The Prime Minister dedicated India’s longest highway tunnel - the Chhamki-Nala tunnel in Jammu & Kashmir - to the nation recently.

The tunnel is part of the 294-km-long four-laning of the Jammu-Katra National Highway. The structure consists of a 9 km-long, two-lane main tunnel with a parallel escape tunnel of same length. The two tunnels are connected by 29 cross passages at regular intervals along the entire length of the tunnel. These cross passages can be used for evacuation of vehicles and commuters in case of breakdown or any other emergency. There are two minor bridges on the south and north side and 4-lane approach roads with 3% grades on both ends of the tunnel. The maximum height permitted in the tunnel is 5 meters and for checking the height special sensors have been installed just before the full-pavement do-ahead works.

The tunnel has an efficient, transverse ventilation system. There are intake blower fans at an 8 metre interval and outlet for exhaust every 100 metres. There is also a fully-integrated control system with ventilation, communication, power supply, incident detection, SS3 call box and the fire fighting. Tunnels with intelligent traffic management, the tunnel has fully automatic manual control and no human intervention will be required for its operation. The tunnel is also equipped with advanced sensors to warn of any anomaly threat. Very few tunnels in the world have this kind of fully-integrated tunnel control.

The project is environmentally friendly. The time saved on the Jammu-Baramulla route will further result in fuel saving of approximately 77 lakhs per day. Besides, the construction of the tunnel has avoided large-scale deforestation. The Chenani-Nashir tunnel will have a very positive impact on the state economy. In line with the MoU initiative, the skill sets of local people were developed and improved, and they were engaged for construction of this tunnel. The project has provided employment to over 2,000 unskilled and skilled youth of Jammu and Kashmir. About 94 percent of the work force was from the state. Around 600 to 900 people from across the country also worked on this project in shifts over the past 5 years.

Speaking on the occasion, the Prime Minister said that the tunnel will not only reduce the distance between Jammu and Srinagar but will also provide tourism infrastructure and weapon up employment opportunities for the youth and give a boost to development in the state. The Prime Minister travelled the entire length of the tunnel, and was briefed on some of its key features. The Minister of Road Transport & Highways said the Rs 9000 crores will be invested in highways projects in Jammu and Kashmir in the next two years which would include a new road around Jammu at a cost of Rs 5000 crores and another one around Srinagar at a cost of Rs 2000 crores. The tunnel is being built between Leh and Ladakh at a cost of Rs 6000 crores. During 2015-17, Rs 10000 crore were sanctioned for 72 projects in Jammu & Kashmir.

J&K Window

PM Dedicates India’s Longest Tunnel to the Nation

Centenary Celebrations of the Champaran Satyagraha:
Hon’ble Minister of I&B releases Publications Division Titles

To mark the Centenary celebrations of the Champaran Satyagraha, the Honorable Minister of I&B Sri Prakash Javadekar released three restored heritage publications on Gandhi’s thoughts and literature of the Publications Division. The three titles, ‘Gandhi in Champaran: Nirmala and Gandhi’s Correspondence’, ‘The Complete Works of Mahatma Gandhi’ and ‘A Hundred Years of Mahatma Gandhi’ were released by HMIS on 10th April, 2017 exactly hundred years from the day Gandhi arrived in Bihar to initiate the Champaran Satyagraha.

These titles, published in the 1960s and 70s, have been restored by the Publications Division in collaboration with the National Gandhi Museum, New Delhi, as many of them were out of stock for years. Speaking on the occasion the Honorable Minister Shri Javadekar stressed on the need to make the younger generation understand the essential message of Mahatma Gandhi through books, writings and media. He said that Gandhi provided valuable lessons of humanity, compassion and determination to the young minds. He said books like these give the next generation an opportunity to understand the essence of the philosophy of ‘Ahimsa Parmahamsa’.

Complementing the efforts of Publications Division in restoring and re-publishing heritage archival literature, the Minister said that the Government is always aimed at mainstreaming the ideals of Mahatma Gandhi by working towards the welfare of the poorest of the poor. He said that Publications Division should strive to restore and publish literature on Gandhi as well as on other heroes of the Freedom struggle from various regions of the country.

These heritage books are available at the Publications Division’s Slices outlets and the newly renovated Book gallery at Soochana Bhavan, CGO Complex, New Delhi. These books can also be purchased online through the Bharatkaum payment gateway. The complete Mahatma series is also available as e-books on Amazon.com, Kobo.co and Google Play Books.

Gandhi in Champaran - by DG Tendulkar. As the Champaran struggle forms an important chapter in India’s war of independence, this slender book by author DG Tendulkar is a close up of the first non-violent struggle. The author describes in a most simple and factual manner, the sufferings of the north Bihar district of Champaran in 1917, as Gandhi made his first attempt in India to remove, by truthful and non-violent means, the grievances and sufferings of the small peasants at the hands of the British Indigo planters. This heritage book has been restored from its first edition published in 1937.
Let noble thoughts come to us from all sides

Rig Veda

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The Story of a New India

India is rewriting its growth story in the global geopolitical economic landscape, charting new courses in its governance paradigm and striving to demolish the old images and impressions as viewed through coloured lenses in the comity of nations to evolve into a ‘New India’.

The world must indeed know that today, outside of America and China, India is the third largest economy with a robust, fast growing market for goods and services. The changing face of India, constantly challenging the status quo is brimming with examples of its leadership leading from the front across a spectrum of sectors in the last three years. Initiatives spearheaded by the government have deeply altered the mindsets and behaviours of people. The time has arrived when the stereotypical representations of India have to be discarded and the story of this ‘New India’ that is resurgent, resilient and resplendent needs to be captured in the face of crises and global threats.

Let us start with the most recent announcement of demonetisation of Rs.500 and Rs.1000 notes, one of the most impactful steps taken to curb the three pronged menace of black money, counterfeit currency and corruption. It provided a logical climax to the series of initiatives taken towards this cause in the first two and half years of the government which include closely collaboration with the Swiss bank officials, setting up of an SIT to deal with investigations on individual cases of tax evasion and Income Declaration Scheme, which mobilised tax revenue of nearly Rs. 65,000 cr. A move to purge the economy of the toxic black cash not only induces more efficiency and reduces corruption, but also gives room for the government and the central bank to cut tax rates and interest rates respectively, spurring up investments while being on track to attain the fiscal deficit and growth targets. This is the story of a Resurgent India.

India’s digital leadership was clearly visible post demonetisation when the effort to boost the Digital Payments ecosystem received a much needed fillip. The aim was to inculcate a behaviour change in promoting cashless transactions and converting India into a less-cash society, thereby seeking to increase transparency and accountability. It is heartening to note that about 1.5 crore people have adopted the BHIM app so far in just over 2 months time of its launch. To facilitate digital transactions, over 30 crore Rupay debit cards had been issued by the government including those issued to Jan Dhan account holders. Around 12.5 lakh people have won under the Lucky Grahak Yojana and 70,000 traders bagged prizes under the Digidhan Vyapar Yojana.

The author is Minister for Urban Development, Housing and Urban Poverty Alleviation and Information & Broadcasting.

M Venkaiah Naidu
provided the last chance to tax evaders to declare their income, the funds of which would be channelized for the benefit of the poor. Demonetization gives us a unique opportunity to harness this digital revolution to deal a mortal blow to corruption and black money. Payment through online channels significantly reduces the need for cash and brings about transparency in financial dealings. It is the responsibility of those who are well-versed in the use of digital channels for payments etc to teach those who are new to it. The fight to improve people’s living standards and weed out corruption and black money has to be a collective, societal effort. This is the story of a Digital India.

The opening of accounts under PMJDY, in turn, facilitated the channelizing of Liquefied Petroleum Gas (LPG) subsidy to targeted beneficiaries under the Direct Benefits Transfer (DBT) scheme or PAHAL. It is a reform initiative that has great potential to emerge as global best practice in benefit transfers to poor households. With more than 160 million registered beneficiaries, it is the world's largest DBT program. The primary aim of this program is subsidy reform, which is not doing away with subsidies, but targeting them effectively so that they flow only to the intended beneficiaries while bringing greater transparencies and terminating leakages and corruption across the length of the value chain. This scheme has saved the government nearly Rs. 22,000 cr on LPG subsidy since the time of its launch.

Demonetisation and other decisions taken in the economic sphere have gone hand in hand with the aggressive drive towards achieving universal financial inclusion and bringing every citizen into the formal banking net. Nearly 28.13 cr accounts have been opened so far under the Pradhan Mantri Jan Dhan Yojana (PMJDY) which gives a much needed fillip to move towards a cashless economy and realise the dream of ‘financial untouchability’. The scheme has managed to open more bank accounts in the last two years than in all the years since India’s independence to August 2014 combined. This is the story of an Inclusive India.

On the flip side of the PAHAL scheme is the ‘Give it Up’ campaign. This scheme encouraged customers who earn more than Rs. 10 lakh per annum, to voluntarily give up the LPG subsidy. The amount saved was used to give over 65 lakh new LPG connections to those who still use firewood or kerosene stoves for cooking. Over 1 crore users voluntarily gave up the subsidy benefit and saved the government exchequer to the tune of nearly Rs. 5000 cr. This is the story of an Incorruptible India.

The ‘Make in India’ Campaign is one of the flagship schemes of the government that aims at making India a global manufacturing hub and reaping the economic spin offs thereon in terms of better infrastructure, better employment opportunities and leveraging on India’s massive demographic dividend. The net foreign direct investment (FDI) inflows have hit an all-time high in early 2017 of the order of $3.35 bn and have more than financed the current account deficit. Foreign investment has increased by nearly 46 per cent since the launch of Make In India. This is the story of a Investor-friendly India.

The passage of the historic GST legislation is set to simplify the tax regime, create a nation wide market for goods and services and broaden the tax base giving a fillip to economic growth. Government revenues are set to rise, Logistics, Inventory costs, tax evasion will fall and manufactured goods would be cheaper. The dream of One nation, One tax is now a reality. This proves beyond doubt the decisiveness of the government. Manufacturing will get more competitive as GST addresses cascading of tax, inter-state tax, high logistics costs and fragmented market. There will be increased protection from imports as GST provides for appropriate countervailing duty. This is the story of a Transformational India.

To realise the dream of a more efficient economy, the Digital India Campaign was launched to step up digital infrastructure and promote digital literacy. Bringing on e-governance ensures efficiency and transparency while saving a lot of time on procedural matters. While this is in its early stages, proliferating this scheme across multilingual platforms and improved internet connectivity in rural areas can help scale up this initiative. The government realizes the importance of adequate infrastructure. This is why the government is committed
to establishing Bharat broadband, connecting 2.5 lakh panchayats to the Internet. As on January 29, 2017, Optical Fibre Cable has been laid to 76,089 gram panchayats with a total length of 1,72,257 kilometres. As many as 16,355 gram panchayats have been provided with broadband connectivity. This is the story of a Digital India.

One initiative which is synonymous with the government is the Swachh Bharat Abhiyan which can be hailed as a transformational move that sets the lofty goal of achieving an open defecation free India by 2019. The infrastructure in terms of the number of toilets constructed has been augmented manifold under this scheme. The next focus of the government is to address behaviour change by shackling age old cultural, social and religious norms that prevent people from using toilets. More than 4 crore toilets have been constructed so far since the inception of this scheme, and 573 cities, 1,88,008 villages and 130 districts have been declared Open Defecation Free (ODF). This is the story of a Clean India.

On the skill development front, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the government launched with the objective of enabling a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. With the slogan of “Kaushal Bharat, Kushal Bharat”, a total of 19.85 lakh youth have been trained and 2.49 lakh placed in FY 16, while 8479 training centers have been opened in 596 districts. This is the story of a Skill India.

The government believes in the maxim of ‘Minimum government, Maximum governance’ and this can be witnessed in the changed work ethic of the government. The current leadership has a professional work style and has ‘corporatized’ the governance by invigorating a new work culture in the government. Routine review meetings comprising of ministers and top bureaucrats, and periodic interactions with officials all across the country via video conferences forms the new hallmark. The biggest achievement of the government has been to curb widespread corruption in the system and eliminate delays and administrative bottlenecks as seen in decisions such as coal block allocations. This is the story of a Transparent India.

On the infrastructure front, initiatives such as the Smart Cities project, AMRUT Mission, Pradhan Mantri Awas Yojana, Credit Linked Subsidy Scheme, Pradhan Mantri Sansad Adarsh Gram Yojana, Pradhan Mantri Gram Sadak Yojana, passage of RERA among others have enhanced the performance of the sector.

On the infrastructure front, 23 States during Kharif 2016; 390 lakh farmers covered and 386.75 lakh hectares have been insured to the tune of Rs.1,41,883.30 crores. During Rabi 2016-17, as of now, 167 lakh farmers have been covered and about 193.35 lakh hectares insured over the sum insured of Rs. 71,728.59 crores. These numbers speak volumes about the government’s commitment towards the welfare of the ‘Annadaatas’ of the nation.

On the skill development front, initiatives such as the Smart Cities project, AMRUT Mission, Pradhan Mantri Awas Yojana, Credit Linked Subsidy Scheme, Pradhan Mantri Sansad Adarsh Gram Yojana, Pradhan Mantri Gram Sadak Yojana, passage of RERA among others have enhanced the performance of the sector.

Beti Bachao Beti Padhao, Atal Pension Yojana, Jeevan Jyoti Bima Yojana (PMJJBY), Krishi Sinchai Yojana, MUDRA Bank Yojana, Sukanya Samriddhi Yojana, Naiy Manzil Yojana among others try to ensure a well balanced development of all sections of the society, be it the girl child, senior citizens, farmers, minorities, urban house dwellers or rural villagers. The schemes of the government have touched all sections of the society and have simplified their lives. This is the story of the Garib, Kisan and Mahila who are reaping the benefits of a Transforming India.

Looking at India’s foreign policy, government’s efforts have been extremely proactive, with the Prime Minister having visited more than 50 countries across 6 continents in a span of a little over 2 years. The very first decision to invite all the SAARC
leaders for the swearing in ceremony can be hailed as a masterstroke that sent out a strong statement across the diplomatic circles, about Delhi’s intention of engaging closely with its neighbours under the current political dispensation. This is further validated by the fact that Bhutan was the first country chosen for a bilateral visit and the PM has visited all of India’s neighbours at least once so far.

India’s stance has changed from that of strategic restraint to greater assertion in response to terrorism from Pakistan. It has been made amply clear that India wants pure bilateralism and will not accept Islamabad’s talks with separatists as demonstrated by calling off foreign secretary level talks and walking out of regional summits (SAARC summit in Pakistan). The attack on the Indian army retaliated through surgical strikes further reinforced this position. Also, by boycotting the SAARC summit, India sent out a stern message to the extent of major world powers considering motions to declare Pakistan as terror state.

In her multilateral engagements, India’s bid to become a permanent member of the United Nations Security Council found many backers and significant progress has also been made for entry into the Nuclear Suppliers Group. India’s engagement in regional groupings such as BRICS, SAARC, BIMSTEC has been fruitful. India has also been able to lead the cause of the developing nations in multilateral negotiations on climate change (in Paris Summit) and trade negotiations in WTO.

The Indo-US relationship saw a paradigm shift under the current leadership. The Prime Minister has taken proactive measures to build a rapport with important U.S. political leaders and met President Obama six times just in his first 24 months in office and visited the United States three times. Defence ties between the two nations have continued along a decisively upward trajectory of growth and sophistication. India has also actively engaged with traditional allies such as Japan and Russia that has effectively checkmated China’s growing ambition in the South Asian region. Projects like TAPI, and Chabahar port agreement are meant to serve as an effective bulwark against Chinese hegemony in the region.

Apart from engaging with traditional allies, this government’s focus has been on building strategic ties with the newly emerging countries in Central Asia and Africa; countries plush with natural resources and significant strategic importance. India has taken the step in the direction to emerge as a natural leader. This is the story of an Emerging India.

Whether it is an earthquake in Nepal, or Indians stranded in Yemen, floods in Kashmir, or a fire in a Kerala temple, the government has always reached out to the people with relief and rescue measures. India’s soft power has been on full display by effectively leveraging events like the International Yoga Day. This is the story of an Caring India.

The last 3 years have laid the foundation for further progress of the nation to be initiated in the years to come. Most of these efforts have been pushed through by aggressive messaging across various communication channels—press conferences, television, radio, print and social media. The PM himself walks the talk by reaching out to the people through ‘Mann Ki Baat’, a monthly program on All India Radio. Concerted efforts by the government, opposition, administration, corporate, and citizens can help realise the dream of India as a developed nation emerging as a global super power. This is the story of a Communicating India.

Our story needs to be retold – and the West must move away from viewing India through coloured glasses and moth-eaten frameworks surviving from the days of Socialism long after this Ism was given a decent burial by mankind across the world. The above are just a few of the stories that illustrate a New India with New Energy and commitment commitment that Prime Minister Narendra Modi is building. This is the story of Mission MODI – Making Of Developing India.

(E-mail: venkaiahnaidu.muppavarapu@gmail.com)

First Largest Private Investment Initiative in Affordable Housing

Over 352 housing projects in 53 cities in 17 States across the country with an investment of over Rs.38,000 cr to build over two lakh houses were launched at Gandhinagar, Gujarat recently. These housing projects to be taken up by the members of Confederation of Real Estate Developers’ Associations of India (CREDAI) across the country is the first major private investments initiative into affordable housing. The event was held in the backdrop of several initiatives by the Government of India to promote affordable housing for Economically Weaker Sections, Low and Middle Income Groups including sanction of ‘infrastructure status’ for the housing sector.

Since the launch of PMAY (Urban) in June, 2015, the Ministry of Housing and Urban Development has approved construction of 17.73 lakh affordable houses for urban poor with an investment of Rs.95,660 cr in 30 States and Union Territories. For building these houses, central assistance of Rs.27,879 cr has also been approved. PMAY (Urban) was launched by the Prime Minister on June 25, 2015.
Prioritizing sanitation is critical for multiple reasons. The lack of sanitation is the leading cause of diarrhoea among children under five, leading to stunting among children and also results in several preventable child deaths. Sanitation is also critical for the safety and dignity of women. With India making massive strides towards becoming an economic super power, ending the practice of open defecation is absolutely imperative.

Unlike earlier era sanitation programmes, the SBM is not a toilet construction programme but a behaviour change mass movement. It is relatively easy to build a road, bridge or an airport but trying to change human behaviour is complex and if you are trying to change the behaviour of half a billion people by persuading them to stop doing something that they have been doing throughout their lives - defecating in the open, and start using toilets, the sheer scale of the operation makes it a gargantuan task. While mass media campaigns are useful, the real key to bringing about behaviour change on the ground is to have grassroots-level trained and incentivized motivators using interpersonal communication with villages and households to “trigger” demand for toilets and cleanliness.

States and districts across the country are rapidly increasing the number of motivators but this has to be accelerated even further, the plan being to have over half a million “boots on the ground”, on average one per village across the country.

The Ministry of Drinking Water and Sanitation (MDWS) supports the States for better implementation of the Swachh Bharat Mission through initiatives in capacity building, human resources, behaviour change communication, knowledge sharing and monitoring.
and evaluation, among others. Initiatives like the Swachh Sangrah, the knowledge portal for SBM for districts and States to share best practices, and Virtual Classrooms to train hundreds of motivators across multiple locations are examples of systematic integration of technology into the program as well. Additionally, various national and State level workshops and events are regularly organized to bring all stakeholders together to learn from, and inspire each other. Grassroots leaders like sarpanches, especially women, are playing an increasingly pivotal role in accelerating progress. The recently concluded Swachh Shakti event on March 8, Women’s Day, brought together 6000 women sarpanches from across India to celebrate their success in the Swachh Bharat Mission (SBM). Addressing the gathering at Gandhinagar, the Prime Minister lauded the leadership role of women sarpanches in the SBM as well as in other flagship programmes like Beti Bachao, Beti Padhao. He also awarded women Swachhta Champions who have been an inspiration to members of their communities.

In addition to making the SBM a people’s movement, it is also critical to demystify toilet technology and practices. The most “appropriate” technology for rural areas, in terms of cost, sustainability and reuse, is the twin-pit model. While this model is the predominant one in rural India, and is effective in most contexts, more efforts and marketing needs to be done to persuade rural households to adopt it. Emptying one (while it is closed) of the two toilet pits by the householder himself is also a simple, safe and environmentally friendly task, with the organic compost generated ideal for agricultural purposes. The more frequently senior officials and eminent personalities empty toilet pits themselves as examples to others, the more rural households will be persuaded to do it themselves and the faster will be the adoption of the twin pit technology.

Beyond behaviour change and appropriate technology practices, it is also crucial that Swachhta becomes “everyone’s business”. To this end, all sectors, including the private sector, are increasingly becoming involved to mainstream sanitation into their core work. The private sector is stepping up to the plate, an example of which is the Tata Trusts volunteering to recruit and finance 600 young professionals, one for each district in India, to support Collectors in accelerating SBM. In the public sector, on the Prime Minister’s initiative, in addition to celebrating “Swachhta Pakhwaras” every fortnight, each Central Ministry has prepared a Swachh Action Plan (SAP) including a budget line, which will integrate sanitation in their main line of business. An estimated Rs 5000 crores has been earmarked for Swachhata-related activities by all Ministries in 2017-18. Cleaning up of iconic places, such as the Golden Temple and Tirupati Temple, to international standards and of the gram panchayats along the Ganga are other examples of Swachhta being mainstreamed in other sectors and spaces.

One of the most crucial elements of the SBM is the verification and sustaining of results. This is especially important for the credibility of the programme. Currently, a multi-tier process is being followed, with district-level, state-level and national-level third party verification being carried out. These efforts will need to be strengthened and mainstreamed in the days ahead. In addition, the sustaining of ODF is also crucial since its achievement is not conceived of as a one-off exercise, unlike earlier government programmes. Achieving ODF status is one thing but sustaining it through creation of local mechanisms and incentives is another. A sustainability protocol has been developed by the MDWS together with the states and this needs to be effectively implemented. The Ministry also has a robust MIS which tracks progress down to the individual household level. This MIS, along with the Swachh App, is in the public domain.

Effective Solid and Liquid Waste Management (SLWM) is also a critical part of the Mission. Work on SLWM has been commenced in several villages in the country, with a focus on the ones which have already achieved ODF status. A Village Swachhta Index has been developed by the MDWS, where villages self-score themselves on overall cleanliness, and measure their progress against this score going forward. The index comprising of ODF status, SLWM status and general visual cleanliness helps a village go to ODF+ which is the natural next phase after achieving ODF.

At the half-way mark, the SBM is making good progress but the teams, both in Centre and State, are fully conscious that there is a long and challenging road ahead. Under the leadership of the Prime Minister, the support of political leaders across states, civil servants and, most importantly, the leadership of grassroots level leaders like sarpanches, especially women, is crucial to achieving the “Swachh Bharat Abhiyan” of the Prime Minister.
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Rural Development holds the key to sustainable economic growth and human development. The reduction in poverty is fastest when rural economies are resurgent, providing opportunities for diversification of livelihoods in farm and non-farm sectors. India’s emergence as a global power depends on its ability to tackle the challenge of rural poverty and development effectively. It is for this reason that the Government accords the highest priority to transforming lives in rural areas through livelihoods and to improving infrastructure to improve the well being of households. It is only through an inclusive rural development agenda that sustainable human progress is possible.

Rural poverty has many dimensions. It is for this reason that a need is felt to simultaneously address all the dimensions of poverty effectively. A household can be poor if they are homeless; they can be poor because they are uneducated and without skills; they can be poor because they are assetless; they can be poor because of ill health. There can be a variety of reasons and multiplicity of dimensions that affect the ability of an individual to develop their fullest human potential. The real challenge of rural development is to afford an opportunity to every rural household to develop their fullest human potential through an access to services for human development and economic growth.

The Department of Rural Development with a budget of over Rs. one lakh crore annually addresses many of the dimensions of poverty and also coordinates with other Departments to ensure better livelihoods and well being of poor households in rural areas. Over Rs. 3-4 lakh crore are spent annually in rural areas if we add up the Budgets of all Departments and State Governments being spent in those regions.

The thrust on water conservation in the light of the drought condition has ensured attention to development of an integrated farming system that includes crop, horticulture and animal husbandry besides promotion of non-farm employment as well. The resources under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) have been seen as a livelihood resource and efforts have been made to use them to diversify livelihoods of households. Under the Mission Convergence guidelines adopted recently for MGNREGS resources will be used with adequate scientific
and technological basis, to drought proof watershed regions on a Ridge to Valley principle.

The micro credit plan under the Deen Dayal Antayodaya Yojana - National Rural Livelihood Mission (DAY-NRLM), works through women Self Help Groups (SHGs) to provide institutional credit to households for economic activities. Over 31 lakh women Self Help Groups and nearly 3.6 crore women are part of the Mission. After developing effective social capital through Self Help Groups (SHGs), Village Organisations (VOs) and Community Resource Persons (CRPs) the thrust has shifted to mobilising these groups for economic activities with appropriate Bank linkage. Women SHG members have leveraged over Rs. 85,000 crore as credit over the last 3 years. A lot of these resources have been put to effective use for diversifying livelihoods and for improving incomes of poor households. Resources of MGNREGS have been utilised to provide goat sheds, poultry sheds, dairy sheds, farm ponds and dug wells to individual beneficiaries to improve their livelihood diversification for higher incomes.

