

NETHERWOOD SUSTAINABLE FUTURES

Sustainable Governance Policy Practice



CLIMATE READY GWENT

Capturing the Lived Experience

Overview Report

Dr. Alan Netherwood & Dafydd Thomas (May 2019)



1. INTRODUCTION TO THE PROJECT

- 1.1 In October 2018, Newport City Council on behalf of Gwent Strategic Well-being Assessment Group commissioned Netherwood Sustainable Futures and Well-being Planner to undertake a project called *Climate Ready Gwent: Capturing the lived experience*.
- 1.2 Climate Adaptation had been identified in 2017 by the five Gwent Public Services Boards¹ as a regional priority following their local Well-being Assessments². The aim of this project was to work regionally to inform local Well-being Assessments and Well-being Plans and identify opportunities for regional collaboration. This, project funded by Welsh Government, sought to:
- engage with Gwent communities on climate adaptation
 - learn about the lived experience of climate change in Gwent's communities to inform well-being planning
 - capture evidence to stimulate community level and PSB climate adaptation planning
- 1.3 It is important to note, that this innovative approach is unique in Wales and climate adaptation is a new and developing area of work for many of the agencies and communities involved. The project was deliberately focused on the 'lived experience' of climate change to localise climate impacts and explore methods and capturing and communicating risk and adaptive action to both communities and decision makers.
- 1.4 The project was managed by a Climate Ready Gwent Steering Group made up of local authority PSB co-ordinators, with project overseen by Natura Resources Wales. The project team were Dr. Alan Netherwood from Netherwood Sustainable Futures and Dafydd Thomas from Well-being Planner. The project lasted from late October 2018 to April 2019.
- 1.5 The project has provided nine local case studies, which provide the main output of the work. These are provided in Appendix and summarised below. It has also resulted in this overview report, which reflects on the lessons learnt from the work and key messages to Gwent PSBs.
- 1.6 This report also provides analysis, insight and recommendations from the project team about how the PSBs could approach climate adaptation planning through collaboration between agencies and communities in Gwent. The project has also provided Gwent PSBs with a synthesis of data to include in their well-being assessments, and material and data to draw on for further engagement work on this issue.
- 1.7 This project used a range of innovative methods to develop discussions with the community on this complex issue. This included: focusing on past and present experiences and future priorities; risk assessment exercises; community of enquiry sessions to identify priorities; semi-structured interviews; world café work to explore adaptation response; and plenary discussions on adaptation planning. The project team have also, as part of the analysis, provided models on climate adaptation and community engagement which Gwent (and other) PSBs can use to explore how they might want to engage communities on this issue in the future.

¹ Public Services Boards are formal partnerships involving local authorities, health boards, Natural Resources Wales, Gwent Police and South Wales Fire and Rescue Authority among others. They are required to develop collaborative local well-being plans, informed by well-being assessments. This is in response to their legal duties under the Well-being of Future Generations Act (Wales) 2015. Gwent's five PSBs cover Blaenau Gwent, Caerphilly, Monmouth, Newport and Torfaen. GSWAG supports regional collaboration on well-being planning.

² Gwent Well-Being Priorities: Overview Report and Response By The Gwent Priorities Task Group. A report commissioned by Gwent Strategic G7 Group - Gwent Strategic Well-being Assessment Group (GSWAG)
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1.8 READ IN CONJUNCTION WITH CASE STUDIES

1.9 The nine case studies or ‘engagements’ with communities and agencies are set out below. These engagements are diverse in scope, methodology and depth, but used a set of similar themes to explore climate risk and response. More information on the specific methodologies used, and the process by which these engagements were selected are discussed in part two of this report, and in the case studies in Appendix 1.

- a) **Blaenau Gwent Children’s Grand Council** provides a forum for representatives from all primary schools in the area to work with the local council, enabling young people (year 6 children aged 10-11) to influence what the local authority does. The Children’s Council meets several times a year and engages in interactive activity to inform the children and agencies working in the area. CRG engagement sought to capture young people’s views of climate change, understand how they perceived climate risk in the community and key messages for decision makers for planning for changes in Blaenau Gwent’s climate. CRG project team were particularly interested in the perspectives and views of young people on the future impacts of climate change on their community and their messages to decision makers about the future.



- b) **Blaenau Gwent 50+ Forum** is a group of residents which meet twice a year to provide input into Council policy and practice affecting older people in Blaenau Gwent. The network, chaired by a lead local authority councillor, receives input from local agencies and advises on and informs service delivery in Blaenau Gwent County Borough Council. CRG engagement sought to capture older people’s views of how the local climate had changed during their lives, understand how they perceived climate risk in the community from increased incidence of severe weather and key messages for decision makers for planning for changes in Blaenau Gwent’s climate. The CRG project team were particularly interested in the views and perspectives of older people of changes over time, but also, their insights into the impact of climate change on the elderly community.



- c) The CRG project sought to work with **Blaenavon Town Council** to engage with Blaenavon residents about their lived experience of climate change. upland community of 6000 people at the head of the Afon Llywyd valley at an altitude of 1000ft. The area has many challenges in terms of service delivery, community well-being, and regeneration. The intention was to engage with key groups in the town through the Town Council, including schools, youth group, older people’s forum, Bron Afon Housing Association, working via the Mayor and Town Councillors. It was also intended that the activity would link into wider inter-agency and community work being facilitated through Blaenavon Community Hub and the Blaenavon Heritage Site. CRG were particularly interested in community views of resilience to increased incidence of extreme weather in an upland community.



- d) **Blaenavon World Heritage Site** is UNESCO designated and covers the town and landscape, focusing on the value and ongoing protection of its industrial heritage. The site, in Torfaen County Borough, is of outstanding international importance, and its management is designed to afford it special protection. The multi -agency management of the site supports a wide range of economic, environmental, social and cultural activity in the town and wider landscape. Part of the management plan recognises the potential impact of climate change on the interests and future management of the site, and the need to understand and manage climate risk over the period of the plan up to 2024 and beyond. CRG engagement sought to open-up the discussion between agencies and the community about these potential impacts and establish a ‘frame’ around which future adaptation planning could take place. The CRG project team were particularly interested in the impacts of climate change on a landscape level and how this might impact on a site with World Heritage designation.



- e) **Cwmcarn Forest** is a working forest estate run through a partnership of agencies in Caerphilly County Borough. It is a tourist destination with trails, mountain biking facilities, fishing and camping attracting approximately 250,000 visitors per year. Plans are being developed to bring more accommodation to the site and grow the site as a major tourist destination. Cwmcarn has steep sided valleys with planted ancient woodland and conifer crops. Tree disease for larch trees has required large scale felling. Recent wildfires have had a negative impact on the site and caused air quality problems in neighbouring communities. The aim of the CRG engagement was to focus on the lived experience of people managing the site from different agencies and members of the community, to understand their perspective of the likely impacts of increased frequency of severe weather on the site, and how this might play out in the future.



- f) **Goldcliff Community Council** Goldcliff Community Council represent a small rural community (230 people) to the South East of Newport on the Gwent Levels. The community were engaged in order to understand how they perceive the potential impacts of increased incidence of extreme weather on Goldcliff and the Gwent Levels. Insight was being sought on the community’s resilience, and key messages for agencies and groups responsible for managing the landscape and local services. Residents were also asked about their perception of climate change over time. CRG were particularly interested in the impacts of climate change on a community within the lowland Gwent levels landscape, with a combination of risks to the coast, flooding, agriculture and landscape management.



- g) **Gwent’s Farming Community** Gwent farmers and landowners were identified as a key target group to engage to understand their lived experience of climate change. The project aimed to get insight into their perspectives of climate change over the past decades, how they manage their land and businesses in current severe weather and their insights into how they and other landowners and farmers will need to adapt in the future. The project team aimed to explore impacts on land, water management, crops and livestock. As the CRG project developed, opportunities arose to explore these factors by:

- engaging with landowners in the Gwent levels via work with Goldcliff Community Council, Living Levels Partnership and the Caldicot and Wentlooge Levels Internal Drainage Board (IDD Board) this sought to involve lowland land owners engaged in mainly small-scale sheep and dairy farming, who also provided major input into managing the Gwent levels landscape .Of particular interest were current and planned approaches to managing coastal erosion and surface water in the landscape.
- engaging with landowners via the South East Wales Resilient Uplands Partnership, around the Blorenge area north of Blaenavon, which covered areas of Torfaen, Monmouthshire and Caerphilly County Borough Councils/ This engaged upland landowners and sheep farmers- 'commoners' whose livestock graze the upland common playing a major part in managing the uplands landscape. Of particular interest were current and planned approaches to managing, water, soils and wildfires in the landscape.



