Opinion

FRIDAY, APRIL 19, 2019

CHILDREN-FIRST ASSISTANCE MUST

Panos Moumtzis, UN humanitarian coordinator for Syria crisis

Children should be treated first and foremost as victims. Any solutions must be decided on the basis of the best interest of the child... irrespective of children's age, sex or any perceived family affiliation

RationalExpectations

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It's just Hindutva, not development

BJP may be right that Sadhvi Pragya's charges were trumped up, but fielding her before an acquittal suggests anything goes

THOUGH THE ELECTION campaign started off as somewhat centred around development issues—hence the Opposition's talk of joblessness, farm distress, etc—with nationalism-read-as-Hinduism as the backdrop, it has rapidly deteriorated into an all-out communal one. So, on the BJP's side, union minister Maneka Gandhi set the ball rolling by telling Muslim voters that she wouldn't want to give them jobs if they didn't vote for prime minister Narendra Modi; given that Gandhi repeated the threat to even Hindu villagers by saying villages that didn't vote for Modi would find their work getting done last, though, suggests her bullying may not have been restricted to just Muslims.

On the other side, BSP chief Mayawati made a clear appeal to the Muslim community, asking it to vote as one against the BJP, proving the adage—or at least the belief among politicians—that Muslims vote their religion while Hindus vote their caste. Punjab politician and former cricketer Navjot Singh Sidhu made the same appeal to Muslims in Bihar. In other words, the battle has clearly been cast as one of Hinduism vs caste (plus Islam), at least in key north Indian states where the Opposition has aligned along caste lines.

On Wednesday, the BJP, in turn, dramatically ratcheted up the Hindutva component of its campaign by announcing the candidature of Sadhvi Pragya Singh Thakur in Bhopal against Congress leader and ex-Madhya Pradesh chief minister Digvijay Singh. Given Sadhvi Pragya is still under trial for her role in the Malegaon blasts in 2008 that killed six Muslims, and that Digvijay Singh was the principal architect of the term 'Hindu terror'—used to arrest people like Sadhvi Pragya—the BJP top brass has obviously decided to make this a Hindutva-anti-Hindutva battle.

As part of his 'Hindu-terror' campaign—as a counter to the term 'Islamic terror'—for instance, Digvijay Singh had even said that the Batla House encounter where two terrorists were killed was, in fact, a fake; in that case, then home minister P Chidambaram had said the encounter was genuine. Singh even claimed Mumbai Anti-Terrorist Squad (ATS) chief Hemant Karkare had told him—before Karkare was killed in the 26/11 attacks—that he feared Hindu extremists would kill him; Karkare was in charge of the investigation that eventually led to Sadhvi Pragya's arrest. Singh, in fact, made this statement at the launch of a book that claimed 26/11 was actually an RSS plot, not one hatched by Pakistani terrorists.

> Digvijay Singh is the father of the 'Hindu terror' story, and there are gaps in the case against Sadhvi Pragya, but Singh can't be fought by someone who has still not been cleared by the courts

To that extent, pitting an alleged victim of the 'Hindu-terror' tag versus the originator of the concept appears a master coup since the BJP has, for long, held that the charges were trumped up. So while the initial charges talked of meetings among the conspirators that Sadhvi Pragya was part of, later the charges centred around mobile phone calls between the conspirators. While those defending Pragya spoke of big gaps in the prosecution's arguments, including the call data records as well as the register of the circuit house in Indore where the accused are supposed to have met, the National Investigation Agency (NIA) which took over the case in 2011, said the most crucial evidence—a statement by Yashpal Bhadana who said he was present at some of the meetings where Sadhvi Pragya was present—was incorrect as Bhadana later said he made the statement under duress. Indeed, Sadhvi Pragya herself has alleged severe torture—the hospital report mentioned rupturing of the stomach and lung membranes—and duress when she was in custody, and was repeatedly denied bail though she was even diagnosed with cancer and needed treatment. The public prosecutor even argued that the tissue samples tested may have belonged to someone else!

The NIA also said that Sadhvi Pragya's motorcycle—used to plant the bomb—had been in possession of another accused, Ramchandra Kalsangra, for two years before the blast. In the event, NIA gave Sadhvi Pragya a clean chit. While the Maharashtra Control of Organised Crime Act (MCOCA) charges were dropped by the court, Sadhvi Pragya is still being tried under the Unlawful Activities Prevention Act (UAPA).

While the BJP may be right in believing the 'Hindu terror' cases were trumped up—last month, the NIA special court acquitted the other 'Hindu terror' accused Swami Aseemanand and three others in the 2007 Mecca Masjid blast case—the fact of the matter is that Sadhvi Pragya has not been acquitted by court. If the BJP feels comfortable with fielding Sadhvi Pragya, then how can it object to other parties fielding those accused of murder or rape. According to the Association of Democratic Reforms, 17% (213) of the candidates in Phase 1 of the elections had criminal cases against them, of which 12% (146) were serious cases; 10 related to murder and 25 were attempt to murder. In Phase 2, 16% (251) of the candidates had criminal cases against them, of which 11% (167) were serious cases; six related to murder and 25 were attempt to murder. Around 30% of the BJP's candidates, so far, have criminal cases against them and around 20% of the candidates have serious criminal cases.