**Performance of Rural Development programmes 2016-17**

The achievements under most of the Rural Development programmes have been very significant in 2016-2017. Construction of Pradhan Mantri Gram Sadak Yojana (PMGSY) roads from 73.5 k.ms per day in 2011-2014 to 100 km per day in 2014-2016 and 130 kms per day in 2016-2017 is a reflection of efforts made. Similarly, under Rural Housing (RH) programme, where the thrust was on completing all incomplete houses of Indira Awaas Yojana (IAY) and starting construction under Pradhan Mantri Awaas Yojana-Gramin (PMAY-G) after its launch by Hon’ble Prime Minister on November 20, 2016, States have reported completion of 32.14 lakh houses. This is 2 to 3 times higher than the average completion reported during 2011-2014. Likewise, under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), from the usual completion of 25 lakh to 30 lakh works, 52 lakh of works have been completed in 2016-2017. 88 lakh assets have been geotagged for the first time under MGNREGS. Placed below is a summary of some of the salient achievements under different programmes in 2016-2017:

**Pradhan Mantri Gram Sadak Yojana (PMGSY)**

- A record 47,350 k.ms. of PMGSY road was constructed during 2016-17. This is the highest construction of PMGSY roads in a single year, in the last 7 years.
- 11,614 habitations were provided connectivity by construction of 47,350 k.ms. of PMGSY roads during 2016-17 (an average of 32 habitations being provided connectivity every day). In terms of number of habitations connected with PMGSY roads, 11,606 is highest ever in the last 7 years.
- With a view to reduce the “carbon footprint” of rural roads, reduce environmental pollution, increase the working season and bring cost effectiveness, PMGSY is aggressively encouraging use of “Green Technologies” and non-conventional materials like waste plastic, cold mix, geo-textiles, fly-ash, iron and copper slag etc. in rural roads.
- 4,113.13 k.ms. of PMGSY roads were constructed using ‘Green’ technologies, in 2016-17.
- **MGNREGS – Governance transformation and water conservation thrust as focus in 2016-17.**

FY 2016-17 witnessed an unprecedented governance transformation in MGNREGS with a sustained thrust on water conservation. With over 82 per cent active workers (9.1 crore) with Aadhaar seeding in NREGASoft, 4.6 crore workers on Aadhaar Based Payment Bridge, electronic payment of 96 per cent wages through Bank/Post Office accounts, more than 89 lakh assets geo tagged so far, 93 lakh job cards deleted so far through proper verification, large scale drought proofing water conservation works in rainfall deficient regions, MGNREGS established itself as a well governed programme creating durable assets for livelihood security in poor regions, while providing employment on demand. MGNREGS achieved 230 crore person days which is higher than the revised labour budget. The total provisional expenditure of Rs. 58,056 crore (Central plus State) is the highest ever in MGNREGS in any year. 56 per cent women in the wage employment generated is also the highest ever.

The pace for water conservation was set by Hon’ble Prime Minister’s meetings on water conservation with the Chief Ministers of the drought affected States. States undertook their region specific unique water conservation initiatives using MGNREGS resources. Mukhya Mantri Jal Swalamban Yojana to drought proof 3200 villages with 92000 water conservation structures in Rajasthan, Dobhas or farm ponds in clusters in every revenue villages of Jharkhand, Neeru Chettu in Andhra Pradesh with thrust on farm ponds, Mission Kakatiya in Telengana, Kapil Dhara dug wells in Madhya Pradesh, Jal Yukta Shivar and other water conservation measures in Maharashtra, all used MGNREGS as a resource for drought proofing for livelihood security. 15.47 lakh k.ms of related works were completed in FY 2016-17 including 5.66 lakh farm ponds. Nearly 90 lakh hectares of irrigation potential has been created through MGNREGS in FY 2015-16 and FY 2016-17, as revealed by the new practice of preparing Annual Performance Outcome Report of MGNREGS.

MGNREGS promoted large scale individual beneficiary schemes (over 14.61 lakh beneficiaries) for livelihood security like construction of poultry, goaery and dairy sheds; farm ponds and dug wells; support for housing and individual household latrines (IHHLs)
in FY 2016-17. It also undertook innovative convergence initiatives for solid waste management in 11000 villages of Tamil Nadu and constructed over 4 lakh ‘magic pits’ for liquid waste management in Telengana, Andhra Pradesh, Maharashtra, and many other States. To move unskilled MGNREGS workers up the skilling ladder, 29704 were trained for self-employment at Rural Self Employment Training Centres, 3812 were trained to become Barefoot Technicians, besides placement based wage employment to over 3000 workers under DDUGKY and training of Rural Masons under PMAY Gramin.

PMAY-G – From Houses to Homes

Hon’ble Prime Minister launched the Pradhan Mantri Awaas Yojana Gramin (PMAY-G) in November, 2016. The new Rural Housing programme is designed to meet the needs and aspirations of households. With a higher unit cost, it allows for construction using local materials and local house designs. Homes will have cooking area, toilet, LPG connection, electricity connection and water supply through convergence, and beneficiaries can plan their homes as per their need. Training programme for Rural Masons has been launched to meet a critical skill requirement for quality construction. The thrust in 2016-17 was to launch PMAY-G with all the tasks completed regarding selection of beneficiaries, IT/DBT platform, space technology use, training programme for Rural Masons, finalisation of housing design typologies, etc. The other major thrust was to complete most of the 36 lakh incomplete Indira Awaas Yojana houses which had been pending from anywhere between 1 to 4 years.

As part of the Governance Reform, from anywhere between 2 to 20 Bank accounts in every District for the Rural Housing programme earlier, there is now a Single Nodal Account at the State level from where funds are directly transferred electronically on the AwaasSoft-PFMS platform to the beneficiary account.

The beneficiaries under PMAY Gramin have been selected up to 2022 based on the prioritisation and in a transparent manner. The three filters have ensured that the genuinely poor homeless and those living in dilapidated houses, have been selected. Large number of households from vulnerable groups and large number of women have been selected as beneficiaries. House design typologies incorporating disaster resilient features have been finalised and are being used by the State Governments under the programme. States like Madhya Pradesh, Rajasthan, Maharashtra, Chhattisgarh, Karnataka, Assam have taken the lead in the implementation of the PMAY-G. States like Bihar, West Bengal, Uttar Pradesh, Madhya Pradesh, Assam, Jharkhand, Rajasthan and Maharashtra have done well in completing a very large number of incomplete Indira Awaas Yojana houses.

The Department of Rural Development hopes to complete 51 lakh houses in 2017-18. An additional 33 lakh houses will be sanctioned for 2017-18 shortly. A similar number is proposed to be completed in 2018-19 making the completion during 2016-19 period of 1.35 crore houses. This will pave the way for Housing for All by 2022.

DAY-NRLM – Transforming Lives Through Livelihood Thrust

The Deen Dayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM) is making a difference to the lives and livelihoods of over 3.6 crore households from where women have joined Self Help Groups (SHGs). The collectives of women under SHGs, Village Organisations (VOs) and Cluster Level Federations (CLFs) has evolved transformational social capital that is changing gender relations, access to services and participation in Gram Sabhas and Panchayati Raj Institutions (PRIs). The programme has given confidence to women to seek Bank loans for economic activity after developing skills and competencies through a sustained Community Resource Person (CRP) led handholding for livelihood diversification. One lakh fifty thousand women Community Resource Persons (CRPs) who have themselves come out of poverty, are today the greatest agents of change in promoting sustainable agriculture, providing Banking services, developing a cadre of Para Vets for animal care, Book keepers and Accountants to women’s collectives, and most importantly an agent for social transformation of villages.

Since the inception of the programme in 2011, women members of SHGs have accessed Rs. 1.06 lakh crore as bank credit. From Rs. 20,000 crore bank linkage in 2014-15, SHGs have got more than Rs. 30,000 crore as credit in 2015-16. Till February 2017 over Rs. 29,000 crore had already been disbursed and it is expected that about Rs. 35,000 crore to Rs. 38,000 crore will be mobilised as credit in the Financial Year 2016-17. Analysis of Bank linkage in 2016-17 shows the remarkable increase in credit linkage in States like Assam, Bihar, Odisha,
Rajasthan and West Bengal. There is a clear National spread in bank linkage as SHGs become vibrant and stronger institutions of the poor in many Northern Indian States as well. They are already strong and vibrant in the Southern Indian States.

Under the DAY-NRLM, over 30 lakh women farmers have been supported under Mahila Kisan Sashaktikaran Pariyojana (MKSP) to promote sustainable agricultural practices. Women SHG led Custom Hiring Centres (CHCs) for agricultural implements, power tillers etc have come up in some States. Vermi Compost/NADEP pits have also come up through the efforts of these women SHG farmers besides the promotion of pesticide free agriculture and multi-tier cropping in rainfed regions for fodder, food, forest, fruits and fibre.

The DAY-NRLM programme has reached nearly 1/3rd of the Gram Panchayats of the country and efforts for its consolidation and expansion are being continuously made. During 2017-18, 52 lakh households through 4.5 lakh new SHGs were added to DAY-NRLM. Start-up Village Entrepreneurship Programme (SVEP) to develop 84,000 micro enterprises was started in 17 States covering 47 Blocks. Solid Waste Management initiative through convergence was done in 11,000 (nearly 90 per cent) villages of Tamil Nadu through their women SHGs. The successful initiative has been initiated by DAY-NRLM in 6 other States. DAY-NRLM published a Compendium of successful Business Models for Livelihood Diversification and also developed a Best Practice Volume based on National awards and recognition to the best SHGs during the year.

To facilitate diversification of livelihoods, skill development for Placement Based Wage Employment and for self-employment was promoted on a large scale through the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY) and Rural Self Employment & Training Institutes (RSETIs) respectively under DAY-NRLM. 1.60 lakh youth were trained and 79,400 placed under DDUGKY besides 4 lakh youth being trained in 585 RSETIs for self-employment in 2016-17. 12 new Champion Employers were selected under DDUGKY for high quality training and committed placements. Some of the Champion Employers are Cafe Coffee Day, Apollo Mediskills, Team lease, etc. Training of drivers was also started at a large number of RSETIs during the year.

The first National evaluation of DAY-NRLM has been completed recently by the Institute of Rural Management Anand (IRMA). The draft report recognises the social capital developed through women’s collectives at village level. The evaluation finds that the NRLM strategy has led to greater demand expression of rural poor not just through their weekly meetings but also through collective action in production as well as on social issues. Transforming lives through an even larger scale diversification and development of livelihoods is clearly the way forward to reach the Mission Antyodaya objective of Poverty free Gram Panchayats.

Improved governance in addressing the multi dimensions of poverty is extremely important and for doing so the progress of deprived households will be tracked based on the Socio Economic Caste Census (SECC) baseline through a proposed Social Registry. Also, using 35 indicators on multi dimensionality of poverty under the Panchayat Darpan, the Department would be monitoring the progress of Gram Panchayats in reducing poverty of households. In the overall good governance framework, the department is using Aadhaar with consent for establishment of identity.

To ensure a saturation approach, the Ministry proposes to develop 50,000 Poverty Free Gram Panchayats/5000 Rural Clusters by simultaneously addressing the multi-dimensions of poverty. Following from the approach on Saansad Adarsh Gram Yojana (SAGY), the Ministry has developed 36 indicators to understand the state of development in a Gram Panchayat. These indicators cover infrastructure, connectivity, social development, access to services and banks, solid and liquid waste management, health, education, drought proofing, nutrition etc. The Ministry proposes to develop a composite index for poverty free Gram Panchayats and monitor the progress from the baseline. Through this process, the Ministry of Rural Development wants to ensure sustainable livelihoods for all households in 50,000 Gram Panchayats/5000 Rural Clusters with basic minimum infrastructure and facilities. The DISHA Committee at the District level would also be monitoring the progress of Gram Panchayats to becoming poverty free.

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Agricultural Inputs Towards National Growth

Vasant P Gandhi

Inputs have contributed immensely to the growth of production and productivity in India’s agriculture, and inputs form the backbone of Indian agriculture. It was the inputs which brought the green revolution to India, and studies show that inputs, particularly, High Yielding Variety (HYV) seeds, fertilisers, and irrigation played a huge role in increasing yields and rapidly boosting the country’s food production. In the process, input use has expanded greatly: for example, fertiliser use in wheat increased from less than 2 kg/ha in 1950/51 to 137 kg/ha in 1998/99, HYV seeds from non-existent in 1950/51 to 1960/61 to covering 88 per cent of the area, and irrigation from 34 per cent to 89 per cent coverage in wheat.

Rising population and incomes, coupled with the scarcity of basic natural resources such as land and water, have been major drivers for the modernization of agriculture and input growth in India. The severe constraint of cultivable land area as a source of production growth has led to substantial dependence on raising yields. This has led to an intense focus on science and technology to increase yields, which has resulted in numerous discoveries and developments of new technologies and inputs. These include:

- Better genetics/ high yielding variety seeds
- Better plant nutrition through fertilizers
- Better water provision through water sourcing technology and management
- Better pest control through pesticides
- Farm power and machinery for better physical and time efficiency

In recent times, the efforts have included not only government systems and institutions but also private sector industries and businesses which invest, innovate and contribute to agricultural growth. This has galvanized the development of various new agro-industries and agribusinesses. These include the seed industry, fertilizer industry, irrigation equipment and construction industry, agro-chemical industry, farm machinery industry and others. These are now making huge contributions to overcoming the land and resource constraints in agriculture. It is unthinkable now to envision feeding the world today and

The author is NABARD Chair Professor, and Chairman Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad. He has been consultant to the FAO, the World Bank, the Government of India, and several state governments, and is currently Chairman of the Editorial Board, Indian Journal of Agricultural Economics. He has published extensively on agriculture policies, institutions & technology in agriculture, food security, as well as markets & agribusiness.
in the future without the significant contribution of these vital industries. The article examines the growth and trends in the major agricultural inputs including water, fertilizers, seeds, pesticides, and farm power/machinery, which constitute some of the most important additional inputs in Indian agriculture.

Table 1 which provides a quick picture for some of the major agricultural inputs from early 1980s to 2014-15 (or the latest year) shows that the seed business has grown by 6.7 times from 45.0 to 301.4 lakh quintals. The fertilizer business has grown 4.2 times from 60.6 lakh tons to 255.8 lakh tons. Groundwater irrigation and its equipment business has more than doubled in giving coverage from 187.4 to 412.6 lakh hectares. The tractor business representing farm machinery has increased the most - by over 8 times from 74.3 to 626.8 thousand tractors.

### Table 1: Recent Growth in Selected Agricultural Inputs

<table>
<thead>
<tr>
<th>Years</th>
<th>Certified Quality Seeds sales (lakh quintals)</th>
<th>Fertilizers consumption in nutrients (lakh tons)</th>
<th>Pesticides technical grade material sales (thousand tons)</th>
<th>Groundwater Irrigation (wells &amp; tubewells)</th>
<th>Net irrigated area (lakh hectares)</th>
<th>Tractors sales number thousands</th>
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<td>60.6</td>
<td>47.0</td>
<td>187.4</td>
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<td>×4.2</td>
<td>×1.2</td>
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<td>×8.4</td>
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</table>


### Water: Irrigation

Water is a fundamental input for agriculture and Table 2 shows that the net irrigated area has increased substantially from 38 million hectares in 1980-81 to 66 million hectares in 2012-13. The growth in net irrigated area has been fairly steady over the years and has actually accelerated a little to 1.90 percent per year after 2010-11. The gross irrigated area has increased from 49 million hectares to 92 million hectares from 1980-81 to 2012-13, (see Figure 1) During the 1980s and 1990s, the growth has been quite rapid at the rate of about 2.3 percent per year but in the 2000s this has decelerated to about 1.8 per cent per year, but accelerated again to 2.05 after 2010-11. The percent gross area irrigated has increased substantially from 28.8 percent to 47.6 percent from 1980-81 to 2012-13. However, the period from 2000-01 to 2010-11 shows a deceleration in the growth of percent area irrigated to 1.14 percent but after 2010-11 there is an acceleration to 2.88 percent. This shows a recent revival of the growth in irrigation which is a positive sign. The reasons for better growth in irrigated area could be the considerable effort made in the recent years to improve the conservation of water resources and improve the efficiency of water use. This includes promotion of participatory irrigation management (PIM), watershed development, and the use of water conservation technologies such as drip and sprinkler irrigation.

Table 3 gives the sources of irrigation and the trends over the years in this. The Table shows that currently only about 24 percent of the irrigated area is irrigated through canals whereas about 62 percent is irrigated through wells. The canal irrigated area shows a negative trend of -0.15 percent but a reversal between 2000-01 and 2010-11 to positive 0.74 percent. On the other hand, the area irrigated through wells (groundwater) has expanded rapidly at the rate of more than 3 percent in the 80s and 90s but there is a sharp deceleration to 1.5 percent between 2000-01 and 2010-11 followed by an
acceleration to 2.63 percent. The major engine of growth has been tubewell irrigation which has expanded rapidly at the rate of more than 4 percent in the 80s and 90s but after deceleration to 2.27 percent between 2000-01 and 2010-11, there is acceleration again to 3.36 percent (see Figure 2). The findings indicate that there is a sharp increase in the dependence on ground water irrigation in the recent decades. Some deceleration was evident between 2000-01 and 2010-11 indicating emerging constraints, but the growth of ground water irrigation has again accelerated.

### Table 2: Water: Progress in Area Irrigated

<table>
<thead>
<tr>
<th>Years</th>
<th>Net Area Sown</th>
<th>Gross Cropped Area</th>
<th>Cropping Intensity (%)</th>
<th>Net Irrigated Area</th>
<th>Gross Irrigated Area</th>
<th>Irrigation Intensity (%)</th>
<th>Percentage Area Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1980-81</td>
<td>140288</td>
<td>172630</td>
<td>123.1</td>
<td>38720</td>
<td>49775</td>
<td>128.6</td>
<td>27.6</td>
</tr>
<tr>
<td>1990-91</td>
<td>142870</td>
<td>185742</td>
<td>130.0</td>
<td>48023</td>
<td>63204</td>
<td>131.6</td>
<td>33.6</td>
</tr>
<tr>
<td>2000-01</td>
<td>141336</td>
<td>185340</td>
<td>131.1</td>
<td>55205</td>
<td>76187</td>
<td>138.0</td>
<td>39.1</td>
</tr>
<tr>
<td>2005-06</td>
<td>141162</td>
<td>192737</td>
<td>136.5</td>
<td>60837</td>
<td>84280</td>
<td>138.5</td>
<td>43.1</td>
</tr>
<tr>
<td>2010-11</td>
<td>141563</td>
<td>197563</td>
<td>139.6</td>
<td>63657</td>
<td>88887</td>
<td>139.6</td>
<td>45.0</td>
</tr>
<tr>
<td>2011-12</td>
<td>140974</td>
<td>195632</td>
<td>138.8</td>
<td>65693</td>
<td>91729</td>
<td>139.6</td>
<td>46.6</td>
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<tr>
<td>2012-13</td>
<td>139932</td>
<td>194399</td>
<td>138.9</td>
<td>66103</td>
<td>92575</td>
<td>140.0</td>
<td>47.2</td>
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</table>

**Annual Growth Rate**

<table>
<thead>
<tr>
<th>Period</th>
<th>Net</th>
<th>Gross</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980/81-2012/13</td>
<td>0.02</td>
<td>0.36</td>
</tr>
<tr>
<td>1980/81-1990/91</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>1990/91-2000/01</td>
<td>0.07</td>
<td>0.24</td>
</tr>
<tr>
<td>2000/01-2010/11</td>
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<td>0.69</td>
</tr>
<tr>
<td>2010/11-2012/13</td>
<td>-0.58</td>
<td>-0.80</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture, Govt. of India

### Table 3: Irrigated Area by Sources of Irrigation

<table>
<thead>
<tr>
<th>Year</th>
<th>Government Canals</th>
<th>Private Canals</th>
<th>Total Canals</th>
<th>Tanks</th>
<th>Tubewells</th>
<th>Other Wells</th>
<th>Total Wells</th>
<th>Other sources</th>
<th>Net Irrigated Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>14450</td>
<td>842</td>
<td>15292</td>
<td>3182</td>
<td>9531</td>
<td>8164</td>
<td>17695</td>
<td>2551</td>
<td>38720</td>
</tr>
<tr>
<td>1990-91</td>
<td>16973</td>
<td>481</td>
<td>17453</td>
<td>2944</td>
<td>14257</td>
<td>10438</td>
<td>24695</td>
<td>2932</td>
<td>48023</td>
</tr>
<tr>
<td>2000-01</td>
<td>15809</td>
<td>203</td>
<td>16012</td>
<td>2466</td>
<td>22566</td>
<td>11252</td>
<td>33818</td>
<td>2909</td>
<td>55205</td>
</tr>
<tr>
<td>2005-06</td>
<td>16490</td>
<td>227</td>
<td>16718</td>
<td>2083</td>
<td>26026</td>
<td>10044</td>
<td>36070</td>
<td>5966</td>
<td>60837</td>
</tr>
<tr>
<td>2010-11</td>
<td>15476</td>
<td>171</td>
<td>15647</td>
<td>1980</td>
<td>28544</td>
<td>10630</td>
<td>39175</td>
<td>6855</td>
<td>63657</td>
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<tr>
<td>2011-12</td>
<td>15838</td>
<td>172</td>
<td>16010</td>
<td>1918</td>
<td>29942</td>
<td>10595</td>
<td>40537</td>
<td>7228</td>
<td>65693</td>
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<tr>
<td>2012-13</td>
<td>15462</td>
<td>165</td>
<td>15628</td>
<td>1748</td>
<td>30497</td>
<td>10764</td>
<td>41261</td>
<td>7466</td>
<td>66103</td>
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</table>

**Annual Growth Rate**

<table>
<thead>
<tr>
<th>Period</th>
<th>Net</th>
<th>Gross</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980/81-2012/13</td>
<td>-0.06</td>
<td>-4.26</td>
</tr>
<tr>
<td>1980/81-1990/91</td>
<td>1.06</td>
<td>-2.70</td>
</tr>
<tr>
<td>1990/91-2000/01</td>
<td>-0.18</td>
<td>-10.92</td>
</tr>
<tr>
<td>2000/01-2010/11</td>
<td>0.76</td>
<td>-1.17</td>
</tr>
<tr>
<td>2010/11-2012/13</td>
<td>-0.05</td>
<td>-1.69</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture, Central Water Commission, Water Resource Information System, MOSPI, Govt. of India
after 2010-11, perhaps indicating better management and more efficient use of the groundwater. The reasons appear to be the special efforts that have been made towards this which includes increasing groundwater recharge through check-dams in some areas, watershed development activities in other areas, and the use of efficient irrigation methods such as drip and sprinkler irrigation.

**Fertilizers**

Fertilizer is a very important modern input for agriculture since it addresses the problem of soil fertility which is critical for yields. Table 4 shows that the fertilizer use has grown quite rapidly at the rate of about 4.5 per cent from 55 million tons to 255 million tons between 1980-81 and 2014-15. However, the 1980s saw a much faster increase in fertilizer use at over 8 percent per year which has subsequently decelerated to about 4 percent per year in the 90s followed by some acceleration to about 6 percent between 2000-01 and 2010-11. However, after 2010-11 there is a negative trend and a considerable decline in the fertilizer use. The rate of growth falls to -2.06 percent, with phosphatic fertilizers declining at -6.44 percent and pottaslic fertilizers at -10.50 percent. Even the growth of nitrogenous fertilizers slows down to just 1.31 percent (see Figure 3).

The changes appear to be related to changes in the fertilizer subsidy and pricing policies. With the shift to nutrient based subsidy (NPS) policy, the quantum of subsidy on phosphatic (P) fertilizers as well as potassic (K) fertilizers has been substantially reduced. At the same time, their prices have been decontrolled and these changes have resulted in a sharp rise in the prices of P and K fertilizers. Due to this, the P and K fertilizer use has reduced sharply, and the resulting imbalance has also influenced the productivity of N

**Table 4: Fertilizer Consumption in India in Nutrients**

(Lakh Tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Nitrogenous Fertilisers (N)</th>
<th>Phosphatic Fertilisers (P)</th>
<th>Pottaslic Fertilisers (K)</th>
<th>Total Fertiliser</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>36.78</td>
<td>12.14</td>
<td>6.24</td>
<td>55.16</td>
</tr>
<tr>
<td>1990-91</td>
<td>79.97</td>
<td>32.21</td>
<td>13.28</td>
<td>125.46</td>
</tr>
<tr>
<td>2000-01</td>
<td>109.20</td>
<td>42.15</td>
<td>15.67</td>
<td>167.02</td>
</tr>
<tr>
<td>2005-06</td>
<td>127.23</td>
<td>52.04</td>
<td>24.13</td>
<td>203.40</td>
</tr>
<tr>
<td>2010-11</td>
<td>165.58</td>
<td>80.50</td>
<td>35.14</td>
<td>281.22</td>
</tr>
<tr>
<td>2011-12</td>
<td>173.00</td>
<td>79.14</td>
<td>25.76</td>
<td>277.90</td>
</tr>
<tr>
<td>2012-13</td>
<td>180.36</td>
<td>59.55</td>
<td>18.13</td>
<td>258.04</td>
</tr>
<tr>
<td>2013-14</td>
<td>165.25</td>
<td>54.58</td>
<td>19.76</td>
<td>239.59</td>
</tr>
<tr>
<td>2014-15 (P)</td>
<td>169.45</td>
<td>60.98</td>
<td>25.32</td>
<td>255.76</td>
</tr>
</tbody>
</table>

**Annual Growth Rate**

<table>
<thead>
<tr>
<th>Period</th>
<th>Nitrogenous Fertilisers (N)</th>
<th>Phosphatic Fertilisers (P)</th>
<th>Pottaslic Fertilisers (K)</th>
<th>Total Fertiliser</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980/81-2014/15</td>
<td>4.32</td>
<td>4.87</td>
<td>4.54</td>
<td>4.49</td>
</tr>
<tr>
<td>1980/81-1990/91</td>
<td>7.66</td>
<td>10.17</td>
<td>6.96</td>
<td>8.18</td>
</tr>
<tr>
<td>1990/91-2000/01</td>
<td>4.10</td>
<td>4.37</td>
<td>3.36</td>
<td>4.08</td>
</tr>
<tr>
<td>2000/01-2010/11</td>
<td>4.79</td>
<td>7.03</td>
<td>9.98</td>
<td>5.95</td>
</tr>
<tr>
<td>2010/11-2014/15</td>
<td>1.31</td>
<td>-6.44</td>
<td>-10.50</td>
<td>-2.06</td>
</tr>
</tbody>
</table>

Note: P: Provisional
Source: The Fertilizers Association of India, Delhi
fertilizers, thereby decreasing its use. Due to this, Indian agriculture may be headed for a major nutrient and soil fertility crisis which may seriously impact agricultural production. There is great need for reform in the fertilizer policy regime.

