

# THE SDG SHORTCUT

## Questioning wood stove heat in Lancaster as coproduction of knowledge

This research describes the SDG Shortcut, a heuristic framework to introduce the possibility that, when taken as a whole and not in parts, the UN Sustainable Development Goals could organize human imagination. It's potential is to:

- Highlight the conceptual and lived inconsistencies of the Goals and;
- Spark co-creation of convergence research that shifts paradigms by integrating freshly contextualised knowledges.

### 1) INTRODUCTION

As an area of applied research the UN Sustainable Development Goals represent the coming together of diverse actors across knowledges, nationality, region, and academic disciplines—every nation signed on. The SDG Shortcut Framework:

- **Acknowledges:** Implementation of the SDGs is falling far short of targets (Ciarli et al, 2022), and systems-wide failures are likely (Bendell, 2022).
- **Proposes:** An exercise that approaches the SDGs as a tool for human imagination to carve novel pathways aside unsustainable trajectories.

### 2) METHODOLOGY

- "Informed agitation" from knowledge defined by the problems it addresses (rather than by disciplines) (Clark & Harley, 2020)
- Reflexive governance and discursive democracy in the Anthropocene System (Dryzek & Pickering, 2018)

Sustainability Science

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Convergence Research

Heuristics

- A tool for integrating theory and practice (Kahneman & Frederick, 2005)
- Provides "provocative and catalytic" categories and reveal their use and implications in concrete examples (Stirling, 2014)
- In participatory frameworks--a reflexive processes that help the researcher explore, focus, and raise awareness (Alexakos, 2015)



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QR Code for References, Acknowledgments and further information

### 3) KEY FINDINGS

This heuristic exercise begins with the question—In light of both the climate emergency and the energy crisis, what part could or should wood stove heat play in the energy transition in Lancaster?

Then moving through the five "Ps" under which the 17 SDGs are grouped, the framework gathers data related to each "P" concept with its requisite Goals in connection with the problem/question.



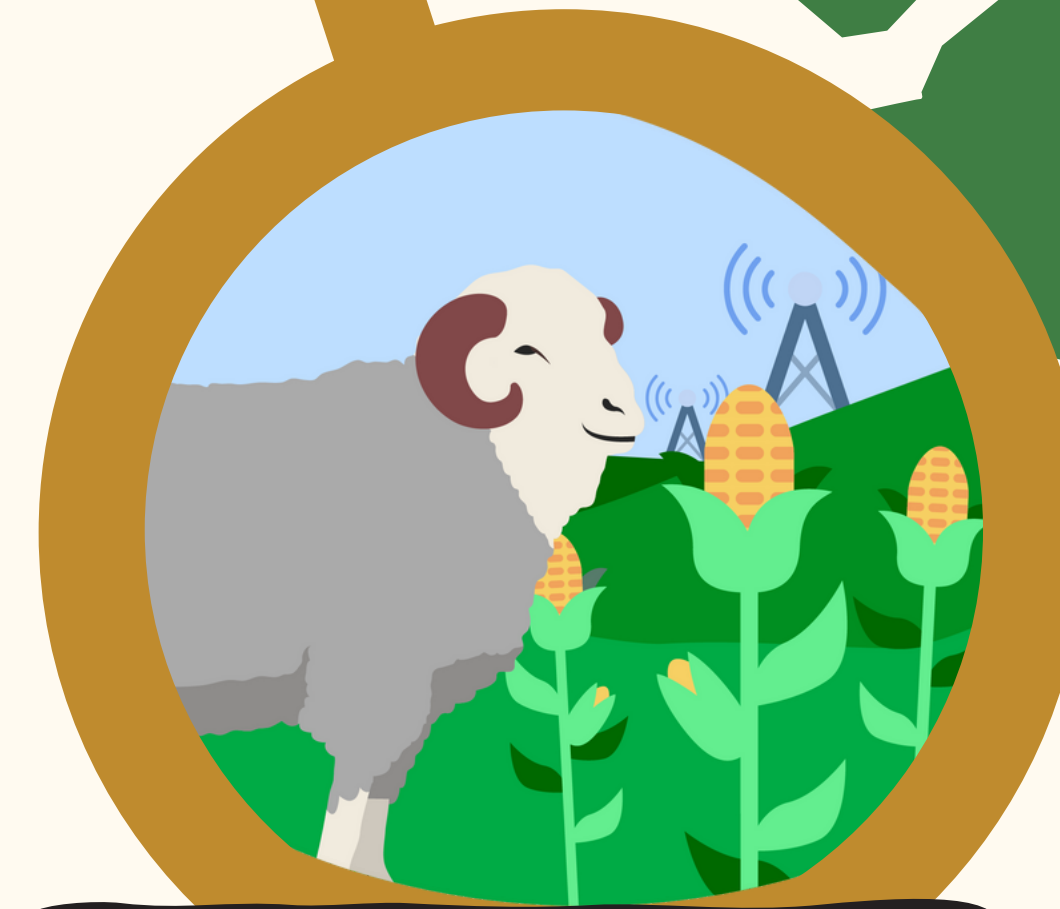
PEOPLE



PARTNERSHIP



PEACE



PROSPERITY



PLANET



An EcoDesign stove is actually allowed to emit 750 times as much particulate matter as a newer truck from 2014. This research was in optimal laboratory conditions.

NHS

Almost 30% of preventable deaths in England are due to non-communicable diseases specifically attributed to air pollution.

DEFRA

"Despite the proposed Ecodesign Directive, domestic stoves will continue to make a substantial contribution to particulate emissions across Europe."

LOGS DIRECT

"Our logs come from South Africa in a scheme that removes them from rivers, and we are getting requests to ship logs to Eastern Europe and even the US."

ClearSkies

Is an industry-run, voluntary self-regulation scheme that grades solid fuel stoves on their emissions and energy performance.

Lancaster City Council

Lancaster City Council has been awarded £198,794 to help tackle air pollution from solid fuel appliances through the Defra Air Quality Grant.

### 4) DISCUSSION

When data generated from the heuristic exercise is then located within a Sustainability Science framework for crafting usable knowledge in Socio-Ecological Systems (Clark et al, 2016), a sketch of possible novel pathways for knowledge coproduction and "informed agitation" emerges (Sen, 2013, Clark & Harley, 2020).

#### ICAP-4 THINGS TO "KNOW" CONSIDERATIONS FOR RESEARCHERS



Innovation System



Complex System

Knowledge generated needs to be collaboratively understood and actionable by local government, businesses, and residents.

The current energy and cost of living crises, as well as wider economic incentives, may override health and climate crises concerns.



Adaptive System



Political System

Any "solutions" need to be flexible and take into account local challenges: geographical, cultural, etc. New behaviors could be surprising.

The power structures conditioning the options of various actors include compelling "fireside" narratives.

### 5) NEXT STEPS

Locally, households who are considering wood stove heat as an "eco-friendly" and cost-cutting heating solution need more information. **What more do we need to know?**

Communities and ideas both need the capacity to question their own core commitments to change. **What coproduced interventions could be imagined for various actors to help anticipate potentially calamitous effects?**

