

Gwent Climate Change Risk Assessment

Leadership Seminar 3: 4th March 2026

Leadership for Climate Adaptation in Gwent



1. What you have told us about leadership on Climate RISK (we will reflect on this)

- infrastructural, community, economic and natural environment priorities
- deep dives: highways; assets; post-industrial; communities at risk; local resilience
- leadership lenses and arenas

2. Leadership on Climate ADAPTATION in Gwent (we will explore this in detail)

- strategic adaptation
- institutional adaptation
- operational adaptation
- community level adaptation

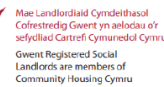
3. A four-year focus – SUCCESS BY 2030?

- knowing more about risks
- working with the right people
- (re)framing climate risk in our organisations
- delivery on the ground

4. NEXT STEPS on the GCCRA to March 31st and beyond

Your roles

- Deputy CEO
- Chief Executive
- Councillor
- Executive Member
- Cardiff Capital Region
- Director of Assets
- Cabinet Member
- Chief Finance Officer
- Head of Strategy
- Chief Officer
- Chair
- Head of Strategy & Risk
- County Councillor
- Town Councillor
- Public Health Registrar
- Strategic Director
- Interim Director
- Environment & Regulatory
- Programme Manager
- Climate Change Lead



Gwent CCRA Leadership#2

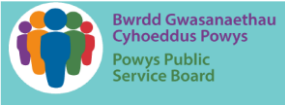
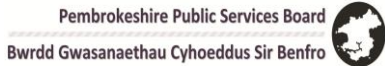
Climate risk experience we are bringing in



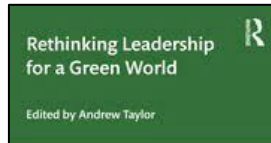
Llywodraeth Cymru
Welsh Government



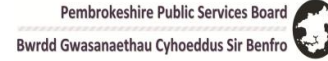
**Dr Alan
Netherwood**



Parc Cenedlaethol Arfordir Penfro
Pembrokeshire Coast National Park



NETHERWOOD
SUSTAINABLE FUTURES
Sustainability Governance Policy Practice



working together on climate risk



Dafydd Thomas



Usk NMB
Clwyd NMB



Gwent CCRA Leadership#2

Where this Leadership session fits in

WP1 INFORMATION SHARING

Oct – Nov 2025

Desk-based
Research – work to
date

*scale, breadth and
detail qualitative and
quantitative data?*

*how do strategies and
plans support
adaptation*

Climate Leadership Seminar #1 4/11

- climate projections for Gwent
- Learning from CCRA's elsewhere
- capacity, strengths Improvement
- leadership scenarios

Gwent-wide Information Sharing Workshop 18/11

WP2 EXPLORING CLIMATE RISKS GWENT WIDE:

Nov 2025 -Jan 2026

**4 themed expert
half day surgeries –**
online using CCRA3
and Met Office Data

Infrastructure 2/12

Community 4/12

Nature/Env 9/12

Economy 10/12

Local Resilience
Forum

GIS Discussions

WP3 COMMUNITY CLIMATE RESILIENCE

Jan-Feb 2026

**Community focused'
workshops (in
person)**

Newport 15/1

Blaenau
Gwent 20/1

Monmouthshire 21/1

Torfaen 22/1

Caerphilly 27/1

**Deep –dive
workshops with
local experts**

Highways
Management 03/02

Asset Management
04/02

Post-Industrial
landscape 05/02

Communities at Risk
10/02'

Building Local
Resilience
12/02

WP4 LEADERSHIP TO ADDRESS CLIMATE RISKS

Feb-March 2026

**Climate
Leadership
Seminar #2 25/02
RISK**

- emerging leadership priorities?
- different leadership lenses for adaptation
- critical internal and external arenas

**Climate
Leadership
Seminar #3 04/03**

ADAPTATION

- corporate and partnership responses
- engaging affected communities
- influencing wider systems

WP5 MOVING FROM CLIMATE RISK ASSESSMENT TO ADAPTATION

March 2026

CCRA Technical Report including

- Narratives on priority risks
- Leadership for Adaptation
- Advisory recommendations
- Priorities for Adaptation 2026-2031

CCRA Summary Report (Web- based Public Facing)

- 18 workshops to date
- 295 people
- 37 hrs interface
- capacity building
- combined effort
- rich professional and partnership data



Gwent Climate Change Risk Assessment Progress by the beginning of March 2026

WP1 INFORMATION SHARING Oct – Nov 2025

Desk-based
Research – work to
date

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RISK**

- emerging leadership priorities?
- different leadership **lenses** for adaptation
- critical internal and external **arenas**

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- corporate and partnership **responses**
- engaging **affected communities**
- influencing **wider systems**

WP5 MOVING FROM CLIMATE RISK ASSESSMENT TO ADAPTATION March 2026

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Narratives on
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Leadership for
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Advisory
recommendations
Priorities for
Adaptation 2026-
2031

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Report**
for stakeholders

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Gwent CCRA Leadership#3

Projected changes which will affect Gwent's communities

Imminent, cumulative, increasingly impactful

We can expect by mid-century (next 2 decades)

- warmer and wetter winters
- hotter and drier summers
- high variability of extreme weather
- increase our exposure to weather-related hazards:
- increased frequency and intensity of wildfire.