**Seeds**

The input of quality certified seeds is of significant importance for increasing agricultural production. Table 5 shows the trend in the use of quality seeds in India. The distribution of the seeds reached a high of 313 lakh quintals in the year 2012-13 and the major share was that of cereals which constituted 204 lakh quintals. Overall, between 1990-91 and 2013-14, the seed use has grown at a rapid pace of 8.4 percent per year. There is particularly rapid growth between 2000-01 and 2010-11 at 13 percent overall, and in pulses at 17 percent and in oilseeds at 16 percent. (see Figure 4). However, there is a decline in quantity in the case of fibres at -0.93 percent in this period, perhaps because of the transition to Bt cotton seeds which are expensive. After 2010-11 the overall growth rate fell to 3.15 percent from 13.13 percent mainly on the account of much slower growth in pulses and oil seeds, but the use of other seeds which would include vegetables, event though the quantities are small, show a huge growth indicating a buoyant demand for them. On the whole, the use of certified seeds shows a healthy growth except during 2010/11-2013/14 when there is a slowdown. The growth appears to be on the account of farmers increasingly eager to use latest technology and the best seeds. The recent slowdown is largely on account of cereals and this may be due to poor rains and low profitability.

**Pesticides**

The use of pesticides is important to protect the crops from damage by pests and it can be seen from Table 6 that the consumption of pesticides has increased from 45 thousand tons in
1980-81 to 75 thousand tons in 1990-91 but has fallen to 40 thousand tons by 2005-06. Since then it has risen to 58 thousand tons in 2013-14. (see Figure 5). Overall the growth rate is negative at -0.82 percent and is slightly negative even after 2010-11. This appears to be due to environmental concerns about pesticides and the development of pest resistant varieties such as Bt cotton which do not require much use of pesticides. Besides, more effective less bulky pesticides are now available.

Table 6: Consumption of Pesticides
(In Thousand Tonnes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-1981</td>
<td>45.00</td>
</tr>
<tr>
<td>1985-1986</td>
<td>52.00</td>
</tr>
<tr>
<td>1990-1991</td>
<td>75.00</td>
</tr>
<tr>
<td>1995-1996</td>
<td>61.26</td>
</tr>
<tr>
<td>2000-2001</td>
<td>43.58</td>
</tr>
<tr>
<td>2005-2006</td>
<td>39.77</td>
</tr>
<tr>
<td>2010-2011</td>
<td>55.54</td>
</tr>
<tr>
<td>2011-2012</td>
<td>52.98</td>
</tr>
<tr>
<td>2012-2013</td>
<td>45.62</td>
</tr>
<tr>
<td>2013-2014</td>
<td>58.21</td>
</tr>
</tbody>
</table>

Annual Growth Rate

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.82</td>
<td>5.41</td>
<td>-5.37</td>
<td>0.55</td>
<td>-0.09</td>
</tr>
</tbody>
</table>


Table 7 shows recent trends in different kinds of pesticides. It shows that whereas insecticides are showing a significant negative growth rate of -3.39 percent, fungicides are showing a strong positive growth rate of 12.40 percent and herbicides/weedicides are also showing an uptrend between 2006-07 and 2013-14. (see Figure 6). The negative trend in insecticide use appears to be due to environmental concerns and their highly toxic nature, as well as the development of pest resistant varieties, particularly Bt cotton. The fungicide use appears to be growing due to the increasing importance of plant diseases for which resistant varieties are not available, and the weedicide use is growing due to high labour cost of weeding.

Table 7: Consumption of Pesticides by Type in India (2006-2007 to 2013-2014)
(In ‘000 MT)

<table>
<thead>
<tr>
<th>Year</th>
<th>Insecticide</th>
<th>Fungicide</th>
<th>Weedicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-07</td>
<td>38.23</td>
<td>23.12</td>
<td>11.14</td>
</tr>
<tr>
<td>2007-08</td>
<td>39.19</td>
<td>26.99</td>
<td>12.91</td>
</tr>
<tr>
<td>2008-09</td>
<td>38.2</td>
<td>35.32</td>
<td>12.43</td>
</tr>
<tr>
<td>2009-10</td>
<td>34.65</td>
<td>31.55</td>
<td>8.66</td>
</tr>
<tr>
<td>2010-11</td>
<td>45.75</td>
<td>26.74</td>
<td>10.01</td>
</tr>
<tr>
<td>2011-12</td>
<td>39.36</td>
<td>44.38</td>
<td>7.92</td>
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<tr>
<td>2012-13</td>
<td>32.78</td>
<td>45.72</td>
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</tr>
<tr>
<td>2013-14</td>
<td>29.02</td>
<td>58.88</td>
<td>12.05</td>
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</tbody>
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Annual Growth Rate

<table>
<thead>
<tr>
<th></th>
<th>2006/07-2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-3.39</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture, Govt. of India

Figure 5. Pesticide Consumption

Figure 6. Product-Wise Consumption of Pesticides
Farm Machinery and Equipment

Farm machinery and equipment are becoming increasingly important inputs for agriculture. Table 8 shows the growth in the production and sale of tractors in India. The number of tractors sold has increased almost 10 times from about 70 thousand in 1980-81 to almost 700 thousand in 2013-14. The 1980/81-2014/15 growth rate is 6.87 percent. There is acceleration to 9.93 percent in 2000/01-2010/11 but a deceleration to less than half of this i.e. 4.25 percent is evident after 2010-11. (see Table 8) Thus, the recent years are showing a considerable slowdown in the growth of tractor sales. The declines in 2012 and 2014 are partly due to poor monsoon rains in both these years, which also result in credit constraints.

Table 8: Production and Sale of Tractors in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
<th>Sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980-81</td>
<td>71024</td>
<td>72012</td>
</tr>
<tr>
<td>1985-86</td>
<td>75550</td>
<td>76886</td>
</tr>
<tr>
<td>1990-91</td>
<td>139233</td>
<td>139828</td>
</tr>
<tr>
<td>1995-96</td>
<td>191311</td>
<td>191329</td>
</tr>
<tr>
<td>2000-01</td>
<td>235602</td>
<td>251939</td>
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<tr>
<td>2005-06</td>
<td>296080</td>
<td>291680</td>
</tr>
<tr>
<td>2010-11</td>
<td>530303</td>
<td>545128</td>
</tr>
<tr>
<td>2011-12</td>
<td>625946</td>
<td>607658</td>
</tr>
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<td>2012-13</td>
<td>578112</td>
<td>590672</td>
</tr>
<tr>
<td>2013-14</td>
<td>707898</td>
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<tr>
<td>2014-15</td>
<td>612994</td>
<td>626839</td>
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</table>

Annual Growth Rate

<table>
<thead>
<tr>
<th>Period</th>
<th>Diesel Engine Pumpset</th>
<th>Electric Pumpset</th>
<th>Power Tiller</th>
<th>Agricultural Tractors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981/82-2011/12</td>
<td>7.33</td>
<td>5.79</td>
<td>11.49</td>
<td>16.85</td>
</tr>
<tr>
<td>1981/82-1991/92</td>
<td>6.77</td>
<td>8.05</td>
<td>13.23</td>
<td>20.39</td>
</tr>
<tr>
<td>1991/92-2001/02</td>
<td>6.83</td>
<td>6.40</td>
<td>10.65</td>
<td>13.71</td>
</tr>
<tr>
<td>2001/02-2011/12</td>
<td>7.02</td>
<td>1.93</td>
<td>8.44</td>
<td>13.31</td>
</tr>
</tbody>
</table>

Table 9 shows the number of operational holdings using different important items of agricultural machinery. The Table shows that the holdings using Diesel pumpsets are showing a relatively steady growth at about 7 per cent, whereas those using electric pumpsets show a growth at 5.79 percent overall between 1981/82-2011/12 but a deceleration to 1.93 percent during 2001/02-2011/12. (see Figure 8). Similarly, the holdings using power tillers and tractors are also showing a deceleration in growth rate to 8.44 percent and 13.31 percent respectively during 2001/02-2011/12. These growth rates indicate an overall rapid growth rate but a slowing down of the growth in the recent years. The slowdown in electric pumps may be due to power shortages and supply problems in a number of states. The situation favors diesel pumpsets.

Conclusions

The level and kinds of inputs substantially determine the production and productivity of agriculture. Modern technology and inputs have played a huge role in the growth of agricultural production in India especially after the green revolution. The rise in population and incomes coupled with the scarcity of various natural resources such as land and water has led to intense focus on science and technology to increase productivity. This has led to various discoveries and developments including better genetics/high yielding variety seeds, better plant nutrition through fertilizers, better water provision through water sourcing technology and management, better pest control through pesticides, and better farm power and machinery for higher physical and time efficiency. The need and demand for these inputs has stimulated the growth of various input industries/agribusinesses including the seed industry, fertilizer industry, irrigation equipment industry, agro-chemical industry, and farm machinery industry. These are now making huge contributions to agriculture.

The study finds that most agricultural inputs show a healthy growth overall until 2010-11, but many inputs are showing a decline in growth rates or absolute decline in recent years. Water in terms of irrigated area, however, is showing a relatively healthy growth trend at 1.7 to 2.0 percent and this is mainly due to tubewell groundwater irrigation which is growing at 3.0 to 4.0 percent. Fertilizers are showing a decline in the recent years and the growth of certified seeds is also showing a slowdown. Farm machinery shows good growth since 1980s but a substantial slowdown in the recent years.

Policy changes are required to monitor the land use; else diversion of agricultural land will further constrain agricultural growth. This also calls for further emphasis on yield and productivity increase.

The sector will also need to deal with a decline in the agricultural workforce, calling for different means of enhancing labor productivity such as appropriate machines and mechanization. Improvement is evident on the irrigation front but the growing scarcity of the resource calls for continuing efforts to promote conservation of water, and its sound and judicious use. The recent decline in fertilizer use may lead to a soil fertility and nutrient crisis, and calls for urgent reform of the fertilizer policy and subsidy regime. On the seed front, new technology is strongly needed and new advances including from biotechnology can provide many solutions and play a major role. The major shifts in agriculture and food demand towards high value products such as vegetables, fruits and livestock products also needs to be seriously recognized and addressed.

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India is one of the bright spots among the major countries in the subdued global economic context. India recorded a growth of 7.9 per cent in 2015-16, as compared to 7.2 per cent in 2014-15 and 6.5 per cent in 2013-14. The growth pick-up in 2014-15 and 2015-16 was remarkable despite below-normal monsoons. India is estimated to register a robust growth of 7.1 percent in 2016-17, despite the demonetisation of high denomination currencies that aimed at substantive medium to long-term economic benefits. Predictions by expert agencies suggest that India’s growth rate is set to improve further in 2017-18. In terms of the Global Competitiveness Index (GCI) prepared by World Economic Forum for 138 countries, India ranked 39 in 2016-17, as compared to India’s rank in GCI of 60 (among 148 countries) in 2013-14.

In view of all the aforesaid achievements of Indian Economy in different sectors and rolling-out of the historic Indirect Tax reform i.e. Goods and Services Tax (GST) from 1st July, 2017, one can easily conclude that the Indian Economy is going to make much higher achievements in the coming years.

Inflation
The present Government took charge in May 2014 in the backdrop of persistently high inflation, particularly food inflation. Astute food management and price monitoring by the Government in the last three years helped control the stubbornly persistent inflation. CPI inflation remained under control for the third successive financial year. The average CPI (combined) inflation declined from 9.5 per cent in 2013-14 to 5.9 per cent in 2014-15 and 4.9 per cent in 2015-16. It declined further to 4.6 per cent in the current financial year, upto February 2017 and stood at 3.7 per cent in February 2017 backed by sharp fall in food inflation. Food inflation based on Consumer Food Price Index (CFPI) which was in double digits during 2012-2014 declined to 6.4 per cent in 2014-15 and 4.9 per cent in 2015-16. It declined further to 4.4 per cent in the current financial year, upto February 2017 and stood at 2.0 per cent in February 2017.

The Government, in consultation with RBI has also fixed the inflation target of 4 per cent with tolerance level of +/- 2 per cent for the period beginning from 5th August, 2016 to 31st March, 2021.

Trade
In line with subdued global growth and trade, India’s exports declined...
During the last three years, Indian economy has made an improvement in macro-economic stability on the strength of the following indicators:

|                                | 2011-12 to 2013-14 (3 year Average) | 2014-15 to 2015-16 (2 year Average) | 2016-17 *
|--------------------------------|-------------------------------------|-------------------------------------|--------
| Inflation CPI (NS)             | 9.8                                 | 5.4                                 | 4.6    |
| Inflation WPI                  | 7.4                                 | -0.2                                | 3.5    |
| CAD (per cent of GDP)          | -3.6                                | -1.2                                | -0.7   |
| GDP Growth (per cent)          | 6.0                                 | 7.6                                 | 7.1    |
| World GDP growth (per cent)    | 3.7                                 | 3.3                                 | 3.1    |
| Foreign Exchange Reserves (USD Bn) | 296.9                            | 350.9                                | 362.8  |
| Net FDI ($ Billion)            | 21.1                                | 33.6                                | 21.3   |
| Fiscal Deficit (per cent of GDP)| 5.1                                 | 4.0                                 | 3.5    |

* For 2016-17, CPI inflation till February 2017, WPI inflation till Dec 2016, CAD till December 2016, Net FDI till H1 2016-17, foreign exchange reserves till February 2017, GDP growth is as per 1st advance estimate and fiscal deficit is budget estimate 2016-17

by 1.3 per cent and 15.5 per cent in 2014-15 and 2015-16 respectively. The trend of negative growth was reversed somewhat during 2016-17 (April-February), with exports registering a growth of 2.5 per cent to US$ 245.4 billion from US$ 239.4 billion in 2015-16 (April-February). Monthly export growth rates have been in positive territory since September 2016.

During 2015-16, India’s import declined by 15.0 per cent to US$ 381.0 billion, mainly due to fall in international crude oil prices, as compared to US$ 448.0 billion in 2014-15. During 2016-17 (April-February), imports declined by 3.7 per cent to US$ 340.7 billion as compared to 353.7 billion in the corresponding period of previous year.

India’s trade deficit was highest at US$ 190.3 billion in 2012-13. However, it declined by 13.8 per cent to US$ 118.7 billion in 2015-16 which was lower than the level of US$ 137.7 billion in 2014-15. During 2016-17 (April-February), trade deficit decreased to US$ 95.3 billion as against US$ 114.3 billion in the corresponding period of the previous year.

**Balance of Payments**

Despite moderation in India’s exports, India’s external sector position has been comfortable, with the current account deficit (CAD) progressively contracting from US$ 88.2 billion (4.8 per cent of GDP) in 2012-13 to US$ 22.2 billion (1.1 per cent of GDP) in 2015-16. On a cumulative basis, the CAD narrowed to 0.7 per cent of GDP in April-December 2016 from 1.4 per cent in the corresponding period of 2015-16 on the back of the contraction in the trade deficit.

**Foreign Investment**

Inflow of foreign direct investment increased from US$ 43.6 billion 2013-14 to US$ 51.8 billion in 2014-15 and further to US$ 59.5 billion in 2015-16. During 2016-17 (April-December), net FDI was US$ 31.2 billion as compared to US$ 27.2 billion in 2015-16 (April-December). Net foreign direct investment (net) increased to US$ 8.2 billion in the first half of 2016-17 from US$ (-) 3.5 billion in the first half of 2015-16. However, net foreign portfolio outflow in the month of December 2016 and January 2017 were at US$ 5.8 billion and US$ 0.5 billion respectively largely as a result of the Fed policy with US Federal Reserve raising interest rates. The FPI outflow was not a phenomenon associated with Indian markets alone as FPIs pulled out of most EMEs due to higher returns in advanced economies.

**Foreign Exchange Reserves**

Foreign exchange reserves touched an all time high level of US$ 371.9 billion in end-September 2016. However, it declined to US$ 361.1 billion at end-November 2016 due to intervention by RBI in forex exchange market to stabilize the rupee and partly because of repayment of maturity amount of FCNR (B) deposits accrued between September-November 2013 during the special swap window opened for NRIs. Foreign exchange reserves stood at US$ 363.0 billion at end-January 2017 as against US$ 358.9 billion at end-December 2016.
indicating a depreciation of 2.8 per cent over the corresponding period of the previous year. This was mainly due to strengthening of the US dollar globally following the US presidential election results and tightening of monetary policy by the Federal Reserve. Nevertheless, in 2016-17 so far, the rupee has performed better than most of other EMEs.

While there is a depreciation of the rupee vis-à-vis US dollar in nominal terms, the impact on the economy is best assessed by the Real Effective Exchange Rate (REER) which is defined as a weighted geometric average of nominal exchange rates of the home currency in terms of the foreign currencies adjusted for relative price differential. In terms of REER, there has been an appreciation of 1.7 per cent in 2016-17 (April-January) compared to 2015-16 (April-January).

**External Debt**

At end-September 2016, India’s external debt stock stood at US$ 484.3 billion, recording a decline of US$ 0.8 billion (0.2 per cent) over the level at end-March 2016.

Most of the key external debt indicators show an improvement in September 2016. The share of short-term debt in total external debt decreased to 16.8 per cent at end-September 2016 from 17.2 per cent at end-March 2016. India’s foreign exchange reserves provided a cover of 76.8 per cent to the total external debt stock at end-September 2016 vis-à-vis 74.3 per cent at end-March 2016.

India continues to be among the less vulnerable nations in terms of its key debt indicators which compare well with other indebted developing countries. According to the World Bank’s “International Debt Statistics, 2017” which gives external debt data of developing countries for 2015, the ratio of India’s external debt stock to gross national income (GNI) at 23.4 per cent was the fifth lowest. In terms of the cover provided by foreign exchange reserves to external debt,

**Exchange Rate of Rupee**

The average monthly exchange rate of rupee for 2016-17 (April-February) was Rs.67.2 per US dollar,
India’s position was sixth highest at 69.7 per cent.

**Agriculture and Food Management**

As per the Second Advance Estimates of National Income released on 28th February 2017, the growth rates in Gross Value Added (GVA) of the agriculture and allied sectors were at 4.4 per cent in 2016-17, 0.8 per cent in 2015-16, (-) 0.2 per cent in 2014-15. As per the second Advance Estimates of production of foodgrains released by Ministry of Agriculture & Farmers Welfare on 15th February 2017, production of total foodgrains during 2016-17 is estimated at 271.98 million tonnes compared to 251.57 million tonnes in 2015-16 (Final) and 252.02 million tonnes in 2014-15.

**Industrial Sector**

As per the Second Advance Estimates of National Income 2016-17 released by CSO on 28th February 2017, the growth rates in Gross Value Added (GVA) of the industrial sector were 5.8 per cent in 2016-17, 8.2 per cent in 2015-16 and 6.9 per cent in 2014-15. The growth in the GVA from ‘manufacturing’ sector was 7.7 percent in 2016-17 as compared to growth of 10.6 percent in 2015-16 and 7.5 per cent in 2014-15.

The index for eight core industries (comprising crude oil, natural gas, petroleum refinery products, coal, electricity, cement, steel, and fertilizers) registered 4.8 per cent growth in 2016-17 (April-January) as compared to 3.4 per cent in 2015-16 and 4.5 per cent in 2014-15.

With the introduction of UDAY scheme in the power sector in 2015, most of the States have made significant efforts to reduce AT&C losses. The scheme has already addressed 62 per cent of the DISCOMs’ debt that existed at the end of 2014-15.

As per the Year End Review-2016 released by the Ministry of Road Transport & Highways, the total length of highways awarded up to November, 2016 was 5688 km and total length of highways constructed up to November, 2016 was 4021 km as against 6029 km in 2015-16 and 4410 km in 2014-15.

In view of all the aforesaid achievements of Indian Economy in different sectors and rolling-out of the historic Indirect Tax reform i.e. Goods and Services Tax (GST) from 1st July, 2017, one can easily conclude that the Indian Economy is going to make much higher achievements in the coming years.

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**Towards Cleaner Cooking Fuel**

Pradhan Mantri Ujjwala Yojana was launched by the Prime Minister on May 1st, 2016 in Ballia, Uttar Pradesh to safeguard the health of women and children by providing them with a clean cooking fuel – LPG, so that they do not have to compromise their health in smoky kitchens or wander in unsafe areas collecting firewood. Under this scheme, 5 Cr LPG connections were to be provided to BPL families with a support of Rs.1600 per connection within 3 years. Ensuring women’s empowerment, especially in rural India, the connections is issued in the name of women of the households. Rs. 8000 Cr. was allocated towards the implementation of the scheme. Identification of the BPL families is done through Socio Economic Caste Census Data. An adult woman member of BPL family identified through Socio-Economic Caste Census (SECC) data is given a deposit free LPG connection with financial assistance of Rs. 1600/- per connection by Government of India.

PMUY was expected to result in an additional employment of around 1 Lakh and provide business opportunity of at least Rs. 10,000 Cr. over the 3 Years of the programme to the Indian Industry. Launch of this scheme will also provide a great boost to the ‘Make in India’ campaign as all the manufacturers of cylinders, gas stoves, regulators, and gas hose are domestic. 14 States/UTs having LPG coverage less than the national average, hilly states of J&K, Uttarakhand, Himachal Pradesh and all North-East States were identified as priority states for implementing the scheme.

The top five States with maximum connections are UP (46 lakh), West Bengal (19 lakh), Bihar (19 lakh), Madhya Pradesh (17 lakh) and Rajasthan (14 lakh). These States constitutes nearly 75 per cent of the total connections released. The households belonging to SC/ST constitute large chunk of beneficiaries with 35 per cent of the connections being released to them. India is home to more than 24 Crore households out of which about 10 Crore households are still deprived of LPG as cooking fuel and have to rely on firewood, coal, dung – cakes etc. as primary source of cooking.
SALIENT FEATURES

- Written by the Union Home Secretary
- Articles contributed by leading intellectuals, academics and civil servants such as Shrimati Vasundhara Raje (Chief Minister Rajasthan); Dr. Arvind Panchharia (Vice Chairperson, NITI Aayog); Dr. Arvind Subramanian (Chief Economic Advisor, Govt of India); Shri Amitabh Kant (CEO, NITI Aayog); Eminent economists Drs. Ajay Shah, Rajiv Kumar and Ila Patnaik to enrich the book
- All the information is of a current nature, and completely updated till March 2017
- Information is not merely documented but analysed

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Towards a Clean and Transparent Economy

M V Bhanumathi
Rohit Deo Jha

India continues to remain very low in the UN’s Human Development Index with the poor and needy largely remaining so. Last year (HDI-2016), it was ranked a poor 131 among 188 countries.

Serious efforts have, however, been made to take the reforms to the next level, with the goal of benefitting those who were so far in the fringes of economic growth. The main pillars of this strategy are inclusion, transparency and decentralisation. The efficient implementation of these three pillars, would, for the first time, take the benefits of growth directly to the people. Of these three segments, perhaps, transparency is the most important prerequisite for secular economic growth. Dispassionate examination will point at corruption as the main culprit that failed every well intentioned programme. Corruption breeds black money and together they subvert welfare programmes, restrict the flow of finance to the government, constricting its ability to formulate and implement programmes and discourage foreign investment that brings money and technology for economic development, generating job opportunities in a nation struggling to give employment avenues to its young population.

According to the World Bank, corruption is public enemy number one in the developing world and the poor pay the highest percentage of their income in bribes. India has been no exception. Interestingly, government, while mounting a frontal attack on black money hoarders, has simultaneously initiated steps for insulating the poor from corruption and bribery by innovating delivery systems. Some of the key initiatives are discussed in this article.

Towards a Clean Economy:

India’s tax to GDP ratio is a mere 16.6 per cent, with a tax base of around 5.5 crore persons which includes companies, individuals and other business forms. As per the Economic Survey 2016 -17, India has only 7 taxpayers for every 100 voters. This tax evasion is glaring from the fact that while more than 1.25 crore cars were sold in the last five years and more than 2 crore individuals travelled abroad in 2015 alone, mere1.72 lakhs individuals reported income more than Rs.50 lakh for tax purposes.

Black money generated through tax evasion is an economic challenge as well as a social menace. While it harbours bribery, electoral corruption, organized crimes and ostentatious consumption it distorts economic planning and financial integrity of the
nation. On the whole it deepens the economic inequality and corrodes the social fabric of the nation. Government has taken a slew of measures, almost amounting to waging of war against black money, in the past three years. These involve policy-level reforms through legislative and administrative initiatives, effective enforcement, capacity building, and building intelligence through data mining.

