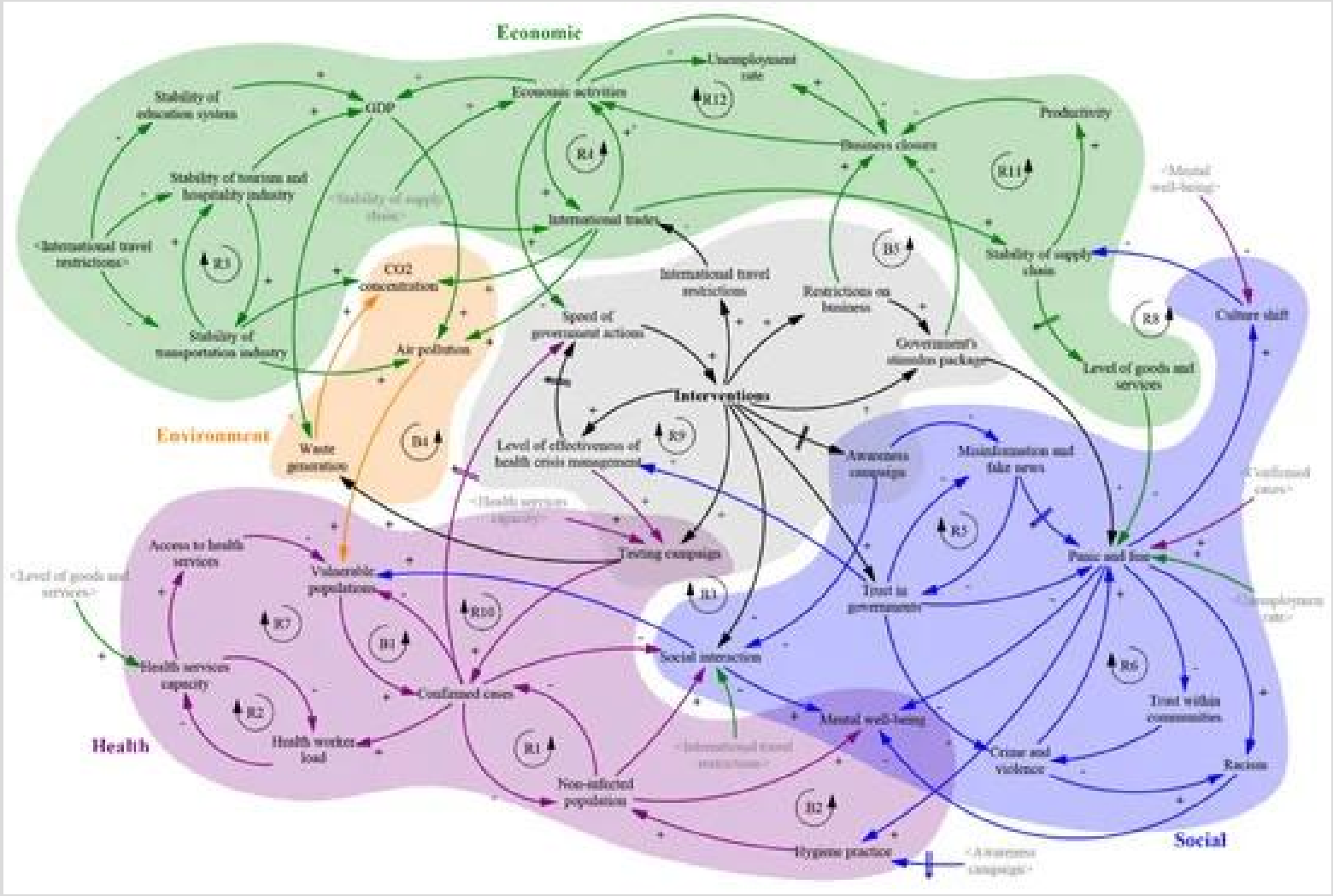
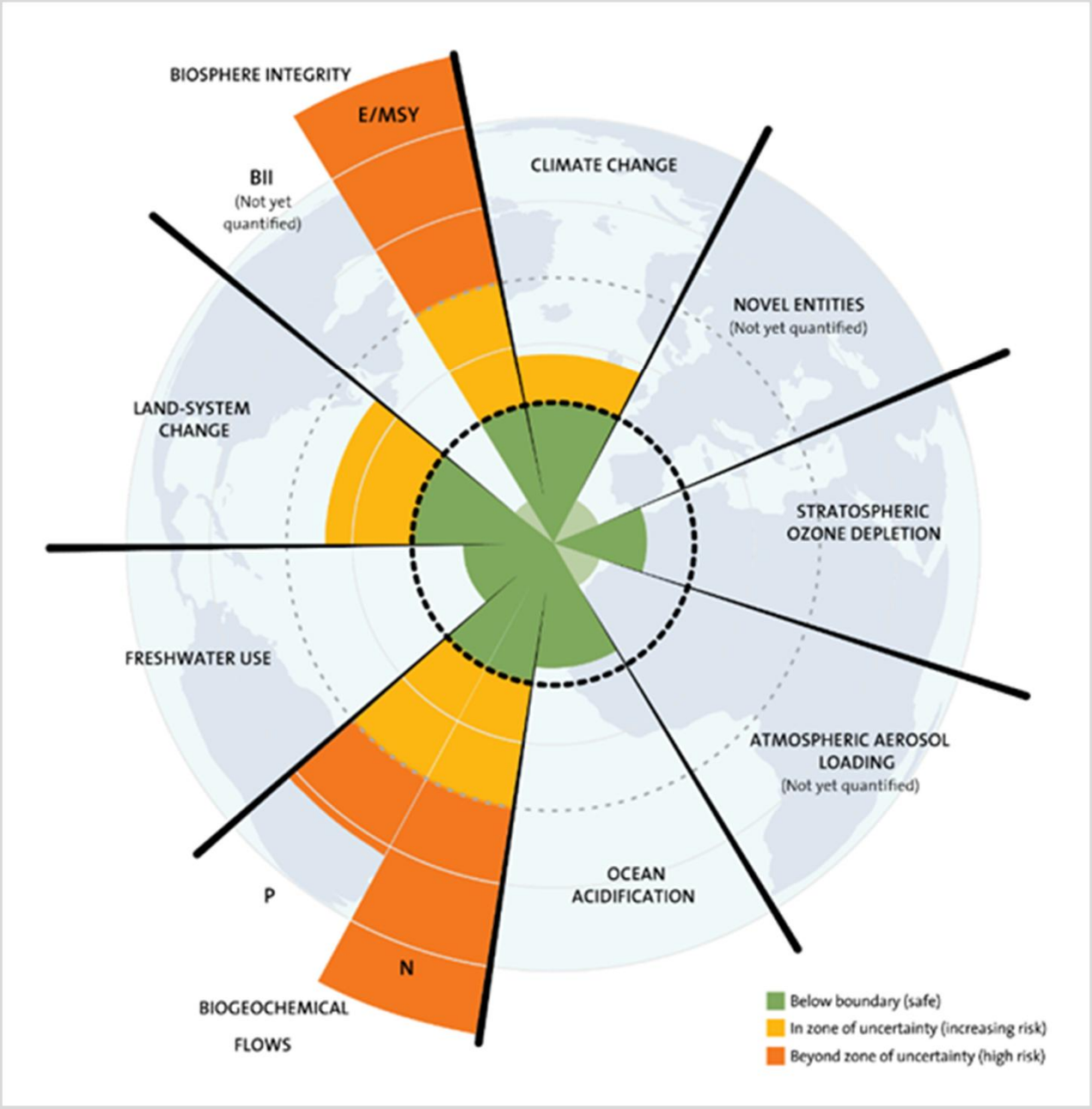
Klimatkrisen, demokratin och lömska problem