- h) Monmouth is a historic market town, with a population of approx..16,000 people, and is the main retail, educational, and cultural centre for an extensive rural area. The surrounding area is rural and sparsely populated with extensive rolling countryside, tree cover and farmland. Flood protection is a key issue for the community, with a focus on both river and surface water flooding.; The project team worked with **Transition Monmouth**³. to engage residents to explore their perceptions of past, present and future severe weather and to understand how they think climate risks should be managed locally. CRG were particularly interested in how residents viewed a combination of climate risks (not just flooding) from the perspective of economy, environment, local services and people.

- i) **Transition Monmouth#2** the project team used the information on climate risks and response from the first engagement to help Transition Monmouth identify climate adaptation actions and to begin climate adaptation planning with the local authority and agencies. This aimed to bring together agencies, town councillors, Monmouthshire Council officers and councillor, with the community, to explore priorities and ways in which they could develop collaborative action to deal with climate risks to the town. The aim was for this work to provide a forward agenda for continued work on climate adaptation through Transition Monmouth.



³ *Transition Monmouth* is a community group that “aims to increase self-sufficiency, reduce the damaging effects of climate change and economic instability. In the face of declining natural resources, the rise in cost of fuel and food, the problems of pollution and the destruction of our environment” they aim to create a low carbon, local, and self-reliant community. They have worked closely with Monmouthshire Council, NRW and other agencies on projects and practical action since 2009.

1.10 The breadth of the engagements enabled the project team to develop a rich understanding of how communities and agencies can link their lived experience to climate change, their perception of risks and the ways in which they think about managing climate risks into the future. The project engaged 150 people in these discussions, with space created for agency and community collaboration and multi-agency discussions. This project ‘scratched the surface’ of the potential for climate adaptation in Gwent. This report provides an overview of what we have learnt from these nine engagement and through managing a regional project of this nature, and how this can inform PSB, agency and community activity on this in the future. The following paragraphs describe what each section of this report provides.

1.11 Section 2 – **Methods of capturing the lived experience** - an overview of the methodologies adopted by the project team to capture the lived experience in Gwent. It also focuses on the lessons that can be learnt from the different approaches taken for each CRG case study

1.12 Section 3 - **Perceptions of climate risk in Gwent** - an overview of how the different communities, public agencies and partnerships perceive climate risk to their lived experience terms of their view of the past, present and future views of severe weather, and the key risks which need managing in terms of landscape, townscape, economy and environment in the future.

1.13 Section 4 - **Views on climate risk management Gwent** - an overview of the wide range of ideas from each engagement on how to manage climate risks at a strategic, community, service and operational level. These suggestions have arisen directly from discussion about the ‘lived experience’ and reflect what communities and agencies feel could ‘be done’ about climate risk through collaborative and public service activity in Gwent.

1.14 Section 5 – **Learning on climate adaptation engagement** - analysis and observations on key themes emerging from the project including: recommendations on how climate adaptation could be framed to best capture the lived experience; lessons learnt for future approaches to climate adaptation at a regional and community level; and how partner organisations and Gwent PSBs might progress climate adaptation on a community, site and organisational level. A model approach is suggested with CRG could use to consider future engagement on climate adaptation

1.15 Section 6 – **Recommendations for Gwent Public Services Boards** - specific points for Gwent PSBs to consider on how they progress climate adaptation actions at a regional level, and within individual PSBs. This section also includes provides a selection of quotes from the case studies which illustrate the wider point made in this overview report. This advice provides a potential forward agenda for Climate Ready Gwent partners to consider.

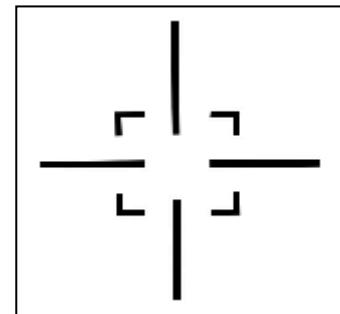
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2. METHODS OF CAPTURING THE LIVED EXPERIENCE

The following section provides an overview of the methodologies adopted by the project team to capture the lived experience in Gwent. It also focuses on the lessons that can be learnt from the different approaches taken for each CRG case study. Please note that more detail is provided in the case studies on methodologies employed and their success. Reflections on the methodologies are also included in Section 5 of this report.

2.1 Determining the project's focus and establishing engagement

2.1.1 The project team met with the local authority PSB leads and agencies (the Climate Ready Gwent Steering Group) in November 2018 and ran a workshop to determine the focus of the project. This covered current understanding and the evidence of Gwent specific climate risks; key internal and external audiences of the project; the desired impact of the work (on who, what and to what end?); priority impacts that the project should cover, and which community/community of interest it would be good to work with and why? This used a presentation and exercises and the community of enquiry technique⁴ to determine which communities and issues the project should engage on.



2.1.2 As a result of this, the following priorities were selected: it was intended that Gwent wide work would focus on the Gwent levels and Gwent's farming community; and the following communities/sites were initially selected for consideration: for Torfaen – Blaenavon; for Blaenau Gwent, Abertillery; for Caerphilly; Abercarn and/or Fochriw; for Monmouthshire, Monmouth and for Newport, the Lighthouse Park Community on the Wentlooge levels.

2.1.3 The project team followed this workshop with visits and discussions with each of the project partners, Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen Councils, Natural Resources Wales, South Wales Fire & Rescue, Aneurin Bevan University Health Board and Gwent Police. These discussions were used to understand existing work going on in the community/site, and for the project team to understand existing relationships and specific issues of concern. Where possible, tying in with these meetings, the project team visited the town/community/site for a 'field visit' to get a sense of the landscape, townscape and community.

2.1.4 NRW and Torfaen Council called specific team meetings to discuss potential engagement in December 2018, providing valuable advice, insight and data for the project. NRW also facilitated discussion with the Gwent Levels: Living Levels Partnership to help the project team identify engagement which might also support their activity. Councils made key officers aware of the CRG project to support the project team to gather relevant information and engage key agencies and parts of the community

2.1.5 As a result of these visits and discussion, a refined set of target areas/issues emerged:

- Blaenavon Town Council and Blaenavon Heritage Site,
- Blaenau Gwent's +50 Forum and Children's Grand Council,
- Gwent Levels; via Goldcliff Community Council;
- Gwent's Farming Community Levels and the Blorenge Uplands covering parts of Caerphilly, Monmouthshire and Torfaen Councils
- Cwmcarn Forest;

⁴ **Community of enquiry** Is a workshop-style session that offers space for a group of people to collaboratively explore ideas and ask rich and meaningful questions of each other. share what they think and do and why, while listening to others coming from different contexts or positions. It "is different to other facilitation methods in that it doesn't start with a set of questions or a problem, but instead lets a group define what they want to discuss." <https://www.iriss.org.uk/resources/tools/community-enquiry>

- and Transition Monmouth.

2.1.6 The project team began, from December 2018 to work through the Councils, groups and other agencies to develop and refine what type of approach would best capture the lived experience in each locality. The engagements were planned in January 2018 and delivered between February and early April 2019.

2.1.7 The project team developed the engagements through the local authority PSB leads, via NRW, direct contact with Town and Community Councils, in liaison with members of Cwmcarn and Blaenavon World Heritage Site teams, Transition Monmouth and worked via the Gwent Living Levels Partnership and South Wales Uplands Resilience Partnership. For each engagement, the team developed a simple ‘offer’ on what was being proposed, which specified what the project team would deliver and what was expected of those the project was engaging. This enabled all parties to be clear about the intentions of the engagement, to negotiate and refine the content of the engagement and to ‘advertise’ the engagement to target participants.

2.1.8 The project team prepared for the project and specific engagements by undertaking a thorough review of available local information on local communities from PSBs’ Well-Being Plans and Assessments, information on flooding, water resources, land and landscape management, impacts on the built and historical environment and climate adaptation. This included reviewing information from Local Development Plans, Local Transport Plans, Network Rail, Severn Estuary Group, West & Wales Utilities, Dwr Cymru, Western Power, Network Rail, Natural Resources Wales, National Farmers Union, National Trust and Gwent Community Risk Register. This also included understanding local impacts from national assessments on climate impacts including Climate Just from the Joseph Rowntree Foundation, the Wales Climate Risk Assessment and on communicating climate risk through Climate Outreach Information Network. Where sites were involved, management plans were also utilised as part of the engagement.

2.2 Techniques used during the engagements

2.2.1 Although the nature of the engagements was diverse, the project team developed a consistent approach to opening-up and capturing discussion on the ‘lived experience’ of climate change. This approach was applied in every context in a variety of ‘workshop’ sessions, with the information and exercises altered specifically to the nature of the audience. This included the following exercises which were used in all nine engagements.

