

Reducing the Effects of Climate Change

Our dependence on fossil fuels, and the volume of carbon dioxide already released into the atmosphere, has led experts to agree that global warming is now inevitable. They believe that the best we can do is keep the emission levels low. At present the only valid option for us is to cut down our carbon emissions. While a few countries are taking major action in this regard, other countries are having difficulty even limiting the rate of increase, let alone reversing it. An increasing number of scientists are exploring the alternative of geo-engineering — a term which refers to the calculated large-scale manipulation of the environment. According to its promoters, geo-engineering is like a backup generator. If Plan A - reducing our dependence on fossil fuels - fails, then we require Plan B - devise grand schemes to slow down or reverse the process of global warming.

Geo-engineering has proved to show results on a small localised scale. For many years, MayDay parades conducted in Moscow have taken place under clear skies, aircraft deposited dry ice, silver iodide and cement powder to disperse clouds. Many of the schemes now suggested look to reduce the amount of sunlight reaching Earth. The most catchy idea of all is suggested by Professor Roger Angel of the University of Arizona.

According to his scheme they have to employ up to 16 trillion minute spacecraft weighing about 1 gms each, to form a transparent sunshade refracting sunlight in an orbit 1.5 million kms above the surface of the Earth. This could reduce the amount of light reaching the Earth by 2%, says Angel.

Majority of the geo-engineering projects carried out so far include planting forests in deserts depositing iron in the ocean to stimulate the growth of algae. They have focused on achieving a general cooling of our planet. But some suggest reversing the melting at the poles, particularly the Arctic. The reason is that if we can bring back the ice sheets and frozen waters of the high latitudes, more light will be reflected back into space thus reducing the heating of the waters and atmosphere.

Questions 1 - 5

Match each

statement with the correct one

Write the correct letter A-F on your answer sheet.

NB You may use any letter more than once.

- 1) Present valid option to stop climate change
- 2) Devise grand schemes to slow down or reverse the
- 3) process of global warming
Reduce dependence on fossil fuels
- 4) Option that shows result in small scale
- 5) Option to stimulate growth of algae in oceans

- A) Plan B
- B) Carbon emission reduction
- C) Deposit iron
- D) Plan A
- E) Restore ice sheets
- F) Geo-engineering