**Tax Administration for a Clean Economy**

Following path breaking measures have been taken to address the menace of black money:

- **Special Investigation Team (SIT)**—headed by former SC judge M.B.Shah was formed to probe black money.
- ‘The Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015’ with stringent penal provisions including rigorous imprisonment of 3-10 years has been enacted to effectively deal with the issue of black money stashed away abroad. Tax evasion has been made a predicate offence, under Prevention of Money Laundering Act (PMLA).
- Rs 8,186 crore, illegally kept in offshore banks by Indians, has been brought under tax ambit despite several constraints.
- **Multi-Agency Group (MAG)** was set up for facilitating coordinated and speedy investigation of cases of Panama Papers leaks.
- **Signing Double Taxation Avoidance Agreements (DTAAs)/Tax Information Exchange Agreements (TIEAs)/Multilateral Conventions etc. with other nations.**
- Joining Multilateral Competent Authority Agreement in respect of Automatic Exchange of Information to support global efforts against black money.
- ** Signing information sharing arrangement with USA under its Foreign Account Tax Compliance Act (FATCA).**
- **Renegotiation of DTAA with Mauritius, Singapore and Cyprus to curb treaty abuse, tax evasion and round-tripping of funds.**
- Though **Participatory Notes (PN)** bring foreign investment, but they have been red flagged as a conduit to route black money back into the country by SIT on black money. SEBI mandated increased disclosure requirements and restricted transfer of PN to curb money laundering in order to keep track of their beneficial owners.
- **Enactment of Benami Transactions (Prohibition) Amendment Act, 2016’ which empowers the government to confiscate benami properties—assets (without any compensation) held in the name of another person or under a fictitious name. The act has a provision for imprisonment up to seven years. As per Department of Revenue, more than 245 benami transactions have already been identified and provisional attachments of properties worth Rs.55 crore have been made in 124 cases.
- **23064 searches / surveys have been conducted (Income Tax 17525; Customs 2509; Central Excise 1913; Service Tax 1120) to detect tax-evasion of more than Rs. 1.37 lakh crore (Income Tax 69434; Customs 11405; Central Excise 13952; Service Tax 42727).**
- Launching prosecutions in 2814 cases leading to arrest of 3893 persons.
- ED registered 519 cases and conducted 396 searches leading to arrests in 79 cases and attachment of properties worth Rs.14,933 crore.
- 64,275 declarants made disclosures of Rs 65,250 crores under the Income Declaration Scheme (IDS), 2016 which provided a chance to domestic black money holders to come clean.

**Budget 2017-18 – ‘Transform, Energise and Clean India’**

Taking forward the crusade against black money they Finance Minister proposed the following major reforms:

- Cash expenditure up to Rs 10,000/- only is allowed as deduction to businesses.
- Charitable trusts can receive cash donations up to Rs 2,000 only from a single source.
- Restricting cash expense to Rs 2 lakhs only for a single transaction and in case of violation a penalty of equal amount would be levied.
- **Exemption from long-term capital gains tax has been restricted to shares on purchase of which Securities Transaction Tax has been paid (and other “genuine cases” such as public offers).** This
will clamp down on tax evasion through “sham transactions”

- Proposed legislation, to confiscate the assets located within the country, of the offenders, including economic offenders, who fled from the country till they submit themselves to law of the land.

- Aadhaar has been made mandatory for filing of income-tax returns as well as for obtaining and retaining the PAN. This would solve the problem of multiple and bogus PAN and strengthen KYC verification for different transactions including opening of bank account.

- **Rewarding Honest Taxpayers**

  While the government aims to increase the tax base, it is striving to build a predictable and stable taxation regime so as to be investor friendly and growth spurring. Following are some of the noteworthy initiatives/policy changes towards better tax administration:

- Without going its sovereign right to undertake retrospective legislation, government has made it very clear that it would exercise this with extreme caution and judiciousness.

- E-assessment has been launched in 7 cities in order to reduce physical interface between tax payer and the department along with cost and time of compliance.

- ‘E-Sahyog’ launched in 2015 to provide an online mechanism to resolve mismatches in Income-tax returns of those taxpayers whose returns have been selected for scrutiny to be expanded to reduce compliance cost, especially for small taxpayers.

- CBDT and CBEC to issue periodic clarifications on tax laws, on the recommendations of a High Level Committee setup to interact with trade and industry

- Resident taxpayers can also obtain an advance ruling in respect of their income tax liability above a defined threshold.

- **Scope of the Income-tax Settlement Commission has been enlarged so that more taxpayers can avail this opportunity.**

- Time bound grievance redressal through PMO monitored ‘Centralized Public Grievance Redress and Monitoring System (CPGRAMS)’ and ‘e-nivaran’ portal.

- One page ITR form ‘Sahaj’ for select taxpayers.

- Income tax Department is working on the ‘Project Insight’ to strengthen non-intrusive information-driven approach for improving tax compliance and speedy investigation.

### Demonetisation

**Demonetisation of high denomination currency of Rs 500 and Rs 1000 led to a regime shift by punitively raising the costs of tax evasion and striking at the roots of corruption.** It was also aimed at countering fake currencies, greater digitalisation of the economy, increased flow of financial savings, and greater formalization of the economy, all of which could eventually lead to higher GDP growth, better tax compliance and greater tax revenues.

Post demonetisation, almost all cash has entered the banking system providing scope to the law enforcement agencies to keep track of the money trail. Investigation of cash deposits have uncovered various fraudulent practices including back dating of sales, benami deposits, sale of jewellery, bullion, luxury goods and forex to unidentified persons (without PAN), splitting of bills to avoid reporting of PAN, depositing in cooperative banks (which do not have stringent KYC norms), deposits in multiple accounts against single PAN; etc.

Data have shown that deposits between Rs 2 lakh and Rs 80 lakh, totalling to Rs 5.48 lakh crore were made during demonetisation, in 1.09 crore accounts. A total of Rs 4.89 lakh crore, comprising deposits of over Rs 80 lakh, entered into 1.48 lakh accounts. As part of Operation Clean Money, the department of income tax sent e-mails and text messages to 18 lakh individuals in the first phase. Response from 12 lakh accounts have been received on the department’s e-filing website. This would help the department to eliminate genuine cases from further investigation. In a written reply to the Rajya Sabha, the Finance Minister stated that the Income Tax Department has seized cash and valuables totalling Rs 600 crore in 1100 searches and survey operations conducted post demonetisation.

Giving a chance to come clean, Government announced Pradhan Mantri Garib Kalyan Yojana under which those who declared cash deposits, (till 31st March, 2017) could pay a tax of 50 per cent and deposit 25 per cent of the amount declared into the noninterest-bearing PMGK Deposit Scheme for four years. There is no official data yet on the PMGKY. Irrespective of the numbers, it is important that a frame work was provided to common people to regularise the cash which they had come to possess unwittingly.

### Digital Economy

The predominance of cash in the economy is the major reason of large scale tax evasion. According to a 2015 report from PwC, 98 percent of all transactions by volume and 68 percent of the total value of transactions are conducted in cash in India. Demonetisation has given a quantum push to digital transactions. While the advantages of digital economy are many, it inter alia creates transparency. Top ranking countries in the Corruption Perception Index of Transparency International have reported less than 10 per cent of the total transaction in cash. India stands at a distant 79th position in this ranking.

The National Payments Corporation of India has successfully implemented the Unified Payments
Interface platform which facilitates inter-operability; BHIM (196 lakh people have downloaded it) and Aadhaar Pay will facilitate peer-to-peer transactions and digital payments over the counter respectively. Green shoots of long term benefits are already seen in the RBI data which shows that UPI based transactions jumped 20 per cent to Rs 2000 crore in March’17.

In order to incentivise digital transactions, presumptive rate of income tax for non-cash transactions of small and medium tax payers with turnover up to Rs 2 crores has been brought down from 8 per cent to 6 per cent. Further, government has exempted BCD, Excise/CV duty and SAD on POS machines and micro ATMs.

While the government has mandated the linking of PAN with Aadhaar, as a further step it may consider compulsory Aadhaar authentication for cash transactions beyond Rs 50,000/-.  

Goods and Services Tax (GST)

GST, one of the biggest tax reforms post-independence is aimed at simplifying the complicated indirect tax regime. It will create a common Indian market, streamline tax administration, improve tax compliance, boost investment and growth and result in higher revenue collection; by subsuming all indirect taxes (other than custom duty) levied by the Central and state governments. With the passing of four bills related to GST in the Parliament, GST came a step closer to meet its July 1st target of rollout. With a state of art GST information technology architecture and provision for stringent penalties and prosecution for tax evasion, India may see a surge in tax to GDP ratio in medium to long term. Further, correct reporting of business transactions would automatically lead to buoyancy in the direct tax collection.

Electoral Funding Reforms

Political parties received Rs 7,833 crore funding from unknown sources between 2004-05 and 2014-15, which is 69 per cent of their total income, as per the report of the think tank, Association of Democratic Reforms, leaving us to guess the unknown sources. Political funding by industrial and business houses, when shrouded in secrecy, is the breeding ground for vested interests. It nourishes the unholy nexus between politics and business, forcing the politician to return the favours, subverting democracy and people’s will. Thus, transparency in political funding is essential for clean economy.

A small beginning has been made in the budget 2017 by limiting of cash donations to political parties from a single source to Rs. 2,000. The concept of electoral bond has been proposed whereby corporate donations will be kept anonymous safeguarding the interest of the donor but the source can be traced.

Bypassing Corruption

Since independence, welfare schemes have proliferated with the aim of taking the fruits of development to the poor and the needy. However, the malaise of corruption has spread over the years throughout these schemes resulting in massive leakages and lining the pockets of the undeserving. The Economic Survey for FY 2015-16, for instance revealed that 40-50 per cent of the benefits under the flagship scheme of PDS are lost due to leakages. The government has used an innovative mechanism namely Direct Benefit Transfer (DBT), to transfer the money value of the benefits directly into the accounts of the deserving poor, bypassing corruption. A massive drive was launched in 2014 to take banking to the poor and underprivileged, on which the structure of DBT is being erected. The trinity of Jan-Dhan (around 25.7 crore accounts opened), Aadhaar (crossed 112 crore enrolment) and Mobile has provided the foundation for transparency and inclusiveness. It has been reported that presently, 84 schemes in 17 ministries are covered under the DBT saving 50,000 crores over the last three years. Uploading the list of beneficiaries for anyone to verify could be the next step to bring further transparency.

Government has also streamlined and removed scope for grand corruption by mandating auction as the only route for allocation of natural resources, through amendment of Mines and Minerals (Development and Regulation) act and by launching Government eMarketplace (GeM) for procurement of goods and services by the Government Ministries/Departments, PSUs, and autonomous bodies. Such measures attack the source of corruption and augment resources for nation building activities.

Unfinished Agenda

While applauding the courage and conviction of the government for the creation of a ‘Clean India’, following further steps are required for a sustained and systemic solution, which are illustrative but not exhaustive.
Simplification of tax laws and procedures is *sine qua non* for an effective and corruption free tax administration. It should leave least scope for discretion and litigation. It was revealed in the budget speech of 2016-17 that 3 lakh tax cases are pending before the 1st Appellate Authority with disputed amount being 5.5 lakh crores.

Prevention of misuse of legal persons is another area that requires strengthening. Shell companies have mushroomed over a period of time abusing the simplified corporate procedures. Hundreds of companies are registered in a single address. Typically they have low capital, single or no employee and directors who are men of no means. Over the years such shell companies have established a well-oiled system of producing fake bills, providing bogus share capital, bogus loan and for that matter they are used for faking any financial transaction. They are hard to detect because of the sheer numbers and when detected hard to prove under the existing evidentiary standards. During the period 2013-14 to 2015-16, IT investigations led to detection of more than 1,155 shell companies / entities used as conduits by over 22,000 beneficiaries involving non-genuine transactions of more than Rs. 13,300 crore. However, there have been mixed results before the courts of appeal in the cases filed against these companies. It would do well to think in the direction of defining such offences as running a shell company and faking financial transactions as organised crime and enact a penal law to tackle the same.

Reduce human interface between the tax men and the tax payers. Minimal interaction that is permitted should be standardised and amenable to oversight by higher authorities. E assessment initiated by the IT department is a step in the right direction.

The Financial Action Task Force (FATF), in which India is a member, has recommended that nations should consider requiring their financial institutions to identify their business relationships with politically exposed persons (PEPs) (persons entrusted with a prominent public function) and put appropriate risk management system in place as a preventive measure.

Promote seamless coordination among law enforcement agencies at the centre and the state level.

**Sustained Effort Required**

The bold steps taken by the Government to combat corruption and to clean the economy are showing appreciable results. If the campaign is pursued with equal vigour and imagination it will usher in an economic architecture spawning myriad benefits from the poor to the rich, removing poverty, creating employment for many and upgrading the much needed skills. The process cannot be without certain amount of pain which is inevitable in any transition. Nothing comes without sacrifice and in this case, too small a price to pay for a clean and transparent economy.

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DIFFicult and hilly terrain, geographical location and short working season of the North Eastern Region (NER) pose a challenge to development of optimal infrastructure and communication links within the region and with the rest of the country. Ministry of Road Transport & Highways, under its Special Accelerated Road Development Programme – North East (SARDP-NE), out of 1427 km, 989 km roads have been completed during the last three years and the current year. Apart from the development under SARDP-NE, about 637 km length of NHs covered under NHDP Phases- I and II in the State of Assam is being improved to 4-lane standard as part of East West Corridor. Works in about 597 km have been completed so far. Also, improvement of NH-44 from Jowai to Ratacherra (length 104 km) in the State of Meghalaya to 2 lane with paved shoulder is in progress by National Highway Authority of India (NHAI).

Ministry of Railways has sanctioned two new rail doubling projects totalling 283 km in NER in the last three years. Airport Authority of India (AAI) is constructing a Greenfield airport at Pakyong (Sikkim) suitable for operation of ATR-72 aircraft. Also, AAI has planned operationalization of Tezu airport in Arunachal Pradesh for ATR-72 type of aircraft operations. Under Comprehensive Telecom Development Plan, Department of Telecom envisages providing mobile coverage to 8621 identified uncovered villages by installation of about 6673 mobile towers, installation of 321 mobile tower sites along National Highways and strengthening of transmission network in the NER.

Ministry of Power is implementing Comprehensive Scheme for Strengthening of Transmission & Distribution Systems in Arunachal Pradesh and Sikkim at a total estimated cost of Rs. 4754.42 crore with the completion schedule of 48 months i.e. by December, 2018. The Cabinet has accorded investment approval to North Eastern Region Power System Improvement Project (NERPSIP) for six States (viz. Assam, Manipur, Meghalaya, Mizoram, Tripura and Nagaland for strengthening of the Intra-State Transmission and Distribution System (33 KV and above) at a total cost of Rs. 5111.33 crore with the completion schedule of 48 months i.e. by December, 2018.

In addition, Ministry of Development of North Eastern Region including North Eastern Council provides funds to State Governments to bridge infrastructural gaps in North East. Under NLCPR scheme Ministry of DoNER has sanctioned 169 projects at an approved cost of Rs. 2791.44 crore and North Eastern Council has sanctioned 41 projects at an approved cost of Rs. 500.582 crore, during the last three years and the current year.
t the backdrop of creating a participative, inclusive, responsive and transparent government, Digital India beckons a new innings in transforming the largest democracy into a deepening democracy by empowering citizens digitally.

The Need of Digital India Programme

Every beginning has a reason – a reason that necessitates the germination of transformative ideas with a vision of translating the prerogatives of fundamental tenets of society into modern disruptive realisations that mark an unprecedented novelty. As India is evolving to become a global emerging economy, it is imperative for the country to advance in participatory democracy – a suitable setup in which all citizens should have access to public information, debate on government policies, and contribute towards policy making of the nation irrespective of economic and social divides. Governance is not a one-way process now; it is more about inclusiveness, deliberations, and co-creations. In a progressive nation like India where majority of the population are youth, it is rational to think about a nation-state where disruptive transformation is required to deliver a big push to the socio-economic index of the nation.

While society is changing with reference to global exposures, what is more exhilarating at this juncture is faster evolution of technology, especially Information Technology (IT). And this prompts the government to think about making IT the prime driver of development by connecting every citizen digitally to leverage the power of citizen participation in governance. The current government endeavours to empower citizens by making them digital by providing access to information for smart governance with transparency in the system. And that is the vantage point for bringing Digital India to the centre-stage of governance – good governance for all citizens, rich and poor.

What Drives Digital India Programme?

Every programme is steered by its core visions. Digital India too captures the vision of the government to transform the existing ecosystem of governance and public services by leveraging the power of IT. The catchphrase - Indian Talent (IT)+ Indian Technology (IT) = India Tomorrow (IT) – emphasizes on making India a digitally connected nation. While launching the Digital India programme, the Government of India articulated its vision for this programme quite conspicuously. The vision is to transform India into a digitally empowered society and knowledge economy. Digital India hinges on three key vision areas: digital infrastructure as a core utility to every

Digital connectivity creates a level-playing field for all citizens. Irrespective of demographic and socio-economic strata, Indians today are digital savvy thanks to the evolution of internet and mobile phones. The Digital India programme aims to transform India into a digitally empowered society by concentrating on digital literacy, digital resources, and collaborative digital platforms.

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citizen, governance and services on demand, and digital empowerment of citizens.

“Digital infrastructure as a core utility to every citizen” as a vision point helps achieve the larger goals of Digital India. A well-connected nation is a precondition to a well-served nation. The objectives of the Government are to facilitate the remotest Indian villagers to be digitally connected through broadband and high-speed internet. This further ensures that the delivery of eGovernance services to every citizen, social benefits, and financial inclusion can be accomplished.

The second vision area “governance and services on demand” focuses the on transparency and speed in governance process. Although many state governments have initiated eGovernance since decades, inclusion of citizens in government schemes and programmes is still in a state of progress. In India, eGovernance got its initiation when state and central governments started computerization of paper-works and automation of policy making processes.

The third vision area focuses on “digital empowerment of citizens”. Digital connectivity creates a level-playing field for all citizens. Irrespective of demographic and socio-economic strata, Indians today are digital savvy thanks to the evolution of internet and mobile phones. The Digital India programme aims to transform India into a digitally empowered society by concentrating on digital literacy, digital resources, and collaborative digital platforms.

The Building Blocks of Digital India Programme

Any programme needs a concrete architecture to succeed. In order to make the Digital India programme the most efficacious initiative, the Government of India defines the nine pillars of Digital India. Each pillar not only supports the ambit of the programme, but also comprehensively contributes to the uninterrupted success of the programme.

“Broadband Highway,” the first pillar of Digital India programme, plans to connect 2.5 lakh village panchayats via National Optical Fibre Network (NOFN). This will empower the rural population to access government programmes easily and effectively. In order to push NOFN to its logical destination, Bharat Broadband Network Limited (BBNL) has been established by the Government of India with an authorized capital of Rs. 1000. BBNL is mandated to create the NOFN by connecting around 2,50,000 Gram Panchayats spread over 6,600 Blocks and 641 Districts. This project will provide access universally to all citizens across panchayats.

The second pillar “Universal Access to Mobile Connectivity” intends to provide mobile connectivity to all inaccessible regions in the country. Today, roughly 42,000 villages in India do not have mobile coverage. The Department of Telecommunications as the nodal agency manages the project with cost slated at Rs. 16,000 crore during 2014-18. This indicates that by 2018, India will have complete mobile coverage.

Under the third pillar “Public Internet Access Programme,” the government plans to create 2.5 lakh common service centres (CSCs), mapping one CSC to each Gram Panchayat. Today, India has already 2.42 lakh CSCs spreading across 1.62 lakh panchayats. CSCs would be multi-functional end-points for delivery of government and business services.

The fourth pillar “e-Governance–Reforming Government through Technology” enables the government to use IT to simplify and transform government processes more efficiently so that the delivery of government services can be more effective across various government departments.

The fifth pillar of Digital India programme is “e-Kranti - Electronic Delivery of Services”. Considering the rationality of transforming eGovernance and mGovernance to deliver good governance to all citizens in India, e-Kranti carries the vision of “Transforming e-Governance for Transforming Governance”. Already 44 mission mode projects are executed under e-Kranti. Today, e-Karnti offers 3325 eServices, making it a huge success.

“Information for All,” the sixth pillar of the Digital India programme drives transparency in governance. Under Open Data platform, ministries/departments release information proactively for public use. Online hosting of information and documents facilitates open and easy access to information.

The seventh and the most important pillar of the Digital India programme is “Electronics Manufacturing”. A study by the government suggests that the demand for electronic goods is drastically rising with 22 per cent CAGR and is expected to touch USD 400 billion by 2020. In order to give electronics manufacturing a boost, the Government has launched several initiatives for the development of electronics sector in the country. Over 250 investment proposals for electronics manufacturing have been received in the last 2 years, with a total investment of Rs 1.28 lakh crores.

The eighth pillar “IT for Jobs” focuses on providing necessary training to the youth in smaller towns and villages for availing employment opportunities in the IT/ITES sector. The government targets to train 10 million students from smaller towns and villages for IT sector jobs over the next 5 years. The government also has a target to train three lakh service delivery agents as part of skill development to run viable businesses delivering IT services. The India BPO Promotion Scheme (IBPS), envisaged under this programme, seeks to incentivize entrepreneurs for establishing 48,300 seats in BPO/ITES operations across the country, with an employment potential of 150,000 youths in rural and smaller cities. With project outlay of Rs. 493 crore, this scheme would help...
in capacity building in smaller cities in terms of infrastructure and manpower, which will become the base for the next wave of IT/ITES-led growth in the country. Similarly, the North East BPO Promotion Scheme (NEBPS) will incentivize BPO/ITES Operations in the North East region for creation of employment opportunities for the youths and growth of IT/ITES Industry. The NEBPS, with a target of 5000 seats can provide employment up to 15,000 youth in the North East region. In addition to this, the government plans to train the rural workforce on telecom and telecom related services, and envisages a target for training five lakh rural workforce for this purpose.

Finally, the ninth pillar “Early Harvest Programmes” comprises the projects which can be implemented within a short timeline. Some projects under this programme include IT platform for messages, wi-fi in all universities, secure email within government, public wi-fi hotspots, and SMS-based weather information.

**Digital India Initiatives for Good Governance**

Good governance stems from transparency and citizen enablement. In order to make Digital India a transformative programme for the entire nation and ensure good governance, the Government of India has adopted multi-pronged strategies to bring forth a slew of initiatives. Some of these initiatives are Digi Dhan Abhiyaan, Aadhaar Pay, BHIM, CSC, DigiLocker, Disha, Direct Benefit Transfer, and e-Panchayat. With the demonetization move prompting government to fight against black money and encourage people to depend less on cash transactions, Digi Dhan Abhiyaan initiative was a novel programme to enable citizens and merchants to undertake real time digital transactions in a seamless fashion. By organising DigiDhan Melas across the country, the government aims to handhold citizens in downloading, installing and using various digital payment systems for carrying out digital transactions. The government simultaneously came out with a digital payment platform like Bharat Interface for Money (BHIM). BHIM enables payment transactions simple, easy and quick using Unified Payments Interface (UPI). Since its launch on 30th December 2016, BHIM has grown manifold. A recent report suggests that BHIM app has been downloaded 17 million times, and 19.37 lakh transactions have been carried out by February 2017. Total transactions worth Rs 950 crore have taken place via the BHIM app in two months of January and February 2017.

The Government of India leveraged the largest biometrics based identification system in the world, Aadhaar, for financial inclusion, public sector delivery reforms, managing fiscal budgets, increasing convenience and promoting hassle-free people-centric governance. Today, 1.13 billion Indian citizens possess an Aadhaar card. The aadhaar card has become a key enabler in opening bank accounts and getting the direct benefit transfer to the bank account. Based on the biometric authentication process, Aadhaar Pay will allow an Aadhaar-linked account holder to carry out all banking transactions just by the use of thumb impression. Launched on April 14, 2017, Aadhaar Pay seems to be the most inclusive payment platform for a billion-plus Indians.

While the Government of India is aggressively working towards a digital society, ensuring citizen-centric services at the grassroots level becomes a mandate and this mission empowers Common Service Centres (CSCs) to deliver various citizen-centric services via a self-sustaining network of 2.5 lakh CSC centres at Gram Panchayat level, CSC works as a transaction-based and service delivery-based model, delivering a large number of e-services via a single delivery platform.

To transform India into a digitally empowered society and knowledge economy, the Government of India has left no stone unturned. The Government introduced DigiLocker, a flagship programme under Digital India, to provide a shareable private space on a public cloud and making all public documents/certificates available on this cloud. Targeted as the idea of a matured eGovernance, DigiLocker facilitates issuance and verification of documents and certificates digitally by eliminating the use of physical documents. Today, 40 lakh plus digital lockers have been created by citizens. The government has issued 20 lakh plus eSigns to citizens. DigiLocker can also be linked to Aadhaar. This speaks in a nutshell as to how the Digital India programme is building layers of platforms and protocols to transform India into a digitally empowered society.

**Digital India Programme: Budget 2017-18**

To boost the pace of Digital India programme, the government has announced a slew of measures in the Union Budget 2017-2018. The government has announced substantial steps for increasing digital payments in the country, along with a boost to the optical fibre network in rural areas to improve internet connectivity and access. The government also targets 2,500 crore digital transactions for 2017-18 through various digital payment platforms including UPI, USSD, Aadhaar Pay, IMPS and debit/credit cards. The government has also set a target for banks to introduce additional 10 lakh new PoS terminals by March 2017 and banks are encouraged to introduce 20 lakh Aadhaar-based PoS by September 2017. The budget unveils that high-speed broadband on optical fibre will be available in over 1.5 lakh gram panchayats with hotspots and access to digital services at low tariffs by 2018. Under the Bharat Net, optical fibre has been laid in 1.55 lakh kilometers. In this regard, the Budget allocates Rs 10,000 crore for Bharat Net project.

**Conclusion**

With government’s initiatives and reinforcements, Digital India programme is set to achieve its targets with significant success. As citizens have pitched in to cooperate in this programme, it will not be difficult for India to become the most digitally empowered society in the world. The government and citizens of India can achieve many new targets to ensure the Digital India programme transforms India into a digitally developed nation in times to come.

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Digital Innovations in Public Finance

Digital innovations in fiscal policy is the du jour for the macro policy makers, especially in the post-demonetisation India. India showcases the early three experiments of digitization in public finance – especially financial inclusion through digital financial services - in the recent Economic Survey. It highlights that digitization in public finance helped the government to identify the beneficiaries correctly, given the technology it uses. It also helped in the removal of ghost beneficiaries and thus plugged leakages and identification errors. An early figure suggests that digitization in public finances in India has helped to transfer the benefits of welfare programmes to the extent of 41 per cent in MGNREGS, 37 per cent in PAHAL (the LPG subsidy scheme), 14 per cent in National Social Assistance Program (NSAP) and 7 per cent in national scholarship schemes. (Economic Survey of India, 2015-16).

