-travel, rudder and resource management necessary for change. System A can provide the dynamic context and feedback from the coalface about the realities of what is or is not working. In an ideal regional model of transition, each system should be given the freedom to develop and operate according to its nature and rules, while responding to a meaningful and transformative conversation between them. How to do this was the focus of Priority Theme 1 and has emerged as the project’s overriding priority.

This is an argument for why Community-led Place Plans, albeit with loose guidance from System B, must be given freedom to evolve in their own way according to the specific System A nature of each Place. If Local Place Plans are seen and managed by System B purely as an extension of the Local Development Plan and the Strategic Plan, they will not be sufficient to facilitate dialogues across the two Systems. If the dialogue between Systems A and B is left unnegotiated, it can lead to the implementation of policies which are genuinely harmful and pernicious to local Places. Meaningful dialogue between Citizens and in this instance the Local Authority is seen as the most effective way of mitigating this scenario.

## Conclusion

In conclusion, the Dumfries and Galloway Citizens Panel on Climate Change has achieved broad consensus with Expert Witnesses on a number of Priority Themes and Sub-priorities of material importance to achieving regional net-zero. Taken together, these form a coherent Regional Model for a just transition, and provide a real and grounded context for reviewing and progressing the Council’s Strategic Plan.

This review has resulted in proposed rewordings of existing Strategic Actions and Commitments, and the addition of one new Strategic Action and two new Commitments. The Panel outcomes have provided a rich context and vital considerations for interpreting each of

these, and a set of 39 Recommendations for progressing them in alignment with the Regional Model.

If only one of these Recommendations is taken forward it should be to implement new models of partnership-working (SA1). This has emerged as the priority of overriding importance to successfully achieving the Strategic Plan, and avoiding disturbing pitfalls and setbacks, of which the Panel has surfaced a significant number.

The preceding theoretical chapter concluded that successful partnership-working requires both communities and authorities to fully appreciate there may be a fundamental incompatibility between their perspectives on transition, and the knowledge which informs them. These are termed System A and B, respectively. This appreciation, and the tools for enabling a meaningful dialogue between them, underpin the success of the Regional Model. It may be that a basic disjunct between the two perspectives is not fully grasped by either. Government appears to be implementing legislation which assumes System A and B work by the same rules. The citizenry is either investing hope in the belief that System A can deliver the needs and aspirations of a System B transition, or is terminally apathetic that it is capable.

If a meaningful dialogue cannot be enabled, a decade from now many people may be wondering why the goal of net-zero, just transition, community empowerment and land reform embodied in national policy never manifested as intended. By then, the scientific consensus suggests the impacts of climate change will have worsened so severely that the legacy we leave future generations will only be more threatening and dangerous. For these reasons, it cannot be underestimated how important it is to actively and bravely pursue new models of partnership-working, while remaining cognisant of the perspectival disjunct.

In terms of new models of 'one-team' partnership-working and consensus-building, this Citizens Panel and the Expert Witness Panel can be considered to be a successful pilot for moving forwards together as a region. This is particularly so, if it proved possible to interface the Panel with the Cross-Party Alliance and the Council Officers Group. This would create a single entity to hold the vision of the Strategic Plan, its head steering the ship, while its feet remain firmly rooted in the nuance and complexity of Place.

It is therefore imperative that the significant potential in these structures and developments are harnessed, and that the Council leads the way to positive adaptation. This project has entailed a group of citizens, young and old, who have invested a great deal of time and collective wisdom in the outcomes. They are motivated to take forward a better future, but, and this cannot be stressed enough, their trust and desire to collaborate is contingent on ongoing dialogue and implementation around what they have co-produced. With the trust and collaboration of the citizenry, the Strategic Plan is certain to succeed. Without it, Panel outcomes would suggest it is guaranteed to fail.

## Appendix 1: Priority Theme 1; Enabling Partnership-Working

The focus of Priority Theme 1 is the need for effective dialogue and collaboration between communities, authorities, experts and stakeholders around the transition to net-zero. The PT has relevance to all other Priority Themes and as such the Panel believes the success of adaptation and the Strategic Plan relies on its success. The concerns related to this Priority Theme were repeatedly expressed by all communities involved.

**Contextual Constraints and Considerations;** established by broad agreement to be highly important or relevant to this Priority Theme and its Sub-priorities, either across communities and/or between Citizen Panellists and Expert Witnesses.

- A net-zero strategy, particularly given shrinking budgets, depends on effective partnership-working and responsibility-sharing between communities, local government and stakeholders.
- Robust Community-led Place Plans, and a network of strong local anchor organisations, liaison groups and volunteers (called the 'intermediary layer' – see Figure 1 and SP1.2) are fundamental to achieving the above. They could provide an essential link between abstract top-down policy and planning (System B) and the lived holistic knowledge and experience of place (System A) (See Figure 32). A strong community council and development trust provide an important hub.
- Critical to partnership-working is transparent, purposeful and ongoing dialogue which takes the long view and leads to more effective and efficient collaboration and learning around net-zero solutions. New approaches which are working well for DGC bear similarities to 'agile' methodology (a software development process), in contrast to traditional public consultation models, which are increasingly associated with costly disengagement and entrenchment.
- Departmental budget allocation, where increases in one lead to decreases in another.
- The costs and challenges of good consultation and engagement around particular areas and projects. The need to restore trust in situations where dialogue has broken down and there is entrenchment, and the associated cost of consultations which lead to adverse outcomes.
- Power dynamics exist in any partnership-working context and those who may be 'gatekeepers', risk averse, or believe they know the 'right way' can obstruct participation and influence decisions.
- National policies, priorities and standards are beyond the control of the local authority.
- The law and legal constraints.
- Influence of and over the private sector, and costs often being the determining factor in outcomes.

