The map of (runaway) global warming prevention

Time →

		Low tech realization in the first half of 21 century	High tech realization in the second half of 21 century
No plan	Local adaptations to changing climate	• Air conditioning • Cities replacement • New crops • Irrigation	• Could work in case small changes like 2-4 C • Will not work in case of runaway warming	Wait until strong AI creation
Plan A Greenhouse gases limitation	Cutting emissions of CO2	• Switching from coal to gas • Switching to electric cars • More fuel-efficient cars • The transition to renewable and solar energy, which does not result in CO2 emissions • Lower consumption	• Using nanotech and biotech to create new modes of transport and energy sources • Using AI to create a comprehensive climate model and calculate impacts
	Reduction of the emissions of other greenhouse gases wiki	• Use of lasers to destroy CFC gases • Methane in the atmosphere can be destroyed by releasing hydroxyl groups or methanophile organisms	
	Capturing CO2 from the atmosphere wiki	• Reforestation • Stimulation of plankton: seeding the ocean with iron • Using common mineral olivine, which when spray enters into chemical reaction with CO2 and absorbs it, and	• GMO organisms capable of capturing CO2 • Nanorobots use carbon from the air for self replication • Nanomachines in the upper layers of the atmosphere trap harmful gases
Plan B Use of geo-engineering for reflection of sunlight Risk: turning off could result in immediate bounce of global warming Risk: Less incentives in cutting emissions	Reflection of sunlight radiation in stratosphere	1. Stratospheric aerosols based on sulfuric acid wiki Risk: the destruction of the ozone layer. Risk: acid rains Expected price: may be zero, if cheap plane fuel used	
	Increase of albedo of the earth's surface	2. Change the albedo https://en.wikipedia.org/wiki/Reflective_surfaces_(geoengineering) • Using reflective construction technologies • Crops with high albedo • The foam in the ocean • Covering deserts with reflective plastic • Huge airships reflective thin film in the upper atmosphere	
	Increase of cloud albedo	3. Increasing of the albedo of clouds over the sea with the help of injecting sea-water-based condensation nuclei https://en.wikipedia.org/wiki/Cloud_reflectivity_modification 1500 ships can do it. The spray itself will go to the upper atmosphere Risk: The water turns to steam, which is itself a greenhouse gas. Risk: Incorrect altitude clouds can lead to heating https://en.wikipedia.org/wiki/Solar_radiation_management#Weaponization	
	Space solutions	• Mirrors in space • Spraying moondust: explosions on the moon could create a cloud of dust • Construction of factories for the production of the moon, satellites umbrellas • Lenses or smart dust at L1 point • Deviation of an asteroid to the Moon so that it would result into impact and a cloud of dust on the moon's orbit will be created, and will be screening solar radiation.	Robots replicators in space will building mirrors
Plan C Urgent measures to stop global warming		• Artificial explosions of volcanoes to create artificial volcanic winter • Artificial nuclear winter - explosions in taiga and in coalbeds Plan C could be realized in half a year with help of already existing nuclear weapons	
Plan D Escape		• Escape into high mountains, like Himalaya or in Antarctic • High-tech air condition escapes	• Space stations • Other planet colonisation • Uploading into AI

Types of warming and its consequences

Probability		Consequences
	New Ice age	Large economic problems Millions people will die	[redacted]
	No warming	Useless waste of money, time and attention in fighting global warming	[redacted]
	Warming according ICPP predictions: 2-4 C until the end of 21 century	Large economic problems Hurricanes, famine, sea change levels Millions people will die	[redacted]
	Catastrophic warming 10-20 C	Big parts of land became inhabitable, human moves to poles and mountains Civilizational collapse	[redacted]
	Catastrophic warming New equilibrium of the climate at 55 C (40 C warming)	Small groups of people could survive on very high mountains, like Himalaya	[redacted]
	Venusian runaway warming (Mild) The medium temperature reach more than 100 C	Some form of life survive on mountains tops	[redacted]
	Venusian runaway warming (Strong, all water evaporation) The medium temperature reach more than 1600 C	Life on Earth irreversibly ends	[redacted]