1. Carbon negative

The 2021/22 Sixth Assessment reports of the IPCC confirm the conclusion of their 2018 report on Global Warming of 1.5°C, that the only pathway that can hold the average global temperature rise to 1.5°C (including with limited overshoot) must use carbon negative programmes, expanding to remove atmospheric CO_2 at the gigatonne/year scale.

Rapidly rising temperatures from escalating atmospheric concentrations of greenhouse gases are already causing an increasing frequency of hazardous extreme weather events, including heatwaves, droughts and wildfires as well as severe storms, floods and cold periods.

Accelerating sea level rise from ocean water thermal expansion and polar/glacial ice loss, exacerbated by the growing intensity of storm surges, is also an existential threat to the populations of vulnerable low lying countries and island states.

Critically warming habitats and ocean acidification are additionally creating adverse and deteriorating conditions from which many fragile ecosystems and interdependent species may never recover.

With the upper limit of the atmospheric lifetime of CO_2 being over a century, these damaging impacts may continue for generations, even if net zero emissions can be achieved, unless a rapidly expanding programme of atmospheric CO_2 removal is started immediately.

To help prevent the catastrophic threat from the climate crisis, the Carbon Negative Initiative has developed the most economic, safe and reliable carbon negative process - ***the virtuous cascade*** - capable of reaching the annual gigatonne carbon sequestration scale by 2040.

This unique carbon sequestration programme can provide private/public sector organizations and individuals with safe and reliable carbon negative mitigation for residual emissions from material inputs, imported products and other sectors that are difficult to decarbonize rapidly as well as for far greater historical greenhouse gas emissions. It can also help supply massive climate finance for community projects in developing economies.