

What is a climate service?

Adaptalab #1, Paris, France

29 Nov. – 1 Dec., 2023

Outline

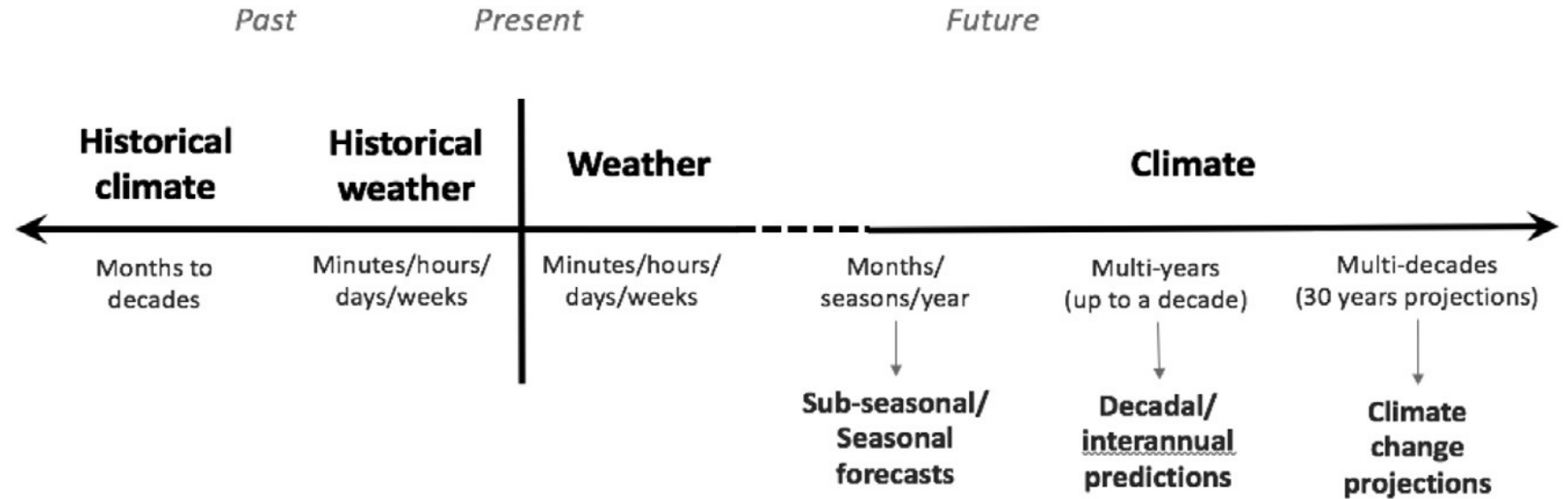
- What is a climate service?
- Climate information and knowledge
- Users' decision-making
- Provision
- How are climate services developed?
- Examples of climate services

What is a climate service?

- **Provision of climate information** and knowledge to support **users' decision-making** which can be provided through different mechanisms and formats (see e.g. Vaughan and Dessai, 2014; Hewitt et al., 2012).
- **Key ideas:**
 - Climate information
 - The users' and their decisions
 - Service provision

Climate information

Timescales of climate information



Raw climate model data
(e.g. temperature, precipitation)

Tailoring, co-production, engagement...

Final product /input to inform decisions
(e.g. assess risk of flooding, impact of heatwave on health)

The users' and their decisions

- Wide range of climate service users – anyone that uses climate information in their activities!
- **Type of climate information required** dependent on...
 - The **organization's mandate and responsibilities**
 - Their **activities** on the ground and how they are affected
 - The **resources, skills and capacity** within the organisation



- What climate information they require
- When and in what format they need it
- How that integrates with other non-climatic information

Climate service provision

Mechanisms

- Website/online platform
- Reports/documentation
- Training and workshops
- Direct provision (e.g. emails, meetings)

...

