

The Utility of Climate Calculators as Decision Support Tools for the Land Sector



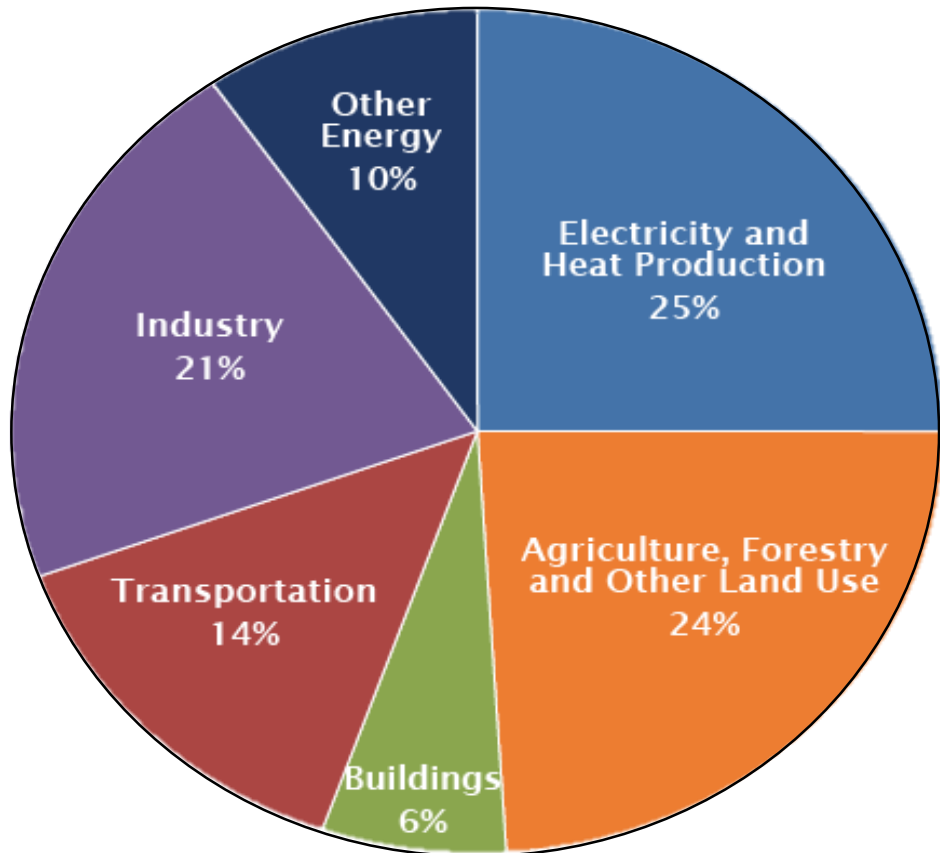
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London**

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Caroline Howe

Anthropogenic greenhouse gas (GHG) emissions vary sector to sector, as well as country to country.

Distribution of annual global GHG emissions per sector

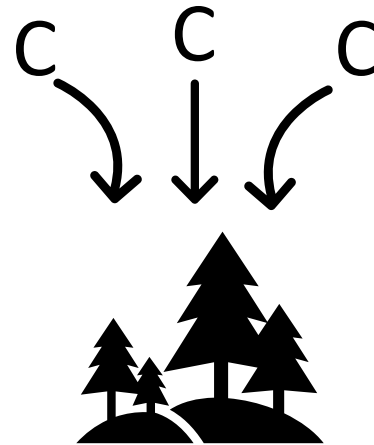


GHG emissions by economic sector (IPCC 2014)

