

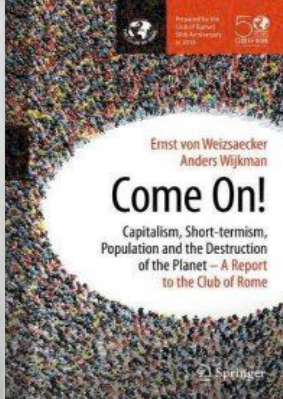
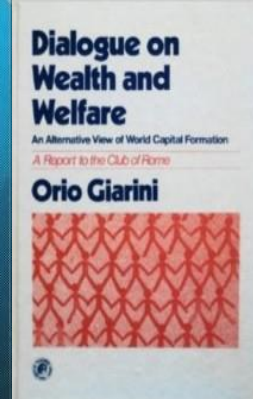
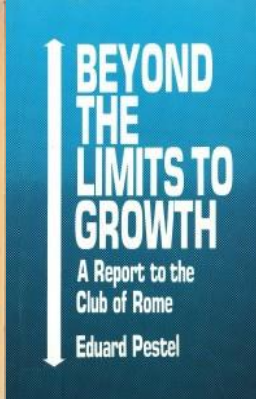
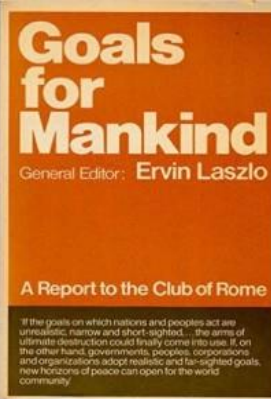
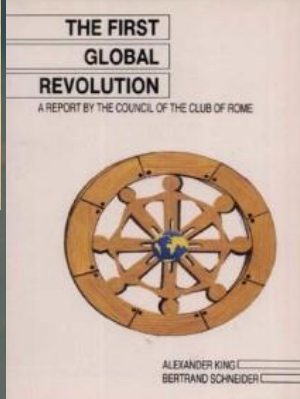
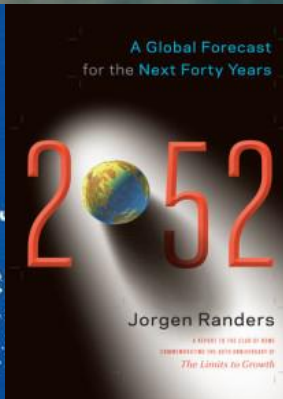
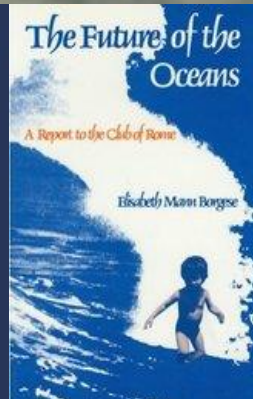
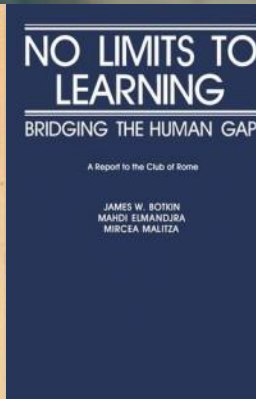
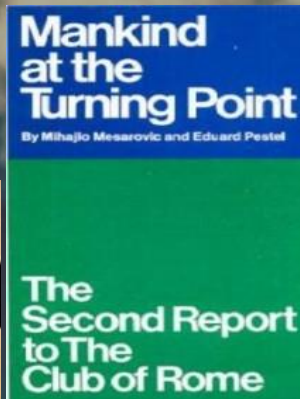
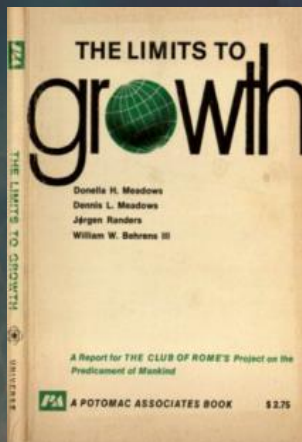


PLANETARY EMERGENCY: TREADING on thin ice - playing with fire!