”Detta auktoritära land förlitar sig på mobilisering ovanifrån. De kan besegra finansiella och byråkratiska hinder för att snabbt mobilisera sina resurser.”


Economic
Unemployment rate
Stability of education system
GDP
Economic activities
R12
Productivity
Business closure
R4
R11
Stability of tourism and hospitality industry
<Stability of supply chain>
International trade
<Mental well-being>
<International travel restrictions>
R3
B3
Stability of supply chain
CO2 concentration
International travel restrictions
Restrictions on business
R8
Culture shift
Stability of transportation industry
Air pollution
Speed of government actions
Government's stimulus package
Level of goods and services
Interventions
Environment
Waste generation
B4
R9
Level of effectiveness of health crisis management
Awareness campaign
Misinformation and fake news
<Confirmed cases>
<Health services capacity>
Access to health services
Testing campaign
R5
Panic and fear
<Level of goods and services>
Vulnerable populations
B1
R10
J11
Trust in government
<Unemployment rate>
R7
Social interaction
Health services capacity
R6
Trust within communities
R2
Confirmed cases
Health
Health worker load
Mental well-being
Crime and violence
Racism
R1
<International travel restrictions>
Non-infected populations
B2
Hygiene practice
<Awareness campaign>
Social


Wicked problem
Lång tid att mäta effekter
Aldrig helt löst
Olika delar påverkar varandra
Effekter är svåra att förutsäga
Överbrygga r olika discipliner/ organisatio ner
Aktörer med motstridiga intressen
Saknas optimal lösning
Varje lösning påverkar system i sin helhet


BIOSPHERE INTEGRITY
E/MSY
BII
(Not yet quantified)
CLIMATE CHANGE
NOVEL ENTITIES
(Not yet quantified)
LAND-SYSTEM CHANGE
STRATOSPHERIC OZONE DEPLETION
FRESHWATER USE
ATMOSPHERIC AEROSOL LOADING
(Not yet quantified)
P
OCEAN ACIDIFICATION
N
BIOGEOCHEMICAL FLOWS
Below boundary (safe)
In zone of uncertainty (increasing risk)
Beyond zone of uncertainty (high risk)

Wicked problem

Stora ekonomiska konsekvenser

Involverar många individer

Motstridig kunskap

Involverar livsstilsförändringar

Berör moral och värderingar

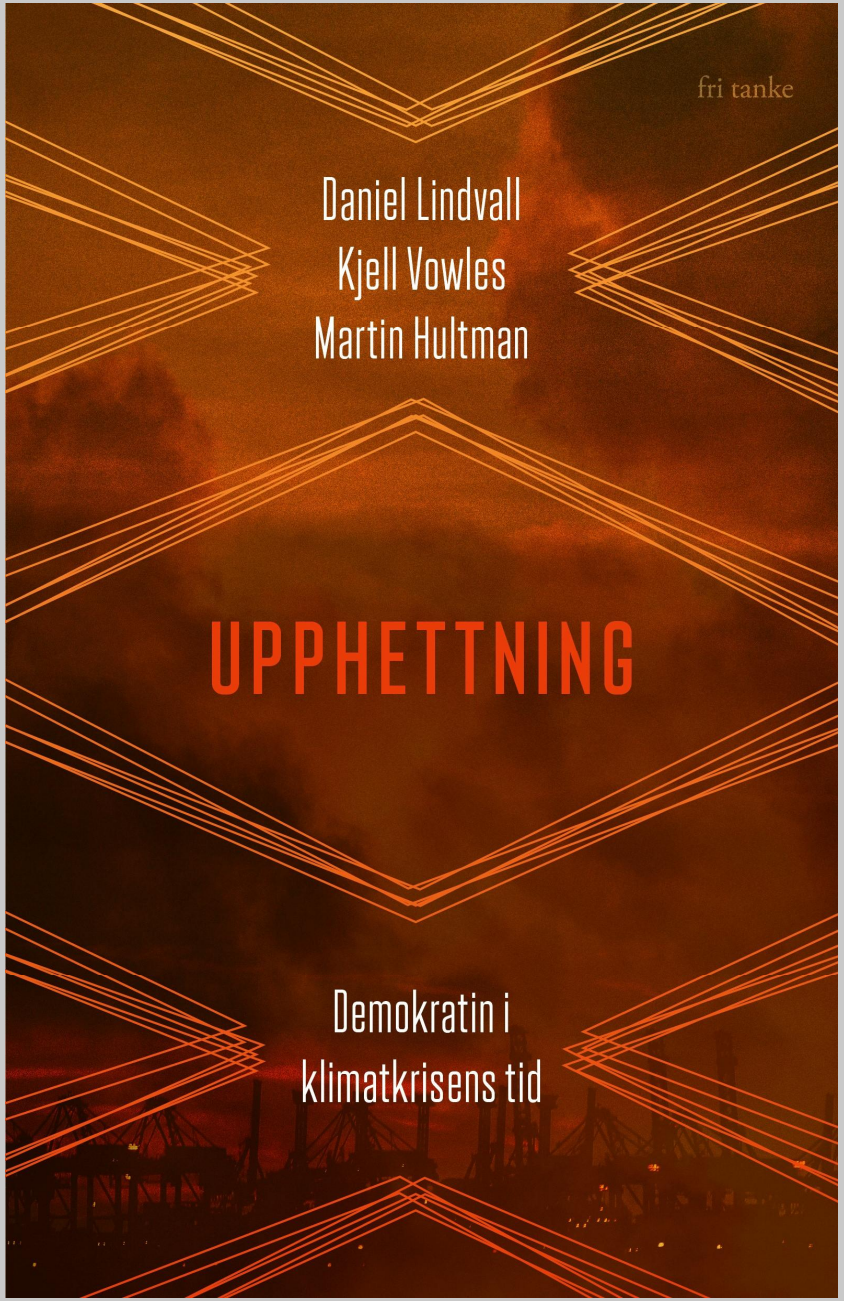
Berör frågor om social och ekonomisk jämlikhet