UK CLIMATE
RISK

“The UK is strikingly unprepared for the impacts of the climate crisis”

UK Climate Change
Committee April 2023

We can also expect

- increases in average and extreme temperatures, in winter and summer.
- flooding and water scarcity (drought)
- increased coastal flooding and erosion from sea level rise
- sea temperature rise and ocean acidification.

After 2050, the extent of further climate change will depend on future global emissions of greenhouse gases.

If the world cuts emissions rapidly to Net Zero, there is a good chance of limiting global temperature increase to below 2°C.

If not, we will see higher levels of warming and much more extreme impacts.

See CCRA3: Wales Summary Report

<https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA-Evidence-Report-Wales-Summary-Final.pdf>

Met Office modelling *averages*
for **Torfaen** in a 2°C scenario (4°C)

Winter (averages)

Precipitation +11% (+24%)

Temperature +1.3 °C (+2.7)

Summer (averages)

Precipitation -20% (-38%)

Temperature + 2.1 °C (+4.3)

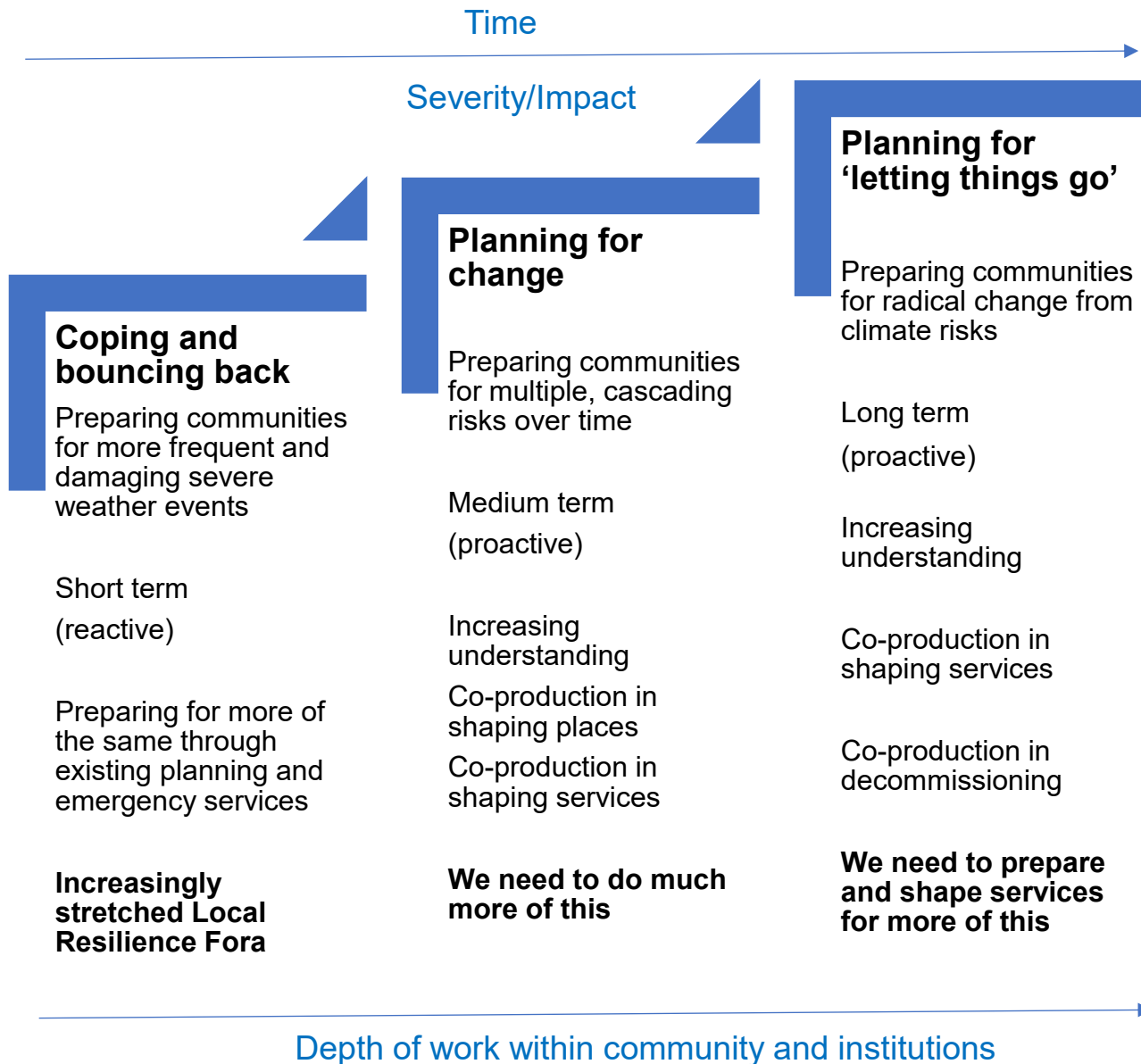


Sea Level rise 26-46 cm 2050
(89 cm by 2080s) – may be more
extreme

AMOC (Atlantic Current)

Gwent CCRA Leadership#3

Recognising that different communities will experience climate change in different ways over time



Key issues

Different communities across Gwent

- unique circumstances and vulnerabilities
- will be affected over time differently depending on characteristics and physical environment

Gwent CCRA Leadership#3

Last time – we considered **BROAD RANGE OF RISKS** emerging from the CCRA
 You (your peers) reacted to the scale and breadth of issues

Gwent CCRA Leadership#2 INFRASTRUCTURE Emerging Issues from the CCRA

- road condition
- slope condition
- bridge condition
- built assets and surrounding infrastructure
- co-located infrastructure
- energy infrastructure and networks (above and below ground)
- water infrastructure
- pipelines, cables, networks
- IT infrastructure
- river flood defence
- rail infrastructure
- post industrial – spoil tips, subsidence, dispersed pollution
- waste facilities (including historical landfill)
- emergency response assets
