

# Correspondence

## Relative drop for farming emissions

The depiction of farming's greenhouse-gas footprint (estimated at 30.9% of total emissions) is derived from a 2007 report that used data from 2004 (*Nature* **479**, 279; 2011). But relative estimates of emissions from different sources have altered appreciably since then, largely because fossil-fuel usage and cement production for building have both escalated.

In 2000–07, carbon dioxide emissions due to land-use changes were 1.1 petagram carbon equivalents (Pg C) per year and emissions from fossil-fuel usage and cement production accounted for 7.6 Pg C per year (Y. Pan *et al. Science* **333**, 988–993; 2011). The contribution from land-use changes was therefore 12.6% of carbon dioxide emissions over this period. Emissions of methane, nitrous oxide and fluorine-containing gases were about 3.1 Pg C per year, so land-use changes contributed less than 10% of total greenhouse-gas emissions.

Carbon dioxide emissions from fossil-fuel burning and cement production went up to about 9.1 Pg C in 2010. Assuming that the emissions from land-use changes were the same as in 2000–07 and that the carbon-equivalent contributions of methane, nitrous oxide and fluorine-containing gases were the same as in 2004, land-use changes would have accounted for only about 8% of total emissions last year.

Although the increase in emissions from fossil-fuel usage and cement production is well documented, estimates of emissions from land-use changes remain uncertain. But they are unlikely to be as high as the earlier data might indicate.

**Hans Martin Seip** *Center for International Climate and Environmental Research — Oslo (CICERO);*

*University of Oslo, Norway.  
h.m.seip@kjemi.uio.no*

## Europe needs research networks

A new European science-policy body, ScienceEurope, was launched in October to give a stronger voice in Brussels to the major national research-funding agencies. Likely casualties of this effort include some of the most successful activities of the venerated European Science Foundation, causing major concern among many scientists.

For example, the future of the Research Networking Programmes is under threat. These have been fostering cost-effective collaborations and networking between scientists from European countries in all fields for almost 20 years.

Ninety such programmes are currently in operation. They rely on minimal bureaucracy, simple rules and very modest funding — €80,000 (US\$107,000) per year and per network on average (covered by participating member organizations). This combination allows them to react swiftly to new scientific challenges.

Our Research Networking Programmes in electronic-structure theory and molecular simulation, for example, have made Europe a leader in computational materials and molecular sciences, thanks to the sustained support of the European Science Foundation.

It is not clear whether ScienceEurope, or the European Commission's Horizon 2020 programme, will make a long-term commitment to research networks. However, we consider it of utmost importance that this type of funding instrument should survive, along with its nimble and flexible administration.

**Peter Dederichs** *\*Psi-k Research Networking Programme and Jülich Research Centre, Germany.  
p.h.dederichs@fz-juelich.de  
\*On behalf of 4 co-signatories  
(see go.nature.com/xsbeig).*

## Lemaître did stake a claim on discovery

In a brilliant piece of detective work, Mario Livio clarifies the mysterious differences between Georges Lemaître's original 1927 paper, which announced the expansion of the Universe, and its 1931 translation from French into English (*Nature* **479**, 171–173; 2011). He suggests that “Lemaître was not at all obsessed with establishing priority for his original discovery.” However, Lemaître's important later paper, ‘Expansion de l’Univers’ (*Ann. d’Ap.* **13**, 344–345; 1950), argues otherwise.

In that paper, Lemaître writes (translated from the French): “The title of my note leaves no doubt about my intentions: a Universe of constant mass and growing radius accounts for the radial velocities of the extra-galactic nebulae.”

**Sidney van den Bergh**  *Dominion Astrophysical Observatory, Herzberg Institute of Astrophysics, Victoria, British Columbia, Canada.  
sidney.vandenbergh@nrc-cnrc.gc.ca*

## Overcome India's GM crops prejudice

India's agricultural productivity is not keeping pace with its population, despite its growing economy. Advances in transgenic technology could alleviate the situation, but there is strident opposition in the nation to genetically modified (GM) crops from non-governmental organizations and from spiritual gurus, in the name of tradition, biodiversity and other ill-founded concerns.

Millions of people worldwide have been consuming GM maize (known as *Bt* corn) over the past decade, and no authenticated health issues have arisen. *Bt*-transformed plants reduce pesticide application so are suitable for organic farming. GM rice that provides a balance of protein and micronutrients would vastly improve the health

of millions of children.

The biodiversity argument doesn't stand up either: random transfer of engineered genes to a non-target plant is likely to be harmless if the genes are well tested, given that genes are constantly shuffled on an evolutionary scale anyway.

Embargos from the Indian government and the courts have destroyed the efforts of researchers here to improve the productivity of crops outside the agendas of multinational corporations.

No single technology can solve all the problems, but a combination of transgenic technology, organic farming, marker-assisted breeding and traditional practices would markedly improve crop yields. India cannot afford to lose even one of these technology options.

**Govindarajan Padmanaban** *Indian Institute of Science, Bangalore, India.  
geepee@biochem.iisc.ernet.in*

## Social norms depend on what is typical

I agree with Laurent Mottron that autism should be described as a variant within the human species (*Nature* **479**, 33; 2011). But it is worth pointing out that neurotypical modes of social conduct prevail only because the neurotypical population far outnumbers the autistic one.

I have friends in the high-IQ society Mensa who are also autistic: we have our own set of non-verbal communications, our own set of social rules. When we predominate in a group, we communicate in the autistic way, and (neurotypical) people who cannot communicate in this way are unable to join in. In this setting, Mottron's ‘normocentrism’ would put our way of communicating as the norm, and class those who are left out as socially inept.

**Jasper van Haasteren** *Groningen, the Netherlands.  
jasper.vanhaasteren@mensa.nl*