- a) an opening presentation on **climate impacts, risks and management challenges**, to set the context for the discussion. This utilised local information on impacts where this was available It is important to note that this focused on the likely impacts, risks and how they may impact on people’s lived experience⁵. The project team were able to present this in a range of different contexts and ways to provide the necessary background for engagement

⁵ Key messages conveyed on climate impacts were:

Potential change: climate is warming and sea levels are rising; prolonged summer heatwaves are likely to become more common; increase in winter rain and snow; wet winters are likely to get wetter; less rain in summer but when it does it will be more intense; flood risk will become more severe in some places; sea level rise of over 1m – storm surges; more energy in weather system = more extreme weather

Affecting: rail, water, roads, built assets, communications, energy, land management, biodiversity, landscape, business continuity, food production, service disruption, emergency response and others.....

Impacting on the lived experience in/of households, businesses, communities, individuals, organisations providing services, communities of interest; visitor sites.

Issues to manage to 2050: our roads, bridges and railways – keeping them working; buildings – design to limit damage from storms and floods; health of the elderly and very young; soils, food production and farming – good and bad; water – having enough and dealing with too much; forest & grassland fires – preventing them; coasts – protecting and letting go; helping wildlife move – with winners and losers; landscape – keeping what we like but also using land differently to cope ; electricity – keeping the power on; telecommunications – keeping our IT ‘kit’ working; businesses – making sure they are prepared and can keep going

- b) participants' experience of **past** severe weather and changes in seasonality and nature – local photographs of past extreme weather were used to prompt discussions.
- c) participants' experience of **current** severe weather, which is likely to become more prevalent and extreme. Photographs and example of current effects of extreme weather were used to prompt discussions.
- d) focusing on the **future** – asking participants what future decision makers need to do to plan for a changed climate
- e) **risks to the community/site**, including residents, townscape, landscape and nature, and local economy. Participants were asked to focus on risks in these four categories. Handouts on issues they may want to explore were provided and local maps were available to support this exercise.
- f) **management of climate risks**, including the community's and agency's roles. This focused on the following questions:
 - o *what are the risks you are most concerned about?*
 - o *who/ what is at risk?*
 - o *how could [the place] become more resilient to the risks?*
 - o *what is the community's role in tackling the risk?*



Information from these exercises was captured using MeetingSphere where IT facilities were available, and via flipcharts, post it notes and note taking. These were written up for analysis to include in the case studies.

2.2.3 For Blaenavon World Heritage Site, Cwmcarn Forest and Transition Monmouth, additional exercises were included to build on the above information:

- a **community of enquiry** identifying conceptual questions which could be discussed in response to climate impacts, risk and management challenges. Examples of the types of conceptual questions developed by participants were:
 - o *How do we manage an increase in water in the World Heritage Site?*
 - o *What do we want Cwmcarn to look like in 2050?*
 - o *How can community and authorities work together in an integrated way to adapt to climate change?*
 - o *How can we manage the fuel [burnable material causing wildfires]?*
 - o *How do we manage with the ageing farming community?*
- a **world café exercise** focusing on developing adaptation planning for the conceptual questions identified in the community of enquiry, through the following:
 - o *What are the specific climate risks to be managed?*
 - o *How do we approach managing these specific climate risks?*
 - o *What further information do we need to understand the climate risk?*
 - o *Who needs to be informed, influenced and engaged in managing this risk?*
 - o *What factors are critical to building a business case to address this climate risk?*

Information from these exercises was captured using MeetingSphere⁶ where IT facilities were available, and via flipcharts, post it notes and note taking, where not. These were written up for analysis to include in the case studies.

⁶ **MeetingSphere** is workshop software enabling data to be typed in directly to tablets by attendees and screened to encourage discussion and debate. It is a way of capturing and ordering data quickly and using this in a workshop setting as well as capturing large amounts of data for later analysis.

2.2.4 For the Gwent Farming Community, the project team used **semi-structured interviews**, with prompts on specific farming issues (*land, water, livestock, feed, markets, infrastructure and supply chains*). Notes and recordings from these interviews were transcribed for analysis and use in the case studies.

2.2.5 For Transition Monmouth#2 the project team facilitated an addition exercise on **Climate Adaptation Planning** – this focused the room in a plenary session on specific actions to progress climate adaptation in the community as a result of both workshop sessions. The facilitated discussion focused on: *Continuing the adaptation journey in Monmouth: focus; delivery; outputs and outcomes*. The aim was to use this material to identify an ongoing working agenda for agencies and the community to build climate resilience in Monmouth.

2.2.5 The session with **Blaenau Gwent's Children's Grand Council** included a different set of methodologies to engage these young people in thinking about climate adaptation. These included:

- **triad questions**, with movement, focusing on what's going to see be biggest impact from climate change: people; the environment; local businesses
- **mind mapping** – group work focusing on climate impacts on the place that the children live; the most urgent issues and any opportunities that might occur – this included feedback to the room. Data was captured in mind maps from the children.
- **message for the future** – group work focusing on visioning for the future and writing a message to the people of Blaenau Gwent in 2050. Data was captured on paper from the children.
- **message board** – developing a 15-word headline, a 'call to action' for decision makers in the future – photographed on a message board



2.3 Synthesising and capturing the lived experience

2.3.1 In order to analyse and capture the data developed during the engagements, the project team developed a case study template. This provided a framework to summarise what was done, who was involved, the outputs from the engagement, priorities quotes from participants and word clouds. The case studies are structured as follows:



CLIMATE READY GWENT CASE STUDY – Engagement

1. Nature of engagement
<i>This describes the scope of the engagement to capture the lived experience.</i>
2. Establishing engagement <i>This describes how the engagement was developed with local groups and agencies to explore the lived experience.</i>
3. Community and agency involvement <i>This outlines who was involved in the discussion of the lived experience.</i>
4. Relevant local information used <i>This summarises the local data and evidence which was used to stimulate discussion on the lived experience.</i>
5. Key issues raised – Past <i>This summarises the perceptions of those involved, about how the climate has changed during their lifetimes and their memories of how severe weather has impacted on their lived experience.</i>
6. Key issues raised – Present <i>This reflects the perceptions of those involved, about how severe weather impacts now on their lived experience. Please refer to risk section and quotes later in the case study.</i>
7. Risks to the community/place. <i>This summarises the risks identified by participants to the community, local environment, economy and place</i>
8. Managing Climate Risks <i>This provides an overview of how participants suggest these risks should be managed.</i>
9. Community role <i>This provides ideas from the community about how they can support climate resilience.</i>
10. Reflections on engagement <i>This summarises key issues emerging from the engagement and how the information developed during the engagement could be used in ongoing dialogue between the community and by local agencies.</i>
11. Recommendations for Gwent PSBs <i>Observations and suggestions for GSWAG, Climate Ready Gwent Working Group and PSBs on how this case study informs their continued engagement with the community</i>

2.3.2 The case study format provides a ‘product’ to provide back to this engaged, a way to communicate the key issues to partners, to spread understanding of climate adaptation and a format which can be built on if further engagement is undertaken across Gwent.

2.3.3 In terms of analysis the case study has enabled the project team to look across all nine case studies to reflect on regional lessons from the project and make the observations in this report.

3. PERCEPTIONS OF CLIMATE RISK AND THE LIVED EXPERIENCE

The following section provides an overview of how the different communities, public agencies and partnerships perceive climate risk to their lived experience terms of their view of the past, present and future, and the key risks which need managing in terms of landscape, townscape, economy and environment in the future. This information is important:

- firstly, as insight for the Gwent PSBs on climate related issues of greatest concern to communities and agencies
- secondly, for Gwent PSBs to reflect on whether current approaches to managing these risks are sufficient enough to deal with projected climate impacts
- thirdly – for Gwent PSBs to consider how climate risks are communicated and ‘framed’ to the public, businesses, and partners across Gwent to develop collaborative approaches to managing climate risk
- and finally, where gaps should be addressed at a regional level, or by better collaboration within PSBs.

It is important to note that this section is not a ‘reportage’ of issues listed by participants. Quotes, anecdotes and lists of issues identified are included in the case studies. These should be read in conjunction with this report. This section is rather, an analysis and overview key messages emerging from the work for Gwent’s PSBs and provides detailed insight into the risks and management issues that need to be addressed by public services and others in Gwent.

3.1 Changes to Gwent’s climate, seasonality, weather patterns and current response

The following issues were picked up from the activities where participants were asked about their past experience of severe weather, changes to seasonality and weather patterns during their lifetimes. Recalling past impacts, recounting them and thinking about these in the context of future change was a useful precursor to other activities and to ground climate change in the lived experience.⁷

- there was a clear message that participants thought that there has been a profound **seasonal change** over past decades, that weather patterns have become more **unpredictable** and that **severe weather has become more prevalent**. Those engaged suggested that weather was becoming increasingly erratic, particularly in last decade.
- participants were able to identify **changes in nature** as key indicators of shifts in seasons and focused on flowers, birds, insects, vegetable and fruit growing as illustrations of change.
- participants were able to readily identify and remember particular **severe weather incidents** and the effects they had on their families, neighbours and the wider community. These individual incidents included flooding, heatwaves, wildfires, storms, snow, drought.
- Many of the anecdotes collected spoke of the **impact of the event on their daily lives**, food availability, infrastructural impacts, effects on work and local services. Telling their own stories, engaged participants and the discussion were lively and energised.