- coastal flood defence



infrastructure will continue to be impacted and degrade.
 finances inhibit climate adaptation required.
 planning for increased frequency and scale of disruption to communities



Gwent CCRA Leadership#2 ECONOMY Emerging Issues from CCRA

- resilience of premises (business and industrial parks)
- production processes (heat)
- transport networks
- product supply networks
- business insurance
- clean- up costs
- workforce access
- water, energy, IT networks
- access to finance
- location/cost decisions
- agricultural output (food)
- tourist offer (sites and activities)
- port/harbour infrastructure
- overseas supply chains



business continuity+ approach required;
 • repetition
 • cumulative
 • slow burn

economic impacts felt within communities
 • individual businesses
 • sectors
 • sites
 • local economies



Gwent CCRA Leadership#2 COMMUNITIES Emerging Issues from CCRAs: concerns

- thermal comfort for the vulnerable
- access to health facilities
- business continuity for social services
- storm damage to housing stock
- repeated flood damage (financial and insurance impacts)
- mental health impacts (all ages)
- air quality from wildfire and heatwave
- damage to historic assets
- access to work/workforce
- water supply
- food supply – continuity
- development blight
- local authority service business continuity and finance
- long term community feasibility



beyond emergency planning and bounce back
 new unpredictable 'normal'
 cumulative effects on communities
 erosion of capacity to respond
 service demands from communities will change



Gwent CCRA Leadership#2 NATURAL ENVIRONMENT & LANDSCAPE Emerging Issues from CCRAs: concerns

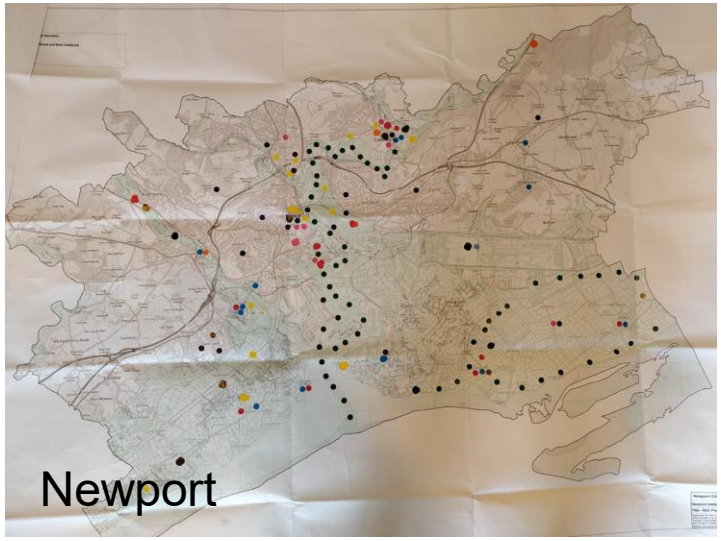
- designated sites – species and habitats
- wildfire (woodland, heath, peat)
- soil loss and mineralisation
- agricultural production
- forestry production
- tree loss – disease – windfall
- water quality in rivers and lakes
- water supply
- coastal erosion
- river erosion
- peatland erosion
- invasive species
- reservoir stability
- canal stability
- dispersed pollution (contaminated land, minewater, historic landfill)
- ecological connectivity