Yet another successful experiment in digitization of fiscal policy is the new scheme, Pradhan Mantri Jan Dhan Yojana. It has ensured financial inclusion in financial services through opening savings accounts by the masses so that the money is transferred to the genuine beneficiaries. Another related experiment has been the introduction of Aadhaar cards which provides a unique online identity to each individual in the country and has been linked to bank accounts and mobile numbers in order to ease transactions. Greater use of mobile banking to transfer funds faster and to solve the last mile banking problem has also been encouraged. The use of Jan Dhan accounts, Aadhaar cards and Mobile Banking has helped India take a step closer to the digital revolution that awaits it.

Such global experiments of digitization in finance have happened in Kenya, where geospatial surveys were used to decipher how much financial institutions have responded to an increasingly digitizing environment. In Kenya a significant share of the population is within 5 kilometers of a “financial access touch point” and Kenya stands out for its people’s use of mobile-phone based money—in less than 10 years the share has grown from zero to more than 75 percent of the adult population (Ndung'u Njuguna, Armando Morales, and Lydia Ndirangu2016).1

Learning from the global experience, India has experimented with the JAM Trinity (Jan Dhan, Aadhaar and Mobile) for the efficient use of resources. Mainly, the subsidy transfer system in India is fraught with inefficiencies such as leakages and ghost or duplicate beneficiaries.

Lekha Chakraborty
Samiksha Agarwal

The role of digitization in simplifying the subsidy management system and in promoting financial inclusion is evident leading to the efficient utilization of resources.

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For instance, the PDS delivery system in India is riddled with identification errors which exist mainly due to ghost or duplicate beneficiaries. Similarly, the Mahatma Gandhi National Rural Employment Scheme (MGNREGS) for rural India has implementation issues and massive leakages. In case of LPG subsidy the inefficiencies were such that the top 20 per cent of the population by consumption expenditure received over half (60 per cent) of the total direct subsidy, while the bottom half of the population received less than one tenth (8 per cent) of the total subsidy transfer (IISD, 2014). In response to these problems, digitization of the system seemed to be an obvious solution.

The Nilekani Task Force was setup in 2011 to propose an Aadhaar-Enabled Unified Payment structure - a more efficient and cost effective system for the transfer of subsidies to the poor. The Task Force recommended direct cash transfer of subsidies and was further given the responsibility to work out the modalities of the transfer. A study by the National Institute of Public Finance and Policy (NIPFP) in 2012, noted that in case of PDS, once the beneficiaries are enrolled through Aadhaar, it would be easier to claim benefits as they would be authenticated. In case of MGNREGS, if the wage disbursements are made through the Aadhaar payments system, it could plug leakages by 5 per cent (NIPFP, 2012). However, Saraf, et al (2016) noted that when identification documents are not based on a compelling logical framework, organized crimes and identity frauds might be facilitated.

The recent Economic Survey noted that in 2015, 210 million Aadhaar cards were created at a rate of 4 million cards per week. Also, around 975 million people hold an Aadhaar card which is nearly 75 percent of the population and 95 percent of the adult population. The penetration of Aadhaar is high across states wherein one- third of all the states have coverage rates greater than 90 percent (Economic Survey, Government of India, 2015-16).

The Table reveals the outreach of the Jan Dhan scheme in India. The Pradhan Mantri Jan Dhan Yojana ensured that the masses open savings accounts so that the subsidy money is transferred directly to the bank accounts of the genuine beneficiaries.

The Direct Benefit Transfer of LPG (DBTL) scheme PAHAL was re-launched in 2014 and was intended to benefit the consumers of LPG cylinders directly. This scheme has tried to integrate gender budgeting in energy infrastructure as a component by providing clean cooking fuel to women under BPL. This component is relevant as estimates showed that more than malaria, women and children die out of indoor air pollution due to use of inferior cooking fuel they collected by walking long distances. This programme has taken into account the intensity of effort in the care economy by women, and such statistics of time spent in collecting fuel wood are revealed in time use studies conducted by the Centre for Statistical Organization of India (Chakraborty, 2016 and 2014). Lahoti et al (2012) noted that the uptake of LPG is concentrated in the urban areas prior to PAHAL and among households with better socio-economic indicators. The study noted that while LPG is a clean and healthy fuel, majority of the households in the country still depend on solid fuels for cooking which has adverse health impacts. The objective of LPG subsidies to increase the reach to poor households and make the shift

<table>
<thead>
<tr>
<th>Bank Name</th>
<th>Rural</th>
<th>Urban</th>
<th>Total</th>
<th>No.of Rupay Cards</th>
<th>Aadhaar Seeded</th>
<th>Balance in Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Sector Bank</td>
<td>12.32</td>
<td>10.22</td>
<td>22.54</td>
<td>17.58</td>
<td>14.93</td>
<td>49266.04</td>
</tr>
<tr>
<td>Regional Rural Bank</td>
<td>3.97</td>
<td>0.66</td>
<td>4.63</td>
<td>3.53</td>
<td>2.76</td>
<td>11708.05</td>
</tr>
<tr>
<td>Private Banks</td>
<td>0.55</td>
<td>0.37</td>
<td>0.91</td>
<td>0.84</td>
<td>0.44</td>
<td>2127.40</td>
</tr>
<tr>
<td>Total</td>
<td>16.84</td>
<td>11.24</td>
<td>28.08</td>
<td>21.95</td>
<td>18.13</td>
<td>63101.49</td>
</tr>
</tbody>
</table>

Notes: This is the number of accounts opened under Pradhan Mantri Jan Dhan Yojana as of 22nd March 2017. All figures are in crores. The data updates as on April 2,2017.
Source: Government of India (2017), PMJDY.
from polluting solid fuels to LPG has not been fully achieved (Lahoti et al, 2012).

The Aadhaar payments mechanism has played a phenomenal role in making the PAHAL scheme a success. Under this scheme, the consumers receive cylinders at the market price and BPL consumers receive the LPG subsidy directly in their bank accounts. To avail the subsidy, consumers were required to either link their Aadhaar number with their bank accounts or link their bank account to their 17 digit LPG Id in case of unavailability of an Aadhaar number. The scheme aimed to cover 15.3 crores consumers across 676 districts of the country and gradually it was implemented all over the country (Government of India, 2014). The PAHAL scheme was declared to be a huge success by the Government of India. The Economic Survey of India 2015-16 also claimed that direct benefit transfers reduced the consumption of subsidized LPG cylinders and thus has reduced the LPG leakages by 24 percent with limited exclusion of genuine beneficiaries (Economic Survey of India, 2015-16). Apart from this, black marketing of LPG cylinders has also become harder. Till date, the total cash transfer amount under PAHAL has been Rs. 45412 crores and 10546388 people have given up their LPG subsidy6 (Government of India, Ministry of Petroleum and Natural Gas, 2014).

There is further scope to use the JAM Trinity in areas where central government has significant control and where leakages are high so that fiscal savings from JAM can also be high. In case of fertilizers, the central government control is high and the leakages are around 40 per cent which is enough justification for JAM to be used for fertilizer subsidies. Also, state and local governments as well as businesses dealing with the central government rely on the central government transfers/payments which are sent out in the same way as government subsidies.

JAM has improved the efficiency of transfer by reducing leakages, reducing delay and administrative burden. Hence, the JAM Trinity can be used within the government for transfers leading to reduced costs and higher efficiency. However, the effectiveness of these welfare programmes is still fraught with several problems even after such ground breaking reforms. Though the inclusion and exclusion errors in the transfer of money under these schemes have been minimized and the problem of leakage, wastage, and corruption in the delivery process had been dealt with to a great extent, the administration of these programmes uses up considerable manpower and resources.

The Economic Survey 2015-16 has noted regressivity in the pattern of access of subsidies by non-poor in India, especially in the case of power subsidies. Similarly, the LPG consumers avail a subsidy rate (ratio of subsidy amount to the market price) of about 36 percent. Also the poor account for only 9 percent of LPG consumption. This reveals the fact that 91 percent of the subsidies are availed by the better off. Finally, there is also a basic problem that in-kind transfers do not leave the decision to the recipients as to what their specific needs are (Ghatak, 2016). Hence, taking a step further in reworking the current system, the implementation of a Universal Basic Income (UBI) policy is being debated by the economists. A UBI would entail an unconditional, uniform cash transfer from the government to the people, irrespective of rich or poor. The Economic Survey of India, 2016-17 mentions that with the implementation of UBI, misallocation and leakages will further be removed since the money will be transferred directly into the bank accounts of the beneficiaries and would involve reduced role of the welfare bureaucracy.

Bardhan (2016) considers a basic income set at about 75 percent of the poverty line, which would replace some but not all welfare programs. According to him, public education, healthcare, childhood nutrition programs, and public works employment guarantee programs are important to be retained. Talking about fiscal feasibility, if the UBI amount is fixed at inflation indexed Rs. 10,000 at 2014-15 prices per person per year it would amount to 10 per cent of the GDP of that year. This amount can be managed given the regressive subsidies and inefficient welfare programs in the country.8

Banerjee (2016) and Ghatak (2016) have noted that the schemes like MGNREGA and PDS are still ill-targeted9 and India can afford a basic income by cutting subsidies, reducing wasteful spending, and reforming the tax code. Ray (2016) pointed out that UBI which is to be provided to citizens can be fixed as a percentage of the country’s GDP by integrating the advanced electronic payments infrastructure which is slowly developing in India and the Aadhaar biometric identification programme. UBI can help India tackle poverty directly cutting out layers of bureaucracy10. The main advantage of UBI remains that it bypasses the targeting problem as the transfer is universal. It is also visualized as a transfer to compensate the increasing inequalities in economic growth process.

Against the backdrop of fiscal consolidation and fiscal rules, India needs to maintain fiscal deficit below 3 per cent of GDP (Chakraborty, 2016b). The role of digitization in simplifying the subsidy management system and in promoting financial inclusion is evident leading to the efficient utilization of resources.

References


Ideas (2016), Ideas for India e-Symposium- The idea of a universal basic income in the Indian context, November 6, 2016


Endnotes
1 Ndung’uNjuguna, Armando Morales, and Lydia Ndirangu (2016) noted that banks have worked closely with telecommunications companies and insurance sector, which has allowed them a higher market presence there than in many emerging markets. The sequential adaptive and flexible regulatory frameworks, reforms in financial infrastructure, and rapid improvements in skills and capacity in Kenya, helped to enable this expansion of mobile-phone technological platform for person-to-person transfers, payments, and settlements (products such as M-Pesa). The study noted that the value of these transactions has reached the equivalent of 4.5 percent of annualized GDP a day. The virtual savings accounts, digital financial services for cross border payments and international remittances were also expanded after this digitization in Kenya, which led to financial development, lower transaction costs, greater financial inclusion and hence inclusive economic growth. For details, refer http://www.imf.org/external/pubs/ft/fandd/2016/06/ndungu.htm


3 The Aadhaar number was the financial address of an individual on the basis of which funds were transferred into the linked account. The development of the Aadhaar services allowed beneficiaries to receive welfare payments directly in one account and ensured funds being used by the intended beneficiary. At the same time, an Aadhaar linked bank account based transfer helped the government eliminate ghost and duplicate identities, use funds in an effective manner and focus on service delivery. The motive behind the implementation of such a system was also greater financial inclusion. However there are increasingly concerns regarding safety and security of these transactions. (For details, see http://www.hindustantimes.com/india-news/what-s-really-happening-when-you-swipe-your-aadhaar-card-to-make-a-payment/story-21LTOSNPhq1wvvZrwNgL.html and http://www.epw.in/journal/2016/42/commentary/framework-issuing-using-and-validating-identification-documents.html

4 The mobile banking is now being used to solve the last mile connectivity problem in India. Once the money comes in the bank accounts, getting money from the banks into the hands of the households still remains a challenge. As a solution to this, transfer of money through mobile phones is now being encouraged leading to faster and secure payments. Hence, collectively the JAM (Jan Dhan, Aadhaar, Mobile) Trinity has been used to effectively transfer funds (Economic Survey of India,2015-16). See http://indiabudget.nic.in/budget2016-2017/es2015-16/echapvol1-03.pdf


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Steps for Sound Fiscal Management

A nationally elected Government has to satisfy many groups. One group could be of voters. Another group could be of Economists, rating agencies, analysts etc. While the former would like to have more and more welfare schemes, the latter would like the Government to focus more on capital expenditure. There could be a third group too comprising of Corporates. For this group getting more tax benefits/reliefs are important. So, what could be a common mechanism for the all the three? It is called sound Fiscal Management which, in turn leads to the Fiscal Consolidation.

Sound Fiscal Management policies do not require just arithmetic and harsh measures but also a practical approach and a human face besides a mechanism to show results. Keeping all these in mind, here are seven important issues related with the Government’s strong Fiscal Management policy:

a. Auction of coal and various minerals and spectrum

The earlier policy of ‘First Come-First Serve’ for allocation of natural resources found itself in the web of corruption and this was proved when the Supreme Court of India, in its judgement dated August 25, 2014, cancelled the allocation of 204 coal blocks. Accordingly, it was decided that these mines would be allotted through an auction or allotment to Government companies. So, an ordinance was promulgated which later was converted into law to smoothen the process of auction and allotment to the Government companies. So far, 82 coal mines (which include 6 coal mines allotted to State Government Undertakings for sale of coal) have been allocated by way of auction/allotment. Of these 82 coal mines, 31 have been allocated through e-auction and 51 by way of allotment.

How has the new process benefitted the exchequer? Although, Government has not estimated any financial loss to the Government exchequer caused due to allocation of coal blocks during 2004-2014, but, the Comptroller and Auditor General of India in its report on ‘Allocation of Coal Blocks and Augmentation of Coal Production’ mentioned that ‘Audit has estimated financial gains to the tune of Rs. 1.86 lakh crore likely to accrue to private coal block allottees (based on average cost of production and average sale price of Opencast mines of Coal India Ltd. in the year 2010-11). Now it is estimated that auction/allotment

This Government, has not just adopted but followed a strict path of sound Fiscal Management and it has been reflected in steady decline in the fiscal deficit from 4.5 percent of GDP in 2013-14 to 4.1 percent in 2014-15, 3.9 percent in 2015-16 and 3.5 percent in 2016-17. And it is expected that the Government will be able to restrict the fiscal deficit to 3 per cent in 2018-19.

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will yield over Rs 4 lakh crores and this benefit will go to the coal rich states such as West Bengal, Jharkhand, Madhya Pradesh and Chhattisgarh.

In terms of other minerals, the State Governments are empowered to carry out auction of mines/mineral block in accordance with the Mines and Minerals (Development and Regulation) Amendment Act, 2015. So far 21 mineral blocks have already been successfully auctioned in the States of Andhra Pradesh, Chhattisgarh, Jharkhand, Karnataka, Odisha, Rajasthan and Madhya Pradesh. It is estimated that States will earn over Rs 50,000 crore through these auctions. 71 more mines/mineral blocks are to be auctioned in 10 States.

Spectrum is another example where auction has given good results. Though the auction process began in 2012, but it gathered stream only after the present Government assumed power. The Government claims that there has not been any shortfall during the first three years of its tenure. It realised Rs 10,791.08 as against ‘Nil’ target in 2014-15, Rs 21,587 crore as against Rs 21,587 crore and Rs 33,196.87 crore as against the target of Rs 33,194 crore in 2019-17.

It is evident that auction has given much more than conventional process of distribution of natural resources. Most importantly, with the advent of e-auction, the process has become more and more transparent. Forbes magazine, while praising the process of auction said, “This is exactly the right way to allocate the exploration and exploitation rights of such a natural resource. This is another one of those steps along the road to India becoming the much wealthier country it should be. This is the way this matter should be handled.”

b. JAM Trinity

If auction was a practical approach towards sound Fiscal Management Policy, the ‘JAM’ provides human face to it. ‘JAM’ means Jan Dhan, Aadhaar and Mobile. Before going details of ‘JAM’, it is necessary to understand why we need this. The Government spends trillions of rupees every year on welfare schemes meant to uplift the living standard of the masses. One of the most important tools of such expenditure is subsidy. The Economic Survey-2015-16 writes that price subsidies have formed an important part of the anti-poverty discourse in India and the government’s own policy toolkit. Both the central and state governments subsidise the price of a wide range of products with the expressed intention of making them affordable for the poor. Rice, wheat, pulses, sugar, kerosene, LPG, naphtha, water, electricity, diesel, fertiliser, iron ore, railways – these are just a few of the commodities and services that the government subsidises. The estimated direct fiscal cost of this illustrative subset of subsidies is about Rs 378,000 crore or about 4.24 percent of GDP. Now the big question is that who gets the maximum benefit, the poor or others? Another question is that do the poor really get the benefit?

The Economic Survey -2015-16 answers the first question by saying that price subsidies are often regressive. By regressive, it means that a rich household benefits more from the subsidy than a poor household. Take the example of Liquefied Petroleum Gas (LPG). It is said that the poorest 50 percent of households consume only 25 percent of LPG. It is said that for people with very low income, the monthly welfare gain from their LPG subsidies is less than Rs 10 per capita while for people with high income the monthly welfare gain is close to Rs 80 per capita. Even in the case of kerosene, which is considered to be used mostly by the poor, the Economic Survey 2015-16 says that only 46 percent of total consumption of subsidised kerosene is by households with a Below Poverty Line (BPL) or Antyodaya Anna Yojana (AAY) card, and only 49 percent is consumed by households placed at the bottom of the expenditure distribution. This clearly shows that majority (51 percent) of subsidised kerosene is consumed by the non-poor and almost 15 percent of subsidised kerosene is actually consumed by the relatively well-off (the richest 40 percent).

It means a lot of leakage which is against the basic principle of sound Fiscal Management policy. So, what is the way out? Answer is, target those who really need help or support from the Government. There have been targeted schemes, but nonetheless not proved successful as they lacked a scientific and transparent mechanism to identify the targeted people. Result, the poor remained poor while Government’s subsidy expenditure continued to balloon.

Here came help from the Chief Economic Advisor Arvind Subramanian when he coined the word ‘JAM.’ He described this as a solution for ‘wiping every tear from every eye.’ Now see, how this will work:

Jan Dhan—The present Government launched this financial inclusion initiative, Pradhan Mantri Jan Dhan Yojana to provide at least one
bank account for every household. Over 28 crore accounts have been opened so far. This is the first step towards reaching the targeted beneficiary.

**Aadhaar**–This 12 digit number provides unique identity to an individual. So far, over 111 Aadhaar numbers have been generated. It is believed that almost every adult has an Aadhaar number. Since every one can have only just one Aadhaar, it is easy not just to identify the targeted beneficiary but also to ensure that benefits reach directly to him. Linking the Aadhaar number to an active bank account is the key to implementing income transfers. Keeping this in mind, the Government has gone full throttle to seed bank account with Aadhaar number.

**Mobile**–The nation has over one billion mobile connections. This is the key to provide financial systems on a digital platform. If the mobile will help the beneficiary to find that the benefit has reached his Aadhaar seeded bank account, he can also use this for financial transactions. With the advent of technology, a smart phone is essential to do financial transactions. One can send or receive money through his bank account with the help of basic or feature phone also.

The Government has been actively using ‘JAM’ since 2014-15 and so far it has given good results. The Government, on many occasions has said that during the last 2½ years, there has been saving of around Rs 50,000 crore through Direct Benefit Transfer using ‘JAM’ trinity. This means that the Government has been able to lower the expenditure by not cutting but through an effective distribution mechanism.

c. **Goods and Services Tax**

If the first two pillars are meant to provide a practical approach and human face to sound Fiscal Management, then there is also the need to build a mechanism for ease of doing business and this can be seen in GST. The Government is all set to introduce the new indirect tax regime, GST or the Goods and Services Tax from July 1, 2017. This new system regime is expected to make India a single market, eliminate multiple assessments, check evasion and bring more revenues into the system. This is also required to boost the tax-GDP ratio. India’s indirect tax-GDP ratio at current market prices (based on central taxes) during the financial year 2015-16 was around 5.2 per cent. This low ratio is because of many factors such as keeping out many sectors out of the service tax net, non-taxation of agricultural and allied sectors, relatively higher threshold for small scale industries and fiscal concessions in the form of exemptions for socio-economic reasons, besides many others. Though, many of the agricultural products especially foodgrains will be exempted under the GST regime, many other such products are likely to be brought under GST. Although, it is not very clear what would be the fate of all other exemptions, there are still some hopes. Ideally, most of the exemptions, if not all, ought to be phased out in the GST regime which would increase the indirect tax GDP ratio in a non-distortionary and neutral manner.

GST aims to provide a uniform taxation structure across the country which, in turn, will help the corporates to do business with ease. At the same time, the new regime is expected to broaden the tax base which will help in more tax revenue for the Government.

d. **Outcome Budget**

There has been a common complaint that the sound of allocation has very high decibel while that of outcome is hardly audible. Hopefully, there will be no such compliant now as from this Budget onwards, the Outlays, Outputs and Outcomes would be presented to Parliament in measurable terms, bringing-in greater accountability for the agencies involved in the execution of government schemes and projects. ‘Outlay’ is the amount that is provided for a given scheme or project in the Budget; while ‘Output’ refers to the direct and measurable product of program activities, often expressed in physical terms or units. ‘Outcomes’ are the collective results or qualitative improvements brought about in the delivery of these services, often expressed in terms of improvements over ex-ante or earlier indicators and benchmarks.

It has been decided that from this year new fiscal output and outcomes of the schemes of 68 Ministries and Departments will be available along with the financial outlays as a part of the Budget documents, so that clearly defined objectives and goals for each scheme can be seen by all. This will help the Government to bring in more accountability in the system and finally pin point the reasons for failure in meeting the targets and take suitable action.
e. Reclassification of the Expenditure

From this budget (2017-18), the expenditure will not be classified under Plan or Non-Plan. This distinction has been removed and all the expenditure will be categorised as ‘Capital’ and ‘Revenue. The Government feels that the Plan/Non-Plan bifurcation of expenditure has led to a fragmented view of resource allocation to various schemes, making it difficult not only to ascertain cost of delivering the service but also to link outlays to outcomes. The bias in favour of Plan expenditure by Centre as well as the State Governments has led to a neglect of essential expenditures on maintenance of assets and other establishment related expenditures for providing essential social services. The merger of Plan and Non-Plan in the budget is expected to provide appropriate budgetary framework having focus on the revenue, and capital expenditure.

f. Merger of Railway Budget with the General Budget

The Government ended a 92 years old tradition of presenting Railway budget separately, and now the Railway budget and General Budget have been merged. The presentation of a unified budget will bring the affairs of the Railways to centre stage and present a holistic picture of the financial position of the Government. The merger is also expected to reduce the procedural requirements and instead bring into focus, the aspects of delivery and good governance. This process also ends dividend liability on the Railway. This will save approximately Rs.9,700 crore annual dividend to the Government of India.

g. Advancement of Budget Date

This year the budget was presented on February 1 and the entire process including enactment of Finance Bill was completed by March 31. Earlier this used to end in May-June and finally various Ministries and Departments were getting not more than 9 months to spend money of 12 months. Now, the advancement of budget presentation by a month and completion of Budget related legislative business before 31“March will pave the way for early completion of Budget cycle and enable Ministries and Departments to ensure better planning and execution of schemes from the beginning of the financial year and utilization of the full working seasons including the first quarter. This will also preclude the need for seeking appropriation through ‘Vote on Account’ and enable implementation of the legislative changes in tax laws for new taxation measures from the beginning of the financial year itself.

It is a co-incidence that the then Government, (1999-2004) enacted a legislation, the Fiscal Responsibility and Budget Management (FRBM) Act in 2003 to usher in an era of sound Fiscal Management policy. The same law is to be re-written by the present Government. The process has already begun with the submission of a report by the FRBM Review Committee. The Committee has favoured Debt to GDP of 60 per cent for the General Government by 2023, consisting of 40 per cent for Central Government and 20 per cent for State Governments. Within this framework, the Committee has derived and recommended 3 per cent fiscal deficit for the next three years. The Committee has also provided for ‘Escape Clauses’, for deviations up to 0.5 per cent of GDP, from the stipulated fiscal deficit target. Among the triggers for taking recourse to these Escape Clauses, the Committee has included “far-reaching structural reforms in the economy with unanticipated fiscal implications” as one of the factors.

The Finance Minister, while presenting the budget did admit that there was a strong case now to invoke this Escape Clause, but he refrained from doing so. However, considering the need for higher public expenditure in the context of sluggish private sector investment and slow global growth, the Government pegs the fiscal deficit for 2017-18 at 3.2 per cent of GDP and remains committed to achieve 3 per cent in the following year. It was expected that the Government will keep the rate at 3 per cent. Still, the analysts have not raised eyebrows as the record of this Government clearly shows that it can stick to the fiscal consolidation as targeted. This Government, has not just adopted but followed a strict path of sound Fiscal Management and it has been reflected in steady decline in the fiscal deficit from 4.5 percent of GDP in 2013-14 to 4.1 per cent in 2014-15, 3.9 per cent in 2015-16 and 3.5 per cent in 2016-17. And it is expected that the Government will be able to restrict the fiscal deficit to 3 per cent in 2018-19 and so on.

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Skill Development and Empowering Youth

The youth are the change makers, open to experimentation, new ideas generators and engines of growth. Indian youth ensure that they are seen and heard as they are not only the future of the nation but also partners in the growth story. It is imperative for our country to effectively empower the youth with requisite skills and knowledge which is the key towards putting India on the growth trajectory. Currently, India is in the best time of history having more than 50 per cent of its population below the age of 25. By 2020, the average age will be 29, resulting in about 47 million surplus working population. This is a historic number. There is an ardent need to channelize youth by focussing on skill development and entrepreneurship. A World Bank report says that working age population will continue to grow at least until 2040 in India and that can propel the country from a ‘developing nation’ to a ‘developed nation.’

