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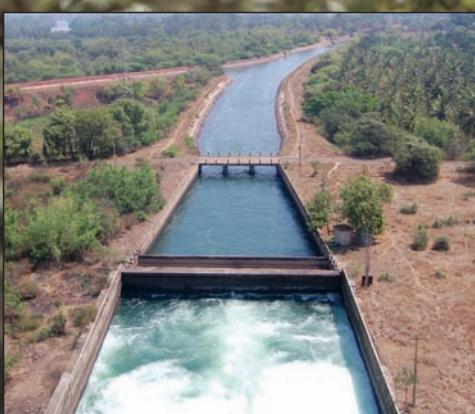
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April 2016

₹ 22

Budget 2016-17

Empowering
Bharat



Union Budget 2016-17: Key Highlights



Finance Minister Shri Arun Jaitley on his way to present Budget 2016-17.

- ❖ Economic Growth accelerated to 7.6% in 2015-16.
- ❖ India hailed as a 'bright spot' amidst a slowing global economy by IMF.
- ❖ Focus on enhancing expenditure in priority areas of - farm and rural sector, social sector, infrastructure sector, employment generation and recapitalisation of the banks.
- ❖ **Allocation for agriculture and farmers' welfare** is Rs 35984 crore. '*Pradhan Mantri Krishi Sinchay Yojana*' to be implemented in mission mode. Long pending irrigation projects will be fast tracked.
- ❖ **Allocation for rural sector** - Rs 87,765 crore. Rs 2.87 lakh crore will be given as Grant in Aid to *Gram Panchayats* and Municipalities. A sum of Rs 38,500 crore allocated for MGNREGS. New scheme *Rashtriya Gram Swaraj Abhiyan* proposed.
- ❖ **Allocation for social sector** including education and health care – Rs 1,51,581 crore. Rs 2,000 crore allocated for initial cost of providing LPG connections to BPL families. New health protection scheme will provide health cover up to Rs one lakh per family. '*National Dialysis Services Programme*' to be started.
- ❖ **Education**- 62 new *Navodaya Vidyalayas* will be opened. *Sarva Shiksha Abhiyan* to increase focus on quality of education. Higher Education Financing Agency to be set-up with initial capital base of Rs 1,000 crores. Digital Depository for School Leaving Certificates, College Degrees, etc to be set-up.
- ❖ **Allocation for skill development** – Rs 1,804 crore. 1,500 Multi Skill Training Institutes to be set-up. National Board for Skill Development Certification to be setup in partnership with the industry and academia. Entrepreneurship Education and Training through massive open online courses. '*Stand Up India Scheme*' to facilitate at least two projects per bank branch. This will benefit at least 2.5 lakh entrepreneurs.
- ❖ **Total outlay for infrastructure** - Rs 2,21,246 crore. Total investment in the road sector, including PMGSY allocation, would be Rs 97,000 crore during 2016-17.



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Editorial

Union Budget 2016-17 was presented in a very challenging environment. Odds were many, both internal and external. Two successive weak monsoons had left agriculture and rural India in difficult situation. Global economy has been sluggish for a while, affecting the exports. Above this all, was the pressure to contain fiscal deficit within limits else the fear of losing investors' confidence in Indian economy.

In his third budget, presented on 29th February 2016, the Finance Minister seems to have balanced out these odds. On fiscal front, he highlighted the need to review FRBM Act but remained committed to fiscal consolidation, saying, "I have weighed the policy options and decided that prudence lies in adhering to the fiscal targets." At the same time, he allotted enough funds for agriculture, rural development, social sector and infrastructure.

This makes the budget an inclusive budget in true sense. It is a budget for '*Bharat*', a budget for the toiling masses, who work in muddy fields, on roads transporting essentials, in markets selling the vegetables... They would all now be beneficiary of a new health protection scheme in which senior citizens get an extra medical care, and rightly so. Three thousands *Jan Aushadhi Stores* have been announced to help reduce health expenses. Women in BPL category are be provided LPG connections for which Rs 2000 crore have been allocated.

Agriculture, mainstay of this country, has got a good share in the budgetary allocations. Close to Rs 36000 crore have been given for agriculture and farmers' welfare. *Pradhan Mantri Krishi Sinchai Yojana* will be implemented in mission mode to bring 28.5 lakh hectare under irrigation. 89 long pending irrigation projects have been fast tracked, a Long Term Irrigation Fund is created with Rs 20000 crore and a programme would be implemented for management of ground water resources. These steps taken together would certainly help usher in a second green revolution.

Pradhan Mantri Gram Sadak Yojana would connect remaining 65000 eligible habitations. This will generate employment in rural areas and help villagers access amenities like school, hospital, markets etc. Electrification would be done in all remaining villages. A new Digital Literacy Mission Scheme is announced to educate 6 crore households in next three years. This would effectively bridge digital divide and bring *Bharat* closer to India. Digitization of land records and school certificates is another innovative step.

Along with several green initiatives, further fillip is given to organic farming through *Paramparagat Krishi Vikas Yojana* and Organic Value Chain Development in North East Region. These schemes will certainly help in making agriculture sustainable. Also, it would boost our exports, as developed countries have huge demand for organic products. Several schemes announced for dairy sectors would not only help in income generation through dairying activities but also support organic farming.

The budget aims to realise the dream of *Gram Swaraj* by addressing the biggest lacunae that Panchayats face – lack of funds. Rs 2.87 lakh crore have been allocated for Panchayats and municipalities.

The Budget proposals have been well received across the all sections of the society. However, the real test lies in their implementation, and it will have to be ensured that the benefits reach the right person.

BUDGET 2016-17: EMPOWERING BHARAT

Dr. Amiya Kumar Mohapatra

"I will give you a talisman. Whenever you are in doubt, or when the self becomes too much with you, apply the following test. Recall the face of the poorest and the weakest man [woman] whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him [her]. Will he [she] gain anything by it? Will it restore him [her] to a control over his [her] own life and destiny? In other words, will it lead to swaraj [freedom] for the hungry and spiritually starving millions?

Then you will find your doubts and your self melt away."

Mahatma Gandhi

Inclusive growth is multifaceted and can be addressed as growth with justice. Here justice signifies economic, social and political equality among all the people of a country. Inclusive growth in itself does not have any automatic mechanism to reach the deprived and excluded section of society; rather it is the outcome of planned and thoughtful course of actions of the government. Democracy will lose its shine if the deprived masses will not be able to receive the benefits of progress in the country. Inclusive growth planes for what has remained unplanned and reaches the unreachable. It requires implementing plans and programmes that uplifts the social and economic status of the deprived sections of society.

Budgets have been a key policy instrument in attaining an inclusive society. The core objectives of the budget are to reduce poverty and inequality, to reduce unemployment through job creation, to maintain price stability and to foster faster economic growth and social development by addressing all the needs of various segments of the society. If we take a holistic overview of the budget 2016-17, in terms of its intent and focus, it is found that there is clear mandate for the development of rural economy and focus especially on rural welfare, farming and allied activities.

Agricultural Development in Budget

Economics of wellbeing, in rural India, rests on economics of agriculture. Empirical evidences show that improvement in the life of poor; is directly connected to the

agricultural development. Considering the above fact, our Finance Minister has taken well thought steps in allocating more funds to the agricultural sector. Rural India is synonymous with agriculture and development of both is intertwined. Contribution of agricultural sector to GDP is only 13.9 per cent, but it accommodates nearly half of our workforce. This contribution of agricultural sector to rural employment and rural livelihood itself signifies its national importance.

Budget has nine pillars for transformation of India, where the first two are '*Agriculture*' and '*Rural Development*'. These two sectors would certainly be monumental in making development inclusive.

Agricultural Credit Support for Inclusiveness

Agricultural growth depends upon various factors and among them; credit is one of the most important. Availability and access to easy credit is indispensable to enhance agricultural production to meet the rising food demand for our growing population, and raw materials for the industry.

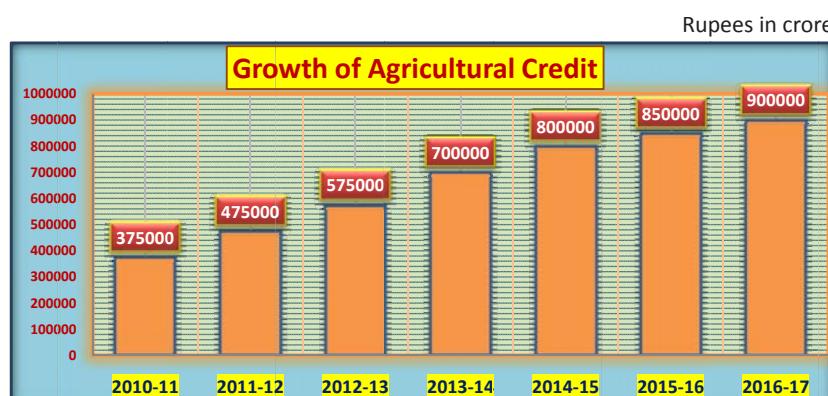


Fig.1- Source: Author's Compilation from Budget Documents and Media Reports

Hence, the provision of agricultural credit in the union budget, is on a continuous rise over the years. It has increased from Rs. 3,75,000 crores (2010-11) to Rs. 9,00,000 crores (2016-17), means more than two times over the period of six years.

Government intends to infuse soft cash to the stressed farmers. Not only the flow of farm credit has increased considerably but also target interest rate has been reduced from time to time. Also, to encourage those who are making timely payments, and to reduce the interest burden on farmers, government has made provision of Rs.15,000 crores as interest subvention.

Adding further, the government of India announced the launch of much needed crop insurance scheme for the farmers; named as '*Prime Minister Fasal Bima Yojana*' with a funding support of Rs. 5,500 crores. This will certainly give space and relief to the distressed farmers from the shocks of repeated crop failure due to uncertain monsoon and climate change.

Pradhan Mantri Krishi Sinchai Yojana : Fostering Irrigation

Farming is still, significantly dependent on monsoon in India. Out of net total arable lands, only 46 per cent are irrigated and even the distribution of irrigation facilities across states is highly skewed.

Improved irrigation facilities and efficient water usage are crucial to enhance farm productivity. The gap between gross cropped area and gross irrigated area need to be further reduced.

The government started the '*Pradhan Mantri Krishi Sinchai Yojana*', aimed at provision of water to every farmer covering around 28.50 lakh hectares of land and improve the use of water efficiently to get '*Per Drop More Crop*'. Government has proposed to spend Rs.17,000 crores to achieve the above said targets. Besides, 89 irrigation projects under AIBP will be scrutinized by setting specific time frame. This will help to irrigate around 80.6 lakh hectares of land and requires Rs. 86,500 crores to meet the expenses in the next five years. Focus on irrigation will surely enhance our agriculture productivity and that would help in containing current account deficit through higher agricultural exports.

Unified National Agricultural Market

As a welfare initiative, government intends to increase the income of farmers by creating a unified national agriculture market. At present, farm producers, due to lack of knowledge and information asymmetry, sell their produce in the market even below the price that can cover their input costs. Thus, farmers often feel distressed and discouraged

Table-1
Total Budgetary Provision/Outlay for Agricultural Development

S. No	Sectors/ Schemes for Agricultural Development	Amount in Rs. Crores
1	Total Agricultural Outlay on Farmers' Welfare	35,984
2	Agricultural Credit	9,00,000
3	Interest Subvention on Farm Loans	15,000
4	Dairy Development	850
5	Sustainable Management of Ground Water Resources	6,000
6	Land Information Management System	150
7	Soil Health Cards	368
8	Organic Value Chain Development in North East Regions	412
9	Irrigation Projects	17,000
10	NABARD (Corpus for Irrigation)	20,000
11	National Food Security Mission (Pulses)	500
12	Prime Minister Fasal Bima Yojana	5,500

Source: Author's Compilation from Budget Documents and Media Reports

to continue in farming. To overcome such problems, the current budget has planned to create a unified national agriculture market for farming where farmers can discover the price and would be able to sell their produce at a higher price and at anytime and anywhere. Once the unified national agricultural market gets established, farmers would not have to depend upon the local produce marketing committees and will not get exploited.

Dairy and Allied Activities

To safeguard the continuity of farmer's income, government is pushing non-farm income through promotion of dairy and other allied activities. In this budget, government has taken up four projects at the cost of Rs. 850 crores to provide alternative sources of income to the poor farmers through better dairy activities. These projects includes; '*Pashudhan Sanjivani*' Animal Wellness Program and Provision of Animal Health Cards, Advanced Breeding Technology, Creation of '*e-Pashudhan Haat*' and National Genomic Centre for Indigenous Breeding.

Rural Development In Budget

In India, 69 percent of the total population lives in villages and therefore rural development itself signifies its importance. Our economic growth and social development largely depends upon the success of a range of schemes for rural development. However, these initiatives and schemes of rural development should be redefined in order to customize them to the current needs of the people. Current budget does focus on this.

Pradhan Mantri Gram Sadak Yojana

Special emphasis is laid on rural road connectivity under the '*Pradhan Manti Gram Sadak Yojana*' for which Rs. 19,000 crores are allocated. This is highest of all the times and quite huge in comparison to 2012-13 allocation of Rs.8,885 crores and Rs. 9,805 crores in 2013-14. In addition, the total fund allocated to the roads including the states' share is Rs. 27,000 crores. To take it further, government targets to complete 2.23 lakh kilometre of road by 2021 to connect 65,000 eligible habitations. This is a welcome step which will facilitate interconnectivity among villages as well as with urban counterparts. This would foster business and trade among villages and cities and thereby enhancing the standards of living of the people.

MGNREGS

Under MGNREGS, government has proposed to take up 5 lakh farm ponds and dug wells in the rain-fed areas and 10,00,000 composite pits for production of organic manure. In total, government has to set aside an amount of Rs.38,500 crores for programs of rural development under MGNREGS. To ensure water conservation and natural resources management, Cluster Facilitation Teams will be started under the MGNREG which would not only generate income through various works but also help in creating community assets.

Sanitation and Electricity Connectivity

To improve sanitation and cleanliness especially in rural India, government has made provision of Rs. 9,000 crores for '*Swachh Bharat*

Table-2
Total Budgetary Provision/Outlay for Rural Development

S. No	Sectors/ Schemes of Rural Development	Amount in Rs. Crores
1	Grant in Aid (Gram Panchayats and Municipalities)	2, 87,000
2	Deen Dayal Upadhyaya Gram Jyoti Yojana	8,500
3	Swachh Bharat Mission (Rural India)	9,000
4	Rashtriya Gram Swaraj Abhiyan	655
5	Land Information Management System	150
6	Pradhan Mantri Gram Sadak Yojana	19,000
7	MGNREGS	38,500
8	Rural Development (Total Outlay)	87,765

Source: Author's Compilation from Budget Documents and Media Reports

'Abhiyan', as a part of social infrastructure development.

Electricity connectivity in the villages is essential for the improvement in quality of life. So to achieve the same, the government planned to spend Rs. 8,500 crores under '*Deen Dayal Upadhyaya Gram Jyoti Yojana*' to provide 100% electricity connections to the rural households in the next three years.

Digital Bharat

To spread digital literacy among the rural masses, government has already approved two programs namely; '*National Digital Literacy Mission*' and '*Digital Saksharta*' and targets to cover six crore households to make them digitally literate in the rural India in the next three years.

Other Initiatives For Inclusiveness

The government is committed to work for inclusiveness which is clearly reflected in the budget statement and budget speech especially in the concluding part. Some measures in this regard are:

Government has declared in this budget to provide '*LPG connection to BPL Households*' only in the name of the women households of these poor families. This will not only economically support these people but also reduce the environmental pollution to its minimum. So, to achieve the same, Rs. 2,000 crores is allocated for the initial cost of providing LPG connections this fiscal year. This will benefit more than one crore and fifty lakhs households those are below poverty line.

To support institutional financing and promote microfinancing, mostly in the unbanked sectors; especially in the rural areas, the government has sanctioned an amount of Rs. 1, 80,000 crores under '*Pradhan Mantri Mudra Yojana*' (PMMY). This will give boost to entrepreneurship at the village level through funding support.

Government has started a 'Stand up India Scheme' to promote entrepreneurship among SC/ST and women. Rs. 5,000 crores has been provided for this scheme which will benefit 2.5 lakh entrepreneurs, mostly from rural areas.

In addition to the above, government has proposed to set up 'National Scheduled Caste and Scheduled Tribe Hub' in partnership with industry associations and thereby help in connecting bottom of the pyramid in its inclusive development framework.

Concluding Remarks

The announcement of an increase in expenditure on agricultural and rural development in the budget signifies their sectoral importance in our economy. But agriculture sector is facing formidable challenges over years and a large number of farmers want to quit agriculture as their main occupation. Most of them do not have easy access to institutional finance / credit and a large proportion is still dependent upon informal sector for finance. Besides, failure of crops either due to heavy rain or due to draught also adds to their misery. Hence, the government's approach to support agricultural sector is just and necessary which is visible in the current budget. Further, targeting rural development in itself opens the road for inclusive development. Planning is not enough unless it is properly implemented within the given time and resource constraints. However, we are looking forward to positive outcome of the budget; through good governance, prudent expenditure management, close monitoring, clear cut accountability and timely execution with apt follow up of the various schemes meant for agricultural and rural development in India.

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Kurukshetra

FORTHCOMING ISSUE

May 2016

:

Renewable Energy

A STEP TOWARDS GRAM SWARAJ

Dr. Sher Singh Sangwan

This level of funding may be considered adequate to deliver the basic services....However, prioritization of activities and transparency in utilization of the funds received by Gram Panchayats are the challenge to ensure the sustainability the grants.

Budget 2016-17 was path breaking in more than one ways. Apart from giving the much desired fillip to rural development and agriculture, Budget took some bold initiatives in the area of rural political economy. True to the spirit of fiscal federalism, Finance Minister announced-

"A sum of Rs 2.87 lakh crore will be given as grant-in-aid to gram Panchayats and municipalities as per recommendations of the 14th Finance Commission. This is a quantum jump of 228 per cent compared to the previous five-year period."

