The next time you open a can of soft drink, consider where the water inside it came from. The H20 in an Indian can of Coca-Cola includes treated rainwater, while the contents in the Maldives may once have been seawater. The water needs to come from such different sources for a reason – it’s because there is a global freshwater crisis.

Given that 70% of the Earth’s surface is water, and that volume remains constant (at 1,386,000,000 cubic kilometres), how is a water shortage even possible? Well, 97.5% is seawater unfit for human consumption. And both populations and temperatures are ever-rising, meaning that the freshwater we do have is under severe pressure.

Water demand globally is projected to increase [**by 55% between 2000 and 2050**](http://www.globalwaterforum.org/2012/05/21/water-outlook-to-2050-the-oecd-calls-for-early-and-strategic-action/). Much of the demand is driven by agriculture, which accounts for [**70% of global freshwater**](http://www.fao.org/nr/water/aquastat/water_use/index.stm) use, and food production will need to grow [**by 69% by 2035**](http://www.wri.org/blog/2016/06/future-fresh-water) to feed the growing population. Water withdrawal for energy, used for cooling power stations, is also expected to increase by over 20%. In other words, the near future presents one big freshwater drain after the next.

What’s more? Right now, according to [**a Nasa-led study**](http://onlinelibrary.wiley.com/doi/10.1002/2015WR017349/full), many of the world’s freshwater sources are being drained faster than they are being replenished.

Of the world’s major aquifers (gravel and sand-filled underground reservoirs), 21 out of 37 are receding, from India and China to the United States and France. The Ganges Basin in India is depleting, due to population and irrigation demands, by an estimated 6.31 centimetres every year. Jay Famiglietti, senior water scientist at Nasa, [**has warned**](https://www.washingtonpost.com/news/wonk/wp/2015/06/16/new-nasa-studies-show-how-the-world-is-running-out-of-water/) that “the water table is dropping all over the world. There’s not an infinite supply of water.”

Meanwhile, Mexico City, built on ancient lake beds, is now sinking in some areas at a rate of nine inches a year. As the city draws on the aquifer below, the effect is like drinking a milkshake through a straw. Once horizontal streets now undulate like BMX tracks. The city imports 40% of its water, and Ramón Aguirre Díaz, director of the Water System of Mexico City, [**has blamed**](https://www.nytimes.com/interactive/2017/02/17/world/americas/mexico-city-sinking.html?_r=2) “heavier, more intense rains, which mean more floods, but also more and longer droughts.”

Much of the same is happening in California. From 2011 to 2016, the state suffered its worst drought in 1,200 years. Its major aquifers receded at a combined rate of 16 million acre-feet per year, and [**roughly 1,900 wells ran dry**](http://www.latimes.com/local/lanow/la-me-ln-drought-hearing-20150512-story.html). Then, in the first three months of 2017, rain fell at 228% more than its normal level, thanks to climate change, [**scientists say**](http://news.mit.edu/2017/more-extreme-storms-ahead-california-0103). Lake Oroville in the northern part of the state swung from being at 41% of capacity [**to 101% in just two months**](http://www.latimes.com/local/lanow/la-me-ln-oroville-earthquake-20170302-story.html), causing dams to be overwhelmed and 188,000 local residents to be evacuated.

Yet even when a drought ends as spectacularly as California’s, the aquifers below aren’t suddenly refilled. According [**to Nasa’s Famiglietti**](http://www.latimes.com/opinion/op-ed/la-oe-famiglietti-chronic-water-scarcity-20160417-story.html), it would take four years of above-average rainfall in California for that to happen. And even then, “California will still be losing water [because the] state simply does not have enough water to do all the things that it wants to do.”

But what else could all this mean, beyond the fact that our freshwater supply could soon be very strapped?

