Correspondence

Nature-based solutions in an era of mega-fires

Spain is being devastated by wildfires during record-breaking heatwaves in Europe (see go.nature.com/3c9boz8). There is an increasingly urgent need for scientists, local stakeholders and policymakers to use holistic management to implement nature-based solutions (see go.nature.com/3nwhewp).

Scientists perceive wildfires as a fundamental ecological process, rather than just a public threat. Management has so far focused more on suppression than on prevention, which has paradoxically helped to increase the flammability of our landscapes owing to the accumulation of fuel. We need to move to preventive, sustainable solutions that acknowledge the role of fire in ecosystems, the needs of various land-management sectors and the importance of local knowledge accumulated over millennia.

The trade-offs from revamped agricultural, renewable-energy and climate-smart policies are hard to predict (see, for example, V. Hermoso *et al. Glob. Chang. Biol.* **27**, 3001–3003; 2021). However, synergies and co-benefits can arise from the use of competing policies (see F. Moreira and G. Pe'er *Science* **359**, 1001; 2018).

The Green New Deal — a global, holistic approach to climate action — offers an opportunity to incorporate open-handed, conciliatory and inclusive management into 'firesmart' solutions in this era of mega-fires.

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Himalayas: create an international peace park

After the successful protection of Himalayan areas on the border of China and Nepal, we propose that the two nations should create the world's highest international peace park by combining the Qomolangma and Sagarmatha national parks. This would align with United Nations Sustainable Development Goal 17, to achieve sustainable development through international cooperation (see go.nature.com/3ixmini).

The park could be modelled on the Waterton Glacier International Peace Park, established by the United States and Canada to preserve a contiguous glacial landform and wildlife habitat. Qomolangma and Sagarmatha already share Mount Everest, with the authorities collaborating to protect its unique, fragile and irreversible ecosystem (see J. Li *et al. Ecol. Indic.* **126**, 107658; 2021). For example, a new cross-border hiking loop connects Namche Bazaar with Zhêntang, Gama Valley and Rongxar.

This park would offer a destination for ecotourists to enjoy outstanding omnidirectional scenery. Transboundary conservation efforts would also boost protection of biodiversity and safeguard habitats against climate change. Joint administrative cooperation would ensure sustainable socio-economic development.

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Radiocarbon dating: going back in time

The fraction of radioactive carbon-14 (denoted as $^{14}C/C$) in atmospheric carbon dioxide increased after nuclear-bomb testing produced excess ^{14}C in the 1950s and 1960s, but is now falling below pre-industrial levels (see, for example, go.nature.com/3d96k8a). The ongoing decline is due mainly to increased fossil-fuel emissions, which contain carbon but no ^{14}C. This has consequences for radiocarbon dating.

Radiocarbon dating in archaeology, for example, is based on the decay of ^{14}C over time. A low value for $^{14}C/C$ in recently formed materials could therefore incorrectly imply that these are aged. Conversely, in fields such as forensics and forgery detection, recently formed materials will no longer be easily identifiable by having a raised $^{14}C/C$ ratio.

The decline in atmospheric $^{14}C/C$ will stop if fossil-fuel burning is phased out to limit global warming. But with emissions still rising (see go.nature.com/3nu2qmr), atmospheric $^{14}C/C$ could drop to levels that mimic those in the Middle Ages by 2050 (H. D. Graven *Proc. Natl Acad. Sci. USA* **112**, 9542–9545; 2015).

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