



Doughnut Economics in times of climate change

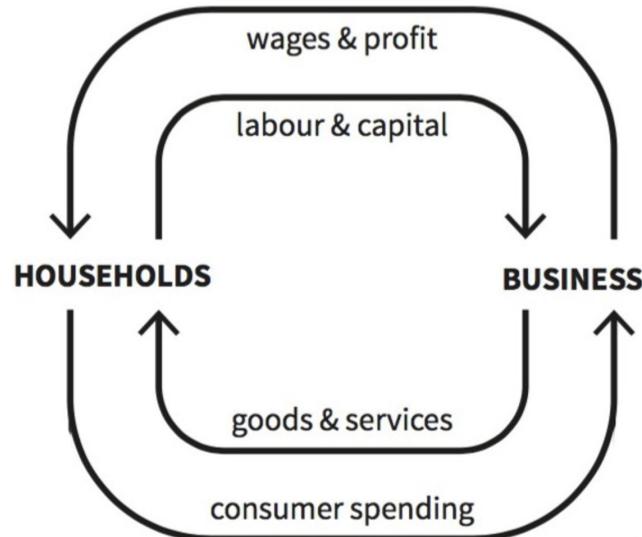
from theory to practice

Kate Raworth

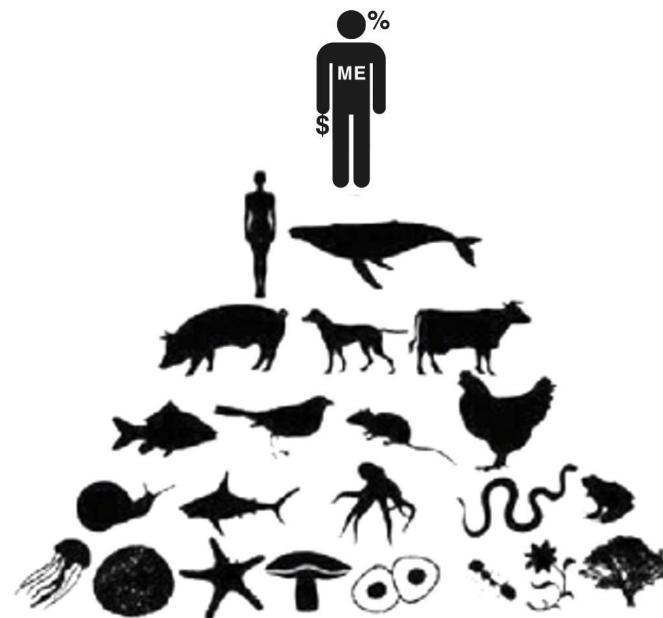
19 December 2024

20th century economics

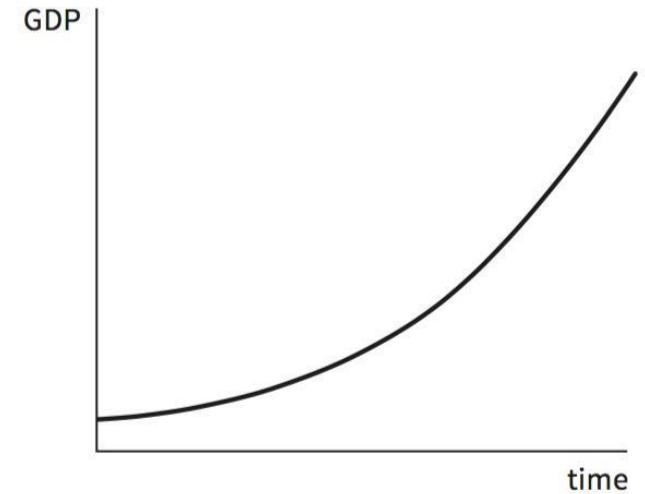
The first image



The selfie

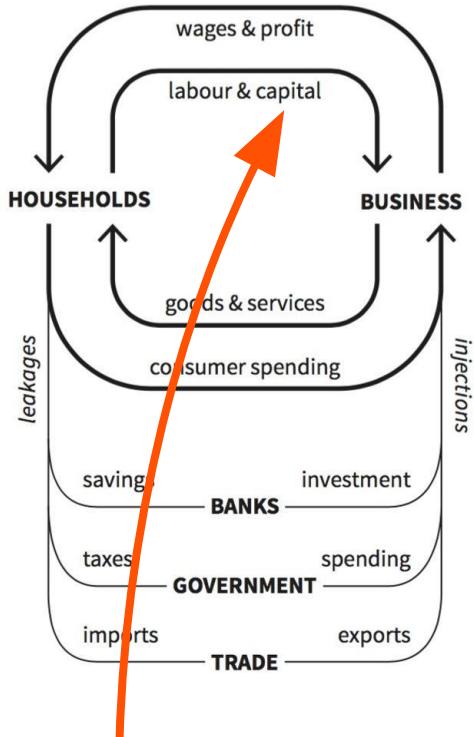


The goal



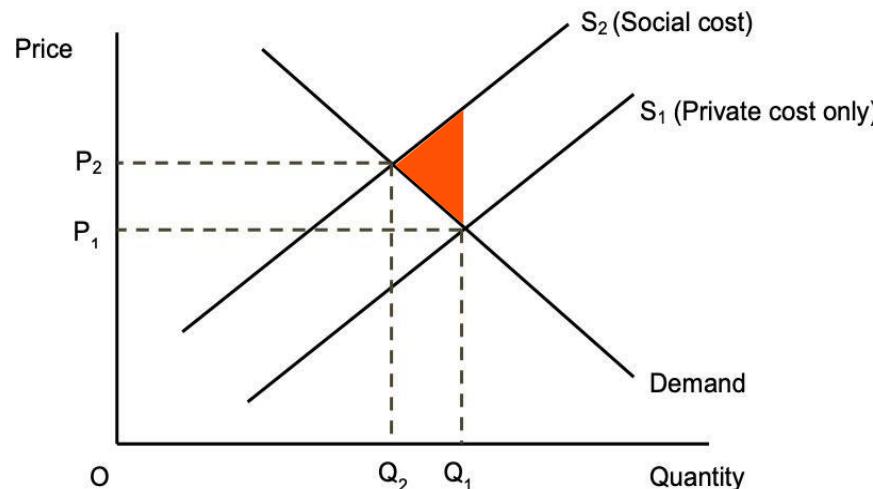
Depicting environmental issues in neoclassical economics

Macro



'Land' as just one among many types of capital

Micro



'Environmental externalities'
(the red wedge)



Dear Humans
here's a neat way
to represent
Earth in your
economic
models...

(Could this actually be an alien plot to destroy life on Earth?...)

How the 21st century began

Financial meltdown



New York, US



Athens, Greece

Climate breakdown



Sofala, Mozambique



Delhi, India

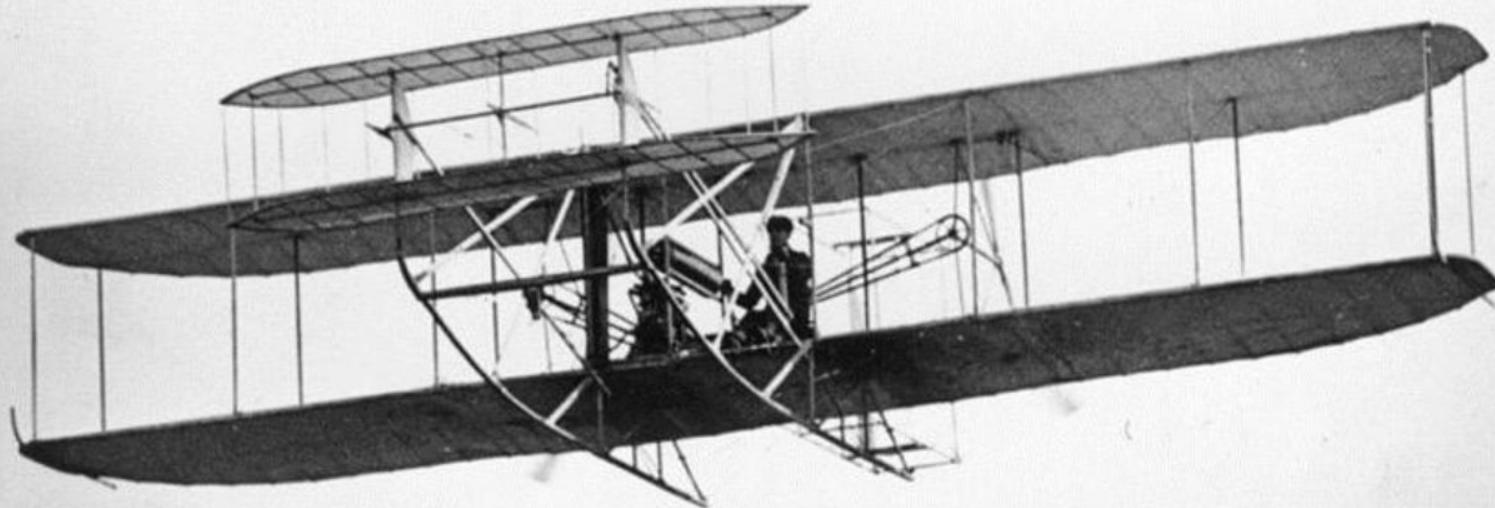
COVID lockdown



Kuala Lumpur, Malaysia



Bogotá, Colombia



**Those attempting to guide the economy and our societies
are like pilots trying to steer without a reliable compass.**

- Joseph Stiglitz & Amartya Sen 2009

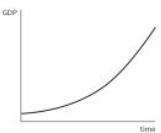
Seven ways to think like a 21st century economist

Seven Ways to Think:

From 20th-Century Economics

To 21st-Century Economics

1. Change the Goal



GDP

To 21st-Century Economics



the Doughnut

2. See the Big Picture



wages & profit
labour & capital
self-contained
market



embedded
economy

3. Nurture Human Nature

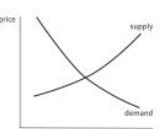


rational
economic
man

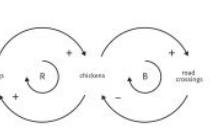


social
adaptable
humans

4. Get Savvy with Systems

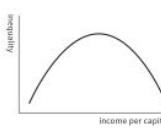


mechanical
equilibrium

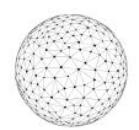


dynamic
complexity

5. Design to Distribute

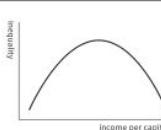


growth will
even it
up again

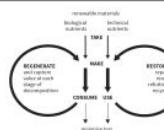


distributive
by design

6. Create to Regenerate

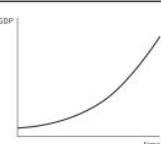


growth will
clean it
up again

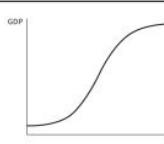


regenerative
by design

7. Be Agnostic about Growth



growth
addicted



growth
agnostic

THE SUNDAY TIMES BESTSELLER

DOUGHNUT ECONOMICS

**Seven Ways to Think Like a
21st-Century Economist**



KATE RAWORTH

'The John Maynard Keynes of the 21st century'
George Monbiot, *Guardian*

WITH A NEW AFTERWORD





'Human development is concerned with advancing the richness of human life, rather than the richness of the economy in which human beings live'

- Professor Amartya Sen
Economist and philosopher

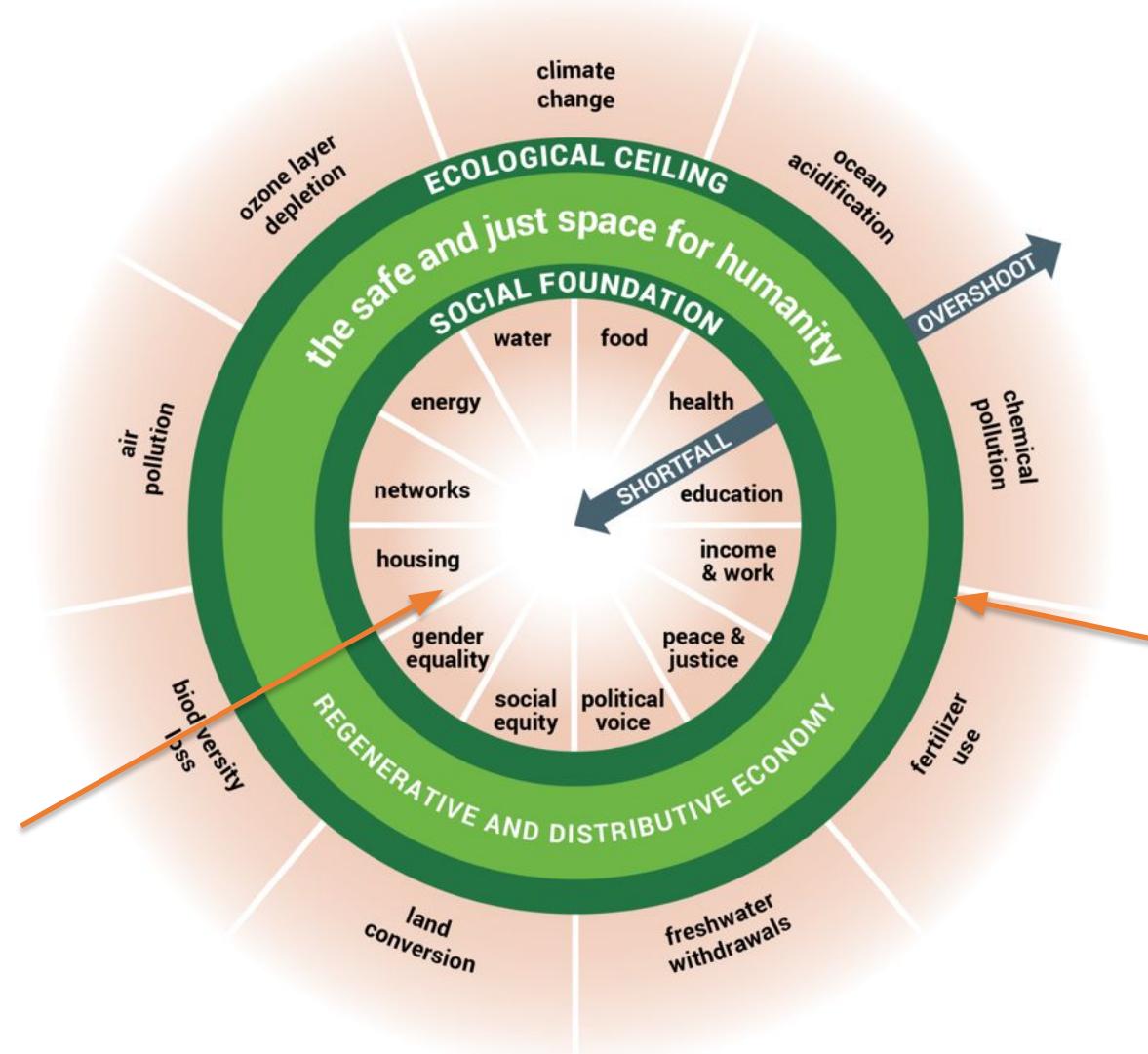


'Humanity can affect the functioning of its own life-support systems. There are tipping points we are pushing on. How does this change our definition of progress?'