He further added, "The funds now allocated, translate to an average assistance of over Rs 80 lakh per gram Panchayat and over Rs 21 crore per urban local body. These enhanced allocations are capable of transforming villages and small towns. Ministry of Panchayati Raj will work with the states and evolve guidelines to actualise this."



Scarcity of funds was always cited as the biggest constraint for Panchayats in delivering their intended role as envisaged by our constitution. Now, this problem stands redressed to a great extent by Finance Minister's generous announcement. In this paper, we have tried to see the ramifications this move on Gram Panchayats. Also we have discussed, how Panchayats should

spend this money and what challenges they may face with increased grants.

Trends in Allocation of Funds by Central Finance Commissions (CFCs)

After the 73rd & 74th Amendment, the states were required to set-up State Finance Commission (SFC) within a year after 1994, to provide resources for the Rural Local Bodies (RLB) and Urban Local Bodies (ULB). Most of the States have already set up four SFCs and the fifth may be working in some States. The grant amounts awarded since 1995 by various CFCs are shown in the following table:

It can be observed that since 2005, percentage increase in grants to Urban Local Bodies (ULB) has been more than that of Rural Local Bodies (RLB). It may be due to higher rate of increase in urban population compared to rural.

A tilt towards the Gram Panchayats

The 14th CFC has recommended that it's entire grant amount allotted to Rural Local Bodies will go to Gram Panchayats only, which are directly responsible for the delivery of the basic services to the people. Earlier Gram Panchayats were getting only 75 per cent of the CFC's grant and the remaining 25 percent was shared by State (5 per cent), Zila Parishad (10 per cent) and Block Samitis (10 per cent). The State Governments will have to take care of Zila Parishad and Block Samitis from their own funds. This means that the Gram Panchayats will get 25 per cent more now. Thus it is clear that, 14th CFC and the budget 2016-17 have shown a tilt towards the Gram Panchayats in fund allocation.

How this grant will be distributed?

Total grant announced in Budget, would be distributed among states and Gram Panchayats on the basis of a simple revised formula. The money

Table- Trend in Allocation of Funds to Local Bodies since 1995 (Rs crore)

CFC No & Award Period	Award Amount			Increase over the previous (%)		
	RLBs	ULBs	Total	RLBs	ULBs	Total
X(1995-2000)	4381	1000	5381	-	-	-
XI(2000-2005)	8000	2000	10000	82.61	100.00	85.84
XII(2005-2010)	20000	5000	25000	150.00	150.00	150.00
XII(2010-2015)	64408	23111	87519	222.04	362.22	250.08
XIX(2015-2020)	200292	87144	287436	210.97	277.07	228.43
Total/average	297081	118255	415336	166.41	222.32	178.59

Source: Report of 14th Central Finance Commission, Chapter 9, pp. 98-125.

would be distributed among states by giving 90 percent weight to 2011 population and 10 percent weight to the area. States may follow the same formula to distribute money to Gram Panchayats, else they may follow the formula given by State Finance Commissions before 15th March 2016.

Need to maintain proper records

Almost all CFCs after 1995 have raised the issue of non-availability of reliable data, especially income and expenditure accounts of the Local Bodies. 14th CFC has tried to find a solution to this. It has decided to provide 10 percent of total grant as performance grants.

Only those Gram Panchayats would be eligible for this performance grant that (i) submit their annual audited accounts and (ii) make improvement in their own revenues. The Urban Local Bodies, in addition to the above conditions, have also to publish benchmark of the basic service each year, to make it known to the public.

Funds will be released on time

Delay in disbursement of funds from the States is a common concern raised by Panchayats in most of the States. To bring efficiency in disbursal, the 14th CFC has directed that amount of grants are to be released in two installments during the year in the months of June & October. The first installment will be 50 percent of the basic grant and the remaining basic & performance grants will be released in the 2nd installment. Also the States have to release grants to Panchayats within 15 days of its being credited to their accounts by the Union Government. In case of delay, the State will

disburse the amount with interest from its own resources. These specific guidelines would ensure timely release of central grant in the specific months, which will enable the Panchayats to plan and execute better.

How to further augment Panchayats' resources

Besides, the amount allotted by budget, Panchayats may be allowed to levy property tax on buildings and vacant lands and collect tax on advertisements & entertainment activities like boat ride, cable-television, internet cafes, etc. State Governments should also share a part of land use conversion charges and taxes on professionals and traders with the Panchayats of the area. The Panchayats may also collect non-tax revenue from ponds, orchards, minor mineral quarry, etc in their area.

Are the funds adequate?

This level of funding may be considered adequate to deliver the basic services. Besides, there will be some supplementary funds from the SFC and own revenue. Recommendation of the 14th CFC to transfer of its entire amount to GPs is a remarkable decision which will help in addressing the increasing difference in quality of life between rural and urban areas. Such decisions to transfer funds and functionaries in remote and rural areas are the need of day in view increasing rural urban inequalities. However, prioritization of activities and transparency in utilization of the funds received by gram Panchayat are the challenge to

ensure the sustainability the grants. In this regard, capacity building of GPs and planning of activities are sine qua non.

Challenge: We need to train our Sarpanches

Once the main lacunae i.e. scarcity of funds, is addressed; then comes the next question- are our Gram Panchayats capable of delivering the services efficiently by utilizing these funds in best possible ways? If not, then what need to be done to enable them for this?

Non-prioritization and mis-utilisation of funds are general complaints about Sarpanches. It may be partly due to the tied funds but largely due to lack of proper planning. The role of Gram Panchayat representatives is not only advisory like that of MLAs and MPs but they have to plan and execute themselves. In this regards, their capacity building is the first requirement.

First step towards capacity building should be maintaining the records of the funds received and their expenditure. Traditionally, it has been left to Gram Secretary, who rarely completes the accounts on time due to inability of Gram Panchayats to supervise. Now educated representatives are being elected in Panchayats, especially after imposition of education condition in Rajasthan and Haryana. It may be easier to train these educated representatives.

Usually there is only one junior engineer for whole of the block consisting of 100 villages and the Sarpanch has to keep chasing him for the work. He often takes months to approve the estimates and even seeks illicit payments. Capacity building should equip even the least educated Sarpanch/Panch so that he/she is able to prepare the outline of the commonly standardized works that Gram Panchayats undertake. This would help in expediting the approvals.

Besides, Gram Panchayat representatives are involved in non-fund based activities like resolving disputes of villagers, coordinating with development departments regarding government schemes, liaison with banks for financial inclusion and forming self help groups, farmers club, etc. Modules should also be prepared for such need based training.

Rashtriya Gram Swaraj Abhiyan (RGSA).

In his budget speech, Finance Minister proposed a new scheme, 'Rashtriya Gram Swaraj Abhiyan' to help Panchayat Raj Institutions deliver Sustainable Development Goals. The details of the programme are yet to be announced but the provision of Rs 655 crore may be used for *Panchayat Shasktikaran* (empowerment). The above suggested programmes for the training of Panchayat representatives would certainly help here too. Further, Digital Literacy Mission announced in the budget can help bring transparency and accountability within local bodies.



How Panchayats should utilise their increased funds?

Most of the Sarpanches are operating from their homes in most of the villages, especially in northern India. As on March 2013, only 75 percent of Panchayats are having Panchayat Ghar at all India level but their number of Panchayat Ghar is less in Himachal, Haryana, Punjab, Jharkhand, Uttar Pradesh, Bihar and J&K. The states with 100 percent Panchayat Ghar (Rajasthan, Kerala, West Bengal, Chhattisgarh, Karnataka, Gujarat) are known for better functioning of their Gram Panchayats.

It is suggested that Panchayat Ghar should be designed as an all activity building including general assembly hall for meetings of Gram Panchayat, SHGs, farmers club, etc with separate rooms for Sarpanch/Panches, village library, bank, society, etc within one boundary.

Safe drinking is another priority and reverse osmosis has been installed at the source in some villages. It would be a big positive step if RO is

installed in the remaining villages. During our planning for villages under backward region grant funds, drainage of waste water was a common demand in many villages of Haryana and Punjab. Toilets and washrooms have been constructed in most of the houses in villages and therefore, the planning for sewerage is also necessary. Increased grants in the budget can be used for abovementioned purposes.

They should focus on maintenance

Maintenance of public water posts and village ponds requires continuous attention for supply of safe water to human and cattle. The Street-roads, footpaths, drains for used water and culverts are constructed in many villages but their repair and regular maintenance is lacking. Maintenance of street lights is also necessary for safety and security, especially for women who work early in the morning to feed and milk the cattle.

Heaps of dung & bio-waste are seen at the entry of any village, which can be replaced by proper compost-pits and the manure can be auctioned to earn revenue for the Panchayats. Cremation and burial grounds are provided in villages but some sheltered places, specifically for performing rite in rains are needed. Community halls can be built where *barat* can stay and other cultural activities can take place. Stadium and common seating places are also there in many villages but poor maintenance has left them unusable. So Gram Panchayats can focus on these activities as budget fills their wallet.

Panchayats may provide urban facilities

Every villager has to go to nearby town/city to purchase for his necessities, to get application forms for social security, job, admissions, to check his/her exam results, for payment of bills, booking of tickets, etc. Information regarding climate, prices of agriculture commodities and their online sale etc are available on internet. Panchayats may ensure an internet-cafe for these services and for general use, preferably at the Panchayat Ghar. Better, it could be leased to somebody for operation at reasonable prices fixed by Gram Panchayat. This way Panchayats would also be able to improve computer literacy.

The culture of purchasing from malls is also increasing and therefore bigger Gram Panchayats can also plan modern markets with shops to be rented to individuals. Through such assets, the Panchayats can generate revenue and employment within the village. Increased budgetary allocations would certainly take care of financial requirements for above activities. Also support can be availed for this from Rurban Cluster Mission and National Digital Literacy Mission announced in the budget.

Some policy suggestions

It is common knowledge and even ascertained in a survey (Sangwan, 2015) that among the GP representatives, it is the *Sarpanch (Pradhan)* who is approached by almost all government, non government, or bank officials for any activity or enquiry in the villages. *Sarpanch* is not only hard pressed to devote his time, but he also arranges for the hospitality of the visitors whereas the *Panches* (elected ward members) of the Gram Panchayats are rarely approached.

Now, when Gram Panchayats are given more funds and expected to carry out so many works as discussed above; the active involvement of *Panches* is sine qua non. Now, in states like Haryana and Rajasthan, educated *Panches* even upto graduation have been selected, thought may be given for decentralisation at Gram Panchayat level by allocating different departments among the *Panches*.

Concluding remark

Increased grant for Gram Panchayats in Budget 2016-17, is a positive step towards realising *Gram Swaraj* in true sense. With increased money come the challenges of increased corruption and mis-utilisation. Hence capacity building is a must for Gram Panchayats, which can be achieved through proper training. Transparency can be assured by using measures such as Aadhar linked DBTs and IT in Local Bodies' governance. If used judiciously, this grant by the Finance Minister holds the promise of bringing democracy to the last person in India's villages.

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BRINGING WATER TO EVERY FIELD

Naleen Kumar

The present government has made irrigation a priority after two consecutive monsoon failures, in a country where over half of the farmlands are rain-fed.

When the Prime Minister Shri Narendra Modi last year outlined a plan for the second Green Revolution in the country, in his speeches he was mostly elaborating on the importance of adopting scientific methods, like soil health tests, for enhancing food grain production. However with the Budget 2016-17, it is now quite clear that his government was contemplating a slew of initiatives to make it happen, with a big thrust on expansion of irrigation across the country.

Overall allocation of resources for the Ministry of Water Resources has increased from Rs 7,431 crore last year to Rs 12,517 crore in this Union Budget. In the same way allocation for Ground Water Scheme has been enhanced by 85 per cent and another major program for sustainable Ground Water Resources with an allocation of Rs 6,000 crore has been approved.

It is well documented that among various measures behind the grand success of India's first Green Revolution in 1960s, the two most important measures were — use of high yielding varieties of seeds and expansion of irrigation infrastructure. For the latter the government undertook a number of minor, major and multipurpose irrigation projects to supply sufficient water to cultivate lands so that the dependence of farmers on rainfall reduced to great extents.

The present government has made irrigation a priority after two consecutive monsoon failures, in a country where over half of the farmlands are rain-fed. In his Budget speech, the Finance Minister explained the need to address the issues of optimal utilisation of water resources and to create new infrastructure for irrigation. He said, "Irrigation is a critical input for increasing agriculture production and productivity. Out of 14.1 crore hectares of net cultivated area in the country, only 46 per cent is covered with irrigation."

Emphasising the need to strengthen *Pradhan Mantri Krishi Sinchayee Yojana* (PMKSY), Shri Jaitley announced its implementation in mission mode so that the projects get completed in time accruing benefits to the farmers. He said that 28.5 lakh hectares of agricultural land would be brought under irrigation by this Scheme.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been conceived by amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation, Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR) and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).



It has been formulated with the vision of '*Har Khet Ko Pani*' (Water for every field) and improving water use efficiency by 'More crop per drop' in a focused manner. Scheme provides with end to end solutions on source creation, distribution, management, field application and extension activities. The major objective of PMKSY are listed below. The scheme is being implemented by Ministries of Agriculture, Water Resources and Rural Development.

The Budget this year focuses on augmenting irrigation coverage through massive investments

The broad objectives of PMKSY

a.	Achieve convergence of investments in irrigation at the field level (preparation of district level and, if required, sub district level water use plans).
b.	Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (Har Khet ko pani).
c.	Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.
d.	Improve on-farm water use efficiency to reduce wastage and increase availability both in duration and extent.
e.	Enhance the adoption of precision-irrigation and other water saving technologies (More Crop Per Drop).
f.	Enhance recharge of aquifers and introduce sustainable water conservation practices.
g.	Ensure the integrated development of rain-fed areas using the watershed approach towards soil and water conservation, regeneration of ground water, arresting runoff and providing livelihood options.
h.	Promote extension activities relating to water harvesting, water management and crop alignment for farmers and grass root level field functionaries.
i.	Explore the feasibility of reusing treated municipal waste water for peri-urban agriculture.
j.	Attract greater private investments in irrigation.

over the next five years. In the Budget speech, the Finance Minister has announced putting all the 89 ‘active’ major irrigation projects under AIBP, on fast track. These projects will help irrigate 80.6 lakh hectares. Shri Jaitley said, “These projects require 17,000 crore next year and 86,500 crore in the next five years. We will ensure that 23 of these projects are completed before 31st March, 2017.” He promised to raise the funds needed to finance these projects, both through budgetary and extra-budgetary resources.

Accelerated Irrigation Benefit Programme (AIBP) was launched in 1996-97 to provide central assistance to major/medium irrigation projects. Priorities were also given to those projects which were in tribal and drought-prone areas. Projects covering an area above 10,000 hectares, are classified as major projects, those between 2,000 and 10,000 hectares, as medium and below 2,000 hectares as minor projects. Most of these 23 projects to be commissioned by the end of next fiscal year, fall in ‘major’ category.

The task of completing the rest of ‘active’ projects is really huge considering that some

of these have been pending for decades. Since the beginning of AIBP, 297 major and medium irrigation projects and 16,769 minor projects have been approved for funding. Only 143 of the major ones have been completed, and 89 of them are in different stages of construction. It is these that the government has now decided to put on fast track. The remaining 65, which are yet to start, are likely to be reviewed to assess whether it would be feasible to go ahead with them at all.

The major projects under AIBP require a lot of money for completion. For example, after the completion of 23 projects in phase-I by the fiscal end, another 23 projects expected to be completed by 2019-20 in phase-II, requiring an outlay of Rs 47,536 crore.

To complete the priority projects the Centre and States will be working together in mission mode. A committee including Irrigation Ministers of Telangana, Chhattisgarh and Maharashtra alongwith Principal Secretaries of some other States has been constituted to bring more synergy to this exercise.

Another emphasis of the government has been to bridge the gap between the already created irrigation potential and the area actually being irrigated. The existing gap between potential created and potential utilised ranges from 2.4 crore ha to 4.7 crore ha. That means these projects are serving substantially lower area and lesser number of farmers than they are actually meant to.

The finance minister has also announced creation of a dedicated Long Term Irrigation Fund under the National Bank for Agriculture and Rural Development (NABARD) with an initial corpus of about 20,000 crore. The NABARD has been asked to take the market route to raise further money. One of the options would be the issuance of tax free bonds.

India is the largest user of groundwater in the world. An estimated 230 cubic kilometers of groundwater per year is extracted — over a quarter of the global total. More than 60 per cent of irrigated agriculture is dependent on groundwater (along with 85 per cent of drinking water supplies). A National Groundwater Management Improvement Project (NGWMIP) is proposed

to support sustainable groundwater resource management and creation of an environment for reforms. The project will be completed in six years with financial outlay of Rs 6000 crore, half of that will come as IBRD loan. The Project will be implemented in identified water-stressed areas of Haryana, Rajasthan, Gujarat, Maharashtra and Karnataka.

In addition to the above provisions, in rain-fed area 5 lakh farm ponds and wells also will be arranged under MGNREGA.

Substantial allocations for irrigation in Budget are bound to have a net positive effect on enhancing agricultural productivity. This, along with other measures to boost rural market, will have a butterfly effect for Indian economy, especially in job creation. Many experts argue that a small boost in agriculture sector creates more jobs than a similar growth in any other sector of the economy. On top of this, if monsoon proves good this year and oil prices remain low, agriculture sector may punch above its weight.

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SKILL, EDUCATION AND JOBS FOR RURAL INDIA

Jai Prakash Pandey

Journey from job seeker to job creator has to be travelled. Skill India program has to train millions of youths in various vocational and technical courses.