Sandrine Dixson-Declève, President, The Club of Rome & EIT CLIMATE KIC ADVISORY BOARD - MEMBER OF EU sustainable finance technical expert group (TEG)

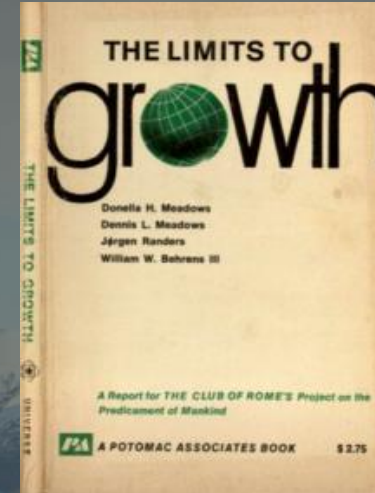
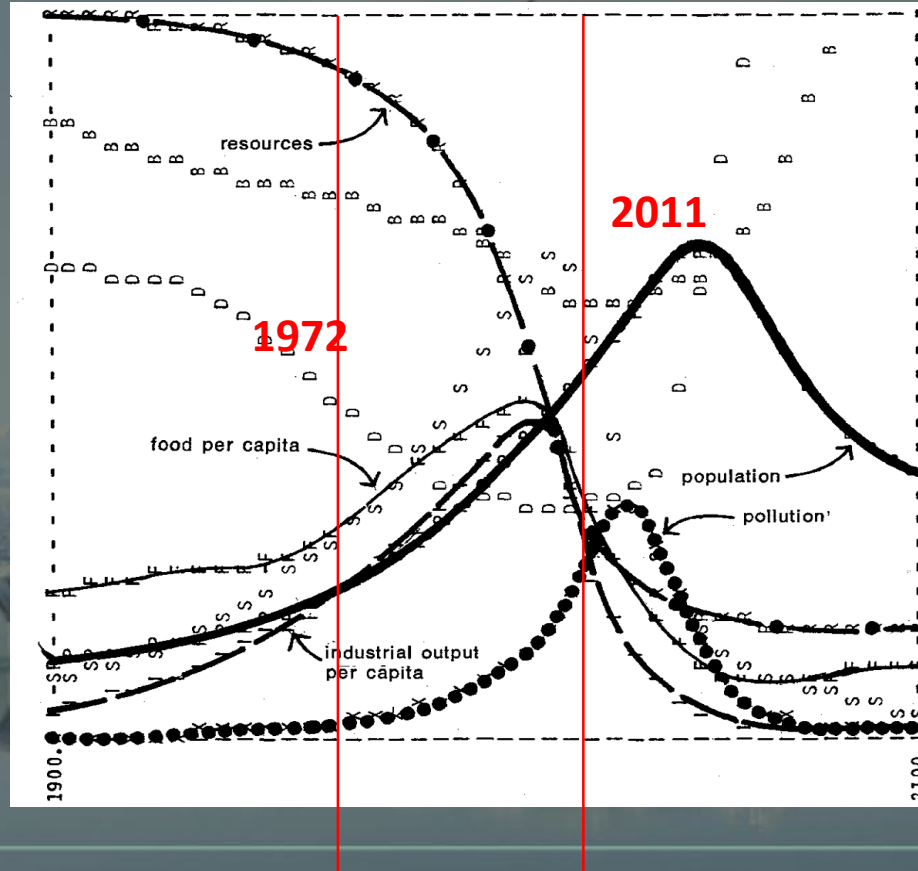
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THE LIMITS TO GROWTH – 1972

PLANETARY EMERGENCY PLAN | THE CLUB OF ROME



D H. Meadows, et. al.,
The Limits to Growth,
Universe Books, New
York, NY, 1972 p. 124