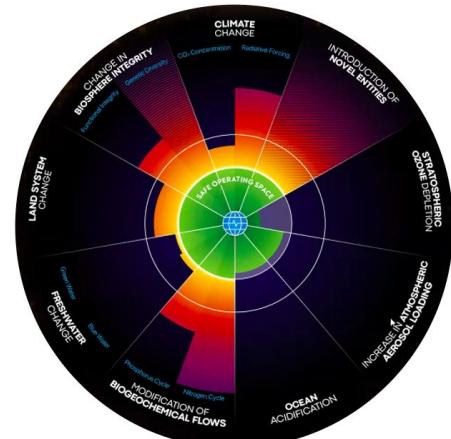
- Professor Katherine Richardson
Oceanographer and sustainability scientist

A compass for human prosperity

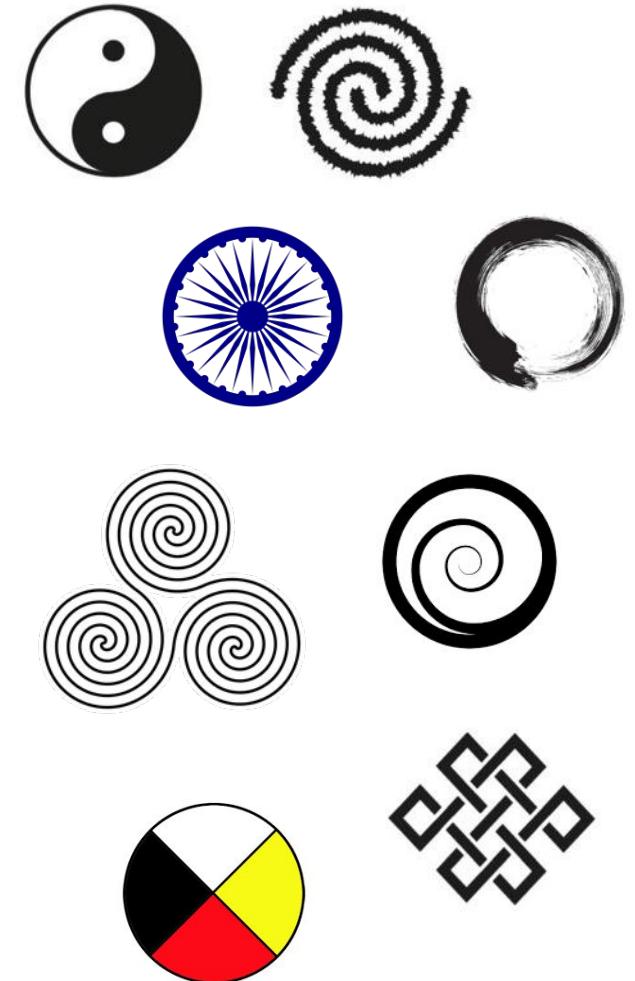
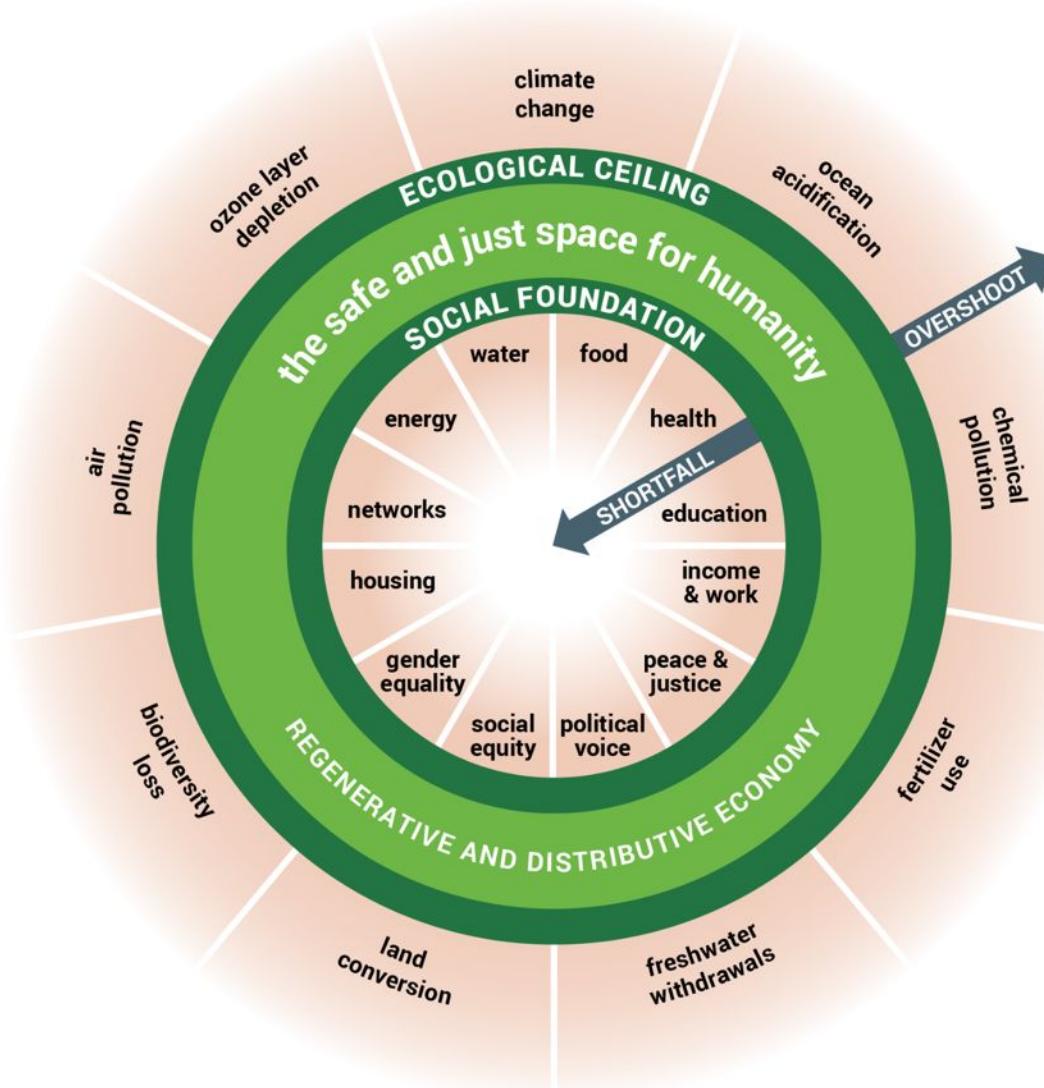
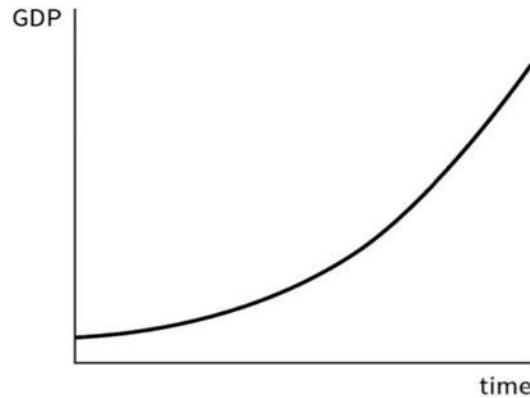
Aiming to meet
the needs of all
people within
the means of the
living planet



**PLANETARY
BOUNDARIES:
protecting
Earth's 9 critical
life-supporting
systems**



A compass for human prosperity



A world deeply out of balance

NASA: HOLE IN EARTH'S OZONE LAYER FINALLY CLOSING UP BECAUSE HUMANS DID SOMETHING ABOUT IT

90% of world's children are breathing toxic air, WHO study finds

Humans have wiped out 60% of animals since 1970, says WWF

Land degradation threatens human wellbeing, major report warns

UN climate report: It's 'now or never' to limit global warming to 1.5 degrees

Ocean acidification to hit levels not seen in 14 million years

Research finds humans across the globe have microplastics in their stool

Water And Energy Shortages Are Fueling A Global Food Crisis

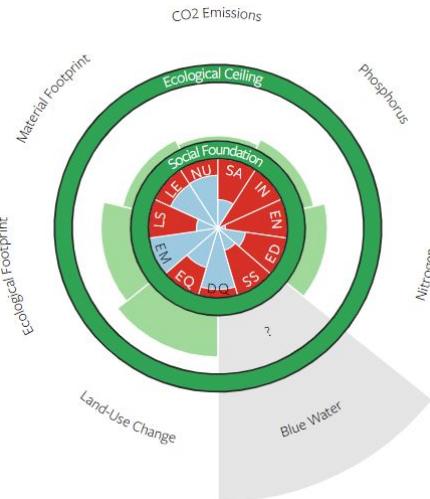
Richest 1% own half the world's wealth

Phosphorus pollution reaching dangerous levels worldwide

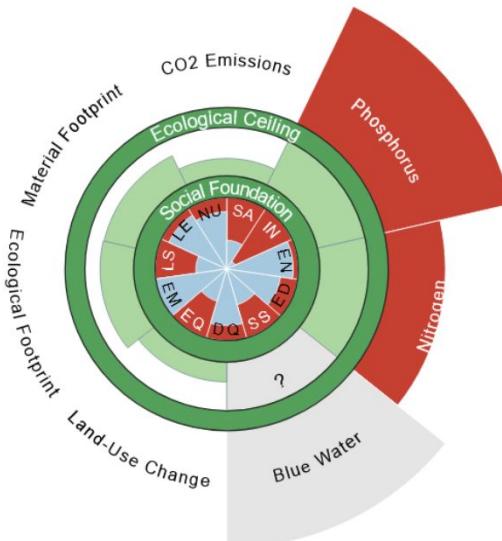
Water shortages could affect 5bn people by 2050, UN report warns