Some hypothesise that increased water shortages around the world will lead to wars. The current Syrian civil war has been cited by many, including Dr Peter Engelke, senior Fellow at Washington-based think tank Atlantic Council, as a recent example. “Between 2007 and 2010, Syria experienced one of the worst droughts in recorded history, the effect of which was to decimate rural communities and drive hundreds of thousands off the land and into Syria’s cities, where they were marginalised," he says.

Anders Berntell, executive director of 2030 Water Resources Group, a multi-sector water resources body, also suggests a link to Boko Haram and Al-Shabaab, whereby young people “realise that, as a result of the lack of natural resources, degraded land and lack of water there are no livelihood opportunities… There is no future for them. They become easily targeted.” They are more easily radicalised.

For example, Australia survived its “Millennium Drought” from 1997 to 2009 by rapidly implementing measures that [**halved business and residential water use**](https://www.scientificamerican.com/article/what-australia-can-teach-the-world-about-surviving-drought/).

“Australia is the gold standard," says Richard Damania, global lead economist in the World Bank's Water Practice, and formerly of the University of Adelaide. The key was putting a price on water and making it a tradable commodity.

“[Suppose] I had water, but I'm only growing wheat. Whereas you’re growing grapes or something of higher value [than wheat, but don't have water]" he explains. "Then I can sell you that water instead of irrigating my lower value crop. This way… Australia survived the Millennium Drought extraordinarily well.”

Another ‘gold standard’ is Israel, which views water availability as a national security issue.

By recycling effluent water, including household sewage, the Shafdan Wastewater Treatment Facility near Tel Aviv supplies [**approximately 140,000,000 cubic metres**](https://www.waterscarcitysolutions.org/new-effluent-treatment-and-aquifer-storage-for-agricultural-use/) of water per year for agricultural use, covering 50,000 acres of irrigated land. Over 40% of Israel’s agricultural water needs are now supplied by effluent water. The waste sludge is also sent to an anaerobic digestion plant, which uses the methane as a fuel to produce renewable energy.

“If Israel can do it," says Anders Berntell, executive director of 2030 Water Resources Group, a multi-sector water resources group, “a country located in a desert, it proves that with the right technology, economic resources and political determination, you can make it happen."

Even more mind-blowing? Israel’s water treatment systems recapture 86% of the water that goes down the drain – the next-best performer, Spain, recycles just 19%.

Israel is also a global leader in desalination – turning seawater into potable drinking water. Over half of Israel's drinking water [**now comes from desalination**](https://www.scientificamerican.com/article/israel-proves-the-desalination-era-is-here/).

So can the world simply desalinate its way out of the freshwater crisis? It’s unlikely, says Damiane: “On average it's about five to seven times more expensive. The energy footprint is huge, and you've got to do something with the salt. If you look at aerial images around the coasts of Kuwait and Dubai [areas that are highly reliant on desalination] you’ll see [**the havoc that is caused**](http://gulfnews.com/news/uae/environment/waste-dump-threatens-arabian-gulf-1.72058) to marine ecosystems.” Given the costs, both economic and ecologic, “it is only a boutique solution in very rich places”, he says.

Coca-Cola say it uses desalination at around 30 coastal plants. But Greg Koch, whose title at Coca-Cola is senior director of Global Water Stewardship, explains: “We don't see for us, nor for most places in the world, desalinisation as a solution… the capital costs are going to be higher than a treatment plant to treat freshwater.” One tactic the company uses is, where it uses desalination currently, dumping the brine out at sea via “pipes that take it away from nearshore areas".

A simpler and cheaper solution is rainwater capture. It’s an old idea whose time may have come: Beneath Istanbul, Turkey, [**the Basilica Cistern**](https://en.wikipedia.org/wiki/Basilica_Cistern) built by Caesar Justinian (A.D. 527 - 565) can hold 80,000 cubic metres of rainwater. One and a half millennia on, many cities are now emulating it.