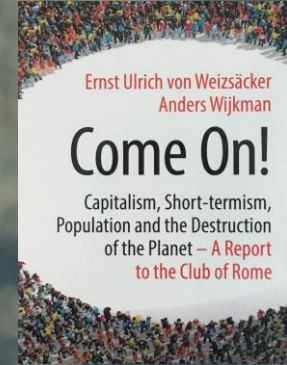
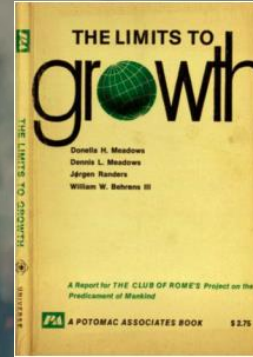
SPECIAL REPORT

Global Warming of 1.5 °C

Plummeting insect numbers 'threaten collapse of nature'



The Guardian, 10 Feb. 2019



**U.N. REPORT WARNS
40% OF POLLINATORS
FACE EXTINCTION**

FEBRUARY 29TH, 2016
POSTED BY CAROL CLARK-ENOSKY

"Pollinator decline is a multi-faceted issue with many drivers contributing to it," says Berry Brosi, pictured above. "We can't just fix one thing and have the problem go away." (Credit: Bryan Malta/Shore)





Economic cost of Hurricane Irma 'could reach \$300bn'

Experts say insurance firms could be liable for up to half that sum after Irma damages homes, businesses and key crops



HIDDEN FIGURES

Global disasters in 2017 cost \$306 billion—nearly double the cost of 2016

By Akshat Rathi • December 21, 2017



CHALLENGE AND OPPORTUNITY

The recent Intergovernmental Panel on Climate Change (IPCC) report on the impact of 1.5 °C and 2°C warming above pre-industrial levels¹ sends a stark reminder to humanity about the existential threat posed by climate change. To avoid the worst of the predicted outcomes, global carbon emissions must be cut by half by 2030, to zero by 2050. This is an unprecedented task, requiring a reduction rate of at least 7% annually; no country has to date achieved more than 1.5%. The only possible response is emergency action that will transform human social, economic and financial systems.

South and southeast Asia suffered catastrophic floods in 2017 leading to more than 1,200 deaths and displacement of tens of thousands.

IPPR report Feb. 2019 - Since 1950 global increase FLOODS: by 15x. EXTREME TEMP. EVENTS by 20x. WILDFIRES by 7x.

"We define this as the 'age of environmental breakdown' to better highlight the severity of the scale, pace and implications of environmental destabilisation resulting from aggregate human activity."



- **Costs of inaction far outweigh the costs of action!**

- Just four global warming impacts alone – hurricane damage, real estate losses, energy costs, and water costs – will cost 1.8 percent of U.S. GDP, almost \$1.9 trillion annually by 2100
- 1.8% of global assets (approx. \$2.5trillion) are at risk under current mitigation trajectories, but if warming is capped below 2°C these costs reduce to 0.2%.
- US government analysis: US face up to \$180 billion in economic losses due to drought and water shortages

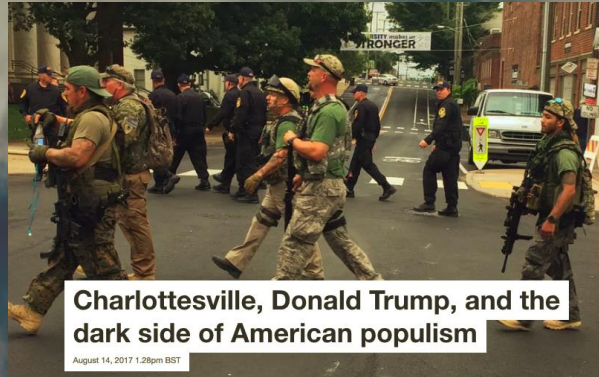
- **Global action to limit warming to 2°C would:**

- Make \$200 billion in savings to the American economy by 2100
- Prevent \$50 million to \$6.4 billion in adaptation costs to urban drainage systems in the US
- Reduce costs to farmers of \$2.6 billion to \$3.1 billion
- Reduced use of coal and other polluting fuels, meeting the US' Paris target was expected to "prevent in the order of 7,000 premature deaths
- Cost of not acting on climate will be \$44trn by 2060

Systems fragility – Law and order ! (?)