## **Sub-priorities for Priority Theme 1:**

**SP1.1;** Co-designing new models of partnership-working which are longitudinal, purposeful and ‘agile’; the model in Figure 7 proposed and agreed by Citizen and Expert Panellists represents prior experiences of successful partnership-working processes. The model proposes a marked step-change from the consultation format generally employed by the local authority and in planning processes, both of which are commonly perceived as contributors to apathy and disengagement.

The model entails a collaborative and ‘agile’ approach from the early inception stages of projects, including developing community partners in the form of representative liaison/interest/working groups, as soon as priority actions have been identified. A ‘pre-consultation’ phase has been commonly associated with successful collaboration.

Re-designing and re-thinking ways in which the local authority works with communities offers scope to turn the strongly felt sense of apathy and disengagement in communities into opportunities to build partnerships and trust.

**SP1.2;** Cultivating Community-led Place Plans (CPP) for a just transition: where they legitimately represent the views of the whole community, CPPs provide effective mechanisms which enable partnership-working. CPPs can include systems features and dynamics relevant to adaptation and local net-zero strategies and can therefore also facilitate regulation around dynamics which are counterproductive to the Strategic Plan. CPPs might usefully incorporate credible demand for local housing and business units, community food and energy (PT2), opportunities for young people (PT3), a flood risk and response strategy (PT4), land use strategy (PT5), and public / active transport needs (PT6). CPPs should responsibly balance local priorities which might conflict with a net-zero agenda ensuring that the process of transition is inclusive and sufficiently broad enough to include a wide range of views and perspectives. Elements relevant to the net-zero strategy should enhance and not disrupt the high-quality Community Place Plans / Local Place Plans / Action Plans already developed and in existence across the region (see also SP2.2).

**SP1.3;** Public education on net-zero and its relevance to citizen needs and values; without which opposition to the strategy by citizens and their elected members may be likely, particularly in the context of the cost-crisis and the unreliability of online information. Communications must be co-developed with communities to ensure the tone is not patronising, respectful, understands difficult personal circumstances and identifies ‘win-wins’ by harnessing collective wisdom. The kerbside recycling collection project in Dumfries town was a positive example of collaboration cited by Panellists. Co-developing communications and engagement can form part of the model for collaboration depicted in Figure 7.

**SP1.4;** Enabling and supporting community groups and anchor organisations; stimulating the ‘mycelial’ layer between government and citizenry (see the ‘intermediary layer’ in Figure 1), to grow stronger, network and self-organise. As mentioned in SP1.1, without the support and involvement of community groups, it is difficult to see the net-zero strategy being achieved in a just way, efficiently and successfully. Supporting the ‘intermediary layer’ of community workers

is therefore fundamental to adaptation and achieving net-zero. The Panel identified the following ways in which community groups can be better supported;

- Actively strengthening and supporting community councils, development trusts and other community liaison groups.
- Recognising that an optimised 'intermediary layer' will spend its time on local action and engagement, as opposed to red tape and fund-chasing, and that true (not tokenistic) partnership and recognition of their work is essential to effective collaboration.
- Understanding that partnership-working saves resources on communication, engagement, public relations, and through avoiding entrenchment within communities. These may often be unseen by DGC.
- Facilitation and engagement training for citizens inhabiting the 'intermediary layer', including young people (see PT2, PT3), in order to support greater community engagement and buy-in. (SP2.2, 2.7, 3.3).
- Prioritising local hubs (enhanced Locality Hubs), and online networks, which enable an interface and continuity of relationship between communities, the local authority and the third sector around local strategy and priorities (see also Recommendation 4, Priority Theme 1). Frequently accessed hubs provide spaces for ongoing transparent conversations between DGC and communities around resourcing, subsidiarity, shared responsibilities, and helping to identify local needs and tailored support. They also offer opportunities for shared learning between communities, with experts, and physical space for meetings and storage etc.

## Appendix 2: Priority Theme 2; Building Community Self-Sufficiency

The Panel identified greater community self-sufficiency as a fundamental component of adaptation and reaching net-zero. Priority Theme 2 and its Sub-priorities identify key elements of local wealth-building and resilience strategies necessary for communities to lead on their own transition. These are represented in Figure 3 and include diversifying business spaces and housing, addressing local energy and food security, developing apparatus for self-determination through Community-led Place Plans, and building local capacities.

**Contextual Constraints and Considerations;** established by broad agreement to be highly important or relevant to this Priority Theme and its Sub-priorities, either across communities and/or between Citizen Panellists and Expert Witnesses.

- Resilient, locally self-sufficient communities form the backbone of a regional net-zero strategy.
- In a context of overall shrinking budgets, the above necessarily requires greater sharing of responsibilities between government and communities.
- Without effective community plans it is difficult to demonstrate credible demand as a part of a longer-term vision, and to establish proactive (and not reactive) project development and investment strategies.
- Stable long-term funding streams are difficult to find for projects, and investment 'opportunities' are often limited by priorities and criteria determined elsewhere. This can lead to inefficient fund-chasing and hold-ups.
- Without the capacities, resources and infrastructure to enable wealth-building and resilience, communities cannot take a lead on adaptation and transition by themselves.

The result is preoccupation about meeting essential needs, rather than a long-term focus on net-zero and effective transition.