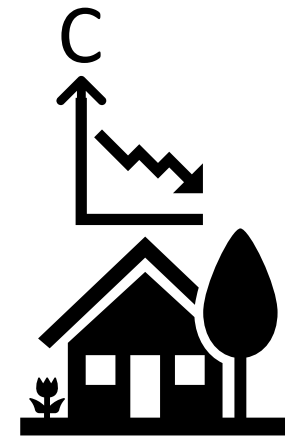
AFOLU: ~25%

Agriculture: ~11%

Deforestation: ~12%



**Carbon
Sequestration**



**GHG emission
reduction**

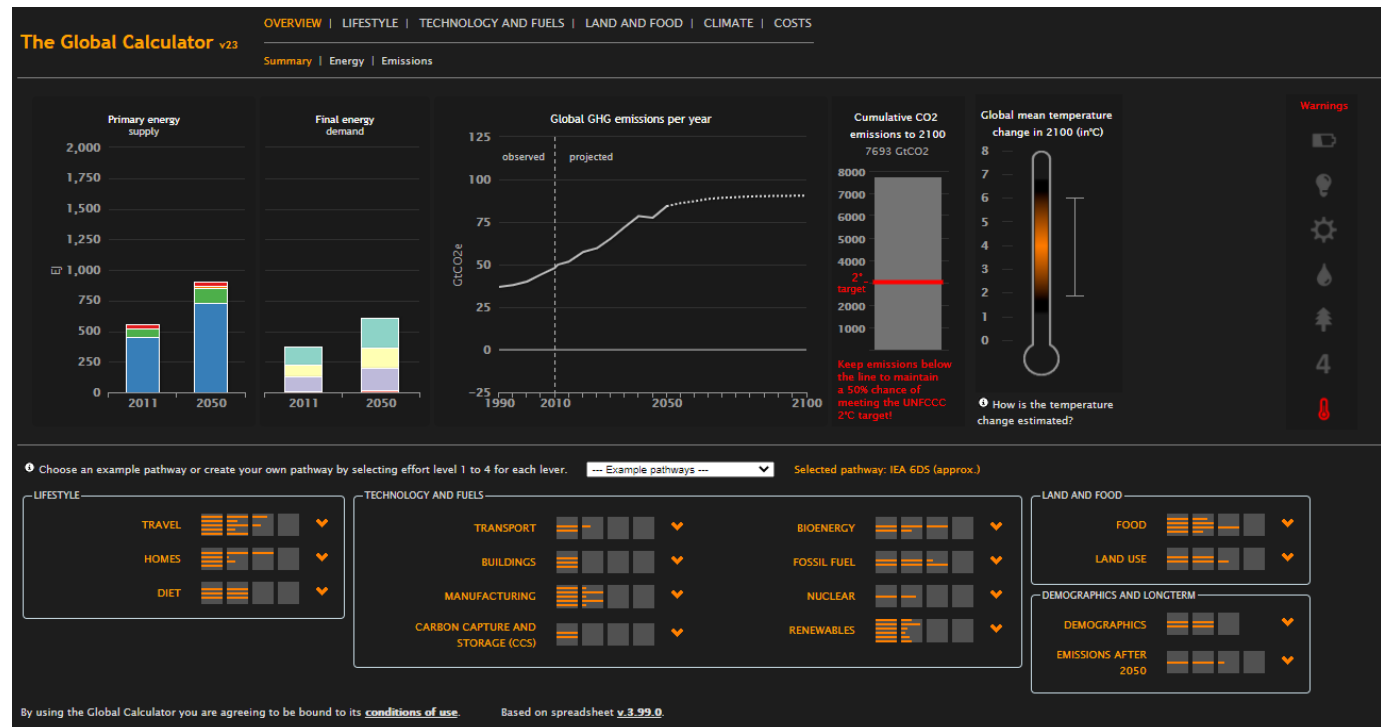
Decision Support Tools

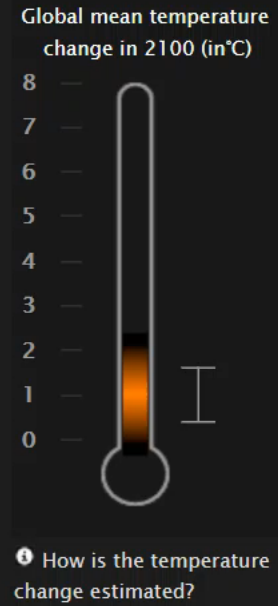
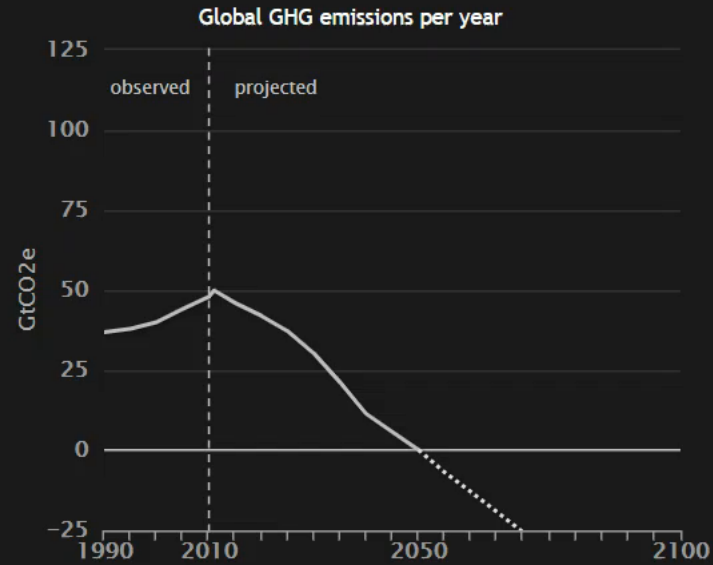