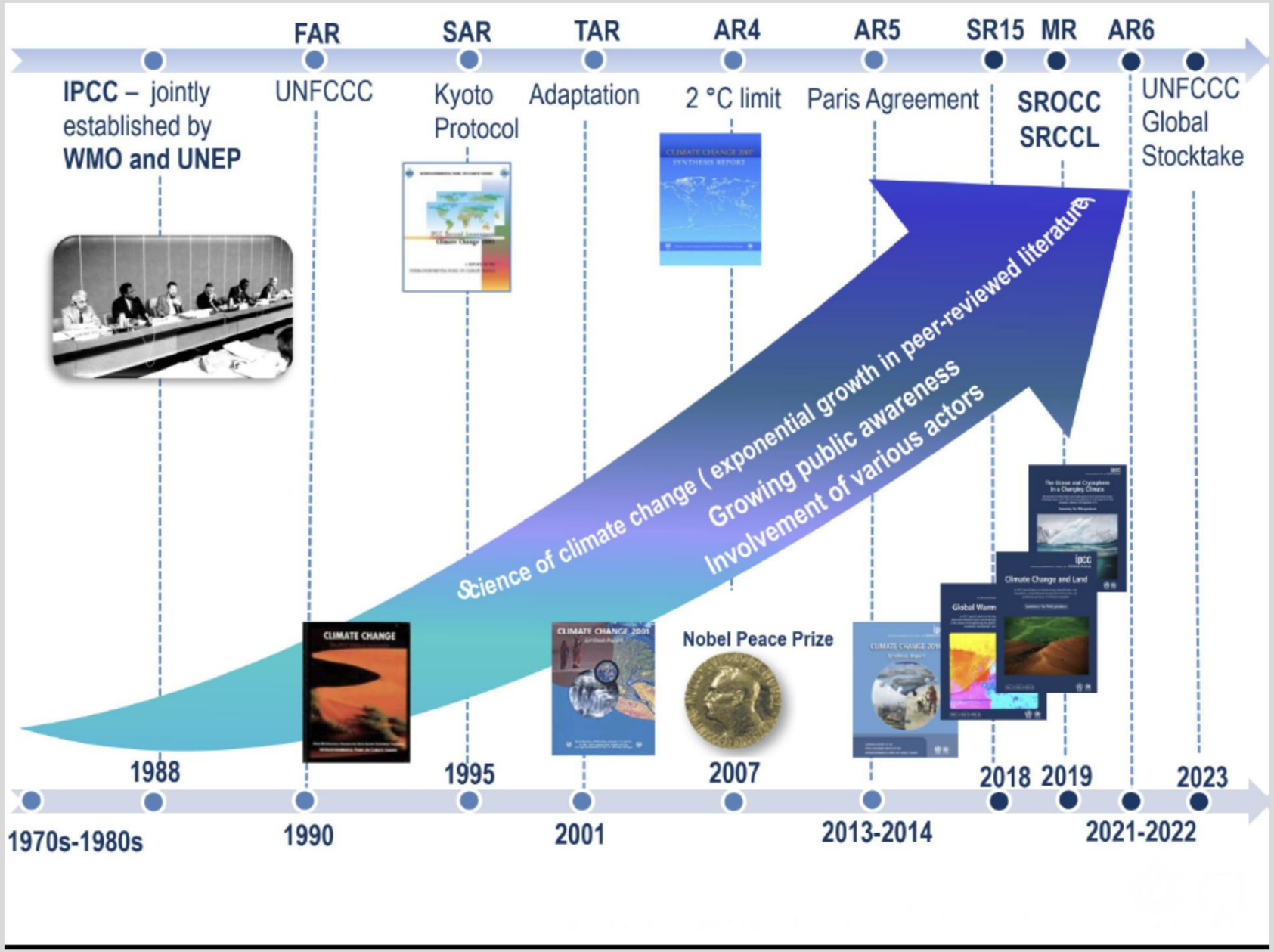
Super wicked problem

