

The
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Sanitation in India

The final frontier

Fixing dreadful sanitation in India requires not just building lavatories but also changing habits

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CHEER any Indian leader who takes on the taboo of public hygiene, one of the country's great problems. Narendra Modi, India's prime minister, says building toilets is a priority over temples. His finance minister, Arun Jaitley, used this month's budget to set a goal of ending defecating in the open by 2019. That will be 150 years since the birth of Mohandas Gandhi, who said good sanitation was more important than independence.



Ending open defecation would bring immense benefits. Some 130m households lack toilets. More than 72% of rural people relieve themselves behind bushes, in fields or by roadsides. The share is barely shrinking. Of the 1 billion people in the world who have no toilet, India accounts for nearly 600m.

The costs are high. Public safety is one underappreciated problem, as young women have to leave their rural homes after dark. In May two teenage girls in Uttar Pradesh visiting a field used as a communal toilet were raped, murdered and strung up from a tree. That case won notoriety for its extreme barbarity, but similar attacks are distressingly common.

A broader matter is public health. Open defecation is disastrous when practised by groups in close contact with each other. Because India's population is huge, growing rapidly and densely settled, it is impossible even in rural areas to keep human faeces from crops, wells, food and children's hands. Ingested bacteria and worms spread diseases, especially of the intestine. They cause enteropathy, a chronic illness that prevents the body from absorbing calories and nutrients. That helps to explain

why, in spite of rising incomes and better diets, rates of child malnourishment in India do not improve faster. Unicef, the UN's agency for children, estimates that nearly one-half of Indian children remain malnourished.

Hundreds of thousands of them die from preventable conditions each year, especially in the north, which has most of the open defecation (see map). Faeces in groundwater spread diseases such as encephalitis, an annual post-monsoon scourge in eastern Uttar Pradesh. Diarrhoea leaves Indians' bodies smaller on average than those of people in poorer countries where people eat fewer calories, notably in Africa. Underweight mothers produce stunted babies prone to sickness who may fail to develop to their full cognitive potential. Dean Spears, a Delhi-based economist, says the costs of all this, in incomes and taxes forfeited, are far greater than the price of fixing it.

How to do so? India fares worse on sanitation than a host of poorer places including Afghanistan, Burundi and Congo, partly because too many of its leaders are too squeamish to face up to the issue. Thankfully, that appears now to be changing. The government, gung-ho for infrastructure, has just said it will build 5.2m toilets by September, or one every second.

Pouring concrete will not in itself solve India's problems. Leaders need also to confront the cultural reasons for bad sanitation. Hindu tradition, seen for example in the "Laws of Manu", a Hindu text some 2,000 years old, encourages defecation in the open, far from home, to avoid ritual impurity. Caste division is another factor, as by tradition it was only the lowliest in society, "untouchables" (now *Dalits*), who cleared human waste. Many people, notably in the Hindu-dominated Gangetic plains, today still show a preference for going in the open—even if they have latrines at home.

Evidence is growing that India must urgently correct its cultural practices, though it is sensitive to say so. Studies of India's population show how since at least the 1960s child mortality rates have consistently been higher in Hindu families than Muslim ones—though Muslims typically are poorer, less educated and have less access to clean water. Today, out of every 100 children, 1.7 more Muslim than Hindu ones survive to five years, a big gap.