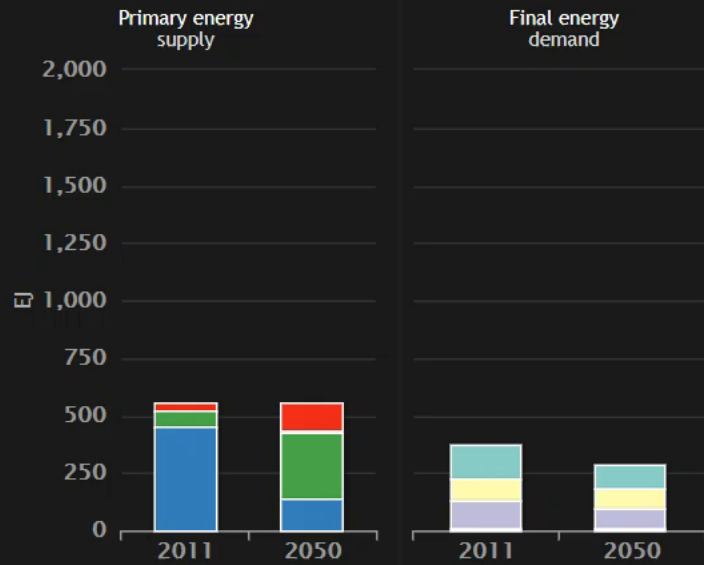
Goal

Policy

Net zero by 2050

Climate aware policies, practices and management





warnings

- 🔋
- 💡
- ⚙️
- 💧
- 🌲
- 4**
- 🌡️

Choose an example pathway or create your own pathway by selecting effort level 1 to 4 for each lever.

