

# For peat's sake, stop

BARCELONA

The world's wetlands are big sources of greenhouse gases

**B**OGS, mires, marshes, swamps, fens and quagmires—whatever they are called, and wherever they are found, peaty wetlands emit about 1.3 billion tonnes of CO<sub>2</sub> a year as a result of human activity that drains them and thus exposes them to the oxidative effect of the atmosphere. Nor does this figure include the effect of fire on dried-up bogs. That can double the amount of CO<sub>2</sub> released in a year, in those places it affects.

That, at least, is the conclusion of a report published by Wetlands International, a lobby group, at the United Nations Framework Convention on Climate Change meeting being held in Barcelona this week. Hans Joosten of the University of Greifswald, in Germany, who is one of the report's authors, said that although drained peat occupies a mere 0.3% of the world's land surface, it is responsible, in total, for 6% of man-made CO<sub>2</sub> emissions.

The report also apportions blame. Top of the list, by a long way, is Indonesia—which emits 500m tonnes of CO<sub>2</sub> a year, not including the consequences of fire. But richer countries are guilty, too. The next culprit is Russia, followed by China, America and Finland (see chart).

The report's findings, raising the profile of peat, contrast with the conclusions of a paper on deforestation published this week in *Nature Geoscience*. This suggests the volume of emissions caused by cutting down trees may not be as great as is generally believed.

The conventional figure is that tree-felling causes 20% of man-made CO<sub>2</sub> emissions. Guido van der Werf of the Free University of Amsterdam, who wrote the paper, reckons the figure is closer to 12%. There is probably some double-counting in the two sets of figures, because many peat bogs are found

in forests, and are thus drained as those forests are cleared. Nevertheless, the coincident publication of these studies suggests a change of emphasis may be needed, and that efforts should be made to preserve not just forests, but also bogs.

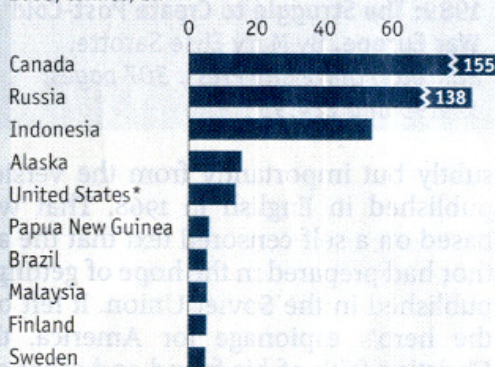
One approach might be to encourage uses of marshland that do not desiccate the peat—for example, growing moisture-loving rubber trees rather than oil palms, which need dry soils. Another might be to pay for the "reletting" of abandoned land. Controlling fires is also important. Indeed, a recent report for the Indonesian government by McKinsey, a consultancy, suggests that a combination of avoiding the further deforestation of non-converted marshes, better water management, reletting dried peat and fire control might reduce the amount of CO<sub>2</sub> emitted from the country's peatlands by 900m tonnes a year out of a total—fire-damage and all—of 1.5 billion tonnes.

Wetlands enthusiasts are thus calling for the climate-change convention that will, with luck, be agreed in Copenhagen next month to include financial incentives either to avoid the drainage of marshes in the first place or to rewet them. Such incentives are not, at present, proposed. Time is short and negotiators are currently trying to shrink the text of the agreement, not add to it.

Should the politicians fail, however, it would leave a door open for the private sector. Many individuals and companies choose to ameliorate their CO<sub>2</sub> emissions on a voluntary basis, using so-called carbon offsets. The leading provider of standards for such offsets, the Voluntary Carbon Standard, based in Washington, DC, is, even now, considering new rules to bring peatland reletting and conservation projects within its ambit.

## Bogged down

Peat carbon stock  
2008, tonnes, bn



Source: Wetlands International

Emissions from degrading peat, carbon dioxide  
2008, tonnes, m<sup>1</sup>



\*Excluding Alaska and Hawaii. †Excluding losses caused by fire