Raworth 2017
with 2022 planetary boundary updates

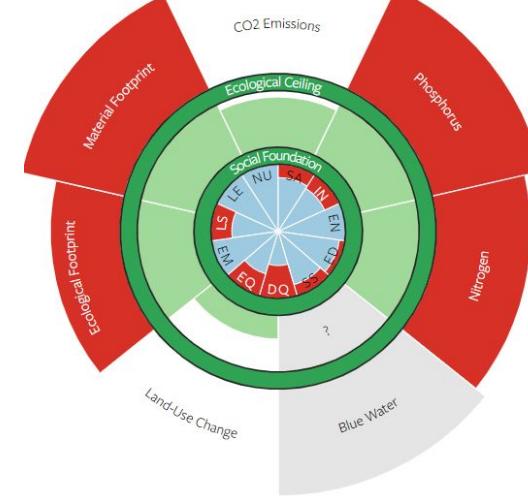
Every nation must transform



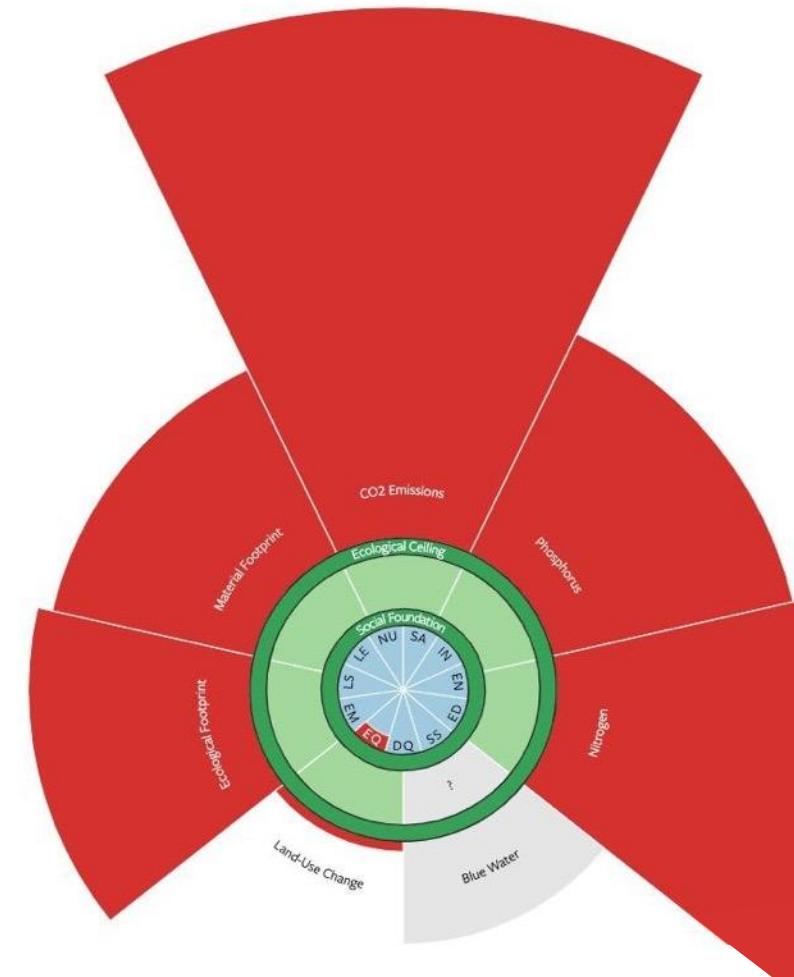
Malawi
\$1,800 pc



India
\$9,000 pc



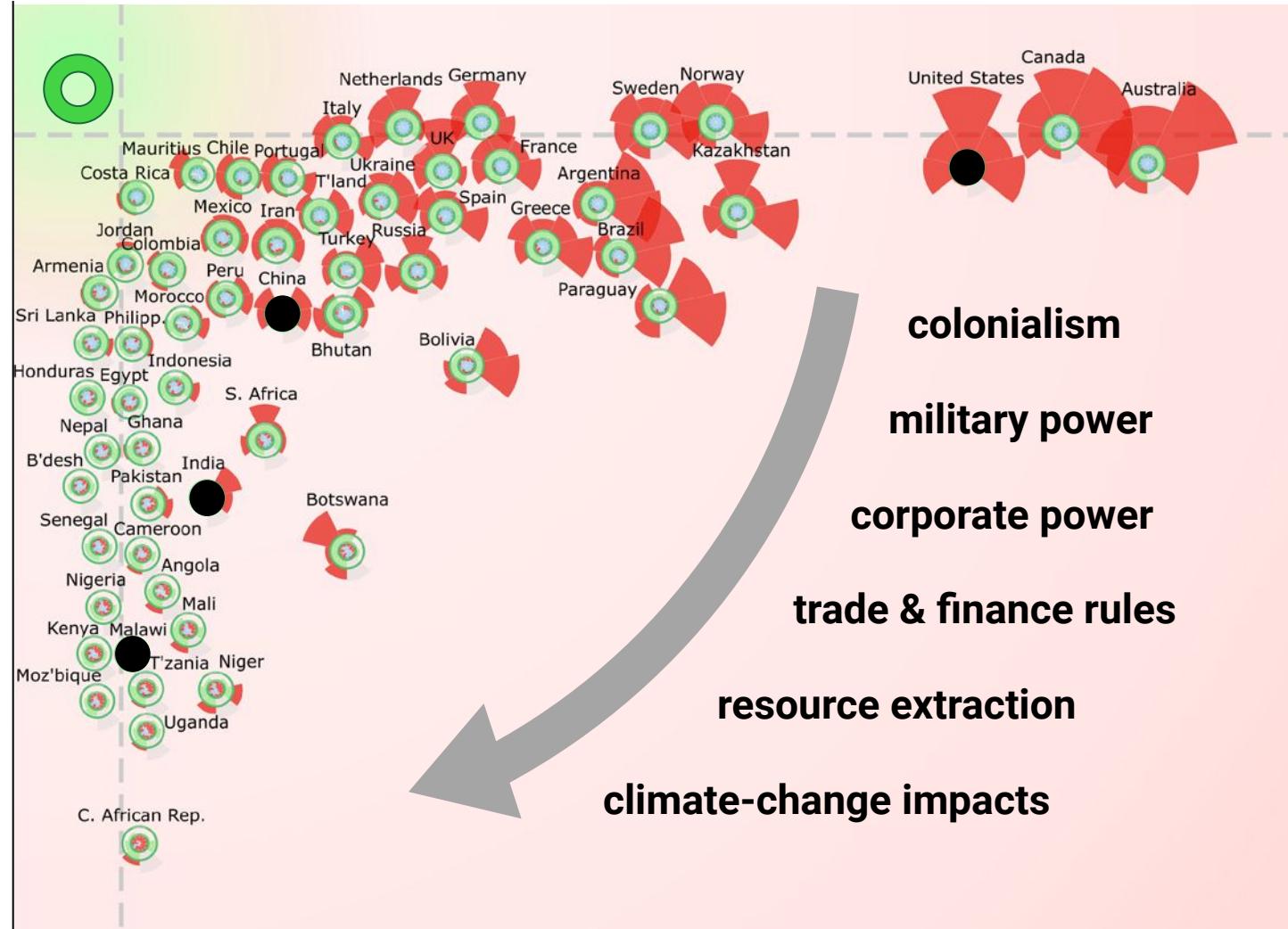
China
\$21,000 pc



United States
\$73,000 pc

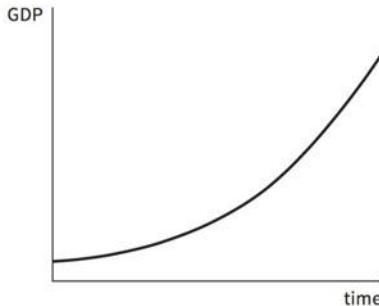
No nation is living in the Doughnut

Meeting the needs of all people

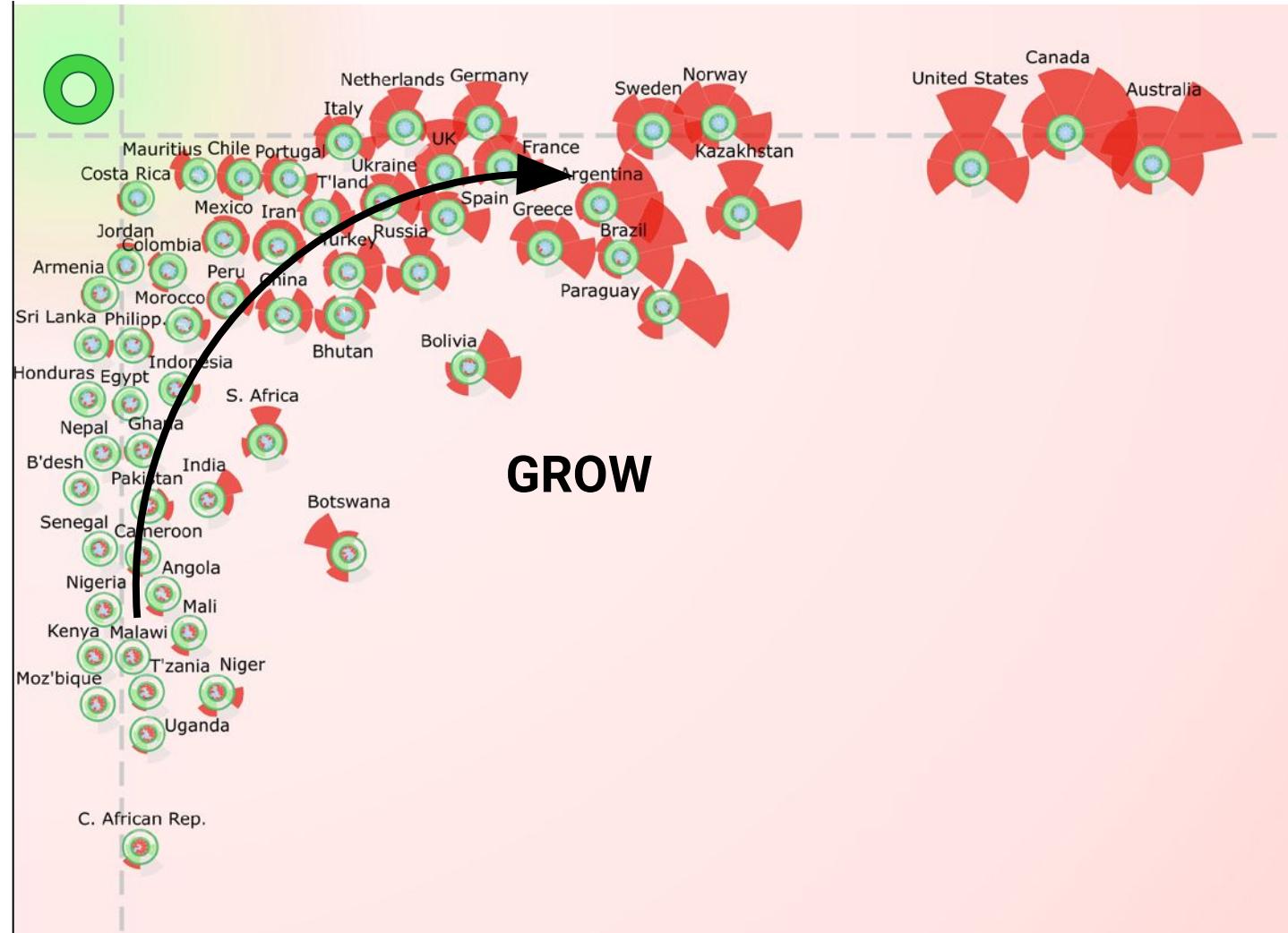


← **Within the means of the living planet**

The history of GDP growth

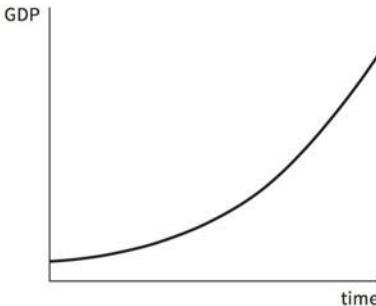


↑
Meeting the needs of all people

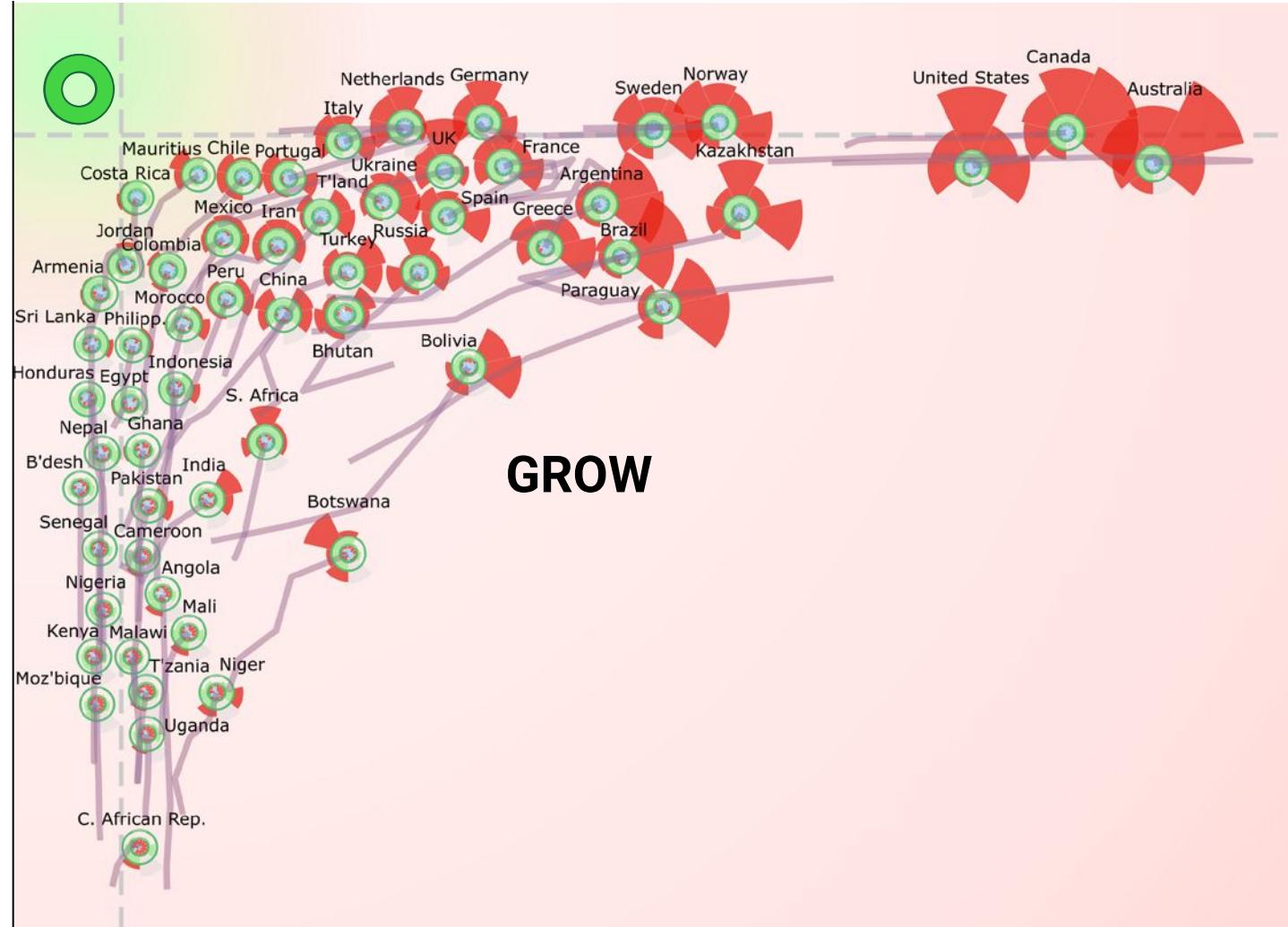


← **Within the means of the living planet**

The history of GDP growth

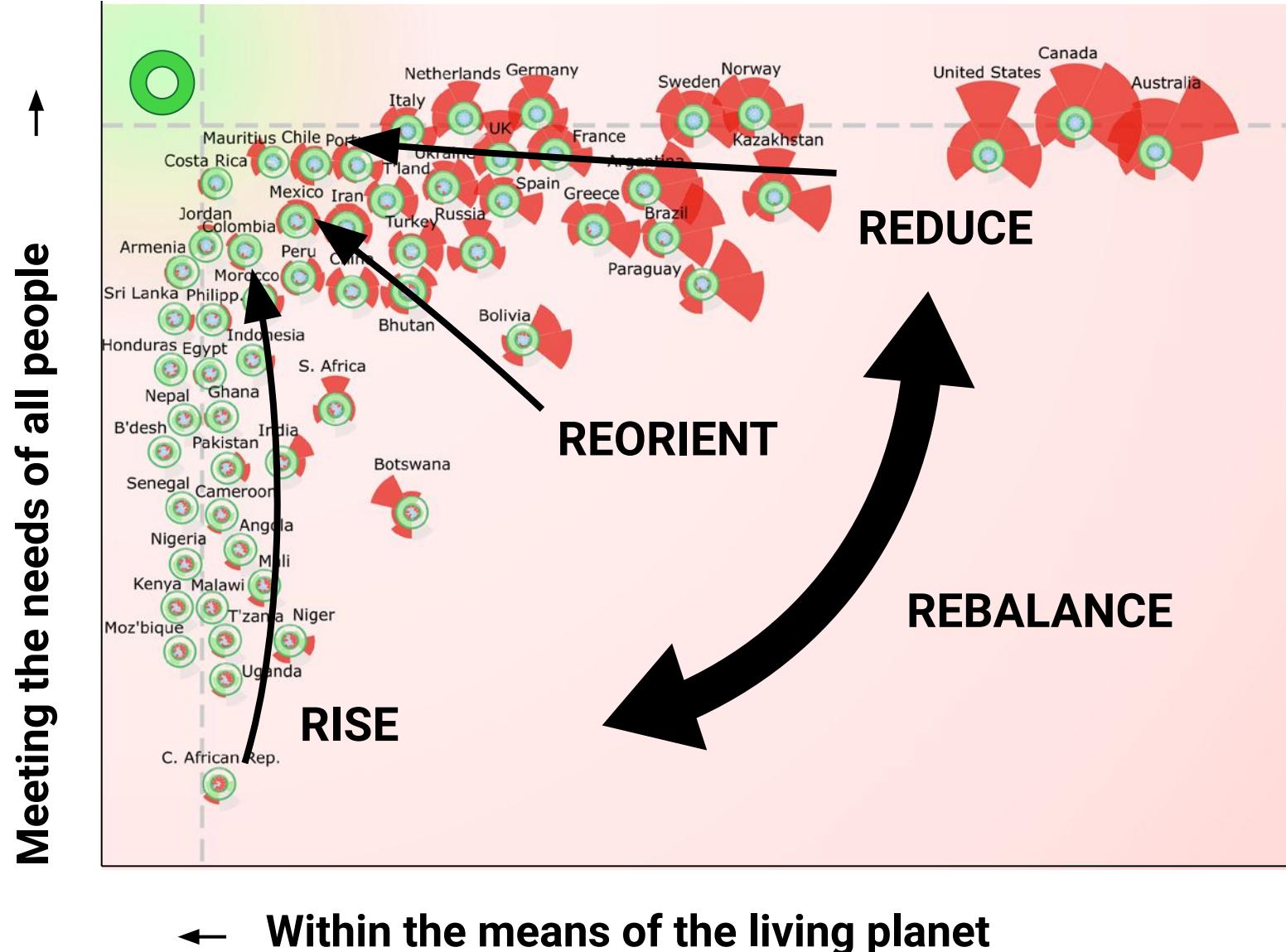


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Meeting the needs of all people