PLANETARY EMERGENCY PLAN | THE CLUB OF ROME





Anti-Brexit protest, London, July 2016. by Vanessa Baird





CLIMATE Emergency: ACTION & TRANSFORMATION



Transformation is Feasible:

- Humanity can achieve the SDGs whilst remaining within planetary boundaries.
- Change conventional policy tools – and growth models – High human footprint, risking irreversible decline in Earth life-supporting systems.



transformational approach will ensure dual aim met through a concrete, smarter pathway based on five transformative & synergistic actions:

1. Accelerated renewable energy growth
2. Accelerated productivity in sustainable food chains
3. New development models in poorer countries
4. Unprecedented inequality reduction
5. Investment in education for all, gender equality and family planning





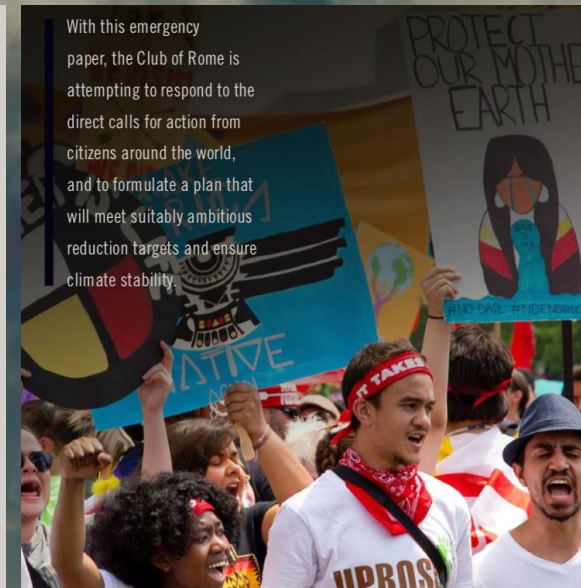
THE CLUB OF ROME CLIMATE EMERGENCY PLAN

A Collaborative Call for Climate Action



By Members of the Club of Rome:

Sandrine Dixon-Deciève, Ian Dunlop, Anders Wijkman
with support from Martin Hoiberg & Tili Kallioheff



"The ravages of a rapidly warming climate are happening every day and will only get worse especially for the world's most vulnerable. Transformational climate action is an opportunity for a societal renaissance of the proportions never seen before. This is a global emergency plan for a shared and just future. We have the technology and capital but most NDC's and industry efforts are not ambitious enough. The only option now is adopting an emergency plan! Time is not going to be forgiving."