Melbourne's largest [**stormwater harvesting tank**](http://urbanwater.melbourne.vic.gov.au/projects/water-capture-and-reuse/fitzroy-gardens-stormwater-harvesting-project/) can store four million litres of partially treated water. Authorities including Kerala, Bermuda and the US Virgin Islands require all new buildings to incorporate rainwater harvesting, while Singapore meets [**up to 30%**](http://www.straitstimes.com/singapore/environment/singapores-water-supply-where-does-it-come-from) of its water needs through rainwater capture.

Even in Manchester, England, where it rains [**on average 12 days every month**](https://www.yr.no/place/United_Kingdom/England/Manchester/statistics.html), efforts are being made to capture the rain.

Manchester Metropolitan University’s Birley Campus, built in 2014 to house some 6,500 students and staff, aims to be entirely water self-sufficient through rainwater capture, waste water recycling, and a borehole into the sandstone aquifer below.

Rainwater is collected in a 20,000 litre tank below the building and is used for showering and toilet flushing. John Hindley, the university’s assistant director of estates, explains: “This is about the sustainable use of resources. In October we had storms that led to a lot of flooding; the University was flooded in several different buildings. These [events] aren’t just one-offs anymore, so having more sustainable systems not just in consumption, but slowing down run-off, capturing it, taking pressure off the system… is becoming of increasing importance to the university and to businesses in the city.” The Birley Campus water bill is 60% lower than if using water from mains.

Due to cost pressures, business could be an even greater driver of water efficiency than governments. Anders Berntell believes that "many of the big multinational companies are way ahead of governments when it comes to understanding and acting on the challenges that we are facing.” At Coca-Cola, Koch agrees there is “a vested interest. We just opened a $100m (£79m) plant in Phnom Penh in Cambodia, a $60m (£48m) plant in Bangladesh – we want those plants to be there for decades and serve a contiguous marketplace, so we have to act." This has included installing the latest drip irrigation techniques in farms that share the same aquifers as Coca-Cola, irrespective of whether they are direct suppliers.

“In most places around the world the [agriculture] irrigation techniques are pretty inefficient," says Engelke. “Very efficient irrigation techniques do exist. Thermal power sources [nuclear, coal, natural gas] require vast amounts of water for cooling. Renewables for the most part – solar and wind – do not. It all has to do with policies to encourage, incentivise, and invest.”

“If we want to become water-efficient societies, there are ways in which we can do it," concludes Engelke. “Either through increasing the efficiency with which every drop of water is used, or simply shifting away from water-intensive uses altogether.”

Whichever effective model of conserving freshwater we come up with, we need to come up with one – and sooner rather than later.

**Wimbledon champion Angelique Kerber suffered a shock first-round defeat by world number 81 Anastasia Potapova at the French Open.**

The German fifth seed was broken six times on her way to a forgettable 6-4 6-2 defeat on Philippe Chatrier court.

The three-time Grand Slam champion has gone out at the first-round stage in Paris in three of the last four years.

Russian Potapova, playing in her first French Open, faces China's Wang Yafan or Czech Marketa Vondrousova next.

“If it weren’t for rats, I wouldn’t have had a job,” says Phil Merrill, head of the rat control programme in the Canadian province of Alberta. “I don’t like them, but I don’t hate them. I respect them. They’re adaptable little critters. And they’re challenging.”

In many ways brown rats, also known as Norway rats, are remarkable. They are [**fantastically prolific breeders**](https://animaldiversity.org/accounts/Rattus_norvegicus/), with quick gestation periods and big litters of babies. They eat almost anything – domestic rubbish, rotting meat, grain – and live everywhere people live. They can [**chew through metal**](https://www.earthkind.com/blog/what-surprising-things-can-a-rat-chew-through/), [**swim long distances**](https://acap.aq/es/latest-news/2104-half-a-kilometre-may-not-be-enough-how-far-can-rats-swim-to-reach-islands-deemed-suitable-for-the-reintroduction-of-burrowing-petrels), [**survive 50ft (15m) falls**](https://www.fws.gov/pacificislands/publications/Ratsfactsheet.pdf), [**emerge from your toilet**](https://www.bbc.com/news/magazine-36397505) and, it turns out, [**feel empathy**](https://www.uchicagomedicine.org/forefront/news/2011/december/helping-your-fellow-rat-rodents-show-empathy-driven-behavior).