- Apathy and disengagement can be a challenge for community organisations, where often a small number of residents shoulder the weight of responsibility and action (see Figure 1 the 'intermediary layer', also PT1.2).
- Other factors and dynamics are working against building community wealth and resilience (e.g. second homes, energy efficiency standards for landlords, property cash buyers, loss of farms or schools, declining community benefit schemes). Without regulation and if place plans do not carry the necessary regulatory weight, the result will be depopulation and dysfunctional communities.
- Evidence -empirical and anecdotal- suggests there is latent economic potential across the region which is being constrained by the lack of requisite diversity of industrial spaces and housing to enable 'churn' (i.e. the ability of businesses and residents within a community to upsize and downsize in response to need).
- The profit margin requirements of contractors, growing cost of materials, and the increasing unavailability of local capacities is a disincentive for small or speculative developments, and render some rural development non-viable for the private sector.

- The cost crisis is sharpening the focus on energy and food costs, and the need to build security and resilience. At the same time, collaborating on the response can result in closer partnerships between citizens and authorities.
- Relevant departmental budget allocation, where increases to one lead to decreases elsewhere.
- It can be difficult for small teams in the local authority to balance big projects with the nuanced development requirements of smaller communities from a cost / resourcing perspective (even though small interventions can be transformative).
- The current lack of availability of local contractors who would benefit from a regional procurement strategy.
- Challenges around land and property ownership for communities to develop wealth-building opportunities.
- National-level priorities, policies, standards, and funding structures, which are beyond the control of the local authority.
- The law and legal constraints e.g. around procurement or building standards.
- Influence of and over the private sector, profit and market dynamics and how it impacts on communities' abilities to build wealth and resilience.

## **Sub-priorities for Priority Theme 2:**

### **Broader Consideration for all PT2 Sub-priorities:**

Successful wealth-building and adaptation plans may result in short-term emission rises, despite being a part of an effective longer-term regional / global net-zero strategy. Longer-term benefits and emissions reductions should be weighed against short-term losses when considering net-zero strategies.

**SP2.1;** Re-channelling 'extractive' wealth into community wealth-building. Figure 14 depicts the largely extractive economic contexts in which communities exist, and the opportunities for re-channelling wealth into local economies. In an environment where, due to insufficient profit-incentives, the private sector is unwilling to invest in many of the services required for local adaptation (e.g. affordable housing, industrial units, buses), there is an urgent need to find alternative models of funding and investment to meet community needs. This challenge is exacerbated by the erosion of local public services as a consequence of spending cuts.

**SP2.2** (and SP1.2); Cultivating Community-led Place Plans (CPP) for a just transition. Effective CPPs can facilitate partnership-working by identifying local opportunities and challenges for wealth-building and adaptation. Effective CPPs are plans which:

- articulate transition to local self-sufficiency;
- demonstrate credible demand in the context of a net-zero and wealth-building strategy;
- act as catalysts for investment and action; and
- regulate against counterproductive developments and dynamics (see SP2.7, 5.4).

For CPPs to be effective, they require consensual backing, strong anchor organisations to take them forward, and support aligning the Plans with long-term funding opportunities. There are

many pre-existing community plans and it is important to build on these with new net-zero “enhancements” as opposed to reinventing them (see also SP1.2).

**SP2.3;** Plugging the revenue / capacities ‘gap’ for community-led projects, as a part of a joined-up end-to-end package of support and partnership-working (see Figure 15, also SP1.1). Proactive communities can often access capital expenditure for community projects, however enterprises can often stagnate as a result of lack of capacities and the operational investment required for project delivery. Revenue funding is often fragmented and communities cannot make effective longer-term development plans based on discrete, short-term funding programmes. Support for capacity-building is ordinarily general where tailored information and training specific to project needs would be more beneficial. Examples where the gaps between revenue and capital funding have been successfully bridged point to those where longer-term relationships between communities and the Council and/or Third Sector have been built, and there is a shared commitment to a project and navigating the terrain of a disjointed funding system.

**SP2.4;** Diversifying community (SME) business spaces and housing stock, through partnership-working between anchor organisations, the third sector and DGC; based on local needs and credible demand articulated in Community-led Place Plans. Although these two needs are typically dealt with by different departments or sectors, they are intimately interrelated for communities. Indeed, local wealth-building is often contingent on them. Where DGC is able to work in partnership with communities, unused buildings can be retrofitted to provide eco-friendly business spaces and industrial units, and rental models designed to align with local needs. Empirical and anecdotal evidence suggests a high level of demand for business units and affordable housing across the region, see Figure 16. Data on occupation could provide a potent measure of the success and reliability of long-term investments in this area. It was suggested that DGC might initiate a standalone net-zero local economic regeneration project through long-term low-interest loans supported by the National Government.

**SP2.5 (and SP5.3);** Addressing local food security, an SP identified by all participating communities. Increasing opportunities for market gardening and local food growing can support the return towards a regional food system and the reduction of carbon emissions from food miles. It also builds local resilience at a time of increasing food prices, increasingly susceptible to broader global factors outside the control of communities and the local authority. Food growing was also repeatedly linked with helping to address mental health challenges by Panellists. There are a range of synergistic benefits from promoting local food growing as part of the adaptation and net-zero agenda (see also SP5.3).

