

Testing the Water: **Innovation and the management of Britain's most precious resource**

By Professor Carolyn Roberts – Gresham College

In the final analysis there are few things absolutely essential for life: food, water and shelter. Of these water is perhaps the most critical, in the sense that we feel the effect of withdrawal most quickly and, furthermore, food production itself relies on water supply. Unfortunately, in many parts of the World we are already close (and sometimes beyond) the sustainable levels of water use. Even in the UK, the dry South East can begin to suffer the effect of prolonged periods without rain. It seems likely that signs of water stress will increase both in the UK and world-wide as an ever larger human population demands more and better food.

In contrast, we may also suffer from the effects of too much water as severe flooding events seem likely to increase in the UK due to the effects of climate change.

So what do we do about these issues? Here the problem is often one of complexity: there are so many interlocking systems, regulations, and vested interests that almost all change becomes exceedingly difficult. An apparently sensible action in one place produces unforeseen adverse consequences somewhere else. Grow more food on upstream land - cutting down trees in the process - and more run-off causes both soil erosion, river silting and increases the chances of flooding downstream.

It may be unglamorous work, but untangling this network of interactions and establishing some form of large scale strategy for water management in the context of the myriad competing interests is one of the most essential tasks facing the UK and many other countries. Professor Carolyn Roberts outlined the complexities of the issues involved in her well illustrated public lecture.