

Kalia Scheme: Contours, Prospects and Challenges for Agricultural Productivity

Nikita Ahya, Satya Narayan Misra, Sanjaya Kumar Ghadai, Subhra Parida

Abstract: Rural sector of Indian economy is predominantly characterized by disguised employment (Ragnar Nurkse), as a disproportionately large number of people (50%) depend on their livelihood on such small and fragmented agricultural holdings; with low productivity and income. Bereft of adequate public investment in irrigation and fresh technological breakthrough after the green revolution, around 400 million India suffer from chronic poverty and high indebtedness as per financial report of NABARD (2017-2018). To mitigate such acute hardships, many state governments are resorting to short term palliatives like loan waivers to farmers, while the Government of Odisha has launched a more ambitious and sustainable Krushak Assistance for Livelihood and Income Augmentation (KALIA) [1] Scheme, to provide a holistic package for improving agricultural productivity of small and marginal farmers, extend succour to landless agricultural labourers for sheep and goat rearing, fishery and horticulture and support to the aged and handicapped, who are not in a position to take up such occupation. This paper provides the broad contours of this highly inclusive KALIA Scheme, brings out its parallel in the Rythu Bandhu Scheme [2] by the Government of Telangana and contrasts them with loan waiver spree by many state government. It documents the fractured nature of agricultural holdings, deprivation in terms of assured irrigation, technology and extension support and thumbnails the various parameters that impact yield and productivity in agricultural sector. It demonstrates how irrigation and appropriate inputs can impact on improved cereal production significantly, compared to rain fed low input situation. While complimenting Odisha for such a pioneering initiative to break the impasse of rural distress, the paper highlights its implication in terms of raising Fiscal Deficit (FD) further, and affecting the financial health of the state. It emphasizes the need to ensure that such cash transfers do get diverted to purchasing inputs for improving agricultural productivity. The KALIA Scheme needs to be supplemented by a higher public investment in irrigation, greater attention to rural industrialization, which in tandem, will convert the disguisedly unemployed to remuneratively employed, in farm and nonfarm activities.

Keywords: Kalia Scheme, Rythu Bandhu Scheme, Loan Waiver, Agricultural Holdings, Fiscal Deficit.

Revised Manuscript Received on June 11, 2019.

Ms. Nikita Ahya, Research Scholar, School of Management, Kalinga Institute of Industrial Technology, Deemed to be University, Bhubaneswar, Odisha, India.

Dr. Satya Narayan Misra, Dean, School of Management, Kalinga Institute of Industrial Technology, Deemed to be University, Bhubaneswar, Odisha, India.

Mr. Sanjaya Kumar Ghadai, Research Scholar, School of Management, Kalinga Institute of Industrial Technology, Deemed to be University, Bhubaneswar, Odisha, India.

Ms. Subhra Parida, Research Scholar, School of Management, Kalinga Institute of Industrial Technology, Deemed to be University, Bhubaneswar, Odisha, India.