**SP2.6;** Developing and enabling viable models for community energy schemes, including partnerships or profit / skill-sharing with non-regional renewable energy companies. This Sub-priority represents a significant opportunity for wealth-building and resilience through projects which directly reduce emissions. It also enables communities to use profits to develop wealth-building opportunities and other adaptation projects. Some local energy schemes can also lead to the direct provision of energy and support for those most vulnerable to the cost of living crisis



through locally defined needs-based pricing models. There are opportunities to link this Sub-priority with the capacity-building opportunities identified in SP2.7 and 3.3.

**Broader Consideration for SP2.6:** Representative carbon accounting of renewables; renewable energy produced within D&G but supplied outwith the region should be omitted from regional carbon accounting, as it is considered a form of carbon offsetting. Only renewable energy generated and consumed within the region should be included in emission accounting for the Strategic Plan. See also SA6, Recommendation 1.

**SP2.7** (and SP3.3); Tailoring education services to meet local needs and regional net-zero plans. The Panel outcomes point to significant capacity gaps in relation to adaptation, carbon reduction and the Regional Model, some of which can be filled through tailored education and training where they are determined through partnership-working between communities, DGC and schools. Such initiatives can support D&G to get a head start in developing green and sustainable businesses and capacities as a region, while also providing local employment opportunities for younger citizens (see Figure 20, also SP3.3).

**SP2.8** (and SP5.4); Effective regulation of erosive community / land use developments and dynamics. Currently erosive dynamics are undermining communities' abilities to build wealth and lead on their own transition. All participating communities expressed their inability to influence planning decisions where developments were seen to be counterproductive to local resilience and wealth-building. Comprehensive Community-led Place Plans can facilitate effective regulation against these erosive dynamics.

**SP2.9** (see PT1, PT3); Community education and action around refusing, reducing, recycling and reusing waste; building on the positive examples of centres and communication strategies (e.g. Stranraer's Community Reuse Shop and Dumfries Town's Recycling Project respectively), the Panel highlighted how sharing both knowledge and capacities can enable communities to take action on waste. As well as the associated reduction to carbon emissions, clearing up waste was emphasised by the Panel, particularly by young people, due to its benefits in demonstrating and engendering greater care for local places and civic pride. In particular the link between local action on waste and addressing the increasing problems associated with mental health were stressed. For young people the relationship between waste, mental health and civic pride were unequivocal and seen as an integral part of community resilience-building strategies (see Figure 11). Clearing up civic centres and streets also included the refurbishment or renovation of dilapidated and unused buildings, which were often seen as daily reminders of neglect.

**Broader Consideration for SP2.9:** Emphasising the extra-regional and intra-regional benefits of reusing products. Reuse should be encouraged due to benefits which fall outwith regional carbon accounting criteria, such as reductions associated with the production, importation/transportation of new products. Repair and reuse of products will nevertheless also lead to a reduction in waste, and therefore reductions to regional emissions.

## Appendix 3: Priority Theme 3; Retaining Young People

Retaining and attracting young people in and to the region is seen by the Panel as a vital underpinning of local self-sufficiency and the regional net-zero strategy. Young Panellists led the discussion on strategies which could encourage and enable them to stay or return to the region. These included greater participation in decision-making, better opportunities for play, learning, work, being able to contribute meaningfully to their communities, and improvements to education and public transport services. All were understood in the context of cultivating positive experiences during childhood or adolescence and this being a key determinant in young people's decisions to stay or return to their communities and the region.

**Contextual Constraints and Considerations;** established by broad agreement to be highly important or relevant to this Priority Theme and its Sub-priorities, either across communities and/or between Citizen Panellists and Expert Witnesses.

- D&G is already leading Scotland on youth engagement, and there is a lot to build upon.
- A long-term net-zero strategy depends on the region retaining young people, and not losing them on a large-scale.
- Young people stand to risk or gain the most from a net-zero strategy, and often have a clearer grasp of the subject and science of transition than adults, and greater imagination and motivation to act.
- A transparent meaningful dialogue between young people, authorities and stakeholders will lead to more effective and efficient actions and solutions.
- Conversations and solutions could be a win-win for D&G and its young people, promoting retention and net-zero, while also addressing mental health and antisocial behaviour issues.
- Schools could be an ideal crucible for a grounded partnership with young people and their communities to build capacities towards, and enact, just transition.
- Public service cuts and related school management decisions may be contributing to the fragility of the system as it stands, and to some rural communities if schools are lost. Agreement on a model of 'grounded partnership' within this context is essential.
- In conjunction with an effective public transport system, the free bus pass is an enormous net-zero opportunity, particularly if extended to include trains.
- More research is needed to understand how many young people return to D&G following higher education or later in life, and why they do.
- The internet and social media can influence how young people think and act in relation to particular topics.
- Parental, carer and societal attitudes must be taken into account in decision-making processes.
- Relevant departmental budget allocation, where increases to one lead to decreases elsewhere.
- National policies, priorities and standards.
- The law and legal constraints.

- Influence of and over the private sector, profit and market dynamics.

### **Sub-priorities for Priority Theme 3:**

**SP3.1;** Accessible and motivating local opportunities for young people. Antisocial behaviour was a recurring theme in young people's contributions to the Panel and this Sub-priority recognises the role that accessible and engaging opportunities can have in changing the dynamics of antisocial behaviour. Opportunities included activities such as physical exercise/sport, entertainment, play and learning new skills. It also included chances for young people to contribute meaningfully to their local communities, either through volunteering in issues which they felt passionately about, as well as more formalised roles such as apprenticeships or employment. Panellists appreciated that a positive experience of place during childhood or adolescence is a key determinant in young people's decisions to stay or return to their communities (see also SP3.3).

