



ON USING BALLOT PAPERS

Chief Minister of West Bengal, Mamata Banerjee

We don't want EVMs, but ballot papers. All the elections in the state that are conducted by West Bengal State Election Commission (WBSEC) will be held through ballot papers

Changes in RTI law will affect information flows

Having fixed, and unchanging tenure, is a vital part of institutional independence; this is now under threat

IVEN HOW THE Right to Information Act, 2005 has, over the years, become a powerful tool in ensuring transparency—it is used by both activists and journalists—and a more accountable government due to more information being available, it is surprising the government was so eager to amend the Act. It might well be true, as Jitendra Singh, the minister of state for personnel, public grievances and pensions said in the discussion in the Lok Sabha on Monday, that the Act had some shortcomings that needed to be fixed. However, the proposed amendments—to sections 13 and 16—are not minor tweaks, but significant changes and will tilt the balance of power towards the Centre. Singh was right to point out, in his reply, that no changes have been made to Section 12(3) of the Act that deals with selection of the commissioners, or to 12(4) which allows the Chief Information Commissioner (CIC) to act autonomously, "without being subjected to directions by any other authority under this Act". However, the autonomy of the officers will be compromised, with the government now deciding on the tenures of information commissioners, their terms of service, and their compensation.

Singh sought to explain this away by saying the tenure of information commissioners will be known to them at the time of their appointment, and that no change would be made once the person was appointed. In other words, Singh argued that, since the tenure of the commissioner wasn't being cut short after the appointment, where was the question of trying to influence them? However, if the average tenure of information commissioners is, say, five years in most ministries, but two or three in some sensitive one, that sends out its own message; it would be a brave man who acts according to his conscience when he knows he has a short tenure of two or three years. Singh's argument, then, that the government was not diluting either Section 12(3) or 12(4) doesn't really hold water. Indeed, a firm principle for all regulators—and that holds for all institutions—relates to precisely this security of tenure. In principle, regulators have a fixed tenure, and are never given an extension either—or reappointed for that matter—as being able to control their tenures is a form of influence; the NDA, though, broke this rule by appointing a former TRAI chairman as the principal secretary and, later, by reappointing the TRAI chairman to the same job. The short point is that when an officer is given a relatively short tenure, which is now possible, it is in many ways a signal to him or her to be restrained. So far, all information commissioners enjoyed a five-year tenure, or were in office until the age of 65 whichever was earlier; nor is it clear why different information commissioners should have different tenure. The new rules will undermine their authority.

Again, the government is splitting hairs when it says the CIC is not a constitutional body like the central election commission (CEC) and that the two institutions carry out different functions. The CIC may not be a constitutional body, but it is difficult to argue that its role is any less important. These are flimsy grounds on which to seek changes and for the Centre to assume more powers. The RTI Act, even if it was used frivolously at times, has made lawmakers and the executive more accountable—this is vital in a democracy; to the extent the changes made restrict the ability of citizens to access information that is unfortunate.

Not quite Governorspeak

J&K Governor does well to retract his 'kill' statement

OST PEOPLE WOULD be appalled at, among so many other innocents, the senseless killing of personal security officers (PSOs) of various Kashmir politicians over the years. They would be equally horrified at the brazen loot of public money; as compared to several other parts of the country, an even smaller fraction of the money sent by the central government finds its way on to projects on the ground in Jammu & Kashmir.And if you were in charge of trying to fix things in a state, as the BJP is trying, this is very frustrating. Militancy does get some kind of justification, even if incorrectly, in the eyes of the populace if the government is not delivering even basic services; and this is certainly the case in large parts of Jammu & Kashmir. There was, however, absolutely no justification for someone holding the highest constitutional office in the state, like Governor Satya Pal Malik, saying as he did, over the weekend, that militants would do better by killing those who had looted Kashmir instead of innocents like PSOs. Given the implications of this statement, it is just as well that Governor Malik has now retracted his statement and said that whatever he said was in a fit of anger and frustration—"due to the rampant corruption here"—but that, despite this, he should not have made the statement.

Governor Malik has done the right thing, finally, in making a distinction between his personal view and the official view since, had he not done so, the implications would have been quite serious. The original statement could be construed to suggest—that is why Malik retracted it—for instance, that were militants to start killing Kashmir politicians, the Governor would find it acceptable and, perhaps, even grant a pardon! Apart from the question of how courts would deal with a fairly obvious incitement to violence, would militants killing politicians make their demands any less unacceptable? Indeed, were others holding constitutional positions to articulate such views, this will open the doors, even if inadvertently, to vigilantism of the worst sort. Today, it is some of Kashmir's politicians, but this could be extended to politicians across the country; several of them have, like some of their Kashmiri counterparts, looted the country's exchequer. And why stop at politicians? The same logic can be extended to several bureaucrats who can just as easily be accused of stealing money as they can of not delivering satisfactory services to the very public that is paying their salaries; is bumping them off a lesser crime for this reason? Those holding high offices need to be very cautious given the consequences and implications of what they say; the Governor Malik saga should be a lesson for everyone.