--- Example pathways ---

Selected pathway: user specified

LIFESTYLE

TRAVEL [Progress bar] ▼

HOMES [Progress bar] ▼

DIET [Progress bar] ▼

TECHNOLOGY AND FUELS

TRANSPORT [Progress bar] ▼

BUILDINGS [Progress bar] ▼

MANUFACTURING [Progress bar] ▲

Design, materials & recycling ⓘ [Progress bar] 1.9

Iron, steel & aluminium ⓘ [Progress bar] 3.0

Chemicals ⓘ [Progress bar] 1.0

Paper & other ⓘ [Progress bar] 4.0

Cement ⓘ [Progress bar] 1.9

CARBON CAPTURE AND STORAGE (CCS) [Progress bar] ▼

BIOENERGY [Progress bar] ▼

FOSSIL FUEL [Progress bar] ▼

NUCLEAR [Progress bar] ▼

RENEWABLES [Progress bar] ▼

LAND AND FOOD

FOOD [Progress bar] ▼

LAND USE [Progress bar] ▼

DEMOGRAPHICS AND LONGTERM

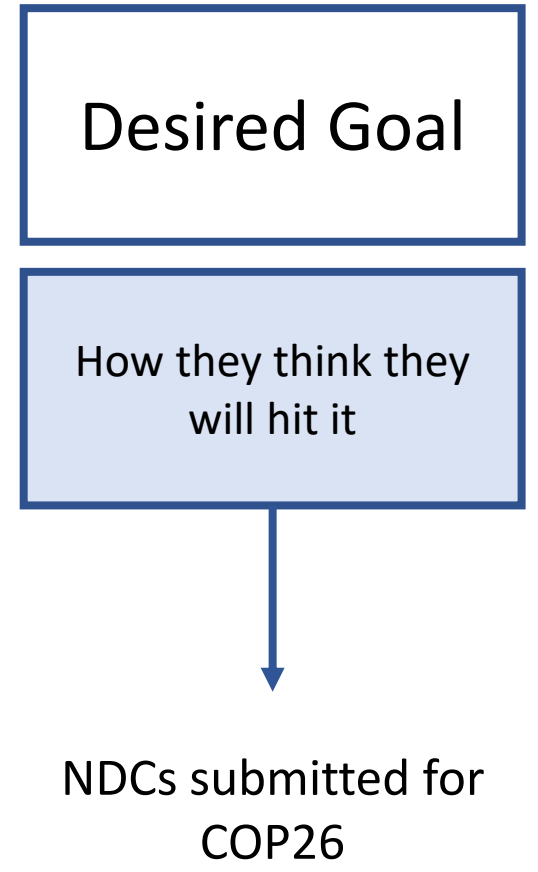
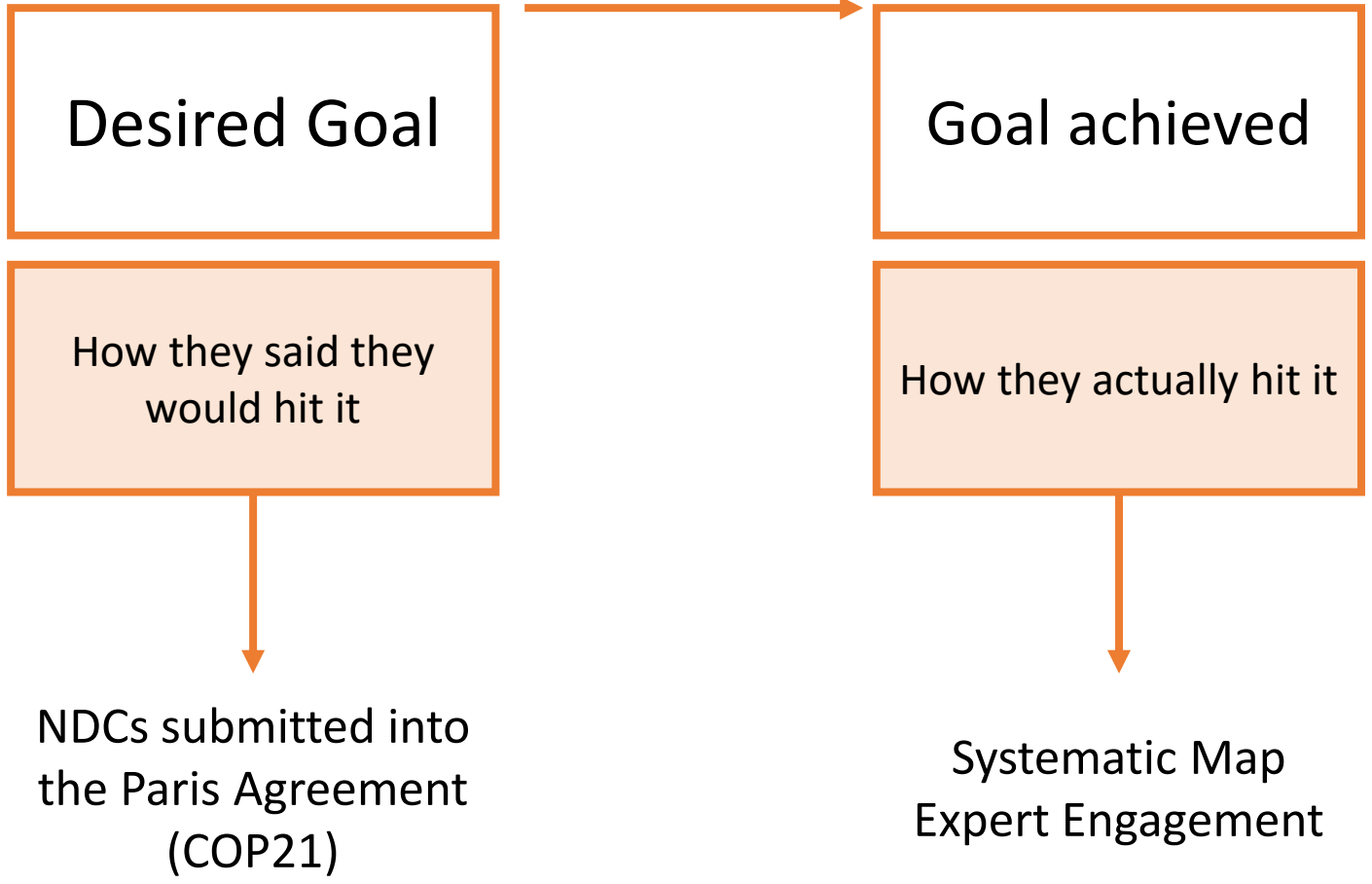
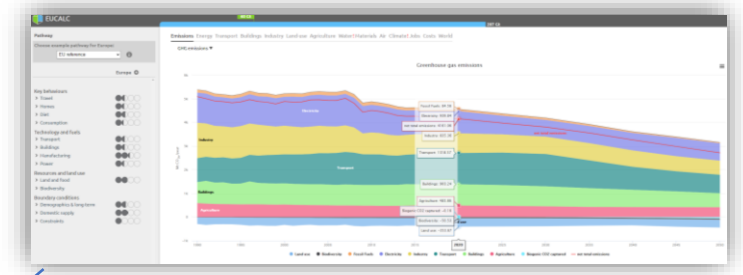
DEMOGRAPHICS [Progress bar] ▼