Indian economy has immense possibilities to grow. Growth of economy accelerated to 7.6% in 2015-16. India is a country with around 30 crores of the youth in the age group of 20 to 40 years. Unleashing the entrepreneurship and innovative potentials of these youths is essential to boost the Indian economy. Education, skill development and job creation is key to engage them in productive manner. Budget 2016 has announced a sequence of measures to enhance rural economy through "Transform India" which would have significant impact on economy and lives of the people. Ensuring macro-economic stability with prudent fiscal policy, maintaining the pace of economic reforms, boosting domestic demand, enhancing expenditure in priority areas of farming and rural development are main initiatives to change the lives of our countrymen.

EDUCATION

Literacy in India is key for socio-economic progress. In the field of education, quality and quantity is still a concern for the country. The current literacy rate of India is 74.04 per cent. Although we have shown an immense improvement in this field but the level is well below the world average of 84 per cent. Further, India currently has the largest illiterate population in the world. It is estimated that with current rate of progress, it would take until 2060 for India to achieve universal literacy.

Sarva Shiksha Abhiyan is meant to ensure primary education for all the children below the age of 14 years. But emphasis need to be given on quality of education. Majority of the children are being educated in government run primary schools, where lack of basic facilities and

shortage of teachers has made the situation worse. Economic growth demands a constant supply of skilled manpower for which first step is quality primary education. Budgetary focus in this regard is a positive step. Announcement to open **62 new Navodaya Vidyalayas**, will certainly enhance the quality education for rural children.

Proposed **Higher Education Financing Agency** (HEFA) with an initial capital base of Rs. 1000 cores would be an economic springboard for the Indian education sector. It would benefit both the students as well as the financial system. Prospect of HEFA will open up the possibility of higher education for those poor students who mainly rely on education loan. Current outstanding education loan is in the tune of Rs. 50000 cores. HEFA is just a beginning at right time in right direction to promote the higher education especially amongst the rural youth.

Indian students spend around Rs. 45,000 crore per year on foreign education mainly due to lack of quality higher education in the country. Recently in a study, one of India's universities could make it to the list of '100 most prestigious global universities'. UN Human development report 2015 has ranked India on 130th position among 188 nations listed in the HD Index. Designing a regulatory architecture to transform 10 public and private institution to emerge as world class teaching & research institution is a welcome move. Emphasis on research would benefit industry and in turn, Indian economy.

Digital Literacy Mission has been announced with the vision to empower at least one person from every household with digital literacy skills by 2020. It will cover around 6 crore additional household within the 3 years. This is expected to touch the lives

of more than 25 crore individuals. Digitally smart youth in rural India would be able to fully participate in the increasing global digital economy. Budget also plans to set up digital depository for school leaving certificates, college degrees and academic awards. This will help validate their authenticity, safe storage and easy retrieval. Of the 16.8 crore rural households, as many as 12 crore households do not have a computer. Digital India mission envisages making the Indian citizens connected via Internet. The government also aims to utilize the mission for speedier transfer of government benefits to the people. Finance Minister in his budget speech also spoke of the plans to launch a unified e-portal for agriculture. The portal will be launched on Dr B.R. Ambedkar's birth anniversary this year.

The Budget announced **Online Courses** to establish an all India open university, which takes nominal fees or awards free courses to everyone. Furthermore, there can be an online repository of videos of quality courses with an online self-assessment system. Entrepreneurship Education and Training will be provided in 2200 colleges, 300 schools, and 500 Government ITIs and 50 Vocational Training Centers through Massive Open Online Courses. This would certainly help meeting the demand of skilled manpower in Indian industry.

SKILL DEVELOPMENT

Skill development is main thrust of NDA government since it took office in May 2014. Unemployment has been a major concern. Country has to channelized 1 crore unemployed youth in productive activities. Immense growth can be achieved through skill development. Rs 1804 crore has been allocated for this in the budget. With the help of this fund, 1500 multi skilling training institute will be set up in coming year to promote skill development with the help of other ministries. Budget proposed to further gear up the **Pradhan Mantri Kaushal Vikas Yojna** to impart skill to 1 crore youth over next 3 years from current 24 lakh.

National Board for Skill Development Certification is also proposed to be set up in 2016–17. This board will be set up in partnership with the industry and academics. Skill development has to be in congruence with industry to reap its full benefits.

JOB CREATION

Indian economy needs to generate 11.5 crore non-farm jobs over the next decade to employ its workforce. Various measures have been announced to generate the job opportunity both in skill and unskilled area. 100 **Model Career Centers** are to be operational by the end of 2016-17. NIELIT (National Institute of Electronic & Info Technology) is established as the first model career centre at Calicut on 9th Jun 2015. This scheme is purported to make available the skills sought by the local industries and at the same time be compatible with the aspirations of youth. It will roll out the industry oriented courses for employability of the local youth in rural India.

Much talked about Job creation scheme **MGNREGS** has been given utmost importance in this budget. A sum of Rs 38500 crore has been allocated for MGNREGS. At least 5 lakh farm ponds and dug wells in rain fed areas and 10 lakh compost pits for production of organic manure will be taken up by making productive use of the allocations under MGNREGA. Asset created by this scheme can do the wonders in promotion of agriculture by making check-dams, Animal husbandry, forestry (by planting more trees) and other sectors such as cleanliness, transportation, education etc. The inclusion of agricultural activities such as weeding, irrigating, sowing and harvesting may be ensured for effectiveness and efficiency of the scheme.

Pradhan Mantri Krishi Sinchai Yojana has been another highlight of budget. 89 irrigation projects will be implemented, which will bring 28.5 lakh hectares under irrigation. These schemes will bring lots of employment to rural area and will boost the agricultural production to a new height.

New scheme **Rashtriya Gram Swaraj Abhiyan** is proposed with allocation of Rs 655 crore. Under this scheme, every district and every village will locally produce clothes for children, provide textile machinery training in every village and promote indigenously manufactured clothes. Villagers can also sell these garments in the cities. By this scheme typically age old agrarian village economy will be converted into small scale industrial economy. It will provide job opportunity to rural youth as well as enhance their purchasing power.

Another hallmark of this rural-focused budget is focus on ***Pradhan Mantri Gram Sadak Yojana***. Once there is connectivity, hitherto isolated hamlets become part of larger clusters. PMGSY will make it possible for producers of perishable produce such as milk, fish and vegetables to sell these to a wider base of consumers. Equally, it will also enable companies to distribute their products through rural retail stores. This scheme will enhance the employment opportunity of rural youth. There is no gainsaying the fact that there exists a close link between rural connectivity and growth, be it in the area of trade, employment, education or healthcare. In fact a lack of proper roads is a reflection of its poor socio-economic indices.

For Job creation in rural areas, ***Deen Dayal Anyodaya Mission*** has been announced. Every block under drought and rural distress will be taken up as an intensive block. Intensive labor work will be taken up. It will not only provide job opportunity to rural youth but also create assets to boost the rural economy.

Shyama Prasad Mukharjee Rurban Mission (SPMRM) will develop 300 rurban (Rural-Urban) clusters with an outlay of Rs. 5142.08 crores over the next 3 years, across the country. In an ambitious bid to transform rural areas into an economically, socially and physically sustainable spaces, these clusters will incubate growth centers by providing infrastructure amenities and market access for the farmers.

SPMRM aims at development of rural growth clusters which have latent potential for growth. Rurban Mission will develop a cluster of Smart Villages and these clusters would be developed by provisioning of economic activities, developing skills & local entrepreneurship and providing infrastructure amenities. The scheme, aiming at catalyzing overall regional growth, would thus simultaneously benefit the rural as well as urban areas, by achieving twin objectives of strengthening rural areas and de burdening the urban space, hence leading to balanced regional development and growth of the country.

National Scheduled Caste and Scheduled Tribe Hub will be set up in partnership with industry associations for job creation to provide support to SC/ST entrepreneurs. Rs.500 crore has been

provided to benefit 2.5 lakh SC/ST and women entrepreneurs. It will also set up a national hub in the Ministry of Micro, Small and Medium Enterprises (MSME) to provide professional support to SC/ST entrepreneurs. Budget also proposed the schemes for welfare and skill development for Minorities such as Multi-Sectoral Development Programme and USTAAD to be implemented effectively.

100 per cent village electrification to be completed by 01 may 2018. Electricity is essential not only to ease the life style by lighting and household purposes, but it is also needed for mechanization of many farming operations, such as threshing, milking and hoisting grain for storage. In areas facing labor shortages, this allows for greater productivity at reduced cost. This will boost the setting up of small scale industry in rural area in turn creating the job opportunity and boosting economy.

National Land Record Modernization Programme is another mission which will transform the face of rural India. It will develop a modern, comprehensive and transparent land record management system in the country. It is really distressing to know that land records and land titling system is in most haywire state affecting economic development at large. Budget envisages implementing this scheme effectively.

Welfare programmes for animal husbandry have been announced in budget 2016. This will benefit the animal owners and attract the youth to dairy sector. Thus employment opportunities would open up not only for rural youth but also for veterinary doctors and insurance staff. ***Pashudhan Sanjivani***, an animal wellness programme and provision of Animal Health Cards (***Nakul Swasthya Patra***) are innovative steps which would bring a paradigm shift in the dairy sector. It would help stabilise the farmers' income, who often face vagaries of mother nature in the form of floods or draughts.

Pradhan Mantri Fasal Bima Yojana is another flagship program given utmost importance in budget. With budget allocation of Rs 5,500 crore, it is aimed at providing crop insurance cover to at least half of the country's 1.4 crore farmers by 2019. It will provide insurance coverage and financial support to the farmers in the event of failure of any

of the notified crop as a result of natural calamities, pests & diseases. It will also encourage farmers to adopt innovative and modern agricultural practices to increase the agricultural production

Apart from many other initiatives budget proposes to encourage **cold storage facilities** in the farm sector. Budget exempted service tax on all facilities provided by the state-run National Centre for Cold Chain Development effectively from April 01, 2016. India, the world's largest producer of milk and the second-largest producer of fruits and vegetables, is also one of the biggest food wasters in the world. Establishing cold storage chain will reduce the considerable wastage and generate employment opportunities in constructing and maintaining this chain.

Budget has pumped huge amount of money in rural economy. Allocation of Rs 35,984 crore for agriculture and farmers' welfare, Rs 87,765 for rural sector, 2.87 lakh crore as Grant in Aid to Gram Panchayats and municipalities . Rs 2.31 lakh crore for infrastructure sector, Rs 1,51,581 crore for social sector including education and health care are some initiatives which will act as growth engine to rural economy. A cess of 0.5 per cent, named **Krishi Kalyan Cess**, has been levied on all taxable services, w.e.f. 01 June 2016. Proceeds of the cess would be exclusively used for financing initiatives relating to improvement of agriculture and welfare of farmers. This would certainly give a boost to rural job generation and check migration to cities.

India's growth story is entirely contrary to the pattern adopted by other developing countries. Japan has focused on its small scale products and entered in the club of developed country. Singapore, Hong Kong, Malaysia, south Korea followed the suits and become giant economic powers. Of late, China also started focusing on its small scale industries and presence of Chinese goods like- toys, electrical and electronic items and home appliances has made solid dents in every market of the world. China almost outsmarts everyone in this field by solid policies of promotion of its small scale industries. Thus Make in India programme is an effort to keep pace with other economies, making every one an entrepreneur.

Over the period of 68 years after the independence, India has progressed a lot. We are

manufacturing from needles to spacecraft. Our satellites are in space and our own indigenous rockets are soaring high in the sky with state of art technologies. But this industrial progress increases unemployment due to elimination of labour centric works, causing anger, angst and frustration amongst the youths. **Journey from job seeker to job creator has to be travelled.** Skill India program has to train millions of youths in various vocational and technical courses. India is perceived to be the largest market for foreign investors. Over 1.3 billion population is devoured to digest all the consumer goods and products. Rising living standards and improvement in infrastructure need tremendous machinery, products, services and skill. This is the time to change the perception from being mere a market for other economies to be a manufacturing hub.

From consumer products to food processing, we can create jobs. Cheap labour, coupled with investment and technology can do wonders. It will not only fulfill our domestic requirements but can explore the foreign markets in African and Asian subcontinent also.

Announcing education, skill development and job creation as fourth pillar of the budget, government rightly laid highest emphasis on rural economy. As 70 per cent India lives in rural areas, real development of nation has to start with the development of agriculture and rural sector. Budget 2016-17 has provided enough for this sector, now monitoring & implementation of all these schemes at grass root level is important. Budget has also proposed to appoint a committee at district level under the chairmanship of senior most Member of Parliament from each district.

India aspires to enter the club of developed countries sooner than later and pull the millions out of poverty. Country is in the mode of startup mania. Government, industries and youth of this great nation should gear up in unison to make India a manufacturing giant. We are already late and we cannot afford to miss this opportunity now. Budget 2016 has provided this much needed boost.

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BRINGING HEALTH TO THE UNDERPRIVILEGED

Abhirup Bhunia

Out of pocket payments (OPP) as a share of total health spending is a major indicator of the country's public health machinery....The problem is exacerbated, in fact egged on, by the lack of a health insurance scheme with universal coverage.

The Union Budget of 2016 represents a decisive focus on the social sector aimed at advancing human development. The budget comes in the backdrop of a challenging economic scenario. This article will analyse the Budget specifically with respect to the much-important health sector. A little bit of context setting is necessary before going about the task of analysing this year's Budget.

It is globally accepted that the health and well-being of people is a crucial determinant of sustainable development. India is placed at a lowly 95th rank in the 'Nutrition and Basic Medical Care' segment of the Social Progress Index and 120th in the 'Health and Wellness' segment. This puts India even behind South Asian peers such as Bangladesh and its BRICS partners. Indicators such as 'life expectancy', 'premature deaths from non-communicable diseases', 'maternal/child mortality rate', 'deaths from infectious diseases', etc. are taken into account. The ranking is tabulated below in order to contextualise India's performance in public health.

India's comparative performance in basic healthcare services (Ranking among 161 countries)

Country	Nutrition and Basic Medical Care	Health and wellness
India	95	120
Bangladesh	94	30
Sri Lanka	91	87
Brazil	61	34
South Africa	89	114
China	74	103
Russia	45	131

Source: Social Progress Imperative, 2015

India's current healthcare spending is about 1.3 per cent of its GDP, compared to 3 per cent in China, 8.3 per cent in the US and 8 per cent in EU. It aims to increase health spending to 2.5 per cent of GDP

by 2020, as per the Draft National Health Policy. The Indian Medical Association wants the share to go up to 5 per cent without further delay. India's per capita health expenditure is the lowest even amongst BRICS countries. In this year's budget about 1.62 per cent of the total budgetary expenditure is set aside for the health sector.

Budget outlays for Health and Family Welfare in last three financial years. (in Rs. Crores)

	2014-15 BE	2014-15 RE	2014-15 (Actuals)	2015-16 BE	2015-16 RE	2016-17 BE
Outlay on health	37965	31274	30626	31050	32819	37061

Source: Budget, 2016

The bright spots in the budget from the healthcare perspective were:

- a) The focus on health insurance which is going to address India's Out-of-Pocket outlay problem
- b) Continued focus on *Jan Ausadhi Yojana*, which seeks to make healthcare inclusive and
- c) The National Dialysis Service Program (NDSP), which recognises India's massive renal kidney diseases problem.

Out of pocket payments (OPP) as a share of total health spending is a major indicator of the country's public health machinery. It refers to direct cash outlays by individuals for healthcare. OPP in India is 70 per cent compared to something around 12 per cent in US. The problem is exacerbated, in fact egged on, by the lack of a health insurance scheme with universal coverage.

Scattered efforts include the *Rashtriya Swasthya Bima Yojana* (recently brought under the Ministry of Health and Family Welfare and renamed *Rashtriya Swasthya Suraksha Yojana*) which provides cashless

health insurance cover of up to Rs. 30,000 per annum to BPL families employed in 11 occupational groups in the unorganized sector and MGNREGA workers. Of the target of 7 crore people (set out in the 2012-17 five year plan), about 3.6 crore families have been enrolled. To counter the dire state of health insurance in the country the RSSY has been accorded a budget of Rs. 1500 crores, which is a 152 per cent hike from the current FY expenditure of 595 crores. The insurance cover has been fixed at Rs. 1 lakh, with additional cover of Rs. 30,000 for the elderly. These are positive signs given that only about a quarter of India's population is insured, although estimates vary (mostly putting it lower than that). Already, the RSBY has engendered positive health outcomes in some states. Implementation is going to be of crucial importance.

The *Pradhan Mantri Swasthya Suraksha Yojana* (PMSSY), for which this year's allocation went up almost two fold, aims to address the regional imbalances in the availability of affordable healthcare facilities. The focus on under-served States includes the setting up of six AIIMS-like institutions in Bhopal, Bhubaneswar, Jodhpur, Patna, Raipur and Rishikesh and upgradation of 70 existing Government medical colleges in PMSSY phases 1, 2, 3 and 4.

A plan to open 3,000 *Jan Aushadhi Stores* (JAS) in 2016-17, offering affordable generic medicines, was also announced. As on 31.10.2014, India has 170 such stores in 15 states (of which only 99 were functional). **The expansion plan is good news for India, particularly because about 80per cent of health expenditure in rural India is attributable to cost of medicines.** Likewise, 80per cent and 60per cent of all out-patient and hospitalized patients are exposed to the expensive private market for purchase of medicines. It must be noted that the plan in itself is not going to achieve much tangible outcomes, if some outstanding challenges are not addressed. For instance, most doctors (including public sector doctors) do not prescribe JAS/generic medicines leading to low demand for these generics. There are reports of closure of about 50 such JAS due to low business volume generation. There is a need to launch advocacy measures to generate awareness levels among the public as also to sensitize the doctors. This will ensure the poor and vulnerable are not exposed to shocks while making JAS a viable business opportunity.