— Sandrine Dixon-Deciève, Co-President of the Club of Rome

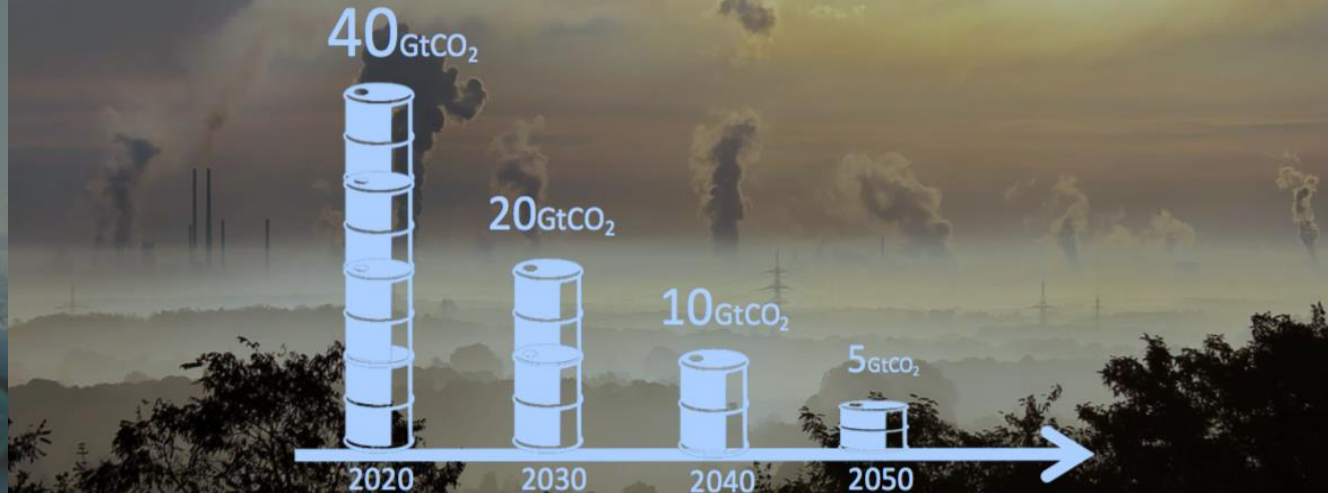
THE GREAT TRANSFORMATION

CLIMATE — CAN WE BEAT THE HEAT?





A Global Carbon Law Halving Emissions Every Decade



Exponential Climate Action Roadmap, 2018



PLANETARY Emergency: IMPACT , PEOPLE & EMERGENCE

|THE CLUB OF ROME |

Planetary Emergency Plan

Securing a New Deal for People,
Nature and Climate





The science is clear: the climate and biodiversity are fully integrated and interdependent.

When climate change alters a chink in the planetary system, it can set off a chain of negative feedback loops. Increasing droughts, for instance, are reducing the ability of tropical forests to store carbon, making them more prone to fires, releasing yet more GHG emissions.

10 COMMITMENTS FOR OUR GLOBAL COMMONS



1. By 2030, declare critical ecosystems as Global Commons

and protected areas, through a regime of stewardship and co-responsibility by the entire global human community.

2. By 2020, set a universal global moratorium on deforestation

using a net-zero deforestation and degradation metric and, **by 2025, triple annual investments** in forest conservation and forest landscape restoration.

3. By 2020, sign an immediate moratorium on developing Arctic oil and gas reserves

support withdrawal from fossil energy exploration and use and **establish a Cryosphere Preservation Plan** to protect this critical ecosystem more broadly.

4. In 2020, significantly enhance public and private finance flows for restoration of critical ecosystems

including by mobilising \$200billion for the GCF and GEF over the next decade.

5. In 2020, halt the decline of critical and vulnerable ocean ecosystems and habitats and secure a robust New Ocean Treaty

(under UNCLOS) for the protection and sustainable use of biodiversity in areas beyond national jurisdiction, which constitute half of our planet.

6. In 2020, launch a permanent public-private Planetary Emergency fund for the Global Commons

building upon the G7 Amazon Emergency Fund and committing the necessary capital to insure humanity against present and inevitable future crises.

7. By 2020, ensure all sovereign wealth funds commit to defunding deforestation and, by 2025, halt all investments

driving continued deforestation and unsustainable land-use change of intact and irreplaceable ecosystems.

8. By 2025, require all large publicly-listed and family-owned companies to commit to science-based targets, shift to green investments

(climate mitigation and adaptation as well as ecosystems protections and regeneration), **disclose** using available taxonomies **and report** according to material risks from the Planetary Emergency.

9. By 2025, halt all conversion of wetlands, grasslands and savannahs

for the production of agricultural commodities and **triple annual investments** in their effective **protection, restoration and resilience**.