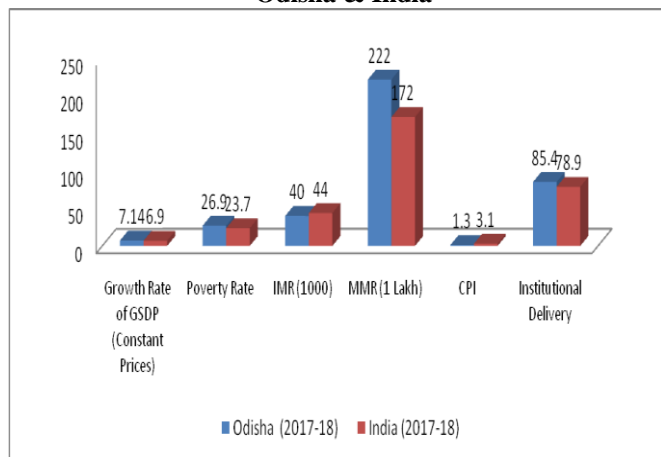
I. INTRODUCTION

Agriculture is a prime mover of socio economic wellbeing of Odisha, with more than 60% workforce depending on it for their livelihood contributing 17% to the State's Gross State Domestic Product (GSDP). Odisha has shown remarkable resilience in its growth rate in the recent years (7-8%), improving from a low level of (3-5%) in the 1980s. This is in sync with the All India growth rate trends. But the most significant achievement has been a reduction in the poverty rate which shows a decline of around 25% between 2004-05 to 2015-16. Around eight million people have come out of the oppressive poverty line. Odisha shows remarkable progress in the development parameters in particularly containing infant mortality rate and bolstering institutional delivery for expectant mothers. It also has been a pioneer in gender sensitivity by providing 50% reservation to women in Panchayats and 33% to State Assemblies and Parliament. However these growth and development stories carry in their womb, wide spread agricultural distress and indebtedness. The story of many other states is not far different. Most states like Madhya Pradesh, Uttar Pradesh, Rajasthan, Punjab have taken the route of loan waiver as a way out of this several rural impasses. However, the Government of Telangana and Odisha have adopted a more innovative scheme where they seek to transfer a financial package to the farmers with a view to improving their productivity and ameliorate their distress on a durable basis. This paper studies the KALIA Scheme intends to bring out the trends in (a) Agricultural holdings and production trend of yields of Odisha, (b) Bring out the major highlights of the Kalia Scheme and (c) Implication of the scheme on productivity and fiscal health of the State.

II. PROGRESS IN ODISHA (GROWTH AND DEVELOPMENT)

The table below brings out the performance of Odisha in terms of growth, price rise, poverty reduction and other development parameters during 2017-18.

Figure 1: Selected Economic & Development Indicators: Odisha & India



Source: Odisha Economic Survey [3] 2016-17 & India Economic Survey 2017-18

It would be seen from the above that Odisha shows a healthy growth of 7% and has contained poverty at 27% as against around 55% (1970). Its record in terms of health of children is better compared to India. Inflation is minimal and the public health delivery system addresses safe delivery of expectant mothers more effectively than all India trends.

Despite such remarkable reduction in the poverty rate, the plight of the farmers remains extremely unsatisfactory. As per the Census 2011 there are 32.8 lakh cultivators and 24.2 lakh agricultural labourers who are dependent on agriculture as their main occupation. Out of this total cultivator around 92% are small and marginal farmers who are afflicted by no productivity, low price remuneration and high indebtedness for a long time. This is further compared by endemic indebtedness as the following report on financial inclusion by NABARD (2018) would reveal.

Table 1: Rural Financial Inclusion Report

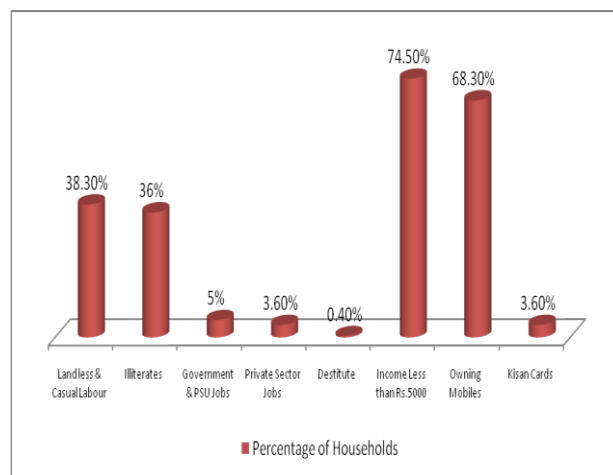
Parameter	Farm	Non-Farm	All Households
Average Farm Income	107000	86180	91407
Average Debt	104000	76731	84800
Percentage of People in Debt	52.5%	42.8%	47.4%

Source: NABARD Annual Report 2017-18 [4]

Of the above indebtedness, institutional loan account for 59%, while non institutional loans account for 32%, where poor farmers and nonfarm entities pay exorbitant interest rate. As the Economist rightly brings out “India’s rural challenge is how to formalise an informal economy; where people do not have access to formal institutional loan”.

The Socio Economic and Caste Census (SECC) Report [5], 2011 also documents various aspects rural distress as given below.