The announcement of a National Dialysis Services Programme (NDSP) has come at a time when a pan India study has found that **more than 72 per cent of dialysis patients do not undergo prescribed treatments, a majority of them due to issues of non-affordability.** The growth of non-communicable diseases in India is also a problem that the NDSP has the potential of addressing. Although, the programme is slated to be made available in all district hospitals, the public-private partnership (PPP) model is something whose performance is yet to be seen, and difficult to predict. An estimated 10.1 crore people in India will be affected by diabetes by 2030, a major cause of kidney failure. About 2.2 lakh End Stage Renal Disease patients emerge every year in India causing an additional demand for 3.4 crore dialysis sessions. That is a demand that 4,950 dialysis centres can hardly meet. The NDSP has been long overdue, although it is arguable that the NDSP is curative, rather than preventive. Something on the lines of Mexico's Soda and Sugar Tax (aimed at curbing obesity and diabetes) could have been the answer to India's man-made diabetes epidemic. Experts largely agree that behavioural changes are a better answer than curative policy thrusts. India already deploys this dis-incentivization method to curb smoking, although the effectiveness of such taxation is not scientifically proven yet.



Suggestions

According to official data as on March 2014, there was a shortage of 6,700 public health centres and 2,350 community health centres (the backbones of healthcare delivery in the country). The shortfall of Community Health Centres in terms of percentage is as high as 91 per cent, 50 per cent and 41 per cent

in Bihar, Sikkim and Karnataka respectively. The shortfall of Primary Health Centres were 66 per cent, 58 per cent and 42 per cent Jharkhand, West Bengal and Madhya Pradesh, respectively. Despite this problematic context, less than 0.25 per cent of total infrastructure investments in India is in the health sector, analysis of government data shows. So more attention is needed in this direction.

The district Primary Health Centres (PHCs) in India are currently facing a crippling human resource crunch too, with a shortage of more than 3,000 doctors. Focus should be on the plans to fill up these vacant positions, or to build new infrastructure to fill the aforementioned PHC/CHC shortfall. Likewise, the state of government hospitals/healthcare units in the country are dilapidated to say the least, thus pushing patients to private healthcare facilities, where the disproportionately high treatment costs often push households back into poverty, financial insolvency or worse. While the insurance scheme, itself, if duly implemented and scaled up, can address this particular problem (through cashless treatments at any facility), it will only do so partly, and a lot is still to be done.

Currently, India has only 9 hospital-beds per 10,000 population compared 41 in China and 91 in Russia, not to speak of the developed countries. One can hope the PMSSY can at least begin to surmount some of these infrastructural problems.

Given that about a third of the population is already living in urban areas (estimated to rise to 47 per cent by 2030), and that the incidence among the urban population of non-communicable diseases such as heart disease, asthma, diabetes, hypertension, mental health is much higher than in rural areas, National Urban Health Mission (NUHM) should also have been given a bigger focus in this year's Budget.

Conclusion

Given the fiscal constraints, under which the Budget 2016-17 was presented, health sector in India has seen some bold initiatives. If implemented properly, these initiatives would certainly help the underprivileged masses' better access to healthcare.

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BUILDING ROADS FOR RURAL PROSPERITY

Manoj Varghese

In the absence of road connectivity, schools had local children but were beyond the reach of the appointed teachers.....Ambulances could not make it to the ailing and needy...

All roads lead to Rome is an old saying. On the same lines, the Government of India is committed to connect the remotest village in the country with roads leading to Delhi. For this to happen, the Government has not left any stone unturned and has allocated a budget of Rs 19,000 crore for the coming year 2016-17. Together with States' share, about Rs 27,000 crore in total, will be spent in the forthcoming year on *Pradhan Mantri Gram Sadak Yojana* (PMGSY).

Rural road connectivity is a key component of rural development and a holistic approach of promoting access to economic and social services and thereby, generating increased agricultural incomes and productive employment opportunities. The *Yojana* aims to advance the completion target of the programme from 2021 to 2019 and connect the remaining 65,000 eligible habitations by constructing 2.23 lakh kms of roads. Accordingly, the pace of construction which is currently 100 kms per day, as compared to the average of 73.5 kms during 2011-14, will be substantially stepped up. The allocations in 2012-13 and 2013-14 were Rs 8,885 crore and Rs 9,805 crore respectively.

The Government is all set to keep that last straw on the Camel's back before it finally takes off its "Make in India" campaign through its road connectivity and cumulative effect of the development activities in the rural sector. PMGSY is a huge central investment in the state sector as part of a poverty reduction strategy. This investment, essentially the 'last mile' connectivity, is likely to boost up the associated campaigns like Make in India, *Swatch Bharat Mission*, Education to All among others. Presenting the Budget, the Finance Minister said the agenda for the next year will be to 'Transform India' in this direction. He highlighted that the budget proposals are built on this transformative agenda with nine distinct pillars which include: Agriculture and Farmers'

Welfare; Rural Sector; Social Sector including Healthcare; Education, Skills and Job Creation; Infrastructure and Investment; Financial Sector Reforms; Governance and Ease of Doing Business; Fiscal Discipline and Tax Reforms.

The Government's perspective regarding the developmental priorities has been fast changing in the recent past. Some of the states like Chhattisgarh, Rajasthan, Madhya Pradesh, Bihar and Odisha witnessed the change of power owing to the dilapidated condition of the roads. These State Governments, looking at the political gains after coming to power, gave no second thoughts and took up the construction of roads on a priority from the state capital to the district headquarters



and in turn to the villages. In the process, construction of roads' quality was ensured at all levels and ample security was provided to the agencies engaged. This facility enabled the public to connect with the global world in many ways and gave a boost to the image of the state governments, some retaining the power for the second and third term accordingly. Highest road construction has been recorded in Madhya Pradesh (63,548 km), followed by Rajasthan (58,462 km), Uttar Pradesh (45,905 km), Bihar (35,510 km) and Odisha (35,019 km). Bihar alone had 34,637 habitations originally eligible under PMGSY. Of these, 15,048 now have road connectivity, with work on another 12,136 habitations receiving clearances.

In the absence of road connectivity, schools had local children but were beyond the reach of the appointed teachers, at Primary Health Centers (PHC), patients kept waiting for the arrival of the doctors and medical staff. Ambulances could not make it to the ailing and needy, farmers had bumper crop production but failed to reach the demanding in other parts of the country, raw materials could not find its way to the manpower and so on and on Whereas, the road connectivity enabled the duty staff and the raw material to reach the villages from other villages/districts and in return the manpower and the goods could reach the needy. Small scale industries mushroomed in the villages and farmers started getting a good price for their commodities. The Government's provision of employment opportunities through MGNREGA, food security to the labourers, various subsidies and insurances to the farmers, support to the irrigation lands, transportation means for the crops to reach the *Mandis*, boosted the morale of the local villagers.



The PMGSY is a nationwide plan in India to provide good all-weather road connectivity to unconnected rural habitation with a minimum population of 500 in the plains and 250-plus in hill states, tribal districts and desert areas. This Centrally Sponsored Scheme, under the authority of the Ministry of Rural Development was introduced on December 25, 2000 by the then Prime Minister of India Shri Atal Bihari Vajpayee on his birthday. Earlier, in 1998 the NDA government had launched a massive National Highways Development Project for building a four/six-lane expressway network connecting the four metros (Delhi, Mumbai, Chennai and Kolkata) along with four corners of the country (Srinagar, Porbandar, Kanyakumari and Silchar). These two

successive road connectivity projects namely 'Golden Quadrilateral' and 'North-South and East-West Corridor' brought much accolades for the ruling NDA Government and was carried forward by the successive governments.

Table: PMGSY: Achievement and Spending

Year	Road length Constructed (in Km)	Rupees Expenditure (in crores)
2004-05	15,464	3077.45
2005-06	22,891	4100.39
2006-07	30,710	7304.27
2007-08	41,300	10,618.69
2008-09	52,405	15,161.99
2009-10	60,117	18,832.92
2010-11	45,109	14,910.98
2011-12	30,995	10,946.41
2012-13	24,161	8386.75
2013-14	25,313	13,095.29
2014-15	36,337	16,538.05
2015-16	37,000	19,200.00

Some of the lacunae in the construction and functioning of rural roads observed include variation due to the climatic conditions, not as per the guidelines of NRRDA (National Rural Roads Development Agency), manipulation in the survey and investigation, disparity in the soil quality (places with black soil needs 1-2 feet base whereas with muram or soild soil only 4 inch base may be required), compromise in quality of bitumen, field testing lacking (as the sample material is sent to labs), etc. Procurement of land from the individuals for the construction of roads is an area where conflict of interest prevails and a lot of time and energy is spent to overcome it.

A special emphasis has been laid on the Infrastructure and Investment in the present Budget. **An allocation of Rs. 55,000 crore for Roads and Highways has been proposed which will be further topped up by additional Rs. 15,000 crore to be raised by NHAI through bonds. The total investment in the road sector including PMGSY allocation would be 97,000 crore during 2016-17. The capital expenditure of the Railways, the total outlay on roads and railways will be Rs. 2,18,000 crore.** Other than PMGSY, the road related agencies and schemes in India are:

National Highways Authority of India (NHAI)

– is an autonomous agency of the Ministry of Road Transport and Highways, responsible for development, maintenance, management and operation of a network of over 70,000 km of National Highways in India. The NHAI is also responsible of the toll collection on several highways. In the states, it operates through the respective National Highway State Wings.

State Public Works Department (PWD)

constructs and maintains the roads connecting district to district or tehsil/villages. The State Highways and the roads within the state are looked after by the PWD. The department is funded and governed by the respective State Governments.

Mukhya Mantri Gramin Sadak Yojna (MMGSY)

has been set up in order to provide road connectivity to maximum/each village of a state within the range of population between 500 and 250 which are not covered under the PMGSY. Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Backward Region Grant Fund (BRGF), State Plan Head are the three functional components for running the scheme of MMGSY. In Madhya Pradesh, a total 19,386 km length of gravel roads is scheduled to be constructed under MMGSY.

Gram Panchayats are responsible for the construction and maintenance of roads within the village for local connectivity.

Key components of PMGSY

Programme Implementation Units (PIUs): The Programme is coordinated and implemented through a dedicated Programme Implementation Unit (PIU) at the district level. It comprises of competent technical personnel like engineers, draftsman etc from the Irrigation, Rural Development and PWD of the state government and professional consultants. The PMGSY takes care of only the administrative and travel expenses of the staff and the cost of construction of roads.

National Rural Roads Development Agency (NRRDA):

The Ministry of Rural Development has set up the National Rural Roads Development Agency (NRRDA) to provide operational and management support to the PMGSY. The NRRDA provides support on designs and specifications and cost norms; technical agencies; District Rural Roads Plans and

core network; scrutiny of project proposals and monitoring.

Project Proposals: Once the proposal is approved by the District Panchayat, it is forwarded through the PIU to the State Rural Roads Development Agency (SRRDA). The PIU prepares the details of proposals forwarded by the Members of Parliament, and action taken thereon and send it along with the proposals. The SRRDA vets the proposals to ensure that they are in accordance with the guidelines and place them before the State-level Standing Committee along with the MPs statements. PIU also holds a consultation with the local community through the mechanism of the Gram Panchayat in order to determine the most suitable alignment, sort out issues of land availability, moderate any adverse social and environmental impact and elicit necessary community participation in the programme.

Execution of Works: The relevant projects are executed by the PIUs and completed within a period of nine months from the date of issue of the Work Order. An important principle of the PMGSY is the assured availability of funds, so as to facilitate timely completion of road works. It is the responsibility of the executing agencies to ensure timely payments to the contractors, subject to satisfactory execution of work.

Maintenance of Rural Roads: In the context of a farm to market connectivity, proper maintenance is essential if risks of long term investments, on-farm as well as off-farm, are to be taken by the rural entrepreneur. All PMGSY roads are covered by 5-year maintenance contracts and entered into along with the construction contract, with the same contractor, as per the Standard Bidding Document. Maintenance funds to service the contract is budgeted by the State Government and placed at the disposal of the SRRDA in a separate Maintenance Account.

Rural connectivity is not an end in itself. It is a means of transformation, and in particular transforming India. It is expected that the connectivity will improve indicators of education, health, rural incomes etc. provided as a follow up, and in consultation with the local Panchayati Raj Institutions, convergence is achieved with other ongoing programmes in these sectors.

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DAWN OF DIGITAL EMPOWERMENT

Osama Manzar, Rajat Kumar, Udit Chaturvedi

.....digital tools can help achieve transparency, efficiency and accountability but for that to happen, it requires much more than just building a large digital infrastructure.

For the last seven decades, India has been struggling in making entitlements, citizen services and individual rights reach the public, especially in remote and rural parts of India, in an efficient and effective manner. Fortunately, there are now digital tools and ICT capacities that are being employed in large parts of the world for making these and other similar government-to-citizen services more efficient and effective. However, India still has a long way to use these tools successfully and innovatively.

About 70-80 per cent of the country is still not connected digitally. According to a recent study, 72 per cent of Indian women do not have access to mobile phones. Forget WhatsApp and Facebook, they don't even have the basic calling facility. It's actually only 40 per cent of India's population that is using one billion SIM cards. So even if we provide a lot of solutions, which have an ingredient of digital tools, we're not really certain if all the people, or even a majority of people, can avail the services, entitlements and benefits.

Having said that, digital tools can help achieve transparency, efficiency and accountability but for that to happen, it requires much more than just building a large digital infrastructure. For example, buying computers for schools isn't enough, the government must ensure that the same are being used in an effective manner. For this, training of students isn't enough, training of teachers is more important.

With these thoughts in mind, let us now look at the latest budget and see if the government has got the right approach or not.

The Union Budget 2016-17 was presented in Parliament by the Finance Minister Mr. Arun Jaitley on 29, 2016. It was this government's third Budget presentation.

While the Budget touched upon the usual

topics of taxation, finance, health, education etc., what drew particular attention was the introduction/revamping of schemes focused on leveraging information communication technologies (ICTs) towards development in various sectors, particularly with rural beneficiaries in mind.

The key sectors where ICT and digital tools for rural development made their presence felt strongly was in the areas of social development, education, entrepreneurship and agriculture.

Social Development

Direct Benefit Transfers (DBT), Aadhaar, LPG and MGNREGA

It is proposed that DBTs will be extended on a pilot basis for subsidies on fertilisers in certain districts. DBTs on LPG have already been linked to beneficiaries' Aadhaar cards. It is expected that DBTs on fertilisers will also be linked to the Aadhaar system.

The government has also proposed introducing legal backing to Aadhaar card in the Budget speech. We hope the Aadhaar linked DBTs to reach beneficiaries directly, it would reduce the red-tape and time taken to deliver the service.

The government has stated that use of Aadhaar could save the taxpayer Rs. 20,000 crore by the way of effective targeting of the subsidies. Government has tried to address the privacy and data protection concerns raised by civil society. Also the government has made it clear that the possession of an Aadhaar number/card is not the proof of citizenship.

Additionally, the government has also planned to provide LPG connections on the name of women in the family, as opposed to the current trend of male members. We view this as a progressive move that would also increase the penetration of the Aadhaar

card among women, leading to greater gender parity.

Finally, the Budget has provided the highest ever sum of Rs. 38,500 crore for MGNREGA. Payments under the MGNREGA have already been linked to the Aadhaar number. It is our hope that the proposed legal backing to the Aadhaar will serve to increase the rigour in validation of payments and reduce the chances of any potential corruption/duplication in the payment process.

Automation in fair price shops (FPS)

To ensure the benefits of minimum support price reach farmers and to ensure reduction in pilfering in the stocks in the public distribution system, the government has proposed the automation of 3 lakh of the 5.35 lakh fair price shops (FPS) in the country. This automation will ensure that incoming and outgoing stock is properly weighed and catalogued. It is our hope that this will make it easier for consumers to make purchases at these shops. Additionally, we hope that these fair price shops will also embrace and encourage digital payment methods that would promote mobile wallets.

Under PDS, every BPL family is entitled for 35 kg of rice/wheat per month; and the APL cardholder for 15 kg. However, the research shows, - “The food grains supplied by the ration shops are not enough to meet the consumption needs of the poor or are of inferior quality. The average level of consumption of PDS grains in India is only 1 kg per person per month.”

So how will automation tackle these issues? Will it ensure that every sack of grains and every canter of kerosene oil is digitally marked to allow its movement to be tracked in real time till it reaches its destination? Will the FPS automation mean that only eligible people would get ration? Can the automation mean that there would be no pilferage? Can we ensure that each and every ration shop would be geographically marked on the map and the distribution process recorded on camera and made available to authorities to view in real time? Besides finding answers to these questions, there are several other significant challenges that the government would face in the process of implementation of automation at every FPS.

Education and Entrepreneurship

National Digital Literacy Mission

The National Digital Literacy Mission (NDLM) was created with the aim to make impart digital literacy and IT training to 52.5 lakh individuals across the country. The NDLM was implemented with the aid of industry, civil society and educational partners.

This year, the NDLM has received a fresh lease of life with the mandate to expand to cover six crore additional households in rural India over the next three years, directly and indirectly supporting several other digital initiatives proposed by the government.

The National Digital Literacy Mission is one of the integral parts of prime minister's Digital India mission. However, six crore should not just be a target figure that has to be achieved by picking any random villager for digital literacy training, instead it should be institutionalised. **There are 30 lakh elected member of the panchayat, 10 lakh of them are women. Why not target all of them? There are 80 lakh teachers in India, why not include all of them? There are 20 lakh aanganwadis and 2.6 crore MSMEs, why not ensure that they are all made digitally literate?** Why not provide digital training to frontline health workers and self-help group members? Surely, if digital literacy is targeted through an institutional approach, the impact would be much higher than when random people in the village are selected and enrolled for digital literacy. Additionally, it will also be easier to track the beneficiaries and understand the impact of the project.

Another question that comes to our mind is whether the money being distributed for all NDLM centres includes the cost of support infrastructure such as generators — keeping in mind the lack of power supply that plagues most of rural and remote India — and if it does, is the money being utilised for the same purpose or is there any pilferage. There also needs to be a process to ensure that the study material being provided to students through NDLM is of a quality that they are able to imbibe easily without compromising on the quantity of information they should be taking in. The NDLM centres should also provide additional

vocational training for youth to open more job and entrepreneurial opportunities.