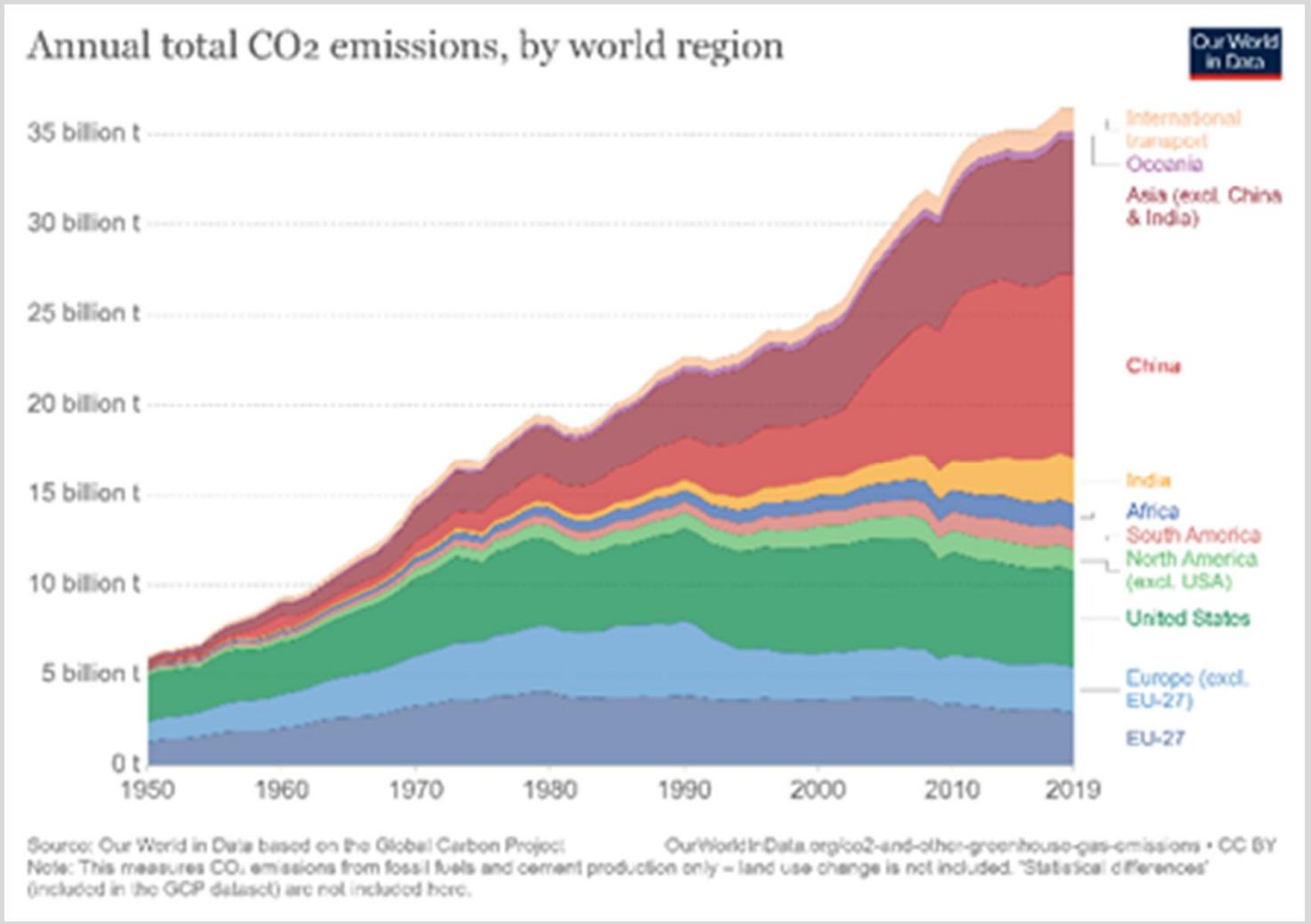
Kort om tid!