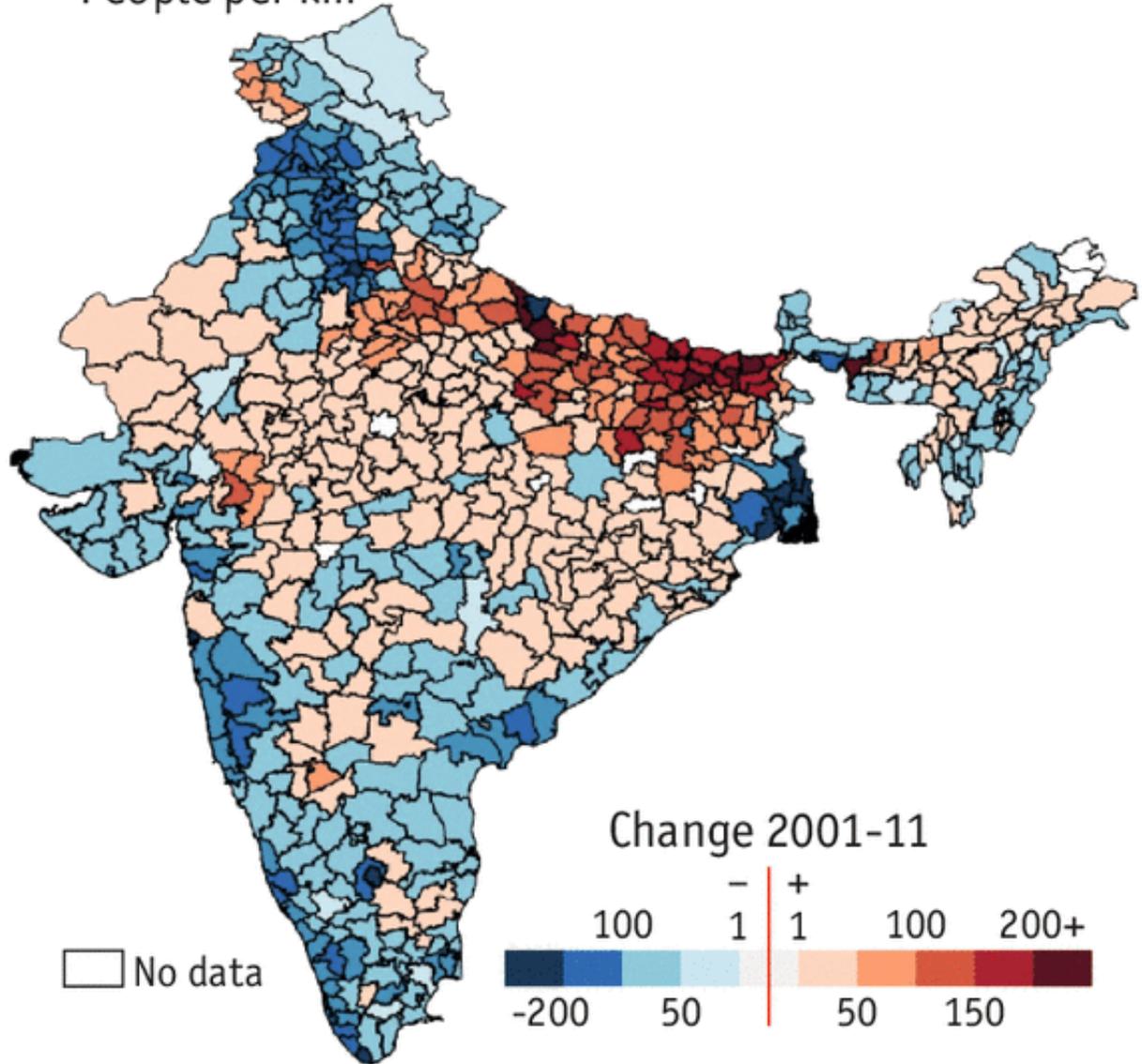
Mr Spears and his colleagues argue that this can be explained only by differences in sanitation habits. A 2005 government survey, the most recent national one, found that 67% of all Hindu households, rural and urban, practised open defecation, compared with just 42% of Muslim ones. (In rare places where there is more open defecation among Muslims than Hindus, the mortality gap is reversed.)

A new household survey of nearly 23,000 north Indians offers more evidence, especially from

Hindu

Defecating in the open

People per km²



Source: Rice Institute

households. Led by Diane Coffey, an economist at Princeton, it found that even among households with a working latrine, more than 40% reported that at least one family member preferred to defecate in the open. Those with a government-built toilet were especially likely to choose a bush instead.

In an unpublished parallel survey of Hindu-dominated villages in north India and Nepal, respondents lauded open defecation as wholesome, healthy and social. By contrast, latrines were seen as potentially impure, especially if near the home. Men often described them as for use only by

women, the infirm and the elderly. In short, demand for latrines is constrained.

This suggests that the mere availability of government-built latrines will not end open defecation for decades yet. What is needed instead are public campaigns, in schools and in the media, to explain the health and economic benefits of using toilets and of better hygiene. Researchers found that only a quarter of rural householders understood that washing hands helps prevent diarrhoea.

Such campaigns not only mean government-built latrines have a better chance of being used; they would also encourage households to build them for themselves. Precisely how to raise awareness about a touchy subject is not clear, but some at least are trying. A catchy animated music video put out by Unicef urges Indians to “take the poo to the loo”. The intention is right, even if the dancing turds will not immediately be to everyone’s taste.

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