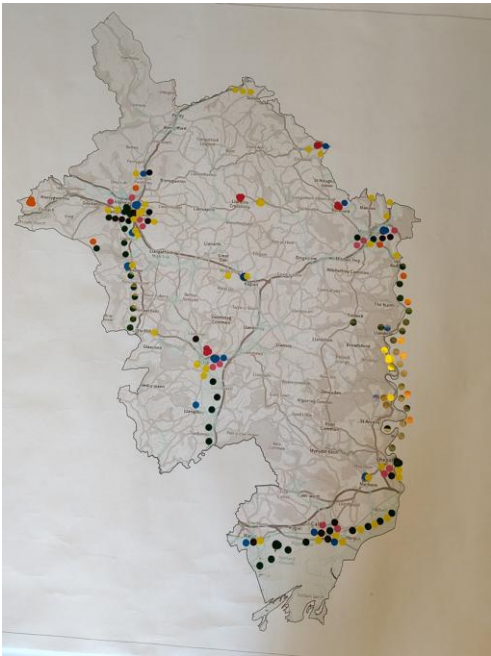
effective landscape, water, vegetation and soil management will be needed in a more dynamic landscape.
 ecosystem services (clean water, air, functioning soil, food production) highly likely to be impacted.



Gwent CCRA Leadership#3
Last time we talked a little about WHAT AND WHERE An early indication of combined climate risks and pinch points



Newport

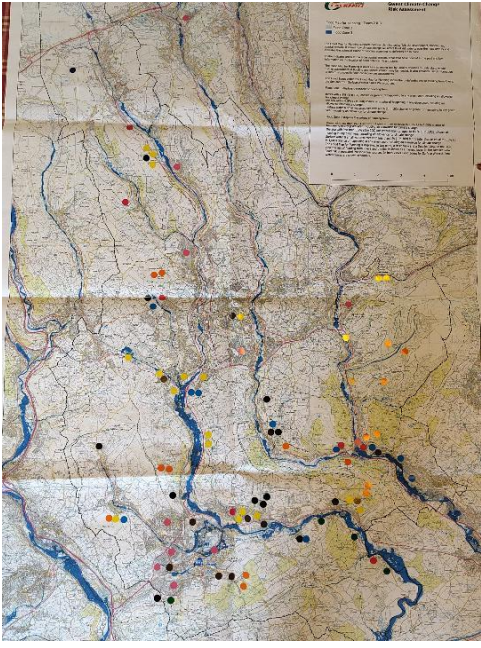


Monmouthshire

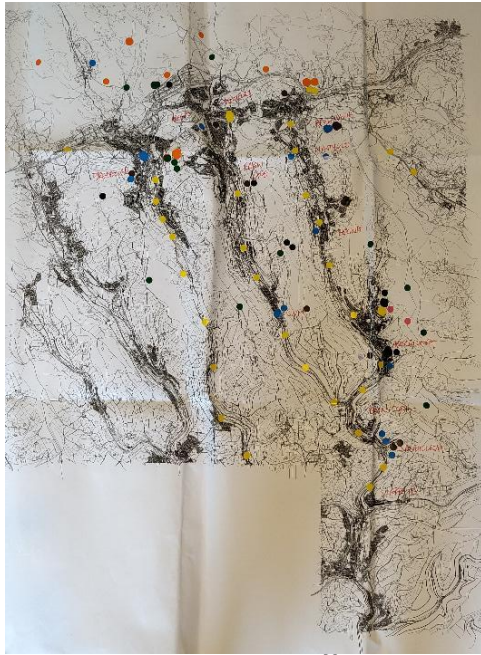


Torfaen

- repeated flooding
- wildfire
- post-industrial
- economic/business
- health
- community resilience
- access/highways/bridge
- housing
- nature



Caerphilly



Blaenau Gwent

What stood out

- scale and breadth
- all parts of Gwent
- multi-agency
- cross boundary
- upstream and downstream
- not some abstract future threat.
- risks are there - and the demands - irrespective of politics.
- letting go of what we are used to - will be challenging but important.
- no immediate fix and things take time
- affects core activities
- whole system approach needed
- combined local regional (and national) approach
- retreat inevitable for some places.
- threat to our most vulnerable communities.

What needs to happen in response

- **strategic** shift
- knowledge and **skills**
- more **profile** in leaders work
- **integral** in all our decision making
- '**mainstream** investment' in adaptation
- make this **business as usual**.
- **early** consideration
- acknowledging **limitations** of current approaches
- building **business cases** to adapt
- change the leadership **narrative** from "cost" to "core requirement"
- leaders need to plan for the **slow burn** impacts
- **honesty** with people- constraints on business as usual.
- **evidence** and intelligence to support smart future planning
- effective **communication** and use evidence at a local level.