**SP3.2** (and SP6.1); Co-creating joined-up effective public and active transport routes based on individual journey needs; which enable young people to live in their communities but access study and work elsewhere. Younger Panellists from rural communities recognised the positive environmental impacts of active and public transport and lamented the lack of local options. Panellists recognised that positive experiences of active and public transport for young people encourages greater adoption and habituation of greener modes of transport. As well as increasing the number of routes, a number of incentives for young citizens were proposed. These were: scrapping peak time charges for young citizens; a Travelcard-type system which includes buses and trains; and extending the Young Scot pass to everyone aged 25 and below (see also SP6.1).

**SP3.3** (and SP2.7); Enabling more resilient and adaptive schools and education through partnership-working; greater collaboration between schools, communities and young people to understand the role schools can play in building self-sufficient communities. In particular younger Panellists identified the need for building the experience and capacities required to lead on local and regional net-zero action plans and projects. This was underpinned by their wishes for more practical and experiential learning, naturally tying into Learning for Sustainability outcomes as part of the Curriculum for Excellence. Panellists felt participation in decision-making around schools' budgets could better enable support for the challenging decisions related to resource allocation and management, and one community recognised the fragility of their school and wished to take greater responsibility in sustaining it in order to ensure the school remained open, see Figure 21. See also SP2.7. SP3.3 also relates to the outcomes outlined in SP2.9 and 5.5.

## Appendix 4: Priority Theme 4; Flooding

A strong desire was expressed for more meaningful partnership-working and knowledge-sharing with communities around responses to flood risk and planning. Included in this was greater participation with communities in the process of determining flood risk responses; broader consideration of the impact of flood defences on communities' wealth-building prospects; and opportunities to explore natural flood management as alternatives to hard defences.

Deliberations revolved around citizens' concerns for decision-making processes giving rise to a model for effective partnership-working specifically around responses to flood risk.

**Contextual Constraints and Considerations;** established by broad agreement to be highly important or relevant to this Priority Theme and its Sub-priorities, either across communities and/or between Citizen Panellists and Expert Witnesses.

- Effective flood risk management is underpinned by principles of community sustainability and public safety, which are shared by communities, DGC and experts.
- In terms of public spend, extreme flooding events are a relatively new and growing expense, where resourcing defences, emergency response, repairs, divisive public consultation or legal fees, as well as inaction, all draw from budgets across local and national governmental departments.
- Public safety is a legal duty for DGC under the Civil Contingencies Act, and a material precaution in decision-making, although there are cases where communities are sharing responsibility for this by forming flood liaison groups and collaborating with local authorities around emergency response plans.
- The 200 year future-proofing standard for defences can lead to solutions which are perceived to be over-engineered and expensive to communities, particularly for those who have never experienced an extreme flooding event.
- Hydrological models are the best flood predictors we have, but they have weaknesses: including the inability to link to surface water models, to easily incorporate hypothetical natural flood management schemes, snow melt and qualitative data (e.g. photographs), and have been known to 'break' due to complexity.
- After publication of national or regional flood risk plans, or of tenders being awarded for flood research studies or defences, the opportunity for communities to feed meaningfully into the dialogue or influence solutions is substantially narrowed and less flexible (e.g. because priority areas and actions have already been articulated, and the methodology and budget is pre-agreed during the tender commissioning process).
- The UK lacks empirical research on the impacts of natural flood management strategies, particularly whole catchment. An exemplar in Scotland is a community-led project (The Tweed Forum in the Borders). While hydrological differences exist between the Tweed river system and those in Dumfries and Galloway, Expert Witnesses have proposed further exploration in the region due to the social, economic and environmental benefits witnessed in schemes internationally covering a wide range of catchment types and river systems.

- The funding and planning cycles in relation to flood risk are out-of-synch, and “use it or lose it” deadlines can put pressure on parties to implement solutions within particular timeframes, which may not be conducive to reaching effective decisions collaboratively.
- The public consultation process around flood defences in Dumfries and Langholm has led to costly entrenchment, anger and distrust between parties. In both cases, the communities have expressed a perception that legitimate questions and contributions are not being meaningfully taken on board, and that the solution is a “fait accompli”, and engagement an exercise which carries little weight.
- Expert witnesses have cited local examples where they perceived community engagement to have worked well, notably, Castle Douglas (D&G), Hawick and Newcastleton (Scottish Borders), and Strathyre (Stirlingshire).
- National policies, priorities and standards (e.g. the 200-year future proofing standard of flood defences).
- The law and legal constraints (e.g. the Civil Contingencies Act).

### **Sub-priorities for Priority Theme 4:**

**SP4.1;** Meaningful dialogue between communities and authorities around local responses to flood risk, greater partnership and collaboration around finding appropriate responses to flood risk, which combines local and expert knowledge, see Figure 26. Broader considerations such as historical experience and anecdotal knowledge should inform decision-making, and natural flood management considered as an effective mitigation strategy (see SP4.3). Analysis and solutions should consider local wealth-building strategies, such as when views of the river are key to a visitor proposition, or where flood defences have an impact on development and building opportunities (PT2). While these considerations can be included in Community-led Place Plans facilitating decision-making (SP1.1), local flood liaison groups acting as representatives of communities were also recognised as critical to effective partnership-working (SP 4.2).

**SP4.2;** Proactive flood risk planning by communities; management, response and resilience. Exemplars of partnership-working involve local flood liaison groups engaged in emergency planning and response. Liaison groups can act as effective points of contact, facilitating meaningful dialogue between communities and the local authority. Encouraging and supporting the development of these groups, which may not be formed otherwise, can significantly contribute to improvements in the engagement of communities and reaching effective decisions and strategies.

