

# No power, no complaint: mobile connects all

MD FAZLUR RAHMAN

**T**HE country's power situation may have plagued industrial production and forced many factories to run below capacity in the last few years, but it failed to rein in the ever-explosive growth of mobile phones.

Even with a need to charge a cell phone battery with electricity, a basic requisite in mobile communications, the industry has continued to grow rapidly.

Moreover, an international research organisation said the sector will grow seven-fold in rural areas by 2015 despite a lack of an electricity network to feed the technology device.

In 2012, Bangladesh, one of the fastest growing mobile markets in the world with over 7 crore active subscribers, will have 167,765 mobile users who do not have electricity to charge the device. The number will reach grow 75 times to 12,543,435 by 2015, according to Cisco's Visual Networking Index Global Mobile Data Traffic Forecast Update.

Headquartered in San Jose, California, Cisco Systems is a US-based multinational corporation that designs and sells consumer electronics, networking, voice, and communications technology and services.

Its Global Mobile Data Traffic Forecast Update is part of the comprehensive Cisco VNI Forecast, an ongoing initiative to track and forecast the impact of visual networking applications on global networks. This paper presents some of Cisco's major global mobile data traffic projections and growth trends.

About 40 percent of Bangladesh's 16 crore population has an access to power, leaving the rest to rely on fossil fuel, solar power systems or complete darkness at night, while mobile subscriber penetration stands at over 44 percent.

With 99 percent of the population and more than 90 percent of geographic area of Bangladesh under the coverage of mobile operators, the subscriber base continues to grow, with more and more people in rural areas being connected to the technology.

One of the most astonishing developments of the past few years has been the extension of mobile services even beyond the boundaries of the power grid. Mobile phones are reaching every corner of earth, said the Cisco update.

Globally, there are 32 countries already where mobile data has broken the electricity barrier. By the end of 2011, this effect will be visible at the regional level, when the total number of mobile users in Sub-Saharan Africa and South-east Asia exceeds the total on-grid population in those regions.

By the end of 2013, the number of mobile users in the Middle East will exceed the Middle



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A man uses a mobile phone. In 2012, Bangladesh, one of the fastest growing mobile markets in the world with more than seven crore active subscribers now, will have 1.67 lakh mobile users with no access to electricity to charge the device.

Eastern on-grid population, and by 2015, the number of mobile users in South Asia (India and surrounding countries) will exceed the South Asian on-grid population.

Individuals, even those below the poverty line, are finding that mobile access increases their financial prospects, and are willing to go to great lengths to maintain access.

Operators and governments also have incentives to encourage off-grid access to mobile services. Operators are developing new, highly profitable business models that are attractive and affordable to the base of the global economic pyramid.

Governments and communities are finding that gross domestic product (GDP) and local economic growth appear to be correlated with mobile growth.

The end result is that the off-grid, on-net population will reach 13.8 crore by 2015. The mobile network will break the electricity barrier in 4 major regions and more than 40 countries (including India, Indonesia, and Nigeria) by 2015.

"Breaking the electricity barrier" may be a short-lived phenomenon, since electricity access is likely to catch up to mobile access in the long term (perhaps even in response to the demand for mobile services), but it is nevertheless a testament to the socio-economic impact of network access that mobile has extended beyond the reach of the power grid.

According to the International Finance Corporation, the private-sector lending arm of the World Bank, the number of African mobile users is expected to overtake the number of households connected to the electrical grid in 2011.

Siddiqui Islam, owner of a shop selling tubewells, pipes and other sanitary products in Ashashuni of Satkhira, is one of the country's growing mobile users who do not have access to power to light houses, let alone charge mobile phones.

For the last seven years, the 30-year-old businessman has been relying on solar power systems to charge his mobile phone, as his village Manpur does not have grid network.

"Almost every house in my village has a

mobile phone, but they do not have access to electricity. We rely on solar solutions," he told The Daily Star via telephone.

Arifuzzaman Babu, also a businessman of Bodaipur village under the same upazila, had to unwillingly visit his wealthy neighbours to charge his mobile phone for a couple of years.

"When I bought a mobile phone six years ago, I did not have a solar power system in my house. So, I had to go to the houses of my fellow villagers, but they did not always receive me warmly, as the number of mobile phone owners without solar power systems was high."

The industry has also brought about a market of opportunity for off-grid charging solutions.

Abul Khair, manager of Rural Services Foundation (RSF), a non-governmental organisation that sells solar power solutions, said: "These rural villages in the upazila do not have an access to electricity. So, they heavily rely on solar solutions."

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## Telecom on fast track

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**N**OBODY thought about 100 percent mobile coverage when Bangladesh enacted its first telecom policy in 1999, as only a handful of the country's 64 districts was under wireless network coverage at that time.

But the ever-explosive sector has dwarfed all expectations and doubts to help Bangladesh become one of the fastest growing telecom markets in the world.

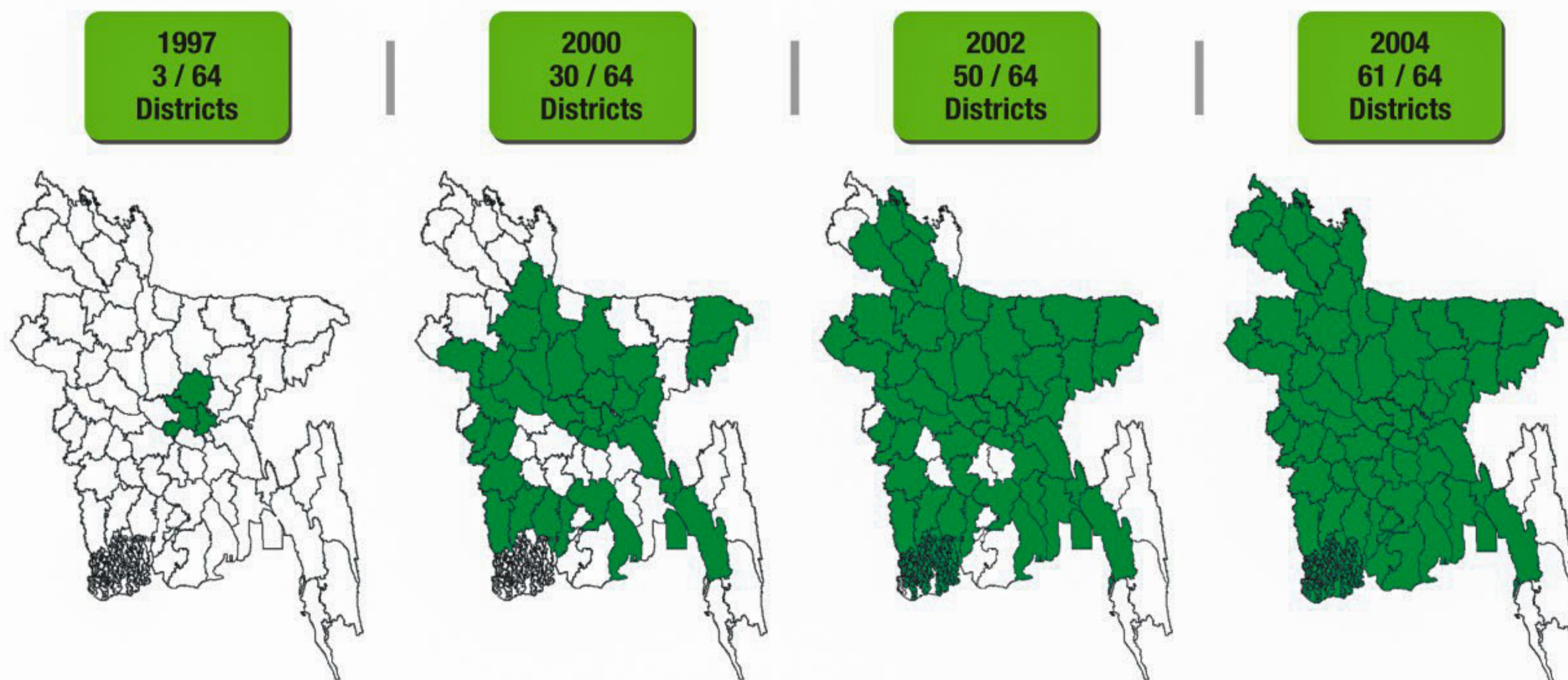
In 1997, only three out of the country's 64 districts were under mobile network coverage, which reached 30 in 2000, 61 in 2004 and now all districts are under the wireless network.

As of January this year, the total number of mobile phone active subscribers has reached 7.03 crore, according to Bangladesh Telecommunication Regulatory Commission (BTRC).

Grameenphone leads the market with 3.04 crore customers, followed by Banglalink 2 crore subscribers, Robi 1.26 crore, Airtel 41.84 lakh, Citycell 18.58 lakh and state-run Teletalk 12.04 lakh clients.

The telecom sector has seen mobile penetration growth, now over 42 percent, that has exceeded all expectations, said Syeed Khan of Asian Tiger Capital Partners. "Bangladesh subscriber growth remains one of the fastest in Asia," he told journalists at a workshop in the city last week.

He said the government should enact more telecom-friendly regulatory or fiscal reforms such as cuts in the SIM tax to encourage faster mobile phone penetration to catalyse access to information and hence the Digital Bangladesh push.



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Mobile operators: 6, mobile coverage: over **90** percent geographical and **99** percent of population

The sector is also a major contributor to the country's tax revenues, contributing 10 percent of the country's total revenues generated in 2010, according to Association of Mobile Telecom Operators in Bangladesh.

Between 1997 and 2009, the sector saw an investment of Tk 30,000 crore in Bangladesh. Six mobile operators, who cover more than 90 percent territory and 99 percent population, accounted for over 60 percent of the total foreign direct investment flown to Bangladesh last

year. Thanks to increasing competition among operators, the customers now enjoy one of the lowest tariffs in the world.

Experts say despite 100 percent mobile coverage, penetration stands at below 45 percent, a figure buoys the operators to grow further.

Operators say the rural areas will dominate the growth next phase of subscriber growth, with over 60 percent of all new connections currently being sold in the remotest regions.

The massive expansion into rural areas however will affect average revenue per user, but the decline could be recouped by growth of value-added services and data services.

Operators say the government should support the sector through reducing Tk 800 SIM tax to accelerate mobile penetration rates and also clarifying regulatory uncertainty about licence renewal as rapidly as possible.

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