

Correspondence

Turning point for Europe's switch to low carbon

The European Scientific Advisory Board on Climate Change (see go.nature.com/3ysjtpq) has released a report on the responses of European Union nations over the past year to the energy crisis caused by Russia's severance of energy exports in retaliation for Western sanctions over the war in Ukraine. The report recommends addressing rocketing energy prices through a combination of energy-saving measures and the accelerated deployment of renewables (see go.nature.com/3yqkj6m).

The report, on which we are authors, finds that policy interventions such as price caps, tax cuts, fossil-fuel energy subsidies and investment in the liquefaction of natural gas could hinder the achievement of the EU's long-term climate goal of reaching carbon neutrality by 2050. Moreover, they could further increase market prices by stimulating demand for energy. Instead, the EU and its member states should directly recompense people in need without interfering with price signals, and should refrain from investing in new fossil-fuel infrastructure.

The drop in Russian energy supplies therefore presents an important opportunity to hasten the EU's transition towards the low-carbon energy goals outlined in the European Climate Law (see go.nature.com/3st1ghe).

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When legislation to protect wildlife becomes a problem

Most legislation to protect wildlife currently focuses on prohibiting deliberate destruction and excessive exploitation of resources. However, that approach fails to address emerging threats such as climate change. Many species will go extinct long before emissions-reduction schemes are realized.

Consider an alpine mammal whose habitat is disappearing because of global warming, or a rainforest frog imperilled by invasive chytrid fungi. For them, legislation that prohibits trading or commercially motivated habitat destruction is of peripheral value at best. Instead, we need to rapidly lessen the impact of ongoing damaging processes at a local level – for example, by helping a rare native species to coexist with a new invasive threat (see G. Ward-Fear *et al. Biol. Lett.* **12**, 20150863; 2016). Scientific research is crucial for managing such threats.

Unfortunately, securing wildlife permits to conduct such research can take months or years, even after approval by ethics committees, because of excessive prohibition-based bureaucracy. We suggest that urgent applications with no negative impact on a species' conservation status should be fast-tracked. Evaluating species that are at high risk would be made easier by eliminating the futile workload allocated to abundant species.

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Arctic science: resuming action without Russia

Russia's undisputed scientific expertise in circumpolar Arctic regions has been crucial in helping to mitigate climate change (G. Rees *et al. Nature* **613**, 243; 2023). Many countries have suspended academic ties with Russia after its invasion of Ukraine, so it is imperative for our understanding of pan-Arctic science that we strengthen collaborations between the other Arctic nations and between scientists from non-Russian institutions who have expertise in the Russian Arctic. The Arctic Council (see go.nature.com/3m2q63c) should take the lead in promoting and overseeing these initiatives.

In the absence of Russian scientists' contributions, field research is currently limited to non-Russian parts of the Arctic. The development and deployment of other options for advancing Arctic science must therefore be accelerated. For example, microwave remote sensing provides largely untapped opportunities to continuously monitor important controls on atmospheric carbon fluxes over the long, dark winter months and through clouds, rain or smoke. Rigorous assessment of vast Arctic regions inside Russia will depend on improved predictive skills of terrestrial biosphere models.

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Indoor pollution: avoid harmful control measures

In their discussion on indoor air pollution and its effect on health, Alastair Lewis and his colleagues promote ventilation and air filtering as correction measures (*Nature* **614**, 220–223; 2023). But these alone are not the answer: a more holistic approach to managing indoor air quality is needed.

The correct relative humidity of indoor air is essential. For example, very high or very low humidity can make respiratory viruses more transmissible and increase people's susceptibility to infections (A. Davidse and R. N. Zare *Mol. Front. J.* **5**, 5–16; 2021). And limiting outdoor light reduces exposure to near-infrared wavelengths, which could disrupt the balance of reactive oxygen species that help to protect our cells against pathogens (S. Zimmerman *J. Infect. Dis. Epidemiol.* **6**, 134; 2020).

Moreover, we need to ensure that measures intended to correct indoor air pollution do not themselves adversely affect the health of a building's occupants. Excessive ventilation combined with heating in winter will lower the air's relative humidity and dry occupants' nasal mucosal membranes, increasing susceptibility to airborne pathogens, for example. And breathing sterilized air for long periods could affect resistance to bacteria or viruses encountered externally.

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