**SP4.3;** Mobilising whole-catchment natural flood management (NFM) schemes. Some experts and communities believe that research evidencing the benefits of NFM is not sufficiently considered, or may be unrecognised. Investment in building the evidence base, case studies and capacities, as well as a framework of subsidies towards whole catchment solutions, could lead to ‘win-win’ solutions involving many of the Sub-priorities under PT5. NFM also precludes carbon emissions associated with the construction of hard concrete defences.

### **Broader considerations for SP4.3:**

1. Extra-regional benefits of NFM; an additional opportunity presented by whole catchment NFM are the extra-regional net-zero benefits that upstream schemes can have on downstream authorities. These may also be accounted as part of the region's carbon reductions.
2. Carbon emissions resulting from the construction of hard defences and the reductions and biodiversity benefits associated with NFM should form part of the evaluation and criteria for determining effective responses to flood risk.

## Appendix 5: Priority Theme 5; Optimal Land Use and Management

Priority Theme 5 represents the most significant opportunity for the Strategic Plan and route map, and one where the strength of feeling in communities was clearly expressed. The PT covers a range of topics related to land use and identifies policy, market forces and knowledge gaps which are advancing erosive dynamics for communities. Evaluation, monitoring and regulatory frameworks to address these are also proposed.

**Contextual Constraints and Considerations;** established by broad agreement to be highly important or relevant to this Priority Theme and its Sub-priorities, either across communities and/or between Citizen Panellists and Expert Witnesses.

- Achieving net-zero is impossible without an effective 'carbon capture' strategy for "Land Use and Management". Within such a strategy peatland restoration is 'low hanging' fruit.
- The above depends on an effective integrated framework of assessment and ongoing monitoring and regulation.
- Such a framework will need to be adaptable to the nuance of the local environment, and this requires local knowledge, notably that of farmers.
- Losing local farming systems and capacities could destabilise any long-term net-zero strategy and local food security.
- There are currently at work largely 'extractive', and potentially net-zero counterproductive land use and management trends, which are threatening traditional farming in some areas, and undermining community wealth-building aspirations.
- Other than via the planning system, DGC has relatively little influence over matters related to regional energy and the environment.
- Ecological changes resulting from a warming climate necessitate responses which cannot be foreseen or planned for.
- Addressing scientific research and empirical knowledge gaps.
- Challenges around land ownership, including some very large estates in the region.
- National-level priorities, policies and standards, where there is a degree of incoherence about priorities (e.g. around peatland protection vs renewable energy provision etc.).
- The law and planning decisions which are reserved due to the size of developments.
- Influence of, and over, the private sector, profit and market dynamics.

### Sub-priorities for Priority Theme 5:

**SP5.1;** Coherent policies and action prioritising protection and restoration of organic soils; the need for an integrated net-zero land management strategy covering the whole region was identified. This needs to take into consideration the unique and specific characteristics of the different ecosystems and bioregions existing in D&G. In particular, peatland was identified as requiring further protection where the regulatory criteria for developments on peatlands should consider the extent of peatland cover as much as its depth.

An integrated regional strategy for protecting and restoring soils should include traditional farming and estate management in maintaining peatland health; consider the risks of inaction;

and recognise the potential for community-led restoration and income generation exemplified by projects such as Tarras Valley Nature Reserve (TVNR), see Figure 17.

**SP5.2;** Integrating biodiversity as a core consideration and component of a net-zero strategy; including biodiversity either directly as biomass in carbon accounting or as a 'carbon plus' measure. This represents a substantial potential gain in the net-zero strategy, avoiding inadvertent biodiversity loss; promoting and encouraging regenerative farming practices (treating farms as ecosystems); and supporting species which have evolved alongside traditional farming (e.g. curlews). Further research is required to identify, baseline, and improve local exemplars of and launchpads for biodiversity.

**SP5.3;** Co-designing a whole-system net-zero strategy to protect and support regional farming. The Panel identified a range of strategies and actions to protect and support regional farming, including further research into the true impacts of farming on a net-zero strategy and based on whole-system considerations.

Protective strategies for farms include:

- Evaluation of a fair and effective whole-system carbon accounting; e.g. balancing the merits of 'global' vs 'local' farm systems, and 'farm' vs 'no farm' scenarios within the region (see Broader Consideration below);
- Identifying policies, trends and knowledge gaps undermining local farming and food systems so as to enable them (e.g. market pressures and 'green clearances'); and
- Regulation of the conversion of farmland to commercial forestry.

Strategies to support regional food and farming systems include:

- Promoting and incentivising local food systems e.g through public sector procurement, and enabling shortened supply-chains regionally and inter-regionally (local abattoirs, food processing and packaging); and
- Capacity-building towards community market gardening, including encouraging urban and peri-urban gardening and increasing allotment space (also SP 2.5).

#### **Broader Consideration for SP5.3:**

Impact considerations essential to an effective regional net-zero farming strategy are:

- a 'global' vs 'local' farm scenario: e.g. potential contribution to community wealth-building and resilience; to local food and economic security; food mile reductions, as well as other out-of-scope impacts of reducing global supply-chain emissions; and
- a 'farm' vs 'no farm' scenario; including loss of opportunity for local food and economic security, as well as increased food miles; out-of-scope impacts of increased global supply-chain emissions; and 'offshoring' emissions of local meat by loss of farms. This is displacing the problem, usually to a place where the impacts may be worse for the climate.

