

Energy Sufficiency

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Key messages from a concept paper
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What is energy sufficiency?

- Sufficiency is about recognising and living within absolute limits
- It can be seen as a sense of 'enoughness' or as 'too muchness'
- It is based on quantitative assessments of environmental limits, and qualitative judgements on acceptable levels of energy services

Our starting definition:

Energy sufficiency is a state in which people's basic needs for energy services are met equitably and ecological limits are respected

Questions...

- How are basic needs defined? What do energy services have to be sufficient *for*?
- How much do we need to think about regional and local limits as well as global ones?
- How do needs and wants differ in different parts of the world?
- At what scale can we most effectively address sufficiency?
- What timescales does sufficiency operate on?
- How can policy address the changing nature and uncertainties of development, consumption and production?

Needs or wants?

- Needs: universal, material and non-material (e.g. indoor environment that promotes health)
- Wants: goals that derive from an individual's personal preferences

Can we distinguish between these in practice?

And who decides which is which?

A practical approach

- UK Minimum Income Standard
 - Income needed in order to reach a minimum, socially acceptable standard of living in the UK today
 - Based on consultation with the public; what do people think is needed to be part of society
 - Updated annually

Alternatives

- Welfare economics and preference satisfaction;
no valid distinction between wants and needs
- Capabilities:
 - Greater internal 'capacity' → more capability
 - More capability → ability to fulfil more needs

Capabilities approach takes public goods more fully into account than other alternatives

Implications for energy sufficiency

- Low carbon transition could happen without resolving the argument about needs and wants

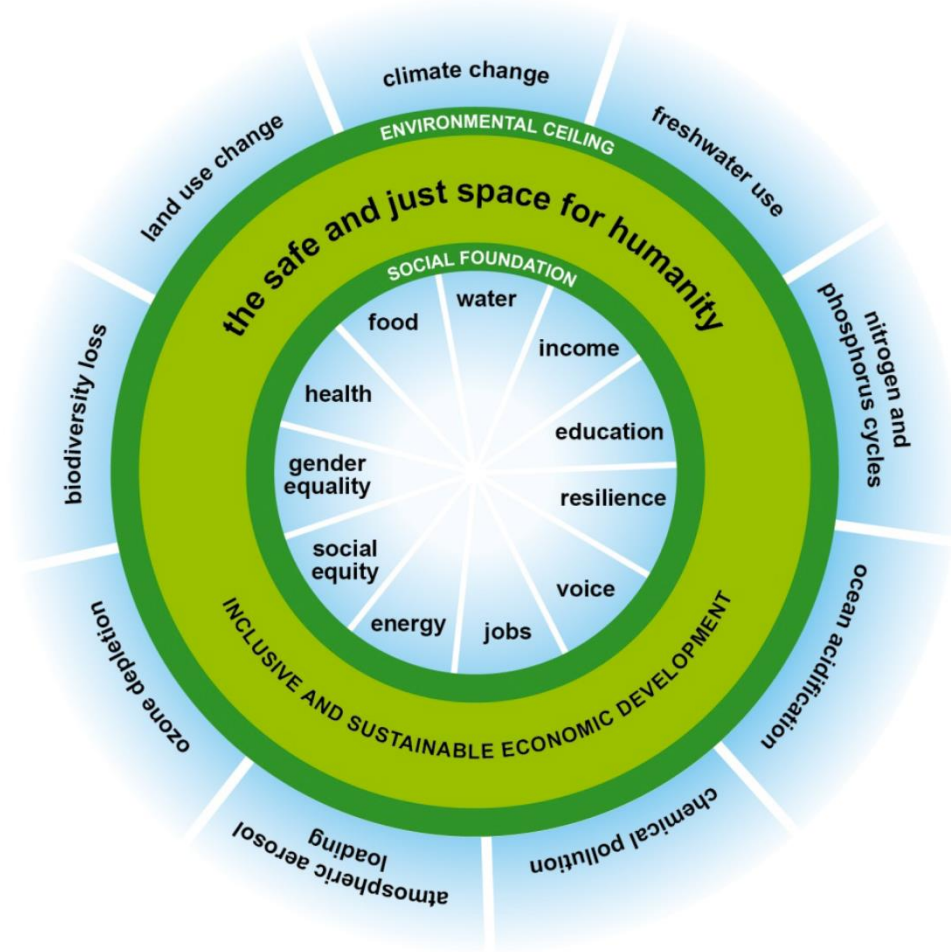
But

- If distinguishing between them by social consensus is possible, this could be a useful input into policy development

The Oxfam sustainable development doughnut

Incorporates
sufficiency
characteristics:

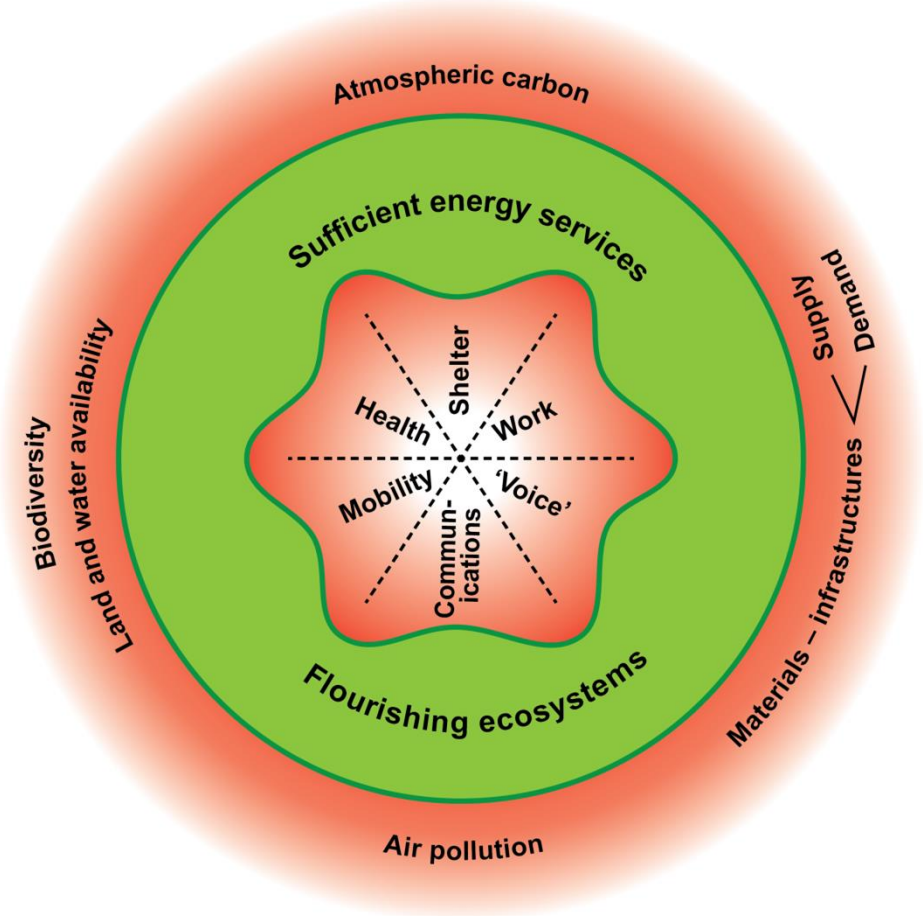
- absolute limits
- minimum requirements



Context: international agreements

- Outer ring: Paris Climate Agreement
- Inner ring: UN Sustainable Development Goals

Adapting the doughnut for energy sufficiency



Scale and timing

- Scale
 - Global vs regional and local environmental limits
 - Energy system governance
- Timing
 - When is energy used (seasonally, weekly, diurnally, etc)
 - The pace of human activity (importance of non-energy policy)

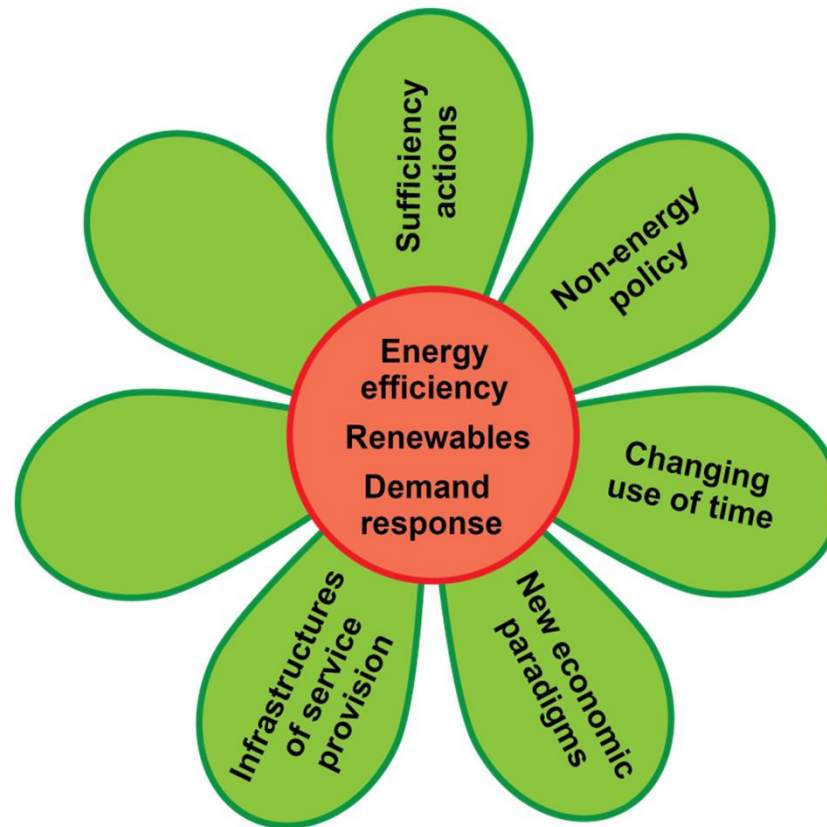
Macro trends and sufficiency

- Demography
 - Population growth, unevenly spread in Europe
 - Decline in household size
- Equity
 - Income and wealth inequalities
 - Fuel / energy poverty
- Smart technology
 - ‘smart’ covers a wide range of things
 - Connected appliances will increase standby
 - Optimistic assumptions about performance and little consideration of ecological impacts
 - Used by and for humans; outcomes may be far from what was intended

From concept to policy

- Aim to reduce energy consumption rather than increase energy efficiency: a move from ratios to absolutes
- Develop different policies for energy service needs and wants, based in part on public consensus on basic needs
- Develop policy around energy services
- Set up and maintain inclusive processes for equitable access to energy services

Suggestions for a flowering of energy policy



Current sustainable energy policy



New opportunities for action and policy opened up by sufficiency framing

Opportunities for developing sufficiency-based policy

- Continued analysis of the implications of the Paris Agreement and the SDGs
- Developing methods for agreement on minimum standards for energy services
- Revision and rethinking building standards
- Addressing questions of excessive / aspirational consumption
- Developing supportive non-energy policy
- Building sufficiency considerations into smart grid development
- Continuing to promote regional and local sufficiency policies