Figure 2: Rampant Rural Distress



Source: SECC Report 2011

Access to formal credit through Kisan Card is available to only 4%, as they do not have collateral to get loans. Most distressingly, close to 75% of the population do not earn minimum wage of an unskilled worker. The level of evidence of indebtedness which NABARD study has brought out is reflective as this vicious cycle.

III. AGRICULTURAL HOLDING AND PRODUCTION, TREND OF YIELDS

The position of agricultural holding and their transformation is tabulated below.

Table 2: Trends in Agricultural Holdings

Category	No. of Holding (Lakh)		% of Total No. of Holding	
	2005-06	2010-11	2005-06	2010-11
Marginal (<1 hectare)	25.97	33.68	59.62	72.17
Small (1 – 2)	11.56	9.18	26.5	19.6
Semi Medium (2 – 4)	4.72	3.11	10.8	6.6
Medium (4 – 10)	1.2	0.6	2.7	1.3
Large (>10 acres)	0.11	0.06	0.3	0.12

Source: Odisha Economic Survey, 2016-17

It would be seen from the above that there is a significant increase the holding of marginal farmers for 59% to almost 72%. They are, in particular, victims of low productivity, low income and acute poverty.

IV. THE MAJOR HIGHLIGHTS OF THE KALIA SCHEME

The scheme has five components viz. (a) support to cultivators for cultivation (b) livelihood support for landless agricultural households (c) financial assistance to vulnerable agricultural households (d) life insurance support to cultivators and landless agriculture labour and



(e) interest free crop loans. The major plank of the scheme is to ensure that the small and marginal farmers, who constitute 90% of the agricultural holdings, do not fall into the debt trap again. The scheme proposes to provide assistance on a long term basis from 2018-19 to 2020-21 by granting Rs.5000/- per farm family per season for purchasing inputs like seeds, fertilizers and pesticides and other investment and labour requirement during cropping seasons. This will ensure that the small and marginal farmers will receive Rs.10000/- for Kharif and Rabi season combined.

The livelihood support programmes for landless agricultural holders will help 10 lakh landless households for promoting goat, sheep, poultry farming, mushroom cultivation, bee keeping and fishery activity which will contribute substantially to enhance their income and overall wellbeing. The activities would include small rearing of goat, kits for fishery to fisherman, cultivation of mushroom and bee keeping. It is expected that 7 lakh households with animal resource activities, 1 lakh households in the fishery sectors and 2 lakh households in the horticulture activities will benefit from this. The unit cost of each activity would be Rs.12500/- for each households.

The third dimension of the programme is to help farmers who may not be able to take up cultivation due to old age, disability etc. and other landless agricultural labourers and such vulnerable cultivators including landless agricultural labourers who will get a long sum financial assistance or Rs.10000/-.

The life insurance support of Rs.2/- lakh would be available by paying a very nominal annual premium of Rs.330/- and the government will bear the farmer's share of annual premium of Rs.165/-. The last facets of the programme would be to reduce crop loan interest rate from 1% to 0%.

The amount against each scheme would be transferred directly to the account of the head of the family. The financial implication and fund requirement is tabulated below.

Table 3: Component-wise details of the Financial Involvement

Sl. No.	Component	No. of Beneficiaries	Scale of Assistance (In Rs.)
1.	Support to cultivators for cultivation	30.176 lakh cultivators	Rs.5000/- per farm family per season
2.	Livelihood support for landless agricultural households	10 lakh landless agricultural labourers over 3 years	Rs.12,500/- per household
3.	Financial assistance to vulnerable agricultural households	5 lakh households each year	Rs.10,000/- per household
4.	Life insurance support to cultivators and landless agricultural labourers	32.80 lakh cultivators and 24.20 lakh landless agricultural labourers	Rs.171.00 per beneficiary (18-50 years age group). An additional amount of Rs.12.00 for (50-70 years age group)
5.	Interest free crop loans	20 lakh farmers	Rs.100 crores per year towards additional interest subvention

Source: Notification for Kalia, Government of Odisha, Department of Agriculture and Farmer's Empowerment [6]