BlindEYE

BJP doesn't seem to be perturbed enough by the Akash Vijayavargiya incident, notwithstanding what the PM says

HE CHIEF OF the Madhya Pradesh BJP's disciplinary committee, Babusingh Raghuvanshi, as per a report in *The Indian Express*, has said that no action is being contemplated yet against party MLA, Akash Vijayavargiya, son of influential national general secretary Kailash Vijayavargiya, for assaulting a civicbody official in Indore. Not just that, Raghuvanshi proffered what seems like a justification of the junior Vijayavargiya's act, and also refused to associate prime minister Narendra Modi saying that arrogance and misbehaviour won't be tolerated, no matter whose son he (the perpetrator) is with Akash's condemnable behaviour. However, the party hasn't conducted itself very differently from Raghuvanshi—while there is no clarity on whether it has served a notice to the lawmaker, no action has been taken against other party-workers who participated in the assault or cheered his release with gunshots either. Nor has so much as a public admonition come the way of Vijayavargiyasenior for questioning a mediaperson in a crude manner, upon being asked to react on the assault by his son. The state unit, it would seem, is happy to look the otherway—chief Rakesh Singh has brushed aside the matter saying that "requisite information would be made available to media at an appropriate time."

It would seem that local interests of the party and the heft that certain leaders carry are above not just the prime minister but also decent conduct and party mores too. The "party with a difference" must remember that people haven't voted for its leaders for criminal and thuggish conduct in public life, let alone blatant disregard for the law of the land. Not only is this a blight on the notions of justice, equality and accountability, it sets a terrible precedent on lawmakers employing extra-judicial methods with $impunity - BJPMP from Telangana, Soyam \, Bapu, exhorted \, tribals \, to \, protect \, their inter-density and the solution of t$ ests at any cost, even if that meant beating up forest officials, promising them indemnity for any violence incurred.

UNFORTUNATE REALITY

CENTRAL BANKS FACE A LOSE-LOSE PROPOSITION: A POLICY CHOICE THAT ERODES THEIR POLITICAL AUTONOMY OR LEAVES THEM SHOULDERING A BURDEN THAT EXCEEDS THE REMIT OF THEIR TOOLS

Are central banks losing their big bet?

N RECENTYEARS, central banks have made a large policy wager. They bet that the protracted use of unconventional and experimental measures would provide an effective bridge to more comprehensive measures that would generate high inclusive growth and minimise the risk of financial instability. But, central banks have repeatedly had to double down, in the process becoming increasingly aware of the growing risks to their credibility, effectiveness, and political autonomy. Ironically, central bankers may now get a response from other policymaking entities, which, instead of helping normalise their operations, would make their task a lot tougher.

Let's start with the US Federal Reserve, the world's most powerful central bank, whose actions strongly influence other central banks. Having succeeded, after 2008, in stabilising a dysfunctional financial system that had threatened to tip the world into a multiyear depression, the Fed was hoping to begin normalising its policy stance as early as the summer of 2010. But, an increasingly polarised Congress, exemplified by the rise of the Tea Party, precluded the necessary hand-off to fiscal policy and structural reforms. Instead, the Fed pivoted to using

experimental measures to buy time for the US economy until the political environment became more constructive for pro-growth policies. Interest rates were floored at zero, and the Fed expanded its non-commercial involvement in financial markets, buying a record amount of bonds through its quantitative-easing (QE) programs.

This policy pivot was, in the eyes of most central bankers, born of necessity, not choice. And it was far from perfect.

The Fed knew it had no power to promote genuine economic recovery directly via fiscal policy, ease structural impediments to inclusive growth, or directly enhance productivity. This was



the preserve of other policy actors, which, lacking the Fed's political autonomy, were sidelined by the inability of a deeply divided Congress to approve such expansionary measures. (These disagreements subsequently led to three US government shutdowns.)

Faced with this unfortunate reality, the Fed tried to support growth in indirect, experimental ways. By injecting liquidity using multiple means, it raised financial asset prices well above what the economy's fundamentals warranted. The Fed hoped that this would make certain segments of the population (asset holders) feel richer, enticing them to spend more and encouraging companies to invest more.