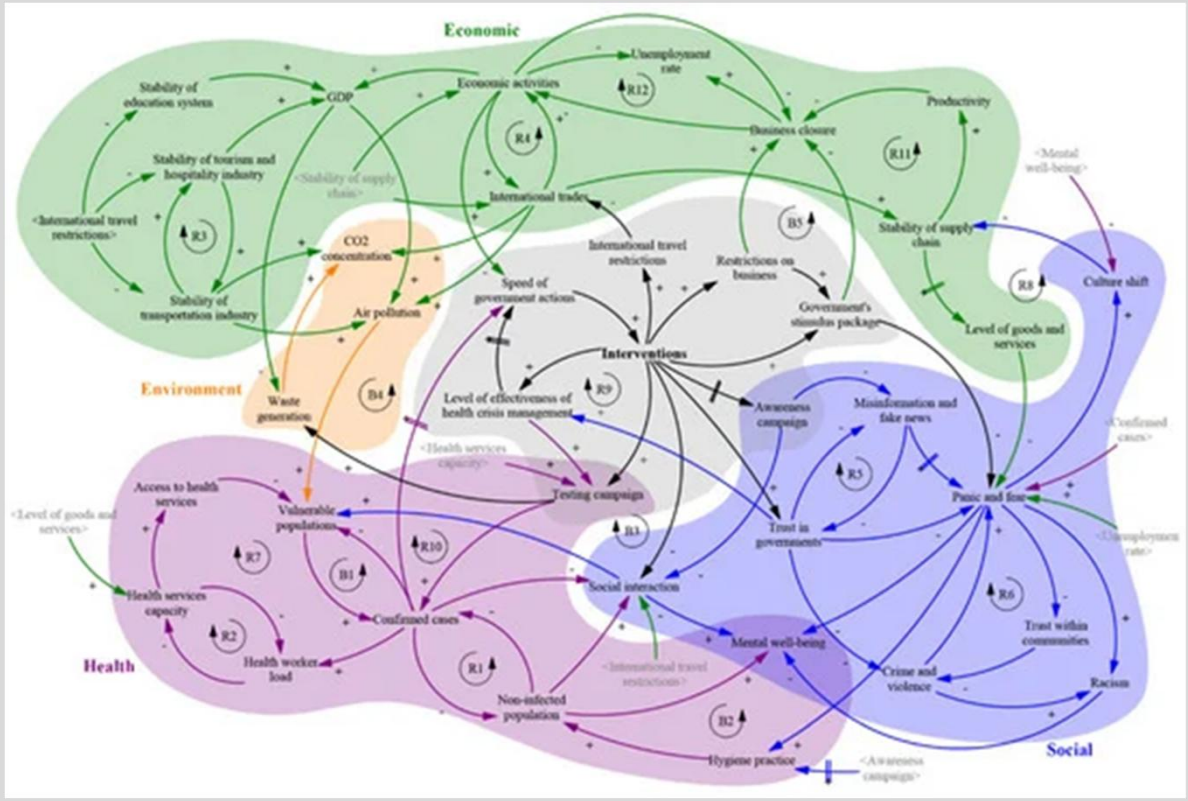
Allvarligt!

De aktörer som skapar problem ska själva lösa det…


fri tanke
Daniel Lindvall
Kjell Vowles
Martin Hultman
UPPHETTNING
Demokratin i
klimatkrisens tid