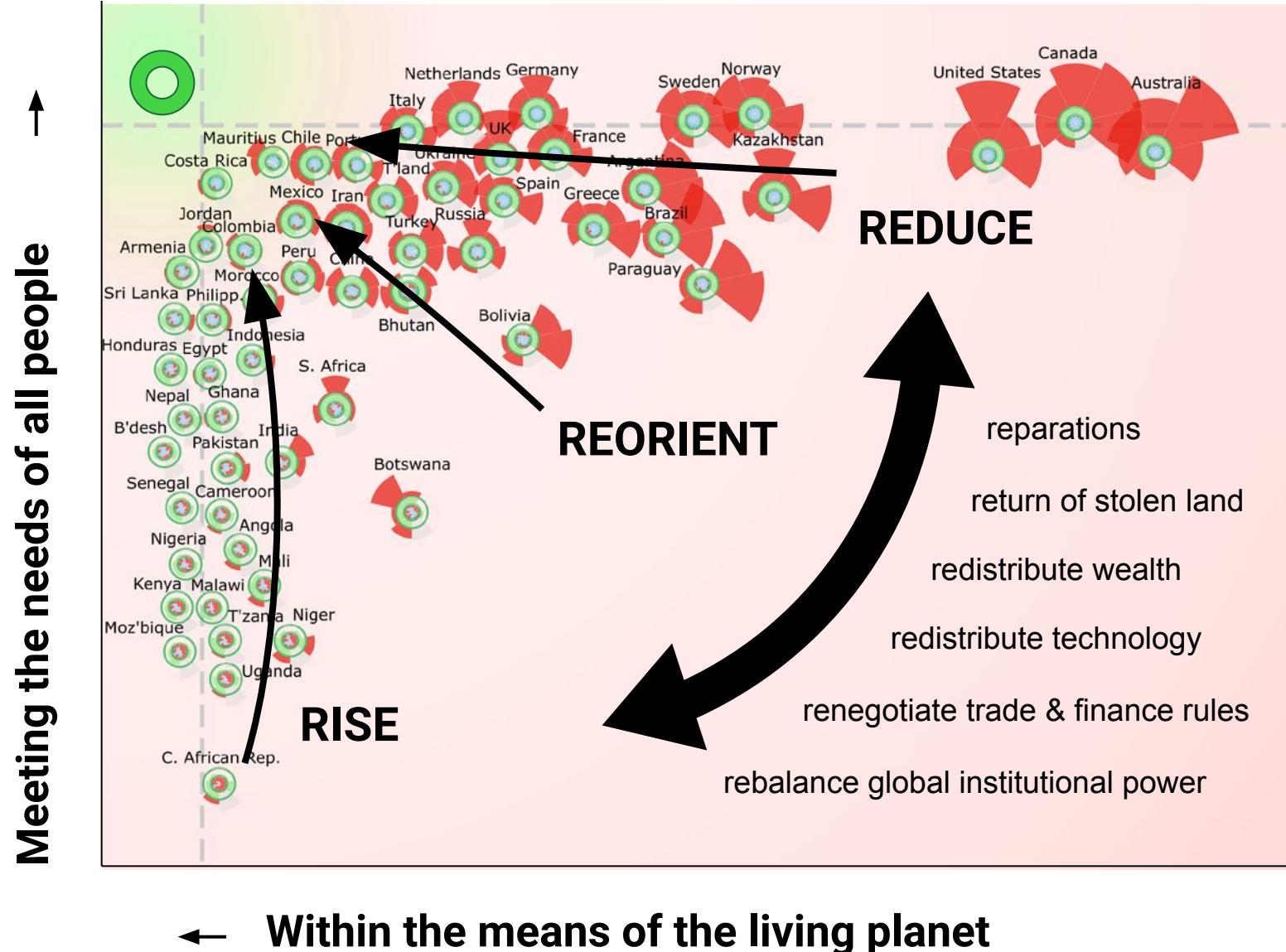


← **Within the means of the living planet**

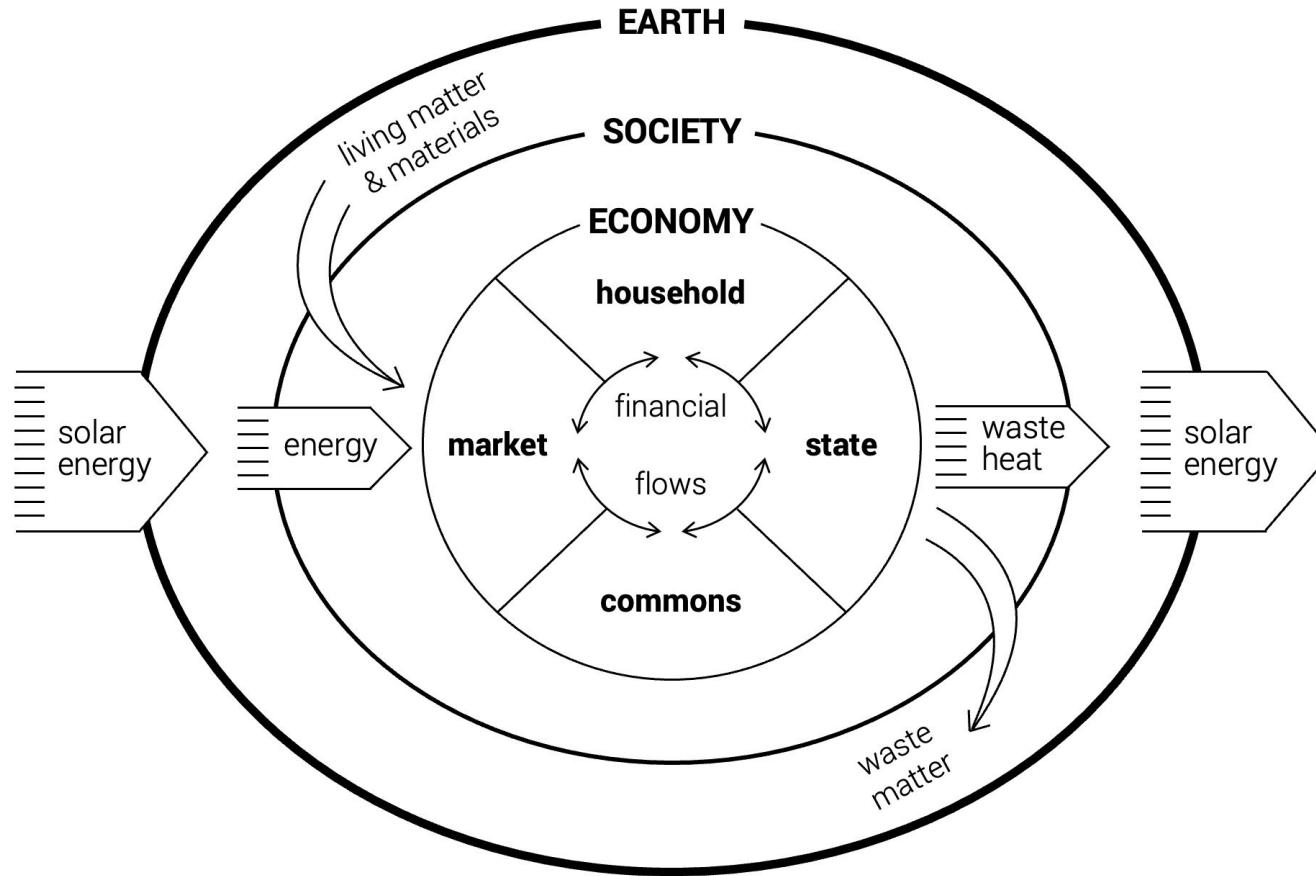
Aiming for thriving futures

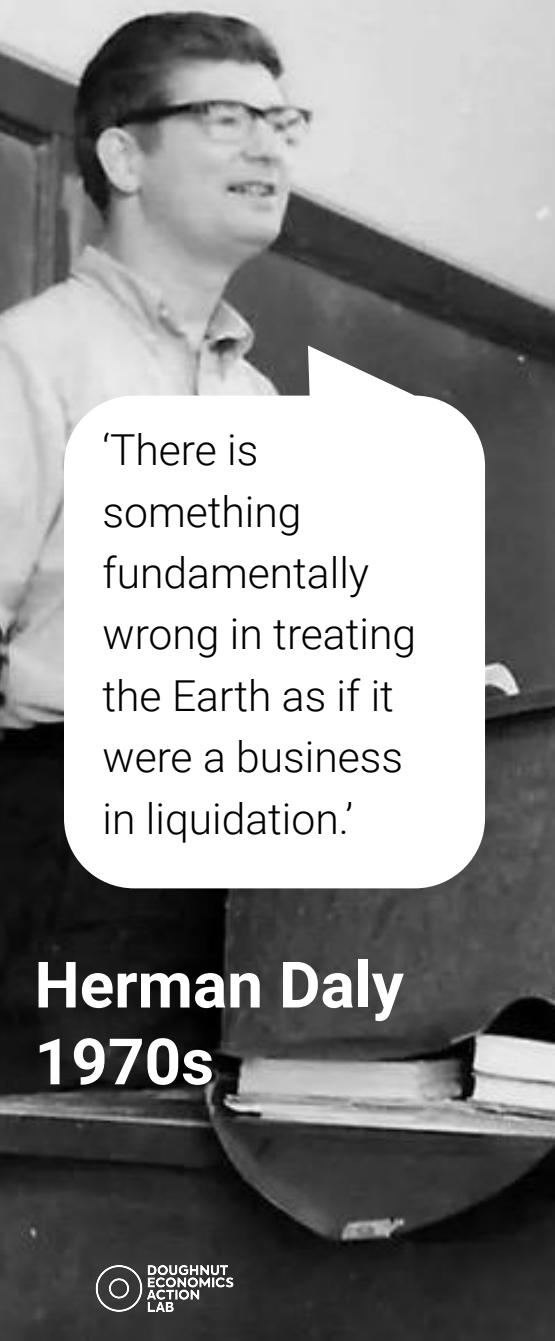


Aiming for thriving futures



The Embedded Economy



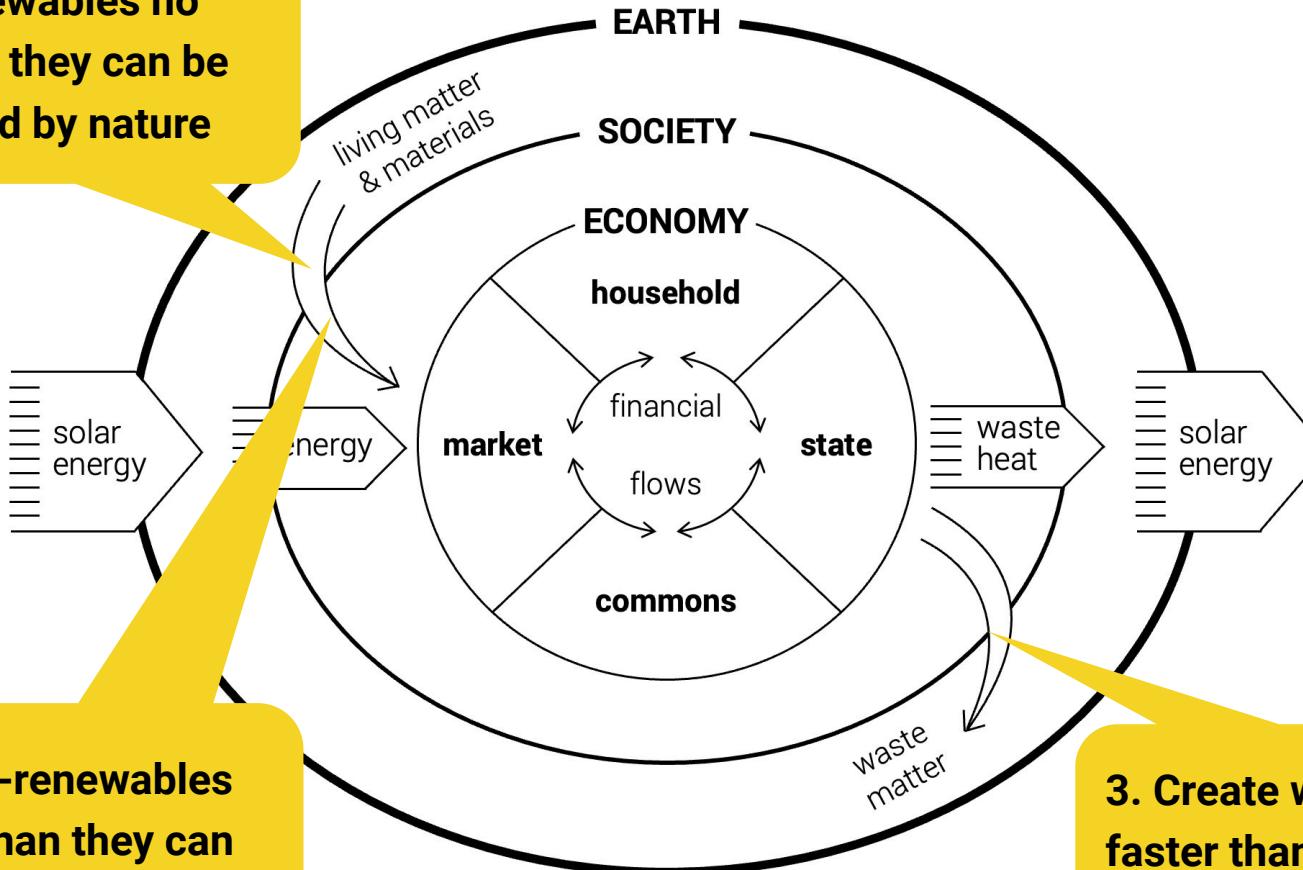


Herman Daly
1970s

'There is something fundamentally wrong in treating the Earth as if it were a business in liquidation.'

Daly's 3 rules for setting economic scale

1. Use renewables no faster than they can be regenerated by nature



2. Use non-renewables no faster than they can be substituted for

3. Create waste no faster than it can be assimilated by nature

Recognise the whole economy



consumer
producer
labour
capital



parent
partner
relative
child



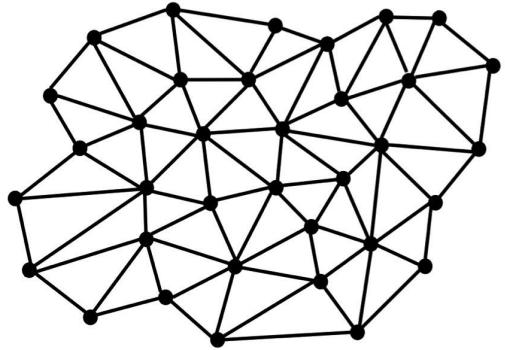
public servant
resident
voter
protester



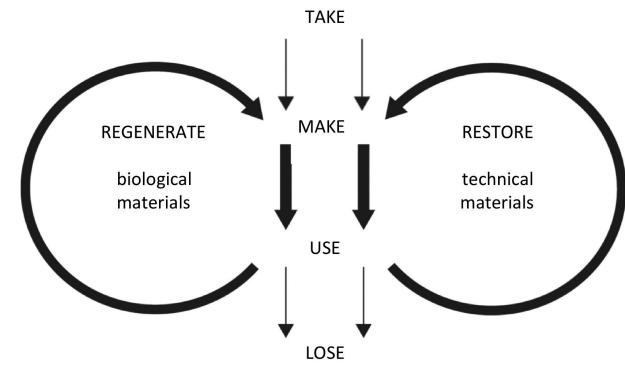
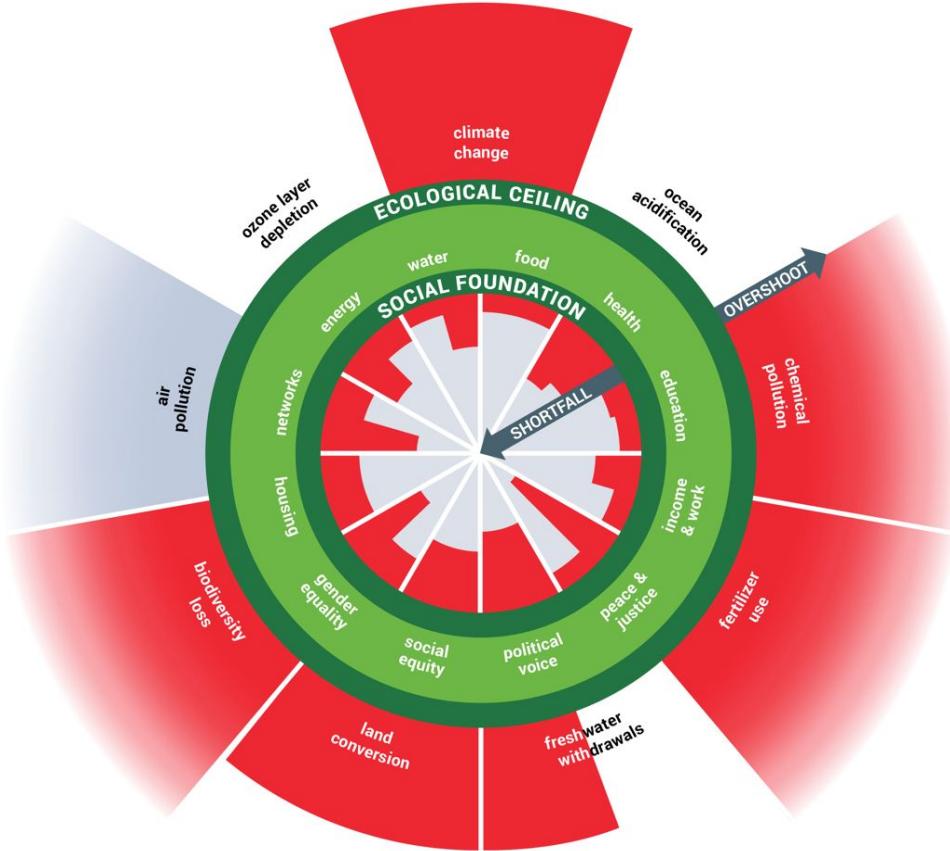
volunteer
sharer
co-creator
steward



How can humanity get into the Doughnut?

