

INNOVATION

# Why most countries are struggling to shut down 2G

Global leap to 4G and 5G would cut off phone access for millions of vulnerable people.

By [LAM LE](#)

7 MARCH 2025 • HANOI, VIETNAM

- Telecom companies aim to profit from the 2G-to-5G transition as governments worldwide face pressure to free up mobile spectrum.
- Vietnam is the latest country to shut down 2G by offering free 4G phones to the poor.
- India and South Africa have expressed concern that the strategy would cut off phone access for millions of vulnerable people.

Last November, Nguyen Thi Que's mobile phone suddenly stopped working as telecom companies in Vietnam permanently shut down the 2G network.

"I thought of buying a new phone, but I don't have money," the 73-year-old, who sells iced tea at a bus stop in Hanoi, told *Rest of World* in late January.

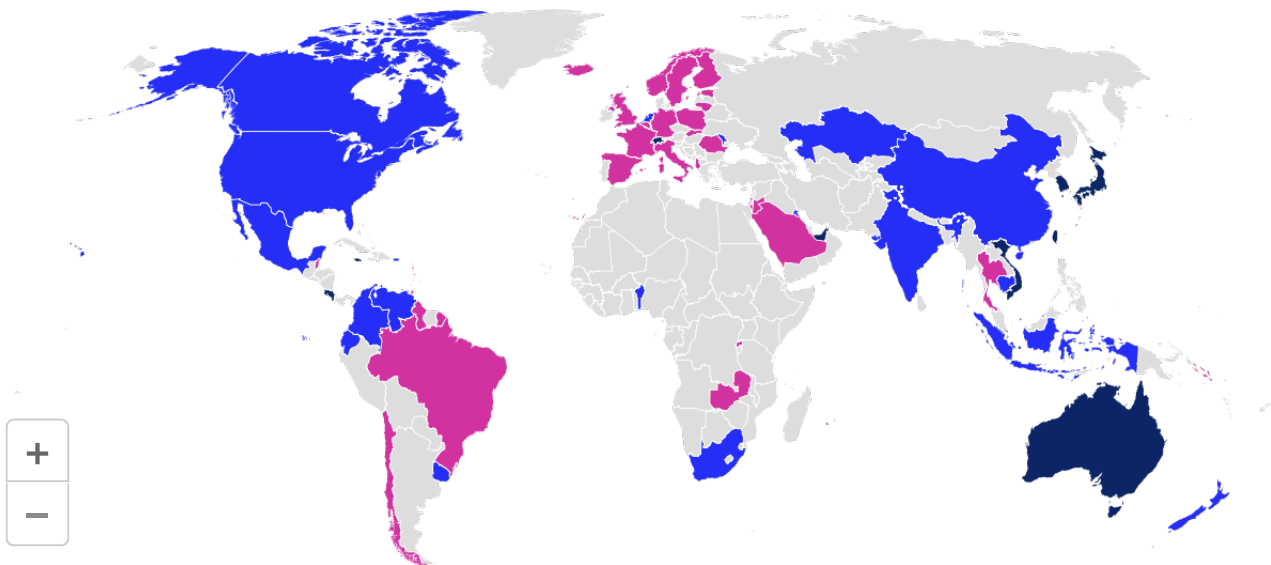
Vietnam's plan was simple: Offer free 4G feature phones to help low-income 2G consumers adapt to the change. The strategy paid off, reducing the number of 2G subscribers from over 18 million in January 2024 to 143,000 in November the same year. The country earned a spot among a growing list of nations — including Australia, Japan, South Korea, Taiwan, the UAE, Brunei, Switzerland, Costa Rica, and Jamaica — that have discontinued 2G technology.

As many as 61 countries, ranging from the U.S. and Brazil to South Africa, India, and China, have either planned or initiated the process to shut down 2G networks, according to data from GSMA Intelligence, the research wing of a telecom industry group. The goal is to enhance 4G and 5G bandwidth by repurposing the existing 2G spectrum, which reduces maintenance costs and drives subscriber growth and revenue. This has raised concerns about wider digital exclusion largely affecting the poor, making the decision to switch off 2G a complicated one.

## 2G sunsetting progress

Countries where 2G networks have been completely shut down, partially shut down, or are planned to shut down.

COMPLETED    PARTIAL    PLANNED



Data through January 2025. This material has been prepared by GSMA Intelligence (the mobile industry's leading data and analytics resource operated by GSMA Advisory Services, Ltd, the "GSMA") under instruction from Rest of World. GSMA is not liable for the accuracy of this material when used or relied on by a third party. GSMA accepts no responsibility for errors in the information sourced or provided nor the effect of any such errors on any analysis, suggestions, or recommendations.

Map: Rest of World · Source: © GSMA Intelligence 2025

[EXPLORE CHARTS >>](#)



Hundreds of millions of people globally still rely on 2G phones. Factors such as affordability, lack of digital skills, and poor connectivity have kept basic phones relevant in the smartphone age.

“If we take into consideration countries like Vietnam, like Pakistan, like India, they want to attract investment into their countries and having a good quality (4G, 5G) network is very, very important to them,” Jeanette Whyte, head of public policy for Asia-Pacific at

GSMA, told *Rest of World*. “But to move to 5G, we need spectrum and spectrum is in short supply, it’s a scarce resource.”

With 2G on its way out, feature phone sales globally have dropped from 374 million units in 2019 to 200 million in 2024, according to research firm Counterpoint, although telecom companies in countries like India and South Africa are still investing in low-cost 4G feature phones, catering to vast markets of low-income populations.