Sadhvi Pragya may well win the elections, but the "people's court" is not a substitute for the real thing. Ideally, the BJP should have waited for Sadhvi Pragya to be acquitted. Indeed, India needs special courts to try such political cases since it is possible—like the BJP is arguing in the case of 'Hindu terror' charges—the charges are trumped up. It is certainly curious that from 2008, when Sadhvi Pragya was first arrested till 2014 when the BJP came to power—it is only after this that allegations can be made, if any, of interference with the investigation—the investigation was not completed and the case was put to trial. But in fielding Sadhvi Pragya, the BJP has let short-term electoral gains dictate its policies. The election is now mainly about Hindutva, not development.

BrainDead?

Yale research plants the germ for restoring brain function after death

HOW DEAD IS dead? Scientists have long considered the puzzle. With modern medicine, clinical death is no longer death, only a pause if luck, and extreme medical competence, is on your side. Now, Yale researchers have queered the pitch further, by restoring some cellular activity in brains removed from slaughtered pigs. The brains—predictably—did not show sort of consciousness or alertness. The study, instead, showed that the death of brain cells could be halted and that some connections in the brain were restored, but without any meaningful form of awareness. The research, conducted by Yale University scientists, grew out of efforts to enhance the study of brain development, disorders and evolution.

Results of the experiment run contrary to long-held principles relating to the death of the brain—though these had been challenged in recent years by scientists—that vital cellular activity in the brain ceases almost immediately after oxygen and blood flow are cut off. The limited rejuvenation of activity was achieved four hours after death by infusing the brains with a special chemical solution. Although the team of scientists stressed that the study offers no immediate therapeutic benefits for humans, the results pave the way for new research that may ultimately help doctors find ways to revive brain function in patients for restoring brain cells damaged by injury or sickness. In the meanwhile, the study certainly blurs, even if by a tiny bit, the already foggy lines of death. This, in turn, introduces unprecedented complexities. For instance, with the march of research in restoring consciousness, how will our views on euthanasia change?

STATE OF THE FISC

ACTUAL FISCAL DEFICIT FOR FY18 IS NOT ONLY LOWER THAN ITS REVISED ESTIMATE (2.5% VS 3.1%) BUT ALSO LOWER THAN THE ACTUAL DEFICIT FOR FY17, MARKING THE FIRST CONSOLIDATION IN YEARS

The enigmatic finances of India's states

PRANJUL BHANDARI
Chief economist, India
HSBC Securities and Capital Markets

INDIA'S PUBLIC SECTOR borrowings remain sticky and at elevated levels; however, the underlying mix has been changing. The period FY13-17 was characterised by the central government lowering its fiscal deficit, and states offsetting some of those efforts by running wider deficits in almost each of the years. Between FY12 and FY17, the consolidated state deficit had risen from 1.9% to 2.8%. However, after lowering the deficit every year since FY13, the Central government paused in FY18. The Central government's fiscal deficit came in at 3.5% of GDP, the same as in the previous year. The FY19 and FY20 estimates of 3.4% each also did not show much consolidation either. On the other hand, after rising almost every year since FY13, the state fiscal deficit fell notably in FY18. What is driving this fall? And are we at an inflection point for state finances?

At the start of a fiscal year, every state announces the 'budget estimate' for the fiscal deficit. Towards the end of the year, they announce a 'revised estimate'. And, one year later, they release the 'actual' data. Actual data is superior as it is audited and, therefore, final. The coexistence of three versions of the data would not have created much problem had it not been for the fact that over the last few years, the 'actual' aggregate state fiscal deficit is turning out to be lower than the revised estimate. And the difference is rising. This creates a problem. Until the actual data are available a year later, how does one think about the state fiscal stance? Is it rising, or falling? What is not subject to revision, though, is every state's net market borrowings. Over the last three years (FY16-18), net market borrowings are funding about 80% of the state fiscal deficit (excluding UDAY borrowings). Assuming that the proportion remains unchanged, a rough estimate of the 'actual' fiscal deficit can be worked out.

The actual fiscal deficit has been higher than the previous year's fiscal deficit for almost every year between FY13 and FY17.

However, FY18 seems different. RBI had pegged the FY18 'revised estimate' at 3.1% of GDP, higher than the 2.8% 'actual' deficit of FY17. But the study of recently released 18 state budget documents suggests that the FY18 'actual' could be closer to 2.5% of GDP, lower than the 2.8% 'actual' fiscal deficit in FY17. This marks the first notable fall in the 'actual' state fiscal deficit in five years.