Originally native to northern China, these rats have spread across every continent except Antarctica. As numerous other species decline, rats appear to be thriving – most obviously in our cities. They’re seen as [**one of the world’s most invasive species**](https://www.bbc.com/news/10100907), harming native wildlife populations, damaging property, contaminating foodstuffs and [**transmitting diseases**](https://www.cdc.gov/rodents/index.html).

They [**cost the US $19bn each year**](https://www.researchgate.net/publication/259640053_Environmental_and_Economic_Costs_of_Nonindigenous_Species_in_the_United_States), a sixth of the [**$120bn annual estimate**](https://link.springer.com/content/pdf/10.1007/3-7643-7380-6_17.pdf) for all invasive species. In 2017, New York’s mayor [**pledged $32m**](https://abc7ny.com/society/verminated-mayor-pledges-$32m-to-reduce-rat-population/2209106/) to tackle rats; in Mumbai, most vehicle fires are [**caused by rats.**](https://www.hindustantimes.com/mumbai-news/rats-make-your-car-a-potential-death-trap-more-prone-to-fires-shows-study/story-onfX3OHJ6FqOwjOF0Y4mlL.html) And while [**the urban myth that you’re never more than 6ft from a rat**](https://www.bbc.com/news/magazine-20716625) may not hold up, you’re probably not too far from one right now.

Except if you are in Alberta. Home to the cities of Calgary and Edmonton, and with a population of about 4.3m, Alberta is famous for oil, national parks and ice hockey. But it also has a lesser-known claim to fame: it’s the only part of the world with significant urban and rural populations that does not have a breeding rat problem.

So how did an area the size of Texas achieve a feat unparalleled anywhere in the world? Was it luck or the result of strategic genius? And what’s Alberta gained from keeping rats out?

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**‘Kill At Sight!’**

“We really have a geographical advantage,” says Merrill. “We started before we had rats – the rats came to our eastern border in about 1950 – and we said we don’t want rats, so we checked all the farms along the border where they were and poisoned them out. And we just don’t allow any more rats to come in.”

Geography certainly played a role – for a large area, there are few potential entry zones. Rats can’t survive the cold of the north or in the Rocky Mountains to the west. The southern border with Montana is mountainous and too sparsely populated for rats to spread.

That leaves defence of the eastern border. Rats arrived on the east coast of North America in the late 18th Century and slowly spread west, reaching neighbouring Saskatchewan in the 1920s.

“We’re not any smarter than Saskatchewan,” says Merrill. “The rats got to them about 30 years before us. The [provincial] governments at the time weren’t very developed – Saskatchewan wasn’t ready for them. By the time they hit our border, we had a department of health and a department of agriculture, and we had a system ready that we could actually do something.”

And they did. Rats were [**declared a pest in 1950**](https://www.alberta.ca/history-of-rat-control-in-alberta.aspx), making rat control mandatory. Poison was used to kill rats that had made it into Alberta and to treat buildings that might shelter them in a strip 300km long and 20-50km wide along the eastern border. A rat control zone was established (it remains in place today) and pest control officers (PCOs) appointed to police it.

In parallel, a public education drive began. Most Albertans had never seen a Norway rat, so the government launched a campaign to help residents distinguish them from native rodents, sending out thousands of posters.

“They’re very effective visually,” says Lianne McTavish, a professor of art history, design and visual culture at the University of Alberta, who [**examined themes running through the posters**](https://www.ncbi.nlm.nih.gov/pubmed/22145175). “They really focused on the tail… they wanted people to focus on the Norway rat, not other kinds.”