Formats

- Impact/risk assessment
- Scenario analysis
- Raw climate data
- Adaptation plans and strategies

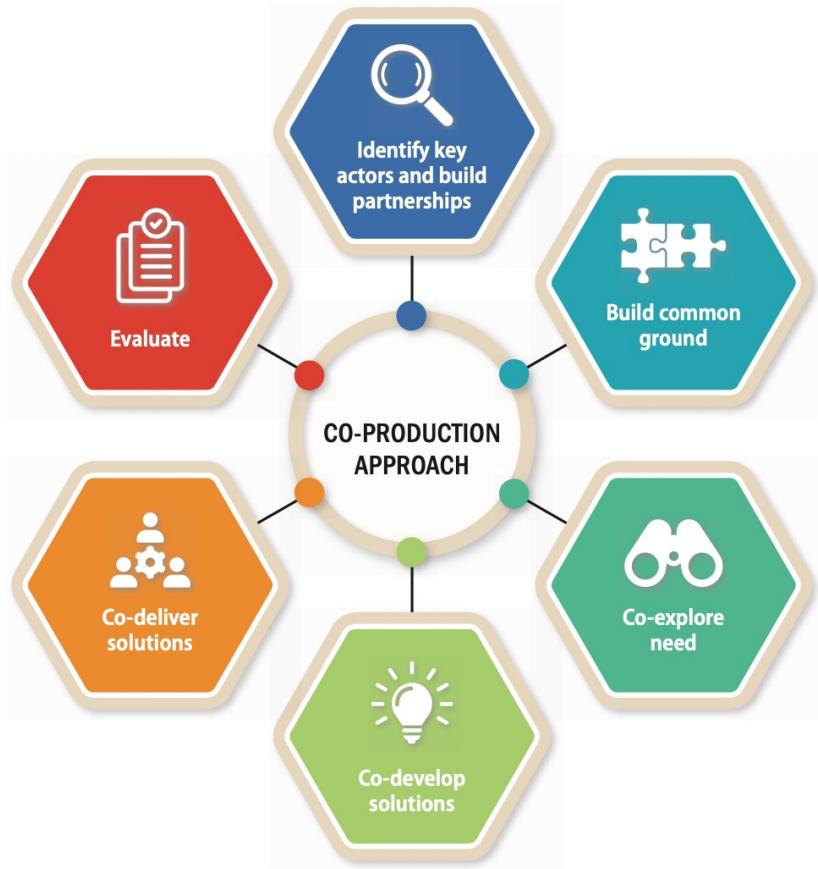
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Sources

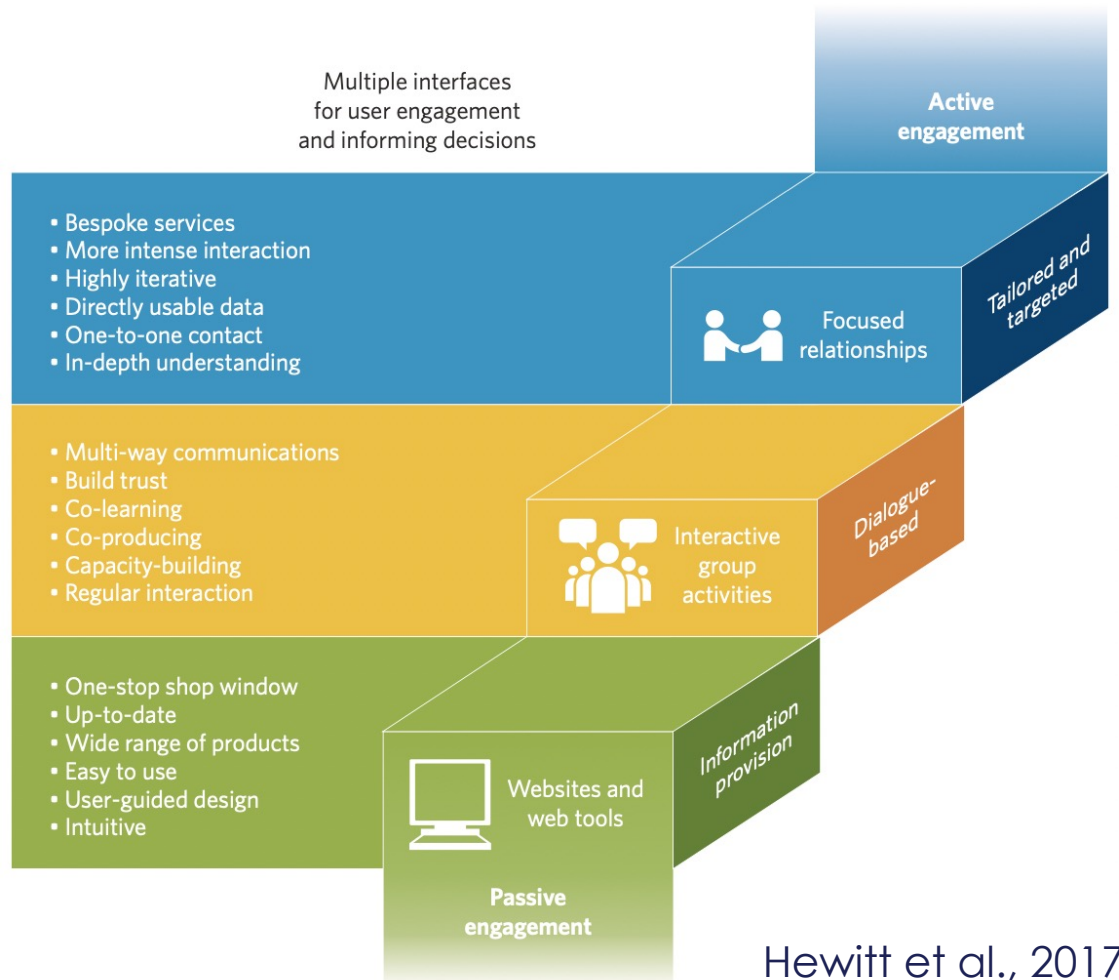
- Research institutes
- Consultancies
- National Met Services
- Multilateral development banks