But such "wealth effects" and "animal spirits" proved quite feeble. So, the Fed felt compelled to do more of the same, which led to a host of unintended consequences and risks of collateral damage that I discussed in some detail in my book *The Only Game in Town*.

The European Central Bank (ECB) second only in systemic importance to the Fed—has followed a similar path, though with even more unconventional monetary policies, including negative interest rates (that is, charging savers rather than borrowers). Again, the impact on growth has been rather subdued, and the costs and risks of such measures are mounting.

Both central banks—and especially the ECB under outgoing President Mario Draghi—have stressed the importance of a timely policy handoff to more comprehensive pro-

growth measures. Yet their pleas have fallen on deaf ears. Today, neither the Fed nor the ECB is anticipating that other policymakers will take over any time soon. Instead, both are busy designing another round of stimulus that will involve even more political and policy risks.

activism

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further

Other risks are already giving central bankers headaches. The protracted Brexit process is hampering the Bank of England's longer-term policy strategy, while the short-term impact on global growth of governments' weaponisation of trade tariffs is complicating the task of both the Fed and the ECB.

Meanwhile, some pro-growth policies currently being mooted could, if not well designed, increase the risk of disruptive financial instability and thus

further complicate central bankers' task. The notion of a "people's QE" that is, a more direct channelling of central-bank funding to the population—is getting more attention from both sides of the political spectrum. So is the related Modern Monetary Theory, which would explicitly subjugate central banks to finance ministries at a time when the concept of a universal basic income is also attracting growing interest and there is a need to reassess the wage determination process.

Furthermore, some on the political left are exploring the extent to which returning to greater state ownership of productive assets and control of economic activity could improve prospects for faster and more inclusive growth. And populists in European countries with more fragile debt dynamics, including in the Italian government, seem willing to retest the markets' vigilance by running larger budget deficits without a concurrent focus on balancing pro-growth initiatives.

Such policy proposals are the tip of a political iceberg that has been enlarged by fears about the impact of technology on the workplace, climate change, and demographic trends, as well as concerns

about excessive inequality, marginalisation, and alienation. These develop-With central-bank ments highlight how newly salient political issues are impinging on policymaking, rendering gap between asset economic prospects even more uncertain. And, with central-bank activism intensifying, the gap between asset prices and underlying economic, and corporate, fundamentals is likely to widen further.

> Central banks bet that greater activism on the part of other policymak ers would be their salva-

tion. But, these days, they are facing an increasing probability of a lose-lose proposition: either a policy response materialises but turns out to be one that risks eroding central banks' credibility, effectiveness, and political autonomy; or nothing materialises, leaving central banks shouldering a policy burden that is already too heavy and exceeds the remit of their tools. Like seasoned gamblers, central bankers may soon discover that not all bets pay off over the longer term.

The new sharia

To regenerate growth with equity, the driving principle should be to make labour-earned income taxfree; only money earned from money should be taxable



All we need to

eliminate all income

taxes is a measly

\$15 trillion a year.

This could readily

be collected by

taxing non-primary

home real estate

holdings



THE YIELD ON German government bonds first turned negative (in this current round) in early 2016; today, 3+ years down, 85% of the German sovereign bond market is underwater. Many other sovereign bonds, including some issued by governments in Eastern Europe, are also in this boat. Totally, about \$13 trillion (equivalent) of government bonds are providing negative yields—about 25% of the global bond market!

Further, global central banks, notably including the ECB, appear to be gearing up for some more (?) easing, and, while markets are licking their mindless chops at the prospects of still easier money, my sense is that this poses a much more frightening reality—that (a) many investors are terrified, and (b) capital is so abundant that it is becoming progressively more difficult to manage.

On reflection, this should not be surprising given the generosity with which global fiscal policy has treated capital over the past several decades, as a result of which there has been more and more and more capital being accumulated ask any private equity investor.

Another impact of this favouring of capital has been the huge level of inequality that burdens every economy, which has rendered monetary policy useless. Each progressive lowering of interest rates simply serves to increase the capital holdings of a minority of the population, which doesn't even dribble into broader demand. This may explain why inflation has all but disappeared.

Clearly, things cannot continue in this vein without triggering either a major credit collapse (as more and more investors seek riskier and riskier investments) or a revolution (as savers begin to demand a reasonable return).

