

# Connectivity for Development

The world's largest green mobile network offers a new hope to deprived millions in Left-Wing Extremism affected Indian states.



Can mobile towers light up lives, connect families, open doors to the world, provide livelihoods, and make lives easier?

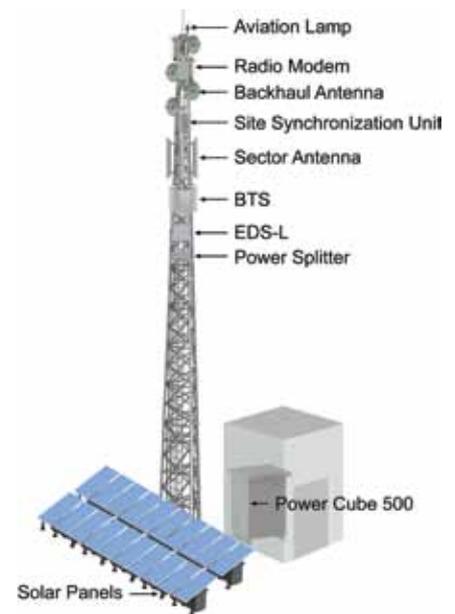
**Yes, they can. And it's happening in areas worst-affected by Left-Wing Extremism in India!**

### Summary

Recognizing that combating insurgency-hit areas in India's Red Corridor must include the provision of a robust communication network as an important element of its strategy, the Ministry of Home Affairs decided to build a mobile phone network in the most-affected regions. These regions include some of the most hostile terrain in the country, with practically no roads, power or security. Against such imposing challenges, VNL has helped BSNL set up 2,199 solar-powered mobile communication towers in a record time of 18 months, altering not just the geographical, but critically, the social landscape of the area. Deprived citizens, almost living on the edge of poverty now have a window to the rest of the world, as they start using mobile phones to connect with families, employers, doctors, local bureaucrats and politicians. Connectivity improves productivity through better education, access to agricultural inputs and markets, finance and banking, and opens avenues for small businesses, putting them on the path to progress. Just how much integration and social change this investment will bring about can only be measured rightfully in the years to come.

### The Problem

Left-Wing extremists have taken root in substantial areas of some 10 states of India, disrupting state machinery and activities. These are poor, under-developed, inaccessible and heavily-forested regions, with almost no infrastructure, such as roads, railways and power. Development efforts are systematically thwarted by insurgents. The Government of India has therefore evolved a multi-pronged strategy to develop and mainstream these areas, one of which includes the setting up of a robust communication network. It is well documented that ICT development leads to all-round economic growth.



*Typical LWE site*





# Impact

**18 million**

CONNECTED CITIZENS

**22,688**

CONNECTED VILLAGES

**3.9 million**

MOBILE CONNECTIONS

**100%**

SOLAR POWERED SITES

**78,900 tons**

CARBON EMISSIONS SAVED



## The Solution

2,199 mobile communication towers have been setup and commissioned in these areas, in a record time of 18 months. A majority of these, 1,315 towers, have been setup and are being maintained by VNL, which has a track record of pioneering innovative wireless communication solutions for rural and remote locations. Designed and manufactured indigenously, VNL's WorldGSM™ solution consists of low-powered base-stations beaming 2G voice and data signals within a radius of 5 km each, networked with the nearest BSNL exchanges. Wireless backhaul and subscriber management is provided by BSNL. All sites are solar-powered, with battery-storage for 5 non-sunny days.

## The Cost

Funded by the USOF, the project costs in the region of Rs. 3,500 crores. This includes CAPEX as well as O&M for a period of five years.

## The Benefits

Voice and data connectivity has opened doors to a whole new world for citizens. In areas bereft of roads, railways and electricity, communicating with family, friends, associates and the outside world is now possible. Information related to agricultural inputs and markets is now available. Banking and other commercial activities are now accessible. Emergency and other health services are within reach. Governance is easier and more interactive.

An ubiquitous network now helps counter-insurgency operations. Security personnel can also be in touch with their families, living far away.

BSNL has also been able to reduce its carbon footprint by substituting solar energy for traditional power sources and diesel gensets, thereby saving approximately 78,900 tons of Carbon Dioxide that would have been released into the environment.



**"We can now inform our family if we are getting late from school or if we are stuck somewhere."**

Sujata, Student  
Village Kiravar



**"I can now simply call the Krishi Call Center for all farming-related queries."**

Rajesh Kumar, Farmer  
Village Masyato



**"Recently we could save a pregnant woman and her baby's life by being able to call the ambulance on time."**

Kamla Devi, Sarpanch  
Village Kondra

# About VNL



VNL makes the award-winning WorldGSM™ system, a sustainable, turnkey GSM and broadband solution specifically for rural and remote locations. It also makes a range of privately owned and managed GSM & broadband network solutions for specialized applications such as secure communication platforms for homeland security, communications for remote industrial centres and rapidly deployable networks for disaster and emergency situations.

VNL's pioneering work has been widely praised. During Mobile World Congress, 2010, in Barcelona, VNL was the recipient of GSMA's 2010 'Green Mobile - Best Green Programme Product or Initiative' Award. VNL was also named a 'Technology Pioneer 2010' by The World Economic Forum. In addition, VNL was named the third most innovative company, and the most innovative telecom company in the world, in the Wall Street Journal's annual Technology Innovation Awards in 2009.

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#ChangingLives