...

How are climate services developed?



Carter et al., 2019

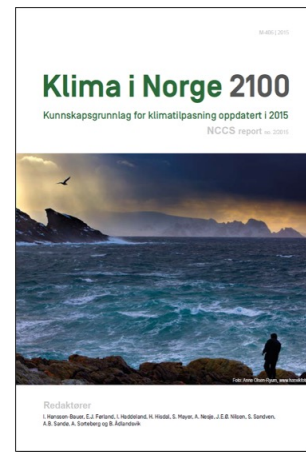


Hewitt et al., 2017

A decorative graphic on the left side of the slide consists of four overlapping, semi-circular shapes. From top to bottom, they are colored light blue, olive green, teal, and dark purple. Each shape is a thick, curved band that overlaps the one below it.

Examples of climate services

Climate factsheets for Norwegian counties and Spitsbergen



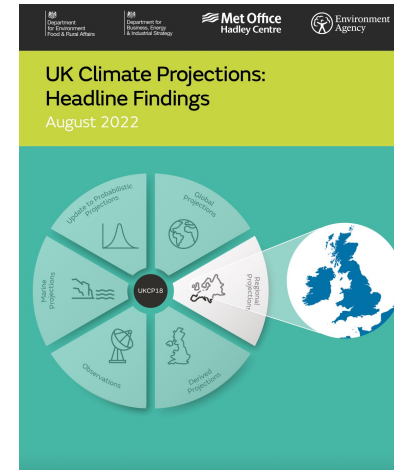
- **WHAT:** Climate factsheets with concise and distilled climate information summarized; Climate hazards that are projected to increase in frequency and/or intensity are highlighted
- **WHO:** For all administrative regions (counties + Spitsbergen and Longyearbyen)
- **HOW:** In close dialogue with practitioners in the counties' administration
- **WHY:** Advice local government/counties and decision-makers to use them.