Net market borrowings fell by 0.2% of GDP between FY18 and FY19. Assuming that the proportion of state deficit funded by market borrowings remains at least 80% as in the previous year, the FY19 actual fiscal deficit to be released next year will turn out to be lower than the FY19 revised estimate of 2.9%.

FY20: The 18 state budget documents suggest that India's states are pegging a fiscal deficit of 2.5% of GDP for FY20. This implies that the FY20 state fiscal deficit, too, may be no worse or no better than in FY19. All said, while the states are running higher deficits than a decade ago, they have inched lower compared to their FY17 highs. And perhaps there are some good reasons supporting this. A confluence of factors was pressuring RBI over the FY13-17 period: (1) The Seventh Pay Commission (SPC) called for a higher wage and pension bill. (2) UDAY borrowings raised the interest bill. (3) Lower oil prices hurt tax revenues. (4) And the slowdown in the real estate sector depressed stamp duty revenue. Some of these drivers have faded. Most SPC wage increases are done. UDAY borrowings are done. And oil prices are higher than a few years ago.

Alas, things don't look as good with all parts of the fiscal picture put together: -

- Elevated borrowings: Despite states running lower fiscal deficits, borrowings in FY20 are likely to grow faster than nominal GDP growth and are likely to remain elevated at 8% of GDP. There are three reasons for this.
- PSE borrowings: These have 'galloped' in recent years. Almost half of the ₹4.5 trn PSE borrowings in FY19 were by the Food Corporation of India.
- Central government borrowings: Borrowings are likely to rise 24% y-o-y in FY20, led by a sticky fiscal deficit and a rapid rise in the repayment bill.
- State redemptions: With state borrowings having risen over the last few years, the redemption bill is on the rise. It has risen from 0.2% of GDP in FY16 to 0.7% of GDP in FY19. Looking ahead, it cannot be said with certainty that they are at an inflection point. Two of the reasons are as follows:
- Oil: The value-added sales tax on petroleum products accounts for 15% of the states' self-collected tax revenues. This leaves them vulnerable to oil price volatility.
- Rural schemes: Over the last year, several states have announced farm loan waivers and direct cash transfers. If more and more states join the fray, without 'weeding' out old schemes, this could lead to a ratcheting up of current expenditure.

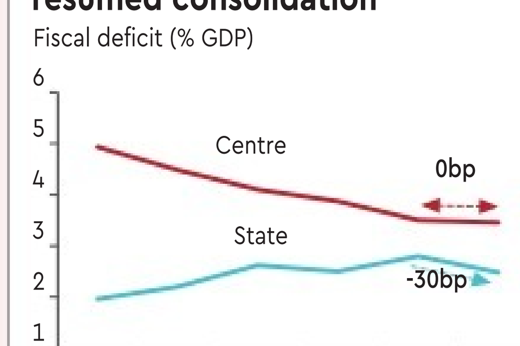
For FY20, all three arms of the government—the Centre, the states and the PSE—are budgeting a lower capex spend. There is a double whammy for capex. The government is not spending much on investment. And the private sector is being crowded out as the government is running an elevated fiscal deficit. Over time this could weigh on India's potential growth. Elevated borrowings and insufficient capital expenditure are likely to keep us on guard, despite some improvements in state finances.

Edited excerpts from HSBC's *India's enigmatic state finances* (April 15)

Co-authored by **Aayushi Chaudhary** and **Deep Nagpal**

FY18 marked a change: the centre paused, while the states resumed consolidation

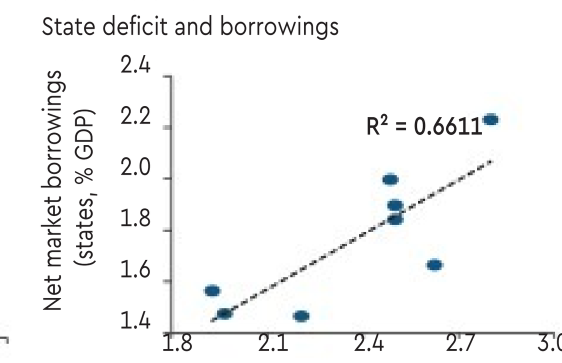
Fiscal deficit (% GDP)



Source: RBI, CEIC, HSBC

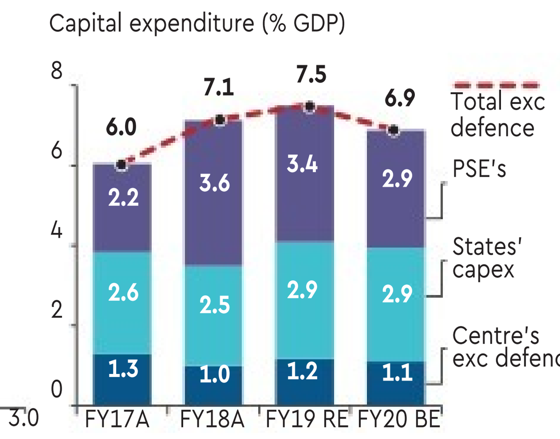
Net market borrowings are a good indicator of the 'actual' fiscal deficit