To my mind, there are two steps needed to regenerate growth with equity. The first is to eliminate all taxes on income earned from work (labour); thus, there should be zero tax on salaries, consulting fees, corporate profits, etc., as

also no indirect taxes. Global average tax revenues are 25% of GDP, the vast bulk (assume 90%) of which is based on labour, as described above. With global GDP approximately \$50 trillion a year, abolishing all taxes will provide citizens and companies additional income of at least \$10 trillion a year.

Some part of this huge flow will go to increase savings, but the main impact would be an increase in demand, on the one hand, and in investment, on the other, both of which would lead to higher growth. Inflation would come back to life, bond yields would return to positive territory and monetary policy will become "normal" again.

The second step, which would be necessary to make governments solvent—addressing the loss of tax revenues, their deficits (about \$2-3 trillion) and a little something for debt amortisation (say, 10% of the total debt of \$20-25 trillion)—is to levy taxes on capital and capital-based income.

McKinsey had conducted a study that esti-

mated that the total capital in global financial markets would be \$200 trillion by 2010 and growing; given the collapse of 2008-09, the \$200 trillion number is probably more accurate as of today. But, even this is peanuts when compared to the real elephant in the room—real estate. New York City alone has a built-up area of nearly 1 million hectares, which is 100 billion square meters; if we assume (very conservatively) that 90% of this property is primary residences—i.e., owner-occupied—that leaves 10 billion square meters of property that should be taxable as capital or capital-based income (rent or imputed rent). The median price of real estate in New York is \$205 per

square foot, which translates the taxable capital value to \$20 trillion. (These are obviously very loose numbers and are more to give a sense of scale.) Multiplying this out through the world would provide a very conservative taxable capital value in the range of \$1000 trillion—is that a gazillion?

Remember, that all we need to eliminate all income taxes is a measly \$15 trillion a year.

This could readily be collected by taxing non-primary home real estate holdings (either based on the capital value or the imputed capital-based income) at an appropriate rate; levying penal taxes on salaries that

> are egregious—say, more than, say, 100 times the lowest salary at the organisation (this would drive up minimum salaries which would also be good for demand); ramping up tax rates on capital gains (including carried interest); and so on.

The driving principle should be that any income earned from labour is free of tax; only money earned from money is taxable—

the new *sharia*!

Of course, there are many grey areas to figure out—for example, how should intellectual property be taxed? What about art and other collectibles? Should inheritance be taxed at all, since much of the capital in the estate would be taxed both before and after the bequest? Multiple nuances and lawyers (and accountants) would, as usual, have a field day.

The arithmetic is straightforward, and, while asset—and, in particular, real estate—prices will certainly fall, there would be sufficient savings from the income gains (from zero income tax) that will readily top up the depleting capital reserve of the world to turn this into a virtuous cycle.