Specific concerns/challenges

- slow moving institutions
- complexity of community level communication
- limitations of community agency to act
- rural communities
- funding adaptation in financial climate
- integral to housing need
- built assets
- farming and rural business involvement
- rural connectivity
- agricultural business continuity
- balancing gravity with empowerment and optimism,
- climate adapted new builds already overheating
- move into the adaptation phase and stop apologising.
- focus on critical issues of highways and bridge networks

Gwent CCRA Leadership#3

Highways Management, Asset Management, Post-Industrial Landscape, Communities at Risk and Building Local Resilience Last week's response – what does it tell us about leadership?

Assets

- technical aspects complex
- some assets cannot be protected
- deliberate decisions on what to let go
- gradual decline across portfolio
- contested decision making
- consolidating and relocation to safer areas
- land asset designation inhibits adaptation
- broader quicker emergency solutions
- ageing sewer infrastructure – liabilities
- tourism/heritage impact on prosperity

Highways

- scale of investment significant
- deteriorating road condition exacerbated
- difficult managing public expectation/public finance
- expert advice needed materials, techniques, solutions
- major road prioritisation will stretch regular maintenance of BCU
- culverts roadside gullies and brook maintenance critical
- risk to rural economy from of rural route loss
- maintaining Public Rights of Way are of major concern
- strategic focus on climate risk limited

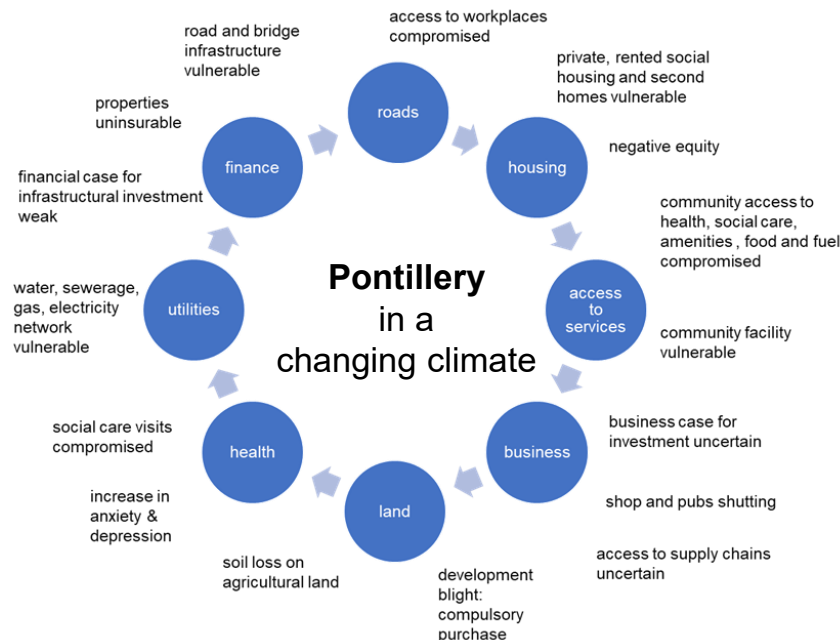
Post-Industrial

- re-evaluate risk profiles of communities
- condition of sewer system a major concern
- investment in landscape-wide water management and drainage
- sinkholes/sewer collapse / failure / impact of water table.
- designated and historical landscapes
- unclear who deals with this and how
- unmaintained Canal water levels in drought critical
- use of post-industrial waste



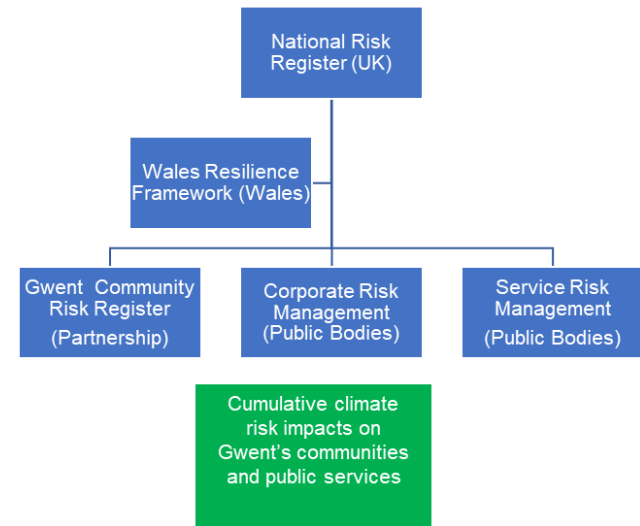
Communities at Risk

- honest, up-front communication backed by evidence.
- repeated, extended extreme heat events
- climate change denial requires specific messaging.
- careful description of negative impacts
- ‘fracturing’ relationships between communities and service providers
- honest conversations on options and costs
- vulnerable population groups as well as locations
- communities understanding of limitation of public sector support



Resilience Planning

- risks to community assets used in post event support
- give communities the tools needed to support public services during/after events
- develop skills for working with communities that are untenable
- local climate resilience planning *alongside and in addition to* LRF activity



Gwent CCRA Leadership#3 Q & A and observations



Any questions from newcomers on the approach so far?