⁷ The project team suggest that the past, present, future technique is one that works as a precursor to thinking in more detail about future risks and their management, and ideally should be used only as part of a deeper engagement on this issue.

- of particular interest to many of the participants is the **role of land management** in preventing or exacerbating flood risk and wildfires in the area
- responses suggested a **nostalgia** for people helping themselves, for example, reliance on neighbours, farmers helping services clear roads or put out wildfires, and local informal preventative activity such as clearing drains.
- the current **over-reliance on public service** was acknowledged, however, the responses suggested both agencies and communities feel **increasingly vulnerable** to severe weather and are concerned that it is likely to become more prevalent and intense.
- Participants provided ample evidence that they do not think that this issue is taken seriously enough at present. They suggest that the current pressures on public services and funding increase this risk and that **capacity to forward plan and preventative planning** is essential. This issue is picked up in more detail in Section 4 of this report

3.2 Risks to individuals, residents and communities in Gwent

The following risks were picked up consistently in the exercises focusing on risks to individuals and residents. This shows a sophisticated understanding of the cumulative and pervasive impact of changes to our climate rather than single issue concerns, or concerns in reaction to individual severe weather events. A key finding is that participants weren't concerned about current service disruption, but the longer-term effects on the way that the communities/sites function.

- a) the pervasive and cumulative risk of climate impacts on people's **mental health** associated with increased vulnerability to impacts on their homes, access to services and finances
- b) the fact that **social networks** are not strong enough to deal with increased impacts of climate change and to respond collectively
- c) the pervasive risk of the consequences of an absence of **farming succession** – given how central farmers and landowners are to adaptive response on a community level
- d) the availability and **supply of food** to the community, due to impacts on just in time deliveries and the wider impact of climate change on the local and UK food economy
- e) the disproportionate impact of climate change on those living in **poverty** and the **elderly** in Gwent, who will be less able to cope with the financial, and social impacts of climate change and perhaps less physically and mentally able to cope with the consequences of climate change.
- f) the impact of climate change on families' **homes** in terms of damage from increased frequency of severe weather and the economic impact of increased insurance costs. Impacts on the local **housing market** were also seen as a risk to properties at risk from flooding, tree windthrow and other impacts from severe weather.
- g) the impact of climate change on **access to services** through long term impact on transport networks, and more frequent road and school closures, resulting in the inability of communities to function normally.



3.3 Place-based risks in Gwent's communities

The following risks were also picked up throughout the nine engagements showing a remarkable level of consistency and insight into physical impacts of increased frequency of severe weather on the locality. A key finding is that participants were unsure of the extent to which current interventions factor in climate change (if at all) or whether they are focused on long term resilience. Another is that the participants focused on wider societal risks to the place that they live, rather than focusing on their own individual interests:



- a) a major concern was the potential impact on **road transport infrastructure**, given the perceptions of the current difficulties in managing deteriorating condition of roads and a lack of available funding. This focused on the ability of **road surfaces, road drainage, bridges, road verges, potholes** and **paving** to withstand more frequent and intense severe weather, including a combination of increases in rainfall, flooding and extreme heat.
- b) the participants were also concerned about the how other **essential infrastructure**, which the community relies on, will function under future conditions. This included **electricity** and **gas** supply, **water** supply, **sewerage** systems, the capacity of current **drainage** systems and **communication/IT** resilience.
- c) wider **landscape scale** risks were also identified during the engagement including increased risks of **subsidence** from old mine working, an increased frequency of **landslides**, mine-water and run-off **pollution**, and **coastal inundation**. The impact of **tree windthrow** is seen as a key strategic risk for the individual communities/sites and across Gwent. The availability of **water for agriculture** was also seen as a major strategic issue in the future.
- d) in terms of **built assets**, the participants focused on specific challenges to buildings in terms of flood, storm damage and the potential for overheating. There were also specific concerns about the condition of **heritage and historical assets** particularly from increased water ingress.

3.4 Risks to Gwent's local economies

Managing climate risks to local economies was a key issue emphasised in engagements with communities, farmers and town councils, but also identified as a major issue by agencies. Future work by Gwent PSBs may want to focus in more detail on this issue and engage Chambers of Commerce, Federation of Small Businesses and individual businesses to explore the following risks to the foundational economy⁸ and its management:

- a) the impact of climate change on **fragile local economies and businesses**. There was sense that climate impacts could be a key factor in pushing fragile local economies, retailers, farmers and other businesses over the edge. It was suggested that accessing **business finance** to premises and business enterprises impacted by climate change, for example local food businesses, may cause increasing difficulties. There was also a suggestion that **seasonal work planning** for agencies and landowners on the physical environment was becoming more difficult given the unpredictability of conditions for access and operations



⁸ "the foundational economy is that part of the economy that creates and distributes goods and services consumed by all (regardless of income and status) because they support everyday life. Centre for Research on Social & Cultural Change (2013) <https://foundationaleconomycom.files.wordpress.com/2017/01/wp131.pdf>

- b) **town centre businesses** were seen as being vulnerable to the effects of climate change through repeated severe weather damage to premises but also unseasonal and unpredictable weather patterns throughout the year impacting on footfall. Cancellation of **events** due to extreme weather or climate impacts on local conditions and the economic impact of this on small businesses, was also seen as an increasing risk.
- c) the **resilience of local infrastructure** to support local economic activity was a recurring theme for participants when thinking about local economic impacts. Access to markets, supplier access in just in time systems, access on to land, water availability for business use were all seen as potential risks which needed to be considered. Participants made a clear link between forward planning for climate risks and **business continuity**.
- d) the readiness of **fragile agri-businesses** to adapt to climate change was also seen as a major strategic risk for Gwent. It was felt that while larger operations may be able to adapt and ride particularly bad years for feed and livestock productivity and associated costs, many smaller farms may be less adaptable and profitability – already on a knife edge – may result in business closures

3.5 Risks to Gwent's landscape, biodiversity and ecosystems

Potential climate impacts and associated risks to the natural environment were a constant and recurring theme throughout all nine engagements. Participants readily understood and could explore the way management of the natural environment can help in managing climate risks, through flood prevention, wildfire management, provision of shade in urban areas, and maintaining biodiversity in Gwent. At the same time, concern was expressed about some key risks to the natural environment that Gwent PSBs will

need to address in their approach to climate adaptation. This may need an enhanced approach to public services working with farmers and landowners to address climate risks.

- a) managing an increased amount of **water** in the environment in terms of volume; movement; and capture was seen as key to effective climate adaptation in communities, on sites and within landscapes and sectors. It is very important to note that this was not in terms of dealing with flood management as part of individual incidents and then ‘bouncing back to ‘normal, but for forward planning to adapt a new ‘normal’, utilising the water, as far as possible where it is needed, but ensuring that damage is minimised.
- b) communities, landowners, farmers and agencies all expressed concern on how climate change might impact on **soils** in Gwent. Soil run-off, soil loss, nutrient retention, waterlogging, dispersed pollutants from flooding, saline intrusion and soils impact on water quality in rivers were all raised as key issues which would need careful management, but also careful and supportive engagement with the farming and landowning community to manage.
- c) there was a major focus from participants on risks of **biodiversity loss** in terms of species and habitats including loss of **woodland** to disease, windthrow and soil erosion, and negative impacts on **pollinators**, essential to Gwent’s agricultural productivity. An increase in the prevalence of **invasive species** including Himalayan balsam, Japanese knotweed and tree disease were seen key threats to monitor and manage.
- d) managing an increased likelihood and risk from **wildfires on grassland, moorland and in woodland** was seen as a major strategic risk across Gwent. A change in the nature and a decline in land management practices which minimise burnable ‘fuel’ has resulted in decades of flammable material building up. Having enough local water available to manage these wildfires for some sites



- e) Finally, participants felt that maintaining and managing valuable **landscapes**, (Gwent Levels and Blaenavon Heritage Site) under climate change conditions, was seen as major and difficult long-term challenge for agencies and communities in Gwent. It was felt that the multiple climate risks to the characteristics which make these landscapes valuable (renewable systems in the Levels, and historical and heritage assets in Blaenavon) will need to be better understood and managed into the future.

