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Review of Workshop 1

13th February 2013

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**Adaptation
Scotland**
supporting **climate change** resilience

“Increase the resilience of organisations and infrastructure in Scotland to meet the challenges and opportunities presented by the impacts of climate change”

Adaptation Scotland Partnership:



an introduction to climate change adaptation

explore the role of development planning in building climate resilience

considerations for the TAYplan strategic development plan

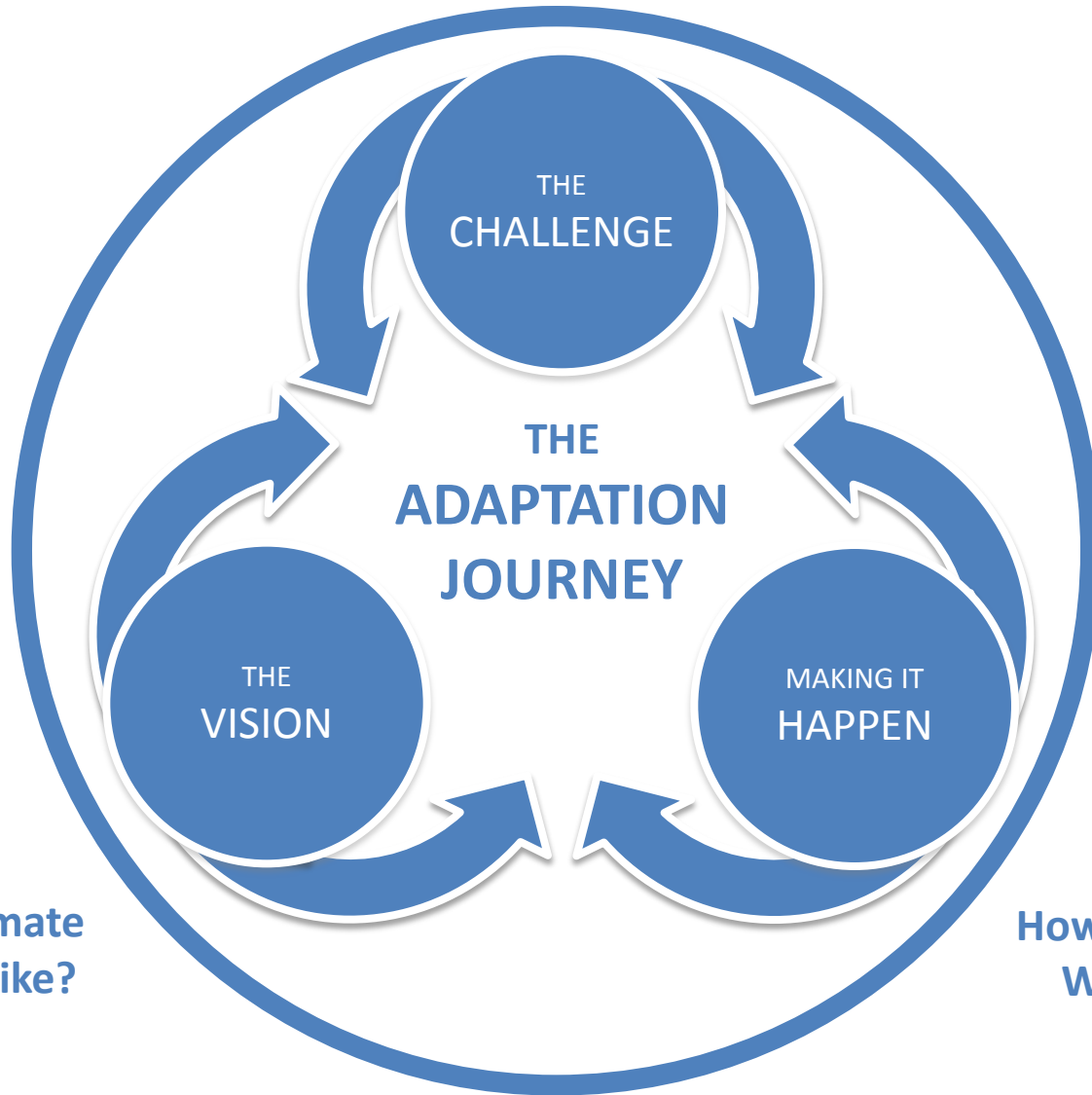
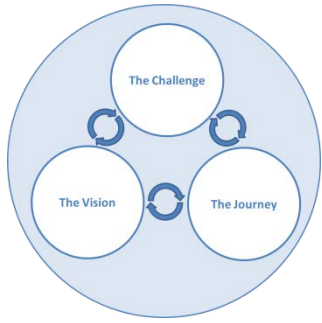


Workshop 1

13 February 2013



How will our climate change? What impact will this have on us?