**SP5.4** (also SP2.8); Regulation of erosive community / land use developments and dynamics. A range of policies, trends and knowledge gaps undermining community wealth-building and



resilience were identified. These sit alongside the requirement for effective regulation to reverse these dynamics, which are often the result of policies or projects aimed at achieving national net-zero targets. Figure 23 and 25 represent the complex and intersecting dynamics of the range of land use trends experienced by communities.

Community-led Place Plans (CPPs) can facilitate effective regulation against these dynamics by identifying the intersecting impacts of projects on local places and their wealth-building and resilience strategies. They also identify opportunities to turn erosive impacts into those which support community wealth-building and resilience, see Figure 24. This is contingent on both communities preparing consensually derived CPPs and the regulatory authority working in partnership around their Plans (see also SP1.2, 2.2 and 2.8).

Actions proposed by the Panel which support turning erosive dynamics into those which promote community wealth-building and resilience include:

- Involving communities in determining frameworks for and carrying out regulatory monitoring.
- More diverse / 'mosaic' / balanced woodland and land uses (Sitka monocultures are exposed to pathogenic risks, impact adversely on the local environment and communities feel over-saturated by them).
- Controls on commercial forestry and wind farms where these replace farmland and peatland.
- Statutory requirements for commercial forestry and renewables to provide direct support to communities, such as through profit and asset sharing (see PT2 and SP2.1).
- Research to fill knowledge gaps regarding effective environmental evaluation and monitoring.

**Broader Consideration for SP5.4.** Whole systems and supply-chain impacts of Sitka forestry; assumptions regarding the value of Sitka to a net-zero strategy must consider whole systems impacts of forestry operations, for example; the impact on soil, water table and rivers, biodiversity, resilience of monocultures, employment opportunities for local people, the longevity of products, and contributions to global waste.

**SP5.5;** Community-led environmental restoration as an investment and wealth-building proposition; this Sub-priority links land use strategies to community wealth-building and resilience strategies outlined in Priority Theme 2. Figure 17 represents current projects and aspirations of the Tarras Valley Nature Reserve (TVNR) project, a pioneering example and golden opportunity for community-led environmental restoration.

The TVNR project can serve as a template for other communities as it addresses a range of net-zero and adaptive strategies identified across the Panel's Priority Themes, such as:

- restoring peatland so that it optimises its sequestration potential (SP5.1);
- restoring and growing areas and corridors of biodiversity (SP5.2);
- supporting local farming and food production (SP5.3 and 2.5);
- promoting opportunities in community forestry including more diverse / 'mosaic' / balanced woodland including benefits to 'green health', education, local economy, biodiversity etc. (SP5.4, 2.1, 2.7 and 3.3);
- providing ecotourism opportunities in the region;

- creating expert rural jobs which young people can access through further education and training (SP2.7, 3.1 and 3.3); and
- linking ecotourism destinations to public and active travel routes (PT6).

**SP 5.6;** Meaningful dialogue with communities towards developing optimal net-zero land use strategies and greater allocation of resources to facilitate transition. Given the complexity of Priority Theme 5, and the wide range of interacting areas, it is imperative that citizens (farmers and communities) are involved in the development of a net-zero land use strategy, through partnership-working rather than tokenistic consultative exercises. Targets must be co-developed, goals achieved in collaboration with all stakeholders (communities, commercial forestry and renewables operators and experts) and in full awareness of the impacts actions can have on the ground for local people and their wealth-building and resilience strategies. The Panel recognised that net-zero is contingent on meaningful dialogue and partnership-working, as well as the need for greater resources to be allocated to areas of land use and management.

## Appendix 6: Priority Theme 6; Effective Green Transport Infrastructure

PT6 was a high priority for all 5 participating communities and seen as vital for connecting communities sustainably, enabling access between home and essential services, and to work or study. Deliberations focused on how joined-up, journey-centred active and public transport routes can be established through partnership-working, with communities presenting the case for credible demand for new or re-established routes. In the context of the cost crisis and public service cuts, and considering the rurality of many communities, PT6 was seen as an existential concern for 3 of the 5 participating communities.

**Contextual Constraints and Considerations;** established by broad agreement to be highly important or relevant to this Priority Theme and its Sub-priorities, either across communities and/or between Citizen Panellists and Expert Witnesses.

- An effective green transport system is fundamental to a successful regional net-zero and community wealth-building strategy, and could be one of its most transformative components.
- In a context of shrinking budgets and subsidies, improvement necessarily requires greater collaboration and sharing of responsibilities between government, communities and private operators.
- The impressive take-up of bus travel by young people as a result of the free bus pass is a golden opportunity and intervention point to build upon, particularly if it can be leveraged to demonstrate the viability of vulnerable or lost rural bus routes.
- The ideal solution is to build first and then incentivise use. Unless the infrastructure is there, easy-to-use, affordable, reliable and needs-based, there is little incentive for the public to move to the system. Often after one bad experience citizens can return to using their cars.
- System fragility may be attributable to factors associated with privatisation, particularly the viability of routes being determined by their individual profitability. This has resulted in a reactive ‘slow death spiral’ decline of rural services across the region (see Figure below “Some erosive factors and dynamics”).
- Route provision involves multiple corporate, public, publicly-supported and community operators, therefore influencing, coordinating and executing a “one-team” joined-up strategy is complex and challenging. This is the case particularly when profit-per-route is the measure of success, as opposed to creating an effective network.
- Legal constraints around modifying, supplementing or competing with services on commercial routes, as well as commercial confidentiality with regard to corporate practices and decisions.
- The part of the network provided by the private sector is monopolised by a small number of corporations who carry a lot of influence.