3.6 Further observations on climate risks to Gwent

This material provides, through exploring the lived experience, a clear picture of a region with some major strategic challenges in dealing with climate risk, and evidence of strong concern from communities and agencies on how we are planning collectively for the future. This evidence also shows a complex set of impacts and risks combining within a place – managed by multiple agencies, often dealing with separate management issues, separately. There is real concern from community and agencies that a future that is going to be impacted by climate change is not being planned for. The community want to find out what is being done on their behalf. The following reflections focus on what we have learned about how communities and agencies perceive *climate risk* in Gwent and what Gwent PSBs need to focus on in future work on this issue



- a) There is a resounding message that participants perceive changes in seasonality in Gwent, indicated through changes in natural environment, landscape, land management practices, work programming, operations and peoples lived experience.
- b) Communities are concerned about the pervasive and wider risks to the community, place, economy, landscape and nature – not just the direct impact of severe weather on people. There is a clear understanding from agencies and communities that severe weather will impact on infrastructure that the community relies on but will also have wider societal and economic impacts.
- c) There is evidence that unpredictability is a new norm for those involved in managing land, townscape and services. This unpredictability is having an impact on normal working practices and work programming and on-site operations/land management.
- d) There is a remarkable degree of consensus on the types of risks which will result from climate change. There are wide, systemic, strategic, operational and community-based risks identified by those engaged including energy security, maintaining transport and other essential infrastructure, managing wildfires, impacts on agriculture and dealing with water management in the local environment
- e) Infrastructural resilience, transport, energy, water, sewerage, drainage, built and historic assets are seen as central to business continuity for the community, the economy and public sector service provision. Those engaged want re-assurance and evidence that climate adaptation is being addressed for these issues.
- f) There is a clear message that local assets are at risk from doing nothing. There is also a concern that vulnerabilities are not being dealt with sufficiently or given enough attention and that a reactive rather than a proactive/preventative approach is being taken by those involved to minimise risk.
- g) Participants were able to provide specific insights on risks to residents, landscape, biodiversity, townscape, the economy, infrastructure. They are able to think about the place that they live in a strategic sense and climate risks over time. Thinking about *place* was the primary response from participants and provided the most data.

- h) They were also able to consider longer term pervasive impacts on climate change on the sustainability of where they live, including the impacts of demographic change, landscape change, biodiversity and impacts on the economy – especially the agricultural community.
- i) 3.7 The project team suggest that there a number of key strategic questions on managing climate risk, that fall out of this material for Gwent PSBs. These are by no means definitive, but should be discussed at a PSB and multi-PSB level in Gwent.
- a) **For infrastructure:** are existing approaches to infrastructure resilience in Gwent long term enough and factoring in climate change? Are infrastructural management approaches lifetime costed, or are decision makers pushing risks further down the line? If so, are there opportunities to take a more collective, coordinated, preventative approach to infrastructural resilience?
- b) **For economic development:** are existing approaches to town centre management and regional economic development going to address any of these risks? Are there any opportunities to do so?
- c) **For health planning:** mental health provision is already a major issue. Increased physical and mental vulnerability to severe weather from climate change will need to be factored into health and social service planning. Is this being done?
- d) **For agriculture and land management:** is pervasive risk of farm succession, being picked up anywhere in well-being planning, or recognised and addressed in public sector strategy? Land management is central to climate adaptation and capacity to do this is critical
- e) **For the environment** - how limited, expansive or proactive will NRW area statements be to address any of these concerns? How can other public bodies address biodiversity and ecosystem risks as well?
- f) For **wildfire management** - how will dangerous increases in wildfire fuel in the landscape be effectively managed at the scale required to increase community safety? How can public bodies work more effectively together to reduce the risk to Gwent's communities?
- g) It is strongly suggested by the project team that Gwent PSBs explore the **sufficiency of current approaches** to dealing with these risks together. The focus of this should be not that “we have a plan that kind of ‘covers’ this already” (like many public sector approaches to climate adaptation) – but explores straight questions like
 - to what extent does the resource and direction of our current approach enable Gwent to manage these climate risks
 - what needs to change in our current approach to increase climate resilience?

4. MANAGING CLIMATE RISK IN GWENT – ADAPTIVE ACTIONS

This section provides an overview of the wide range of ideas from each engagement on how to manage climate risks at a strategic, community, service and operational level. These suggestions have arisen directly from discussion about the 'lived experience' and reflect what communities and agencies feel could 'be done' about climate risk through collaborative and public service activity in Gwent.

This section focuses on the following areas: advice to future decision makers; asks of service providers; supporting adaptive action; practical adaptation solutions; building adaptive capacity; and the community role in adaptation action. The material in this section again providers a remarkable and detailed level of insight on what needs to be done for Gwent to become more climate resilient.

4.1 Advice to Future Decision Makers

The future decision-making advice gathered through the engagements focused on building understanding and creating opportunities to make better decisions with climate change in mind. The material provides a deep insight into level of understanding of participants (which is very high) about what need to change in Gwent's approach to climate adaptation. The following themes emerged:



Table 1. Advice to future decision makers

THEME	WHAT PARTICIPANTS THOUGHT SHOULD BE DONE ABOUT IT
communities	investing in supporting and educating communities about climate risk and engagement in designing and implementing the response
infrastructure	developing design solutions, and lifetime costing
public sector partnerships	collaborative work, proper scrutiny and challenge on climate risk
farmers and landowners	supporting landowners who are so central to the solutions with incentives and information
investment of public funds	plan financial investments with climate impacts factored in
evidence	explore potential vulnerabilities and solutions on a place-based scale
decisions	increase understanding of risk and ask the right questions about climate change
work planning	build in extra flexibility and become less reliant on defined seasons
forward planning	decadal and multi decadal planning for sites and towns – factoring in worst case scenarios as well as gradual change
nature -based solutions	land use, catchment and ecosystem level planning for place
scrutiny	challenge by young and old of future-plans for Gwent on climate change

The project team suggest that Gwent PSBs could explore the extent to which their current approaches support these types of interventions, at an appropriate scale; and which of these interventions should be progressed at public organisation, PSB and Gwent-wide levels.

4.2 Asks of service providers

The engagements also identified specific ‘asks’ of service providers. These are actions which support climate resilience through forward planning for climate risks on services that communities rely on, ways in which service providers can engage key actors that need to be engaged; and building the business case for adaptive action: The following recurring suggestions were made by participants.



- a) Forward planning for climate impacts and the resilience of the following in communities and sites:
 - **road networks**
 - **water and sewerage services**
 - **energy infrastructure**
 - **IT infrastructure**
 - **drainage infrastructure**
 - **health services**
- b) Investing in engagement to manage climate risks
 - local government to support **community engagement** on climate adaptation
 - **business engagement** on climate risk assessments and management
 - **farmer engagement** for opportunities to implement adaptation measures
 - **mental health** support for the farming community
 - provide advice, guidance and support for **decision makers** on climate adaptation
- c) Altering approaches to ways in which service providers work individually and together
 - factor climate risk into long term **service investments and planning**.
 - **alter specifications** and costings for roads, buildings and housing
 - review **management and investment plans** for town and sites for opportunities for climate adaptation
 - agencies working together on long term climate resilience on **sites**
- d) Providing financial incentives for adaptation
 - develop **economic case** for adaptation investment in towns and communities versus inaction
 - **collaborative budgeting** for adaptation activity, developmental and practical.
 - provide incentives for **farmers and landowners** to implement adaptation measures provide incentives for **off grid renewable energy** for communities
 - provide incentives for **grey water harvesting**

The project team suggest Gwent PSBs could explore whether an appropriate level of planning is happening to manage climate risks for the infrastructure that Gwent’s communities rely on. They could also consider where collaborative engagement might have the greatest impact on climate resilience and work together on this, and where collaborative, preventative budgeting might make sense to avoid higher costs in the future.

4.3 Practical adaptation solutions

Participants were able to provide a wide range of practical solutions to managing climate risks in Gwent. These focused predominantly on implementing nature-based solutions including:

- **tree planting** for flood retention, biodiversity and shade
- manage **hedges and verges** for biodiversity and flood retention
- re-establish former ponds, reservoirs and **water bodies** for water management

- introduce **beavers** for water management
- plant **drought resistant** trees and crops
- establish more **fire breaks** for wildfire management
- **tree management** for shade and flood prevention
- retrofit **permeable surfaces** in the public sectors property portfolio

Other solutions focused on assessing climate risk which included: detailed **risk assessments** of vulnerable assets and **business risk assessments** (including farms)



The project team suggest that these practical solutions are considered, and where appropriate pursued. Public authorities often focus on 'low hanging fruit' and practical solutions, and once one project is implemented for an issue, the issue is ticked off (tick box approach). While these practical projects are essential, and can help in communicating climate change, Gwent PSBs should not just focus on the practical, without addressing some of the strategic, systemic and collaborative adaptation actions suggested in this report.

4.4 Building adaptive capacity

It was recognised by many participants that climate risk and adaptation was new to them and that compared to other issues affecting their lives, and the low carbon agenda, that it had a low profile. There was a discernible emotional reaction to the scale of the risks discussed, and many felt that building understanding for communities and decision makers was necessary and urgent.



It should be noted that this project was run at the same time as the national and local news was focusing on the climate rebellion campaign and schools and young people were striking over the 'climate crisis'⁹.