Meeting the aspirations of youth coupled with economic growth is central to the development agenda. Encouraging lateral thinking, innovation and engagement of youth in formal decision making processes would create an enabling environment for nation’s growth and prosperity. This presents a humongous challenge of equipping youth with employable skills ensuring there is no mismatch between job demand and supply. Government of India has launched multiple strategic initiatives for bridging this gap – Make in India, Skill India Mission, Startup India, Stand up India and Digital India. These initiatives are aimed at creating employment and encouraging entrepreneurship among youth.

Make in India

The flagship program Make in India will facilitate investment, foster innovation, protect intellectual property and is expected to boost manufacturing activity across diverse sectors with the capacity to create 100 million new jobs by 2022. Make in India mission is a force multiplier which will create enormous livelihood opportunities for the youth. The mission aims to transform India into a global manufacturing hub and its share in GDP may rise to 25 percent by 2022. The mission has identified 25 sectors with different skill sets in sectors such as construction, textiles, food processing, aviation, defence equipment manufacturing and electronics. The Government has relaxed FDI norms to encourage domestic and international companies to manufacture in India and sell their...
products globally. Make in India will result in increasing use of modern technology in the workplace. In this context, existing and future employees will necessarily require highly skilled training. Diverse skilled workforce comprising of shop floor technicians, designers, programme managers, project planners, etc. will get immense employment opportunities. New job profiles in sectors such as solar energy generation, green building, smart cities, etc will emerge. Along with this a wider ecosystem of robust supply chain and logistics will create diverse jobs. This will make India a competitive market and global production centre.

**Skill India**

Though India enjoys the advantage of demographic dividend, the quality of market driven skills is a challenge. Out of 12 million people that enter the workforce every year, only 2 per cent gets formal training. With the emergence of a new Ministry of Skill Development and Entrepreneurship, the skill landscape is evolving rapidly. It has gained much traction with Make in India initiative and 100 Smart Cities Mission. The first integrated National Policy for Skill Development and Entrepreneurship 2015 has made the roadmap to promote entrepreneurship as the key to a successful skills strategy along with preparing the youth for high-tech jobs. It envisions “the creation of an ecosystem of empowerment by skilling on a large scale at speed with high standards and to promote a culture of innovation-based entrepreneurship which can generate wealth and employment so as to ensure sustainable livelihoods for all citizens in the country.” Under this initiative many skill development schemes and programmes will be instituted focusing on multiple sectors with emphasis on placement after training.

There is disruption in technology and businesses which is impacting employment. In this scenario, sustainable job creation will no longer be about blue collar or white collar, but about the “new collar” jobs. New systems like Artificial Intelligence, Automation, Internet of Things, Data Analytics, etc. are high tech jobs and will require highly skilled training. Organizations will demand skills, which require new approaches to skilling. There is an ardent need to appropriately train youth in response to the changing patterns of employment. In order to make India the skill capital of the world, skilling should be on the lines of international standards.

**National Skill Development Corporation** has created industry led Sector Skill Councils that is working on creating National Occupation Standards (NOS). The NOS indicate standard of performance that one must achieve while carrying out work at the workplace. All training providers now have to adhere to these NOS for skill certification. National Skills Qualification Framework (NSQF) for India integrates and provides linkages between vocational education and general education. This is based on an outcome based approach where each level is expressed by competency levels. This is a harbinger for making the young population competitive to their global counterparts.

**Innovation, Incubators, Startup and Stand Up Ecosystem**

India has always been the fountainhead of great innovations. The success of indigenously built Mangalyaan speaks of great frugal innovation wherein the cost incurred was Rs. 7 per KM in covering the 650 million KM distance to Mars. This demonstrates India’s prudence of innovative technology and leadership. ‘Diversity breeds innovation’, and India is distinctively placed in the scale of diversity. Our youth in different geographies are full of bright ideas; their ideas need support and handholding. Creation of an innovative culture should begin from schools. There are many business incubators evolving in the country at academic institutions and early stage financial institutions; some of them are supported by big industrial conglomerates. Department of Science and Technology (DST) is providing support for business incubators for encouraging and nurturing innovation. The R&D funnel should now turn towards rural youth innovators and MSMEs as most of the novel ideas emerge from them. Various Government Departments like DSIR, CSIR, DST, NSTEDB, DBT and several agencies in private domain are supporting and funding Science, Technology and Innovation in India. Several venture capital, private equity funds and angel investors are providing support for innovation, providing access to technology and finance to the youth.

Incubators assist Startups to survive in their early stages when most of them get seed funding from family and friends. Incubators are important to Startups as, besides grants, they give them space to work and act as a networking platform. They also give access to customers; provide guidance and mentorship to customize products and solutions as per the market demand, besides help in accessing capital and capital markets. In India, much of the incubators are housed in academic institutions; 118 of them are recognised by the Ministry of Commerce and Industry under the Startup India scheme. Startup entrepreneurship is a favoured choice of career among youth. In India there are more than 10,000 Startups and are projected to cross 11,500 by 2020. India has the 3rd largest startup ecosystem in the world.

The innovation culture is pervasive in young entrepreneurs as students in schools and in higher education institutions are forming e-clubs and societies and many are working
in co-spaces. These clubs and co-working spaces unleash the spirit of entrepreneurship and cultivate business acumen.

Corporate Social Responsibility funds have the potential to boost linkages between industry and technology business incubators. As per Schedule VII of the Section 135 of the Indian Companies Act, 2013, Indian companies can fund the development of incubators as a part of their 2 per cent CSR spending mandate.

**Stand Up India scheme** is dedicated to women and the members of scheduled castes and scheduled tribes to promote entrepreneurial projects. Rs 10 lakh to Rs 1 crore loan amounts are given to female and SC/ST entrepreneurs which is repayable by up to seven years. This scheme acquaints young entrepreneurs with services, e-market places and registration on online platforms.

**Unleashing the Power of Youth**

India is at the crossroads as it has to cater to the aspirations of its young population. The energy of aspirational youth and hunger for quality life gives the hope for a developed India. The workforce in the industrialised economies will decline by about 4 percent in the next 20 years, while in India this will increase by 32 percent. Empowerment and capacity building of youth is catalyst to the admirable initiatives of Government of India that strives to position India as the global manufacturing hub and the skill capital of the world. Skill India and Startup India mission will ease the transition from education to employment for a youngster while nurturing innovative mindset. Glorifying skills and changing the mindset of youth from job seeker to job provider is the key to sustainable growth. Entrepreneurship among youth is fundamental to make the growth inclusive. This will require sustained joint efforts and visionary leadership. Not only Government, but the private sector and academia must work in tandem and rise to the challenge in the journey of creation of ‘New India’ that is confident, talented with the capacity to meet global challenges.

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**DO YOU KNOW?**

**eSAMPARK**

e-Sampark is a mechanism to connect the government directly with citizens across India by running mailer, outbound dialing and SMS campaigns. e-Sampark portal was launched in May 2016 by Government of India. It works as a platform to pass on messages to the people and also receive messages from people. The Portal is aimed to improve government communications with citizens. Till date, 404 campaigns have already been conducted and more than 230 crore emails have also been sent through e-Sampark.

The concept of e-Sampark has been introduced to establish proactive communication by digitisation of campaigns. The multifaceted platform facilitates not only seamless communication between the government and citizens, but also maintains a database of contacts of the nodal officers, representatives and citizens. In addition, users can also view the previous campaigns conducted. e-Sampark signifies the essence of Digital India. It enables the government to communicate with the citizens about several programmes and initiatives. Recent campaigns include Transforming India through Risk Management and Encouraging citizens to avoid petrol and diesel vehicles for a day in a week. It also provides the views of the Prime Minister shared by him in the popular programme ‘Man Ki Baat’ on radio. The features of the e-Sampark portal are as follows-

- Provision for sending informational and public service messages in the form of mailers, SMSs and outbound dialing to citizens, elected representatives and government employees through customised user lists. Similarly, SMSs can also be sent to a customised user-base using the application.
- Extensive database of elected representatives and government officials that is updated periodically.
- Provision for updating the database either individually or through bulk upload.
- Provision of a Dashboard showing nodal officers the campaign analytics i.e. number of mailers and SMSes sent, percentage read, percentage of forwards, URL clicks etc.
- Provision for individual users to subscribe to the “e-Sampark” database. By subscribing to a list, a user gives his/her consent to receive mailers and SMSes from the Government. The user can unsubscribe from the list at any time.

One can ensure following benefits -

- Extensive structured database of government officials (of both Central and State governments) for sending official information.
- Information, alerts about the existent policies or proposed policies, decision of the Government and new schemes to be launched can be shared with customised user base. This will improve the efficiency of communication.
- Increased awareness among the citizens by sharing urgent alerts of national or public interest and government updates so he or she can take benefit of schemes and programmes timely.
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Ease of Doing Business: Challenges & Way Forward

One of the important aspects of the economic reforms in India has been to reduce the regulatory role of the government in business clearances and approvals, and replacing it with a more facilitative role, thereby, improving the Ease of Doing Business (EoDB). The pace of reforms in this direction has, however, proved to be insufficient for the industrial sector of the economy, whose share in the country’s GDP stood at a mere 24.2 per cent in 2014, as compared to 43.9 per cent for China, 38.7 per cent for South Korea and 34.7 per cent for Malaysia. Manufacturing, constituting a bulk of industrial output and crucial for the success of the ‘Make-in-India’ campaign of the government, has been particularly impacted by the lack of EoDB reforms. Infrastructure, which is crucially vital for any economic activity, also suffers from cumbersome requirements of procedures, compliances and approvals. “Anecdotal evidence suggests that a typical infrastructure project requires clearances from 19 ministries and needs on an average 56 permissions on issues ranging from environment to internal security, which takes around 24 months to complete the process” (CII, 2014).

India’s poor performance on the EoDB front is evident from the World Bank’s ‘Doing Business’ (DB) report (2016), where it currently ranks 130 out of 190 countries and fares even worse in as many as following 7 (out of the 10) EoDB parameters—Dealing with construction permits (185), Paying taxes (172), Enforcing contract (172), Starting a business (155), Trading across borders (143), Registering property (138), and Resolving insolvency (136). It is important to mention here that DB is based out of only two cities, Delhi and Mumbai, and hence may not fully reflect the situation prevailing in most of the other states in the country. Yet, the fact remains that businesses across states continue to face a maze of government orders, regulations, rules and procedures, which, coupled with red tape, bureaucratic processes, corruption, delays, etc., make doing business a challenging task.

Poor state of EoDB situation, which is an important component of the overall investment climate, has resulted in loss of economic opportunity for the country. Numerous studies provide evidence in support of this argument. Dollar et al. (2002), for instance, stated that poor investment climate has hindered inflow of large volume investment, especially in

Central as well state governments need to be lauded for undertaking a wide range of initiatives on EoDB front. While these initiatives have started bearing fruits at the ground level, they need to be sustained and continually supplemented with more measures if India’s doing business ranking is to improve to top 50 in the world in the next 3 years and ‘Make-in-India’ initiative is to be truly successful. Even more importantly, it must be ensured that the improvement in ranking on EoDB translates into commensurate enhancement in the overall economic well-being of the country.

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high productivity manufacturing and services sectors, thereby undermining employment and growth opportunity. Ferro et al. (2004) linked poor investment climate to low agricultural productivity and non-farm growth. Veeramani and Goldar (2004) found poor investment climate affecting the productivity growth in the manufacturing sector. They indicated that it is mainly the differences in investment climate across states that has resulted in a high degree of variations in investment levels, economic prosperity and productivity growth among them, given that investment climate is largely a state subject.

The central government has stressed on providing a significant push to EoDB reforms in recent years. Emphasis has been laid on simplification and rationalization of the existing rules and introduction of information technology to make governance more efficient and effective (Sharma, 2016). There is also an attempt to usher in ‘less government, more governance’ motto. A number of reforms are being introduced at both the Central as well as the State levels. At Central level, for instance, the process of applying for Industrial License and Industrial Entrepreneur Memorandum has been made online. As many as 20 central government services, including industrial license and employer registration, have been integrated with the e-Biz platform (BS, 2016). Similarly, Ministry of Corporate Affairs has introduced Form 29, which integrates 3 processes such as Name Availability, Director Identification Number, and Incorporation of Company into just one single process. A company can now be registered within 1-2 working days. ESIC and EPFO are also completely online with no physical touch point for registration or document submission.

The government has also been taking a series of steps to make life easier for millions of traders. The Central Board of Excise and Customs (CBEC) has launched the Single Window Interface for Facilitating Trade (SWIFT), which enables importers to file a common integrated declaration on the e-portal (ICEGATE) and has cut down the declaration requirement by six partner government agencies - FSSAI, Plant Quarantine, Animal Quarantine, Drug Controller, Wild Life Control Bureau, and Textile Committee - from 9 to just three. This facility will soon be extended to the exporters as well. The central government has also reduced the number of required mandatory documents for import and export of goods to three each, from previous requirements of 10 and seven, respectively. While there have been several other initiatives that have been taken by the central government in recent times, the most significant perhaps is the initiative taken to espouse the spirit of competitive federalism among states to make the environment more conducive for businesses.

The Department of Industrial Policy and Promotion (DIPP) in 2015 took a landmark initiative to launch the Business Reforms Action Plan (BRAP), entailing annual ‘Assessment of State Implementation of Business Reforms’ and making the results (including States’ ranking) public. This has been popularly cited as the ‘name-and-shame’ policy of the central government, which has succeeded in generating the spirit of competitive federalism among the states. Unlike the World Bank’s DB ranking, which covers only Delhi and Mumbai, DIPP’s assessment of reforms is much broader in terms of coverage of parameters as well as states. While the 1st assessment of reforms (2015) was based on 98-parameters and 32 States and Union Territories (UTs), the 2nd one has examined EoDB on 340 reform parameters, covering 36 States/UTs. Further, rather than making the assessment based on perception of users (industry), as is the case with the World Bank’s ranking, DIPP’s assessment is based on the actual reforms implemented by states. Each State/UT government was asked to provide their response on 340 reforms agenda and submit the necessary proof to DIPP for detailed scrutiny.

Keeping in focus the broad agenda of rationalizing the rules and procedures and making the governance process more effective and digitized, DIPP in the 2nd round of annual assessment focussed on the following 10 broad indicators of EoDB, spread over 340 business reforms agenda: (i) Access to information and transparency enablers; (ii) Single Window; (iii) Availability of land; (iv) Construction permit enablers; (v) Environmental registration enablers; (vi) Labour regulation enablers; (vii) Obtaining electricity connection; (viii) Tax returns filing; (ix) Inspection reform enablers; and (x) Commercial dispute resolution enablers.

Selection of the indicators by DIPP is justified on the ground that each one of them offers large scope for improvement. In case of the single window, for instance, a CII-KPMG report (2014) found that 78 per cent of surveyed enterprises saw the need for reduction in visits to various government departments whereas 85 per cent felt that time required to obtain clearances was unreasonably high. Similarly, 69 per cent respondents were found to be facing problems in land availability, covering areas such as land mutation, conversion, high prices, etc. The environmental clearances were found to be the top obstacle in starting a business in the study. In the labour related compliances, encompassing 44 Central and about 100 state laws, 47 per cent of the businesses faced moderate to major difficulty.

The results of the 2nd round were finalized and announced on 31st October 2016 and are available on the DIPP portal. Besides the assessment of reforms and ranking of the states, DIPP’s results present numerous interesting implications for reforms, going forward. The present article endeavours to capture and analyse the key findings of DIPP’s 2nd assessment of reforms on EoDB across states.

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States’ Business Reforms Analysis

DIPP’s ranking is based on the scores obtained by each State / UT out of 340 business reforms on EoDB (Table 1). There is a distinct pattern emerging out of the survey findings. Based on whether a State/UT scored less or more than 50 per cent, 36 States / UTs are divided into two exact halves of 18. While the first half of states (leading) averaged 90 per cent, the second half (laggard) could reach only 8 per cent. In terms of 10 broad indicators of EoDB, leading states averaged from a high of over 99 per cent in Environmental registration enablers to 66 per cent in Commercial dispute resolution enablers (Figure 1). In case of laggard states, the average score varied from 33 per cent for Commercial dispute resolution enablers to less than 2 per cent for inspection reform enablers (Figure 2). It is interesting to note that many in the leading list of states, like Chhattisgarh, MP, Jharkhand, Rajasthan, Punjab, UP, Bihar etc., are not recognized for their prowess in manufacturing, but the quest to attract investment has energized them to introduce EoDB reforms, which is going to change the industrial map of India.

Showing success of DIPP in promoting competitive federalism, several states have registered sharp improvement in implementation of business reforms in the 2nd Survey as compared to the 1st Survey (Table 1). Notable states among them include Telangana (from 13 to 2 rank), Haryana (from 14 to 6), Uttarakhand (from 23 to 9), Punjab (from 16 to 12), and Bihar (from 21 to 16). While even many new states have progressed, Gujarat, which had stood first in the earlier survey, has slipped down to 3rd position in DIPP’s 2nd survey of the assessment of business reforms.

We shall now analyze the key findings of DIPP’s assessment of states’ reforms, cutting across parameters and states, which have important policy implications, going forward.

Table 1: DIPP’s Assessment of States’ Business Reforms – Rankings, Scores and Changes

<table>
<thead>
<tr>
<th>States / UTS</th>
<th>Rank as per 2nd Survey</th>
<th>Score of 2nd Survey (per cent)</th>
<th>Rank as per 1st Survey</th>
<th>Score of 1st Survey (per cent)</th>
<th>per cent change in 2nd from 1st Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>1</td>
<td>98.78</td>
<td>2</td>
<td>70.12</td>
<td>40.9</td>
</tr>
<tr>
<td>Telangana</td>
<td>2</td>
<td>98.78</td>
<td>13</td>
<td>42.45</td>
<td>132.7</td>
</tr>
<tr>
<td>Gujarat</td>
<td>3</td>
<td>98.21</td>
<td>1</td>
<td>71.14</td>
<td>38.1</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>4</td>
<td>97.32</td>
<td>4</td>
<td>62.45</td>
<td>55.8</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>5</td>
<td>97.01</td>
<td>5</td>
<td>62</td>
<td>56.5</td>
</tr>
<tr>
<td>Haryana</td>
<td>6</td>
<td>96.95</td>
<td>14</td>
<td>40.66</td>
<td>138.4</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>7</td>
<td>96.57</td>
<td>3</td>
<td>63.09</td>
<td>53.1</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>8</td>
<td>96.43</td>
<td>6</td>
<td>61.04</td>
<td>58.0</td>
</tr>
<tr>
<td>Uttarakhand</td>
<td>9</td>
<td>96.13</td>
<td>23</td>
<td>13.36</td>
<td>619.5</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>10</td>
<td>92.86</td>
<td>8</td>
<td>49.43</td>
<td>87.9</td>
</tr>
<tr>
<td>Odisha</td>
<td>11</td>
<td>92.73</td>
<td>7</td>
<td>52.12</td>
<td>77.9</td>
</tr>
<tr>
<td>Punjab</td>
<td>12</td>
<td>91.07</td>
<td>16</td>
<td>36.73</td>
<td>147.9</td>
</tr>
<tr>
<td>Karnataka</td>
<td>13</td>
<td>88.39</td>
<td>9</td>
<td>48.5</td>
<td>82.2</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>14</td>
<td>84.52</td>
<td>10</td>
<td>47.37</td>
<td>78.4</td>
</tr>
<tr>
<td>West Bengal</td>
<td>15</td>
<td>84.23</td>
<td>11</td>
<td>46.9</td>
<td>79.6</td>
</tr>
<tr>
<td>Bihar</td>
<td>16</td>
<td>75.82</td>
<td>21</td>
<td>16.41</td>
<td>362.0</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>17</td>
<td>65.48</td>
<td>17</td>
<td>23.95</td>
<td>173.4</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>18</td>
<td>62.8</td>
<td>12</td>
<td>44.58</td>
<td>40.9</td>
</tr>
<tr>
<td>Delhi</td>
<td>19</td>
<td>47.62</td>
<td>15</td>
<td>37.35</td>
<td>27.5</td>
</tr>
<tr>
<td>Kerala</td>
<td>20</td>
<td>26.97</td>
<td>18</td>
<td>22.87</td>
<td>17.9</td>
</tr>
<tr>
<td>Goa</td>
<td>21</td>
<td>18.15</td>
<td>19</td>
<td>21.74</td>
<td>-16.5</td>
</tr>
<tr>
<td>Tripura</td>
<td>22</td>
<td>16.67</td>
<td>26</td>
<td>9.29</td>
<td>79.4</td>
</tr>
<tr>
<td>Daman &amp; Diu</td>
<td>23</td>
<td>14.58</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Assam</td>
<td>24</td>
<td>14.29</td>
<td>22</td>
<td>14.84</td>
<td>-3.7</td>
</tr>
<tr>
<td>Dadra &amp; Nagar Haveli</td>
<td>25</td>
<td>1.79</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Puducherry</td>
<td>26</td>
<td>1.49</td>
<td>20</td>
<td>17.72</td>
<td>-91.6</td>
</tr>
<tr>
<td>Nagaland</td>
<td>27</td>
<td>1.49</td>
<td>31</td>
<td>3.41</td>
<td>-56.3</td>
</tr>
<tr>
<td>Manipur</td>
<td>28</td>
<td>1.19</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Mizoram</td>
<td>29</td>
<td>0.89</td>
<td>28</td>
<td>6.37</td>
<td>-86.0</td>
</tr>
<tr>
<td>Sikkim</td>
<td>30</td>
<td>0.6</td>
<td>27</td>
<td>7.23</td>
<td>-91.7</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>31</td>
<td>0.3</td>
<td>32</td>
<td>1.23</td>
<td>-75.6</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>32</td>
<td>0.3</td>
<td>29</td>
<td>5.93</td>
<td>-94.9</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>33</td>
<td>0.3</td>
<td>24</td>
<td>10.04</td>
<td>-97.0</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>34</td>
<td>0.3</td>
<td>30</td>
<td>4.38</td>
<td>-93.2</td>
</tr>
<tr>
<td>Andaman &amp; Nicobar Island</td>
<td>35</td>
<td>0.3</td>
<td>25</td>
<td>9.73</td>
<td>-96.9</td>
</tr>
<tr>
<td>Lakshadweep</td>
<td>36</td>
<td>0.3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>National Average</strong></td>
<td>-</td>
<td>48.9</td>
<td>-</td>
<td>48.9</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Calculated from data available on: [http://eodb.dipp.gov.in](http://eodb.dipp.gov.in)
1. Overall improvement; but reforms need to be sustained and dynamic

There is commendable progress on EoDB reforms by states over the last one year (Table 1). The national implementation average now stands at 48.9 per cent, significantly higher than last year’s national average of 32 per cent (DIPP, 2016). The highest score in 2nd survey stands at 98.8 per cent (Andhra Pradesh and Telangana), much higher than 71.1 per cent (Gujarat) in the 1st survey. This indicates that DIPP has been successful in generating competition among states to work on EoDB reforms. Now 16 states have scored more than 75 per cent on overall EoDB reforms agenda. This improvement in the EoDB front is also echoed in a 16-rank jump (to 39th position) for India in the Global Competitiveness Index prepared by World Economic Forum, that lists 138 countries (WEF, 2016). It is, however, important that the reform momentum is sustained year after year. The design of the reforms agenda needs to be dynamic, keeping in perspective the changing capacity of states to implement reforms and the needs of the industry.

Several States Doing Well; Can Do Much Better

The leading 18 states have performed exceedingly well in majority of the 10-indicators of EoDB. In case of 8 indicators, these states have averaged more than 75 per cent, and have crossed 89 per cent in 6 cases. Commercial dispute resolution enablers and availability of land related issues, however, showed scope for improvement. Impressive performance by leading states indicate that they can now implement an even more rigorous set of reforms. DIPP should come out with a separate list of reforms agenda for these states and endeavor to help them reach at par with the Doing Business indicators of top 20 countries in the next 3-5 years.

Many States at the Bottom, Requiring Different Approach

On the bottom side of 18 states, scoring less than 50 per cent overall, states have performed extremely poorly (Figure 2). In case of 9 indicators of EoDB, laggard states have failed to cross even 16 per cent score. These States / UTs (Lakshadweep, Andaman & Nicobar Islands, Meghalaya, Chandigarh, J&K, Arunachal Pradesh, Sikkim, Mizoram, Manipur, Nagaland etc.) have weak presence as well as potential to leverage manufacturing, and need to be treated differently for reforms. Their dismally poor ranking may go against whatever interest investors have had in these states. The government should look at providing them assistance in introducing reforms, while at the same time, helping them realize their inherent advantages in other areas too, including development of MSMEs and tourism. One-size-fits-all approach may not work in a country of the size and variability of India. It may be helpful to divide the States/UTs in at least two broad categories and place their reforms priorities accordingly.

Figure 1: Average scores of the top 18 states on 10-EoDB parameters

Source: Derived from data available on: http://eodb.dipp.gov.in

Substantiating the need for different sets of approaches for leading and laggard states on EoDB, DIPP’s survey results indicate States / UTs scoring in either top or bottom quartiles, with very low presence of states in the range of 25-75 per cent (Table 2). This is true for all parameters of EoDB, barring the case of commercial dispute resolution enabler. It implies that states are finding it either too easy or too difficult to implement reforms recommended by DIPP, underlining the need for different approaches for the two sets of States / UTs.

Delhi Lagging Behind, Requires Special Attention

In DIPP’s 2nd assessment of reforms, Delhi scores only 48 per cent and ranks at the 19th position (Table 1). Even though Delhi is not expected to be one of the leading manufacturing producers, it is strategically important from the point of view that it, along with Mumbai, determines the ranking of the country in the World Bank’s DB Report, where India is desired to improve to 50th ranking (currently at 130th) in next 3 years (BS, 2015). Efforts should, therefore, be made to help Delhi, along with Mumbai, to join the league of top 10 states on EoDB performance.