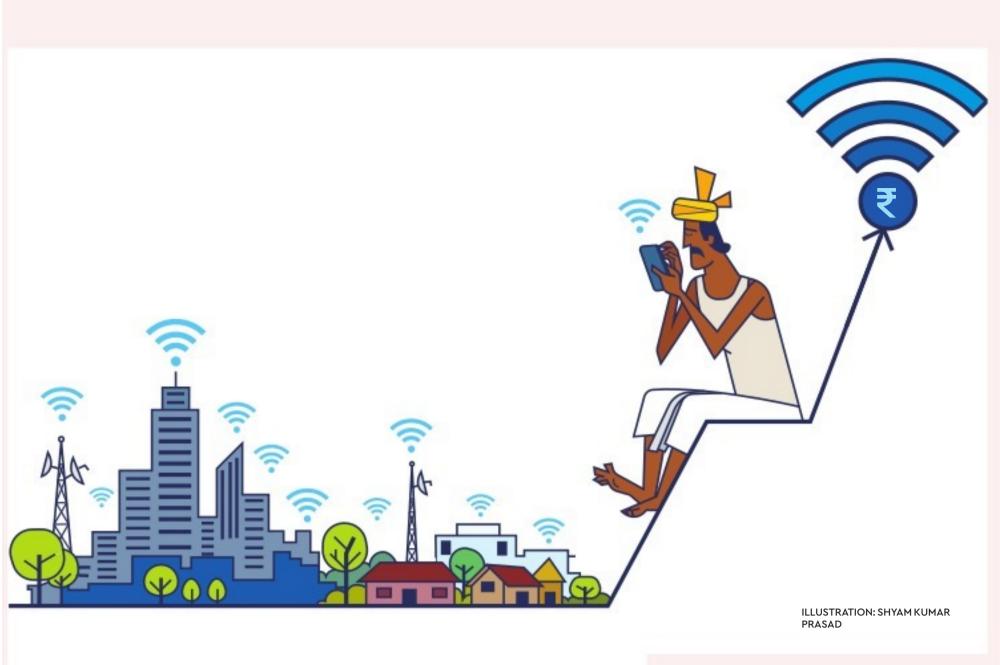
LETTERS TO THE EDITOR

On Chandrayaan-2 mission It is a glorious moment and a

sense of achievement for all of us, when at Satish Dhawan Space Centre, Sriharikota in Andhra Pradesh, the Indian Space Research Organisation (ISRO) launched a billion dreams into space on Monday at 2.43 pm with the lift-off of India's second Lunar mission, the Chandrayaan-2 lunar probe. Speaking about the mission, the ISRO chairman Sivan said it had bounced back "with flying colours" after a technical glitch which led to the mission being called off at the eleventh hour in its first attempt on July 15. It is also a very joyous moment for us, that the Chandrayaan-2, in which home grown technology is deployed, scientists aim to expand India's footprint in space, shed light on unexplored section of the Moon—the South Pole region, enhance knowledge about space, stimulate advancement of technology and promote global alliances. If Chandrayaan 1 (which had created history by creating as many as 3,400 orbits around Moon), India's first moon mission was launched on October 22, 2008, from Sriharikota, using the Polar Satellite Launch Vehicle (PSLV), India did not only become the fourth country (after Russia, USA and China) to plant its flag on the lunar surface, but the mission conclusively detected traces of water along with magnesium, aluminium and silicon on the moon. Now, close to a decade later, India will launch its second lunar mission, the ₹978-crore Chandrayaan-2, on July 22, 2019, using the Geosynchronous Satellite Launch Vehicle (GSLV) Mark III rocket. ISRO is aiming to put the Lander (Vikram) and Rover (Pragyan) on the lunar surface on September 7. Kudos to our space scientists for their successful mission and to continue it without a break. — Bidyut K Chatterjee, Faridabad

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R.N.I. Reg. No. 6188/61 Printed for the proprietors, The Indian Express (P) Ltd by Vaidehi Chintaman Thakar at The Indian Express Towers, Nariman Point, Mumbai-400 021. Editorial & Administrative Offices: Express Towers, Nariman Point, Mumbai-400 021. Phone: 22022627/67440000. Fax: 022-22856323. Chairman of the Board: Viveck Goenka, Managing Editor: Sunil Jain, Deputy Managing Editor: Shobhana Subramanian* (*Responsible for selection of news under the PRB Act) © Copyright: The Indian Express (P) Ltd. All rights reserved. Reproduction in any manner, electronic or otherwise, in whole or in part, without prior written permission is prohibited. The Financial Express (P) Ltd. All rights reserved.



TV RAMACHANDRAN, CHANDRA RAMAMOORTHY & KARTIK RAJA

Ramachandran is president of Broadband India Forum, Ramamoorthy and Raja are from Phimetrics Ltd. Views are

Telecom's UP moment?

Liberalised Wi-Fi could trigger over ₹100,000 crore of national economic activity

with other countries.

significantly,

among the

only

are to be exceeded and India is to be on ly, 60 MHz of spectrum in 5GHz has a pari-Fi PDOAs can generate a ₹100,000 Geography (which is

₹20,000

Public

services

Savings from

efficient delivery

of services

architecture— Wireless

To enable this change, TRAI intro-

duced the concept of Wi-Fi Public

Data Offices and Aggregators (PDOs

and PDOAs) last year. TRAI's

Network Interface (WANI)—is open

and easy to set up, with

the potential to democratise Wi-Fi acce

this architecture enables seamless roa

m- ing across different access points

as authentication needs to be done

once rather than repeatedly. Additional

₹2,500

Advertising

Location-based

targeting

through Wi-Fi

ss across the country. More

Access

₹4,500

Operators

& MVNOs

Mobile

ROADBAND CONNECTIV-

ITY everywhere and for everybody is the bulwark

ofir country's Digital India

vision. The policy sets stiff

of

₹70,000

Farmers & small

entrepreneurs

Increase in farmers'

income through

electronic access to

markets and farm

management additional

income from PDOs

ETTING UP A NATIONAL

Research Foundation (NRF) w

hynfonancemeninister Nirmala

Sitharaman during her

speech.It configures actionable resolve, n

bodist's growth through scientific researc

Will the NRF enable a linear incremen

tal growth or a quantum leap for

India? That will be determined by the

for this organisation. The bolder the visio

moment, that of NRF's inception, is also

the moment of truth to set the aim

high—for India to emerge as a world

leader in innovation in select

disciplines of science, and not just

play catch-up with high-income countri

In the hope the NRF is mandated to se

e that Indian science captures a pole

posi- tion in cutting-edge innovation by 2030, its portfolio of missions

should necessar- ily include a couple of

mega-science pro- jects that are

envisioned in India, and led

by India. The tag'mega'classifies a

project to be ultra-futuristic that forays

into the unknown to solve a seemingly

audacious problem—with the potential

the higher the returns. This

apraiseworthy

otere intent, of this government to

h and technology development.