State deficit and borrowings



Capex bill budgeted to fall in FY20

Capital expenditure (% GDP)



Source: Budget documents, HSBC RE – Revised estimates, BE – Budget estimates

Utilising endowment funds of DMFs

Endowment funds created through District Mineral Foundations (DMFs) can increase the period for which funds are available and protect projects against price fluctuations

JOYITA GHOSE
Associate fellow at the Centre for Resource Efficiency and Governance at The Energy and Resources Institute (TERI)

A RECENT REPORT of the Parliamentary Standing Committee on coal and steel examines the functioning of District Mineral Foundations (DMFs) and finds that fund utilisation has been much lower than expected. DMFs are district-level institutions that receive a share of mineral revenues and use these to fund projects to improve access to drinking water, healthcare, education, and sanitation, amongst others. The report of the Standing Committee states that only 23% of the total amount collected had been utilised till August 2018. More recent numbers tell a similar story, with approximately 23% of the ₹245.3 billion collected by DMFs across the country having been utilised till January.

High fund utilisation is not always an indicator of a scheme's success as it does not tell us much about the quality of assets created or services provided. Nonetheless, the failure to use DMF funds seems to be a disservice to mining-affected communities. However, the issue is a larger one. While making funds available locally is a necessary first step, it is not a solution in and of itself. The capacity to use DMF funds effectively needs to be improved, while also continuing to use existing mineral revenues appropriately.

In this context, it may be worthwhile exploring a lesser known aspect of DMFs—the provision to establish endowment funds. Unlike annual budgetary funds that use mineral revenues to finance projects for the duration of mining, endowment funds invest a part of this revenue to continue to get returns on investments even after the minerals are depleted. For example, in the US, the Alaska Permanent Fund invests a certain portion of the mineral revenues to provide an annual dividend to all residents of Alaska, much like a universal basic income.

In fact, the Economic Survey 2016-17 discussed creating a permanent fund at the national level in India into which all mining revenue can be deposited, along these lines. It recommended re-distributing any income that is earned from investments to individuals affected by mining.

While this specific recommendation has not been implemented in practice, the central guidelines for DMFs permit them to keep a portion of their receipts in an endowment fund. States such as Chhattisgarh, Jharkhand, Maharashtra, and Tamil Nadu have provided for establishment of endowment funds, but without details on how they are to be operationalised. Goa, Karnataka, and Andhra Pradesh, however, have specified that 50%, 20%, and 0.5% of DMF revenues, respectively, should be transferred to an endowment fund.

> While some states have allowed for the creation of endowment funds, there is limited information on the functioning of these funds

Given its experience in attempting to establish the Goa Iron Ore Permanent Fund, Goa has provided the most details on operationalising the fund. Half the amount collected by DMFs is to be used to fund projects, and the rest is to be invested in a FD/government bond/bank bond. Of the interest earned, 90% may be used to fund projects and the rest must be re-invested to enable the corpus to remain financially sustainable. However, since the formulation of the Goa DMF rules in 2016, progress has been slow and mired in legal controversy due to lapses in registering the DMF appropriately.

Thus, while some states have allowed for the creation of endowment funds in their DMF rules, there is limited information on the functioning of endowment funds in these states, and the challenges which state governments face in operationalising them.

The regulatory frameworks and practices that take shape around DMFs in the coming years, including those pertaining to endowment funds created through DMFs, will determine the extent to which they are able to deliver on their promise of equitable development for mining-affected communities. Endowment funds can increase the period for which funds are available and protect projects against price fluctuations. However, they may lead to losses if they are mismanaged through faulty investments and require diverting money from projects that meet communities' immediate requirements.

The experience with existing endowment funds shows that creating rules that outline saving, investment, and spending processes clearly, and develop a monitoring framework that encourages compliance with these rules can prevent mismanagement. Monitoring and accountability can be strengthened through making information about funds publicly available, involving key stakeholders such as representatives of affected communities in decision making, and instituting independent audit mechanisms.

LETTERS TO THE EDITOR

Jet in hot water

Our worst fears have been realised with Jet Airways deciding to temporarily ground operations after its lenders declined a ₹400-crore lifeline, putting 20,000 jobs and thousands of crores in passenger refunds on the line. India's longest-serving private airline is also in the dock for non-payment of dues to vendors and banks. The National Aviator's Guild's distress call to the PM to bail out the employees appears to be a cry in the wilderness. However, with the consortium confirming receipt of bids for the stake sale, there is a ray of hope yet for Jet

— Ravi Chander, Bengaluru

Doled out data

With recent incidents on leakage of personal data via unsecured interfaces and non-encrypted storage of passwords across social media servers coming to light, serious questions are being posed over the implementation of regulations and cognisance towards security needs of consumers. Accountability of owners should be ascertained with a greater consistency to encourage business ethics and adhere to content management, information/financial security and data encryption norms. Recurring deviations call for due diligence and standardisation across diktats in order to promote consumer awareness and fulfill security requirements, especially when most e-commerce platforms at present offer a multitude of services and continue to focus on diversification to widen their horizons. Prior to a market rollout, products/services must be optimised for performance and thoroughly validated/tested for compliance to integrity/confidentiality benchmarks