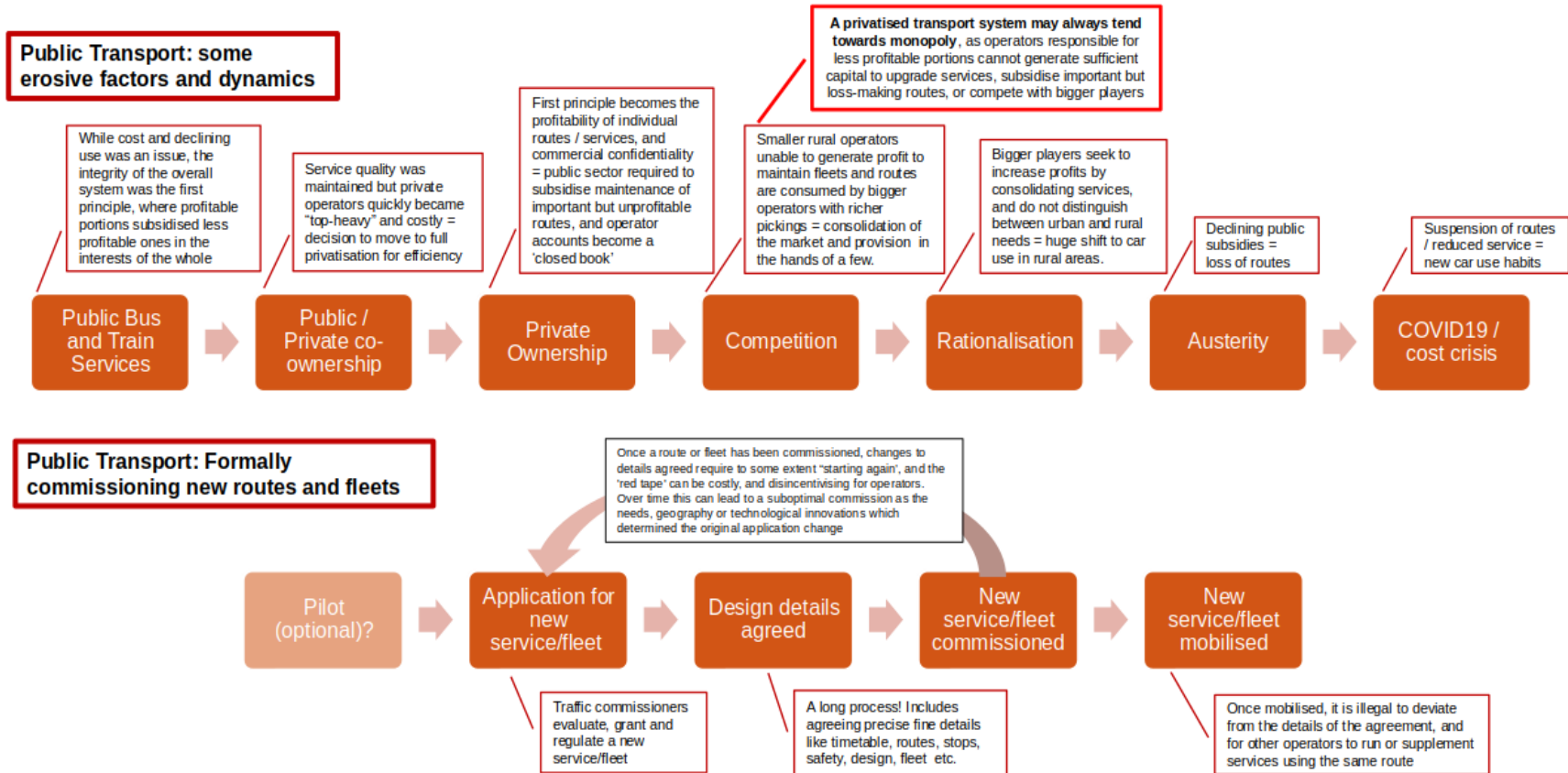


Figure 34. Background Context and Constraints Associated with the Public Transport System

- The time and cost of “red tape” and bureaucracy around commissioning and upgrading new routes or fleets may be a disincentive for private operators to optimise their services or fleet unless required. It is also not conducive to an agile adaptive system (see Figure above “Formally commissioning new routes and fleets”) and once a service is lost, it is a challenge to re-establish it.

### **Sub-priorities for Priority Theme 6:**

**Broader Consideration for PT6:** Fair accounting of transit traffic; traffic in transit through the region, should not be accounted for under the regions’ net-zero balance, as it falls outwith the control of DGC.

**SP6.1** (and SP3.2); Effective public and active transport routes based on citizens' personal journey needs. Panellists identified a 4 step process through which communities and the local authority can collaborate to establish/re-establish new public and active transport routes. Figure 8 represents these 4 steps. The model can be piloted in a town or across a number of rural communities with an initial focus on routes where DGC has flexibility to work in conjunction with community transport and amenable private operators, and where consultations or Community-led Place Plans suggest the needs of young people could be leveraged to evidence success. There was appreciation of the challenges associated with establishing new routes, including those identified in the ‘Contextual Constraints and Considerations’ above; the long timeframes necessary to implement such projects; and the lack of flexibility in modifying routes once established. Notwithstanding these, because of the essential nature of public transport services for many communities, citizens expressed willingness to engage in such pilot projects (see also SP3.2).