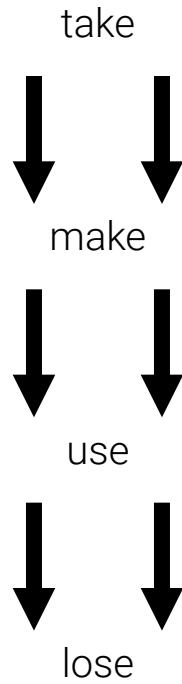


**Be distributive
by design**



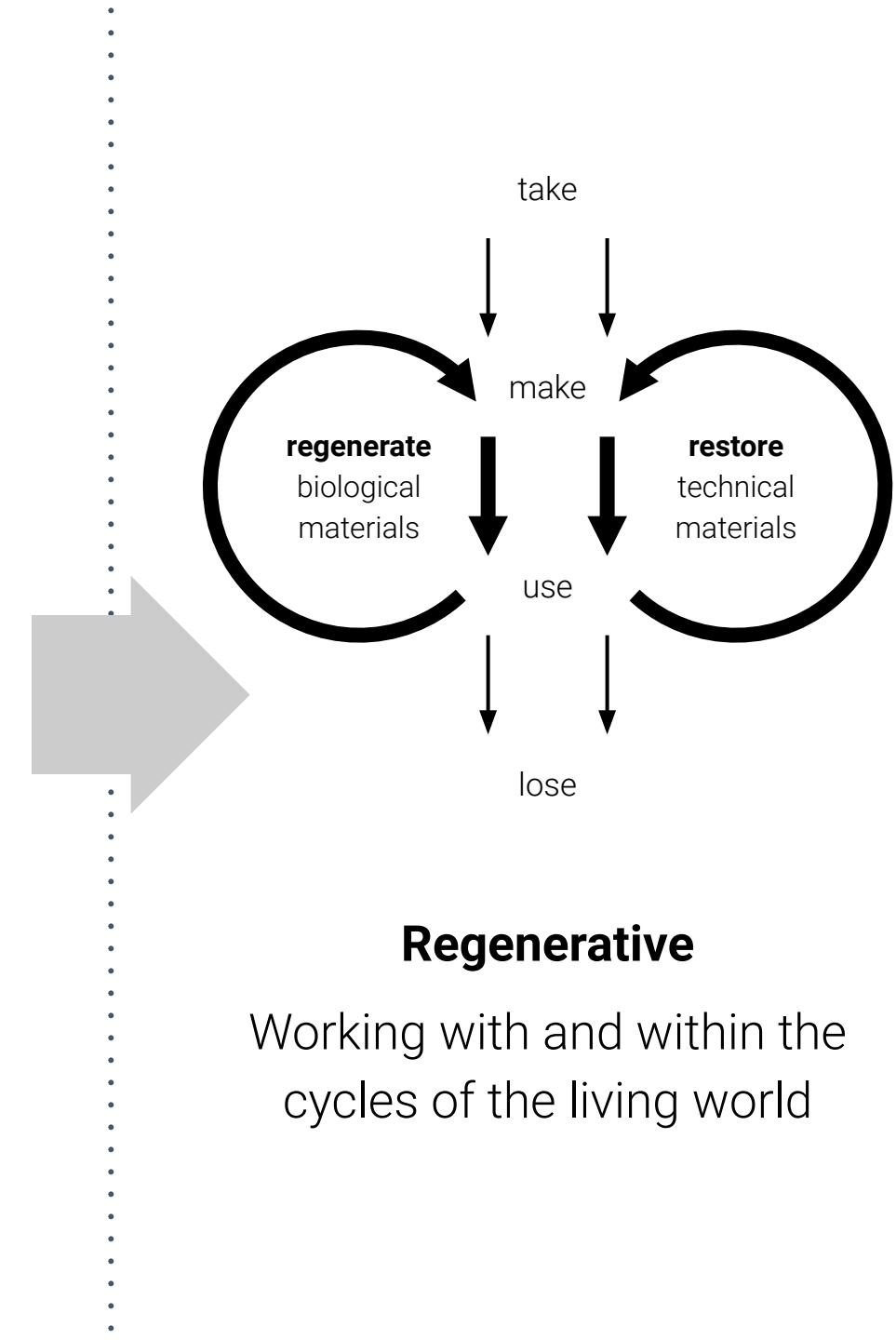
**Be regenerative
by design**

To change the future, change the dynamics



Degenerative

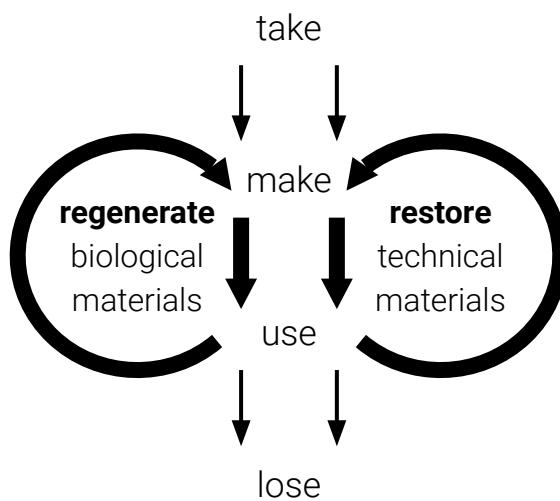
Running down Earth's
life-supporting system



Regenerative

Working with and within the
cycles of the living world

Towards regenerative urban design



Eco-construction - Uttarakhand



Circular construction - Amsterdam

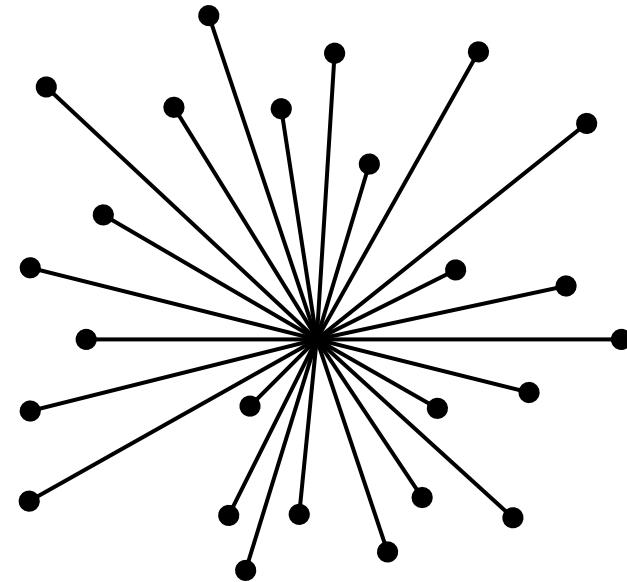


Retrofit & renovation – Baltimore



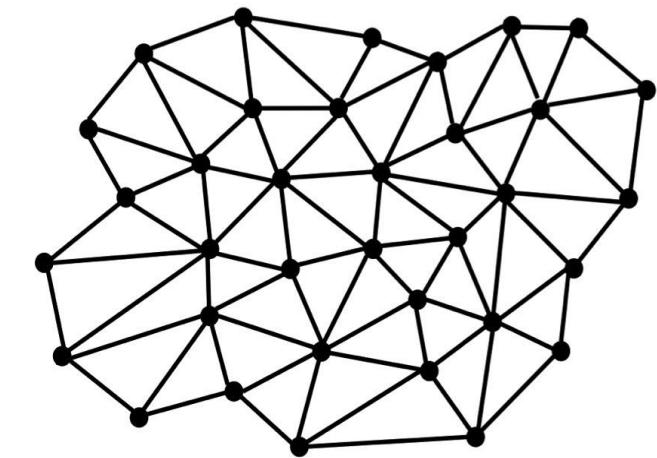
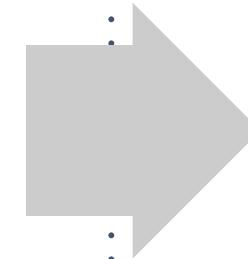
Sponge city - Jinhua

**To change
the future,
change the
dynamics**



Divisive

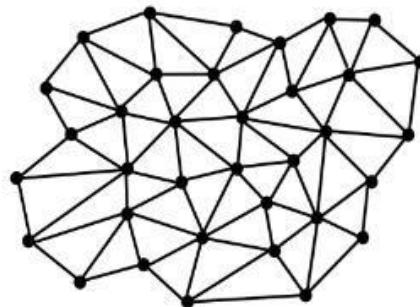
Capturing opportunity and value
in the hands of a few



Distributive

Sharing opportunity and value
with all who co-create it

Towards distributive urban design



Half houses – Chile



Community-led redevelopment - Bangkok



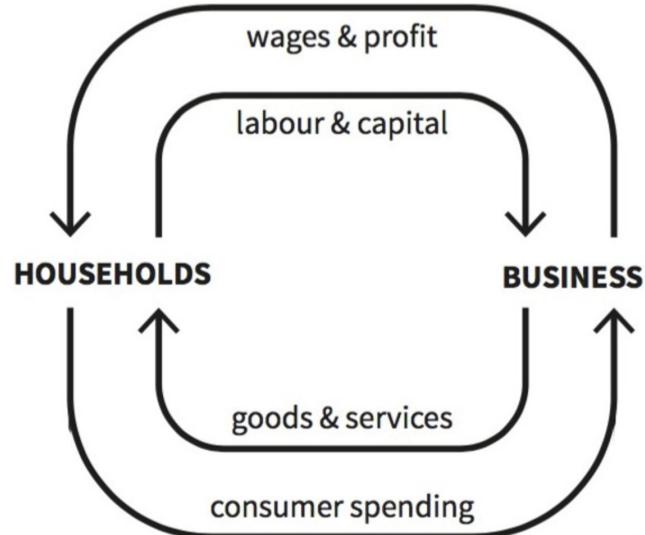
Rapid transit – Curitiba, Brazil



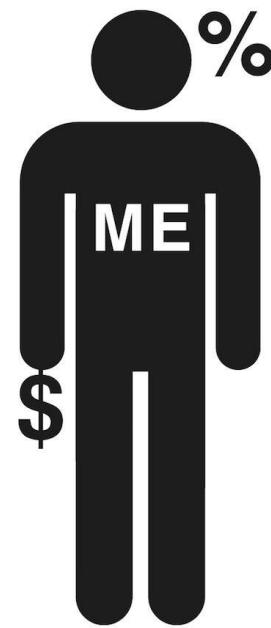
Solar cooperatives – Cleveland, US

20th century economics

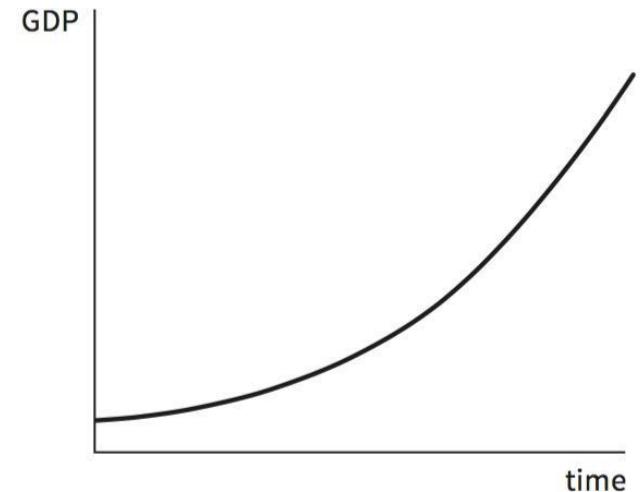
The first image



The selfie

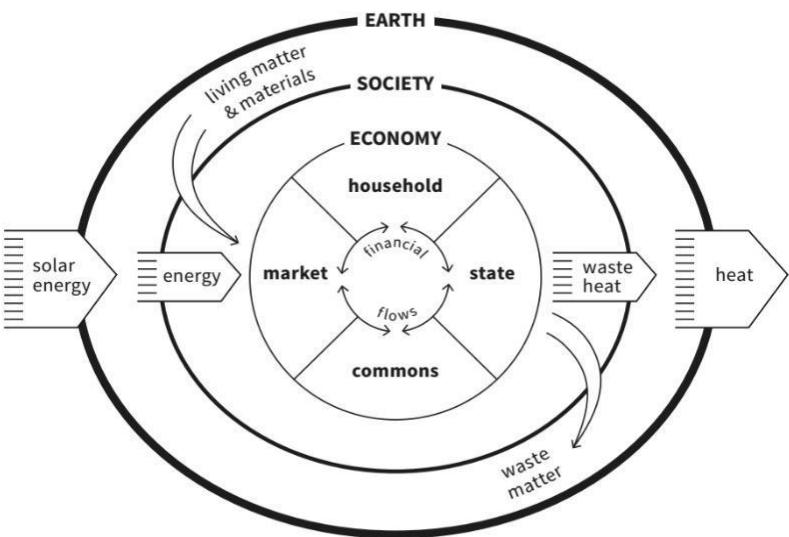


The goal



21st century economics

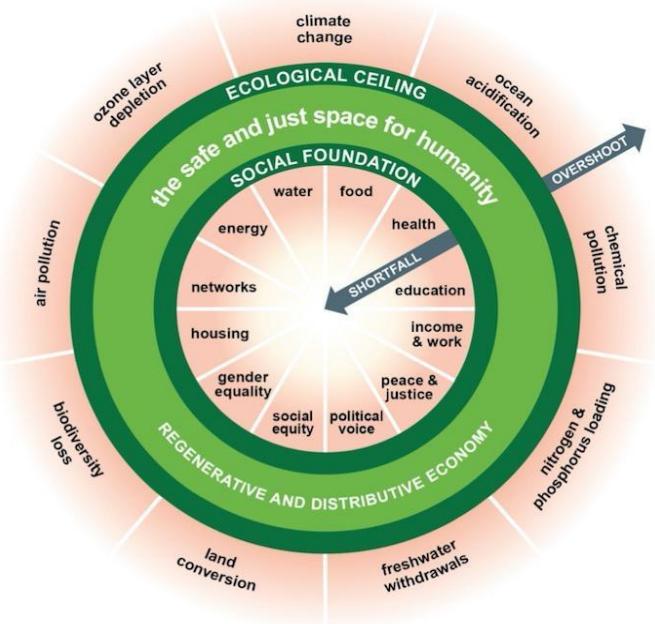
The first image



The selfie



The goal



Seven ways to think like a 21st century economist

Seven Ways to Think:

From 20th-Century Economics

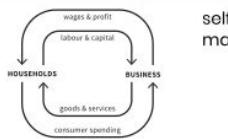
To 21st-Century Economics

1. Change the Goal

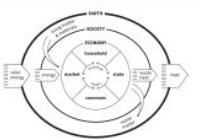


the Doughnut

2. See the Big Picture



self-contained market



embedded economy

3. Nurture Human Nature

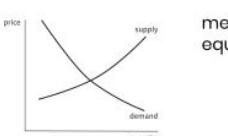


rational economic man

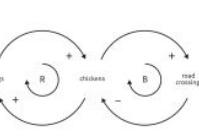


social adaptable humans

4. Get Savvy with Systems

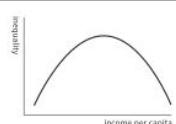


mechanical equilibrium

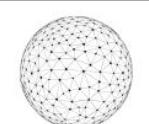


dynamic complexity

5. Design to Distribute

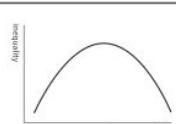


growth will even it up again

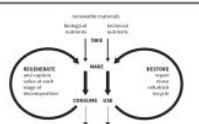


distributive by design

6. Create to Regenerate

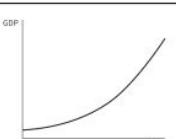


growth will clean it up again

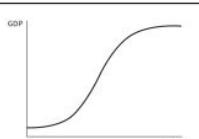


regenerative by design

7. Be Agnostic about Growth



growth addicted



growth agnostic



in business



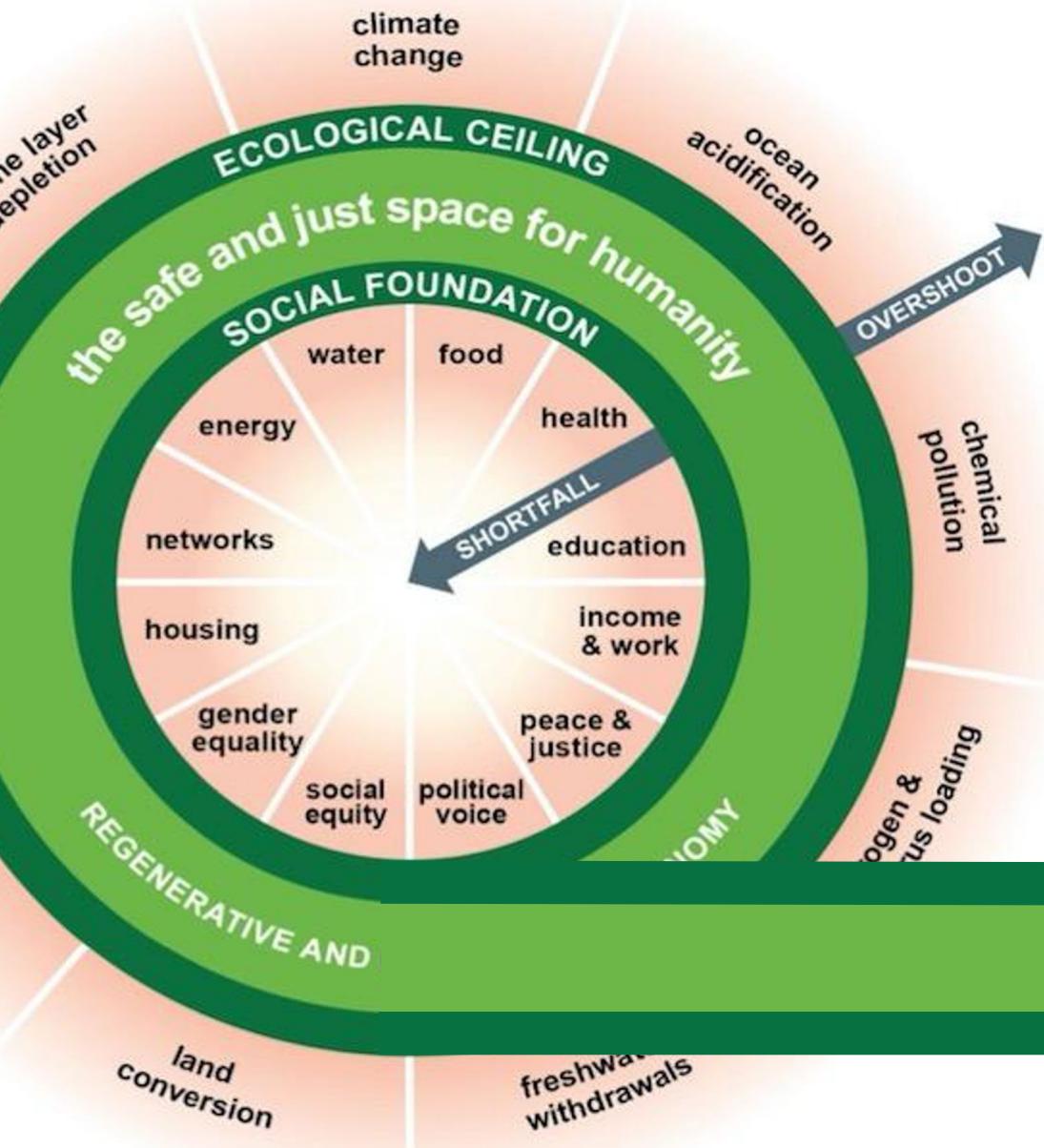
in government



in communities



in our own lives



“What would it mean for our city to live in the Doughnut?”

ECOLOGICAL CEILING

How can this city become
a home to thriving people, in a thriving place,
while respecting the wellbeing of all people,
and the health of the whole planet?

SOCIAL FOUNDATION

How can our city become
a home to thriving people, in a thriving place,
while respecting the wellbeing of all people,
and the health of the whole planet?

ECOLOGICAL CEILING

2.
How can our city be
as generous as the wildland nextdoor?

Local aspirations

1.
How can everyone in
our city thrive?

3.
How can our city respect
the health of the whole planet?

Global connections

4.
How can our city respect
the wellbeing of people worldwide?

SOCIAL FOUNDATION



How can everyone in our city thrive?



Food



Water



Health



Education



Housing



Energy



Connectivity



Mobility



Community



Culture



Income
& work



Social
equity



Equality in
diversity



Political
voice



Peace &
justice

SOCIAL FOUNDATION



ECOLOGICAL CEILING

How can our city be as generous as the wildland next door?

Cleanse
the air



House
biodiversity



Store
carbon



Cycle
water



Harvest
energy



Regulate the
temperature



Build &
protect soil



Enhance
wellbeing



Generosity of
the wildland
next door



Stores carbon



Welcomes wildlife



Cycles water



Harvests energy



Enhances wellbeing

Ways we can
aim to match
that here



ECOLOGICAL CEILING

How can our city be as generous as the wildland nextdoor?

Cleanse the air House biodiversity Store carbon Cycle water Harvest energy Regulate the temperature Build & protect soil Enhance wellbeing



Local aspirations



Food Water Health Education Housing Energy Connectivity Mobility Community Culture Income & work Social equity Equality in diversity Political voice Peace & justice

How can everyone in our city thrive?

SOCIAL FOUNDATION

3.

How can our city respect the health of the whole planet?

Global connections

4.

How can our city respect the wellbeing of people worldwide?



ECOLOGICAL CEILING

How can our city respect the health of the whole planet?

Climate
change



Ocean
acidification



Chemical
pollution



Excessive
fertilizer use



Water
withdrawals



Land
conversion



Biodiversity
loss



Air
pollution



Ozone layer
depletion



Products
purchased
here



Food



Clothing



Electronics



Household products



Construction

Impacts
worldwide





How can our city respect the wellbeing of all people?

Actions and decisions taken here



Global supply chains



Lifestyle patterns



Cultural connections



Welcome to migrants



Policy regimes

Implications for people worldwide



Food



Water



Health



Education



Housing



Energy



Income & work



Social equity



Equality in diversity



Community & networks



Political voice



Peace & justice

Local

ECOLOGICAL CEILING

How can our city be as generous as the wildland nextdoor?

Cleanse the air House biodiversity Store carbon Cycle water Harvest energy Regulate the temperature Build & protect soil Enhance wellbeing



Local aspirations



Food Water Health Education Housing Energy Connectivity Mobility Community Culture Income & work Social equity Equality in diversity Political voice Peace & justice

How can everyone in our city thrive?

Global

How can our city respect the health of the whole planet?

Climate change Ocean acidification Chemical pollution Excessive fertilizer use Water withdrawals Land conversion Biodiversity loss Air pollution Ozone layer depletion



Global connections



Food Water Health Education Housing Energy Income & work Social equity Equality in diversity Community & networks Political voice Peace & justice

How can our city respect the wellbeing of people worldwide?

SOCIAL FOUNDATION

Doughnut Unrolled

How can our city become a home to thriving people in a thriving place while respecting the wellbeing of all people and the health of the whole planet?

Local

Global

ECOLOGICAL CEILING

How can our city be as generous as the wildland nextdoor?

Cleanse the air House biodiversity Store carbon Cycle water Harvest energy Regulate the temperature Build & protect soil Enhance wellbeing



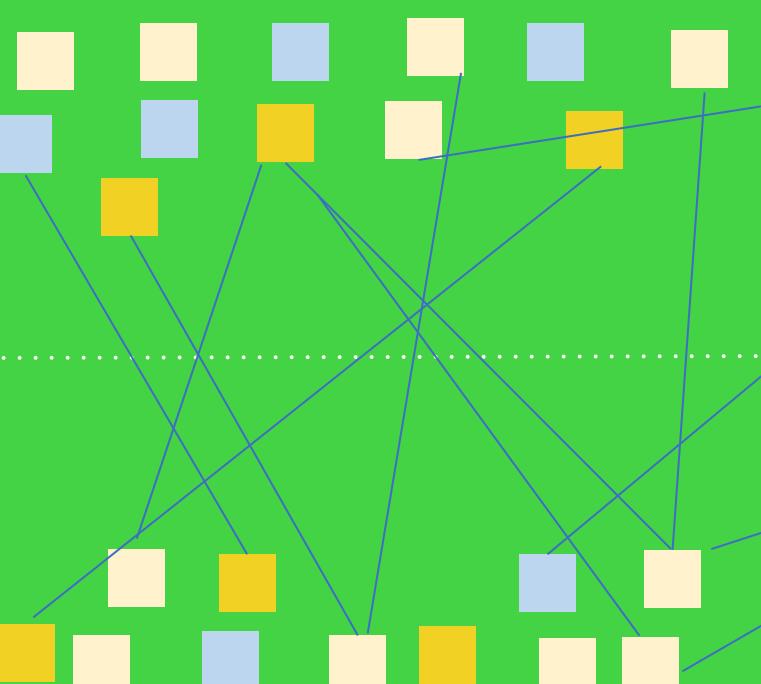
How can our city respect the health of the whole planet?

Climate change Ocean acidification Chemical pollution Excessive fertilizer use Water withdrawals Land conversion Biodiversity loss Air pollution Ozone layer depletion



Reimagining our city's future of:

Food
Water
Health
Housing
Healthcare
Transport
Agriculture
Tourism



Food Water Health Education Housing Energy Connectivity Mobility Community Culture Income & work Social equity Equality in political voice Peace & justice

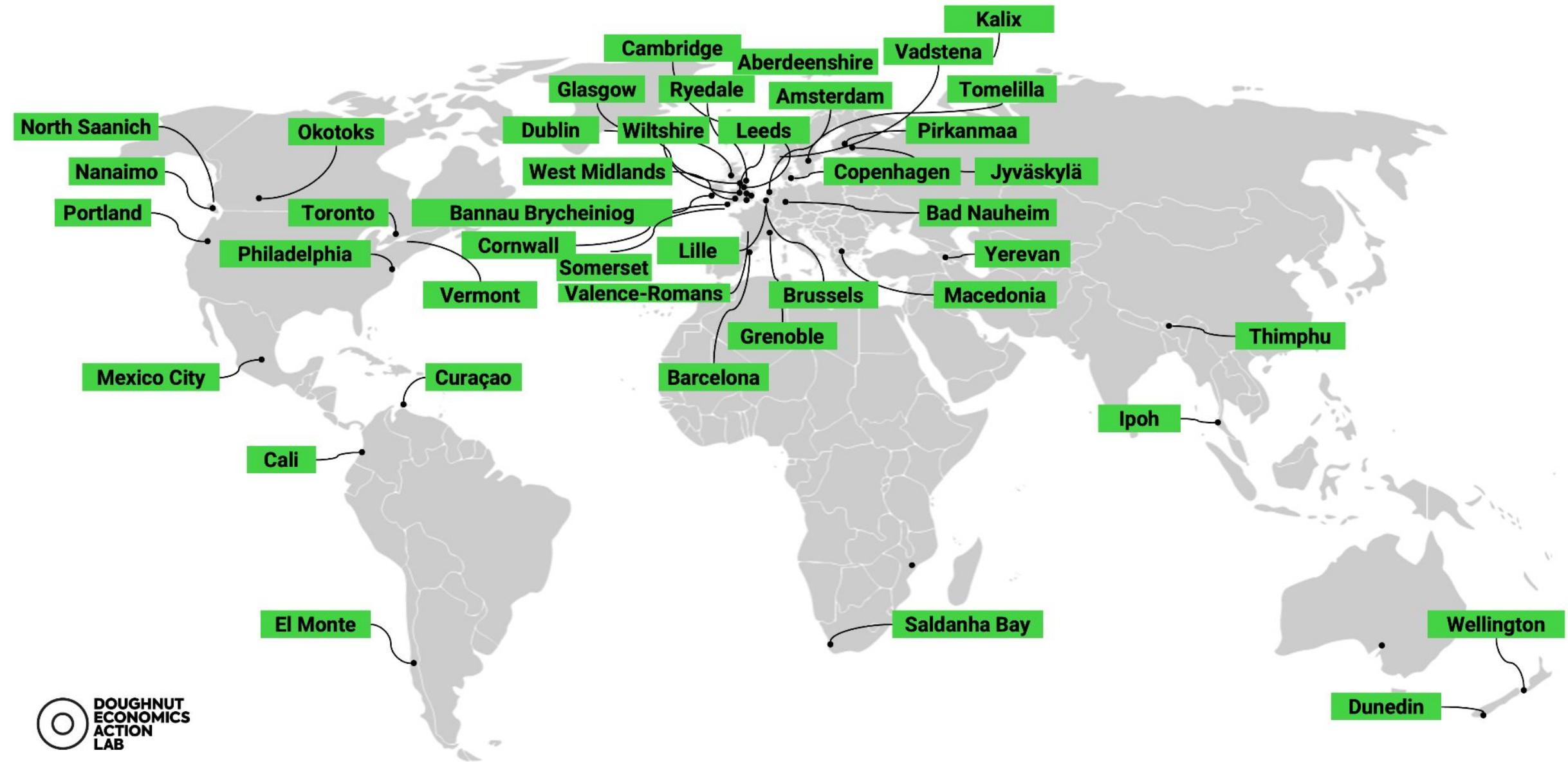
Food Water Health Education Housing Energy Income & work Social equity Equality in diversity Community & networks Political voice

How can all the people of our city thrive?