The total four requirements is estimated as under-

Table 4: Total requirement of funds for each component

Sl. No.	Component	Rs. In Crore
1.	Support to cultivators for cultivators	7540
2.	Livelihood support for landless agricultural households	1250
3.	Financial assistance to vulnerable agricultural households	1000
4.	Life insurance support to cultivators and landless agricultural labourers	170
5.	Interest free crop loans	220
	Total requirement	10,180

NB: While 2% administrative cost will be provided during the first year viz. 2018-19; 1% such cost will be provided during the subsequent 2 years

Source: Notification for KALIA, Government of Odisha, Department of Agriculture and Farmer's Empowerment

It would be interesting to note the Pradhan Mantri Kisan Samman Nidhi Yojana (PM-KISAN) [7] excludes livelihood support for landless agricultural households who constitute nearly 130 million Indians. On the face of it KALIA Scheme is more inclusive as a complete package and closely resembles the Rythu Bandhu Scheme which will have 58 lakh beneficiaries where the farmers will get an annual financial assistance of Rs.8000 per acre. Farmers will acquire this grant in two instalments. Rs. 4000 per acre will be provided during Rabi season and remaining Rs.4000 per acre will be granted during Kharif season. Farmers can use this financial assistance to purchase the following or can be used for agricultural labour purposes like seeds, fertilizer, pesticides and other Investments.

V. PRODUCTION, YIELD AND TRENDS IN ODISHA

Agricultural production (Q_A) is a function of Area and Yield viz. $Q_A = f(A, Y)$. In general, there is very little margin to increase the area for agricultural production; with competing demands for industrialisation, industrial corridors etc. Therefore yield is the most critical element, where $Y = f(I, T, F \& Cr)$ i.e. Irrigation, Technology, Fertiliser and Credit availability. Of these irrigation is the most critical factor. The impact of irrigation and input is tabulated below.

Table 5: Impact of Irrigation and Inputs

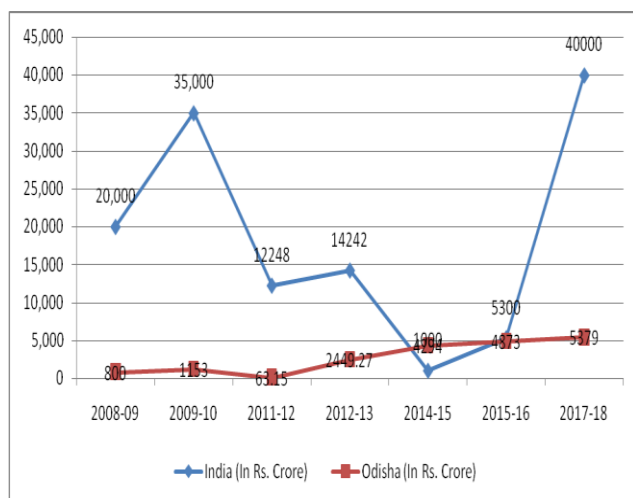
Types of Crop	Cereal/KG/Hectare
Rainfed/Low Input	1000
Rainfed/Optimal Input	2000
Irrigated Low Input	5000
Irrigated High Input	7500

Source: Economic Survey, 2013-14 [8], Government of India



It would thus be seen, how irrigation and high input can be really transformative.

Figure 3: Allocation to Irrigation by India and Odisha in the Last Decade

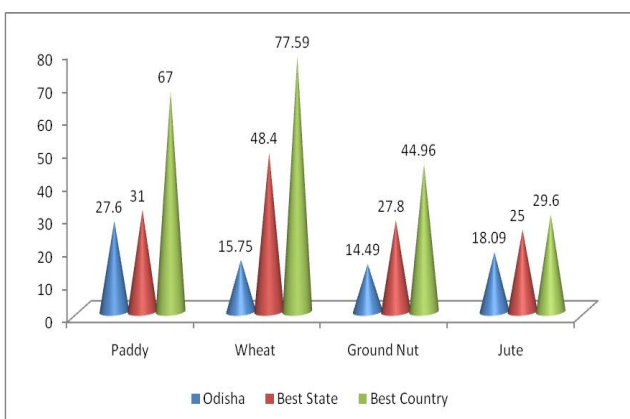


Source: Union Budget for India and State Budget [9] & [10]

It would be seen how the All India allocation sharply come down during 2011-12 and 2014-15, 2015-16, only to be revived during 17-18. In case of Odisha, however, it has been a steadily rising curve, though it's not adequate as only 33% of Odisha's agricultural land is irrigated, as against an All India average of 44% and 90% for Punjab, which became the food bowl of India after Green Revolution.

