release by the UNEP predicts that the financial losses related to global climate change could top $304 billion per year in the future.

The atmospheric concentrations of CO_2 in 1997 climbed to 364 ppm, the highest in human history. Since 1950, about 217 billion tons of carbon have been released to the atmosphere. Perhaps as a consequence, Antarctica has warmed at more than twice the average global rate during the last 50 years, causing five of the continent's ice shelves to disintegrate[3].

So also, 27% of the world's coral reefs were severely damaged by late 2000; the figure was only 10% during 1992 (ref. 4). A few degrees Celsius increase in temperature may irreversibly harm the microscopic organisms that live in the tissues of corals.

The Kyoto treaty signed by 161 member countries of UN in December 1997 mandated an average cut of 5.2% in the emissions blamed for warming of the planet. Despite the fact that India increased its emission to 28% between 1990 and 1995, the per capita output is still less than one-tenth that of USA.

Continued degradation of forest aggravates the already precarious state of the remaining forests in Asia. The diversity of plants and animals is declining, carbon emission is above the earth's carbon-fixing capacity, and the human population pressure is exceeding the population of all species of non-human primates combined. Thus human survival depends only on the future 'wise' and 'ethical' management of our natural resources. But the faster the world leaders act to preserve the existing biodiversity resources and also to reduce emissions of gases blamed for trapping the earth's heat, the easier it will be to mitigate what lies ahead.

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Summer approaches – Digging for water recharging points

In recent times, digging of water pits appears to be common practice during summer everywhere, the pits act as recharge points in the subsequent monsoon, as they allow percolation and recharge the groundwater. The pits are one type of rainwater harvesting techniques in the management programme of water resources.

The success of recharge points depends on the thickness of water-bearing zones, such as weathered (shallow, mostly confined to dugwell structures) and fractured (deeper, mostly confined to borewell structures) zones, especially in the rocky region, which constitutes two-thirds of the country. The thicker the water-bearing zones, the greater is the possibility of water to move from place to place, as well as to store groundwater. In the rocky-terrain, identification of such formations is beset with problems, because of its heterogeneity in the horizontal and vertical distributions. Hence, groundwater occurs in less quantity in the rocky terrain compared to the non-rocky region (a mixture of sand, gravel, pebble, etc.), which has sufficient porosity characteristics to hold substantial quantities of water.

Digging of pits without identification of the location of water-bearing zones would not give any significant result in improvement of groundwater recharge, especially in the rocky terrain. Hence failures are common. Therefore, the first priority should be given to identification of the location of water-bearing formations to augment the groundwater recharge. After digging the water pits in the location of water-bearing zones, the temporarily stored rainwater in the pits reaches the saturated zone permanently, resulting in rise in the groundwater levels.

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