Digital Depository of School Certificates

The government has proposed the creation of a digital depository for school leaving certificates, college degrees, mark sheets, etc. This will help Indian students to access their academic documents in case they have lost their originals. This is an academically-focused project similar to the DigiLocker project initiated by this government. The DigiLocker already serves to save government documents like birth certificates, passports, PAN cards, etc. This would save time and money of thousands of students, who run from pillar to post if their documents are lost.

A cause of concern that arises with the launch of this project is the potential imbalance in benefits between urban and rural students. Also, does the idea of creating a digital depository of school certificates only applies to the CBSE board or does it also include government recognised ICSE board and the respective state boards? The government should commit additional resources to fulfil its commitments under the BharatNet project and provide optical fibre connectivity to all 2.5 lakh gram panchayats. These panchayats should be further empowered to provide connectivity to public access points in the area. Coupled with the expansion in the scope of the NDLM, this would serve as a force multiplier and would empower rural students to leverage the benefits of the digital depository.

Skill India Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and Entrepreneurship Education and Training

The Skill India Mission and its sub-scheme, the PMKVY, work together and aim to encourage skill development for youth and provide a monetary benefit for trainees who are successfully trained and certified by affiliated training providers. It is defined as an outcome-based skill training scheme that rewards and aims to enable and mobilise a large number of Indian youth to take up skill training and become employable and earn their livelihood. The monetary reward for successful trainees, that range from Rs. 5,000 to Rs. 12,500, is disbursed to the trainees' Aadhaar linked bank account.

As of time of publication, there are 18.42 lakh individuals enrolled in the PMKVY of which just 40,327 are enrolled in the IT/ITeS sector and 55,289 are in the telecom sector. Together, they constitute roughly 4.5 per cent of the total number of individuals enrolled. The government has also proposed the creation of 1,500 multi-skill training institutes across the country which should increase the number of total enrolled individuals under the PMKVY. There has been an allocation of Rs. 1,700 crore for this endeavour.

The total number of enrolled individuals is a heart-warming statistic; however, to promote employment and entrepreneurship in the digital space, the percentage of individuals in the IT/ITeS and telecom sectors needs to increase.

Finally, the government has also pledged to provide entrepreneurship education and training in a total of 3,050 institutions (2,200 colleges, 300 schools, 500 government ITIs and 50 vocational training centres) through Massive Open Online Courses (MOOCs). These MOOCs, if delivered through the public access points connected to the BharatNet, can have an almost exponential reach across the country, in the most remote villages. Institutions like IGNOU and Khan Academy are already ahead, and have been providing MOOC content for a while. Media Lab Asia and even corporations have released digital literacy courses, which are available in the public domain for free-of-cost consumption. However, the question that arises is - if building and scaling up skill enough? What is the focus on quantity or quality of education? Won't the motivation among students to enrol for skill development increase if an almost equal number of job opportunities are created for them?

Agriculture Land Record Modernisation Scheme

Titles on land have frequently been a bone of contention across the country. It leads to disputes among friends, families and neighbours. These disputes are usually caused by inaccurate records maintained by the *patwari*. The use of geographical information systems (GIS) for the measurement of land holdings have been on the rise in the past few years. However, as the results

of these GIS-created land survey records may not be consolidated with the pre-existing land records, it may have led to continuing disputes.

The government has pledged to revamp the National Land Record Modernisation Programme under the Digital India Initiative and has provided Rs. 150 crore for this endeavour. While the citizen does not interface directly with the technology in this case, they do benefit greatly from this modernisation programme in terms of clear understanding of their titles and land holdings.

The *Bhoomi* project of Karnataka has been the first-of-its-kind project for online delivery and management of land records, which aims at providing transparency. However, nobody has heard about *Bhoomi* in the last decade. Maybe it would be a good idea to study the success and failure of this project before the Centre rolls out the Land Record Modernisation Scheme at a national level.

Unified Agriculture e-Marketing Platform

The government has proposed amendments to the state Agricultural Produce Marketing Committee Acts (APMC) and the introduction of a Unified Agriculture e-Marketing Platform. The amendments to the APMC Acts will empower state governments to use this electronic platform. As per the Budget announcement, 12 states have accepted the amendments to their APMC acts.

The platform aims to connect up to 250 agri *mandis* by September 2016, and up to 585 *mandis* by March 2018. State governments will be urged to launch the e-market platform to unify *mandis* in the state, thereby allowing farmers to sell their produce in any *mandi* of their choice. This unified platform will empower farmers with up-to-date information about the appropriate selling price for their produce, thereby ensuring fair remunerative prices and serving to double farmers' income over five years. Will it result in buying lakhs of PoS (point of sales) devices that will never be used for lack of training to use them? Or will it result in lakhs being spent in buying computer systems that will be left to catch dust?

Information asymmetry is one of the key drivers of under-development in the country.

The unified platform will serve to bridge that gap towards fair remuneration for farmers. We are pleased that the government is cognizant about the benefits of providing accurate and timely information to citizens but its efficiency is yet to be proved.

Conclusion

While this Budget has not treated technology in isolation with other schemes but tried to integrate the effective use of ICT across all important sectors, with the aim of a Digital India in mind, it is yet to be seen how all these plans will be implemented on ground. The mere installation of computers and connectivity is not the solution, the government must ensure that these facilities are utilised in an optimum manner by the people as well.

For example, out of the 2,50,000 panchayats, more than 50,000 have been provided computers and connectivity, but these facilities are almost never used. If automation facilities are being provided at every fair price shop (FPS), it is important to give training to FPS keepers.

Allocating a budget to impart digital literacy to six crore additional individuals is a welcome step, but it is also important to provide 'quality' training rather than simply providing some sort of a forced training. This means training of trainers is as important as the training of trainees. Thousands of our millions of schools have been provided with computer labs but, more often than not, teachers for various reasons never access those labs. Similarly, there are millions of pages of government orders, including details of hundreds and thousands of citizen entitlements, which have been scanned and converted into PDF files to be uploaded on several ministry websites – these files do not solve any purpose to any targeted audience as they are dumb papers, just stored online. Therefore, while digital interventions have massive strength in improving governance, the mere installation or introduction of technology is not enough. Right approach on the part of government, however, is what can make all the differences.

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A BOOST TO ORGANIC FARMING

Dr. Harender Raj Gautam, Dr. Rajesh Kaushal

In India, the traditional farming advocates for the use of farm generated bio-resources. Today, there is need to adopt such measures to get rid from the toxicity of fertilizers and chemical pesticides.

Viability of agriculture and its accelerated growth is vital for employment generation and food security of the country. Reviving the farm sector is a major challenge for the Central Government as it still accounts for about 54.6 per cent of total employment (Census 2011). The sector needs increased budgetary support as there has been a decline in the absolute number of cultivators, which is unprecedented, from 12.73 crore to 11.87 crore (Census 2011). Further, the present trends in the farm sector are also not encouraging as uncertain monsoon rains continue to cripple the agriculture growth which was a dismal 1.1 per cent in 2015-16.

Under these circumstances, Union Budget 2016-17 rightly focused its attention on agriculture and rural sector. A number of new initiatives were announced and budgetary allocations for rural development and farmers' welfare were hiked substantially. Budget also gave a boost to organic farming through various schemes and initiatives. In this article, we would focus on this organic part of the Budget 2016-17.

Promotion of Traditional Farming to Rejuvenate Agriculture

Paramparagat Krishi Vikas Yojna (PKVY) or programme for promotion of traditional farming is important to rejuvenate Indian agriculture. This scheme was started in 2015-16 with an allocation of Rs.300 crore. This scheme will provide the required impetus to the promotion of organic farming. This is a cluster based programme to encourage groups of farmers to take up organic farming. Under PKVY, fifty or more farmers will form a cluster having 50 acre land to take up the organic farming. Target in next three years to have 10,000 clusters formed, covering 5.0 lakh acre area under organic farming. There will

be no liability on the farmers for expenditure on certification. Under this scheme farmer will be provided Rs. 20,000 per acre in three years for seed to harvesting of crops and to transport produce to the market.

Our country is rich in all bio-resources required to promote organic farming. Hence it would be promoted by using traditional resources and the organic products will be linked with the market. It will increase domestic production and certification of organic produce by involving farmers.

In 2016-17, allocation under PKVY has been increased to Rs.412 crore. In addition, other continuing programmes and schemes of the Central Government like National Mission for Sustainable Agriculture (NMSA)/ *Paramparagat Krishi Vikas Yojana* (PKVY), *Rashtriya Krishi Vikas Yojana*



(RKVY), Mission for Integrated Development of Horticulture (MIDH), National Mission on Oilseeds & Oil Palm (NMOOP), Network Project on Organic Farming of ICAR are also helping in promotion of organic farming. The umbrella programmes under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), have also been expanded to cover various other programmes which will help to increase the agriculture production. Under MNREGA, 5 lakh farm ponds

and dug wells in rain fed areas to be taken up. Further, there is planning for creation of 10 lakh compost pits for organic manure.

In India, the traditional farming advocates for the use of farm generated bio-resources. It emphasizes the use of climate resilient local landraces of crop seeds. It advocates the use of mixed cropping and good soil health. Nutrients for the crops were achieved from the farmyard manure and composts. In managing pests and diseases in crops, the traditional soil solarisation, use of botanical extracts, cow urine and wood ash were in use. Today, there is need to adopt such measures to get rid from the toxicity of fertilizers and chemical pesticides. There is need to fine tune the traditional package and practices of crop production with the available knowledge inputs about the potentialities of the bio-resources. The traditional knowledge base can be strengthened with the use of microbes as fertilizers and pesticides. Other eco-friendly approaches of pest and disease management, can also be integrated to make crop production technology more effective.

India is bestowed with abundant potential to produce all varieties of organic products due to its various agro climatic regions. The total area under organic certification in 2013-14 was 47.2 lakh hectare. Cultivated area under certified organic farming has grown almost 17 fold in last one decade (42,000 ha in 2003-04 to 7.23 lakh ha in 2013-14). Need of the hour is to use the bio-resources, that India is bestowed with, judiciously. India has plenty of scope for bio-fertilizers and bio-pesticides which are the main constituents of organic farming. Crop protection is the main concern in the organic production. There are more than 200 plant species in our country, which can be used effectively for the management of diseases and pests. Among such plants, *neem* is one of the most important tree which has a great potential for disease and insect-pest management in India and other parts of the world. This single tree has such potential that it can meet more than 50 per cent requirement of our pesticides in crop production. India has more than 1.8 crore *neem* trees with seed potential of 4,14,000 MT which can yield 85,000 MT of oil and 3,30,000 MT of oilcakes. *Neem* pesticides have been reported to control more than 200 species of insect-pests,

nematodes and also effective against more than 50 diseases.

Growth of Organic Farming in India and the Global Status

Organic farming is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. Organic agriculture is practiced in 172 countries around the world and 4.37 crore hectares of agricultural land is managed organically by some 23 lakh farmers. The global sales of organic food and drink reached 80 billion US dollars in 2014. Australia is the country with the largest organic agricultural area (1.72 crore hectares, with 97 per cent of that area used for grazing), followed by Argentina (31 lakh hectares) and the United States of America (22 lakh hectares). The United States is the leading market, followed by Germany, France and China.

The Government of India has implemented the National Programme for Organic Production (NPOP). The main problem with organic production is the certification and certification standards. The national programme involves the accreditation programme for Certification Bodies, standards for organic production, promotion of organic farming etc. As export is the main target of organic production in the country, our certification standards should be in conformity with the world standards so that there is no hindrance to our organic exports.

It is heartening to know that the NPOP standards adopted by India for production and accreditation system have been recognized by European Commission and Switzerland as equivalent to their standards. Similarly, US Department of Agriculture has recognized NPOP conformity assessment procedures of accreditation as equivalent to that of US. With these recognitions, Indian organic products, duly certified by the accredited Certification Bodies of India, are accepted by the importing countries. India is having a total of 11 certification agencies which are accredited by the Agricultural Products Export Development Agency (APEDA) for inspection and certification of the organic agricultural products. The certification agencies may inspect the records and functioning of organic farms from time to time to ensure strict compliance to the norms.

A systematic research in organic farming can help further reduce the farming cost. The government agencies, private sector and producers have to play a symbiotic role in promoting and facilitating organic production and marketing. The important thing is that the nitrate content of organic fields is significantly lower due to avoidance of pesticides and nitrogenous fertilizers application in feed and fodder. Organic livestock farming releases much less carbon dioxide (CO_2).



Presently, India produced around 1.24 million MT of certified organic products which includes all varieties of food products namely Sugarcane, Cotton, Oil Seeds, Basmati rice, Pulses, Spices, Tea, Fruits, Dry fruits, Vegetables, Coffee and their value added products. The production is not limited to the edible sector but also produces organic cotton fiber, functional food products etc. Among all the states, Madhya Pradesh has covered largest area under organic certification followed by Himachal Pradesh and Rajasthan.

Organic value chain development in North East Region

The government has launched a value chain based organic farming scheme, called the Organic Value Chain Development in North East Region. The scheme aims at development of certified organic production in a value chain mode to link growers with consumers and to support the development of entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing, marketing and brand building initiative.

Under this scheme, a replicable end-to-end organic value chain models will be developed in each of the north eastern state with the integration of growers, handlers, processors

and market facilitation agencies. Further, 30-50 thousand farmers of north-eastern region (NER) will be empowered through the creation of about 100 farmer producer companies and equip such companies with full value chain under its ownership. Efforts will be made to convert subsistence farming to commercial organic farming with end-to-end facilities. This scheme aim to make North-eastern states as major suppliers of organic commodities for national and international markets. Crop production system will be improved to ensure higher productivity with better profitability. Organic parks/zones will be developed with facilities for collection, aggregation, value addition, processing, storage and market-linkages for specific commodities requiring capital intensive technology. Organic products produced in the NER will be developed as brands/labels through brand building and facilitating stronger marketing access under the ownership of growers' organizations/ companies.

The emphasis is on value addition so that organic produce grown in these parts find domestic and export markets. The North East Region is one of the focus regions of Government of India owing to its strategic location, cultural diversity and extremely rich agriculture and horticulture resource. The north eastern hill region of India consists of eight states viz., Assam, Nagaland, Mizoram, Meghalaya, Tripura, Manipur, Sikkim and Arunachal Pradesh. These States were identified for promoting organic farming at the early stage when the organic movement started to pick-up.

There is lot of scope for organic agriculture in the hills especially in the north eastern region of India. First, the use of inorganic fertilizers and chemicals is meagre in the region. The farmers of the region, in general and hill farmers in particular are having apathy towards use of agro-chemicals. Secondly, farming on the hills remained based on low input-low risk- low yield technology and the average yield of most of the crops remained far behind. The strength of north eastern hilly region for promoting organic farming can be summarized as under.

North Eastern Region (NER) is home to some niche crops like Assam lemon, Joha rice, medicinal rice and passion fruits which have high market

demand. NER accounts for 45 per cent of total pineapple production in India and an Agri-Export Zone (AEZ) is already set up in Tripura. Sikkim is the largest producer of large cardamom (54 per cent share) in the world. NER is the fourth largest producer of oranges in India. Best quality ginger (low fiber content) is produced in this region and an Agri-Export Zone (AEZ) for ginger is established in Sikkim. There are many advantages for organic farming in the North Eastern Region. Extent of chemical consumption in farming is far less than the national average. Approximately 18 lakh hectare of land in NER can be classified as "Organic by Default". There is thin population density per square kilometre. There is dependence of mid and high altitude farmers on within farm renewable resources which are important input for organic farming. In addition, there are time tested indigenous farming systems and use of indigenous technical knowledge in agriculture.

Despite the immense potential of organic produce in the region, there are many structural challenges in the form of lack of post harvest technology, supply chain, branding and certification of produce, lack of private investment and appropriate aggregation model for marketing of produce. It requires cold chain, storage facilities, processing facilities like drying units for ginger, turmeric, pineapple etc. There is need to create broad infrastructure with the development of export zones, packing houses with facilities of sorting, grading and packaging. Logistics and transport facilities are also important for early and timely access to the market. There is also need for creation of marketing infrastructure in terms of special economic zones, food parks etc.

Sikkim-The Role Model in Organic Farming

Sikkim has become India's first fully organic state by implementing organic practices on around 75,000 hectares of agricultural land. Sikkim achieved fully-organic status in December, 2015 and Prime Minister formally announced this at a sustainable agriculture conference in Gangtok on January 18, 2016. It was 12 years ago in 2003 when Sikkim decided to become an organic farming state through a declaration in the legislative assembly. Later the entry of chemical inputs for farmland was restricted and their sale

banned. Farmers therefore had no option but to go organic. This shows Sikkim Government's concern for preservation of the sensitive ecology and environment. The state with an average fertilizer consumption rate of 5.8 kg per ha, is the third lowest fertilizer consumption state in the country. Kerala is another State with mission to convert the farming practices to organic.

Organic farming began finding momentum in Kerala since the unveiling of a policy in 2010 that set the goal of converting the entire agricultural production in the State to organic within 10 years. As per the announcement of the State Government, agriculture will take the organic route by the end of 2016. Production of bio-control agents, bio-pesticides and bio-fertilisers, however, is yet to gain momentum in the public sector organisations. Stepping up their production is important to meet the needs of farmers and give a big push to the organic farm sector. At different levels, however, efforts are moving in right direction. In addition, States like Uttarakhand, Himachal Pradesh are also making good efforts to promote organic farming with accelerated efforts of the respective governments.

In this budget a new scheme, 'Rashtriya Gram Swaraj Abhiyan' has also been proposed with allocation of Rs. 655 crore. The scheme will help Panchayat Raj Institutions deliver Sustainable Development Goals. This scheme should also emphasize on harnessing natural resources so that farmers can make use of these resources in enhancing agriculture productivity. Farmers can be trained in making of vermin-compost, bio-pesticides so that organic farming is popularized.

