

One Degree War Plan

Years 1 - 5

Climate War

Mobilization to achieve a global reduction of 50% in climate gas emissions within 5 years

Some suggested actions (likely) necessary to achieve 3 phase goals:

- Cut deforestation and other logging by 50%. Significant payments to developing countries.
- Close 1000 dirty coal power plants within 5 years (cutting emissions from power production by approx. one third) **Result: power reduction: one sixth**
- Ration electricity and rapidly drive efficiency. Get the public on board
- Retrofit 1000 coal power plants with CCS (Note: Not yet commercially available)
- Wind turbine or solar plant in every town of 1000 people of more
- Limit production of virgin materials (higher taxes) & push efforts of recycling to their limit and recover embedded energy (Let no waste go to waste)

Global measures to achieve rapid halving of CO2-emissions during the initial 5-year period through linear reductions of 10% per year.

Some suggested actions (likely) necessary to achieve goals (continued):

- Ration use of dirty cars to cut transport emissions by 50% Replace fossil fuel cars with chargeable electric vehicles. Charge high prices for fossil fuels & tax use of fossil fuel burning vehicles
- Prepare for bio-power with CCS by increasing the burning of cellulose material
- Strand half of the world's aircraft. Linear 10% reduction per year. Will push rapid deployment of bio-fuels for aircraft. Higher pricing to reduce frivolous air travel.
- Move away from climate unfriendly protein (Through education and higher pricing)
- Bind 1 Gigaton of CO2 in the soil. Grow as much plant material as possible and ensure that the bound carbon ends in the soil or in subsurface storage. Current global forests bind some 3GtCO2e/yr, estimates that some 6 GtCO2 /yr from forestry and agriculture combined could be achieved.
- Launch a government and community led "shop less, live more" campaign (to free up finances, manufacturing capacity and resources for critical war effort activities)

Years 6 - 20

Climate Neutrality

A 15 year long push to lock in the 50% emergency reductions and move the world to net zero climate emissions by year 20 (20 years after the war has begun).

How to finance the war:

- Establish the Climate War Command. Composed of participating countries and experts like the IMF and the IPCC.
- Introduce a carbon tax of US\$ 100 per ton of CO2 levied at source on all fossil fuels. Start at US\$20/ton in year 1 and increase by US\$20/ton every year after during the 5 year C-war. Raise some US\$800 billion in first year, increasing to US\$1900 billion by year 5. This would be approx. 1-3% of GDP.
- Redistribute the proceeds of the carbon tax. Use to fund the war effort and alleviate resulting hardships due to the effort.
- Shift subsidies from fossil energy to human employment. Phase out subsidies used to support gas emission and use to alleviate unemployment results from effort.
- 50% cuts by 2023 will be (by conventional wisdom) more costly than the 60 euro/tCO2e (McKinsey estimate), mainly because much faster, emergency war plan will cost more

Other actions needed:

- Resettlement plan for millions of climate refugees.
- An adaptation strategy for low lying coastal areas.
- A mitigation strategy for large scale famine.

- Create commission to investigate such this as necessary CO2 concentration required to stabilize the climate and necessary geo-engineering projects to achieve stabilization.
- Rapid rollout of any geo-engineering projects with short term benefits.
- Eliminate all remaining net deforestation.
- Implement plans for sea level rise and famine.
- Regulatory action around consumer products and diversion of all waste from landfill to force greater recycling.
- Renewable energy push. Removal of remaining dirty coal plants by year 10 and gas plants by year 15.
- Continue transport replacement effort. Zero CO2e from transport by end of year 20.
- Continued energy efficiency and rationing.

Years 20 - 100

Climate Recovery

Long haul effort to create a stable global climate and a sustainable global economy.

- Major launch of geo-engineering projects found acceptable.
- Global sustainability focused economy. Elimination of poverty and closed loop, zero waste and zero net CO2e production and consumption.
- Widespread application of best practices, primarily forestry and ag.

Goal

achieve the following results:

- CO2e concentration falls below 350ppm by the end of the century after peaking at around 440ppm.
- Global temperature temporarily rises 1°C (above preindustrial levels) around 2100
- Average sea level rises by 0.5 meters around

TABLE 1: OVERVIEW OF ONE DEGREE WAR (all items in billion tons of CO2-equivalents per year (GtCO2e/yr))

Source	Emissions in 2018	Emissions after C-war 2023	Emissions after C-push 2038	Emissions after C-century 2100
Energy supply	15	8	1	0
Transport	7	4	1	0
Buildings	4	1	0	0
Industry	11	6	0	0
Agriculture	8	4	- 1	- 3
Forestry	10	5	- 1	- 3
Waste	2	1	0	0
SUM EMISSIONS	= 56	= 28	= 0	= - 6

TABLE 2: DETAILS OF PHASE 1 -- CLIMATE WAR (in GtCO2e per year)

SOURCE	EMISSIONS 2018	EMISSIONS 2023	INITIATIVES
ENERGY SUPPLY	15	8	Close the 1,000 most climate intensive power plants. Introduce CCS on 1,000 of the remaining plants. Large-scale expansion of wind and solar energy.
TRANSPORT	7	4	Rapid electrification of car fleet, forced shift to small cars and rationing of daily driving. Dramatic reduction in air travel.
BUILDINGS	4	1	Dramatic increase in energy efficiency. Change indoor temp 2 °C up or down depending on season
INDUSTRY	11	6	Shift to recycled metals and fibre, limit production of aluminium, cement, iron and forest products. Shifting to renewable materials and increasing energy efficiency.
AGRICULTURE	8	4	Shift away from red meat, increase the carbon content of the soil.
FORESTRY	10	5	Halving of all harvesting of wood
WASTE	2	1	Capturing all methane from landfills, and burning all waste for energy
SUM	= 56	= 28	

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