EMISSIONS AFTER 2050 [Progress bar] ▼

Problem Statement

Uncertainty around the utility of climate calculators for climate-smart land sector decision-making, leaves a disconnect between establishment of national climate mitigation targets and the mechanisms by which they are achieved

3 step process



COP21 NDC Vs Systematic Map

Desired Goal

NDC results:

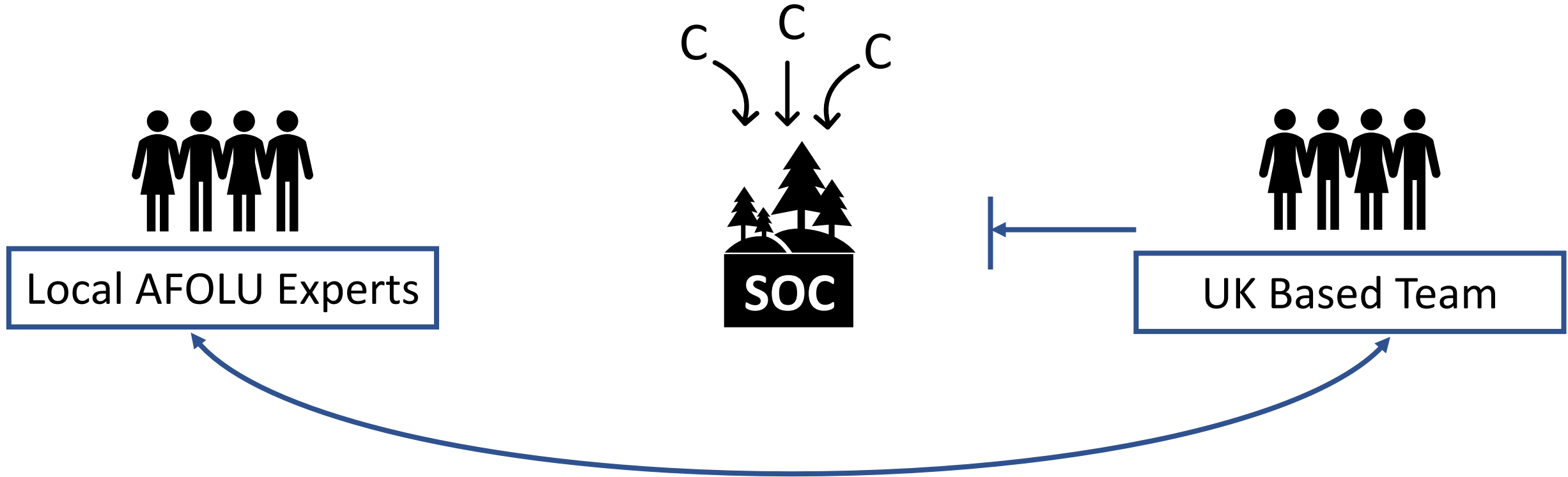
1. Ambitious reductions in the AFOLU sector
2. Limited elaboration on how reductions are achieved

Goal Achieved

Systematic Map results:

1. There are more reports on the Global South =
2. No one has been reported in hit their targets
3. Policy regimes (e.g. REDD+) are still being joined