It would be important to compare trend of yields in Odisha, best State and global best for various crops.

Figure 4: Trend of Yield (Odisha, Best State, Global Best) (Quintal per Hectare)



Source: Directorate of Economics & Statistics, Government of Odisha [11]

It would be seen that there is considerable difference in yield of wheat, round nut and sugar cane between the best producing states and Odisha. The global comparison shows that the All India best are not good enough.

VI. IMPACT ON FISCAL DEFICIT

Table 6: Loan Waiver Amount vs. DBT (Rs. Crore)

State	Waived Amount (in Rs. Crore)	Fiscal Deficit (2018-19) as % of GSDP
Tamil Nadu	5318	-2.85
Maharashtra	30500	-1.81
Karnataka	8165	-2.89
Uttar Pradesh	36359	-2.96
Jammu Kashmir	244	-6.1
Punjab	10000	-3.4
Chattisgarh	6100	-3.07
Madhya Pradesh	38000	-3.2
Rajasthan	18000	-3.5
Telangana	12000	-3.5
Odisha	10800	-3.5

Source: Press Information Bureau [12], Government of India & Respective State Budget

Odisha has been one of the best performing states in terms of fiscal discipline as it was one of the first state to achieve a revenue surplus of +0.7% and a fiscal deficit of -1.39% in 2010, as against an upper ceiling of 3% as per the FRBM Act [13]. It has also improved its tax to GDP ratio from about 5% (1990) to around 7.5% in (2010). However, due to a slew of populist measures taken by the government, the fiscal deficit now stands it -3.5%. The following table will bring out these trends.

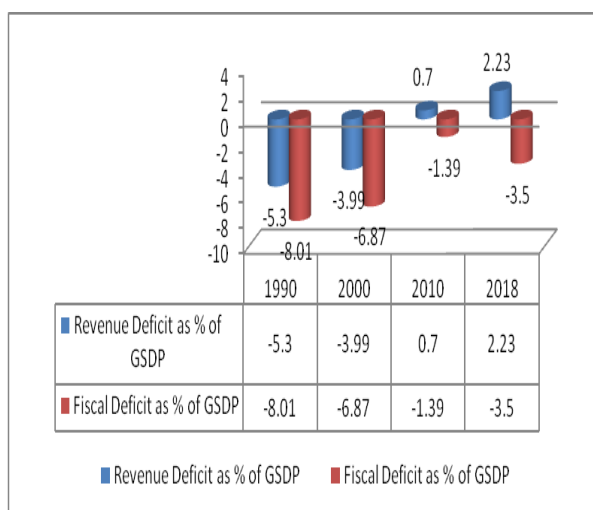
Table 7: Trend of Fiscal Indicators: Odisha

Item	1990	2000	2010	2018-19
State's Own Revenue	2420	2869	12194	38850
Central Transfer	3464	4032	14235	61350
Total Revenue Receipt	5884	6902	26430	100200
Total Revenue Expenditure	8458	8833	25291	90220
Tax/GSDP (Own)	5.03	5.93	7.48	8.7
Transfer/GSDP	7.2	8.3	8.7	13.8
Total Revenue Receipt/GSDP	12.2	14.2	16.2	22.59

Source: Government of India & Government of Odisha Budget

The trend of revenue and fiscal deficit is given below.