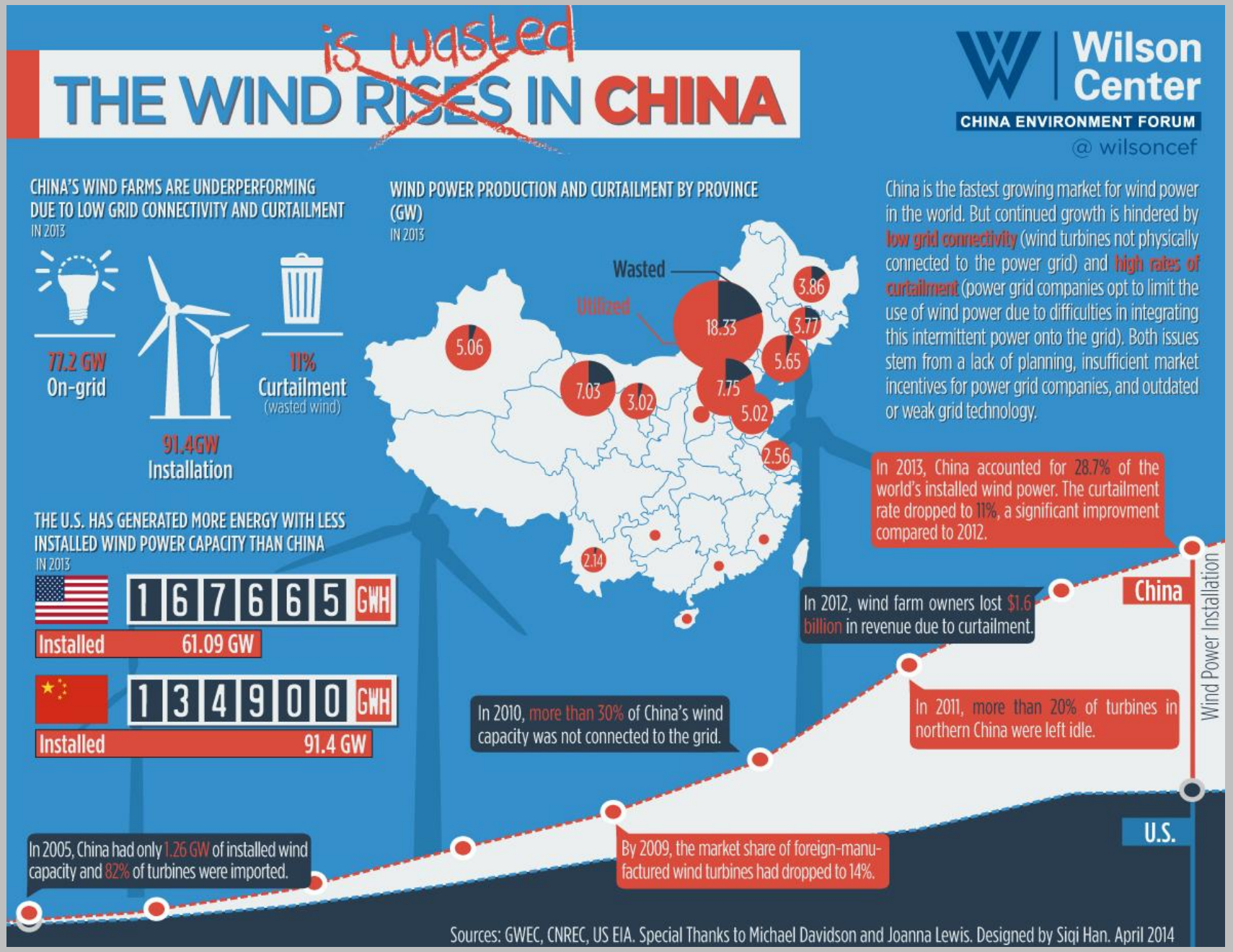

FAR
SAR
TAR
AR4
AR5
SR15
MR
AR6
IPCC – jointly established by WMO and UNEP
UNFCCC
Kyoto Protocol
Adaptation
2 °C limit
Paris Agreement
SROCC
SRCCL
UNFCCC Global Stocktake
Science of climate change (exponential growth in peer-reviewed literature)
Growing public awareness
Involvement of various actors
CLIMATE CHANGE
CLIMATE CHANGE 2001
Nobel Peace Prize
1988
1995
2007
2018
2019
2023
1970s-1980s
1990
2001
2013-2014
2021-2022


Annual total CO2 emissions, by world region
Our World in Data
35 billion t
30 billion t
25 billion t
20 billion t
15 billion t
10 billion t
5 billion t
0 t
1950
1960
1970
1980
1990
2000
2010
2019
International transport
Oceania
Asia (excl. China & India)
China
India
Africa
South America
North America (excl. USA)
United States
Europe (excl. EU-27)
EU-27
Source: Our World in Data based on the Global Carbon Project
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY
Note: This measures CO2 emissions from fossil fuels and cement production only – land use change is not included. 'Statistical differences' (included in the GCP dataset) are not included here.



För att hantera wicked problems behövs ett system som

- kan hämta in och hantera stora mängder information
- har förmåga att utvärdera och ompröva de åtgärder
- kan skapa delaktighet och legitimitet


THE WIND is wasted RISES IN CHINA
Wilson Center
CHINA ENVIRONMENT FORUM
@ wilsoncef
CHINA'S WIND FARMS ARE UNDERPERFORMING DUE TO LOW GRID CONNECTIVITY AND CURTAILMENT
IN 2013
77.2 GW
On-grid
91.4GW
Installation
11%
Curtailment
(wasted wind)
WIND POWER PRODUCTION AND CURTAILMENT BY PROVINCE (GW)
IN 2013
Wasted
Utilized
5.06
7.03
3.02
18.33
7.75
5.02
2.56
2.14
3.86
3.77
5.65
China is the fastest growing market for wind power in the world. But continued growth is hindered by low grid connectivity (wind turbines not physically connected to the power grid) and high rates of curtailment (power grid companies opt to limit the use of wind power due to difficulties in integrating this intermittent power onto the grid). Both issues stem from a lack of planning, insufficient market incentives for power grid companies, and outdated or weak grid technology.
THE U.S. HAS GENERATED MORE ENERGY WITH LESS INSTALLED WIND POWER CAPACITY THAN CHINA
IN 2013
167665 GWH
Installed 61.09 GW
134900 GWH
Installed 91.4 GW
In 2013, China accounted for 28.7% of the world's installed wind power. The curtailment rate dropped to 11%, a significant improvment compared to 2012.
In 2012, wind farm owners lost $1.6 billion in revenue due to curtailment.
In 2011, more than 20% of turbines in northern China were left idle.
In 2010, more than 30% of China's wind capacity was not connected to the grid.
By 2009, the market share of foreign-manufactured wind turbines had dropped to 14%.
In 2005, China had only 1.26 GW of installed wind capacity and 82% of turbines were imported.
China
U.S.
Wind Power Installation
Sources: GWEC, CNREC, US EIA. Special Thanks to Michael Davidson and Joanna Lewis. Designed by Siqi Han. April 2014