For 2.5 billion people worldwide, especially those in Asia and Africa, the cheapest available smartphone purchase took up 30% of their monthly income in 2021, a survey by the Alliance for Affordable Internet found.

While telecom regulators worldwide agree on ditching 2G, many haven’t yet figured out the timeline due to concerns over enabling digital disparity and disrupting tech-enabled devices like pollution data sensors and electricity monitoring equipment, according to Mike Jensen, internet access specialist at the Association for Progressive Communications, a global network promoting internet for social good.

“I think that’s probably the issue that the civil society and other organizations that are looking out for the poorest of the poor and the inequalities are not really aware of the problem and it’s not being debated in public spaces,” Jensen told *Rest of World*.

In June 2022, South Africa set a target to retire 2G and 3G by June 30, 2024, and March 30, 2025, respectively. The deadlines were eventually scrapped as the shutdowns posed the risk of excluding around 20 million people.

Some of the best-selling phones in South Africa continue to be those that operate solely on 2G, and they can be as cheap as \$8. Smartphone users including ride-hailing drivers often have a 2G phone as a backup because of the high incidence of muggings, Melithemba Mnguni, secretary-general of the E-Hailing Partners Council, an advocacy group for gig drivers, told *Rest of World*. Feature phones are “not targeted by thieves,” he said.

Still, in South Africa, Telkom, a government-owned telecommunications company, discontinued 2G services in most places as they generated less than 1% of its network traffic. Africa’s leading wireless carriers, MTN and Vodacom, have prioritized shutting down 3G networks over 2G as 3G consumes a larger share of the frequency spectrum.

But Whyte from GSMA argues telecoms can’t do it alone. “It’s a joint responsibility between government and the industry,” which requires extensive raising of awareness, digital skills training, and financial support schemes, she said.

In Vietnam, the government's push came through state-owned Viettel, the country's biggest telecom company, which not only dangled cheap smartphones but also sent staff to remote villages to persuade the public to upgrade to free 4G feature phones. The company offered discounted data plans nationwide several months before the 2G shutdown.

Viettel spent 300 billion dong (\$12.2 million) providing free 4G phones to 700,000 of its 2G subscribers. Its rival Mobifone offered similar packages, targeting the 2G user base.

Within a month of the 2G shutdown, a Viettel staff member personally delivered a new feature phone to Que, the iced tea seller in Hanoi, although she initially faced some registration hiccups, she said.

Vietnam's success can be attributed to the availability of 4G feature phones, which "helped bridge the gap between adopting the new 4G technology along with using a familiar feature phone type device," Shubham Nimkar, an analyst at Counterpoint, told *Rest of World*.

Reliance Jio, India's biggest telecom service provider, has adopted a similar strategy for years to lure the country's 250 million 2G users from other networks. Like South Africa, the Indian government has shied away from setting a deadline for a 2G shutdown.

In 2017, Reliance launched the "effectively free" JioPhone — a 4G feature phone with internet-enabled options like video and music streaming, and payment apps. Within 10 months of its launch, the JioPhone ranked first in the global feature-phone market with 18.2 million devices sold. Reliance's most recent JioBharat handset was priced at just 1,099 rupees (\$12.70). Next, Jio plans to recreate JioPhone's success with a 5G feature phone, TechCrunch reported.

"Reliance Jio's push to phase out 2G entirely is primarily driven by its business interest, as its entire network infrastructure is based on 4G and 5G," Osama Manzar, founder and director of Delhi-based nonprofit Digital Empowerment Foundation, told *Rest of World*. "However, this approach could lead to greater digital exclusion if implemented prematurely, as millions of people are not yet ready for this shift."



Employees wait for customers in a mobile phone accessories shop in Hanoi. Nhac Nguyen/AFP/Getty Images

In India, 2G phones still contributed to 73% of the 55–60 million feature phone shipments in 2024, while 4G devices made up the rest, Shilpi Jain, senior analyst at Counterpoint, told *Rest of World*.

Feature phone sales are also dictated by hardened patriarchal attitudes in countries like India and Pakistan, where many women feel compelled to use basic phones due to concerns that smartphones enable excessive access to information or male influence.

“Moving away from 2G without gender-sensitive policies could exacerbate the gender digital divide,” Manzar said.

While market competition is heating up, Taiwanese company CloudMosa has developed the Cloud Phone — a technology that enables 4G feature phones to access news and run popular apps like TikTok, Facebook, and YouTube. It was first piloted in India in late 2023 in partnership with Android phone maker HMD, followed by a similar partnership with Vietnam's Viettel in August last year.

By late 2024, more than 1 million Cloud Phone-enabled devices were on the market worldwide, Shioupyn Shen, CloudMosa’s founder and CEO, told *Rest of World*. He said the company aims to grow to 200 million devices in two years — it is in talks with telecom companies and manufacturers to launch more devices in South Africa, Kenya, Thailand, Bangladesh, and Pakistan, among other countries.

Back in Hanoi, Que is happy to have a functioning feature phone but admitted she doesn’t know if she can access the internet with it. “I don’t know anything, I only know how to make calls,” she said.

Minutes later, a customer offered to pay Que for her lemonade via a QR code, which Que didn’t have.

---

**Lam Le** is a freelance reporter covering Southeast Asia's tech industry. She is based in Hanoi, Vietnam.

---

*Khadija Alam, Ananya Bhattacharya and Damilare Dosunmu contributed to this story.*