The posters, with emotive slogans like ‘Kill Rats At Sight!’ and ‘He’s A Menace To Health, Home, Industry!’, cast the rats as invaders and leaned heavily on war-time rhetoric, says McTavish. Another theme was good farmer, who kept a tidy homestead, versus bad farmer, who was sloppy and endangered his neighbours.

“At that time there were loads of campaigns – coyotes, grasshoppers – but the rat one, really people could get behind it and the government put money behind it and sustained it,” she says. “It was emotional too – ‘they are an invader, they are dangerous’. They could lobby people’s emotions and irrational fears with rats in a way they couldn’t with other things.”

**Rubbish dump detective**

In the 1950s, there were over 500 reported Norway rat infestations in the rat control zone each year, but a decade later that number had dropped significantly. By the 1970s, says Merrill, there were about 50 each year, then 10-20 in the 1990s. In 2003, for the first time, the number was zero.

Today, the zone is routinely inspected, and infestations are dealt with efficiently (between one and three annually is the norm). Farms closest to the border are checked twice a year and adjacent sites once. It sounds like a lot, says Merrill, but the modernisation of farming – more steel granaries, for example –  means rats have less access to food.

“We check feed lots, silage pits, wooden granaries,” says Merrill. “If we drive by a guy’s place and he’s got all steel granaries, we might stop and say hi, but it doesn’t take long. [The PCOs] can do 25-30 sites per day.”

Farmers are encouraged to maintain preventative bait stations, using warfarin, an anticoagulant. There are more efficient poisons, Merrill says, but warfarin has less impact on other wildlife due because it stays in the rat’s system for less time – it has a shorter biological half-life. (This makes it less likely that predators like hawks who eat rats will consume enough poison to be affected.)

When infestations occur, most people welcome help. “Some are a little reluctant – they have rats and they don’t want people to know – but most people just want to get rid of them,” he says. “We go back every week until we’ve cleaned it out.”

There’s also the job of investigating sightings that come in via a [**dedicated phone hotline**](https://www.cbc.ca/news/canada/edmonton/rat-hotline-encourages-rodent-reporting-in-alberta-1.2919975). Most are cases of mistaken identity – often [**native muskrats**](https://en.wikipedia.org/wiki/Muskrat) - but rats do come in.

The morning I met Merrill, a man had trapped a rat near Innisfail, west of the control zone. It was in a garage he shared with a neighbour who had just returned from British Columbia; the rat had hitched a ride in his vehicle. “That’s a common thing,” says Merrill. “We get about two each month that’s a confirmed rat.” His advice – put out another trap to check for a companion. “When rats come in singly, it’s not that big a deal.”

It’s not always that simple, however. Sometimes Merrill must turn detective, like at the rubbish dump in the city of Medicine Hat in August 2012. “We had 21 single rats in the farms around it and 18 in the city. We knew it meant an infestation, but we couldn’t find it. We went to the dump six times – dumps are really hard to find rats in because of garbage blowing everywhere. Finally one of the PCOs found them at night.”

The infestation made [**national headlines**](https://www.cbc.ca/news/canada/calgary/alberta-s-rat-free-claim-jeopardized-by-medicine-hat-rats-1.1151413) and even some [**international ones**](https://www.wsj.com/articles/SB10000872396390444023704577649542478244040) questioning Alberta’s rat-free status. By October it had been controlled and the nest destroyed. The body count, Merrill believes, was at least 300. As to the source, it’s thought the rats arrived in hay left in farm machinery that had been brought into Alberta for recycling.

**Counting the cost**

Merrill, 67, has been in pest control since 1970. He’s quick to point out changes that make his job easier, like more modern farm buildings and control work in Saskatchewan, where infestation rates are falling. There’s also support from each municipal area in Alberta, which designates one officer to help with rat control when needed.