10. By 2020, introduce financial mechanisms and policy instruments

to support local farmers, foresters and indigenous people to **secure their livelihoods** and to shift to **regenerative agriculture, sustainable forestry** and other sustainable land-use practices.

10 COMMITMENTS FOR OUR GLOBAL COMMONS



TRANSFORMING ENERGY SYSTEMS

1. **Halt all fossil fuel expansion, investments and subsidies by 2020** and shift investments and revenues to low-carbon energy deployment, research, development and innovation.
2. **Continue the doubling of wind and solar capacity every four years, and triple annual investments in renewable energy, energy efficiency and low-carbon technologies** for high-emitting sectors **before 2025**.
3. **Set a global floor price on carbon (>30 USD/ton CO2 and rising) immediately** for developed countries **and no later than 2025 for the most advanced transition economies**, that internalises high-carbon energy externalities in all

SHIFTING TO A CIRCULAR ECONOMY

5. **Agree in 2020 to halve consumption and production footprints** in developed and emerging economies **and close loops in inefficient value chains, by 2030**.
6. **Internalise externalities in unsustainable and high-carbon production and consumption** through targeted consumption taxes and regulation, as well as consumption-based accounting, **by 2025**.
7. **Develop national and cross-national roadmaps for all countries towards regenerative land-use and circular economies**, including a reduction in global carbon emissions from basic materials to net-zero, **by 2030**.

CREATING A JUST AND EQUITABLE SOCIETY FOUNDED IN HUMAN AND ECOLOGICAL WELL-BEING

7. **Introduce** economic progress indicators that include **socio-ecological and human health and well-being by 2030**, recognising that the latter depends on the flourishing and stewardship of natural ecosystems.
8. **Provide legal tools by 2025 that allow indigenous, forest and tribal communities** to secure their rights to traditional land, recognising their vital role as stewards of these lands in mitigating climate change and ecosystem degradation. Such mechanisms must include **funding and legal aid** to guarantee that these communities have access to justice.
9. **Shift taxation from labour** to the use of all natural resources, final disposal, emissions to land, air and water **by 2020**.
10. **Establish clear funding and retraining programmes** for displaced workers, rural and



Implementation **architecture** = the CoR Impact Hub:

- **allows added value** inherent in the Platform to be leveraged across the Club's **five pillars of activity**.
- Impact Hubs: will be the CoR's **main delivery mechanism for collective action**,
- will serve as **creative impact space** where Club of Rome members, associations and partners (governments, companies, universities, international institutions, NGOs, esteemed influencers etc...) will share transformational thought leadership and co-design solutions for impact.



“The time has come to make sustainability, human and environmental resilience the overarching goal so that we de-couple GHG emissions and our overall ecological footprint from European economic development”

– Recommendations for GLOBE EU High-level conference, 15th October 2019

“At this stage of the 21st century we know for sure that those positive patterns of development have also produced first-order undesirable consequences: climate emergency, dramatic loss of biodiversity, exponential growth in the consumption of resources, as well as rising levels of inequality to a point threatening social cohesion and hence the foundations of democracy and peace.”

- The Club of Rome: REDEFINING PROSPERITY “*The time is Now*”



CAN WE CREATE A WORLD IN BALANCE ?

- EMERGENCY PLAN ACROSS ALL JURISDICTIONS
- ACTION NOW FOR RESILIENCE LATER
- TRANSFORMATIONAL NOT INCREMENTAL
- COLLABORATIVE NOT INDIVIDUAL
- BUSINESS UNUSUAL NOT BAU
- MORE STRATEGIC & TARGETED
- RISK TAKING AN ABSOLUTE
- JUST TRANSITION & BUFFERS
- CIRCULARITY VS LINEARITY
- PRAGMATIC YET RADICAL
- PRICING WHAT MATTERS

BE THE LEADER THAT YOU WANT TO SEE – OUR MOONSHOT IS PLANET EARTH!