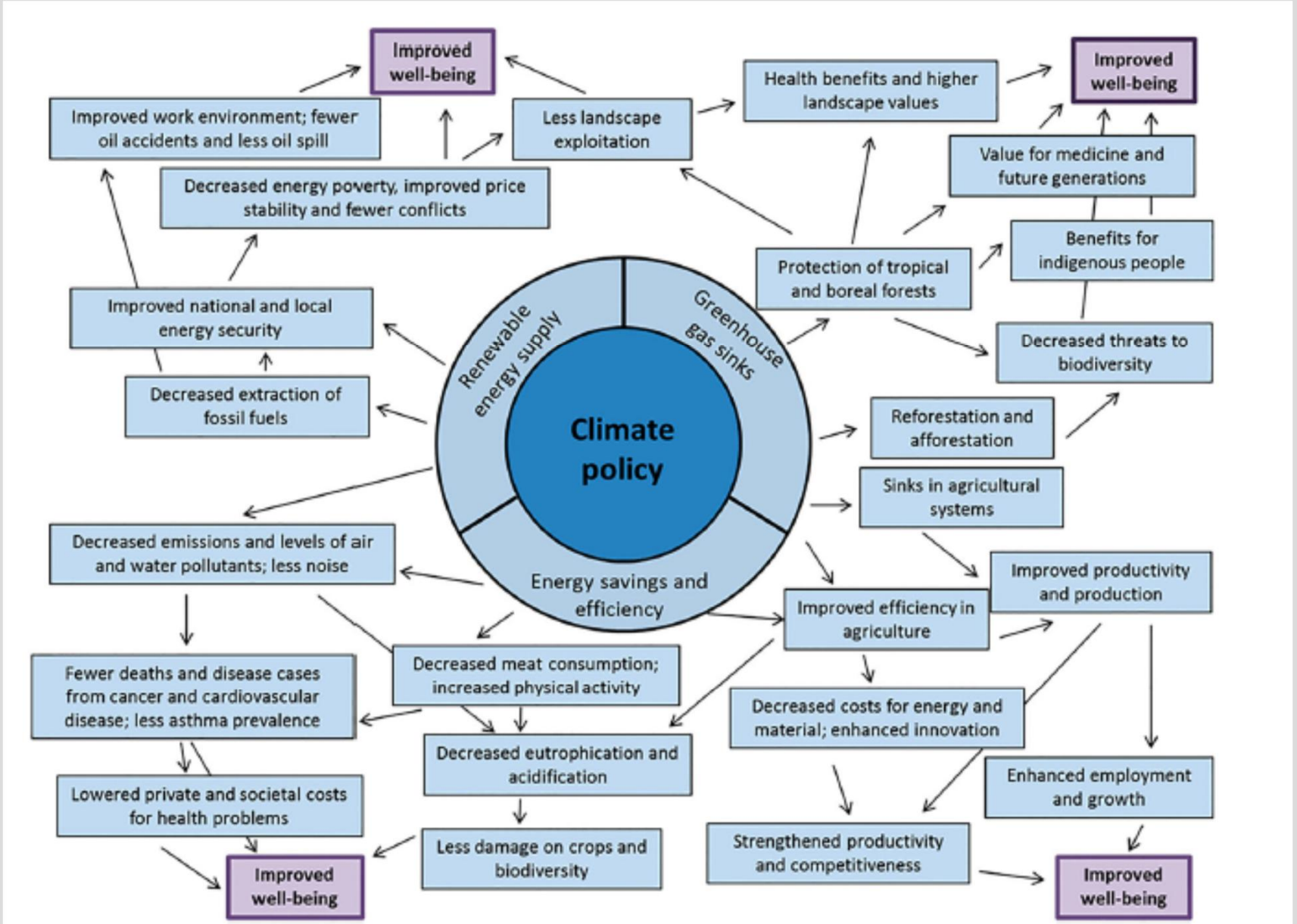


Figure 1. Co-benefit categories in climate policy. The three main components of climate policy in the circle may result in chains of potential positive effects, which – as examples – eventually may improve well-being. Developed after Alfredsson and Karlsson (2016).