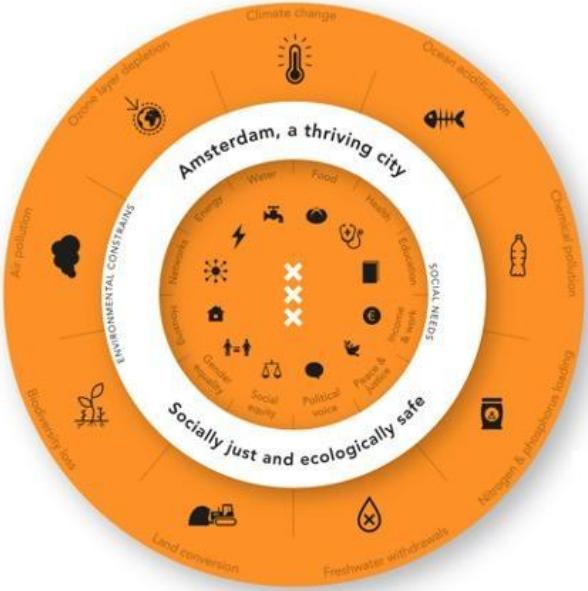
How can our city respect the wellbeing of all people?

SOCIAL FOUNDATION

90+ city and local governments engaging with Doughnut Economics in 2024



Amsterdam - driving ambitions for a circular city



a thriving, inclusive,
regenerative city for all
residents while respecting
the planetary boundaries

Social housing projects



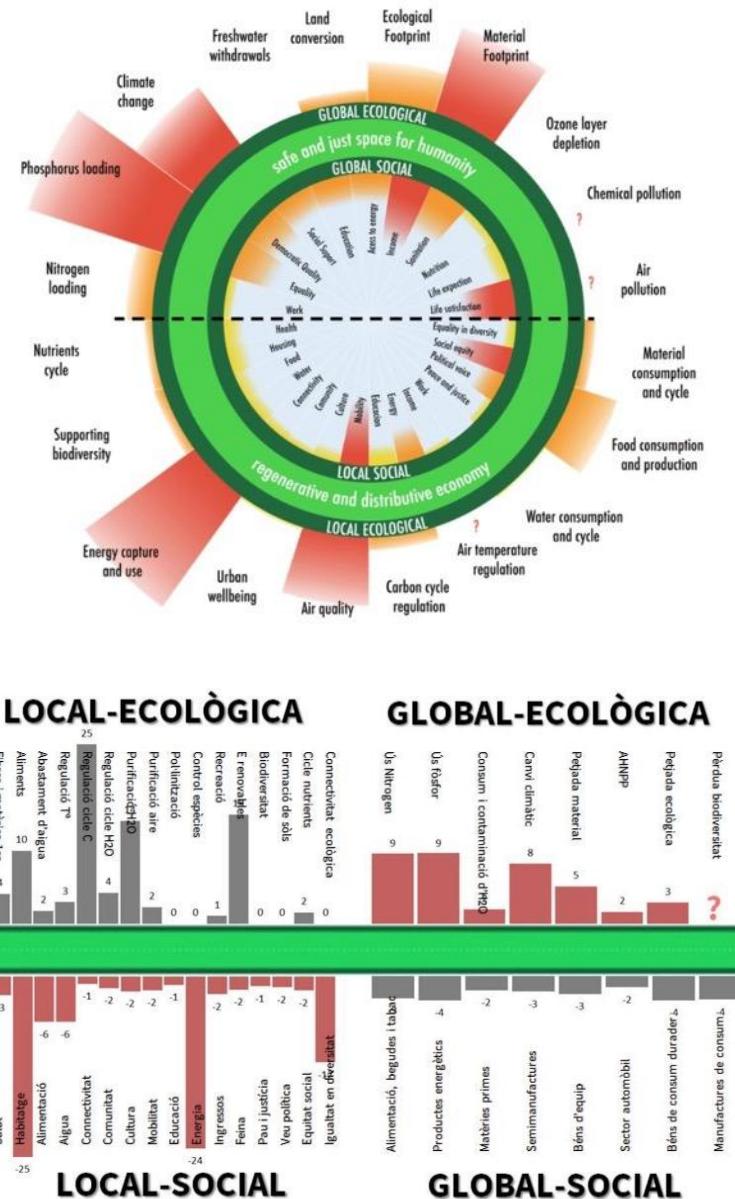
Circular and fair clothing chain



Doughnut projects originated in first lock down 2020



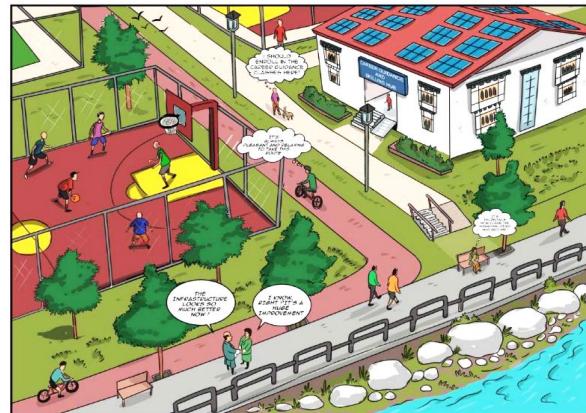
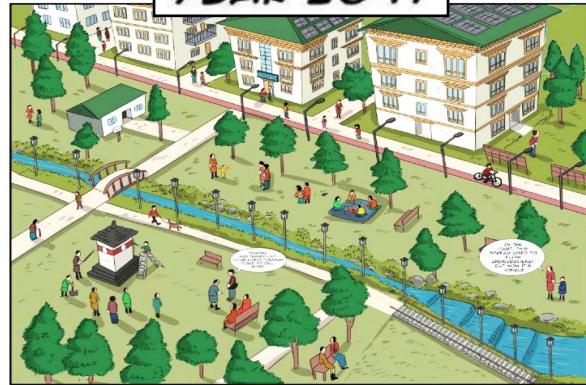
Barcelona – creating a culture of sustainability and network of engaged organisations



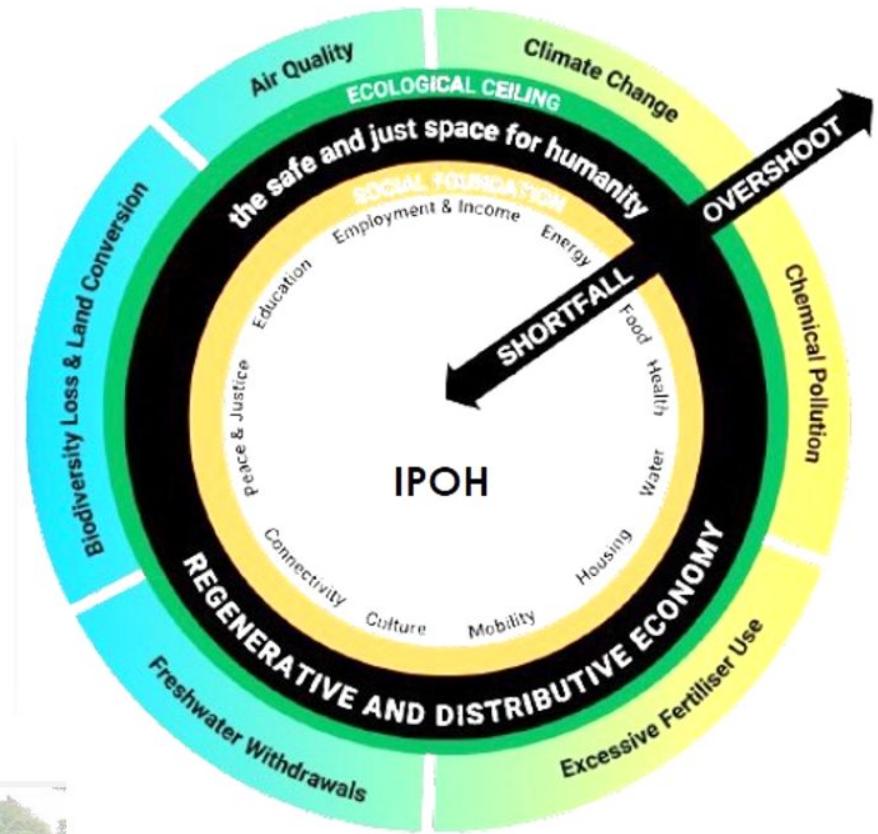
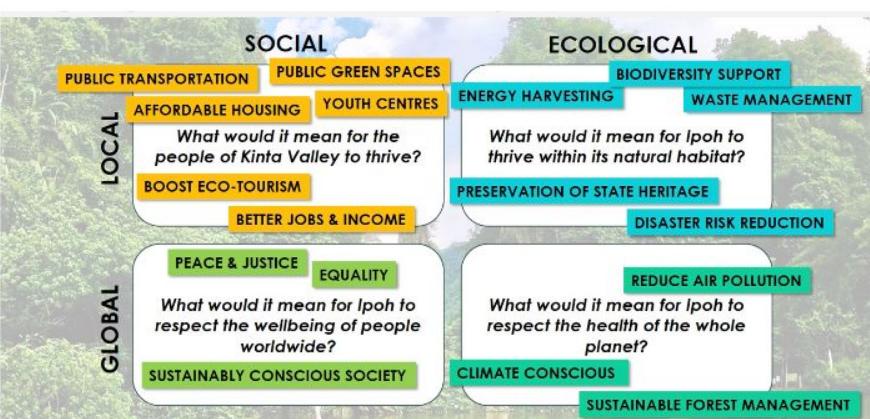
Thimphu, Bhutan – creating a city and regional plan



“Gross National Happiness
in the Doughnut”



Ipoh, Malaysia – Asia's first city aiming for the Doughnut



Cities & regions let's get started

Pathways for local and regional governments to engage with Doughnut Economics as a tool for transformative action



VERSION 2
2024
Including case studies of leading cities and regions



Valence Romans



Tomelilla



Ipoh

9 ways places are getting started:

Taking steps



- #1 Starting conversations and internal learning



- #2 Testing the Doughnut on ongoing projects



- #3 Empowering local change-makers

On a journey



- #4 Data, measuring and monitoring



- #5 City-wide and sectoral policy and strategy



- #6 Demonstrator projects

Committing long-term



- #7 Doughnut Economics as a strategic compass



- #8 Decision-making and project assessment



- #9 Identifying levers of transformative change



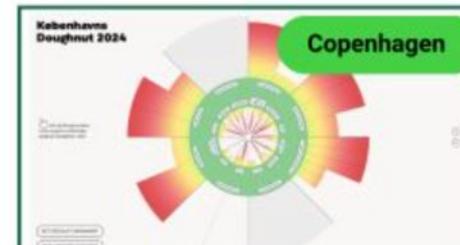
Brussels



Bad Nauheim



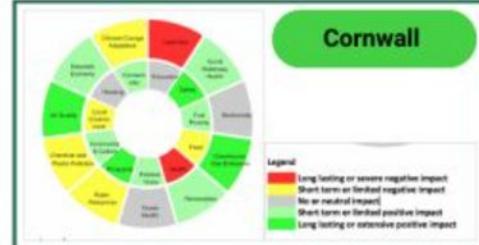
Amsterdam



Copenhagen

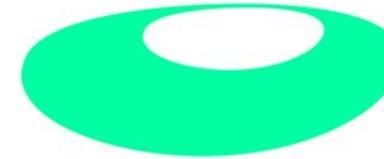


Glasgow



Cornwall

50+ community groups and networks engaging with Doughnut Economics worldwide



CALIFORNIA
DOUGHNUT
ECONOMICS
COALITION

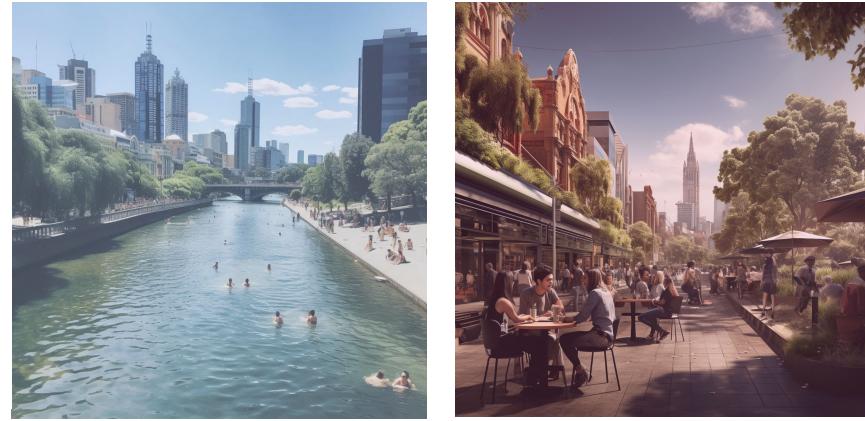
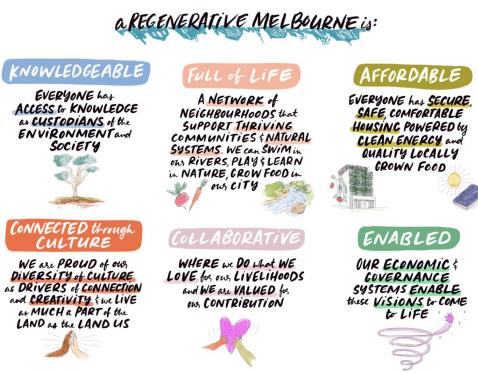
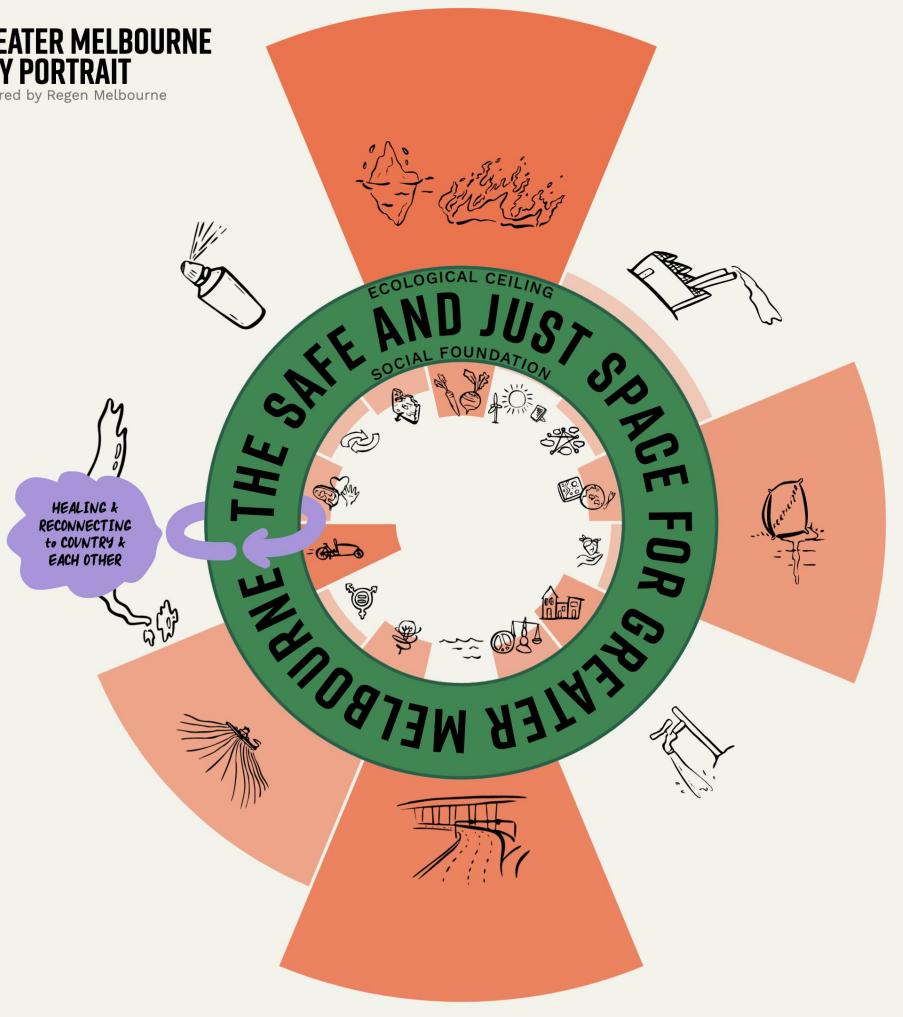