area

global

million

targets of 5 million hotspots by 2020 a

benchmarks, wherein we should have

hotspots before 2016 itself. In fact, Indi

a performs poorly in terms of the

number of hotspots both by

coverage. A dramatic change in mind-

set is, therefore, needed if the targets

and

8

h@ million by 2022. Even these

fallgets short

exceeded

population

activity

₹10,000

Device

OEMs

Low-cos

tdevices;

Expansio

of market

TheWANIarchitecture and the Aggr e- gator business model needs to be imple- mented on priority. Let us then bust the myths leading to delays in implementa- tion of Wi-Fi PDOAs.

largest in the world).

Myth 1: Data usage growth in the last two years shows Wi-Fi-based PDOAs are not needed.

Over the last five years, India has see n mobile broadband connections increase from 84 million to over 500 million.

While this is a great achievement, it, by n o means, is enough. As per the leading

work monitor 4GMark, India is ranked at a poor 51 in the percentage of tests done on 4G. As far as network quality cerned, we are even worse. As the number r of connections and

increase, cellular consumption networks alone cannot provide access quality required India to feature in the top quartile of dig

itally-ready countries. Wi-Fi, with its lar ge capacity-handling capabilities, would

need to carry a major portion of our exp o- nentially increasing data traffic (espe- cially video), and would have to uitous for India's digital vision to fructif

offers greater bandwidth than the current will service levels. **Cellular/5G** will certainly play significant speeds us venture three

v. Myth 2: Only large tele-

eall offices (PCOs) were set needipublicity with open set needipublicity with open and small-range devices with open and small-range devices with open set as local connectivity range devices will allow on Wi-Fi 6. Hence it is the curter was air will the spread of the Afglouandes entrepreséeurs on Wi-Fi 6 pio-

neered the responsibility o

pirovitling bashikesibeacces easily available. In the short time that WANI was tri toallkourvitiberve untrebdic seen similar hvi- dence of local kirana shops and rural

entrepreneurs replicating the PCO stor y. We now need to formalise this proven approach to spread the access to broad- band data to our streets and villages.

Myth 3: With the lowest data tariffs in the world, Wi-Fi does not have a business case.

Many believe that the primary ratio- nale for setting up WiFi PDOAs is for mobile data offloading (MDO)—which refers to seamlessly moving data access from cellular networks to Wi-Fi in order to reduce congestion and improve qual- ity. The telecom industry today spends about ₹90,000 crore in capex.

Evenifweassumethe

spread of Wi-Fi can save a conservative 5% of this capex because of mobile data offload, that lea ds to savings of ₹4,500 crore peryear. How- ever, to say that this is the only business case for Wi-Fi is revolution will not be driven by a few incorrect.

Each and every stakeholder in our dig-

tal ecosystem stands to benefit from h Stopping the sp of superbugs

Towards a united front for global health research, led by India

SHEETAL RANGANATHAN

Vice-president of life sciences operations of a global research & consulting firm. Views are

geopolitical and cultural, bringing together best minds, skills and resources.

Most mega-science projects have

in space science or particle physics, exce pt the legendary Human Genome Project. Recent examples include the Event Hori- zon Telescope (EHT) project that gave us the first image of a black hole, and the 2017 Physics Nobel prize-winning LIGO project that detected gravitational waves for the first time. Both are conceived, led and primarily financed by the US Nation

to bring an epochal change in the knowledge and the way of living for Science Foundation. Project operations a superre run by a network of labs globally. bugsduetoantibioticresistance—labell the whole, Partici- pation from other countries and the deadliest health threat not just a nation or a rand Therefore, meg a- science projects are run by and private firms is in the form of bytheWHO.

India has also been part of a ing in few mega-science projects—as a antibiotics, contributing modparticipant, never as the torch-bearer. n The NRF can change that. It is a golden childbirthwill become life-threatening, chance to gear India up towards as

leader. What should be India's first strong argu- ments for it to lie in computational

ences or economics or natural sciences, b

d is a united front against the rise of

■ Broadband connectivity will play a ce n- tral role in realising Prime Minister

Narendra Modi's vision of doubling rur al incomes. Access to Wi-Fi would enable instant access to educational materials and information that can

spread of Wi-Fi.