— Girish Lalwani, Delhi

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CHLOROPHILE

India's silent chickpea revolution

Once a winter favourite for farmers in North India, the crop lost ground there to wheat and rice. But, in Andhra Pradesh's hot climes, it is being ressurected by research efforts of agri-scientists

THE ADAPTATION OF chickpea or chana, a winter crop edged out of northern India by the Green Revolution in wheat and rice, to the warm climates of south and central India, is an event that is perhaps little known outside the realm of agricultural researchers.

The green revolutions in wheat and rice, enabled by the crossing of traditional Indian varieties with short-statured, high-yielding and fertilizer-responsive ones imported respectively from the International Maize and Wheat Improvement Centre (CIMMYT) in Mexico and the International Rice Research Institute (IRRI) in the Philippines resulted in a quick step-up of both yields and output. But the "Silent Chickpea Revolution of Andhra Pradesh" took a long time to bake. The pace was slow and the "revolution" was hardly noticed.

Even as chickpea was being displaced from northern India, it helped that the International Crops Research Institute for the Semi-Arid Tropics (Icrisat) was set up near Hyderabad in 1972. Like the two organisations mentioned before, it is part of a global network of 15 agricultural research institutions, collectively known as CGIAR that were put together by the World Bank. Apart from sorghum, groundnut, pigeonpea and millets, Icrisat took up chickpea for breeding.

The chickpea varieties cultivated in northern India thrived in cold winters and matured in about 150 days. In south and central India, the winters, if they can be called so, are short. The crop has to face dry and hot weather as it matures and is likely to be attacked by wilt and pod borers.

The first set of varieties developed at Icrisat, wilt-resistant and maturing in about 100 days, was released in 1993 after four years of strategic and 12 years of applied research. Icrisat's vast collection of propagating material (or germplasm) with useful traits aided the adaptation. These varieties were trialled at the research stations of state agricultural universities at Jabalpur, Guntur, Nandyal, Sehore, Akola and Rahuri. The trials were coordinated by the Indian Institute of Pulses Research (IIPR) in Kanpur. It was a collaborative effort. The initial varieties did not click with farmers. The second set was released between 1990 and early 2000s after six more years of research. They won over the farmers of Andhra Pradesh and by 2012 had replaced Annigeri, a desi variety released in 1978. Farmers gained from higher yields and lower unit cost of production.

Among the new popular varieties was JG 11 developed at the research station in Sehore, near Bhopal, with Icrisat lines. The station was then part of the Jabalpur-based Jawaharlal Nehru Krishi Vishya Vidyalaya. In the all India trials it was found suitable for southern India. Chickpea breeder S K Rao who was at the Jabalpur university recalls requisitioning about one quintal of the seed from the breeder in Sehore and producing in two years about 500 quintals of nucleus seed through a network of 55 farmers. Rao, who is vice-chancellor of a state agricultural university in Gwalior, is credited with helping set up Madhya Pradesh's seed supply system. He tapped the State Farms Corporation and the seed corporations of Andhra and Karnataka to produce foundation and certified seeds which were distributed to farmers of the respective states. JG 11, a desi variety, resistant to wilt and tolerant to the pod borer replaced Annigeri over time. Both have similar maturities—100 days—but JG 11 can give a yield of 1,483 kg per hectare on the lower side, about 50 percent more than that of Annigeri.

Other varieties followed. Panjabrao Deshmukh agricultural university in Akola released KAK 2 in 1999. It is a bold Kabuli variety maturing in 90-110 days, with a yield of about two tonnes per hectare. From the state agricultural university at Rahuri in 2002 came Vihar, a large-seed Kabuli variety with a yield of about 1,800 kg per hectare. The regional research station in Nandyal of the state agricultural university in Hyderabad set up in 2004, released varieties like NBeG 3 in 2012 which tolerates drought and heat. NBeG 119 is a bold Kabuli variety, a hundred seeds of which weigh 42 grams (compared to 23 grams for JG 11). NBeG 47, released in 2015 is a machine-harvestable variety. It is about two feet fall – double the height of manually-harvested ones – with branches starting about one foot from the ground. In all about more than 20 varieties have been released for Andhra

> Getting farmers to grow a new crop is not easy. Some will take the initiative, while others will await the success of the first-movers.