Industry’s Perception: Vital

Government may not know what is it they do not know, which necessitates creating an environment where public officials can elicit information from the private sector on a regular basis (Rodrick, 2004). While DIPP’s survey is based on state governments’ responses, the flow of information from industry to the government in the survey is missing. Consequently, a huge gap exists between the perceptions of government and industry on the reforms in majority of the states. For instance, while many states have scored more than 90 per cent in single window reforms, the system is far from effective in virtually all states. Similar gaps exist for many other EoDB indicators, where states...
may have scored even 100 per cent. To be fair to the state governments, majority of reforms have only recently been introduced and would take time for firm rooting. In the meantime, rigorous efforts need to be put in place to narrow the gap between the perception of a state government and industry on a reform. Moving in this direction, DIPP could also start ranking states based on the perception of the industry.

Industry’s perception is also important because state governments might seek to improve their ranking in ways that have little substance to improvement in the business climate. Rwanda is perhaps the best example of this (The Economist, 2015). The country has significantly improved its World Bank ranking from 139th in 2006 to 56 now, yet it continues to remain one of the world’s poorest economies.

**Spreading Best Practices**

Results of the survey indicate the presence of numerous best practices on EoDB across states. In 8 out of 10 EoDB indicators, at least 10 states have scored between 90-100 per cent, and they can very well present examples of best practices for other states (Figure 3). Maximum number of states scoring 90-100 per cent are found in case of environment registration enablers (19), which earlier used to pose a major challenge for businesses. This is followed by labour regulation enablers (17), and online tax return filing (16).

The list of top 3 states scoring between 90-100 per cent in each of the 10 indicators of EoDB is presented in Table 3, which shows that states, by and large, exhibit strengths in different parameters of EoDB and can be a good source of learning for other states in implementation of reforms. What is most significant to note here is that the majority of these top scoring states are historically not industrial states, yet they have managed to introduce business reforms rather quickly.

**Assessment of Reforms**

To bridge the gap between advance and laggard states on EoDB and to expedite the reforms process across states, it may be useful to carry out the assessment of EoDB reforms for the central government’s ministries/departments too. Many issues on EoDB, like those related to labor laws, taxation, environment, third party approvals/self-certifications and land acquisition etc. also require central government’s attention.

**Competitiveness: Ranking Necessary**

Even though several states have obtained more than 90 per cent score on EoDB reforms, they may still not be offering an ideal conducive environment to investors. While ease of doing business is an important criterion to assess the business environment of a state, this by no means ensures that a state is competitive for doing business. There are several other factors, beyond EoDB, that are also important in investment decision making. “When deciding on investing, entrepreneurs look at a host of factors from cost of inputs, to reliability of infrastructure, to quality of institutions” (Iarossi, 2009).

Entrepreneurs also look at the provision of public goods such as public labs, research & development

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**Table 2: Number of States in different quartiles of scoring across 10-EoDB Parameters**

<table>
<thead>
<tr>
<th>Quartiles of Scores</th>
<th>Access to Information and Transparency Enablers</th>
<th>Single Window</th>
<th>Availability of Land</th>
<th>Construction Permit Enablers</th>
<th>Environmental Registration Enablers</th>
<th>Labour Regulation Enablers</th>
<th>Obtaining Electricity Connection</th>
<th>Online tax return filing</th>
<th>Inspection reform enablers</th>
<th>Commercial Dispute Resolution Enablers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-25 per cent</td>
<td>15</td>
<td>19</td>
<td>15</td>
<td>17</td>
<td>13</td>
<td>14</td>
<td>16</td>
<td>14</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>25-50 per cent</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>50-75 per cent</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>75-100 per cent</td>
<td>15</td>
<td>12</td>
<td>9</td>
<td>12</td>
<td>19</td>
<td>18</td>
<td>16</td>
<td>18</td>
<td>17</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Calculated from data available on: [http://eodb.dipp.gov.in](http://eodb.dipp.gov.in)

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**Figure 2: Average score of bottom 18 states on EoDB parameters**

Source: Derived from data available on: [http://eodb.dipp.gov.in](http://eodb.dipp.gov.in)
facilities, vocational & technical training institutes, provision of health & infrastructural facilities, and sanitary & phytosanitary standards (Rodrick, 2004). Effective provision of public services is another important area. Despite the enactment of the Right to Services Act by most states, which ensures hassle-free, corruption-free and time-bound services from government offices, the situation at the ground level continues to be found wanting. It is, therefore, important that states are also ranked on a comprehensive list of investment climate factors, which would help in understanding the overall competitiveness of a state.

**Concurrent List Laws: Reduction**

Many high scoring cases of reforms across EoDB indicators in states do not necessarily translate into matching satisfaction of investors at the ground level. This issue, among other important measures, requires deeper level of reforms, as in the case of labour laws. Rather than leaving it to the states as an option, DIPP should encourage states to amend pertinent laws in the Concurrent list, which help improve the ease of doing business. The central government has already requested state governments to take the lead in framing such laws, with its backing (Mishra, 2015). Many states have already taken relevant initiatives. Rajasthan and Madhya Pradesh, among a few others, for instance, have significantly increased the threshold limit for applicability of Industrial Disputes Act, 1947; Contract Labour Act, 1970; and Factories Act, 1948.

Even more importantly, the Center should allow states greater autonomy in framing of laws by amending the Seventh Schedule of the Constitution, which provides a long list (47 entries) of policy functions under the Concurrent list. Many of these laws (like those related to Trade unions, Industrial and labour disputes, Forests, Factories, Boilers, and Electricity) have direct bearing for the ease of doing business. Moving in the direction of cooperative federalism, many such policy functions need to be removed from the Concurrent list and transferred to the state governments (Aiyar, 2015). Faced with growing competition among states to perform better than others on the EoDB front, this will provide extra space to them for speedier implementation of business reforms.

**Summary & Conclusion**

Amid the country’s poor performance on the ease of doing business front (as reflected in the World Bank’s Doing Business ranking), and the launch of the ‘Make-in-India’ initiative, improvement in EoDB is a top priority for the central government. The government has not only been introducing reforms itself, but has also ushered in the spirit of competitive federalism by starting the annual assessment and ranking of business reforms of states, which, within two years, has started yielding significant improvement in EoDB
performance at the national level. The national average of EoDB reforms implementation now stands at 48.9 per cent, much higher than last year’s score of 32 per cent.

Further, in the latest (2nd) round of DIPP’s ‘Assessment of State Implementation of Business Reforms 2016’, half of the 36 States / UTs have registered a commendable performance, averaging 90 per cent score as against the other half scoring only 8 per cent. Such a wide difference between the scoring of 1st and 2nd halves of states underlines the need for setting separate benchmarks of reforms for the two categories. While leading states may need a more rigorous set of reforms, the ones lagging behind should be given more time, support and options. Rigorous efforts should be made to spread the best practices of leading states among the laggards. Delhi, which is currently tilted towards the laggard states at 19th position, needs to be brought in the mainstream, along with Mumbai (at 10th rank), to help India jump up in the World Bank’s Doing Business ranking.

Given that the performance of states by DIPP is being assessed on the feedback provided only by the state governments, industry’s perception of EoDB reforms is not necessarily the same. While there is an overall improvement in perception of industry about these reforms, it is not at par with the high scores obtained by states in many cases, underlining the need for the next wave of reforms being targeted at bridging the gap. In this direction, DIPP may now consider widening the scope of assessment of business reforms by bringing out a regular perception survey of industry too, building pressure on state governments to ensure effective implementation of reforms introduced.

There is a case for widening the scope of assessment of business reforms by DIPP in several other areas too. First, the scope of assessment of business reforms can be widened to include more exhaustive parameters (like inputs availability, infrastructure, law and order, etc.), which have high implications for the overall competitiveness / investment climate of states. Good performance on EoDB indicators alone may not mean much to an investor, if other requisite conditions are missing. Second, with a view to fast track the process of reforms, DIPP could ask states to also implement those EoDB reforms that fall under the Concurrent list (like labour laws, land related reforms, etc.). In parallel, it should also recommend pruning the Concurrent list substantially, giving larger space for cooperative federalism. Third, DIPP could also initiate an exercise for the assessment of business reforms for various Central departments and ministries, which would help in providing further momentum to the pace of EoDB reforms.

To conclude, Central as well state governments need to be lauded for undertaking a wide range of initiatives on EoDB front. While these initiatives have started bearing fruits at the ground level, they need to be sustained and continually supplemented with more measures if India’s doing business ranking is to improve to top 50 in the world in the next 3 years and ‘Make-in-India’ initiative is to be truly successful. Even more importantly, it must be ensured that the improvement in ranking on EoDB translates into commensurable enhancement in the overall economic well-being of the country.

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A series of initiatives to digital payments on a mass level - BHIM Aadhaar platform for merchants, Cash back and Referral bonus schemes for BHIM- were launched by the Prime Minister on the 126th birth anniversary of Dr. Bhim Rao Ambedkar in Nagpur on 14th April 2017.

BHIM-Aadhaar, the merchant interface of the BHIM App, will pave the way for making digital payments by using the Aadhaar platform. Any Indian citizen can pay digitally using their biometric data like their thumb imprint on a merchants’ biometric enabled device which could be smart phone having a biometric reader. Any citizen without access to smart phones, internet, debit or credit cards will be able to transact digitally through the BHIM Aadhaar platform. Already, 27 major banks are now on board with 7.15 lakh merchants so that they can start accepting payments using BHIM Aadhaar.

The other two new incentive schemes for the BHIM are Cash back and Referral bonus – with an outlay of Rs. 495 crore for a period of six months. This is to ensure that the culture of digital payments permeates down to the grassroots. Under the Referral bonus scheme both the existing user who refers BHIM and the new user who adopts BHIM would get a cash bonus credited directly to their account. Under the Cashback scheme the merchants will get a cash back on every transaction using BHIM. Both schemes are to be administered by Ministry of Electronics and Information Technology (MEITY) and implemented by National Payments Corporation of India (NPCI).

The initial two incentives schemes viz., Lucky Grahak Yojana and DigiDhan Vyapar Yojana, came to an end after a rigorous 100 day information, education and communication campaign led by NITI Aayog to make digital payments a mass movement in India. Under the scheme Rs.258 crore of prize money was won by 16 lakh winners, including customers and merchants belonging to different corners of the country and from varied walks of life. The Prime Minister felicitated the winners of the Mega draw of the two major incentive schemes to promote digital payments- Lucky Grahak Yojana and Digidhan Vyapaar Yojana.

100 days of DigiDhanMelas, led by NITI Aayog in 100 cities across India, have had a huge impact in enabling increased usage of digital payment methods. At least 15,000 institutions have gone cashless across just these 100 rural and urban cities across each one of the 27 states and 7 UTs. With a turnout of over 15 lakh from cities, small towns and villages, the melas have enabled lakhs to open new bank accounts as well as create new Aadhaar cards.

BHIM App has already created a new world record by registering 1.9 crore downloads in just four months since its launch in December, 2016. More importantly, India has also seen an unprecedented increase in number of transactions made using various user-friendly digital payment methods. Until November 2016, the volume of all digital transactions was 2,80,000 which amounted to Rs.101 crore in value terms. In just four months, by March this year, volume of payments using various digital payment modes saw an increase of about 23 times amounting with 63,80,000 digital transactions for a value of Rs. 2425 crore. Aadhaar Enabled Payments have increased from 2.5 crore in November 2016 to over 5 crore in March 2017. Immediate Payment Service (IMPS) transactions have also increased from 3.6 crore to 6.7 crore during the same period.

In order to achieve the target of 2500 crore digital transactions during the current financial year, the Prime Minister will also announce about 75 townships spread all over India as ‘less-cash townships’. A less-cash township is one where the deployment of payment acceptance infrastructure is complete, all the families in the township are covered under training programs. The townships selected for the launch have been subjected to independent third party assessment by Pricewaterhouse Coopers (PwC) and only those townships which have reported more than 80% of the total number of transactions in the township being done through digital modes of payments during the review period are included in this list. These townships are likely to generate over 1.5 lakh digital transactions every day thereby leading to about 5.5 crore digital transactions in a year.
The Finance Minister said recently that India’s infrastructure gap is so huge that it will take at least two decades to bridge. At the same time this major bottleneck to development provided an opportunity for massive investment. The Government has, therefore, focused rightly on infrastructure development.

The push to infrastructure development has been evident and it is worth taking stock of the progress to put this major development in perspective during the last three years. Be it Railways, Roads, Ports, Shipping, Civil Aviation, Inland Waterways, Energy, including renewable, have made tremendous progress to aid connectivity, which had not made significant headway commensurate with the requirement during the 70 years after independence.

To build physical infrastructure, India also needs necessary skilled labour and digitization. It goes to the credit of the government that programmes like Skill India, Digital India and Swachh India campaign were launched along with Make in India initiative to ensure India became a global manufacturing hub by creating world class infrastructure.

In the 12th Five Year Plan that is ending 2017, the government had proposed to spend $1 trillion in infrastructure development, of which sizeable investment would come from the private sector.

India’s infrastructure is creaking and was coming in the way of pushing the economy to a high growth path. The first major and significant shift in the government’s strategy on infrastructure has therefore, been to make it demand-driven rather than supply driven as has been the case so far. The supply driven strategy has hit even India’s agriculture. This is because the demand to fix poor rural infrastructure like roads, cold storage and irrigation facilities were never met.

Drawing lessons from the infra challenges faced during the last 15 years, the government has embarked upon modernization and the statistics speak for themselves. For a 1.25 billion population, two thirds of whom are below 35 yrs, no other development strategy could be better than big ticket infrastructure development. India is already on a sweet spot with economic growth rebounding at around 7.5 per cent this financial year. This is happening at a time when other economies including China are slowing down and the global demands are none too encouraging. In that scenario, it is only appropriate that the government should push for infrastructure development, as any sound economist would suggest, as...
this will create a necessary platform to deliver when the demand picks up in the global economy. Also, it makes sense to boost infrastructure development now when the global commodity prices of oil, steel, cement, are falling which are critical for infra sector. This will provide much needed advantage in cost. Besides, the pension funds in advanced economies and other global investors are waiting for an opportunity to invest. No other country in the present juncture has that kind of appetite for such massive and long-term investment. The global investors are waiting to cash-in on this golden opportunity.

When emerging economies like China are faltering, India’s macro-economic parameters are strong making it conducive for an infra push. With inflation below five per cent, fiscal deficit at manageable level, interest rate falling and the farm sector bouncing back, the economic situation is ripe for jump-starting infra growth. The government has already made an ambitious plan to spend at least another Sone trillion in the next 3-4 years. In the first quarter of this year, the capital expenditure has already increased by 18 per cent and the number of stalled projects are increasingly getting speeded up. According to the Ministry of Power, there are already signs of foreign investors showing a lot of interest in long-term investments in infra.

In July 2014, the government officially announced a push for foreign investment into the Indian Railways, part of a $128 billion upgrade of the country’s rail infrastructure that will include new tracks, 400 stations, a $15 bn bullet train service and a $12.5 bn dedicated freight corridor. More freight corridors have been announced in the last year’s rail budget improving rail and port connectivity in the length and breadth of the country. Already the work on Mumbai-Delhi and Ludhiana-Kolkata freight corridors are going on at a brisk pace. Three more freight corridors, Kolkata-Vijayawada, Delhi-Chennai and Kolkata-Mumbai have been taken up.

A $6 billion National Infrastructure and Investment Fund set up by the Government will help in confidence building among foreign investors in the infrastructure sector. The NIIF is a Fund-of-Funds platform, in which the government holds a 49 per cent stake. Cash-rich public sector undertakings and foreign investors will hold the controlling stake, with each of the funds that the NIIF seeds run by external, professional investment managers.

One of the major problems in the infrastructure funding has been that the government did away with development of financial institutions in the 1990s post economic liberalization. But it failed to create alternative sources of long-term funding like vibrant corporate bond market and infrastructure funds.

Common to all the infrastructure asset classes of renewable energy, highways and rail, is the fact they are primarily under the control of the central government, which is exhibiting a renewed focus on increasing transparency in government. The government has also recently taken away the discretion in investment deals and is moving into a rules based government attracting more foreign and private investment.

This forced commercial banks to lend hugely into infrastructure sector. Commercial banks by nature get short- to medium-term deposits and hence can lend only short-to-medium term. Typically, infrastructure projects have a long gestation period and slow rate of return, and hence it needs long term funds with lower interests. This is generally provided by pension and insurance funds, corporate bonds and infra funds. Since these were not there in the country, commercial banks were forced to lend resulting in asset-liability mismatch, laying the foundation for unmanageable non performing assets.

India, which is in the second wave of infrastructure development since 2014, required Rs 43 lakh crore over the next five years, according to rating agency CRISIL.

This translates into roughly Rs 8.6 lakh crore annually. About 70 per cent of this Rs 43 lakh crore would be required in just three sectors, power, transport and urban infrastructure. While private capital that invested 10 to 15 years ago are looking to exit, there are now more opportunities for foreign investors to step in.

There is also interest in the renewable energy sector, as the government begins implementing plans to increase the country’s green energy capacity from the current 30GW to 100GW by 2022

Common to all the infrastructure asset classes of renewable energy, highways and rail, is the fact they are primarily under the control of the Central government, which is exhibiting a renewed focus on increasing transparency in government. The government has also recently taken away the discretion in investment deals and is moving into a rules based government attracting more foreign and private investment.

There is also mounting evidence that the government’s enthusiastic pursuit of government to government engagement with countries such as Japan, Korea, the United States and Australia is paying off.

Japanese companies are looking to invest about $5 billion into a dedicated freight rail corridor; Canada’s $268 billion pension group has already invested $2 billion, and the UAE’s Abu Dhabi Investment Authority is equally interested.

The government, during the last three years, has stressed on the need to leverage co-operative and competitive federalism to achieve all round growth. For a long time, Big Brother relationship existed between the Centre and States. A ‘One Size Fits All’ approach had been used for years, not taking into account the heterogeneity of different states and their local requirements. It is
precisely for this reason that the NITI Aayog was formed to further empower and strengthen the states.

The government has also brought in game-changing reforms through the use of Jan Dhan, Aadhaar and Mobile (JAM), a unique combination of three to implement direct transfer of benefits. This will prevent leakage in scarce government resources, which could be ploughed into infrastructure development. This is evident from increased allocation to public expenditure, the need of the hour to kick-start the economy particularly when domestic private capital is not forthcoming. Rollout of Goods and Services Tax from 1st July this year will further augment government revenue so as to step up expenditure into infrastructure. Several studies indicate that rollout of GST will push GDP growth by 1.5-2 per cent annually. This is bound to come largely from investments in infrastructure. If an economy grows at 8-9 per cent annually, logistics sector including railways will have to grow at least by more than two per cent. Rightly, railways have stepped capital expenditure to a record level of over rupees one lakh crore annually. Capital expenditure in the Railways have gone up steadily from a mere Rs 40,000 crore three years back.

The Ministry of Road Transport and Highways, and Shipping, have announced the government’s target of Rs 25 trillion ($ 376.53 billion) investment in infrastructure over a period of three years, which will include Rs 8 trillion ($ 120.49 billion) for developing 27 industrial clusters and an additional Rs 5 trillion ($ 75.30 billion) for road, railway and port connectivity projects. In 2016, India jumped 19 places in World Bank’s Logistics Performance Index (LPI) 2016, to rank 35th amongst 160 countries.

The Indian construction equipment industry is reviving after a gap of four years and is expected to grow to US$ 5 billion by 2019-20 from the current size of US$ 2.8 billion. This meant that India is witnessing significant interest from international investors in the infrastructure space. Many Spanish companies are keen on collaborating with India on infrastructure, high speed trains, renewable energy and developing smart cities. sky Tran Inc., a NASA technology partner specialising in developing pod car systems for urban transport, plans to build a one-kilometre pilot track in India at its own cost as per the requirement of the government, which has shortlisted sky Tran as one of the three companies chosen to build pod cars on trial basis. Global private equity firms, equity hedge funds, global non-banking companies, sovereign wealth funds and global pension funds are queuing up in India to invest billions of dollars in the Indian infrastructure sector. Industrial corridors, Delhi-Mumbai, Ludhiana-Kolkata, Kolkata-Vishakapatnam-Vijayawada Chennai-Tuticorin, Chennai-Bengaluru, Bengaluru-Mumbai are being built with Japanese, World Bank, ADB and British assistance. Along with this, development of 100 smart cities are bound to create huge investments in infrastructure including telecom sector.

Prime Minister’s Swatchh Bharat Mission to free India of open defecation by 2019, the 150th anniversary of Mahatma Gandhi by itself is creating huge investments in sewage treatment plants, building up of laks of community and individual toilets, particularly in rural India, biogas plants, besides improving drinking water availability in the country. Several countries like Japan, Britain, France, United State and China have evinced interest in government’s smart city projects and have committed to billions of dollar investment in this area.

The Construction Industry Development Board (CIDB) of Malaysia has proposed to invest $ 30 billion in urban development and...
housing projects in India, such as a mini-smart city adjacent to New Delhi Railway Station, a green city project at Garhmukhteshwar in Uttar Pradesh and the Ganga cleaning projects.

The Road Transport and Highways Ministry has invested around Rs 3.17 trillion ($ 47.7 billion), while the Shipping Ministry has invested around Rs 80,000 crores ($ 12.0 billion) in the past two and a half years for building world class highways and shipping infrastructure in the country. A total of 6,604 km out of the 15,000 km of target set for national highways in 2016-17 has been constructed by the end of February 2017.

In the Union Budget 2017-18, the Government has taken several new initiatives to give further fillip to infrastructure development in the country. Infrastructure outlay and defence capital expenditure have been increased by 10 per cent and 20.6 per cent to Rs 4,96,135 crore ($ 59.18 billion) and Rs 86,488 crore ($ 13.1 billion) respectively, over revised estimate of 2016-17. Railway expenditure allocation has increased by 8 per cent to Rs 1,31,000 crore ($ 19.58 billion) for laying down 3,500 km of railway lines in 2017-18. Affordable housing has been given infrastructure status. Lock-in period for long-term capital gains on land and buildings has been reduced from three to two years.

The Indian Railways also plans to set up a $ 5 billion Railways of India Development Fund (RIDF), which will serve as an institutional mechanism for the Railways to arrange funds from the market to finance various infrastructure projects.

An additional expenditure of Rs 59,978.29 crore ($ 8.96 billion) for supporting the government’s rural jobs scheme, building rural infrastructure, urban development and farm insurance has been announced.

Shipping Ministry plans to undertake development of 37 national waterways (NWs), out of the 111 NWs declared under the National Waterways Act 2016, in the next three years, which would have positive impact on reduction of overall logistics cost.

A roadmap has been announced to complete 23 Priority-I projects by 2016-17, 31 Priority-II projects by 2017-18 and balance 45 Priority-III projects by December 2019 under the Prime Minister Krishi Sinchayee Yojana (PMKSY) and Accelerated Irrigation Benefits Programme (AIBP).

The Government plans to build 8,000 km of pavements and lay more cycle tracks in 106 cities in the next 5 years with an investment of Rs 80,000 crore ($ 11.94 billion), to reduce the carbon footprint in urban areas.

The Central Electricity Authority (CEA) expects investment in India’s power transmission sector to reach Rs 2.6 lakh crore ($ 38.85 billion) during the 13th Plan (2017-22), and to enhance the transmission capacity of the inter-regional links by 45,700 megawatt (MW).

The monetisation of 75 publicly funded highway projects of value Rs 35,600 crore (US$ 5.32 billion) via toll-operate-transfer (TOT) mode will fetch adequate funds to finance road construction of 2,700 km length of roads.

The Urban Development ministry has approved investment of Rs 2,863 crore ($ 433 million) in six states under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme, for improving basic urban infrastructure over FY 2017-20.

Airports Authority of India (AAI) plans to increase its capital expenditure for 2017-18 by 25 per cent to Rs 2,500 crore ($ 0.37 billion), primarily to expand capacity at 12 airports to accommodate increased air traffic. AAI plans to develop city-side infrastructure at 13 regional airports across India, with help from private players for building of hotels, car parks and other facilities, and thereby boost its non-aeronautical revenues.

The Government of India has earmarked Rs 50,000 crore ($ 7.34 billion) to develop 100 smart cities across the country. The Government has announced highway projects worth US$ 93 billion, which includes the government flagship National Highways Building Project (NHDP) with total investment of US$ 45 billion over the next three years.

All these statistics indicate the push given to infrastructure in the budget, which is the culmination of the efforts made by the government during the last three years. That included creation of necessary legal framework, transparency in decision making and speedy clearance of projects.

Now, the Indian port sector is poised to mark great progress in the years to come. It is forecasted that by the end of 2017, port traffic will amount to 943.06 MT for India’s major ports and 815.20 MT for its minor ports.

Along with that, Indian aviation market is expected to become the third largest across the globe by 2020. The sector is projected to handle 336 million domestic and 85 million international passengers with projected investment to the tune of $ 120 billion. This infrastructure development at break-neck speed during the last three years has put the economy on a take-off stage to get back to high growth trajectory in the coming years. Road sector was building highways at 2-3 km per day and today, it is over 40 km a day and is expected to go up further in coming months. The development in infrastructure is now visible, be it roads, railways, ports, metro rail and so on.

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Schemes for Welfare of Minorities

Nai Manzil - The scheme aims to benefit the minority youths in the age group of 17 to 35 years who are school-dropouts or educated in the community education institutions like Madarsas, by providing them an integrated input of formal education (up till Class VIII or X) and skill training along with certification, with a view of enabling them to seek better employment in the organized sector and equipping them with better lives. Minimum 30 per cent seats are earmarked for minority girls. It includes a Non-residential programme of 9-12 months duration involving a Basic Bridge Programme (For Class VIII or Class X) for their education, along with training in trade based skills for sustained livelihood/gainful employment. The scheme covers the entire country.

USTTAD (Upgrading the Skills and Training in Traditional Arts/Crafts for Development) - A large section of minority community is engaged in traditional arts/crafts for several generations. This scheme has been launched to preserve rich heritage of traditional arts/crafts of minorities and build capacity of traditional artisans/craftsmen. It targets minority youths of 14-35 years of age and minimum Class-V qualified. The Scheme aims at capacity building and updating the traditional skills of master craftsmen/artisans; documentation of identified traditional arts/crafts of minorities; set standards for traditional skills; training minority youths in identified traditional arts/crafts through master craftsmen.