Stakeholder Engagement

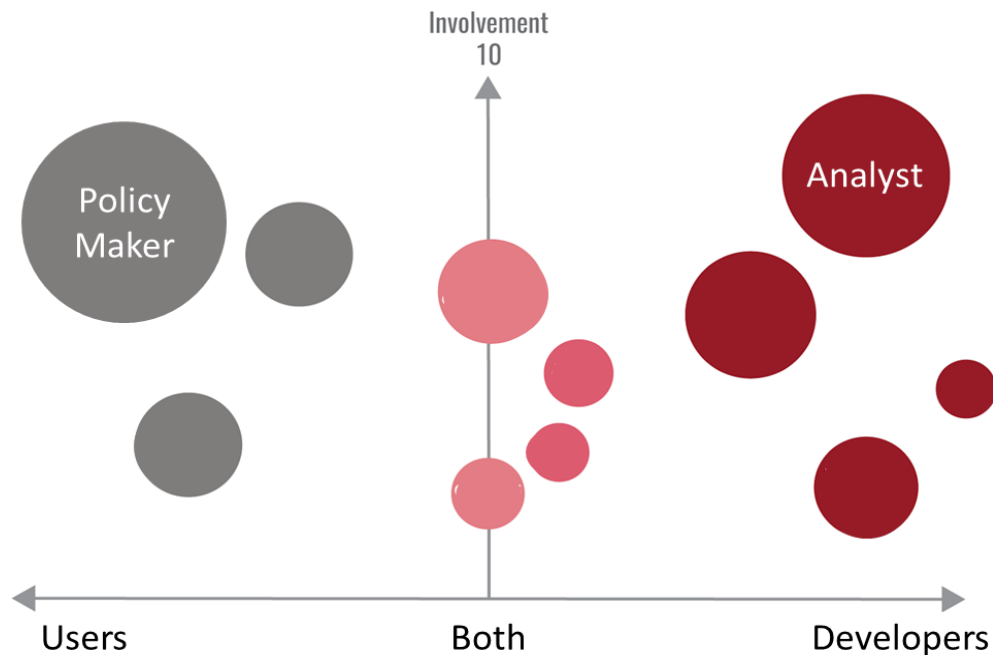


1. Dynamics of the land sector since COP21
2. Future of the land sector post COP26
3. The robustness of the country's climate calculator parameters

Research Outputs

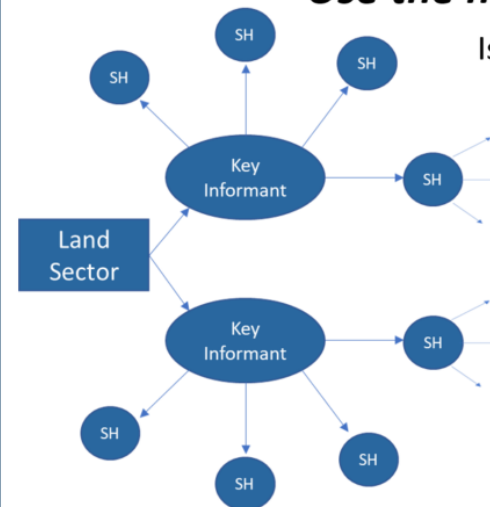
Potential to:

- Develop a model
- To recommend future uses of the climate calculators
- Further engage with different countries' climate calculator teams



Stakeholder Identification

Use the map to inform the best way to ID stakeholders



Is there a key informant(s) in each category that will be able to suggest stakeholders? (**Expert Knowledge**)

Can each stakeholder you talk to point you to three/four other potential stakeholders? (**snowballing**)

Method	Explanation
ID of Experts	Identify leading experts in that field from collective knowledge
Focus Groups	Within your team, or with known experts, use focus groups to identify other groups of stakeholders
Semi-Structured Interviews	With known stakeholders (experts or calc. users) present a pre-determined set of questions to explore who else could be a stakeholder
Snowballing	Most commonly used technique, often combined with the above: each time you talk to a known stakeholder, ask for who they would recommend as other stakeholders. The list is exhausted when no new stakeholders are being suggested

Thank you for listening!

Link to the Global Climate Calculator:

<http://tool.globalcalculator.org/globcalc.html?levers=22rfoe2e13be1111c2c2c1n31hfjdcef222hp233f211111fn2211111111/dashboard/en>

Link to the UK National Climate Calculator:

<http://2050-calculator-tool.decc.gov.uk/#/home>

Link to the EU 2050 Climate Calculator:

<http://tool.european-calculator.eu/app/emissions/ghg-emissions/?levers=1j12112ffl11211mp2b111ffffpppppp11f411111e3211r211l21n221>



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