This resulted in many suggestions about how to communicate and engage key actors and the community in order to respond to climate risk. Suggestions included:

- an overall **collaborative campaign** between agencies and communities to raise awareness of climate risk, and understand the needs of communities
- deeper, longer community **engagement** with towns, communities and communities of interest to build a deeper understanding of what motivates people around climate adaptation
- town/community climate change **narratives** to link with wider concerns of communities
- interpretation and education on **visitor sites** to include climate adaptation
- local long-term **visioning** of adapted and un-adapted places
- **citizens' juries** to bring communities and agencies to explore sufficiency of climate risk management
- **events** to include climate adaptation visioning and themed activities

The project team suggest that Gwent PSBs should seriously consider their collaborative approach to engaging Gwent's citizens in climate adaptation. A key question is, if there is to be an investment in developing an understanding of climate risk and response, what happens when people are engaged and concerned – what are the next steps for citizens to act on climate adaption and challenge and support

⁹ <https://www.bbc.co.uk/news/topics/czmw21ewkzot/schools-climate-change-protests>

https://www.bbc.co.uk/news/uk-england-48051776?intlink_from_url=https://www.bbc.co.uk/news/topics/cjyykdwmw58t/london-climate-change-protests&link_location=live-reporting-story

4.5 Community role

All nine engagements included an exercise to focus on how the community could be involved in and contribute to climate adaptation. Participants provided suggestions of practical ways that communities could support themselves and service providers: to build an understanding of climate risk: to gather evidence: and practical projects to manage climate impacts in the community.

An important point made by participants was that any activity engaging the community on this issue builds social networks and in doing so increases the capacity for residents and neighbours to respond to climate impacts. Suggestions by both communities and agencies included:



- interested and informed individuals and groups in the community opening up discussions with **agencies** and **young people** and **older people** to identify ways to adapt – acting as advocates for the issue and challenging and working with local agencies
- **community projects skills sharing to support households** deal with
 - run-off surface water
 - grey water
 - food production
 - increasing pollinators
- for individual sites, **friends' groups** designing and running projects which reduce climate risks
- residents designing and running **local surveys on perceptions** of climate risks and response
- residents **monitoring and surveying** condition of infrastructure, trees and biodiversity
- **habitat creation such as tree and hedge planting, and pond restoration** which manages climate risks
- community support to agencies on **management of green space within communities** and maintenance of **drainage to reduce flood risk**

While a minority of participants felt that it was a challenge to engage the community in any collective activity, these suggestions offer insight to Gwent PSBs on the energy and enthusiasm of the community to 'do something' about the issue. These ideas also show PSBs might focus their efforts to support community involvement in climate adaptation.

4.6 Further observations on managing climate risks in Gwent

The following reflections focus on what we have learned about how communities and agencies think about response to climate risks, providing clear messages to Gwent PSBs on governance, collaborative working and evidence on this issue.

- a) Participants focused on the role that the public sector, utility companies and others have in maintaining infrastructure in the future. They were able to explore their reliance on other bodies, and to question whether enough is being done to factor in climate adaptation to planning these functions in the future.

- b) There are doubts among both the community and agencies that climate adaptation is understood by those making long term decisions on behalf of communities at a public service or political level in Gwent.
- c) There was no evidence of blame – us and them- between agencies and communities on climate risk management. Instead, there was a clear message the decision makers and landowners needed to be supported to adapt current approaches.
- d) Participants felt that there needs to be more clarity on the responsibilities and accountability to drive and address climate risk and adaptation – governance and response to this issue needs to be understood by the community and agencies and open to scrutiny.
- e) There were very strong views that farmers and landowners are central to the solutions to managing climate risk in Gwent. They felt that this is not always recognised in local government activity or strategy. It was felt that further developing existing relationships and engagement between public bodies and the farming community and landowners should be an integral part of Gwent's climate adaptation going forward.
- f) Agencies acknowledged that managing water in the environment, wildfires, and maintaining infrastructure won't be resolved by 'having a plan'. Instead, they did identify that there is a critical need to develop an understanding and a coherent approach to these risks between agencies on the Gwent PSBs, utilities and other organisations they work in partnership with. A good example of this is the need to develop a more coherent approach to wildfire management between NRW and South Wales Fire & Rescue in Cwmcarn.
- g) Increased neighbourliness is seen as a response to individual severe weather incidents. While there was evidence that this was a feature of communities during severe weather now, responses suggest that this can be lacking in local communities.
- h) In some cases, communities felt very distant from decision making and vulnerable to increased incidence of extreme weather. They saw the lack of local services in rural areas as increasing risks from climate change in the locality.



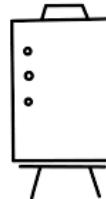
5 REFLECTIONS ON CLIMATE ADAPTATION ENGAGEMENT

This section provides analysis and observations from the project team on engagement on climate change, risk and adaptation. It provides recommendations on how climate adaptation could be framed to best capture the lived experience; lessons learnt for future approaches to climate adaptation at a regional and community level; and how partner organisations and Gwent PSBs might progress climate adaptation on a community, site and organisational level. A model approach is suggested which Gwent PSBs could use to consider their future approach to engagement and action on climate adaptation.

5.1 Techniques and methods used for engagement

The following reflections focus on what we have learned about the methods of engaging communities and agencies around the lived experience of climate change and key issues for Gwent PSBs to think about in their ongoing work:

- a) We have had the following insight into introducing the **concept of climate risk, impact and adaptation** to communities and agencies:
 - i. people do not see climate impacts and risk as a distant inexplicable phenomenon, which they cannot address, but see dealing with future climate risk as a real and current problem that they want to do something about.
 - ii. for people new to thinking about climate risk, it is essential to orientate/contextualise climate impacts and localise these to understand the lived experience. The CRG working group needs to provide this context as part of any engagement. This doesn't need to really focus on the science or causes of climate change – but the likely risks and subsequent impacts on the locality.
 - iii. asking 'what do you think about climate change' is likely to get polarised answer, based on belief or non-belief in climate change (or the minimal UK emissions in comparison to those of China), rather than any real insight into impacts on community well-being.
 - iv. Use of specific information and data from local plans is important when working primarily with agencies. This can help the group explore where responsibility for adaptive action might lie – to identify drive and hook for implementation.
 - v. Learning from this project suggests that linking climate risk to people's particular local concerns, rather than a generic 'issue' may help in increasing levels of engagement
 - vi. many responses during the engagement focused on carbon reduction solutions, rather than dealing with the consequences of increased frequency of severe weather.
 - vii. in future engagement PSBs and partners will need to
 - emphasise that we will have to adapt to the consequences of climate impact that were already expecting and
 - be explicit that while carbon reduction is part of the solution of the wider long-term problem, this will not address local impacts of severe weather.
- b) we have used the technique of thinking about the **past, present and future**. We believe this is a very useful 'frame' to explore the lived experience of climate change at a local level, and have found:



- i. that even in a short time available (with context and facilitation) this frame can provide a rich understanding of how communities view climate change and severe weather. The technique was resonant to participants and created energy and enthusiasm in group work. Participants enjoy storytelling and anecdotes
 - ii. this frame has enabled communities and agencies to explore change over time – it gets people into space to think about risks to place. However, if this is to be used, PSBs need to be clear that this about thinking about change over time as a precursor for thinking about tackling climate change is not an ‘exact science’. Nevertheless, this is important qualitative information on the community’s perception of the issue.
 - iii. this is an adaptable frame which can be used and modified to engage any group, community, resident or member of staff on climate adaptation.
- c) We have used the **community of enquiry technique** in group work with communities and agencies and found these very useful tools to:
- i. open-up and explore the challenges posed by a changing climate. We believe is important to do this with communities before agencies offer up existing policy solutions or describe current activity which might contribute to climate resilience.
 - ii. identify conceptual questions which help the community and agencies to explore whether current approaches are sufficient to deal with the scale of the issues raised, and any gaps in response
 - iii. provide an open and inclusive space for agencies and communities to come together to explore climate risk and response and share their lived experience.
- d) Our experience of **using semi-structured interviews** in Blaenavon and with farmers provided a rich understanding of combined strategic, infrastructural and operational risks to ‘place’. The quality of information is high, helping to explore the risks and challenges and interface between different climate impacts. Interviews are a valuable way of understanding the complexity of multiple climate risks in a particular place.