The scheme will also establish linkages of traditional arts/crafts with the national and international market and ensure dignity of labour. The scheme, which will be funded by the Central Government, will prepare skilled and unskilled artisans and craftsmen to compete with big companies. The scheme will be implemented through selected Project Implementing Agencies (PIAs) and Knowledge Partners.

MANAS – Maulana Azad National Academy for Skills – A need was felt addresses all skill development needs of minority communities by providing an all India Training framework with leading training partners in PPP mode. MANAS establishes linkages with concessional credit to Skill Development to provide sustainable livelihood to Minority Communities with primary focus on self-employment and entrepreneurship. MANAS has signed MoUs with NSDC and sector skill councils of Health, Security, Leather, Logistics, and Media & Entertainment and the lending bodies of trade and industry. MANAS has also launched a skill development training programme for Madarsa students at Edara-e Sharia, Patna (Bihar).

Nai Roshni – This scheme is for Leadership Development of Minority Women. The scheme aims to empower and instill confidence among minority women by providing knowledge, tools and techniques for interacting with Government systems, Banks and other institutions at all levels. The scheme is implemented through Non-Governmental Organizations (NGOs), Civil Societies, Trust etc. The scheme provides one week training programmes followed by handholding for one year. The training is provided on various training modules covering issues relating to women viz. Leadership of Women through participation in decision making, Educational Programmes for Women, Health and Hygiene, Legal Rights of Women, Financial Literacy, Digital Literacy, Swachh Bharat, Life Skills and Advocacy for Social and Behavioural change.

Nai Udaan- This scheme is for giving financial support to minority candidates clearing preliminary
exams conducted by Union Public Service Commission (UPSC), Staff Selection Commission (SSC) and State Public Service Commissions (SPSCs) for preparation of Mains Examination.

Community-wise details of beneficiaries to whom financial assistance has been provided under ‘NAI UDAAN’ Scheme during the last three years and the current year are given below:

**Padho Pardesh – Interest Subsidy on Educational Loans for Overseas Studies** - Under this, interest subsidy is provided on educational loans for overseas studies to minority students for approved courses at Masters, M.Phil. and Ph.D. level.

**Hamari Dharohar** - This scheme is launched to preserve the rich heritage of minority communities of India. The scheme aims at curating iconic exhibitions, supporting calligraphy, preservation of old documents, research and development, etc. To begin with, the Government had decided to provide support to iconic exhibition of Parsis i.e. “The Everlasting Flame” to showcase the civilization and culture of the Parsis (Zoroastrians) under “Hamari Dharohar” during 2015-16.

Ministry of Minority Affairs has also sanctioned a project to Dairatul Maarifil Osmania, Osmania University, Telangana for translation from Arabic language into English, digitization and re-printing of 240 invaluable documents belonging to Moghul period on the subjects of Medicines, Mathematics, Literature, etc.

### Initiatives for Welfare of SC/ST Communities

**Stand up India Scheme**

The “Stand up India Scheme” was launched in 2015 to promote entrepreneurship among Scheduled Caste/ Schedule Tribe and Women. The scheme envisages extending bank loans between Rs. 10 lakh to Rs. 1 crore for Greenfield Enterprises set-up by SC, ST and Women entrepreneurs and extending effective handholding support to them. The overall intent of the scheme is to leverage the institutional credit structure to reach out to these underserved sectors of the population by facilitating bank loans in the non-farm sector set up by such SC, ST and Women borrowers.

Under ‘Stand up India’, each bank branch is to extend loans to at least one SC/ST and one woman entrepreneur. Enterprises covered under the scheme may be in manufacturing, services or the trading sector. The Scheme shall be implemented through 1.25 lakh bank branches of all Scheduled Commercial Banks. The loan shall be a composite loan to meet the requirement of fixed assets and working capital with rate of interest being the lowest applicable rate of the bank for that category as per rating. Provision of convergence with State/ Central Government Schemes has been identified in the Scheme. Credit Guarantee Fund Scheme for Stand-Up India (CGFSI) is operational with a corpus fund of Rs.5,000 crore. A dedicated portal (www.standupmitra.in) for the Stand-Up India Scheme is active. The portal as a virtual market place endeavors to provide ‘End-to-End’ solutions not only for credit delivery but also for a host of handholding services.

**National SC/ST Hub**

The public procurement order mandates 4 per cent annual procurement by Central Ministries/ Departments and Public Sector Undertakings from SC/ST enterprises w.e.f 01.04.2015. It was reported that the Government of India procurement form SC/ST enterprises was less than 1 per cent in 2016 due to low participation of the community. Thus a need was felt for an initiative targeted towards developing a supportive ecosystem towards SC/ST entrepreneurs. So, keeping this objective in mind, National SC/ST Hub was launched in October, 2016. The Hub primarily aids in strengthening market access/linkage, monitoring, capacity building, leveraging financial support schemes and sharing industry best practices etc.

**Pradhan Mantri Vidya Shakti Yojana**

The existing scheme of construction of Hostels for SC girl students will be strengthened and modified to include setting up of residential schools for Scheduled Caste girls studying in Class VI to Class XII with the objective of reducing the dropout rate of Scheduled Caste girls. Priority would be initially given to educationally backward blocks. In order to promote inclusive education, while 70 per cent seats would be reserved for Scheduled Caste girls, balance would be open to girls of other communities. An allocation of Rs. 150 crore has been earmarked in the Budget 2017-18 for this purpose.
When the present government took over, the underlying theme of countless expectations was good governance. The expectations included burning issues like inflation and price rise, corruption in day-to-day transactions and crony capitalism. As Finance Minister in his Budget Speech 2017-18 said, the aim of the government is -

- From a discretionary administration to a policy and system based administration
- From favouritism to transparency and objectivity in decision making
- From blanket and loose entitlements to targeted delivery
- From informal economy to formal economy

It is in this perspective that one has to analyze India’s growth trajectory in the last few years. What defines growth? Is our growth inclusive and equitable? Do we need to rework our growth strategy to make it more holistic and comprehensive? Clearly, much depends on the quality and direction of public investment.

Nobel Laureate Amartya Sen has consistently stuck with his stand that “growth rate is a very daft- and a deeply alienated - way of judging economic progress.” Sen and Jean Drèze, a Belgian born Indian economist, had warned as early as 1995 that reforms that boost growth, though important, were not enough to improve the living conditions of the poorest, let alone dismantle caste and gender hierarchies and generate employment. They “have to be supplemented by a radical shift in public policy in education and health.” they wrote.

For human development to reach everyone, growth has to be inclusive, with four mutually supporting pillars-formulating an employment-led growth strategy, enhancing financial inclusion, investing in human development priorities (education and health) and undertaking high-impact multidimensional interventions.

Human development signifies the ability of every individual to reach their full potential as healthy and educated citizens. The UNDP Human Development Report that evaluates countries on the basis of the Human Development Index (which maps out Education, Health, and Income using the following proxies: expected years of schooling for kids and average years of schooling for adults for Education; life expectancy at birth for Health; and gross national income for Income), ranked India 130 of 188 countries under the category “Medium HDI”. 
Bhutan is at 132 while Bangladesh is at 142. Sri Lanka and China have “Very High HDI”, being ranked at 73 and 90 respectively. Nepal at 145 and Pakistan at 147 are “Low HDI” countries. India is far from being an example in human development.

Talk of outstanding growth rate glosses over inequality and the high levels of poverty that exists in our country. According to the Credit Suisse Global Wealth Databook 2014, the share of wealth of the richest 1 per cent in the country has been rising, in contrast to the rest of the world, and it now owns nearly half the country’s wealth. The wealth share of the top 10 per cent has increased by a tenth since 2000.

It elucidates that economic growth without investment in human development is unsustainable and unethical. While education enrolments are increasing, the annual ASER report portrays that learning outcomes are still lacking, even in primary class students. Sanitation and healthcare services require attention. Though the government has mobilised schemes to this end, in terms of the outcome, much still needs to be done.

Education

India spends less than 4 per cent of its gross domestic product on education, and with over 1.4 million schools, 45,000 colleges and 700-plus universities it is one of the biggest in the world. It caters to over 300 million students who are key to helping the country reap its human capital advantage.

Recognizing the centrality of states both in policy formulation and effective implementation of education reforms, the Ministry of HRD regularly convenes meetings of the Central Advisory Board on Education (CABE), which is a composite body and is also the highest advisory body on education.

All reform initiatives are through consensus evolved between the Centre and the States through the CABE.

Elementary and Secondary Education

Presently, initiatives such as the Right of Children to Free and Compulsory Education (RTE) Act, 2009, Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), ICT in Schools, Centrally Sponsored Scheme on Teacher Education (CSSTE), Shaala Siddhi, Rashtriya Avishkar Abhiyan are being implemented which envisage suggestive reforms in elementary education and secondary education.

Higher Education

In higher education also, Rashtriya Uchchatar Shiksha Abhiyan (RUSA), Global Initiative for Academics Network (GIAN), Impacting Research, Innovation & Technology (IMPRINT), Technical Education Quality Improvement Programme (TEQIP), Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT), Study Webs of Active Learning for Young Aspiring Minds (SWAYAM), National Digital Library, campus connect programme, Uchhatar Avishkar Abhiyan, Unnat Bharat Abhiyan are being implemented to improve the quality of higher education in the country. A number of initiatives are also undertaken by UGC and AICTE for quality improvement in higher and technical education.

SWAYAM is an indigenous IT platform for hosting the Massive Open Online Courses (MOOCs) by providing best quality online education covering a wide range of subjects and courses being taught in the high schools, colleges and universities and which can be accessed by students even in the remotest corner of the country. The Government of India launched the Global Initiative for Academic Network (GIAN) with an objective to garner the best international experience into our system of education by bringing in foreign academicians to teach courses in higher education institutions in India. The National Digital Library (NDL) is a recent imitative aimed at providing access to online educational resources by providing online access to all Higher Educational Institutions (HEIs) within the country, by linking all digital library resources in the country and abroad. It is likely to evolve into the largest repository in the country. Currently, NDL has over 64.23 lakh books/journals/audio-books in 70 languages including Indian and foreign, 18,000 e-journals and 3617 institutions are linked with around 5.75 lakh students registered. These initiatives are aimed at addressing the shortage of faculty and library resources integral to providing quality education.

With a view to improving the competitiveness of the higher educational institutions, the National Institutional Ranking Framework (NIRF) has been launched. The recent budget announcements refer to reforms in UGC for promoting greater administrative and academic...
autonomy and revised framework for outcome based accreditation and credit based programmes; leveraging Information Technology and launching 350 online courses through SWAYAM platform; and establishing a National Testing Agency to conduct all entrance examinations for higher education institutions.

New Education Policy

Currently, the process of formulating a New Education Policy is underway which may propose several reforms in examinations, governance, regulation, school standards, teachers and faculty, literacy and lifelong learning, skills and employability, quality assurance, internationalization, research, curricula, innovation etc. so as to build an education system that promotes equitable access to quality education to all sections of the society.

Education holds the key to economic growth and social transformation. In the present era of globalization, education is viewed not only as an input to empowerment and social justice, also as being basic to the very survival of individuals and nations.

Health

Our achievements in health outcomes have been a mixed bag. On a global comparison matrix, India has done ‘reasonably well’ in life expectancy at birth while ‘exceptionally well’ in fertility decline. However, when compared with core indicators of health outcomes, such as, Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR), we have a lot to catch up. Lack of education, gender inequality and large population contribute to increasing burden of disease.

India faces high burden of disease because of lack of environmental sanitation and safe drinking water, under-nutrition, poor living conditions, and limited access to preventive and curative health services. The Swachh Bharat Abhiyan, National Health Mission (NHM), increased immunisation initiatives like Mission Indradhanush, launch of free antenatal care on fixed days of the month, tobacco control and dengue prevention programmes are some of the initiatives which are aimed at overhauling India’s medical care system.

The Union Budget 2017 outlined an ambitious action plan to eliminate Kala-Azar and Filariasis by 2017, Leprosy by 2018, Measles by 2020 and even more ambitious target to eliminate Tuberculosis by 2025. How realistic is the action plan given the challenges the country faces from such infectious diseases? Are allocations of public funds matched realistically to meet the target and follow action plans? A weak delivery system is the primary reason for poor health outcomes in our country. Another reason is the persistent underfunding by the government. Public funding of health sector remains at 1.2 percent of GDP. The Union Government’s allocation to health schemes, in the last five years have witnessed steady decline, in real terms.

Healthcare facilities in the country may have improved over the years with advancement in technology, but it is still not available to all at affordable prices. After 15 years since the last health policy was approved, the aim of the government’s latest National Health Policy 2017, is to provide “affordable and quality healthcare” to all people of the country. The new Health Policy 2017 prioritises investments and financing of health services. The policy seeks to reorient and strengthen the public health systems and aims to strengthen India’s healthcare system in the face of social, economic and technological changes. It looks at strengthening partnership with the private sector.

The primary aim of the National Health Policy, 2017, is to inform, clarify, strengthen and prioritize the role of the Government in shaping health systems in all its dimensions- investment in health, organization and financing of healthcare services, prevention of diseases and promotion of good health through cross sectoral action, access to technologies, developing human resources, encouraging medical pluralism, building the knowledge base required for better health, financial protection strategies and regulation and progressive assurance for health. The policy emphasizes reorienting and strengthening the Public Health Institutions across the country, so as to provide universal access to free drugs, diagnostics and other essential healthcare.

The broad principles of the policy are centered on Professionalism, Integrity and Ethics, Equity, Affordability, Universality, Patient Centered & Quality of Care, Accountability and pluralism. It seeks to ensure improved access and affordability of quality secondary
and tertiary care services through a combination of public hospitals and strategic purchasing in healthcare deficit areas from accredited non-governmental healthcare providers, achieve significant reduction in out of pocket expenditure due to healthcare costs, reinforce trust in public healthcare system and influence operation and growth of private healthcare industry as well as medical technologies in alignment with public health goals.

The policy affirms commitment to pre-emptive care (aimed at pre-empting the occurrence of diseases) to achieve optimum levels of child and adolescent health. The policy envisages school health programmes as a major focus area as also health and hygiene being made a part of the school curriculum.

In order to leverage the pluralistic health care legacy, the policy recommends mainstreaming the different health systems. Towards mainstreaming the potential of AYUSH the policy envisages better access to AYUSH remedies through co-location in public facilities. Yoga would also be introduced much more widely in school and work places as part of promotion of good health.

The policy supports voluntary service in rural and under-served areas on pro-bono basis by recognized healthcare professionals under a ‘giving back to society’ initiative. The policy advocates extensive deployment of digital tools for improving the efficiency and outcome of the healthcare system and proposes establishment of National Digital Health Authority (NDHA) to regulate, develop and deploy digital health across the continuum of care. It advocates a progressively incremental assurance based approach. It does mandate the creation of a National Healthcare Standards Organisation (NHSO) that will fix standards for healthcare institutions in the country. But given that health is a state subject, it’s not certain if this organisation will have the teeth to be effective.

The challenge remains the implementation of the new health policy because of the disparate health infrastructure landscape in the country, particularly in the poor states, and the need for aligning existing systems in the states with a national plan of action. As the National Health Policy 2017 itself concludes- “a policy is only as good as its implementation.” It would be better served by the creation of a number of multi-stakeholder implementation task forces or working groups around some of these new ideas and priorities.

India needs 3.5 million beds, 3 million doctors and 6 million nurses over a period of 20 years, according to a PricewaterhouseCoopers (PwC) report. India has only 1.3 hospital beds per 1,000 people—significantly lower than the guideline of 3.5 beds defined by World Health Organisation.

Where Do We go From Here?

Thus, major investments in people - their health and education - will be necessary to exploit India’s demographic dividend. Tomorrow’s worker is today’s child.

The education sector must focus on following issues -

- **Financial health of the education sector:** The gap between the government and private schools.

  SOLUTION: Centre- states must prioritize education and have accountable mechanisms to ensure implementation of schemes. Raising public expenditure on education to a level of 6 per cent of GDP has remained a national commitment for nearly forty years now.

- **Quality, uniformity and spread of education:** Quality of teaching staff, huge vacancies of teachers are compounded by infrastructure deficit like absence of laboratories etc.

  SOLUTION: There is need to increase the percentage of qualified teachers and also the training of both qualified and under-qualified teachers. The school and higher education sectors face a teacher shortage of 15-40 per cent across states and levels. A national quality assessment framework to assess the quality of education, integrated courses and credit transfer should be adopted along with teacher training.

- **Teacher absenteeism:** Academic supervision is conspicuously absent.

  SOLUTION: Performance based appraisal for teachers and midterm re-evaluation (scores can be calculated on the basis of quality teaching, teachers’ attendance, efforts, co-curricular and evaluation-related activities, academic record, besides student performance) Concept of virtual classrooms should be promoted. Integrated network of outstanding teachers with subject expertise can be created to motivate, inspire and guide. All India Teachers Service can be introduced on the lines of Indian Administrative Service.

- **Availability:** We are unable to match the demand of our exploding cohort of youth population with the adequate supply of higher education institutions. Even against 1500 institutions as projected by National Knowledge Commission we have just 750.

  SOLUTION: Absence of any projection mechanism is its root cause. A forecast mechanism to know the future demand and division of targets between public and private sector with simultaneous increase in education budget should be done. Six out of the top ten colleges in the recently released National Institutional Ranking Framework (NIRF) of the Ministry of Human Resource
Development are in Delhi. Of the other four, one is in Kolkata, two in Chennai and one in Tiruchirapalli. This skewed distribution of places of quality higher education in the country should be cause for alarm.

- **Affordability:** Scarcity of public financed education and exorbitant fees of private institutions make education unaffordable to a vast majority.

**SOLUTION:** Financial models like scholarships, education loans, industry sponsored education need to be explored at varied levels. A Digital Gender Atlas for Advancing Girl’s Education in India [developed by UNICEF] and launched by the MHRD will “help identify low-performing geographic pockets for girls, particularly from marginalized groups.” And a single-window scholarship portal for all kinds of scholarships will assist in “the government’s endeavour to build an inclusive society.

- **Autonomy:** Political appointments and frequent intrusions cripple universities, ability to innovate.

**SOLUTION:** A national appointment commission and autonomy in internal model design is the need of the hour.

- **Employability:** Separation of research facilities from universities and absence of relevant education that creates employment makes pursuing of higher education a risky proposition in our country.

**SOLUTION:** Incubation centres, scientist extension programs and education industry interface should be encouraged.

- **Language barrier:** A switch over to a mostly English based education and extreme shortage of books translated in Indian languages often discourages students to continue their education.

**SOLUTION:** Translation of all educational material to various Indian languages should be taken up on mission mode.

With 21 per cent of the world’s disease burden, the doctor patient ratio being as bad as 1:1700 and out of pocket expenditure as high as 62 per cent of total healthcare spending, India needs strong medicine to address the health sector’s structural and fundamental challenges.

- **Access:** Declining role of public health delivery systems and lack of adequate skilled personnel.

**SOLUTION:** Regulatory mechanism in public and private sector to improve access, quality and delivery of care including standardization of health infrastructure, its management, administration and overall governance structure, focus on preventive healthcare through sanitation programmes and other central and state schemes.

- **Health delivery infrastructure:** KPMG report states that, 60 percent hospitals, 75 percent dispensaries and 80 percent doctors are located in urban areas servicing only 28 percent of the country’s population.

**SOLUTION:** Number of medical colleges and seats must go up, rural internship to be incentivized well, reservation in PG medical courses for students who have served in rural areas for at least 3-5 years, enhancement of age limit for appointment of teachers in medical colleges, affordable medical education in colleges (Private colleges have exorbitant costs). There is dire need for out-of-box, tech-driven, innovative, scalable, low-cost solutions. Approximately over 300 start-ups emerged in the healthcare sector in the year 2015 only.

- **Specialists Requirement:** Imbalance in availability of doctors, nurses and para-medical professionals in the rural and urban areas of the country.

**SOLUTION:** Create healthcare cadres who address specific health challenges and integrate hospitals through e-network, which can share bed-doctor- facilities availability information (adopting technology as an enabler for inclusiveness and provider of efficient services)

- **Affordable healthcare:** High cost of medicines and tests.

**SOLUTION:** Promote generics

Contextually, education and health are the sectors that will define ‘RISING INDIA’ in the coming decades.

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**About Our Books**

Romain Rolland and Gandhi Correspondence: This book is a collection of letters, diary extracts, articles etc. of Romain Rolland’s correspondence with and about Mahatma Gandhi and other writings, including extracts from his diary. The classic publication, restored from 1976 edition with improved text size while retaining all the classic elements, gives a glimpse into the minds of Mahatma Gandhi and the Nobel laureate Romain Rolland, the two great persons of last century, and deals with the relationship between them. It is believed that the intellectual engagement of the French writer and Gandhiji through these letters helped Gandhian ideals reach western world.
PM Dedicates India’s Longest Tunnel to the Nation

The Prime Minister dedicated India’s longest highway tunnel—the Chamoni–Nathu tunnel in Jammu & Kashmir—on Saturday.

An ideal example of the government’s Make in India and Skill India initiative, the 6 km long, two-lane main tunnel between Chamoni and Nathu in Jammu & Kashmir is not only India’s longest highway tunnel but also Asia’s longest bi-directional highway tunnel. At an elevation of 1220 meters on one of the most difficult Himalayan terrains, the tunnel will cut the travel time between Jammu and Srinagar by two hours. Spanning about 90 kilometers of road length, it will also ensure all-weather passage on routes that often see heavy traffic jams and disruptions due to landslides, snow, sharp curves, breakdown of vehicles and accidents.

The tunnel is a part of the 266-km-long four-laning of the Jammu–Srinagar National Highway. The structure contains a 6 km-long, two-lane main tunnel with a parallel escape tunnel of same length. The two tunnels are connected by 29 cross passages at regular intervals along the entire length of the tunnel. These cross passages can be used for evacuation of vehicles and commuters in case of breakdown or any other emergency. There are two minor bridges on the south and north sides and a 4-lane approach road with SRA on both ends of the tunnel. The maximum height permitted in the tunnel is 5 meters and for checking the height special sensors have been installed just before the tunnel entrance/exit ends.

The tunnel has an efficient, transverse ventilation system. There are intake being fresh air at 8 meter intervals and outlet for exhaust every 100 meters. There is also a fully integrated control system with ventilation, communication, power supply, incident detection, SOS call box, and the lighting. Also, intelligent traffic management, the tunnel has fully automated control and no human intervention will be required for its operation. The tunnel is also equipped with advanced sensors to ward off any security threat. Very few tunnels in the world have this kind of fully integrated tunnel control.

The project is environment friendly. The time saving on the Jammu–Srinagar route will further result in fuel saving of approximately Rs 77 lakhs per day. Besides, the construction of the tunnel has avoided large-scale deforestation. The Chenani-Nashri tunnel will have a very positive impact on the state’s economy. In line with the 561 India initiative, the skill sets of local people were developed and improved, and they were engaged for construction of this tunnel. The project has provided employment to over 2,000 unskilled and skilled youth of Jammu and Kashmir at 94 percent of the work force was from the state. Around 500 to 550 people from across the country also worked on this project in 5 shifts over the past 4 years.

Speaking on the occasion, the Prime Minister said that the tunnel will not only reduce the distance between Jammu and Srinagar but will also provide tranport addicts with a variety of opportunities for the tourism industry, and an economic development in the state. The Prime Minister praised the entire length of the tunnel, and was particularly impressed by the innovative use of short-term and long-term business solutions for the project, and the efforts of the State Government, the Ministry of Road Transport & Highways, and the Jeevan Infrastructure Limited in building this tunnel at a cost of Rs 2220 crores. The tunnel is being built between Leh and Ladakh at a cost of Rs 600 crores.

Centenary Celebrations of the Champaran Satyagraha: Hon’ble Minister of I&B releases Publications Division Titles

To mark the Centenary Celebrations of the Champaran Satyagraha, the Hon’ble Minister of I&B Shri Prakash Javadekar released three restored heritage publications on Gandhian thoughts and literature of the Publications Division. The three titles, ‘Gandhi in Champaran: Women, Religion and Gandhi’s Correspondence’, and 6 volume series of Mahatma were released by HMIB on 10 April 2017.

The titles, published in the 1960s and 70s, have been restored by the Publications Division in collaboration with the National Gandhi Museum, New Delhi, as many of them were out of stock for years. Speaking on the occasion the Hon’ble Minister Shri Prakash Javadekar stressed on the need to make the younger generation understand the essential message of Mahatma Gandhi through books, writings and media. He said that Gandhi provided valuable lessons of humanity, compassion and determination to the young minds. He said books like these gave the GenNext an opportunity to understand the essence of philosophy ‘Satyagraha’.

Complementing the efforts of Publications Division in restoring and republishing heritage archives, the Minister said that the Government had always aimed to mainstream the ideas of Mahatma Gandhi by working towards the welfare of the poorest of the poor. He said that Publications Division should strive to restore and publish literature on Gandhi as well as other heroes of the Freedom struggle from various regions of the country.

These heritage books are available at the Publications Division’s Sales outlets and the newly renovated Book gallery at Sushanta Bhavan, CCG Complex, New Delhi. These books can also be purchased online through the Shastri Bhavan payment gateway. The volume Mahatma series is also available as e-books on Amazon.com, Kindle and Google Play Books.

Gandhi in Champaran: By DG Tendulkar. As the Champaran struggle forms an important chapter in India’s war of independence, this slender book by author DG Tendulkar in a close up of the first non-violent struggle. The author describes in a most simple and factual manner the events of the north Bihar district of Champaran in 1917-18. Gandhi made his first attempt in India to remove, by truthful and non-violent means, the grievances and sufferings of the small peasant at the hands of the British landlords and indigo planters. This heritage book has been restored from its first edition published in 1927.