■ The cheapest smartphone

to a cost reduction of

conservative figure of

today costs about ₹4,000, which is still expensive for millions of

Indians. Imagine a smartphone that is only Wi-Fi-enabled. This can lead

₹1,500-2,000. Phones at similar prices such as JioPhone have sold in excess of

75 million devices. Even if we assume a

50 million Wi-Fi- only devices being

sold, it leads to addi-tional revenue of

₹10,000 crore for the device industry.

drive farmers to plant the right crops using the right technologies and at the right time. Even

3%increaseinfarmers'incomes throu gh spread of deep rural broadband access would result in ₹60,000 crore of addi-tional income for farmers. ■ Democratising Wi-Fi access provisio n- ing would lead to additional income for millions of small entrepreneurs. In fact, 10 million hotspots at a conservative ₹1,000 monthly income translates to ₹10,000 crore per year.

■ Roll-out of Aadhaar and Direct Bene- fits Transfer (DBT) led to savings of more than ₹50,000 crore last year. As digital access expands, more people would opt for DBT across schemes and we conserv- atively estimate additional savings of ₹20,000 crore.

■ Google/Facebook have made billions through advertising. Location-based advertising using Wi-Fi can be unleash a number of advertising opportunities for smaller companies, with data staying localised at the aggregator level. At the current digital advertising market size of ₹24,000 crore (30% CAGR), an

tional 10% growth due to increased rur

broadband access results in ₹2,500 cror e of revenue.

Based on our conservative estimates above, Wi-Fi PDOAs can unleash ₹100,000 crore of yearly economic acti v- ity (see graphic).

India's telecom UPI moment: The time is now

Wi-Fi 6, the latest standard is four times faster in device-dense areas and

significan projesinforhigherspeeds, lower latence desides was on the local blinkings. Hence all offices (PCOs) were long-range to the Internet of Things (IoT). It

> a huge role to play in improving With easyaphygrand delay architect tures and wagetal payments access to Wi- Fi can dreservation earless, sans

areas where IoT will have

technical bottlenecks.It is, thus, important that w e demolish the myths around WiFi PDOAs and see it as an enabler of rural broad-band, IoT connectivity and as a

catalyst for rural economic activity. Finally, the capital required to set

such a massive number of Wi-Fi hotspo

need not come only from telecom opera - tors. Private Wi-Fi aggregators like Boingo in the US are great examples of start-ups that have generated billions of dollars in enterprise value. With the rig ht regulation and India's large potential, access to private capital is straint.The recent telecom infrastructu re investment by I Squared Capital's

Lightstorm Telecom Ventures is a case in poin

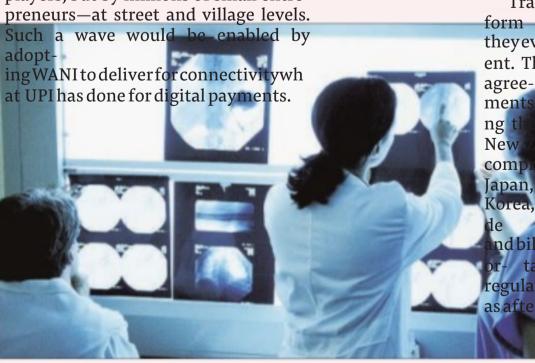
The next wave of Indian telecom's players, but by millions of small entre-

time.Without

million deaths annually by 2050, and pus

developing

cause



effective in a solution-oriented non-profit found

ule commonplace surgeries such as caesarea tion as malaria and tuberculosis have. Th at iswhytheworld's next mega-science pro- ject should be in biomedical hundred years science, and here is why India should grabbing a seat on the table as a thought ago. Antibiotic-resis- tant infections are lead the quest for next-generation biolo- gists and biochemists. antibiotics. 10

First, India is in the eye of the mega-sci- ence project? One can make h 24 million into extreme poverty by storm. It needs defence against this 2030. Its global economic impact impending health crisis urgently, and in would be as massive as that of the much larger magnitude than any other 2008-09 financial crisis. Despite these country. With

gory predictions, just a handful of Indians forming the largest consumerse what India and the world desperately nee research collaborations are taking a g-ment of antibiotics in the world, stab at it. The pharmaceutical industry and

is less interested simply because Indianlivestockbeingthefourth-bigges developing new-generation antibiotics t, genesis of newer species of minorinfections may become untreatab is commercia<mark>lly not a viable as antibiotic- resistant superbugs is le</mark> highly likely in India. Further, India is again. India has the where with alto rever