- e) Using the **world café approach**, asking basic questions on specific risks, actions, evidence, key actors, critical factors is useful. Participants can choose what issues that they want to consider. It filters out platitudes and generalisations. It is important going forward that participants are encouraged to think about who needs to be engaged to deliver adaptive action and receive the business case for adaptive approaches.
- f) Focusing on developing **climate adaptation actions** in Monmouth shows the value of getting beyond the concept, impacts and risks associated with climate change into ideas of how agencies, community can work strategically, practically and build capacity for adaptive action. It should be acknowledged that moving communities from being introduced to climate adaptation to involving them in practical action will take time.
- g) We have also reflected on methods of **developing engagement** through the project and lessons Gwent PSBs can learn from this:
- i. our work with the two Town and Community Councils showed very different levels of interest and engagement in this issue (great interest in Goldcliff, much less in Blaenavon). While there may be a number of factors in play in this, it should be acknowledged that there will be trial and error in engaging people on this issue and learning about what approach works best in each individual local context. We suggest that the process needs time and multiple opportunities to speak to harder to reach groups who have a view, want to share that view and engage in dialogue around these issues

- ii. working through intermediaries such as the Gwent Living Levels Project and developing an understanding of local context is very important – communities and the agencies that are working in them are complex – there is never a clean slate – Gwent PSBs need to look for opportunities to weave climate adaptation planning and engagement into existing fora and projects.
- h) A lot of data has been produced and a **case study format** provides a ‘product’ to provide back to this engaged, a way to communicate the key issues to partners, to spread understanding of climate adaptation and a format which can be built on if further engagement is undertaken across Gwent. In terms of analysis the case study has enabled the project team to look across all 9 case studies to reflect on regional lessons from the project and make the observations in this section.

5.2 Opportunities to develop engagement on climate adaptation in Gwent

The following reflections focus on our learning from the project as a whole and seek to guide Gwent PSBs on their ongoing and future work on climate adaptation. We suggest that:

- a) that communities and agencies need time to understand and explore climate risks in a ‘place’, and it will take further time to develop a local narrative of change, and to identify ways in which these risks can be managed to maintain and improve local well-being.
- b) the more time that is invested in engaging with participants, the richer picture of impact, risk and response. It is strongly advised that surveys, pop up stalls, generic information provision, web base information on its own will not provide the quality of information that is needed to inform adaptation planning.
- c) where work is already going on in communities, PSBs could introduce climate adaptation into local engagement – but need to be aware of capacity issues in terms of understanding and communicating the issue, and the time requirements to organise engagement.
- d) young people can be engaged in thinking about climate adaptation for place and the future. Not just for awareness raising, but focus should be on inter-generational discussions between young and old residents, scrutiny of decision makers and young people understanding the role and challenging organisations acting on their behalf, ways of influencing this through the democratic process. There are opportunities through the Climate Emergency movement to do this,
- e) there is a strong view from participants that for Blaenavon World Heritage Site and Cwmcarn Forest, that further work should be done by partners to build on the CRG engagement and that management plans should be reviewed to include adaptation actions.
- f) these sites also identified an opportunity to use climate risk and adaptation as part of interpretative and educational material for visitors to the site to communicate changing landscapes over time, This approach would help to raise awareness of the issue, promote the sites exemplar activity on climate adaptation and provide examples to similar sites in Wales, UK and abroad.
- g) there is appetite from agencies involved in site management and in Monmouth to develop longer term visions of ‘place’ which incorporate climate adaptation. WLGA and others have used these techniques in the past with some success to communicate a climate adapted future at a community level.
- h) the role of elected officials is very important should be part of any engagement. Information could be provided to local authority ward members and town councillors from this project to inform their own



- i) local activities These town and unitary authority councillors could also have a central role in communicating climate risk, gathering data and opinion on climate impacts in their locality to inform adaptive response.
 - j) the information from this report can be used to inform well-being assessment and plans and to feed into partner organisations plans (e.g. NRW Area statements). It should also be used to inform management and forward plans of the individual sites and partnerships engaged in the project. (Living Levels Project, South East Wales Resilient Uplands Project, Cwm Carn Forest, Transition Monmouth, Blaenavon World Heritage Site.
- a) even with the breadth of engagement in this project, this is the ‘tip of the iceberg’ in terms of understanding community perspectives on climate adaptation, ways in which to involve them in adaptation planning and developing coherent local actions for adaptation between agencies and communities.

5.2 Climate Adaptation Engagement Model

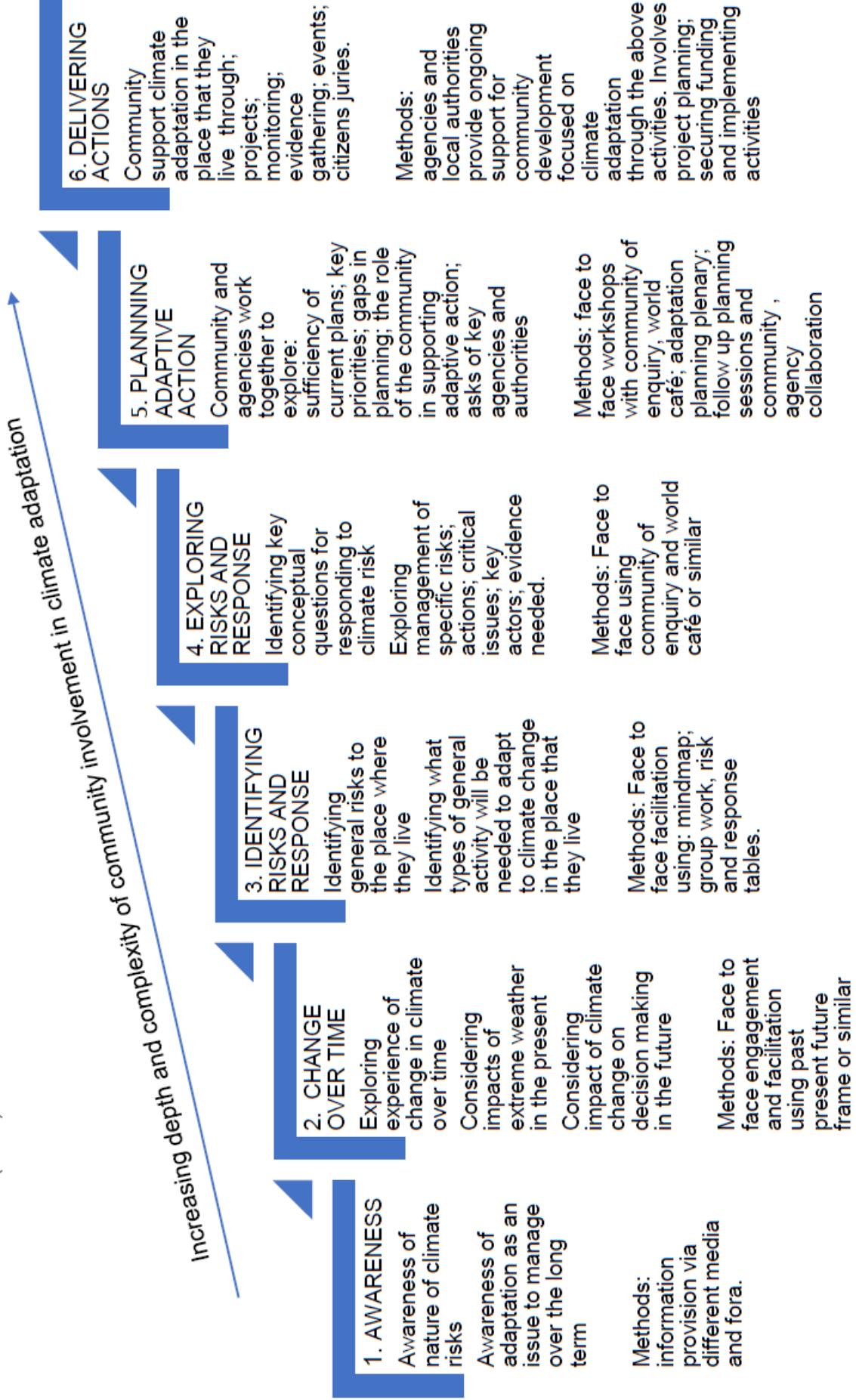
As part of our reflection and analysis for the Climate Ready Gwent project, we have developed a model which Gwent PSBs (or any partner organisation or other PSB) can use to consider how to progress community involvement in climate adaptation. This is shown overleaf.

- a) A central question that emerged for the project team was how far do Gwent PSBs want to go in supporting communities to work with them on this agenda? Clearly this project has used different techniques to engage the community and agencies in Gwent, it has raised awareness of the issue, and explored potential responses, identified some potential actions – however if we are to engage communities in practical activities then we suggest that Gwent PSBs need to involve those they engage in many, if not all of the steps in this model
- b) The model shows 6 steps of increasing depth of involvement of communities in addressing climate change from raised awareness to implementing action, based on our experience of this project. We have suggested techniques that we have used, but if this approach was replicated – other technique including visioning and scenario planning could be used to help communities and agencies develop a deeper understanding of climate risk and the response required.
- c) The key take from this model is that involving communities in adaptive action is a major commitment and will need resources and time to do this meaningfully across Gwent. The second key message is that the more time given to the activity, there is proportionately a greater understanding and depth of insight into localised impact, lived experience and potential adaptive response. This deeper investment provides an opportunity to unlock people’s enthusiasm, insights, community networks and community wisdom that could be utilised to create long term community resilience to climate impacts.
- d) We hope that the Gwent PSBs and other organisations find this model useful in considering how to engage on this complex, strategic and important issue in the future.