SANNSYNLIG AUKE	
 Kraftig nedbør	Det er venta vesentleg auke i episodar med kraftig nedbør både i intensitet og førekomst. Dette vil også føre til meir overvatn
 Regnflaum	Det er venta fleire og større regnflaumar
 Jord-, flaum- og sørpeskred	Auka fare som følgje av auka nedbørmengder
 Stormflo	Som følgje av havnivåstiging er det venta auke i stormflonivåa

UK Climate Projections (UKCP18)

- **WHAT:** Set of tools and data that shows you how the UK climate may change in the future; different formats available
- **WHO:** For government authorities and other organisations sensitive to climate conditions in the UK
- **HOW:** through user engagement to inform development
- **WHY:** To support and inform decision-making and adaptation

<https://www.metoffice.gov.uk/research/approach/collaboration/ukcp>



select product select inputs generating product product

Product Selection

Filters Clear all

32 products selected

Type

Observations (4)

Projections (28)

Collection

Land observations (4)

Land projections: global (60km) (4)

Land projections: probabilistic (25km) (8)

Land projections: regional (12km) (4)

Land projections: local (2.2km) (5)

Marine projections (7)

Scenario

RCP 2.6 (19)

RCP 4.5 (15)

RCP 6.0 (8)

RCP 8.5 (28)

SRES A1B (8)

Output

Data only (15)

Graphs (11)

Maps (6)

Climate Change Type

Absolute values (14)

Anomaly values (23)

Products

The list of products displayed below can be filtered by selecting values for the various categories shown in the column to the left .

Click on the links below to view further information or submit a request for a given product.

Plot: PDF/CDF for probabilistic projections (25km) over UK, 1961-2100

[View details](#) [Process XML](#) [Submit a request](#)

Keywords: Projections, Land projections: probabilistic (25km), Anomaly values, RCP 2.6, RCP 4.5, RCP 6.0, RCP 8.5, SRES A1B, Graphs

Generates a plot of the Probability Density Function (PDF) or Cumulative Distribution Function (CDF) for a future change in one variable for one or more emissions scenarios. Either single year averages (monthly/seasonal/annual) for a specific year from 1961 to 2100 are available or 20/30 year decadal averages for the future period only. Results are available for anomalies for a given temporal average, time and location (on a 25km grid or a regional average).

Plot: Joint probabilities of two metrics for probabilistic projections (25 km) over UK, 1961-2100

[View details](#) [Process XML](#) [Submit a request](#)

Keywords: Projections, Land projections: probabilistic (25km), Anomaly values, RCP 2.6, RCP 4.5, RCP 6.0, RCP 8.5, SRES A1B, Graphs

Climate stories

- **WHAT:** Learn about climate change and some of its impacts as experienced by citizens and what actions are being taken to minimize the negative effects.
- **WHO:** raise awareness of society and scientists
- **HOW:** through collaboration between research partners and local government and organisations.
- **WHY:** bridge the gap between scientists and society with climate stories

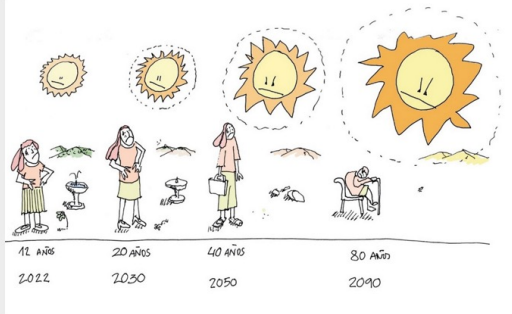
<https://reachout-cities.eu/climate-stories/>

The climate story of Logroño

Javier and María are two young students who learn about heatwaves, an increasingly frequent and intense phenomenon in Europe that also affects Logroño. Their story helps to understand climate change and its impacts on the city.

Theme: Heat
End user: Citizens

[Link to the story in English](#)
[Link to the story in Spanish](#)



María and Javier
Students



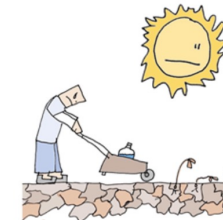
Francisco
Tourist



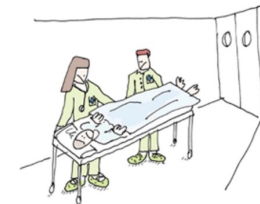
Isabelle
Urban planner



Lito and Lita
The Grandparents



Ángel
Outdoor labourer



Laura and David
Doctors

On the left side of the slide, there are four large, overlapping, curved shapes in shades of blue and grey, resembling stylized waves or segments of a circle.

Thank you

Connect

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