major smoke emergencies. All data should be freely shared among team members and scientists from the host countries.

The TOMS (Total Ozone Mapping Spectrometer) satellite instrument can reliably detect the presence of smoke over land[10]. Optical depth measurements of smoke in biomass burning regions can provide important calibration data for this instrument.

The close association of upper respiratory diseases with optical depth in Alta Floresta and the API in Sarawak suggest the possibility of using TOMS as an epidemiological tool to identify regions that might have smoke-related respiratory disease.

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Progress on bioethics blocked in Japan

Sir — Although I might agree with your opinion that "Japan's bioethics debate lags behind thinking in the West" (*Nature* **389,** 661; 1997), it is misleading to say that "Japan's cultural and religious background" or a "lack of understanding" account for this state of affairs.

What is really blocking progress in bioethics-related issues in Japan is, first, the inability of the medical profession to govern itself and, second, deficiencies in Japan's approach to setting regulatory standards for research involving human subjects.

On the first point, any debate about bioethics is futile if medical practitioners and researchers are not subject to peer scrutiny and professional sanctions. In most countries, this is guaranteed by professional bodies with obligatory membership, similar to the General Medical Council in Britain or the German Ärztekammer. But there is no such organization in Japan.

The absence of a self-governing professional body and the subsequent lack of binding guidelines have created public distrust of the medical profession in Japan. Although the Japan Obstetrics Society has issued guidelines to regulate reproductive technologies, these guidelines are regarded merely as 'opinions' and do not carry authority. This is the most noticeable difference between Japan and the West where bioethics is concerned.

On the second point, the principles governing human experimentation set out in the Nuremberg Code and the Declaration of Helsinki are generally regarded as the basis of contemporary medical ethics and bioethics, and national regulation should endorse these principles.

In Japan, only clinical trials of new drugs are subject to regulation based on these principles. Other medical procedures still at an experimental stage are often carried out as 'treatment' — not as clinical trials — and are therefore not subject to appropriate regulation. This situation is more problematical even than individual technologies such as organ transplants.

The task in Japan is organizational and political and has nothing to do with alleged Japanese cultural uniqueness or persisting public misunderstandings.

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