

Editorial

The climate change summit held recently at the Hague has finally focussed the attention of almost the entire world on GLOBAL WARMING and its devastating effects on the economic and environmental well-being of all the peoples of the world. The Kyoto agreement made in 1997 committed the developed and rich economies of the world to make substantial reductions in their greenhouse gas emissions. The US, for example, was supposed to reduce its emissions by 7% on 1990 levels by 2010, Japan by 6% and the EU by 8%. The conference of 180 countries in the Hague was intended to come to a legally binding agreement and set maximum emissions from developed countries, but the meeting has ended in chaos and confusion with many countries wriggling out of their treaty pledges. Climatologists tell us that a reduction of at least 60% is needed to stabilize the climate. The net result is that the future for the world appears to be bleak and frightening.

Has the world reached a point of no return in its fight against environmental pollution? Is this a DO OR DIE time for the planet? The last quarter of the year that we have just left behind has seen death and destruction all over the world – gales, torrential rain, floods, mud slides, land slides, tornadoes and so on in the US, in Vietnam, Cambodia, the Philippines, Nepal, Bhutan, Bangladesh, Assam, several parts of India, China, Italy, Switzerland, the UK, Australia... The interminable floods and stormy weather experienced in the UK in 2000, for example, are now known to be more extensive and devastating than the great flood of 1947, and the total financial damage is estimated to be several hundreds of millions of pounds. These catastrophic climatic changes confirm what many have suspected – that the greenhouse effect is not a bogey of the future and that it is a phenomenon that is affecting us here and now. All the present indications are that this first decade of the 21st century will be a decade of natural disasters, of human misery and destruction of our basic infrastructure that we all need to make life liveable. What is galling is that it is our current activity and way of life – human profligacy – that is primarily responsible for the

climate getting hotter and the vast and unpredictable changes occurring in our planet's atmosphere.

A deal on greenhouse gases is essential if humanity is to be able to cope with the problems of global warming. The rise in sea levels, droughts leading to water shortages, the drying up of fresh water supplies, aquifers becoming saline, the destruction of flood and coastal defences, soil degradation, vast tracts of land turning into deserts, floods and windstorms... all pose severe challenges to civil engineering and the construction industry. But the sad truth is that when things go bad, they always seem to go bad for the little and poor peoples first. The scale of world-wide devastation is that developing economies will need to invest over \$200 billion per year for the next decade to regenerate and reconstruct their basic infrastructure – their roads and rail network, water and power utilities, sewerage systems, transportation, housing, telecommunications, etc. The 1999 UN Human Development Report, on the other hand, recalls how the world GDP is shared by the peoples of the world – The richest 20% take 86%, the middle 60% take 13% whilst the poorest 20% get 1%!

It is not just the effects of global warming that take its toll on humanity. Human conflicts create as much havoc and prolonged destruction of a nation's infrastructure. It is now estimated that the rebuilding of the railway network destroyed in the conflict in Bosnia Herzegovina, for example, will take so long that rail travel will be unknown for a whole generation of people in that country. Worse still, rail transport could simply cease to exist as a means of transport – bearing in mind that transportation based on fossil fuel burning is the major cause of environmental pollution! Refurbishment of damaged infrastructure needs a new approach to material technologies, design and construction, but it also needs money and the will to help, to change, and to care. Humanitarian crises often become invisible by reconstruction and rehabilitation – perhaps it also masks the failings of nations to share, to live together, and to be ONE WORLD.