Have you any observations on what the above tells us about climate risk and adaptation leadership in Gwent?

please respond on Xleap and then we will open up for a brief discussion



Gwent CCRA Leadership#3

Last time we focused on climate risk using different LEADERSHIP LENSES



priorities

- regional strategy
- strategic decision-making
- access, routes and destinations
- place-specific climate impacts
- vulnerable groups
- asset management
- risk management.
- waste management
- landscape and catchment resilience
- food and land systems.
- impacts on the workforce
- Cardiff City Region

leadership activity

- raising internal profile
- broaden risk frame
- establish cross-cutting theme
- influence strategic plans
- service delivery impact (current and future)
- collaborations focus on climate risk
- cross border working
- lead community conversations about loss
- build confidence with peers and partners.
- cabinet influences broader fora
- SLT cabinet establish strategic approach
- all-Wales challenge to CVCs
- members seminars are a priority

live examples

- SLT/Cabinet lead strategic approach
- agenda item at CEO meetings
- estate strategy
- risk management
- discourse on WG reporting
- cross border cooperation (waste)
- funding via PSB to support regional adaptation following CCRA



priorities

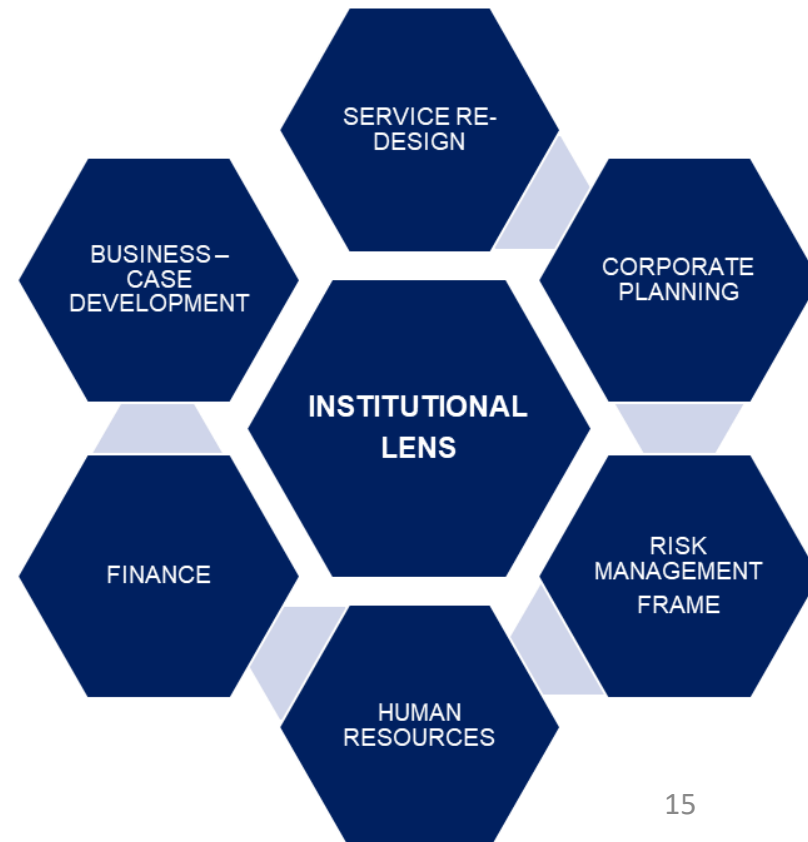
- raising internal profile
- broaden risk frame
- effective communication
- establish cross-cutting theme
- influence strategic plans
- service delivery impact (current and future)
- role of nature recovery– public sector

live examples

- PSB agreed statement on 'CCRA in Gwent'
- agreed common messaging.
- use of Welsh Government funding collectively post CCRA
- Monmouthshire and Brecon Canal resilience

leadership activity

- 1–2-year upskill programme for service leads / operational managers
- service planning templates with training/ support to go alongside it
- develop climate resilient service/ops plans
- joint -learning through attendance at each other's meetings on climate risk
- re-assess 'measures of success'/operational performance
- mediation between technical and nature-based solutions
- challenge - how is this work going to need to change because of climate risk?
- make it clear that this an integral part of core delivery