The WTO



Make domestic laws 'trade-smart' to begin with, and not as an afterthought HEWTOIS

FACING challenge ican verderalts distrute seetle system—which comprises of a processed panel of three persons selected butlisg parties who adjudicate on a dispute, an appellatant ocess under which appeals can be preferre attappellate body (AB, a standing body of seven persons the hears appeals from reports issued by panels in Threetespersons are selected from within the AB to adjudicate on appeals in each dispute. The AB can uphold, modify or reverse legal findings of a panel. Its rulings are binding on the parties to the dispute, and can be rejected only when there is negative consensus among WTO parties—some-thing that hasn't happened in the 24 years of WTO's tence. The contribution of the dispute settlement system to effective enforcement of rules of international trade has been hailed as the 'jewel in the crown' of the WTO.

The current AB crisis has arisen because the US has

been blocking appointments of AB members, expressing conce rn that the AB has been exceeding the scope of appeal and

adhering to timelines as set forth under WTO's Dispute Se t- tlement Understanding. India and many other WTO mem-bers have been working on proposals to break the deadlock, with little success. The AB now has only three adjudicators, two of whose terms will end in December 2019. With only one AB member, it will not be decide appeals. Parties to a WTO dispute, however, have the right to appeal any pa

decision (a panel decision under appeal cannot be enforce d). AWTO partylosing a dispute, therefore, can simply raise an appeal, even when there is no AB to adjudicate, as a result of which there will be no rulings for enforcement.

It's raining disputes

One would imagine that the logical consequence of uncertainty of the future of WTO's dispute settlement wo uld mean fewer disputes at the WTO. Surprisingly, this is not so. Between January and December 2018, as many as 38 dis- putes were raised (the highest number of disputes raised in a year was 50 in 1997). Another with regard India: Of the 30 disputes raised against India by other me m- bers since 1995, five have been filed in the last six months.

This includes two disputes by the EU and Japan, respective ly,

against tariff treatment of IT and communication produc ts, and three disputes on India's subsidies for sugar and sugar cane raised by Australia, Brazil and Guatemala. While these five disputes are at the stage of stage), a sixth dispute raised by the US against India's expo

subsidies in 2017 is currently at the panel stage. Another o

initiated by Japan with respect to India's safeguard duties on steel in 2016 has been appealed by India to the AB.

WTO-proofing our laws

The recent spate of disputes against India raises the qu es- tion: What makes India's laws vulnerable to a challenge? To address this, developing a dispute prevention and management strategy is key. A compatibility analysis of our laws a regulations, with our international trade obligations, needs to be done at the stage of lawmaking. One must remember that the WTO agreements allow for adequate space for achieving various public policy objectives, including desig n- ing of WTO-compatible subsidies and support for the domestic industry. Building-in assessment of such spaces prior to enacting laws, thereby making them resilient to challenges, is crucial.

Equally important is to develop adequate risk analysis of disputes that have been initiated, to carefully consider appropriate strategies for resolution.WTO's dispute settlement mechanism allows resolution for mutually-agreed any stage of the dispute. The best chance to achieve this is at the stage of 'consultations', i.e. prior to establishment of a panel of adjudicators. This stage is important because it offers a platform for countries to find amicable solutions and prevent disputes from proceeding to the adversarial stage before the panel.

The way forward

Trade rules play a crucial role in whatever shape or

theyevolve—theworld today is increasingly interdependent today is increasingly interdependent of the environment. The AB crisis will find a solution, and newer trade antibiotics has put the entire ecosystem to be entered into—India is negotiatindians with the ASEAN Australia China, Japan are exposed to a high concentration of and South Korea. It is party to five other

ve trade agreements (with Singapore feelstant bacteria via aminiarand sea foo

water from rivers and lakes that are supe stment agreements. Therefore, it is imp r- bug hot spots. A solution for India, nsure there- for domestic laws and there- fore, will also be boon for nade 'trade-smart' to begin with, and not Second, India has a real chance of find

> ing a solution. It has inherent strengths that will act as deterministic success tors for this mission: rich ecological dive r- sity, access to a huge, pre-existing knowledge source natural-products-based cures in traditional medicine systems, an

> d the intellectual prowess of Indian

Third, this mission ties in beautifully with another heartening resolve that was announced by the FM-access to treated water to all Indian households. Projects aiming at ensuring water safety and sani- tation hygiene for Indian citizens will go in vain unless other avenues of infection control and prevention are also plugged.

The world may slip into dark ages—