Owing to these developments, chickpea has made up for the loss of area in northern India. In Punjab, the chickpea area, which averaged 3.2 lakh hectares between 1971 and 1980, fell to about 4,400 hectares during 1971-80. Now, Punjab does not figure among the major chickpea-producing states. At 580,000 hectares, the area in Uttar Pradesh has declined to a third of its 1971-80 level. But the country's chickpea area of 7.5 million ha during 1971-75 has increased to 8.22 million hectares. Among the five major chickpea-growing states, Andhra Pradesh has the lowest area, averaging 538,000 hectares between 2011-12 and 2015-16. But it is an eight-fold increase from the average of 64,700 hectares during 1971-80. Madhya Pradesh, the largest chickpea producing state has seen a seven fold increase to over three million hectares during this period. Karnataka's area under chickpea has grown six-fold to a little less than one million hectares, while that of Maharashtra has increased more than three-fold to 1.44 million hectares. Getting farmers to grow a new crop is not easy. Some will take the initiative, while others will await the success of the first-movers. The chickpea plant is also not precocious. Effectively, each will yield about 20 good seeds. Multiplication takes time. The seed rate is also high. An acre needs about 40 kg of seed, while for pigeonpea or tur 3 kg will suffice.

Among the new breed of chickpea farmers, Andhra's have been the most progressive. They are quick to adopt new seeds and have a high seed replacement rate. The state's average yield is the highest at 1,153 kg per hectare, followed by Madhya Pradesh at 1,055 kg per hectare. Within Andhra, Prakasam district leads with an average yield of 1,710 kg per hectare, followed by Kurnool at 1,143 kg per hectare. In YSR district (formerly Kadapa), the average yield is 847 per hectare. The national average is 910 kg per hectare. It is noteworthy, that these yields have come from varieties with abridged maturities.

Average annual production of chickpea has risen from the annual average of 4.88 million tonnes during 1970-80 to 7.38 million tonnes during 2005-15. This is a reason for India achieving sufficiency in pulses. "The production of pulses has stabilized," says Narendra Pratap Singh, Director of IIPR, who coordinated the all India chickpea trials for nine years till 2014-15. Chickpea has been the prime contributor, as it accounts for 46 percent of the country's pulses production.

"Chickpea is best and easy farming method," says Y. Govardhan Reddy, 42, of Balapanur village in Kurnool district's Panyam mandal. A traditional chickpea grower he was the first to switch to the new varieties in his village. He produces seed for the Nandyal research station, which fetches him a 25 percent mark-up over the market price of the pulse. Reddy says he gets 10 quintals of output per acre, which is higher than the average productivity of the district. At the market price of Rs 4,500 a quintal (lower than the government's support price), he should have made a decent profit, had the drought this year not let him down.

Chickpea needs two irrigations. A bag of DAP fertiliser is enough for one acre. The cost of cultivation ranges between Rs 12,000 to Rs 16,000 an acre, excluding the value of family labour and own capital, according to V Jayalakshmi, Principal Scientist at the Nandyal research station. More than 95 percent of the chickpea area in Andhra is under new varieties, she says.

B Sreeramulu, 45, also of Balapanur village, has seen his yield shrink to 3 quintals an acre—a third of usual—despite irrigation. It is an aberration that does not dishearten him. "This is a guarantee-crop," he says. Reddy grows a variety of pulses including chickpea on 30 acres which he cultivates jointly with four brothers.

At Pathakandukuru village in Kurnool district's Allagadda mandal, R. Radhakrishna, 35, has planted NBeG 4, a machine harvestable, large-seed desi chana variety. Last year, he harvested 7.5 quintals hectare which he sold as seed, at a premium. A graduate in science with a diploma in agriculture, Radhakrishna finds chickpea a better bet than mungbean because it needs less water, fertiliser, pesticides and labour.

There are inventive farmers like M Venkatrami Reddy, 65, of Kotapadu village in Kurnool district's Kolimigundla mandal. He has planted chickpea on ridges, with furrows in between for irrigation to minimise water use. He hopes to save a substantial sum by displacing workers with bullocks for weeding. Because of the wide spacing between ridges, he had used 15 kg of seed per acre (a third of the norm) but had hoped to harvest about four quintals more. A lack of rains has scuttled his plans.

"The adoption of new varieties and good agronomic practices," are aspects that India can learn from Myanmar and Ethiopia, says Pooran Guar, Research Director for Asia at Icrisat. He has overseen chickpea breeding at the institute since he moved from Jabalpur University in 2001. (In April Icrisat awarded him for chickpea breeding). In Myanmar, 96% of the chickpea varieties are Icrisat's. Ethiopia has a high average productivity of about two tonnes per hectare. Comparing India, where chickpea is grown in diverse conditions, to them "is not fair," he says. But chickpea farmers in Maharashtra, Madhya Pradesh and Karnataka can gain by imitating those of Andhra. By planting new varieties and given them proper care, they can raise their yield considerably.

A clean Yamuna soon?

RC ACHARYA

Former member, Railway Board

If all of DJB's ambitious plans materialise, the river may yet be saved

LIKE MANY INDIAN RIVERS, Yamuna suffers the distinction of being grossly abused and polluted. As the main water body of Delhi NCR, with its politically charged environment and scores of activists, its state has also attracted a lot of judicial scrutiny.