priorities

- identify key issues for at risk communities
- communicate to them with support
- scale and nature of likely impact
- layered maps to inform discourse
- area specific plans for
 - disaster recovery
 - [slow burn] relief
 - disruption to services.
- work through CTCs
- engage communities of interest
- upskill communities.
- nature based solutions

leadership activity

- hold / receive community's anger and fear.
- listen and learn from local reaction
- plan for enhanced/new service demands
- learn from elsewhere (fire and flood)

live examples

- share good practice - Cwm Flood Resilience Group.
- third sector member network sessions
- secure ventilation practices for school summer heat impacts
- bio-tapestry project (community story)
- climate risk as part of issue specific communication (e.g. pot holes)



priorities

- mapping risks against our properties and communities.
- staff welfare
- coordinated provision of information to groups and communities
- identify opportunities to pool knowledge and resources
- shared tools for risk assessment.
- improved training for all officers and members
- improving revenue funding to staff the right people in the right place
- curate our understanding of impacts and potential responses at the hyper-local level

leadership activity

- collective and dispersed leadership approach.
- signal that climate adaptation is core business to operations
- embedded into day-to-day operational decisions:
- procurement, maintenance, service planning
- deployable solutions e.g bounce back for critical infrastructure
- secondments of staff across organisations



What strikes you about your own personal leadership roles listening to the work so far?

Please summarise

My role will be to

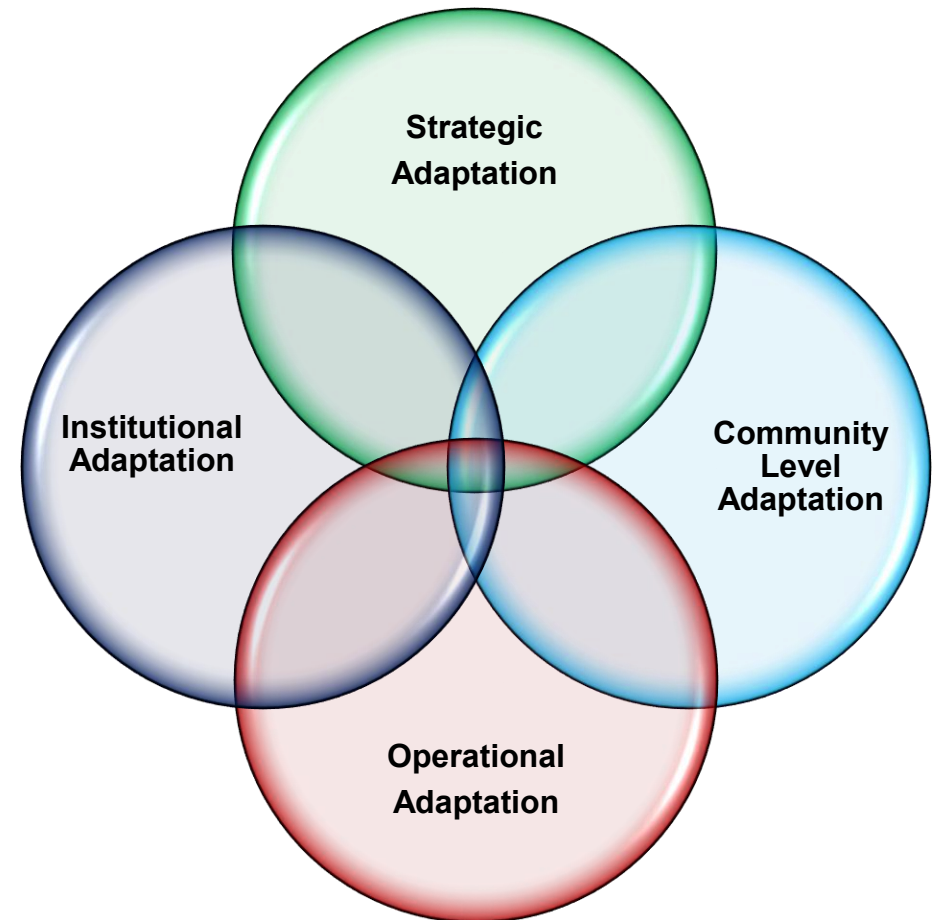
- 1.
- 2.
- 3.

Which other leaders do you most need to influence (internal and external?)