In the last, we have to remember that agriculture needs priority by ensuring continuous infusion of investment in the form of technology and capital so that farmers are not constrained. The Budget 2016-17 reassuringly does that. It would certainly help India emerge as lead producer of organic products.

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A SANJEEVANI FOR LIVESTOCK SECTOR

Dr. M J Khan

Indian agriculture is a vocation that has been persistently pursued by more than half of the country's population. Although the contribution of the sector to the larger Indian economy is seemingly less significant, the way in which this sector is intertwined with the culture and ethos of the Indian population is profound. The involvement of a larger population has kept this age-old profession simple, and to a larger extent traditional. However, the ingress of better technologies in the sector is not rare, and the sector is seen vehemently espousing modern technologies with the changing demands of the sector.

Nevertheless, there is a sizeable section of farmers who still prefer to do the business old way. For them, agriculture is not a stand alone profession, but a part of a myriad of farm activities. Agriculture in many farms are practiced as mixed farming in conjunction with livestock which has, so far, been supplementing farmers' income copiously. The recent times have been particularly distressing for the Indian crops as two consecutive droughts have mercilessly thrashed them, reducing the farmers' income and profit to a pittance. Livestock which invariably forms a component of India's many non-descript farms, in a way has kept these farms and farmers alive and afloat.

The Vibrant Indian Livestock Sector

As the Economic Survey 2015-16 has rightly pointed out, the Indian agricultural system is predominantly a mixed (crop-livestock) farming system, with the livestock segment supplementing farm incomes by providing employment, draught animals and manure. But this does not reduce livestock to a dim ally of the agriculture sector. In fact, livestock sector is one of the fastest growing component of agriculture. A glance through the production numbers and statistics is enough to prove the point.

India ranked first in milk production, contributing 18.5 per cent of world production and achieving an annual output of 14.63 crore tonnes

during 2014-15 as compared to 13.76 crore tonnes during 2013-14, recording a growth of 6.26 per cent. The spurt in milk production even overtook the world average which has been pegged at 3.1 per cent in 2014 by FAO.

India occupies premier position in its livestock wealth with 21.5 crore cattle, 9.8 crore buffaloes, 6.1 crore sheep and 12.4 crore goats, thus being first in case of cattle and buffalo, second for goat and third, fourth and fifth for sheep, duck and chicken respectively.

Poultry, a segment deeply embedded into the rural fabric of India has showed immense progress lately. During 2014-15, India's egg production was recorded at 78.48 billion, while poultry meat production was estimated at 3.04 MT.



Fisheries constitute about 1 per cent of the GDP of the country and 5.08 per cent of agriculture GDP. The total fish production during 2014-15 was 10.16 MT, an increase of 6.18 per cent over 2013-14. Fish production during the first two quarters of 2015-16 has also shown an increasing trend and is estimated at 4.79 MT.

Livestock today has assumed an even bigger role considering its rapidly surging contribution to agriculture GDP. Today livestock controls more than quarter of the contribution from agriculture sector. This transformation is of significance considering the fact that more than eighty percent

of livestock is maintained by small and marginal farmers. Dairying has emerged as an indispensable component of rural India and for farmers as they become dependable sources of income and an asset that can be relied on at times of distress. Livestock presents a reliable employment avenue for rural youth and can also play a seminal role in empowering women financially. Considering the impact this sector has on the general well being of the Indian farmers and rural India, this budget has laid tremendous emphasis on this segment through some palpable gestures and initiatives.

Budget Bolsters Livestock

Union Budget 2016-17 has laid a tremendous amount of thrust on agriculture sector and has very emphatically advocated for rural development. A very exciting news as far as the livestock and dairying sector is concerned.

While the Union Finance Minister has structured his budget on nine pillars, it is heartening to find agriculture and rural sector find place among them. The government owes this much to the farmers for whom the year that passed was both tumultuous and harrowing.

A stand out gesture that was repeatedly highlighted by the media and the stakeholders in the budget was the declaration to double the farmers' income by the year 2022. Animal Husbandry can play a seminal role in bringing about this change. So the budget this year, has quite generously allocated Rs.850 crores towards the sector through four programmes which are truly innovative and pioneering.

'Pashudhan Sanjivani', an animal wellness programme and provision of Animal Health Cards ('Nakul Swasthya Patra'); an Advanced breeding technology; Creation of 'E-Pashudhan Haat', an e market portal for connecting breeders and farmers; and a National Genomic Centre for indigenous breeds have set the stage for ushering in a complete transformation in this sector.

Pashudhan Sanjivani, an animal wellness programme twinned with the distribution of animal health cards (Nakul Swasthya Patra) along the lines of soil health card, draws a pertinent correlation between animal health and output. Although India boasts of having the world's largest livestock

population and quite boisterously flaunts the credit of being the world's largest milk producer, we don't have the strength to compete globally in terms of productivity. Average productivity per animal per day in India is around four litres, which is much lower than countries like New Zealand and Australia, where it is around 20-25 litres per day per animal.

Considering the ineptitude of the small and marginal farmers to maintain proper health of their livestock and a virtually non-existent habit of maintaining a personal record of animal health indices, *Nakul Swasthya Patra* in a true sense will be revolutionary if implemented with the same intention. This 'health card' can help the dairy farmer to keep a record of his livestock, as well as information regarding the age and dates on which to carry out vaccination and insemination. The card would keep track of the veterinarian who has given the medicine, vaccination, artificial insemination and genetic background of the bull or semen used. **A record can be maintained by the farmers which would translate to the**



first step towards scientific management of the animals in India. Later on these health cards can be integrated with other animal welfare schemes for better reach and implementation.

Creation of '*E-Pashudhan Haat*' which is an e-portal for connecting farmers directly to the breeders, speaks of transparency and expediency. The earlier practice of depending on the middlemen to carry out the trading often takes away the simplicity and the honesty from the transaction. By bringing the farmers into contact with real breeders through a digital interface, is going to herald a new era in the livestock sector.

Another move that was hailed widely by the industry was the announcement on

National Genomics Centre. India's wealth of indigenous breeds has somehow never assumed centerstage in any of the government backed livestock programmes. The Indian breeds have thenceforth been neglected, abandoned and restricted to certain pockets without the desire to be conserved or strengthened. This Center finds resonance with the agriculture minister's sentiments of conserving the indigenous breeds of cattle. **The proposed genomics center holds the promise of unleashing the potential of many hitherto neglected breeds of cattle which would eventually help the farmers to improve their dairying productivity by inculcating the traits of disease resistance and climate resilience.**

Fully aware of the significance of organic agriculture, this budget has introduced new schemes – '*Parmparagat Krishi Vikas Yojana*' and "Organic Value Chain Development in North East Region". The former cherishes the ambitious dream of bringing 5 lakh acres under organic farming over a three year period. This indirectly speak volumes about the demand the organic manures are going to experience which is a byproduct of the livestock sector. Using cowdung as a manure for agriculture, is an age old practice. Even now, they are an important component of farm fertilization schedule especially in the mixed farms. With the recently acquired boost to organic agriculture, the demand for livestock byproducts is going to peak adding another reason for the rural India to maintain ample cattle heads.

A much heralded and celebrated announcement in the budget was its repeated emphasis on doubling the farmers' income by 2022. The prospect of doubling the income would not materialize without the participation from the livestock sector. It would be a gargantuan task for the government to bring about a marked change in the income patterns of the farmers, without involving the quintessential livestock segment. Livestock has always been a subsidiary of agriculture and hence complemented the income from agriculture. **Small and marginal farmers have limitations when it comes to expanding their crop production bases owing to obvious constraints of land area. Rearing**

cattle on the other hand, becomes a more practical and useful solution for them to raise their incomes. Over the past few decades, India's agricultural growth has hardly ever exceeded three per cent a year. Keeping in view the poor nature of agricultural growth, the National Agricultural Policy (NAP 2000) targeted a 4 per cent annual growth in agricultural sector by 2020, and emphasized livestock as an important driver of growth. The schemes introduced for the livestock sector in the budget, has the potential to enhance the productivity of the livestock and hence the incomes derived from this segment adding to the income of farmers. **The vision of the Prime Minister to double up the incomes would only become a reality if the livestock sector progresses and expands. This budget holds the key for that development.**

Today's rural India is an amalgamation of small farms, most often with land holdings of less than two hectares. In all likelihood, this will further deteriorate in future, restricting the farmers to derive benefits from crop production. Livestock thus is an important source of income for smallholders and the landless. Products like milk and eggs, are steady source of cash income, and live animals are important natural assets for the poor, which can be easily liquidated for cash during emergency.

Smallholders and marginal farmers, being the custodian of more than three fourth of livestock operations in India, a rapid growth in the livestock production will have a multiplier effect on agriculture and hence on rural prosperity. The budget has therefore rightfully accorded due significance to livestock, whether it is directly through programmes like '*Pashudhan Sanjivani*', '*Nakul Swasthya Patra*', '*E-Pashudhan Haat*', National Genomic Centre or indirectly through the stress on organic farming or with the clarion call to double the farm incomes. These measures are sure to usher in a technology backed scientific upheaval in the livestock sector of the country and hence a much more brighter and prosperous rural India.

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BOTH BUDGETS GOING GREEN

Dr. Rina Mukherji

The Union and Railway Budgets have, for the first time, been extremely explicit about "going green." This has found expression in a number of measures in keeping with the *Swacchh Bharat campaign* initiated by the Modi government.

Rail Budget

The Rail Budget 2016-17 presented by Rail Minister Suresh Prabhu set the ball rolling with a slew of green measures. Some of these are a follow-up of what had been introduced in the past, while others were new concepts designed to make the Railways usher in a greener culture in future.

As per the Rail Budget 2016-17, LED luminaire will be used for advertisement billboards and all new lighting in non-traction areas with the aim of reducing energy consumption by 10-15 per cent. Since LED lamps have a much longer life-span and are recyclable, they have low maintenance costs and consume 75 per cent less energy than the normal incandescent lighting, it would definitely result in a lower carbon footprint.

Rainwater harvesting systems are to be provided in all establishments with rooftop areas that are more than 200 square metres, and environment-friendly composite sleepers made of recycled plastic waste are to be set up over all girder bridges. Besides, solar plants of a total 100 MW capacity, and wind power plants of 132.5 MW are to be set up, and all production units of the Railways, as also at least one workshop in every Zone, will be turned into a green industrial unit. This is indeed laudable, and should help in saving a good deal of energy and water.

The Railways also intends to encourage floriculture and horticulture along the tracks, initiate waste segregation at stations, conduct awareness campaigns for cleanliness besides setting up storage facilities on vacant land for fishermen and farmers.

Most significantly, 30,000 new bio-toilets will be installed in trains. Portable structures with bio-toilets are also to be set up at select stations for women and differently abled.

A very important move is the widening of e-ticketing, cancellation and feedback facilities for paperless operations. Passengers can also request for 'cleaning of berths and coaches' through mobiles now. Meanwhile, a pilot scheme for sale of tickets through hand-held terminals, e-ticketing for foreign debit/credit cards, bar coded tickets, scanners and access control is also to be put in place, thus bringing down the generation of paper waste thus saving trees.

Union Budget

The Union Budget 2016-17 followed – in few days' time- with several bold measures to clamp down on pollution and pollutants.

Chief among these are measures meant to dissuade the use of private cars, and especially those that are diesel-operated. An infrastructure cess has been levied on all cars- small petrol, LPG and CNG



cars will attract 1 per cent, diesel cars 2.5 per cent, and SUVs and higher engine capacity vehicles will attract a 4 per cent cess. Electric vehicles, hybrid vehicles, three wheelers, hydrogen vehicles using fuel cell technology, cars for physically challenged persons, ambulances and vehicles registered for use solely as taxis are exempt from this cess. Based on the polluter pays principle, this is indeed a giant step ahead.

The budget has also doubled the Clean Energy Cess on coal and lignite from Rs 200 per tonne to Rs 400 per tonne. Knowing how polluting coal and the generation of thermal power from coal is, this is indeed a welcome step. In a bid to

improve public transport, metro projects have been allotted about Rs 10,000 crore. To bring in more private investment into the running of buses, the government plans to amend the Central Motor Vehicles Act.

The Budget also intends to promote organic farming through the *Paramparagat Krishi Vikas Yojana* (Promotion of Traditional Farming Scheme), for which more than Rs 400 crore has been allotted, LPG coverage is to be extend to all families, including those below poverty line (BPL).

The government also intends to develop an organic value chain in the northeast, to give a fillip to the marketing of traditional organic products. These measures will not only help conserve water and forests given the fact that organic methods of farming are known to minimise the use of water, as compared to modern, high yielding methods.

In all this, one finds a linkage and coherence hitherto never noticed ever. When the Railways talk of bio-toilets, green workshops and production units among other green measures, and the Finance Ministry talks of organic farming, renewable power and food security, we find that the government wants the various ministries to work in tandem with each other to conserve groundwater and harvest rainwater, decentralize power generation, promote organic farming to limit extraction of groundwater from underground reserves and enhance food security.

The building of storage facilities on vacant land by the Railways complements the government's desire to develop organic cold chains commodity-wise, in the northeast to provide support to cultivators through efficient storage and marketing.

The Challenges

But there can be many a slip between the cup and the lip. Policies need to backed by action to achieve what is intended. Take the case of organic farming. In spite of being the declared policy of several state governments all over the country, results have not been as expected. The scattered achievements seen are mainly the handiwork of non-governmental organisations and dedicated agri-scientists who have taken the initiative to

teach the basics of organic farming to interested cultivators.

Where vehicular pollution is concerned, higher allocation for metro projects is certainly in the right direction but lack of last mile connectivity causes many to shun metro services, especially when they must travel late. So bus services also needs to be improved.

The government is aiming to attract private investments for bus services. Private operators across the country can start intra and inter-state bus services on any route they find profitable. Unlike at present, private bus operators will not require permits from the respective state governments for every route they want to operate on.

Knowing that the running of private buses is profit-driven, one cannot solely rely on them. In rural areas, buses run by private entrepreneurs are absolutely unreliable; I still remember an instance in rural Bengal, when a privately-run bus suddenly announced that it was going no further, since there were not enough passengers for a profitable run. Locals told me that they rarely use the service since it is always erratic; they preferred using their bicycles to pedal to the nearest town—which was nearly 19 km away.

Coming to the Clean Energy cess being levied on polluting vehicles. In the rural hinterland, which lacks transport infrastructure, it would help to promote solar-powered vehicles as a necessary service. At the moment, a move to replace the highly polluting van rickshaws in the Indian Sundarbans with 3000 solar-powered vehicles by MNRE and the Mlinda Foundation has failed to make headway owing to the sole manufacturer of these vehicles hiking up the price. There are hardly any other options available; Tata Motors is working on a prototype—which is not yet ready for the market. Given the scenario, it would be better if some funds are allocated for research and innovation in this sector out of the Clean Energy cess, as also subsidies for Green Energy to give a major push to this sector. Given the fact that the government collected almost Rs 17,000 crore until 2014-15, and shall raise around Rs 25,000 crore in 2016-17, allocations for Green Energy would certainly be in order. But this fund needs to be effectively utilised.

What Should the Government Do ?

In fact, it would help if the Clean Energy cess is utilised for innovation in transport, and particularly in developing prototypes in solar-powered passenger vehicles.

Where Renewable Energy is concerned, it would help if the government directs more subsidies towards the solar and renewable sources. Although, as a tropical country, India has access to adequate sunlight round the year, yet solar power is a capital intensive option. Research and innovation in this sector needs to be encouraged, particularly in those areas where power grid is difficult to extend. This can ensure running water to flush toilets, run irrigation pumps, and ensure primary health-care facilities through decentralized off-grid or micro-grid loops. Since the government aims at 100 per cent electrification of villages, renewable power is the best, and –in many instances–the only option. Besides, renewable can also help tide over the power outages and voltage fluctuations of the (power) grid that characterize it during peak hours, especially during summer, when irrigation requirements increase manifold.

There is also a major need to improve coal technology and reduce pollution from thermal power plants. This could easily be done out of the Clean Energy cess and shall be in keeping with the Government's declared intention to clean polluted rivers, such as the Ganga and its tributaries. This fund should be used for renewable energy, clean coal technology, and pollution control, particularly for thermal power plants. The doubling of cess demands clear protocol for spending for effective results.

Herein, it would help if the government's intention to promote renewables be tied up with the aim of giving rural India a developmental thrust. In many parts of the Indian Sundarbans, solar power is not just bringing light to millions but also improving sanitation through pumps that direct water into overhead storage tanks, and hence flush toilets to keep them clean. In fact, solar panels have been successfully used to even run computers for rural Bengal through mobile vans.

Given the problems of storage that solar power faces, the Clean Energy cess can be utilised

to promote research and innovation to improve solar storage.

It would also do well to explore options where a mix of renewables –such as solar and wind or solar and biomass can be successfully used. Rice husk systems, bagasse and other agricultural waste, for instance, that are currently being used to generate power, can be used in conjunction with solar or wind energy to meet the needs of under-served rural India.



Bio-Toilets & their use/misuse

A word of course, on bio-toilets. The 2016-17 rail budget intends to retrofit all trains with bio-toilets in a bid to endorse the Swacchh Rail, Swacchh Bharat campaign. Here, it should be remembered, the Railways have been trying to retrofit trains with bio-toilets since 2008. But the results have not been always good. The first such attempt resulted in the bio-toilets being dismantled due to the breeding of cockroaches and insects. Several other attempts to do away with the old toilets came to naught, due to the problems in maintenance.

Maintenance apart, passengers will need to learn to use the toilets carefully. Where bio-toilets are concerned, no paper, plastics or cigarette butts can be thrown into the commode. As a frequent traveller, I have often come across blocked wash-basins in trains owing to passengers washing containers and dropping foodstuff in. Bio-toilets require a lot more care; the problem is –in many trains where they are installed, instructions are available in English alone. It is important that these instructions are available in not just English /Hindi, announcements need to be made regularly to educate and instruct passengers about how these are to be used.