Ranging from rampant mining in Uttarakhand on its river banks to its deteriorating water quality, poor environmental regulation, inadequate waste management and unregulated construction on its flood plains, a host of issues plaguing the Yamuna has had both the Supreme Court of India and the High Court of Delhi coming down heavily on the government departments charged with ensuring its health.

Based on a news item in 1994 titled 'And quiet flows the maili Yamuna', the Supreme Court had taken suo-motu action, emphasising that the authorities need to take effective steps to deal with the quality of water. In order to tackle this problem on a war footing, the Delhi Jal Board (DJB) was set up through an Act of Delhi Legislative Assembly in April 1998.

Though it has been meeting the needs of supplying wholesome filtered water to the National Capital Territory of Delhi, whose population has spurted to more than 1.6 million now, it is the shortcomings in preventing pollution of Yamuna that has generated the maximum criticism of the DJB.

Against an estimated generation of around 720 mgd (million gallons a day) of sewage, the installed capacity for treatment by DJB is 620 mgd, of which only 490 mgd is being utilised. Or, 130 mgd of untreated effluent sewage flows into the Yamuna.

The 8,100-km-long internal, peripheral and 200-km-long main trunk sewers covering 130 urban villages, 54 villages and a whopping 266 unauthorised colonies, are able to provide sewerage facilities to only around 70% of the population of Delhi. Sewerage system needs to be laid in the remaining unauthorised colonies—though work is already in progress in 355 such colonies.

A Sewerage Master Plan 2031 envisages laying of sewer lines in all unsewered areas in a phased manner so as to meet the demands by that year. DJB has also taken up an ambitious project to rehabilitate 167 kms of existing peripheral and 21 kms of trunk sewers.

Under Yamuna Action Plan (YAP) III, in addition to rehabilitating old STPs (Sewage Treatment Plants) at Kondli and Rithala, a brand new 124 mgd capacity STP is to be built at Okhla to replace the existing smaller capacity ones.

DJB has also been striving to minimise discharge of treated effluent into Yamuna and encouraging its use for non-potable purposes. This also incidentally reduces the demand for potable water supply to the city.

However, so far it has succeeded in supplying only 89 mgd of treated effluent to Delhi-based agencies, viz. the National Drugs and Pharmaceuticals Ltd., the Central Public Works Department, the Delhi Development Authority, Central Road Research Institute, the New Delhi Municipal Corporation, and the East and South Delhi Municipal Corporations, mostly for horticulture and air-conditioning requirements.

There is ample room for greater use of treated effluent from the STPs, in particular, for rejuvenation of Delhi's other long neglected water bodies such as Sanjay lake, Bhalsawa, and Hauz Khas, etc. There is also scope for rejuvenation of the Jehangirpuri marshes, water bodies at Narela, Dwarka, and, of course, ground water recharge within the vast premises of STPs and Sewage Pumping Stations (SPSs).

In 2015, its new 10 mld (million litres a day) tertiary treatment plant has managed to meet the water required by Delhi Transport Corporation for washing its fleet of buses at Sukhdev Vihar. However, it has so far not succeeded in getting the water quality upto the mark for use of effluent as raw water which can further be treated and used for drinking purposes at any of its 20 locations across Delhi.

At present, three major drains—Najafgarh, Supplementary and Shahadra—carry more than 70% of Delhi NCR's raw sewage into the Yamuna for which interceptor sewers, to trap 242 mgd of sewage, are now being built. These could become a major factor in reducing pollution levels of the Yamuna. This mega initiative has been included in KPMG's list of 100 most innovative infrastructure projects in the world.

However, the day is not far when Yamuna, with proper river training, removal of encroachments from its banks and river front development, could become a prized recreational area with boats plying up and down its stretch.

Banking on commodities

With banks participation, there could be higher coverage of commodities as banks can enable development of the markets

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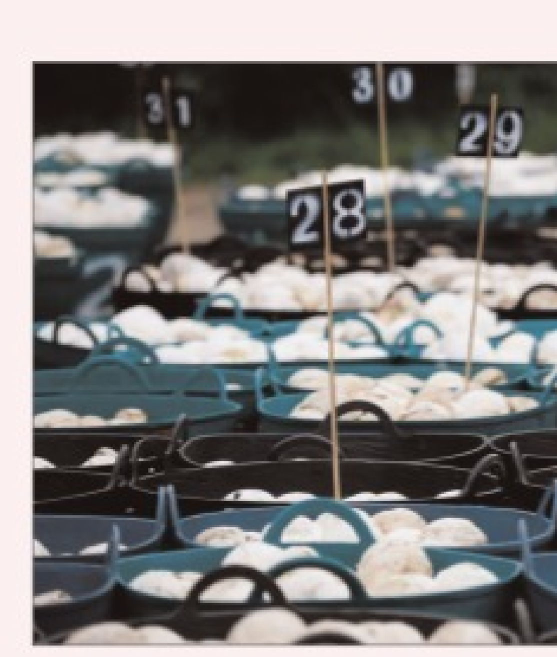