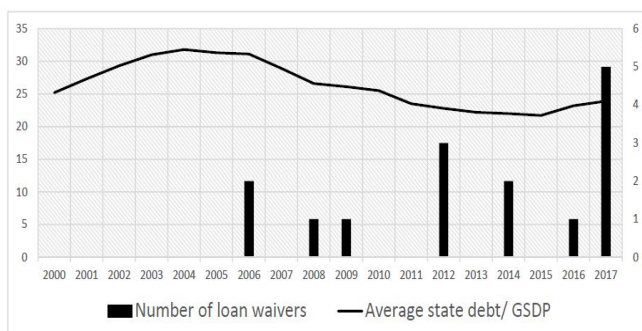
Figure 5: Revenue and Fiscal Deficit



Source: Government of India & Government of Odisha Budget

KALIA Scheme will entail an out go of Rs.10000/- crore which will increase the total revenue expenditure by at least 12%. This is likely to increase the fiscal deficit to around 4%.

Figure 6: Trends in the Number of Waivers with Changes in average State Debt



Source: Article on “Debt sustainability of States in India: An Assessment” by Kaur, Mukherjee and Ekka (2017) [14]

Odisha thus holds a very effective template for the rest of the country for ensuring socio-economic justice to a large swathe of small and marginal farmer’s landless labourers and vulnerable sections of the society, by providing a viable mechanism for improving farm productivity on a sustainable basis.

VII. CONCLUDING THOUGHTS

Ensuring upliftment of small and marginal farmers from the movers of acute poverty, and deprivation is the fundamental responsibility of an empathetic democratic form of government. Market economics must factor in inclusive justice as the Constitution mandates socio justice for all and reduction in economic concentration of wealth and income inequality. The political dispensation often looks at farmer’s distress from the lens of political bonanza. Farm loan waivers have been short term panacea for garnering political support from such deprived sections of the society. Schemes like

KALIA, with their political overtone, carry an authentic medium term vision to improve agricultural productivity of these small and marginal farmers, while not overlooking the plight of the landless agricultural labourers and the plight of those who are not in a position to work due to old age, ailment and incapacitation. Prof. Ashok Gulati, has brought out how China gave \$22 billion as income support to the farmers to ameliorate their economic plight. China has also shown how they have doubled their yield compared to India through heavy public investment in creating irrigation facility, agricultural research and better usage of fertilizer and irrigation facility. Israel, a country acutely deficient in water used drip irrigation to economise usage of water and improve productivity and salinity of soil. They are now using satellite technology to improve it further by way of ‘precision agriculture’.

These are lessons that India and Odisha must draw upon to improve yield and productivity. Of the three options available to address farmers’ distress viz. higher MSP, loan waiver and Direct Benefit Transfer (DBT) [15]; DBT is likely to help the small and marginal farmers the most and higher MSP, the by farmers with large holdings. But these are short term solutions to avert a looming crisis. What, however, will take the farming sector out of the quagmire of persistent indebtedness, would be government’s commitment to put in more investment in irrigation, bring in newer technology for improving productivity. There has to a price support mechanism for distress scale by such poor farmers, when the market price is less than MSP. This has to be supplemented by consolidation of small holdings. The Rythu Bandhu Scheme has brought in political dividends to Mr. C.S. Rao in Telangana in the recent Assembly elections. There is optimism that KALIA Scheme would repeat this miracle. However, populism must not lose sight of the long term objective of solving rural distress.

REFERENCES

1. Krushak Assistance for Livelihood and Income Augmentation (KALIA) Scheme, Government of Odisha. Retrieved from <https://www.kalia.co.in/index1.html>
2. Rythu Bandhu- Agriculture Investment Support Scheme, Government of Telangana. Retrieved from <http://rythubandhu.telangana.gov.in/>
3. Odisha Economic Survey, 2016-17, Planning and Convergence Department Directorate of Economics and Statistics, Government of Odisha. Retrieved from https://pc.odisha.gov.in/Download/Economic_Survey_2016-17.pdf
4. NABARD, Annual Report, 2017-18. https://www.nabard.org/auth/writereaddata/tender/0908181051NABARD-AR_2017-18%20English.pdf
5. Socio Economic and Caste Census (SECC) Report, 2011. Retrieved from <https://secc.gov.in/statewiseSeccDataSummaryReport?reportType=SECC%20Data%20Summary>
6. Notification for Package for Farmers’ Welfare- KALIA Scheme, Government of Odisha, Department of Agriculture and Farmer’s Empowerment, Dated 22.12.2018
7. Pradhan Mantri Kisan Samman Nidhi Yojana (PM-KISAN), 2019. Retrieved from <http://www.pmkisansammannidhi.in/>
8. Economic Survey, 2017-18, Government of India. Retrieved from <http://mofapp.nic.in:8080/economicsurvey/>
9. India Budget 2019, Government of India. Retrieved from <http://www.indiabudget.gov.in/>
10. Odisha Budget, 2019, Finance Department, Government of Odisha. Retrieved from