The rat control programme itself costs less than C$500,000 (US$372,000) annually, covering salaries for Merrill, six rat control zone officers and bait. It seems like a wise investment; back in 2004, the [**Alberta Research Council (ARC) estimated**](https://www.ceaa.gc.ca/050/documents_staticpost/59540/82080/Appendix_E_-_Part_04.pdf) that the annual cost of having rats would be C$42.5m (US$31.6m).

*There’s no doubt in my mind that the programme saves millions and millions of dollars in rat control every year*

Its figures were partly based [**on a US study**](https://www.researchgate.net/publication/259640053_Environmental_and_Economic_Costs_of_Nonindigenous_Species_in_the_United_States) which assumed that each adult rat consumed or destroyed grain or other materials valued at US$15 per year. That included fires caused by rats gnawing at wiring, polluted foodstuffs and losses linked to disease. The ARC estimated that if each farm had 20 rats and each household one rat, then the rat population of Alberta would be 2.1m.

Larry Roy, who co-wrote the ARC report, says he thinks it was “a very good, believable estimate at that time”. Estimating the economic impact of invasive species like rats is difficult, he says, and getting more exact data would require costly survey work. “If you’re in the general magnitude area, then that’s quite reasonable,” he says. “There’s no doubt in my mind that the programme saves millions and millions of dollars in rat control every year.”

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Delinda Ryerson, executive director of the Alberta Invasive Species Council, believes the estimate “is within the ballpark but may be conservative”. It’s hard to put a value on, for example, the potential impact on native wildlife – like Alberta’s ground-nesting birds, whose eggs would be vulnerable to rats.

When it comes to health, there’s not enough information to assess what being rat-free has meant to Alberta, says Kaylee Byers, a PhD candidate at the University of British Columbia studying health risks posed by urban rats. “There is really no estimate or approximation of the impact of rats on the health of Canadians, and that’s largely because we haven’t any data on it,” she says. Byers is working with the [**Vancouver Rat Project**](http://www.vancouverratproject.com/vancouver_rat_project/about_the_project), which is trying to close this knowledge gap.

**Learning Alberta’s lessons**

Could Alberta’s experience help the wider world? Today’s rat control projects mostly involve eradicating entrenched populations on islands, rather than preventing rats getting in. The motives are different too: Alberta’s move was largely economic.

“I think underlying a lot of eradications around the world is a cost-benefit analysis, but it’s very difficult to quantify and in most cases we’re doing it for the conservation of native wildlife rather than through a financial perspective,” says Tony Martin, who led the recent [**rat eradication project on South Georgia**](https://www.sght.org/) in the South Atlantic.

There, rats were poisoned by bait dropped from helicopters in an eight-year project that cost £10m. Martin’s work was [**largely funded by donations**](http://www.sght.org/wp-content/uploads/2018/05/2.-SGHT-HRP-embargoed-accouncement_FINAL.pdf); he says applying a financial perspective to eradication projects might mean “that money to do the work is more readily available”.

He says that while the two projects were very different, he has “enormous admiration” for what Alberta has achieved. “The fact that they have done so much better than everywhere else in the world is absolutely astonishing. This is unique; it’s not just a town that they’ve managed to keep rat-free, it’s a vast area of terrain.”

He highlights public sentiment as the “single most important factor” in successful projects, saying: “You need to have the interest and the support of the people to carry it out.” Opposition from just a few can derail them – on Australia’s Lord Howe Island, rat eradication has just begun after [**20 years of argument**](https://www.theguardian.com/australia-news/2019/may/07/a-nasty-place-at-the-moment-lord-howe-island-tense-as-rat-baiting-begins). Looming is New Zealand, which has announced an [**ambitious project**](https://www.doc.govt.nz/nature/pests-and-threats/predator-free-2050/) to rid itself of introduced predators by 2050 to protect its biodiversity. The idea has been hailed by many, but already there are [**plenty of critical voices**](https://www.victoria.ac.nz/news/2018/07/researchers-propose-alternative-to-unachievable-predator-free-2050).

