

Is our atmosphere a commodity?

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This week is Climate Week but has anyone noticed? Events in Libya and Japan have quite rightly grabbed both the headlines and the inside pages of the media. Nevertheless, climate events have been running throughout the country to try and show that climate should still be high on the nation's agenda. 23 March, as well as being Budget Day in the UK, was also World Meteorological Day commemorating the founding of the World Meteorological Organisation in 1950. The theme this year is 'Climate for you'.

Certainly climate and climate change have become evermore a focus for debate and action over the last 60 years. 2010 was the warmest year on record with significant heat waves in Russia and further droughts in Africa. December 2010 was the coldest on record in the UK since records began with a mean temperature of -1.0°C compared with the normal average of $+4.2^{\circ}\text{C}$. At the same time 2010 was globally the wettest year on record with significant flooding events in Pakistan, China, several Latin American countries and Australia. What is happening? What, if anything, should we do about it? Are these events natural variations in the global climate or are climates changing on a global scale? How can we manage the impacts of weather and climate on society and the environment in a sustainable way?

First of all we need to stop taking the atmosphere for granted and appreciate all that it does for life on the planet. Without air to breathe we would all be dead within minutes! The atmosphere is a fundamental component of the Earth System and yet its economic and social value to society, as an essential resource, has always been taken for granted and yet the atmosphere is increasingly being exploited and commodified. The terms 'weather services', 'meteorological services' and 'climate services' have existed for some time as part of the commercial and public services offered by national and private meteorological providers. These services supply information about the state of the atmosphere (eg weather forecasts, climate prediction, weather and climate data sets, weather derivatives, weather insurance, etc).

The term 'atmospheric services' on the other hand, refers to the intrinsic set of natural goods and services that the atmosphere itself brings to life on Earth: from the quality of the air that we breathe; the protection provided by the ozone layer; the provision of fresh water via the hydrological cycle; the transmission of sound; the support of air transport; to the provision of natural global warming. Research at the University of Birmingham has identified in total 12 basic atmospheric services. The atmosphere is the most precious and valuable of all natural resources in the Earth System. The high valuation of these delicate atmospheric resources implies that the atmosphere should be treated as a global commons, and responsibility for its sustainable management should be shared equally amongst all of society. The atmosphere is fragile, tiny – like the varnish on a globe, and at a time of enhanced global warming it requires very careful management and protection. Indeed, a 'Law of the Atmosphere' may be required, especially at a time when there is rising interest in the possible future need for geo-engineering the climate on a global scale. We can no longer afford to take the atmosphere for granted. If we appreciate its beauty and value the seven billion of us on the planet will breathe more easily. The atmosphere is for you.

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