What would a climate ready place look like?

How do we get there?
What can we do?






Climate Information:



Understanding Impacts:

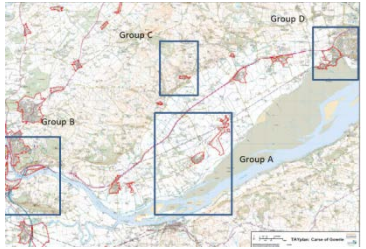




workshop activity 1

Workshop activity 1 involves a group of participants working together to analyze and discuss the impacts of climate change on a specific region. The activity is structured into several stages, including identifying key stakeholders, assessing current and future risks, and developing adaptation strategies. Participants are encouraged to share their own experiences and insights, fostering a collaborative learning environment.

The workshop activity is designed to be interactive and practical, allowing participants to apply theoretical knowledge to real-world scenarios. It includes a series of exercises and discussions that focus on understanding the complex interplay between climate change, human activities, and the environment. The goal is to equip participants with the skills and knowledge needed to effectively address the challenges posed by climate change in their respective sectors and communities.

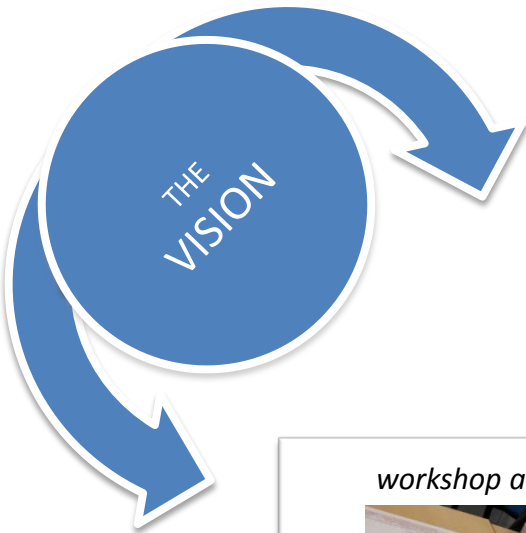


Risk Assessment:

Risk assessment examples - current and future risk

Asset Type	Asset	Consequence	2010		2020		2030		2040		2050	
			Current	Future	Current	Future	Current	Future	Current	Future		
Buildings	Loss of buildings - potential property loss	Change in wind and rainfall patterns	1	2	1	2	1	2	1	2	1	2
Infrastructure	Road network	Increased rainfall leading to increased risk of flooding and landslides	1	2	1	2	1	2	1	2	1	2
Energy	Power generation	Reduced water levels in reservoirs and rivers	1	2	1	2	1	2	1	2	1	2
Environment	Wildlife and habitats	Changes in temperature and precipitation patterns	1	2	1	2	1	2	1	2	1	2
Health	Public health	Increased heatwaves and air pollution	1	2	1	2	1	2	1	2	1	2
Water	Water supply	Reduced rainfall and increased evaporation	1	2	1	2	1	2	1	2	1	2

THE ADAPTATION GAP



Visions and Placemaking:



workshop activity 2



- Ways in which the planning system could assist adaptation:
- Historic approach – catchment management
 - Links to travel and transport / local economy
 - Concentration on existing settlements rather than new
 - Flood storage
 - Retrofitting of new builds – utilizing existing building assets – renewable energy / heat etc.
 - For new builds orientation of buildings, relief etc, think naturally rather than always infrastructure
 - Awareness of the impact of one development on another
 - Consider legislation / building standards – working together to ensure renewable / retrofitting solutions for historic environment
 - Traffic dispersal to avoid zones of negative air / water quality and hotspots – heat impact
 - Traffic dispersal with multiple route options
 - Renewable surfaces
 - Locate new development closer to existing networks / avoiding floodplains
 - Consider impact of fuel prices on travel plans
 - Increased connectivity / network linking local services with national – public transport
 - Live transport – water taxis / industry
 - Electric charging infrastructure
 - Engineered solutions
 - Sustainable travel – cycle and walking (active travel) – health