The Railways have announced an awareness campaign to maintain cleanliness in trains and stations. It would do well to tie this up with a campaign on how to use and maintain bio-toilets too.

Organic Chain for the Northeast

The Organic Value Development Chain for the Northeast, with an outlay of Rs 125 crore is a good move to develop the agricultural potential of the Northeastern region. Fertile and green, this is one region that produces some rare rice varieties and a plethora of fruits which, in the absence of marketing initiatives and storage facilities never fetch the kind of value they should command. The Budget promises to build up a chain involving storage and marketing –in a commodity-specific manner with measures to promote entrepreneurship and employment.

Since this would mean the use of skilled manpower, well-trained in basic technology, to maintain the storages, it would also involve strengthening the existing industrial training institutes (ITIs) in the northeast. At the moment, these are in such a sorry state, that industries operating in the region need to impart basic skills to workers recruited from these institutes.

It should be noted that while India has grown to become the largest producer of coconut, areca nut, cashew, ginger, turmeric, black pepper and the second largest producer of fruits, vegetables and tea. The production of foodgrains has risen from 82 million tonnes in 1960 to nearly 252 million tonnes in 2011-12 – that is, 3.07 times, but storage facilities have failed to keep pace.

According to a Planning Commission Report, the total storage capacity at an all-India level stood at just 62.5 million tonnes (as on 30 Nov 2011), of which 17.20 MT was in the form of Cover and Plinth (CAP), that is uncovered save for a raised platform and temporary cover. Of this, 67 per cent of the storage capacity is concentrated in 6 states-Punjab, Rajasthan, Haryana, Uttar Pradesh, Uttarakhand and Andhra Pradesh, **with the northeast accounting for less than 2 per cent of storage capacity.**

Further, most cold storages are outdated, having been designed in the '60s, and meant for only storing potatoes. Given the fact that the

northeastern region is one of the largest producers of fruit and vegetables varieties, cold chains will need to be suitably designed to give cultivators an advantage.

Moreover, the current system of open markets has resulted in consumers paying high prices, while the farmer gets the lowest possible price for his produce. A marketing arrangement wherein "*privately coordinated supply chains*" vertically integrated by a variety of anchor players, such as Producers Organisations, the Branded & Packaged Foods Companies, Food Processors, Large Wholesalers and Retailers, Exporters, with Anchor Buyers at the front-end and crop management programmes with Farmers at the back-end would best benefit the cultivator, and, according to the Planning Commission, be best suited for the requirements of the horticultural sector.

The allocation for MGNREGA, in this budget, at Rs 38,500 crore is the highest ever earmarked in a year (Last year, it was Rs 34,699 crore). This will be used to dig at least 5,00,000 farm ponds and wells in rain-fed areas, and 10 lakh compost pits in the coming financial year. Compost pits are an inseparable part of organic farming, and should yield impressive results provided additional storage capacities and cold chains are established in tandem.

The government intends to give a boost to organic farming through '*paramparik*' (traditional) methods to enhance food security. Traditional farming in India was not just organic but characterised by seed banks and exchange of seeds among farmers. These traditional practices too, will need to be promoted if organic farming is to thrive in India. For this, the government needs to rethink about GM seeds promoted by multinational companies, as also modern, hybrid, or high-yielding seeds which cannot be re-used by farmers.

Conclusion

We certainly acknowledge the 2016-17 Rail and Union Budgets as, the 'greenest' and hope that they live up to our expectations.

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ONE INDIA, GREAT INDIA

Sunil Kumar

India, the vast land, cared and reared, like a small baby, for time immemorial by the mighty Indian ocean, Arabian sea, Bay of Bengal on the three sides and great Himalaya on the forth. The land of envy for invaders from the Alexander of Greece to the Chengez Khan of Mangolia .The goal of many sea-adventurers from Magellan to Vasco-De-Gama. The land of spices. The land of Thar desert, rain and deciduous forests. The land of Bengal Tigers, rhinos, elephants, peacock and the king cobra. The land loved and nourished by mother Ganges, Satluz, Krishna and Periyar. The land of Lord Rama, Akbar the great and the mighty Ashoka. the land of guru Nanak, Mira, Kabir and Tulsi das. The land of Subhash, Nehru, Patel and Abul Kalam. The land of Dhyanchand, Kapil and Sachin. The land of Amithabh, Shahrukh and Aamir. The land of many for centuries. The land once known as Bharat and Golden Sparrow. The land also called '**Indian Peninsula**' on the world map became the abode of many races and cultures in course of time. All of them flourished together side by side and entwined into an inseparable strands of **Unity in Diversity**, the DNA of great India.

At present it is divided into various states from North to South and East to West, having their own cultures and languages. The beautiful valleys surrounded by snow clad sky, touching mountain peaks in Jammu and Kashmir, **the heaven on earth**, the lengthy and barren **cold desert** of Ladakh, **the land of lamas**, boasting of the silk route and double hump camels, the valley of flowers, **abode of**

millions fully bloomed petals of Uttarakhand, fertile orchards of delicious fruits of Himachal Pradesh, **the land of Gods**, together make the crown worn by the great peninsula. These states are always on the top charts of the tourists and adventurers. Some of the most allusive and endangered species like Snow Leopard, Yak, double hump camel, musk deer, bharals, monal etc. are found here. The most beautiful lakes and mighty glaciers make it rich terrain and help the plains by nourishing and watering them. Siachin glacier boasting as the highest battle field in the world. The herds of yaks and pashmina goats along with lamas in maroon robes and their tent colonies make a picturesque view in the foreground of the barren cold desert. The chants of '**Allah Hu akbar**' in mosques and '**Om Mani Padme Hum**' rhymes vibrate and echo in the gompas of these valleys.

Punjab, **the land of five rivers**, Haryana, Uttar Pradesh and Bihar, the land of Budhha and Mahavira, together constitute the most fertile plains on earth. These states are the known as feeder states of the land. Hence the throne of Delhi always remained the fantasy and envy of the invaders.

Rajasthan, Gujarat and Maharashtra, **the land of warriors**, who fought for their land till the last drop, constitute the left arm of Mother India. The great Thar Desert, Raan of Kuchh and Arabian sea are the jewels of these states. People are tall, stern and sturdy known for their different turbans and long moustaches.



Seven eastern states, Assam, Meghalaya to Arunachal Pradesh, are fondly known as '**seven sisters**' are the right arm of Mother India. The dense rain forests are making them rich in flora and fauna.

Madhya Pradesh, Chhattisgarh, **the land of gonds**, Orissa and Jharkhand are the **mineral mines** making the country energy rich. Most of the Indian tribes with original habits and habitats are residing in these states.

Southern states constitute the mighty legs of Mother India. People are of Dravidian race. Karnataka is the home of science and technology. Andhra and Tamil Nadu are the exporters of the sea foods. Kerala is the land of spices and Ayurveda.

Sikkim is the leader of organic farming and West Bengal is famous for its "Adda on chai" or tea argumentation clubs and the abode of music. The famous Howrah bridge of Kolkata is situated here on the Hugli River.

But sadly, the land of such a great possession is stigmatized by some narrow minded and shortsighted people. By their petty and selfish motives they are motivating and instigating the people towards the narrow attitude. They are somehow limiting them in to a small and narrow mentality of religion and region, which in turn is affecting the broad view of great India. The very foundation of the mighty Bharat will be eaten by these mites, if not controlled at the earliest. Instead of hauling the people into a region or religion and in one culture they must be encouraged and motivated to cross- cross the boundaries and learn from each other. This is the real mantra of unity in diversity, the pride of any nation. This is the soul of the new scheme announced by government – ***Ek Bharat Shreshtha Bharat***. This task must be supported by the government at center as well as by the state governments. There must be some policies to award and sponsor such feats by government bodies and NGO's.

It must be the collective task of civil society and the private sectors to effectively implementing the policies of national integration and cultural mixing. Under the corporate responsibilities the private sectors must come forward and participate in such endeavors. They may lend their support and suggestions, if necessary, to the government. No government, alone, can implement its policies without the participation of people. With the advent of transportation and communication the time and

distance have shrunk and the world has become a global village. The revolution of the technology has revolutionized the speed, especially the smart phone and net revolution has provided the humans the long awaited freedom of expression. Today they can tell and vent their hidden voice boldly through the social media. The smart phone has brought the world onto the palm. The same tools can be effectively utilized by the government and the people to connect among themselves. The government of India has taken some smart steps by itself in e-government and digitalization. Now anyone from anywhere in the world can suggest and comment on its policies. Now people are more involved and feel themselves part of it. This inclusive approach is a big boost to the morale of people.

But as it is always true that technology is a great friend and the worst foe, it must be carefully used and monitored or it could bring havoc and jeopardize the nation itself. To avoid such catastrophe, the people have to shoulder the responsibilities and make the policies of the government, the movement as their own. The success stories of the successful people, who took the lead and risk, must be documented into films and biographies and circulated among people. There must be movement and zeal among people to know and learn about the other lands and cultures. Children should be encouraged and motivated to go on cultural and study tours. **Schools and institutions must organize small and big tours around their own village as well as in other states. Government must come forward to sponsor and subsidize these tours. New friends, made during the tours, must be kept in touch through the mobiles or social media. The sweet memories of the tours must be documented in small movies and in diaries.** One must generate the hunger and craving for touring. One tour is equal to hundred books.

Union is strength. Together we stand, divided we fall. We have been studying these lines since our childhood.

So, let's be one strong bundle of twigs rather than many weak twigs, broken easily by anyone. Let's paint these twigs with the colors and hues of our cultures and uniqueness. Let's make it our land rather than my land. Only the one and great India can sustain the shock waves of the catastrophes and disaster around her.

**(Author is a social & environmental activist
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INCLUSIVE BUDGET 2016-17

Dr. K. K. Tripathy

The Union Budget 2016-17, amidst perceived distress in rural areas induced by two consecutive droughts in as many years, tried to step up its focus on agriculture and rural economy. As per the estimates of Central Statistics Organisation (CSO), the growth rates in the agriculture and allied sectors in 2014-15 was recorded at dismal -0.2 per cent and for the year 2015-16, it has been pegged at 1.1 per cent.

The Budget took timely cognizance of the impending crisis-like situation in the rural farm and non-farm sector and its potential role in ushering an overall positive economic scenario in the country. It intended to focus government policy intervention in this important sector and aimed at establishing an enabling atmosphere for poverty reduction, job creation and infrastructure development. It also appropriately acknowledged the role of agricultural sector in ensuring the country's food security, and tried to frame a road-map for making the agri-activities remunerative and income-secure.

Since the agriculture and rural development have the potential to propel India into a double-digit growth trajectory in long term, this paper tries to analyse some of the pronouncements made in the Union Budget 2016-17 on agriculture and rural development

Agriculture and Farmers Welfare

Budget 2016-17 was presented in challenging environment. Our exports are declining, global economy is sluggish and fiscal deficit was also to be contained within limits. Usually, the governments focus on productivity and yield growth in agriculture but the agri-policy during 2015-16 highlighted deterioration of soil health in the Indian agriculture due to unbalanced use of fertiliser, pesticide etc. Hence a sub-scheme for Soil Health Management was conceived under National Mission of Sustainable Agriculture.

The Budget has assured its continuous support for the ambitious Soil Health Card Scheme (SHCS) launched and dedicated to the nation

by the Prime Minister on 19th February 2015 in Suratgarh of Rajasthan. The objective of the scheme is to get information about nutrient level of the soil and to ensure productive use of fertilisers and pesticides. The Budget has provided Rs. 368 crore for National Project on Soil Health and Fertility and also facilitates provision of around 2,000 model retail outlets of fertiliser companies with soil and seed testing facilities during next three years (2016-19). Since budget announcements need appropriate targeting and timely implementation of the development activities, it is expected that the government would devise an effective and smooth road-map to cover India's 14.1 crore farmer households without compromising on the quality of soil testing and its rightful citation on each of the soil health cards. It is also high time that the farmers are educated to adopt integrated pest management along with integrated nutrition management as a cardinal principle of plant and soil protection strategy. To make the government effort in soil health management successful, farmers need to be educated intensively about importance of soil health and in various methods of pest and weed control e.g. mechanical, bio-pesticides etc. Minimal and judicious use of chemical pesticide and fertilisers, undoubtedly, would be a great support towards organic farming, that government is trying to promote.

The Budget 2016-17 has given a further fillip to Ministry of Agriculture's two foremost organic farming promotion schemes – *Paramparagat Krishi Vikas Yojana* (PKVY) and Organic Value Chain Development for North Eastern Region. The budgetary support for these two initiatives registered a 9.9 per cent increase over last year's allocation.

While PKVY aims at bringing 5 lakh acres of agri-lands under organic farming over the next three years period, Organic Value Chain Development for North Eastern Region would enhance value addition in agriculture and horticulture products in seven North Eastern States and Sikkim which have high potential for organic farming.

Sustainable farming is the need of the hour. To make this happen, country's agricultural institutions and universities along with the

implementing States, need to undertake research on environment friendly farming techniques and practices. They need to focus on improving productivity, efficiencies in resource use and enhancing product quality. Equally important is to disseminate all such agri-research and improved agri-practices among farmers in the local, easy to understand languages. This would only ensure an organic revolution in the country.

The Budget acknowledged the declining growth rates in agriculture and allied sector. The country has also witnessed a decline in the area coverage of food-grains. Considering irrigation coverage of only 46% of net cultivated area and significance of irrigation in enhancing agricultural production and food security, the Budget focused on strengthening *Pradhanmantri Krishi Sinchai Yojana* (PMKSY). The scheme targets to irrigate the field of every farmer and improve water use efficiency. The Budget hopes to bring 28.5 lakh hectares under irrigation under this scheme.

Access to both domestic and international markets, for realizing appropriate income level, is critical for our farmers. The positive and improved agricultural terms of trade which was a major reason for cheer among the exporting farmers, started deteriorating since 2010-11 and continued up till 2015-16. The rigidity in the domestic agri-marketing through local *mandis* has led to the realization of low prices by farmers in these markets.

Realising the critical importance of a transparent and effective agri-market for a farmer, the Budget has supported rolling out of a unified agricultural marketing electronic platform. This will be started first in selected 585 regulated wholesale market points. The real challenge, however, is that the States need to amend their Agriculture Produce Marketing Committee Acts (APMC Acts) and suitably customize it to facilitate this national agricultural market so as to ensure maximum price realization for farmers.

One cannot deny the fact that the Indian farmers suffer from various structural disadvantages arising out of small and fragmented landholdings, depletion in soil quality, lack of access to markets and technology, low level of productivity and income, etc. Inadequate attention to these factors has been the prime reason for not

witnessing equitable and desirable improvements in productivity and yield during the post-green revolution era.

At this juncture, a budgetary big push was needed to boost the initiatives proposed under '*Krishonnati Yojana*' – an umbrella programme for various development programmes / Schemes viz. Soil Health Card, integrated scheme on Agriculture Cooperation, Agriculture Marketing, Agriculture Census & Statistics, Horticulture, Sustainable Agriculture, National Agri-tech Infrastructure. Hence these schemes witnessed a whooping 29.66 per cent hike and got Rs. 7,579.79 crore in Budget 2016-17.

Crop Insurance and Rural Finance

Just a few days before the Budget 2016-17 announcements, the government expressed a need for an effective crop insurance scheme for farmers welfare and approved the *Pradhan Mantri Fasal Bima Yojana* (PMFBY) and a pilot Unified Package Insurance Scheme (UPIS). The PMFBY, upon its implementation, would replace the existing National Agriculture Insurance Scheme (NAIS) and Modified NAIS from Kharif 2016. This new scheme has got Rs. 5,500 crore in the Budget and aims to extend farm insurance coverage from the existing 23 per cent to 50 per cent of gross cropped area in next two to three years.

PMFBY has a few innovative provisions for expanding the coverage of crop insurance and making this scheme popular among the farmers in rain-fed areas. Some of the changed provisions, *inter alia*, include enhanced risk coverage in the crop cycle from pre-sowing to post-harvest losses, undertaking area approach for settlement of claims to the village/Gram Panchayat level, reduction of premium paid by the farmer, ensuring full claim settlement in case of crop loss, claim payment through direct benefit transfer, use of satellite technology in the estimation of crop loss and related damage settlement and e-based monitoring for transparent insurance claim payments.

The Budget 2016-17 attempts to boost agri-investments through direct and indirect financing by nationalized and their sponsored rural bank branches by ensuring effective and hassle-free flow of agriculture credit to the small and marginal farmers and by enhancing private investment in agriculture and agri-supply

chain infrastructure in rural areas. The Budget 2016-17 underscores the importance of timely and adequate flow of rural credit by setting up an ambitious target of Rs. 9 lakh crore of credit target during the next fiscal against Rs. 8.5 lakh crore pegged in 2015-16. Rs. 15,000 crore has been provided in the Budget Estimate 2016-17 towards interest subvention on farm loans to ease the burden of loan repayment by farmers.

The financial needs of the farmers and rural entrepreneurs have increased manifold with the passage of time. While the intention of Budget 2016-17 in meeting these ever-increasing credit needs of millions of poor and low income citizens is praiseworthy, availability of adequate number of formal financial institutions and accessibility at the door-step are the need of the hour. In the field of rural financing, the real challenge is now to cover all the households with the banking/formal financial network and strengthen these institutions to render financial services to the poor and needy rural masses. For this, local farmers' group, Self Help Groups, Joint Liability Groups, Banking Correspondents etc. could be roped in by formal financial agencies.

Skill Development

The Budget has laid prime focus on education, skill development and job creation. To ensure entrepreneurship to the doorsteps of millions of youth, the Budget has proposed establishment of 1,500 multi-skill development centres with an allocation of Rs. 1,700 crore. Target is to develop entrepreneurial skills in one crore youth in the next three years. This indicates the government's seriousness to give right direction to country's demographic advantage.