WHEN THE OHIO-BASED Huntington Bank, established in 1866, decided to diversify its product offerings in 2012, it had only to look at the opportunities available in its backyard—the vibrant commodity markets of the US Midwest. In the event, the bank started not only speciality initiatives in energy, food and agribusiness, but also launched commodity hedging services to help its customers succeed in the global markets. Today, Huntington is counted as one of the most successful banks, with matching metrics of operational performance and equivalent valuation comparable to that of the largest American banks. In India, banks have traditionally been one of the most significant players in financial markets, enabling and controlling the flow of finance to the real sectors while connecting money to the financial markets. India's commodity sector has, likewise, benefitted from bank finance—whether through crop loans at mandated below-market rates; business finances to those in the mining and metals segment; finance for creating infrastructure for storing, quality testing or transporting commodities; funding the production, procurement, refining, value addition, or financing commodities though pledge including the gold pledge.

Thanks to the section 8 of the Banking Regulation Act, 1949, our banks have been, since Independence, saved from the vagaries of financing commodities and having to end up dealing with the dilapidated ways of functioning of the opaque markets for commodities. Between Independence and now, though, markets have got transformed, and ICT initiatives and various other infrastructural and legal initiatives have further emerged to safeguard the interests of stakeholders. This is one of the key reasons the Essential Commodities Act, which safeguarded consumers against hoarders, has been sparingly used in the recent years, ably aided by the open trade policy adopted at the start of the 21st century. Further, legal codes such as Warehousing Development and Regulation Act, and institution of WDR Authority (WDRA), have been brought into being—not only to safeguard the interests of commodity stakeholders but also to make the electronic-Negotiable Warehouse Receipts (e-NWRs) issued by the Electronic Repositories under the regulatory supervision of WDRA safe, pledgeable electronic instruments. Coming into being of e-NWRs not only makes commodities underlying them loan-worthy but also protects the bankers from the misdeeds of the paper era. It is a different story that WDRA approved warehousing is just about 4.5% of total available warehousing capacity for agri/horticultural products. In fact, the total value of issued e-NWRs during FY19 accounts for a negligible portion of the total amount of the banks' exposure to commodity lending. Ignorance is not only no bliss for growth of regulated warehousing capacities, but also retards the development of the commerce behind storage capacity. A well-developed storage infrastructure, backed with funding of stored commodities, would have gone a long-way to contribute to a well-developed forward curve for commodities, leading to efficient decision making by borrowers.

Compared with a decade ago, greater efforts have been made by exchanges, regulators and government institutions to make prices transparent. Though, the quality of products sold is a missing dimension of the prices disseminated, it would help lenders protect their credit risk effectively—thus making commodities a clearly bankable product. Growth of collateral management agencies and related activities provided by the warehousemen is a clear boon to the lenders, improving the bankability of commodities. Further, with the adoption of the Model APMC by almost all the states, the monopoly of the APMC mandis and their registered traders is a thing of the past. It makes disposal of commodities behind defaults or the e-NWRs seamless through a standard process acceptable to the regulators and wins the trust of the participants. Healthy financing of commodities sector will go a long way in aiding businesses efficiently fund their working expenditure needs, and improve their competitiveness.

Besides, like their developed economy counterparts, banks can also help the commodity market stakeholders effectively hedge their commodity risks and thus reduce the risk of these businesses ending up as NPAs. A Working Group (2017) of RBI had, for instance, recommended that banks offer customised hedging products to their borrowers exposed to commodity risks, while taking back-to-back positions on commodity exchanges. If the same can be taken forward, it will ease the hedging process for the commodity businesses and could lead to effective adoption of risk management culture amongst commodity businesses. With banks participation, there could be higher coverage of commodities as banks can enable development of the markets by bringing in assistance on various other aspects of market development such as bringing in hedgers and hand-holding them, providing participants with independent market research, customising hedge instruments as per the risk profile of the participants with back-to-back hedge on the exchange platform. An offshoot of the activity of making available research reports could be setting up of an advisory desk with the knowledge of commodity markets and trade for banks. In fact, RBI has already asked banks to advise their clients to hedge their agricultural commodity price risks. Taking a cue from this, banks can also start a full-fledged commodity advisory desk, consulting clients on hedging or investment strategies. The Indian commodity derivatives market is currently undergoing path-breaking transformation, focussed on institutionalisation of the markets, widening of participation, enriching the product profile, strengthening intermediation, etc. Such a transformation opens up opportunities for the banking sector in terms of diversifying product/service portfolio. Policy initiatives such as 'Make in India' and increasing per capita income levels are likely to make the country commodity-intensive as the manufacturing sector shifts its production base, to cater for increasing domestic consumption besides serving the export demand. Sustenance of such a transformative policy measure is dependent on the opportunities available for adoption of global best practices by the investors. Banking sector handholding them and serving them with products that best suits their hedging needs with a back-up on the existing exchange traded commodity derivatives will go a long way in inculcating risk management as culture.