Westminster diary

New Scientist vol 176 issue 2368 - 09 November 2002, page 55

Tam Dalyell on eco-friendly cement and Britain and India's joint committee on science and technology

I LIKE the idea that our concrete jungle could one day emulate the real thing (New Scientist, 13 July, p 38). John Harrison, a technologist from Hobart, Tasmania, says that if we were to make our cement based on magnesium carbonate rather than calcium carbonate it would soak up loads of carbon dioxide from the atmosphere and help to reduce climate change without sacrificing modern living standards.

Environment minister Michael Meacher is forever looking for new ways to reduce atmospheric carbon. When I asked him what he thought about Harrison's idea, he said that any novel technology that both reduces the carbon emitted in cement manufacture and absorbs carbon during its lifetime is worth serious investigation. But neither he nor his advisers has direct knowledge or experience of magnesium cement, possibly because the minerals required to make it, such as dolomite and magnesite, are not readily available in Britain on the scale that would be required.

The widely available chalk and limestone are what makes traditional cement a viable, low-cost option. Moreover, technologies for manufacturing it are proven and its strength and durability are the result of investment in research over the past 180 years, said Meacher.

Magnesium cement is unproven and the crucial question is the extent to which carbonation will affect the performance of the concrete over time. Roughly half the concrete used in Britain is steel reinforced, and deep carbonation could cause the steel to rust, with drastic consequences.

The problem, Harrison admits, is in convincing the building industry to change its traditional practices and to adopt his idea for an eco-friendly cement. In many ways it is an intensely conservative industry that tends to prefer what it knows. However Meacher said he is interested in low-energy, low-CO2 cements, and he has now asked his officials to follow up the issues raised by New Scientist's article, particularly magnesium cement's performance and durability, and the carbon sequestration claimed. His genuine concern about such matters accounts for the long time he's been in office.

DAVID KING, the government's chief scientific adviser, recently spelled out to MPs the importance of the UK/India High Level Joint Committee on Science and Technology. It could, he said, be of huge benefit to India's vast economy.

When I asked Jack Straw, the Foreign Secretary, about it, he endorsed this view. It is essential for Britain to maintain strong links with India in a wide range of science and technology, he said. The Foreign and Commonwealth Office is a principal member of the joint committee.

The FCO has created a network of science and technology officers at several of Britain's overseas missions, with the aim of improving coverage, influence and levels of cooperation in key countries. The intention is to expand the network, and Britain hopes to

augment it by adding a second secretary in New Delhi and a new, locally engaged officer in Bangalore, said Straw.

My parents worked in Bangalore in the late 1920s, when it was a sleepy, traditional town with a pleasant climate. Now it's a bustling metropolis, the centre of India's high-tech industry, servicing an increasing number of European firms. Bilateral trade between Britain and India reached nearly £5 billion in 2001. It would seem sensible for Britain to have an officer on the spot.

Tam Dalyell