A host of other initiatives like Digital Literacy Mission Scheme for rural India, entrepreneurship education and training through massive open online learning courses through selected schools, colleges, Government Industrial Training Centres and vocational training centres may go a long way in imparting quality education to youth. This would also bring standardization in education and improve skill-sets of youths. Setting up of a National Board for Skill Development Certification would remove the difficulties in the skill certification across different sectors and would ensure easy acceptability of youth

in skill based manufacturing and services sectors.

Developing Dairy Sector

The Budget has acknowledged the significance of dairy sector in enhancing the earnings of the farmers in rural areas. To make dairy sector more remunerative, the Budget has proposed to introduce four new projects to promote animal wellness, advanced breeding technology, marketing infrastructure and boost productivity of indigenous breeds through a National Genomic Centre at a total cost of Rs. 850 crore. Dairy has traditionally been a partner economic resource to the farmers. Improved technology and investment surge into this sector would help in attracting the country's youth towards this sector. Employment generation in dairy sector would restrict rural-urban migration and exodus from farming activities.

Rural Roads

The Budget reposed its faith in *Pradhan Mantri Gram Sadak Yojana* (PMGSY) which has managed to successfully connect the most underdeveloped and remote habitations. Rs. 19,000 crore have been allocated to PMGSY which would allow the States to lay new roads and improve the existing ones in villages and hamlets. This connectivity would ensure that farmers have easy access to market and get better price for their produce as compared to the existing local area markets.

Rural Wage Employment

Government continues to give serious focus on rural employment generation through its flagship scheme—MGNREGA. The scheme has been successful in building quality and productive community assets. Its effective workability is a thing to note in a rural set up riddled with high incidence of poverty, low work participation, increased casualization of labour and heavy dependence on agriculture and non-farm sectors. The Budget allocation for the scheme has been pegged at Rs. 38,500 crore, highest ever.

Several studies on the effectiveness of MGNREGA indicates that the works taken up under this right-based programme, if planned properly with the assistance of technical resource personnel at the local level, could revive the agri-economy at a large scale. It is also well documented that today's

rural India requires sufficient work opportunities to meet the burgeoning demand for casual wage employment in the agriculture as well as rural non-farm sectors. The positive impacts of MGNREGA have prompted the government to remain committed to supporting this right-based rural wage employment programme with a view to broaden occupational choices and to assure generation of employment opportunities in the rural areas along with creation of productive quality community assets.

While allocating Rs. 38,500 crore, the Finance Minister underscored this wage employment programme in supporting irrigation and soil health management efforts by taking up more than 5 lakh farm ponds and 10 lakh compost pits for production of organic manures in rural areas. It also proposed to set up cluster facilitation teams under MGNREGA to ensure water conservation and natural resource management.

Although public works programmes like MGNREGA are prone to leakages and corruption, transparency and accountability provisions are in-built into the rights-based MGNREGA. The real challenge is how the Centre guides the States to implement the provisions made in the Act without compromising the basic spirit and objectives of the Act.

Concluding Remarks

As many as 68 per cent of country's population lives in rural areas and 49 per cent of the total workforce is dependent on agriculture. Amidst rising distress in rural areas due to two consecutive droughts and a slowdown in the global commodity prices compelled the Budget 2016-17 to lay a major focus on rural India and transform farm and non-farm sector by pushing up total aggregate demand in rural areas.

The Budget 2016-17 announcements have attempted to match the need of the occasion for restoring the rural growth engine. Undoubtedly, the Budget has diagnosed the problem areas on the country's development sphere and has prioritised the utilization of public resources accordingly. The Budget, though, has laid down the broad contours of rural economic policies and prepared a realistic road-map for sustained farm and non-farm

sector growth, a lot of coordination is required between the Centre and the States.

The Budget 2016-17 embodies a statement of positive economic intent and growth oriented policy directions. This is evident from the budget allocation to agriculture, irrigation, rural development and drinking water. While allocation to agriculture and irrigation, taken together, recorded 84 per cent hike in Budget 2016-17 over the previous year, rural development and drinking water budget allocation (Rs. 1.01 lakh crore) witnessed 13 per cent rise against the 2015-16 (Rs. 90,185 crore). Besides, measures related to rural electrification, swachh bharat abhiyan, self-help groups, social sector, education and skill development are expected to boost rural demand significantly. Rs. 2.87 lakh crore allocation to local self-government institutions would most likely improve rural demand provided these funds are effectively and efficiently spent on the activities as budgeted for.

While drought and rural distress are on the radar of the Budget, large allocations to rural and agriculture sector themselves do not guarantee positive outcomes. Thus, it calls for timely and appropriate execution of development schemes/programmes by clearly delineating intended outcomes for the outlays prescribed in the financial year 2016-17. Agriculture and rural development schemes are being implemented by the States and their successful implementation not only requires a perfect team-based and team-coordinated development strategy, but also needs a continuous free wheel team communication between the centre and the States. Then only the objectives of universal rural connectivity, income and employment, sanitation, skill development and irrigation could be achieved as indicated in the broad development vision 2022 of the government. Last but not the least is that the intent and the pro-farmer, pro-poor direction of the Budget 2016-17 would be achieved only if periodically extensive review and monitoring of the progress of the schemes are made and mid-way course corrections taken at regular intervals.

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RAIL BUDGET 2016-17: CONNECTING INDIA, CREATING JOBS

Devendra Kumar

Indian Railway is the life-line of the nation. Its vast network connects the length and breadth of our country, with millions travelling by trains every day. It is the world's fourth largest rail network after U.S, China and Russia. It is not merely a mode of conveyance, rather it pervades all dimensions of the Indian nation - cultural, social, economic and religious. It unites the diversity of India.

Our former president Dr. Abdul Kalam, famously said that his first train journey from Rameshwaram to Delhi helped him understand the diversity of the nation better than any book could have taught him.

Thus improving and expanding the railway services is of paramount importance for the country. Rail Budget, traditionally presented days before the Union Budget, lays out the broad roadmap for this.

This year, the Railway minister Shri Suresh Prabhu in his second Railway Budget, on 25th Feb 2016, focused on the idea of diversifying Railway income and ambitious target to expand its infrastructure, improve the customer services and to regain the lost modal share. To achieve these objectives, Railway Minister has outlined three strategies:

- | | |
|------------------|--------------------------|
| "Nav Arjan" | – For New Revenues |
| "Nav Manak" | – For New Norms/Policies |
| "Nav Saranchana" | – For New Structure |

The budget is reform-oriented budget focused on consolidation of vision set out in earlier budgets, to achieve this the following structural changes will be made:-

- Undertaking new beginning – NAVARAMBH
- Structural interventions and organizational restructuring – NAVNIKARAN



- Improving planning practices – **SASHAKTIKARAN**
- Forming a holding company of companies owned by IR – **AEKIKARAN**
- R&D- **SHODH AUR VIKAS**
- Special Railway establishment for strategic tech & holistic advancement – **SRESTHA**
- Data Analysis – **VISHLEHSAN**
- Special unit for transportation research and analytics to be set up – **SUTRA**
- Innovation – **NAVRACHNA**

Finance is the blood of any organization. To reform and implement the above mentioned agenda, Railway Minister has given financial vision as follows :-

Financial Performance

For the year 2016-17, Operating Ratio of 92 per cent, (Railways will spend 92 paisa to earn a Rupee) is expected after including the immediate impact of the 7th Pay Commission, as against 90 per cent likely to be achieved in the current year. It is pertinent to note that the Ordinary Working Expenses (OWE) grew by 32.5 per cent in 2008-09 due to the impact of the 6th Pay Commission while the target is to restrict the growth of Ordinary Working Expenses by 11.6 per cent for 2016-17. Further, with an optimistic outlook for the economy and various measures outlined later, there is a hope to generate revenue of the order of

Rs. 1,84,820 crore in next year, 10.1 per cent higher than the revised target for the current year.

Investments and Resource

Railways have managed to break away from the average capital expenditure of Rs. 48,100 crore over the period 2009-14, and an average growth of only 8 per cent per annum, to achieve a quantum jump. This year, the investment would be close to double of the average of previous years – a feat never achieved before. For the year 2016-17, the capital plan has been pegged at Rs. 1.21 lakh crore.

Vision of Indian railways

The vision of Railway is to provide the citizens of this country a rail system that they can be proud of – a system free from capacity constraints, a system that is efficient and predictable, a system that is sparkling and pristine, where the people of this country feel at ease, where there is plenty of choice in every sphere of activity, and the ease of doing business pervades the entire railway ecosystem.

By 2020, we look forward to meet the long-felt desires of the common man:

- Reserved accommodation on trains being available on demand.
- Time tabled freight trains with credible service commitments.
- High end technology to significantly improve safety record.
- Elimination of all unmanned level crossings.
- Punctuality increased to almost 95 per cent.
- Increased average speed of freight trains to 50 kmph and Mail/Express trains to 80 kmph.
- Semi high speed trains running along the golden quadrilateral.
- Zero direct discharge of human waste.

This Budget owes its inspiration to the vision and leadership of our Prime Minister Shri Narendra Modi. He had once said, "My vision is to make railways the backbone of India's progress and economic development." We are making all out efforts to translate his vision into reality.

Our core objective is to improve the quality of customer experience at the individual level, become an engine of employment generation and economic

growth at the national level and convert India's largest institution into a template for transformation.

How to achieve the goal : Way ahead

Railways will continue to build on this momentum and strive hard to ensure satisfaction for each of the 7 billion passengers that ride IR's network annually.

This budget focuses on the common man's comfort. It keeps in mind the welfare of all, especially the farmers, workers, women, disabled and the impoverished. *Sabka saath, sabka vikas* is not just a slogan, it provides the government direction of thought and actions. Every customer is our brand ambassador, the very reason of our existence. Therefore, each time that he or she travels, the satisfaction quotient must go up. That is our endeavor.

For the unreserved passenger – *Antyodaya Express* and *Deen Dayalu* coaches

This government truly believes that the fate of India would not change unless the lives of the common men and women improve. For this purpose, *Antyodaya Express* will be introduced, a long-distance, fully unreserved, superfast train service, for the common man to be operated on dense routes. This will increase mobility of labour forces. Specially The rural masses, who are unskilled. They would get better job opportunity and a better synergy would develop between industry and labour.

Railway will also add two to four, *Deen Dayalu* coaches in some long distance trains for unreserved travel to enhance our carrying capacity for the masses.

Cleanliness

Taking forward the momentum on '*Swachh Rail, Swachh Bharat*', Railway will take a string of measures to improve the cleanliness on stations and trains. This will help in generating the employment for locals and specially the unskilled rural youth. The Swach Bharat Abhiyan and Rail Cleanliness can be clubbed together and the better job opportunity to locals can be provided through MNREGA for this purpose. Railway has more than 12,000 trains and 7,500 stations, this will give boost to employment as well as ancillary business for cleaning related materials.

Better catering facility with Local cuisines

To provide quality food is always a challenge for the Railways. In this budget, provision has been made to collaborate the start-ups, SHG and IRCTC to provide local cuisines with different flavours to onboard customers. Due to smart phone and different online food apps, it is possible to supply the local cuisine/catering services to individual passenger as per their demand. This initiative will drastically raise the demand for local fresh cuisine, thus it will generate a new niche for rural India from where train passes and different village will emerge with a new identity due to their unique flavour.

The government policy of 100 per cent FDI in food processing industry will work as a catalyst for setting up new food processing units in villages, which are the primary supplier of raw material for this industry. If the same is collaborated by start-ups and linked to supply chain management of railway, then it will generate employment for local youth at one hand and customer satisfaction on the other. This will create a win-win situation for all stakeholders. The model will also work as



advertising and marketing of local flavours, food/cuisine nationally and globally. As every region of India is known for its delicious and unique local cuisine and food product like Agra is famous for *Petha*, Bihar for *Litti Choka*, South India for *Idli-Sambar*.

A provision has also been made to enforce reservation in the catering units for Scheduled Castes, Scheduled Tribes, Other Backward Classes, Women, Divyang, etc. In this, there is a sub-quota of 33 per cent for women in each of these reserved categories.

Further, to build local ownership and empowerment, a process of giving weightage to district domicile holders for commercial licenses at stations, would be initiated. An option is to provide our customers tea in *kulhad*. This will create job opportunities for the down-trodden.

Station redevelopment

As per the Rail Budget major programme of station redevelopment will be initiated in almost all 7,500 stations. There are huge tracts of land available adjacent to rail network. Railway will lease out this space to promote horticulture and tree plantation. This will create employment for the underprivileged sections, SCs, STs, OBCs etc. This would also augment our food security and would also prevent encroachment of Railway land. Possibility of using this track for generating solar energy would also be explored. This will transform the adjacent villages and their economies due to large number of activities.

National Rail Plan 2030

Railway has decided to develop 'National Rail Plan' (NRP-2030) in consultation with all the stakeholders including State Governments, public representatives and other relevant Central Ministries. NRP-2030 will endeavour to harmonise and integrate the rail network with other modes of transport and create synergy for achieving seamless multi-modal transportation network across the country. This Plan will generate huge employment for the villages due to connectivity and development activities. Improved rural connectivity with cities/urban areas, would provide a ready market for rural products. This is sure to boost the rural economy.

Sustainability and Social Initiatives

Human Resources/ Skilling

The Railway has signed MOU with Ministry of Skill Development. Railway has its establishments at different geographical locations, many of them in rural area too; like workshops, production units, yards, depot, sheds etc.

Railway in partnership with Ministry of Skill Development, will work on massive skill development on its premises. Above mentioned units will develop 'Centres of Excellence for Skill Development', focusing on one/two specialized activities for the

general public. It will also join hands with prominent NGOs for skilling people in remote areas, including the wards of the Railways employees. This initiative will enhance the skill development opportunity for local students and youth and will bridge the gap of demand and supply of skilled labour force for industries.

Social initiatives

Railway has also partnered with Khadi and Village Industries Commission to support creation of employment and self-reliance in rural India, resulting in the generation of 17 lakh man days. It will continue to partner with them to develop products and services for passengers and also market them using IR's vast resources and assets. We will encourage sourcing of products from SC/ST entrepreneurs. This will fulfill Prime Minister's agenda of '*Sabka Saath Sabka Vikas*'.

Tourism

Tourism holds great potential for economic development and job creation. Railway will be partnering with the State Governments for operating tourist circuit trains. India has a

great heritage and legacy of all the religions and pilgrimage places let it be Hinduism, Islam, Sikhism, Buddhism, Jainism etc which provide wide scope for tourism across India. This will generate the employment opportunity for the villagers of nearby tourist places, by the way of providing the tourists support systems like food, accommodation, transport service and guide etc.

Conclusion

The Railway has set on the journey to transform *Bhartiya Rail*. It will achieve significant progress in all aspects of this transformation, from scale to speed, from cleanliness to efficiency to resource mobilisation. The transformation of Railway and its endeavour to transform the social sector will transform the villages and will generate the huge employment opportunities for the rural masses in the coming years. It will also provide the cheaper, faster, accessible, user friendly transport for common man with quality service.

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Budget Highlights for Agriculture and Farmers' Welfare

Agriculture and Farmers' Welfare

- Allocation for agriculture and farmers' welfare is Rs 35,984 crore.
- '*Pradhan Mantri Krishi Sinchai Yojana*' to be implemented in mission mode. 28.5 lakh hectares will be brought under irrigation.
- Implementation of 89 irrigation projects under AIBP, which are languishing for a long time, will be fast tracked.
- A dedicated *Long Term Irrigation Fund* will be created in NABARD with an initial corpus of about Rs 20,000 crore.
- Programme for sustainable management of ground water resources with an estimated cost of Rs 6,000 crore will be implemented through multilateral funding.
- 5 lakh farm ponds and dug wells in rain fed areas and 10 lakh compost pits for production of organic manure will be taken up under MGNREGA.
- Soil Health Card scheme* will cover all 14 crore farm holdings by March 2017.
- 2,000 model retail outlets of fertiliser companies will be provided with soil and seed testing facilities during the next three years.
- Promote organic farming through '*Parmparagat Krishi Vikas Yojana*' and '*Organic Value Chain Development in North East Region*'.
- Unified agricultural marketing e-Platform to provide a common e-market platform for wholesale markets.
- Allocation under *Pradhan Mantri Gram Sadak Yojana* increased to Rs 19,000 crore. Will connect remaining 65,000 eligible habitations by 2019.
- To reduce the burden of loan repayment on farmers, a provision of Rs 15,000 crore has been made in the BE 2016-17 towards interest Subvention.
- Allocation under *Pradhan Mantri Fasal Bima Yojana* Rs 5,500 crore.
- Rs 850 crore for four dairying projects - '*Pashudhan Sanjivani*', '*Nakul Swasthya Patra*', '*E-Pashudhan Haat*' and National Genomic Centre for indigenous breeds

Rural Sector

- Allocation for rural sector - Rs 87,765 crore.
- Rs 2.87 lakh crore will be given as Grant in Aid to *Gram Panchayats* and Municipalities as per the recommendations of the 14th Finance Commission.
- Every block under drought and rural distress will be taken up as an intensive block under the *Deen Dayal Antyodaya Mission*.
- A sum of Rs 38,500 crore allocated for MGNREGS.
- 300 Rurban Clusters will be developed under the *Shyama Prasad Mukherjee Rurban Mission*.
- 100% village electrification by 1st May 2018.
- District Level Committees under Chairmanship of senior most Lok Sabha MP from the district for monitoring and implementation of designated central sector and centrally sponsored schemes.
- Priority allocation from centrally sponsored schemes to be made to reward villages that have become free from open defecation.
- A new *Digital Literacy Mission Scheme* for rural India to cover around 6 crore additional household within the next 3 years.
- National Land Record Modernisation Programme* has been revamped.
- New scheme *Rashtriya Gram Swaraj Abhiyan* proposed with allocation of Rs 655 crore.

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