In Alberta, there doesn’t seem to be much debate over rat control. McTavish says when she moved there in 2007, she noticed people “seemed very proud” of it. “It seemed to be linked with the identity of Alberta: Being Albertan was knowing this and participating in it,” she says.

Phil Merrill says public support is crucial. “If we have an infestation in someone’s yard, we hear about it right now. We know people are going to report it.” There are a few dissenters – people who oppose the pet rat ban (some [**flout the law**](https://www.theglobeandmail.com/life/first-person/rats/article37658114/) and there’s [**a three-year-old petition to change it**](https://www.thepetitionsite.com/en-gb/436/044/115/legalize-pet-rats-in-alberta-canada/)) and parts of the pet industry who raise snakes (rats must be frozen). But mostly “people are very, very happy they don’t have to deal with rats”.

“We get a few animal lovers that think we’re picking on rats and I guess we are, but we have a real good argument: we love native rats – muskrats, packrats. If he can live in the environment without man, great. But if he has to have our food and our garbage and our shelter, then we don’t want him.”

**The German government's anti-Semitism commissioner has urged Jews to avoid wearing skullcaps in public.**

Felix Klein warned Jews against donning the kippa in parts of the country, following a rise in anti-Semitism.

Mr Klein said his opinion on the matter had "changed compared with what it used to be".

"I cannot recommend to Jews that they wear the skullcap at all times everywhere in Germany," he told the Funke newspaper group.

* [**Conductor protests in anti-Semitism row**](https://www.bbc.com/news/world-europe-43871097)
* [**German fury at Holocaust memorial remark**](https://www.bbc.com/news/world-europe-38661621)
* [**Berlin anti-Semitic attack caught on video**](https://www.bbc.com/news/world-europe-43812273)

A sharp increase in the number of anti-Semitic offences was recorded by the German government last year.

Official figures showed 1,646 hate crimes against Jews were committed in 2018 - an increase of 10% on the previous year.

Physical attacks against Jews in Germany also rose in the same period, with 62 violent incidents recorded, up from 37 in 2017.

Speaking to the Handelsblatt newspaper, Justice Minister Katarina Barley said the increase in anti-Semitic crimes was "shameful for our country".

## **What did Felix Klein say?**

Mr Klein suggested "the lifting of inhibitions and the uncouthness" of society could be behind the spike in anti-Semitic crimes.

The internet, social media and "constant attacks against our culture of remembrance" may be contributing factors, he said.

He also called for police officers, teachers, and lawyers to receive training to clarify "what is allowed and what is not" when "dealing with anti-Semitism".

His comments came weeks after Germany's top legal expert on anti-Semitism said the prejudice remained "deeply rooted" in German society.

"Anti-Semitism has always been here. But I think that recently, it has again become louder, more aggressive and flagrant," Claudia Vanoni told the AFP news agency.

## **Why is anti-Semitism on the rise?**

Jewish groups have warned that a rise in popularity of far-right groups is fostering anti-Semitism and hatred of other minorities throughout Europe.

Since 2017, the far-right Alternative for Germany (AfD) has been the country's main opposition party. AfD is openly against immigration but the party denies holding anti-Semitic views.

However, a number of comments from their politicians, including remarks about the Holocaust, have drawn criticism from Jewish groups and other politicians.

Last year, a survey of thousands of European Jews revealed that many were increasingly worried about anti-Semitism.

**Narendra Modi has secured a historic second election victory.**

Indian stocks and the rupee rose to welcome the news: another parliamentary majority for the BJP party could grant Mr Modi the opportunity to make promised reforms a reality.

But once the euphoria around his emphatic win at the polls has faded, there will remain some tough economic challenges in his in-tray.

## **What did he do in his first term?**

The economic record for Mr Modi's first term in office is mixed.

He initiated some bold reforms, such as a new bankruptcy law, to help tackle a rise bad debts that was putting pressure on the banking sector.

His government reduced red tape, helping move India to 77th in the World Bank's 2019 Doing Business ranking, an improvement from 134th place when he first took office in 2014.

