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CONSULTING ENGINEERS, CHEMISTS & EXPERT WITNESSES



## Existential Risk - Why we urgently need our population and economy to degrow

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This presentation addresses:- Existential Risk and its solutions, which are :-  
Population Degrowth, and  
Economic Degrowth

I believe that engineers are the masterminds of the future and if we understand what is  
in fact our reality, collectively we can avert potentially catastrophic consequences

So what can we do about it ?

The straight answer is - individually, very little other than being frugal with all things

If enough of us understand x-Risk, we can change the future

**Existential Risk** is the likelihood of our species becoming extinct or at-best, being so changed that whoever remains cannot recover to our present state

We do not **own or control nature**, our planet or the universe, **they control us**

If we continue to **disregard nature** and our environment so drastically, **nature will destroy or grossly diminish us**

Our rate of **population growth, indefinite economic growth**, destruction of the environment and potential causes of our own extinction have never been greater

**Climate Change**, and the impending **Energy Crisis** are but two symptoms of our greed and growth-driven existence

I urge you to seriously consider the **underlying causes** of our impending demise, **not just the symptoms**

However good we are at making things happen, all we will be doing if we do not address the causes, will be delaying the inevitable

*Only mad men and economists believe that infinite growth is possible in a finite world* (Boulding)

And yet we hurtle along in our greedy growth-before-all style of living, on our way to what many consider to be a very serious demise.

To avoid this we must gain wisdom and develop technological maturity with aims like :-

- (i) equality and sustainability for all people,*
- (ii) recognition of the rights of other species,*
- (iii) moderating the objectives of accumulation and wealth*

**Greed** must end and be replaced with sustainable economic management (Nicolas Georgescu-Roegen, founder of ecological economics)



Last week the UN produced the -

## Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report

highlighting the number of species already extinct and that extinction rates are accelerating

## What I am about is understanding Existential Risk ...

With the purpose of helping to cause us all to curtail the already underway

### 6<sup>th</sup> Extinction

The first three, the dinosaurs and two ice ages were externally caused

The next three we have caused, as **hunter gatherers**, by developing **agriculture** and by using **fossil fuels**

The way to avoid all these extinctions, to save ourselves and future generations, is to reduce **Existential Risk (x-Risk)**

not just for our own benefit, other species and the environment, but for all future generations

*A very small reduction in existential risk will save countless future lives and is therefore more important than any other global public good* (Bostrom)

There are currently a considerable number of organisations – academic, government and private studying existential risk

There are still external risks but the most serious are those generated by us

Examples of both of these categories are:-

# Existential Risk examples

## External (Natural)

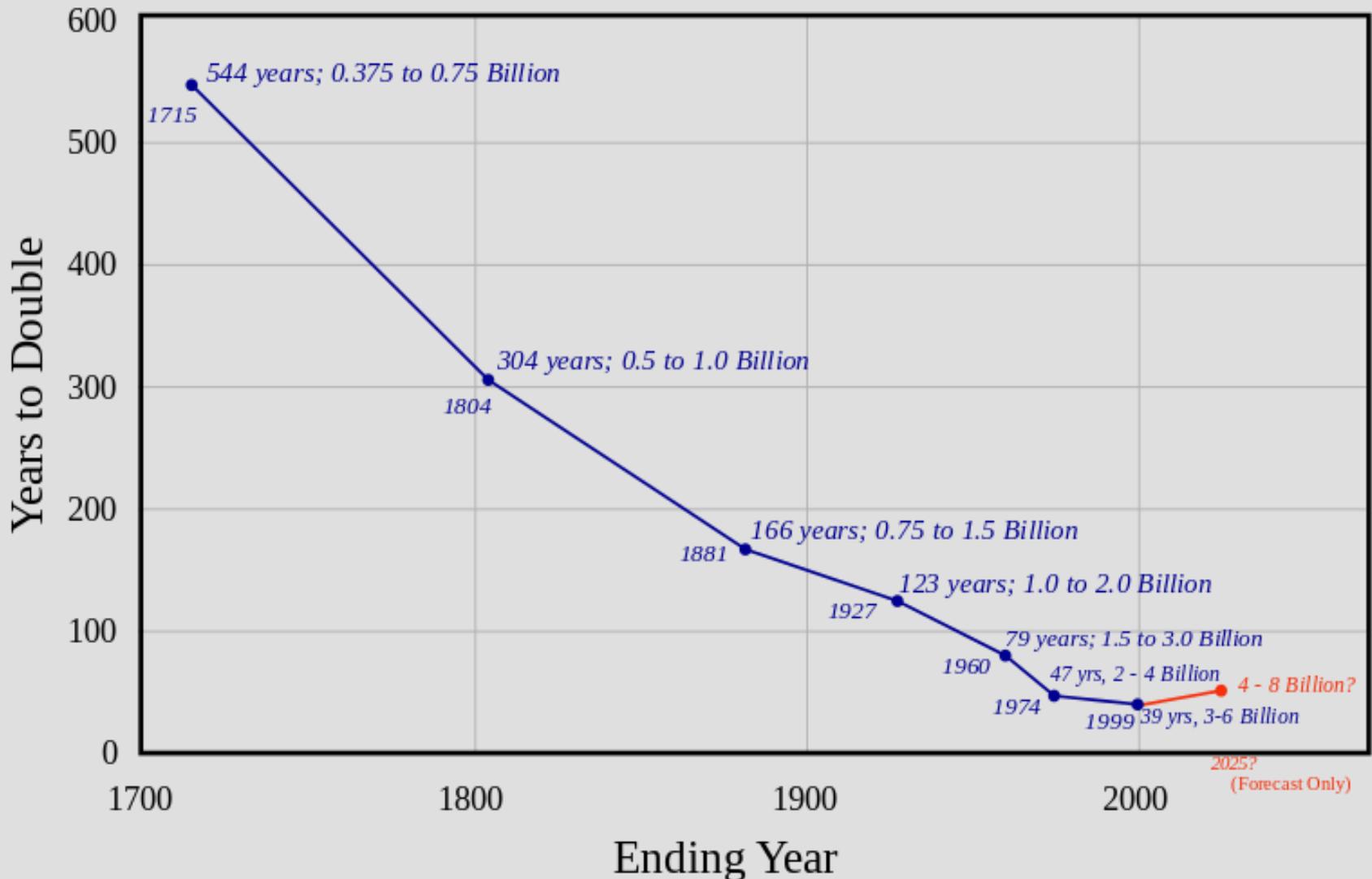
- Major asteroid impact
- Large-scale volcanism
- Extra-terrestrial invasion
- Natural ice age
- Cosmic events
- Mega-tsunami