Regen Melbourne – a city-wide alliance for transformative action



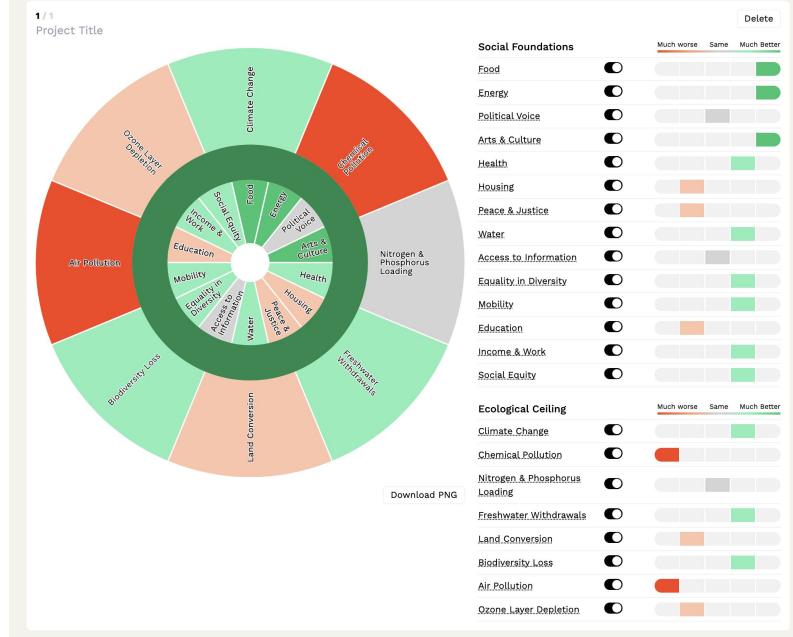
GREATER MELBOURNE CITY PORTRAIT

Powered by Regen Melbourne

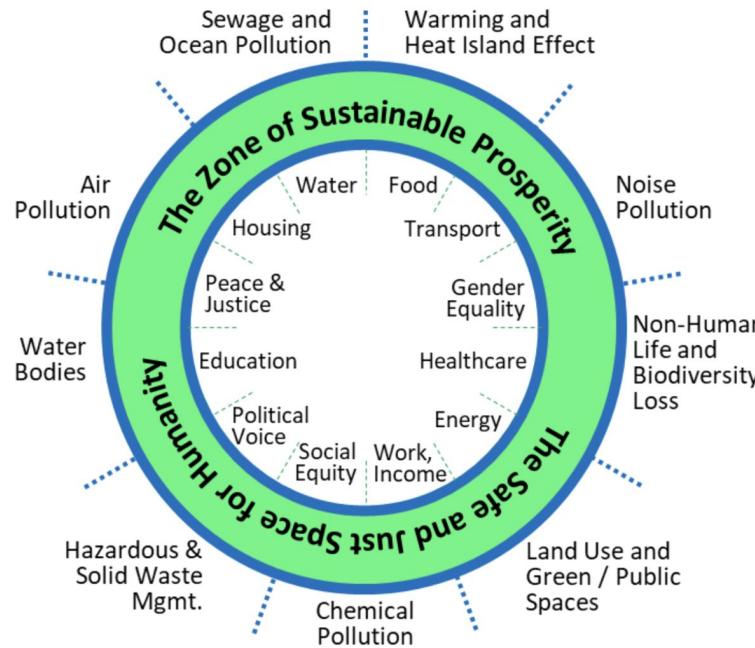


Impact Visualiser

Visualise an assessment of your initiative's social and ecological impact on the Melbourne Doughnut.



Mumbai Donut CoLab – collective action to make Mumbai more liveable & sustainable



mumbaidonutcolab.org

Rethinking Economics India

Founded: June 2020

Country: India

Group email: india@rethinkeconomics.org

Facebook Page: facebook.com/pages/Rethinking-Economics-India-Network/

Facebook Group: facebook.com/groups/RE:IN/

Twitter: [@RethinkEcon_IN](https://twitter.com/RethinkEcon_IN)

Instagram: instagram.com/rethinkingeconomicsindia/

Website: www.rethinkeconomicsindia.org/



Diversifying & Decolonising

The Diversifying & Decolonising action circle runs a number of projects aimed at diversifying and decolonising the curriculum, including bringing together different actors...

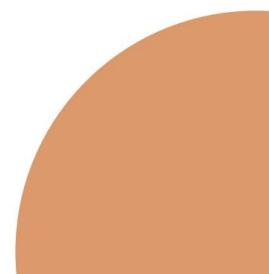
India Network
Rethinking
Economics

PLURALISM IN ECONOMICS EDUCATION

A REVIEW OF UNDERGRADUATE
PROGRAMMES IN INDIA

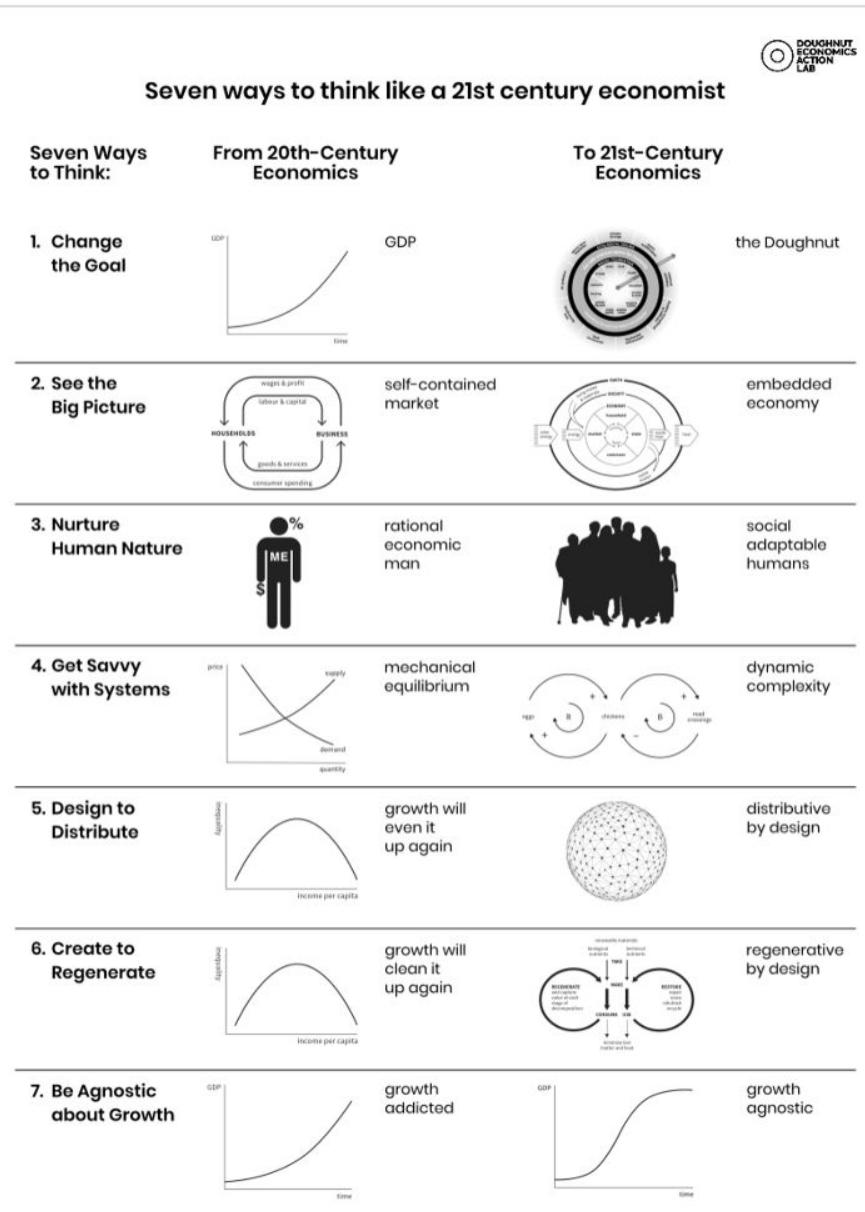
A Report by
Rethinking Economics
India Network

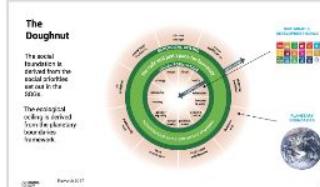
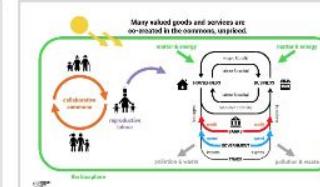
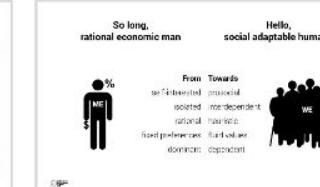
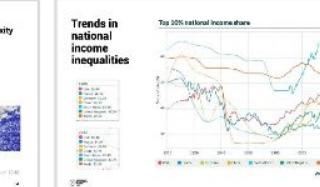
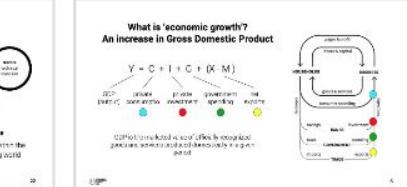
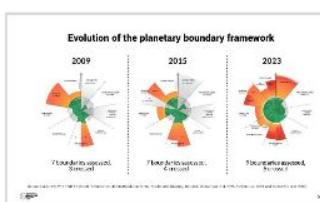
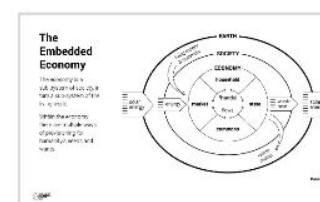
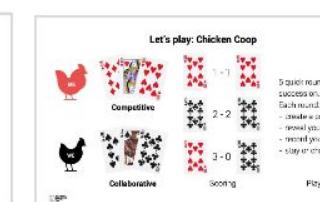
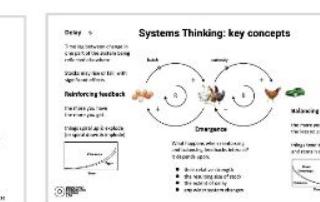
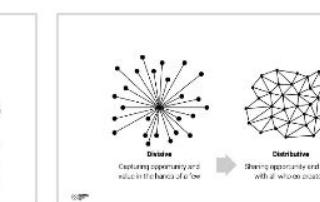
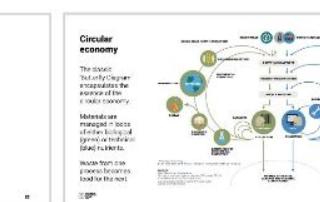
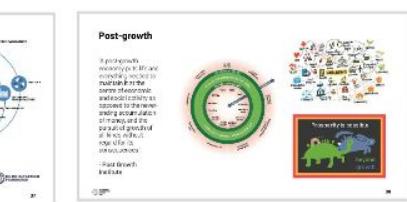
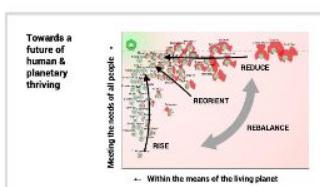
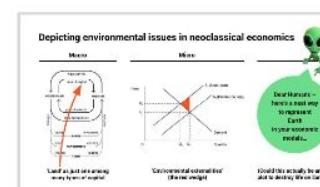
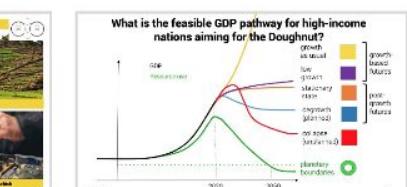
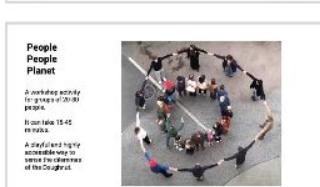
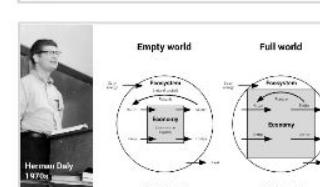
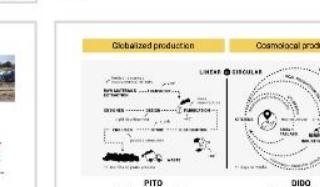
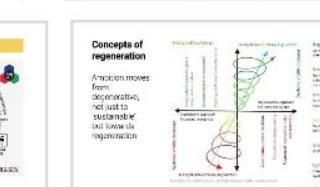
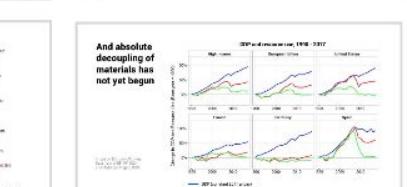
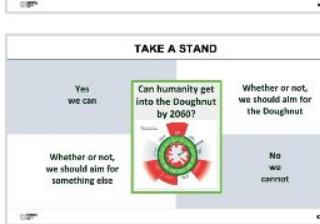
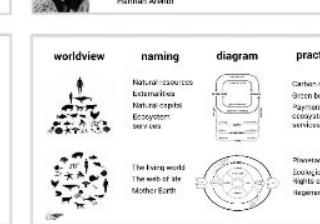
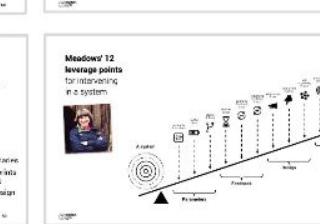
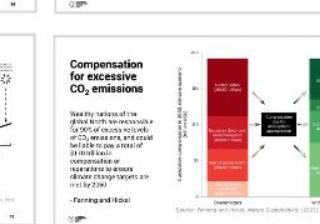
June 2022



rethinkeconomics.org

Doughnut Economics For University Courses



1 Change the Goal	2 See the big picture	3 Nurture Human Nature	4 Get Savvy with Systems	5 Distributive by Design	6 Create to Regenerate	7 Thrive Beyond Growth
						
						
						
						
						
						



Doughnut Unrolled: Data Portrait of Place

Posted by [the DEAL Team](#)

portrait # downscale



Doughnut Unrolled: Community Portrait of...

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portrait # downscale # fourlenses



Doughnut Unrolled: Data Portrait of Place

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Regenerative business rising: How policy can create an economy led by a different kind of company

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explainer



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workshop



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