Climate adaptation community engagement model

Netherwood & Thomas (2019)

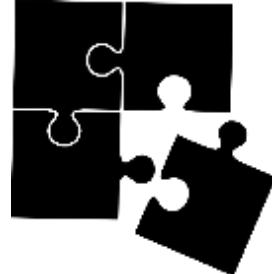


5 PROGRESSING CLIMATE ADAPTATION ENGAGEMENT IN GWENT

Based on the findings of this project, this section provides specific points for Gwent PSBs to consider on how they progress climate adaptation actions at a regional level, and within individual PSBs. This is in addition to the recommendations and suggestions made within the previous sections. This advice provides a potential forward agenda for Climate Ready Gwent partners to consider.

5.1 At a **strategic level** Gwent PSBs should consider the following:

- a) this data can be used by Gwent PSBs and partners for their well-being assessments, and well-being plans by PSB partners to inform area plans, town plans, site plans and by NRW for their Area Statements
- b) we also recommend that the information is used to inform local authority work on both Local Development Plans, and investment in transport infrastructure via Local Transport Plans, and service planning, particularly around the maintenance of essential infrastructure in Gwent's communities.
- c) the information could also be used to open-up dialogue between Gwent PSBs and on utility companies: Dwr Cymru; West and Wales Utilities; Western Power Distribution and transport partners: Network Rail and Transport for Wales about approaches to climate risk in terms of infrastructural investment across Gwent
- d) develop discussions with the farming community via Farming Connect, NFU, FUW and others to better understand the strategic challenge of supporting farmers and landowners in adaptive action across Gwent
- e) using the information in this report and case studies proactively to stimulate inform and engage regional and local partners on this issue to address climate adaptation's low profile as a policy issue¹⁰.



5.2 At a **community/site/project level** consideration should be given to building on this work:

- a) by using these or similar methods to engage other communities, sites, and interest groups on climate adaptation to understand their lived experience and to identify adaptive actions in other contexts (urban, historic, tourist sites, business community, different types of town and community councils, different landscapes)
- b) working with one or two communities for an extended period to better understand how to motivate and engage communities to plan for adaptation, following the Climate Adaptation Engagement Model described in Section 5 (or similar)
- c) developing a clearer understanding of the perspective of the farming and landowning community in Gwent, which is so crucial to climate adaptation response, to support further dialogue (see above)



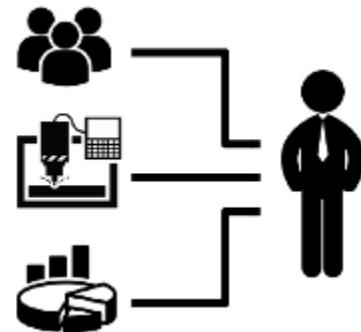
¹⁰ Please see.

Flynn, A, Kythreotis, AP & Netherwood, A (2016) Climate Change Adaptation in Wales: Much Ado About Nothing? *The Environmental Scientist*, 25 (3): 32-39

- d) by integrating climate adaptation engagement into existing or planned projects and programmes of work at a regional or local level for example, the Living Levels Partnership.
- e) by developing opportunities to work through events (like the Wye AONB Festival in 2020) to explore climate adaptation with those attending, through art and other cultural activities
- f) develop examples of a climate adaptation narrative which can be used for site interpretation, education and wider community engagement.
- g) establish opportunities to get communities together with local authorities and agencies to enable them to ask questions of those who are acting on their behalf in planning for climate change, and to provide ideas about how they can get involved in supporting climate resilience – running citizens juries, young people's juries. This would support both global and local citizenship.
- h) establish opportunities to get older and young people together to share their experiences and ideas on climate risk adaptation- providing a multi-generational perspective on the issue¹¹

5.3 At a **site management** level to use techniques similar to those adopted during this project to enable inter-agency and community discussions on climate risk and response, this might also involve:

- reviewing current management plans and exploring inter-agency responses to increased climate risks and their adequacy going forward
- developing long-term visions for the sites factoring in climate risk
- identifying specific actions and levels of investment which is required to maintain the sites, and their functions under climate change conditions
- identifying the mechanisms and funding to implement climate adaptation actions which secure the resilience of the site over the long term



5.3 Finally, we have included a page of **quotes from the community** which serve to communicate the lived experience of residents, public sector workers (also residents), farmers and representative of groups and communities of interest. Many more quotes and ideas and recommendations are made within the case studies specific to the groups and sites that were engaged. The following quotes illustrate many of the themes that we have discussed in this overview report, and communicate the gravity of the issue, the concern of those we engaged and the passion to “do something about it.”

Dr. Alan Netherwood & Dafydd Thomas May 2019

¹¹see recent missive from Older People's Commissioner for Wales' Commissioner's on this issue.

<http://www.olderpowlwales.com/en/news/news/19-04->

http://www.olderpowlwales.com/en/news/news/19-04-29/Solidarity_between_generations_is_vital_say_Commissioners.aspx?_cldee=ZGFmeWRkQHdlbGxiZWluZ3BsYW5uZXluY28udWs=&recipientid=lead-48c58d037254e811812470106faacba1-ecdadcf9461440d9affee321d8cee07b&esid=a23598b9-896d-e911-a98c-0022480050c6#.XNEhBNh7mUI

This is real do - something about it
(Year 6 Pupil)

"the energy infrastructure is above ground with relatively small items of machinery. It's the end of the line for lots of things and may be vulnerable to extreme weather. (Town Councillor)

"council-staff on the adaptation side I think they really got it because they're actually seeing first-hand the fact that they're having to go out more and do more sandbagging, clear fallen trees and deal with all this weird weather." (Public Sector)

"In 2018 the turf also set on fire and we had real problems with dust and health issues in the valley. The area that burnt had had no stock on for 20 years. There is a real balancing act between burning and topping – it's a real tinderbox (Farmer)

"The future feels like quite a fearful place and unless we manage that for ourselves. It's very difficult to open-up and have that conversation with other people. We need to start working out how to have those narratives with people, which are quite tough to have." (Resident)

Plant more trees catch the rain
(Year 6 Pupil)

"We need more co-operation between ourselves and others, but relationships need to be improved between authorities and ourselves in managing climate risk." (Farmer)

"Whatever weather we are getting it seems more intense, rain-storms, snow and heat" (Farmer)

"Decisions must be made on [principles not on finance. They should be for the good of the community with the long term in mind" (Resident)

I think there has to be a sense of urgency amongst everybody that unless we act now, we're buggered basically and that instils in me that we have to work together. (Resident)

"you don't have to worry just about the fact that you're creating climate change, you've got to worry about how you actually adapt to climate change, isn't it?" (Gwent Framer)

"If we don't manage our water, we [the World Heritage Site] don't have a future" (Public Sector)

Organisations and communities need to speak the same language about the same things in a coordinated way. I think there needs to be some real courage in having truthful and honest conversations (Public Sector)

"sink holes are causing problems across the landscape, including roads and houses being compromised – it's really noticeable the difference between the side that has been mined and the side that hasn't" (Town Councillor)

Note on the authors:

Dr. Alan Netherwood – Netherwood Sustainable Futures

Netherwood Sustainable Futures provides expert consultancy advice and research on sustainable development, climate adaptation, public policy, future trends and foresighting. Since 2007 NSF has supported government, the public, third and community sectors in developing strategy, policy, process and practice which supports sustainability and long-term delivery.

Local Authorities, Welsh Government, UK Government Departments, Health Boards, Commissioners, Public Services Boards, third sector bodies and charities have worked with Netherwood Sustainable Futures over the last 12 years to develop their capacity, strategy and delivery.

Drawing on the experience of Dr. Alan Netherwood, bespoke support is provided for organisations and partnerships, accounting for their unique set of circumstances to support real change in how clients deliver their work. With an academic background in sustainability and organisational change and a professional background in policy, public service and the voluntary sector - advice, recommendations and reports provided to clients are proportionate, evidenced and practical.

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Dafydd Thomas – Well-being Planner

The Wellbeing Planner was established in 2013 and provides independent, bespoke, customer focused service that includes: facilitation of processes or group activities; project and organisational development and project or programme evaluation. Improvements in wellbeing are a key driver in the Wellbeing Planner's activities.

A first language Welsh speaker, Dafydd Thomas is an experienced facilitator and qualitative researcher. Accredited as a Level Two Facilitator with the Association of Facilitators since 2013, an Appreciative Inquiry Champion accredited by the Institute of Leadership and Management and a member of the Market Research Society.

As a facilitator, recent clients have included Welsh Government, Public Health Wales, Care Inspectorate Wales, Natural Resources Wales and the Health Care Inspectorate for Wales. He has over 20 years of experience working different groups across Wales in participative techniques to develop policies and implement change.



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