## Human-caused

- Global nuclear annihilation
- Dysgenics (defective genes)
- Biological warfare
- Chemical warfare
- Total war
- Rogue biotechnology
- Release of a pandemic-causing agent
- Ecological collapse
- Global warming
- Hostile artificial intelligence
- Nanotechnology weapons
- Plague in ever denser populations
- Over-population
- Indefinite economic Growth

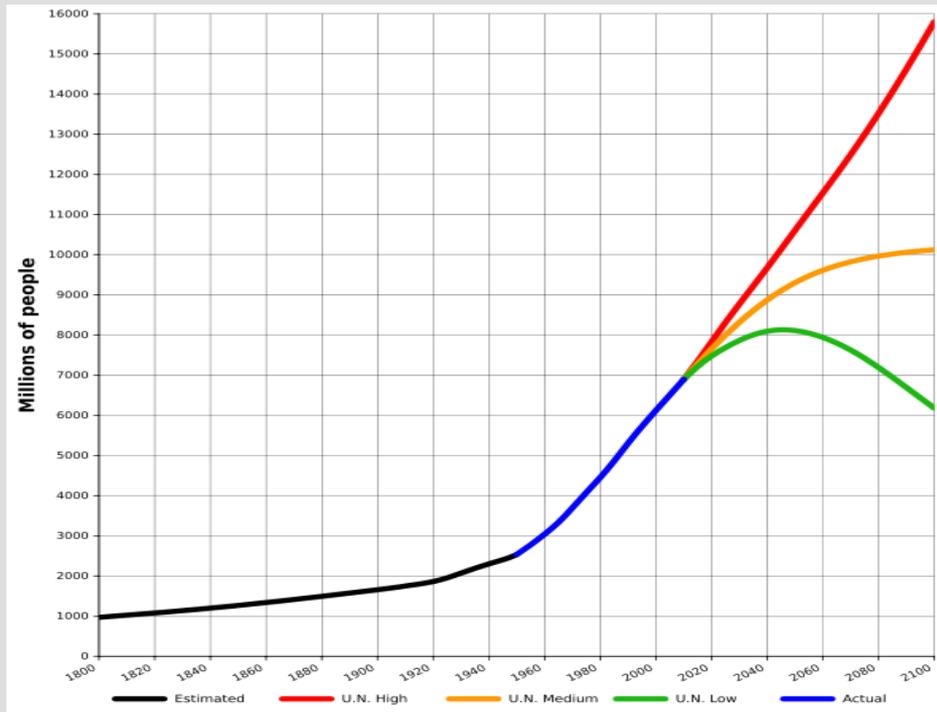
# Solution 1 : Population Degrowth

## Years to Double Population

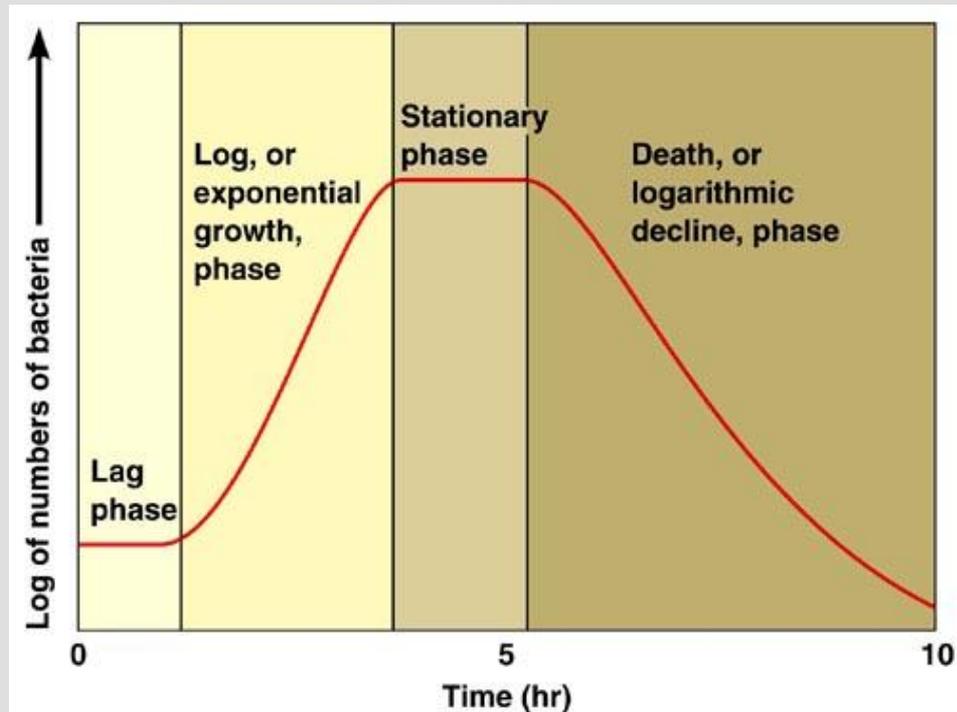


*If all women in all countries were educated and empowered to plan their families, we would reduce world population to a sustainable level*

Human growth curve 1800-2100



Microbial growth curve 10 hours



We are still in the exponential growth phase

See what happens to bacteria after that. We and all living creatures are the same in this regard. **But we just take no notice**

## Solution 2 : Economic Degrowth

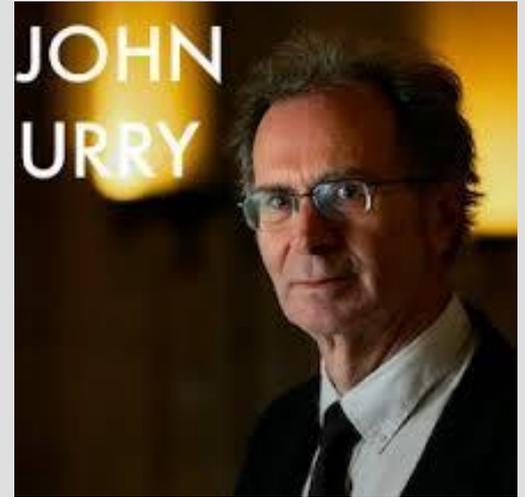
The late Professor John Urry (Lancaster University), said

When we discovered fossil fuels we should have either left them in the ground for the future or rationed them : we should certainly do so now

Energy is not just another commodity, it is the pre-requisite of all commodities

To avoid disaster, we need to voluntarily degrow (Georgescu-Roegen; van Bavel) and depopulate (Daly) or **go extinct** before reaching technological and moral maturity (Bostrom)

If we do not gain wisdom and full international co-operation before colonising elsewhere, we will go prematurely extinct (Bostrom)



## Some current degrowth practices

1. *Sharing of information via the internet*
2. *Open exchange of information via Peer-to-Peer (P2P) practices w/o copyright, patents etc*
3. *Creative Commons licencing*

*Initiatives such as :-*

4. 100 Resilient Cities
5. Tiny House movement
6. Voluntary Simplicity movement
7. Co-housing
8. Transition Towns

There are some 500 transition towns around the world, 200 in the UK. Totnes in Devon was the first

# Thank you !

The full version of this powerpoint and the associated 14-page paper on which it is based, will be placed on the Risk/PCC conference website



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The author and his wife Joan in the Transition Towns office in Totnes, Devon, UK