<http://finance.odisha.gov.in/Budget.asp?GL=Budget&PL=1&TL=1&FL=1>

11. Directorate of Economics & Statistics, Agricultural Statistics Department, Planning and Convergence Department, Government of Odisha. Retrieved from <http://desorissa.nic.in/> & <http://agriodisha.nic.in/Home/statictics>
12. Press Information Bureau, Government of India. Retrieved from <http://pib.nic.in/index.aspx>
13. Nayak, P.B., Panda, S. & Pattanaik, P.K. (2016). The Economy of Odisha – A Profile. Oxford University Press, New Delhi
14. Kaur, Mukherjee and Ekka (2017). Debt sustainability of States in India: An Assessment. Indian Journal Review, Online, 23 July, 2018
15. Direct Benefit Transfer (DBT) Scheme, Government of India. Retrieved from <https://dbt Bharat.gov.in/>

AUTHORS PROFILE



Ms. Nikita Ahya, post graduated in International Relation from the International Studies, JNU with distinction and has been teaches in KIIT International School, Bhubaneswar. She is a Research Scholar in School of Management, Kalinga Institute of Industrial

Technology, Deemed to be University, Bhubaneswar. She is presently handles the social media site of Dr. Achyuta Samanta.



Dr. Satya Narayan Misra did his MA in Applied Economics with International Trade and Statistics as his special papers with first class. He did his Ph.D. (Economics) on “Challenges, Before Self-Reliance in Critical Defense Technology”, a pioneering area on the subject. Initially he was the Indian Economics Service

(1976-79) when he did Cost Benefit Analysis of World Bank Projects and handled International Development Agency (IDA) desk. Thereafter, he was an Officer in the Indian Defense Accounts Service (1979-2012), when he served as Director (Finance) with DRDO, Financial Advisor and Joint Secretary to Indian Air Force & JS (Aero Space). He authored the Defense Procurement Manual (2005), drawing encomiums for the Prime Minister’s Office. Before voluntary retirement in 2012, he was Principal Controller of Defense Accounts (Navy) & PCDA (Southern Command) in the rank of Addl. Secretary to Govt. of India. He was trained in IRBM, California, Defense Acquisition University, Washington, Marshall Institute of Strategic Studies, Munich, IIMs, Calcutta and Bangalore.



Sri Sanjaya Kumar Ghadai graduated with Economics (Hons.) and completed his MBA (Finance). He is presently a Research Scholar in School of Management, Kalinga Institute of Industrial Technology, Deemed to be University, Bhubaneswar and his Ph.D. dissertation in

“Integrated Child Development Services and Behavioural Changes Among Women and Adolescent Girls: An Empirical Inquest in Khordha District, Odisha”. Sri Ghadai is deeply committed to research and publication of papers in reputed professional journals. He has contributed 37 research articles both in international & national journals.



Ms. Subhra Parida has completed her post-graduation in Science from Gokhale Institute of Politics and Economics, specializing in the field of agribusiness economics. She is pursuing Ph.D. at KIIT School of Humanities. Her current area of research is ‘Indian Agriculture’. She has completed two research

internships, at the State Planning Board, Bhubaneswar and the Allahabad Bank, Zonal office, Bhubaneswar. Both the research internships helped her to gather knowledge about the life in rural areas. She possesses proficiency in various software programs, including Microsoft Office Suite, as well as in statistical software such as SAS. She is also the lifetime member of the Odisha Economic Association.