India also became the world's fastest growing economy during that first term.

The rollout of a new national sales tax didn't go smoothly either. In the long run the new tax is expected to boost economic growth by streamlining a multitude of complicated taxes into a single tax. But in the short term glitches around its introduction had a severe impact on millions of small and medium-sized businesses.

## **What should we expect in his second term?**

As Mr Modi gets his feet back under the desk for his second term, economists like Surjit Bhalla believe that his increased majority will give Mr Modi more freedom to take tough decisions.

"Given the size of the mandate, we can expect bolder reforms during the next five years," says Mr Bhalla, who served on the prime minister's economic advisory council during Mr Modi's first term.

But the scale of India's problems matches that mandate.

Economic growth slowed to 6.6% in the three months to December 2018, the slowest rate for six quarters.

According to a leaked government report, unemployment touched a 45-year high between 2016 and 2017.

## **What will he do about jobs?**

Experts say that Mr Modi needs to spur flagging private sector investment in order to boost job creation. His flagship Make in India programme, aimed at giving manufacturing a big boost, has yielded mixed results so far.

Ajit Ranade, chief economist of Mumbai-based, Aditya Birla Group, believes that focusing on overseas markets is the key to creating more employment opportunities.

Image copyright Getty Images Image caption Mr Modi has promoted a "Make in India" campaign to bolster manufacturing

"Exports and manufacturing are intertwined. Unless exports grow the manufacturing sector won't expand," he says.

The new government should focus on labour-intensive sectors like construction, tourism, textiles and agricultural products, he adds.

## **Can Modi boost growth?**

Unlike China, India's economic growth has been driven by domestic consumption over the last fifteen years. But data released over the last few months suggests that consumer spending is slowing.

Sales of cars and SUVs have slumped to a seven-year low. Tractor, motorbike and scooter sales are down. Demand for bank credit has sputtered. Hindustan Unilever has reported slower revenue growth in the most recent quarter. All of these are important benchmarks for measuring consumer appetite.

Image caption Sales of motorbikes have been falling

Mr Modi's party promised in its manifesto that it would cut income tax to ensure more cash and greater purchasing power stayed in the hands of middle-income families.

However, given the current state of government finances, that may not be possible immediately. India's 3.4% budget deficit - the gap between government expenditure and revenue - may restrict Mr Modi's options.

"The widening fiscal deficit is a slow-acting poison," says Mr Ranade. He believes this will hold back medium and long-term growth.

## **Will he help farmers?**

The agrarian crisis was a constant challenge for Mr Modi during his first term. Farmers across the country protested on the streets, demanding higher prices for their crops.

Small-scale farmers have been promised more support, but structural changes to the way the market works might be preferable to measures that will put additional pressure on the government's already stretched budget, argues Ila Patnaik, a former economic advisor to the government of India.

Image copyright Getty Images Image caption India has seen huge protests by farmers in recent years

She would like to see the end of the system whereby farmers are required to sell their products to state-owned agencies at a fixed price.

"We need to free up the farmers so that they can sell products to whoever they want. This will also encourage them to move to high value products," she says.

## **Will Modi push privatisation?**

One of his headline election pledges was a promise to spend $1.44 trillion to build roads, railways and other infrastructure. But such an eye-watering sum will have to come from somewhere. Many observers expect privatisation to play a key role.

Mr Modi made slow progress on his pledges to sell off government enterprises in his first term. The government did initiate the process of selling a majority stake in national carrier Air India, but with a tepid response from investors, the plan failed to take off.

Mr Bhalla expects Mr Modi to pursue privatisation more aggressively in his second term.

"The next two years is a good time for the government to [speed up] the process of privatisation," he argues.

And he believes a willingness to embrace bolder policies could entice more foreign investors to put their money in India.

"During his first term, Mr Modi has shown the appetite to take up tough reforms and he will definitely try to take even bigger risks during his second term," he says.