

INDIA has forced her way out of the exclusive smallpox club. From June 30, there was not a single indigenous case of smallpox in the country, according to figures received from the field from all sources including the World Health Organisation (WHO). This has been hailed as a remarkable feat. Only last year, nearly 200,000 cases with more than 30,000 deaths were reported from all over the country. Six states—Bihar, Uttar Pradesh, West Bengal, Assam, Orissa and Madhya Pradesh—accounted for nearly 99% of the cases, with Bihar leading them all with a staggering 68% of the total.

Starting in October 1973, concerted and intensive efforts were undertaken jointly by the government of India, the state governments, and the WHO to tackle the disease. Health workers literally visited each and every village in the endemic areas to inquire about smallpox cases, and as a result of hard and dedicated work, in less than two years, the disease has been wiped out.

Congratulating the workers and agencies whose efforts made this achievement possible the Union Health Minister, Dr Karan Singh, also announced that the vaccination programme would be continued for another two years to ensure against recurrence of the disease. Unfortunately, smallpox has not yet been controlled completely in neighbouring Bangladesh and there is always the danger of its importation from across the border. The government, Dr Karan Singh emphasised, was well aware of this and had already stepped up vigilance arrangements on the border with Bangladesh, so that no smallpox cases entered the country undetected. India is self-sufficient in the production of the preventative smallpox vaccine and has already donated 275,000 ampoules to Bangladesh; more will be made avail-

able to that country, if necessary.

Meanwhile, the Health Minister also announced that the award for reporting of any fresh incidence of smallpox from July 1, 1975 would be Rs.1,000—ten times what it used to be.

● India's first satellite, Aryabhata, has been orbiting the Earth for over three months now. The data being received indicate that all systems and instru-

into the experimental packages for several reasons. The principal one was that the experiments were only a secondary objective of the Aryabhata mission. The primary aim was to establish satellite fabrication capability and to see if the various systems and components aboard functioned and performed as planned.

Indian space scientists have not given up all hope yet; they are planning to turn on the experiments again, hoping that the fault—possibly due to some stuck relay which prevents power flow in one of the lines—may have corrected itself. They do admit, however, that chances of this happening are rather slim. In the meantime, studies will continue unabated to determine the exact cause of the failure.

As if to counter this hitch, there has been an unexpectedly happy development too. The operational life of Aryabhata was originally estimated to be about six months. That was how long the inert gas supply on board (used in the satellite's stabilisation mechanism) was expected to last. But fresh calculations, based on actual data being received, show that the gas supply would last much longer, possibly more than 18 months. This will give scientists extra time in which to determine and, if possible, correct the fault and revive the experiments.

Encouraged by the success of the first attempt, the Indian Space Research Organisation has already signed an agreement with the Soviet Union to launch India's second satellite, Aryabhata-2, in 1977-78. The second satellite is expected to be a lot more sophisticated and it will carry television camera systems to survey mineral deposits and agricultural crops, among other things. The flight model for Aryabhata-2 will actually be a modified version of the back-up model of the one now in orbit.

Indian diary

from Narendar K. Sehgal

ments of the satellite are healthy and functioning normally. The three scientific experiments on board had to be switched off, however, after the first five days, following detection of a fault in one of the four lines delivering power to the experimental packages.

Scientists at the Indian Scientific Satellite Project at Peenya (near Bangalore) say they have good data from two of the three experiments—the one looking for X rays in space and the other aimed at detecting high-energy neutrons and gamma rays at times of intense solar activity—received during the first five days, but none from the aeronomy experiment which was to look for electrons in the ionosphere and ultraviolet radiation in the night sky.

As soon as the fault was detected, all scientific experiments were turned off for fear that the trouble might spread to the remaining three power lines as well. Using simulation techniques, the scientists have been working overtime to determine and pinpoint exactly what went wrong. So far, they have not succeeded. Redundant instrument capacity was not built

and capabilities of countries sending students to Britain in the interim which are likely to ensure a milder response to the Vice-Chancellors' proposal.

Ten years ago the majority of overseas students came from relatively poor countries which were in no position to provide postgraduate education themselves and the facilities provided in Britain were seen as a relatively inexpensive form of aid. But these days, says the study group, many students come from countries which in terms of national income per head of population are better off than we are, and it is clearly arguable that in these cases the fee payable should be at least a significant proportion of the cost of providing the course.

The fee would not have to be so high that it was out of proportion with similar charges in Western Europe or the US (which would leave plenty of leeway with MIT charges running at \$4,000 to \$5,000 a year), and the needs of the countries which are still underdeveloped could be met by a system of postgraduate scholarships, continuing the notion of offering development aid in the form of education. Even so, the first effect of any increase in charges would almost certainly be a fall in the number of overseas students arriving in Britain.

The universities want to keep the door open to foreign students not only because of the idea of a world academic community, visiting and returning visits internationally, but also

because there is a theory that scientists and technologists trained in Britain will one day be ordering British goods when they're sitting at the biggest desk in the headquarters of the Zambian State Uranium Corporation, or Burundi Rubber. An unfortunate flaw in the theory is that British industry doesn't seem to recognise the value of postgraduate education, with the result that in certain fields it doesn't achieve the sophistication which can be managed by countries (like Germany) which automatically look for masters degrees and doctorates in recruits to their engineering industries. A member of the Vice-Chancellors' group confessed, privately, that at CERN, for example, British loyalists were wringing their