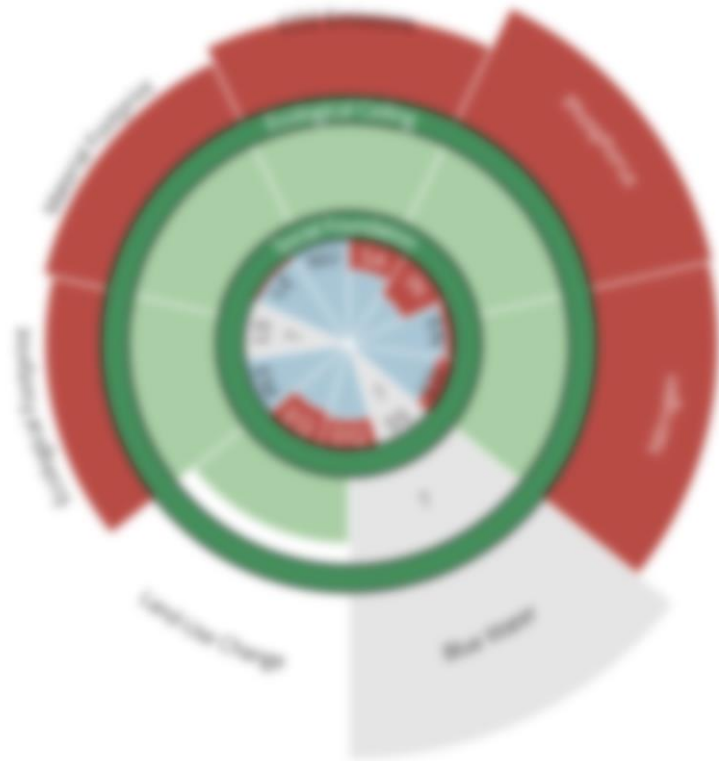


# PROVIDING DECENT LIVING STANDARDS WITH MINIMUM ENERGY USE



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# 1. THE CONCEPTS OF DLS AND DLE

DLE models assess (theoretically) the energy use of providing decent living standards in a given geography

Security

Health  
Integrity

Imagination  
& thought;  
Practical

Non-substitutable,

## Our model

**Aim:** assess (*theoretically*) the *minimum* energy for providing decent living standards globally in 2050

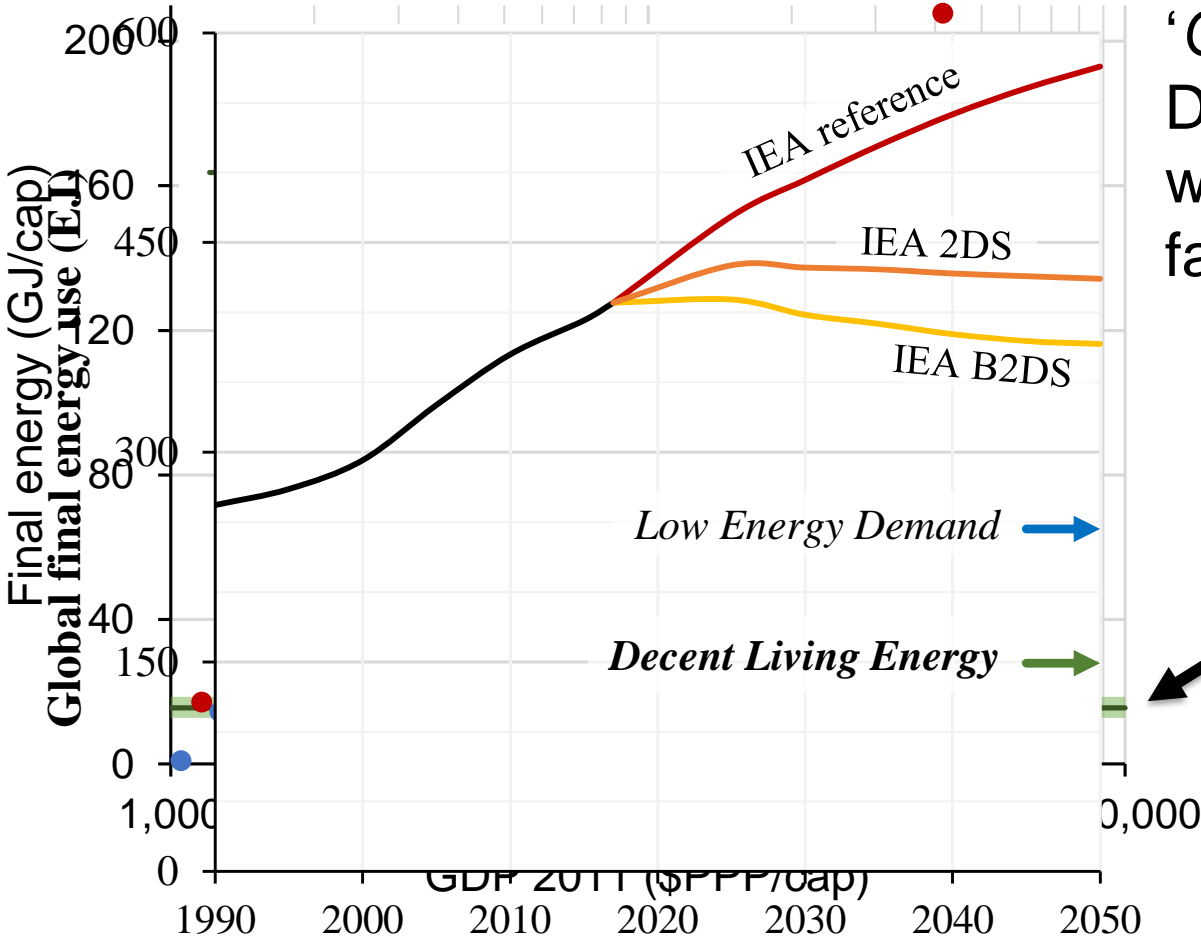
**Key limitation:** the year 2050 only was considered, in isolation, with no assessment of how to get there

**Key assumption:** decent living standards met globally but not exceeded anywhere (i.e., zero inequality)

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# 2. KEY RESULTS



‘Overshoot’ of national DLE estimates increases with GDP/cap reaching a factor of 10 billion people with **60% less** energy use than today

National DLE estimates\* all lie within this shared area

Millward-Hopkins et al. (2020). *Providing Decent Living with Minimum Energy: A Global Scenario*. *Global Environmental Change* 65: 102168.



# 3. INTERPRETATION AND APPLICATIONS

Our Example. Oswald et al. provide data suggesting that world capita, should obtain 20% of the Global South population consume around 1/3 of the average GS energy use  
What is does offer is:

So scenarios that assume that decent living standards

- (i) A positive story countering, for example, fatalistic narratives regarding overpopulation should ensure consumption is about 3 x DLE (~45 GJ/cap) on average (or they must assume a significant reduction in GS energy inequality and have some rational as to how this will happen)
- (ii) A baseline of energy use that a population should have access to at a minimum, which models such as IAMs can look to
- (iii) Expands the space of existing scenarios