- The groups Vision for 2050 was illustrated visually on the map with a key and included:
- Urban drainage and SuDS
 - Flood maintenance
 - Building maintenance / retrofit little new development, so emphasis should be on existing buildings
 - New and expanded reservoirs for summer irrigation
 - Enhanced drainage for extreme rainfall events and increased winter precipitation
 - Managed retreat of coastal fringe
 - Green networks and buffer zones
 - Cultural / built heritage / setting policies required to protect identify of the area.
 - National cycle network increased tourism
 - Protection of the railway and a new station low carbon travel
 - Potential development with zero carbon generating technology potential for biofuel crops and associated industrial infrastructure (located on former arable)
 - Renewable energy / solar farms
 - Building maintenance to increase resilience
 - Reuse of buildings in the town and restricted infill development. new development restricted to historic settlements with existing infrastructure (drainage, sewerage etc.) and often on highest ground.

- The groups Vision for 2050 included the following elements which were also identified on the map where this was possible:
- Considering the area in the context of the wider Carse
 - Reservoir management: increased capacity and flow management
 - Additional reservoirs
 - Areas of new crops
 - Protected water storage
 - Hydro generation
 - Road on portions
 - Slowed river flow
 - Flood impacts on access
 - Upgraded SuDS for roads
 - Self-sufficient engaged community
 - Building adaptation
 - Visitor management
 - Local communities with more control and influence
 - New habitats: species rich grasslands
 - Symbiotic tree planting
 - Cultural shading: riparian woodland
 - Development sensitive to vulnerable wildlife
 - Multi-benefit land use
 - Recognising but not fighting change
 - Retaining flexibility and diversity

- The groups Vision for 2050 included the following elements which were identified on the map:
- Tidal power opportunities
 - Coastal realignment
 - Future laboratory
 - New distribution centre
 - Communicate virtually
 - Renewed urban areas with SuDS
 - Greener heating
 - Protected landfill site
 - Increase in tourism (airport)
 - Base in sea level
 - Increased use of solar energy
 - Greater density housing / use of brownfield
 - Always defended or realigned
 - Green networks
 - Energy efficient buildings and sites / design / layout
 - Local anaerobic digestion leading to heat networks
 - Local functions of place: shops, greenspaces, schools- make more local rather than commute
 - Uncertainty of many features of usage e.g. transport / fuel





Formerly known as “The Journey”

What direct measures can planning take?

How can planning support other initiatives?

How do we ensure on-the-ground action?

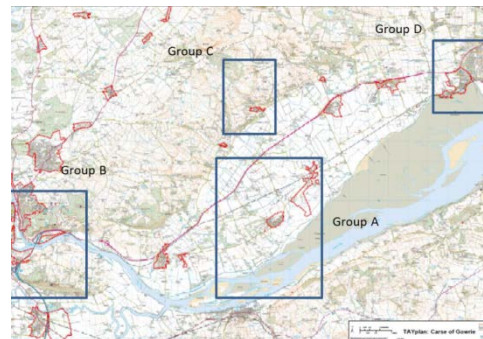
WORKSHOP 1 - PART 3 PREPARATION FOR THE JOURNEY (10 mins)

Workshop 2

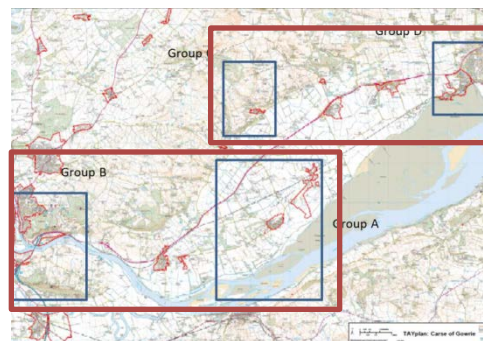
22 April 2013

TODAY

Session 1 **Local Development Plans: Issues and Policy Formulation**



Session 2 **Strategic Development Plans: Issues and Policy Formulation**





- please contact us -

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Adaptation Scotland Partnership:

