



## Call of the wild

National Park tourism must evolve beyond the tiger

The 33 per cent bump in the tiger population according to the latest census reflects a triumph of India's conservation efforts and its ability to conduct a complex exercise, possibly the world's largest, in counting carnivores. These are remarkable achievements: India not only has the world's largest tiger population but has managed this with the world's second-largest population. Taken together with Prime Minister Narendra Modi's scheduled appearance on Discovery TV with Bear Grylls, this is an

opportune time to propagate awareness and appreciation of India's ecological bounty among the wider Indian populace. Mr Modi's appearance on Mr Grylls' show may further this aim, though a programme that features man overcoming beasts in the wild may not be the most appropriate way to spread the good word. Many man-animal conflicts — the kind that results in the tragic killing of leopards, tigers, and elephants — are often a result of rank ignorance rather than livelihood encroachments. Few care to acknowledge, for instance, that peo-

ple are not natural food for tigers; they kill humans only when threatened or lack prey. Leopards, to take another example, are one of the most adaptive of the big cats and tend to encroach on human habitat, especially those that are garbage-ridden when their natural habitat shrinks. This is what is happening in the Borivali National Park, for instance, where real-estate encroachments are impinging on the eco-system for leopards and other lesser mammals. As a result, they stray into newly urbanised areas, often killing unsuspecting humans who cross their path.

At least part of the trouble is the lack of awareness-building in India's zoos and institutions, official and private, involved in wild-life tourism. The appalling behaviour of the Indian public at zoos is one

reflection of this. Another is the monofocus of tourists visiting National Parks. Every National Park promises the visitor a unique view of the tiger and builds up the mystique of the animal (some even invoke *The Jungle Book*, for good measure). In National Parks such as the ones in Ranthambhore, Corbett, or Kanha, this has created something of a circus-like atmosphere where jeeps and guides keep a laser-focus on the whereabouts of the big cats to the exclusion of all else. This is a great pity. For one, this single-minded mission of spotting a tiger in the wild raises unrealistic expectations. Unlike the vast open plains of Serengeti in Africa, where big cats and other animals can be viewed in their hundreds, tigers are an extraordinarily reclusive beast, and are unlikely to will-

ingly reveal themselves even in the thinnest deciduous forests (this is one reason a tiger census is so challenging). Spotting the tiger then becomes a competitive exercise that appears to bring out the worst in the average Indian tourist — noise and litter are their hallmarks. What they miss in this single-minded quest are the multiple bounties embedded in Indian forests — trees, birds, insects, leaves, and flowers. As Pranay Lal's encyclopaedic *Indica* (2016) has revealed, South Asia is home to a record number of species of flora and fauna and unique habitats. If National Park administrations and guides worked towards offering tourists a journey through nature and the environment, Indians would come away with a better appreciation of the *raison d'être* of conservation.

## The next big thing in telecom

With its enhanced speed, ultra-reliable connectivity and guaranteed service quality, 5G will be a key enabler of industry's digital transformation initiatives



REUTERS

An engineer stands under a 5G base station antenna in Huawei's multi-probe spherical near-field testing system at its manufacturing centre in Guangdong, China

SUBRAHMANYAM KANAKADANDI

It is said that when it rains, it pours. That is more or less the story of the development of Indian telecom. After years of constrained data growth, the entry of Reliance Jio and its competitive pricing has ensured rapid deployment and uptake of 4G, enabling India to leapfrog from 2G networks to 4G. But, technology development does not rest easy.

The age of 5G, the latest generation of mobile networks, is around the corner. SK Telecom in South Korea and Verizon in the US have already launched 5G services commercially, while operators in many other western countries are gearing up to launch their own 5G services soon. Our recent study on 5G in industrial operations found that 72 per cent of telcom operators across the globe are planning to launch 5G networks within the next two years.

The Indian telecom industry is also gearing up for 5G adoption. While the specific timelines are yet to be declared, there have been reports that the government is likely to auction 5G spectrum before the end of 2020. Telecom operators and network equipment manufacturers have already started setting up joint initiatives. In India, there are two aspects to 5G adoption — regulatory and financial, and actual market development.

Indian telecom providers are saddled with large quantities of debts. These operators are required to pay huge sums of money to the government for using spectrum. This licensing process, which started with 2G spectrum, has continued until 4G spectrum was auctioned a few years ago. Through this process, operators have amassed a large amount of debt. In fact, owing to operational difficulties, this space has seen mergers and acquisitions too, with the industry now consolidated into three large private players.

Additionally, Indian banks are coming out of a credit and liquidity crunch cycle, which started a few years ago. As banks grapple with high levels of non-perform-

ing assets (NPAs), they will be cautious about lending to telecom operators. This situation is likely to change in the next year, as NPAs in the system started to decline in the last quarter of financial year 2018-19. For 5G auctions to succeed, telecom operators will have to work closely with banks. Even after the auctions, banks will need to support the capex requirement for the 5G roll-out.

The government on its part has also set up a committee to explore the feasibility of reducing the cost of spectrum. This committee may recommend moving towards a revenue sharing model with the government, instead of an upfront royalty structure. If this happens, telecom operators will be able to invest in 5G with greater financial ease.

The second aspect telecom operators will need to focus on is actual market development. While 5G's features, such as enhanced speed, ultra-reliable and low-latency connectivity and guaranteed quality of service, promise to transform the digital experience in both the industrial and consumer space, they are of particular interest to a subset of organisations — industrial manufacturers.

Our research found a strong business case for 5G adoption in smart factories or industry 4.0 initiatives. Globally, 75 per cent of industrial companies feel that 5G will be a key enabler of their digital transformation initiatives in the next five years. This is surprisingly higher than the share of executives that feel the same for artificial intelligence or advanced data analytics. Not just that, nearly two out of every three industrial companies are ready to implement 5G in their operations within two years of its availability in their respective markets.

Such a strong level of interest from industrial companies can partly be explained by the fact that nearly half of industrial companies feel that connectivity issues — such as signal reliability and lack of speed — are a significant hindrance for their digital transformation initiatives. Our research also found that industrial companies are ready to pay a premium over their current

connectivity costs for 5G features.

The uses of 5G in manufacturing are many. They range from video surveillance of remote production lines to real-time service and breakdown alerts in shop-floor operations, and remote monitoring of shipment conditions (such as temperature and humidity), to virtual testing of parts and packing from suppliers in supply chain operations. In countries such as Germany, large industrial giants are actively considering acquiring regional licences for 5G, so that they are in better control of their destiny when it comes to smart factories. In fact, our research found that a third of industrial companies are considering applying for their own 5G licence, assuming the regulator allows it.

With the focus on manufacturing growing in India, the smart factory and industry 4.0 domains can provide telcom operators a stable revenue stream. In our earlier research on smart factories, we found that 70 per cent of organisations in India either already had an ongoing smart factory initiative, or were planning to have one soon, with big investments flowing in from multinationals such as GE and Bosch. Moreover, in areas such as supply chains, we found that over 50 per cent of organisations in India were already experimenting with or implementing robotics and the Internet of Things (75 per cent). 5G technologies can be a shot in the arm for all such industrial manufacturers.

In order to tap the industry 4.0 opportunity, telcom operators need to evolve from plain service providers to digital transformation partners for industrial companies. This would require understanding business requirements, translating the requirements into solutions, and taking the lead in implementing the solutions. Co-innovation projects with industrial companies and close collaboration with the entire 5G ecosystem can facilitate the journey of telcom operators into trusted digital solution partners.

The writer is Director, Capgemini Invent India

## Delivering higher education effectively

RICHARD HEALD

India is on the path to becoming a global 21st century economic and political superpower. To succeed, engineers, data scientists, health care professionals, social workers and a whole range of trained professionals will be necessary on an unprecedented scale.

It is therefore encouraging that the Government of India's Draft National Education Policy represents the largest reform of Indian higher education in decades. This includes allowing for mutual recognition of qualifications, simplification of education regulation, widespread adoption of online courses, integrating vocational training into mainstream education, and greater international collaboration.

The new policy's emphasis on quality, equity, access, learning outcomes, teaching, and research is to be applauded, as is the acknowledgement of the societal-level benefits of education and the decision to set up an Inter University Centre for International Education, specifically to support the internationalisation of universities.

The UK India Business Council (UKIBC) has long supported and advocated these reforms. However, we believe the scale of India's challenge will require further measures.

Indian policy-makers are right to want the best the world has to offer, and allowing foreign universities to offer their own degrees in India is a welcome step. However, limiting participation to the top 200 globally ranked institutions will not significantly mobilise the global expertise, resources, and investment necessary to achieve India's ambitions.

Crucially, universities outside the "top 200" globally frequently offer world-leading education in topics vital for India's development. At the same time, institutions that have an overall ranking in the top 200 could bring individual courses to India that are ranked low.

It is also important to note that international rankings contain biases, systematically underplay the importance of university social responsibility, and reward research over teaching. This makes them a poor proxy for the needs of India's employers, society and the wider economy.

There are also limits on which Indian institutions can form international partnerships, meaning that Indian institutions integral to India's ability to meet its global economic and political superpower ambitions will not be able to benefit from in-depth international expertise. This could prevent many Indian higher education institutions from accessing the very teaching and research resources they need to improve and deliver for students and employers.

We therefore recommend that all institutions within India be permitted

to forge international partnerships should they demonstrate, to both parties, real added value.

The plan to merge high quality vocational training with mainstream education at the secondary, college, university and post-university level is to be commended. However, given the New Education Policy's ambitious objective to "provide access to vocational education to at least 50 per cent of all learners by 2025", we recommend that the ministry of human resource development and the ministry of skill development and entrepreneurship work much more closely together.

This could be done by considering models such as degree apprenticeships popular in the UK, where students learn and demonstrate strong practical skills in areas such as electrical, mechanical, and aerospace engineering alongside building an understanding of the theory. This would provide employers with graduates that have sophisticated employability skills and has the added advantage of fostering social acceptability for quality vocational training.

Where highly-skilled Indian graduates are emerging from studies in the UK or India, a lack of mutual recognition of degrees is a significant barrier to harnessing their skills. Currently, Indian authorities do not recognise foreign qualifications obtained through articulation and pathway programmes or the one-year Master's programme offered by UK universities, which are recognised widely elsewhere.

Part of the rationale behind this is the "time" element — a UK Masters degree programme is typically only one year while obtaining a Master's degree from an Indian university requires two years. Moving from a "time-based" model to an "outcome-based learning" approach, focusing on credits acquired rather than number of lectures, would end the current situation where Indian employers are missing out on highly educated and highly motivated graduates, and talented young people are missing out on opportunities.

Mutual recognition of qualifications and allowing universities to award dual degrees will be a game-changer for India's higher education system, as it will significantly increase international collaborations and attract more foreign students to come and study in India — one of the key objectives of the new policy.

India's economy is at a crossroads, and the National Education Policy could determine the path it takes. It takes significant steps in the right direction, and with the further measures outlined above, it will help young Indians and, indeed, India, achieve their full potential.

The writer is Chief Executive Officer, UK India Business Council

### OTHER VIEWS

#### To stem slowdown, policies must aim to revive demand

Lower interest rates can only help when economic sentiment is robust

Annual growth in eight core sectors, which account for 40 per cent of India's industrial output, dipped to 0.2 per cent in June. This is the lowest monthly growth in this index since April 2015. Earlier last month, the International Monetary Fund brought down its growth forecast for the Indian economy in the current fiscal year by 30 basis points to 7 per cent. India's Gross Domestic Product growth has been declining continuously starting with the quarter ending June 2018, with the most recent data available for the quarter ending March 2019.

The Indian economy badly needs a policy stimulus to come out of its present deceleration. The Reserve Bank of India has already cut policy rates thrice in 2019. However, these rate cuts do not seem to have worked. Lower interest rates can only help in reviving economic activity when economic sentiment is robust. They will be ineffective if investors do not see future demand that justifies their investment. Such a situation can only be salvaged through policies that focus on reviving demand rather than lowering borrowing costs. A series of policy decisions such as increasing the income tax rate on the super-rich and imposing strict regulations on spending Corporate Social



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Responsibility funds etc are generating fears that the government is being too harsh towards businessmen and top executives in order to meet its revenue targets. It is important that policy interventions do not make matters worse.

Hindustan Times, August 2

#### Making better drivers of us

Enforcement of new law will be key

The way India drives and behaves on roads is set for a transformative course correction, on paper at least, with Parliament's green signal to a landmark legislation that aims to improve road safety with stringent laws for errant drivers, contractors in case of faulty roads and vehicle makers if they fall short of production standards. The minimum penalty for violation of traffic rules and regulations will now be ₹500, and ₹10,000 is the standard fine for a whole set of offences. The global model of road discipline — strict punishment and huge penalties for traffic-related offences — now awaits the Indian test of enforcement, which has not exactly distinguished itself in the past. If bringing a law results in even an incremental

change in the notorious defiance, nothing like it, but the compulsive *jugaad* mindset to dodge the system and make it corruptible calls for a supplementary step: projecting road safety as a national mission, much like Swachh Bharat.

The Motor Vehicles (Amendment) Bill, 2019, has a slew of laudatory proposals like cashless treatment for victims in the golden hour, compulsory insurance coverage for all road users, protection of Good Samaritans, infusion of ₹14,500 crore into safeguarding fatal spots, a National Road Safety Board and technology-driven driving licence. But then there's the regulatory reality check for the best of intentions.

The Tribune, August 2

#### Refreshing stand

Zomato affirms pluralist principles

A person professing the Hindu religion in Jabalpur and observing Shraavan in a ritually sectarian fashion has turned the spotlight on an India divided, earned widespread derision, and shown that the majority online are not bigoted. He declined to accept a Zomato order delivered by a Muslim, and when he took his peeve to Twitter, the company's handle responded: "Food doesn't have a religion. Food is a religion." The company's CEO joined in the conversation, sticking up for diversity and stating that he was not "sorry to lose any business that comes in the way of our values."

As the conversation proceeded, though, it may have become obvious that standing up to bigotry may actual-

ly be good for business. While a small minority supported the actions of the peeved customer in Jabalpur, the volume of derision he has earned drowned out their voices. At the same time, Zomato received congratulatory messages from all quarters, including politicians, businessmen and influencers, for defending the idea of a diverse India. India's corporate culture is not celebrated for being led by liberal principles. Against that backdrop, Zomato's moral determination to hold the line stands out in sharp relief. And it has answered one of the oldest questions about capitalism: Does morality matter in business? It does.

The Indian Express, August 2