Please summarise

My targets to influence

- 1.
- 2.
- 3.



please respond on Xleap and then we will open up for discussion

Gwent CCRA Leadership#3

STRATEGIC Climate Adaptation Priorities

Responding to strategic risk from climate change

The CCRA workshops have told us that these strategic issues are seen by participants as important risks to manage Gwent –wide as the climate continues to change

- road, bridge and path networks
- drainage and sewerage networks
- school property portfolios
- co-located utility infrastructure
- waste management

- town centres
- housing condition
- industrial and business sites
- social services and health services for vulnerable groups
- tourism economy
- rural communities and businesses

- landslip, ground movement, subsidence
- dispersed pollution
- canal and reservoir integrity
- wildfire management
- ecosystems service degradation (soil, food, water, biodiversity)

Key point: climate risk and adaptation needs to be more strongly embedded in this strategic work of partners . It won't happen by accident.

(the list goes on.....)

STRATEGIC ADAPTATION

What might the response be in your own organisation?

- strategy (old and new)
- finance
- governance
- boards
- partnerships
- leadership
- lobbying
- influencing

What is the **PSBs** role in this strategic space?

please respond on Xleap and then we will open up for discussion

Gwent CCRA Leadership#3

INSTITUTIONAL Climate Adaptation Priorities

Responding through changes to institutional practices

The CCRA workshops have told us that the following institutional issues will need greater attention as the climate continues to change

- service business continuity+
- scale of emergency and critical incident response
- adapting corporate and strategic risk management approaches (climate change as risk multiplier)
- evidence gathering on place-based impacts
- skills for staff to work in places and with people impacted
- (re-)designing service to deliver in a changed and changing climate
- political and senior management advocacy/covening/decision-making
- meeting the increased cost implications of climate change disruption
- partnership work for effective future planning
- business cases for funding

Key point: climate risk and adaptation needs to be more strongly embedded at an institutional level. It won't happen by accident.

please respond on Xleap and then we will open up for discussion

INSTITUTIONAL ADAPTATION

What might be the response be in **your own organisation?**

- policy
- committees
- executive
- evidence
- boards
- decisions
- service management
- performance
- risk
- scrutiny
- reporting
- business cases
- assets
- finance
- HR

What is the **PSBs role** in this institutional space?

Gwent CCRA Leadership#3
COMMUNITIES AT RISK Climate Adaptation Priorities
Supporting communities exposed to multiple and cumulative risks from climate change



The CCRA workshops have told us that the following factors will be important in working with at risk communities

- complex communication of increasing cumulative risk
- place-based climate resilience plans needed
- staff with skills to communicate, engage and plan
- local intel and citizen science
- strong third sector role in communicating and convening
- mental health concerns
- medium-long term commitment needed
- options for relocation

Key point: climate risk and adaptation at a community level needs careful and sensitive management.

The public and third sectors have a key role alongside the communities themselves.

please respond on Xleap and then we will open up for discussion

COMMUNITY LEVEL ADAPTATION

What are the **asks of your teams** working to support communities? How might your organisations respond?

- communicating risks
- understanding local risks
- place planning
- identifying options
- community assets
- land management
- existential risk

What is the **PSBs role** in this 'community' space?

Gwent CCRA Leadership#3

OPERATIONAL Climate Adaptation Priorities

Responding to operational risk from climate change



The CCRA workshops have told us all the following are major operational issues to manage as the climate continues to change

- combined wetting and drying impacting building and infrastructure fabric
- thermal comfort in frequent periods of extreme heat
- climate risks are risk multipliers for already degrading buildings and infrastructure
- consider locational issues in conditions assessments
- current green and open space management approaches will need to alter
- knowledge gaps on post-industrial landscape
- risks to inter-reliances are not fully understood
- staff capacity to deal with increased frequency extremely limited
- lack of capacity for proactive planning
- effective service planning key

Key point: climate risk and adaptation at an operational level needs to move from reactive to proactive within seriously constrained budgets.

OPERATIONAL ADAPTATION

What are your **asks of operational managers** and their teams to address these concerns?

- site management
- maintenance
- business continuity
- emergency planning
- service planning
- budgeting/finance
- communication
- evidence gathering

What is the **PSBs role** in this operational space?

please respond on Xleap and then we will open up for discussion

Gwent CCRA Leadership#3

Climate Adaptation 2026-30

Plenary: What would success look like in Gwent in these four areas by 2030?

working with
the right
people

knowing
more about
risks

collaborating
on things
(what?)

delivering
on the
ground

please respond on Xleap and then we
will open up for discussion

WP5

MOVING FROM CLIMATE RISK ASSESSMENT TO ADAPTATION

4th-31st March 2026

CCRA Technical Report Draft 23.03 response by 27.03

CCRA Summary Report Draft 23.03 response by 27.03

PSB Scrutiny Report (Interim findings) 09.03

PSB Scrutiny Meeting 18.03

PSB Meeting (Interim Findings) 26.03

Final Reports 31.03

Key Point

Make room for reporting the recommendations internally *and* responding Gwent-wide

April-September 2026

Agendas.

Meetings.

Opportunities to adapt.

Where and when might you report this work and use it to influence?

