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From the Desk of Managing Editor

Dear IJAR&D Readers,

Greetings for a Successful 2024,

We are glad to present twentieth issue of IJAR&D which consists of five papers on various aspects namely Agrarian Reform in Assam, Apprenticeship Program in Bundelkhand Region, Aspirational District Programme in India, Apple Farming in Manipur and Fiscal Decentralisation in Haryana.

The joint paper of Dilip Kumar Rana, Manik Bhattacharya and Shimanta Gogoi delves into radical change of agrarian structure in Assam. The paper analyzes redistribution of land and rural poverty reduction in Assam. The study observed the significant development since 1970. Redistribution of land significantly affected to alleviate rural poverty in Assam.

The joint paper of Sandra Surendran and Pradeep Kumar Panda analyses the growth performance of aspirational district program in India. As indicated by the decline in employment flexibility and productivity during the past few years, India has had phenomenal GDP growth rates, considerably over the national average. The final analysis calculated each aspirational district performance as a percentage and a year-by-year growth rate at the national level. The growth rates are both positive and negative in the study districts, but the changes are optimistic given the scheme's rural focus. In the coming years, unemployment and poverty can be eliminated. Slow and steady growth can result in long-term changes.

The joint paper of Dr Lucy Jajo Shimray and Zita Leiyangam Angkang presents a case study of Apple Farming as a Diversified Horticulture farming. As per the paper, Manipur climatic conditions and the fertility of the soil varies from one region to another, endowing the state with all kind of fruits and vegetables throughout the year. Apple farming in Manipur is one of the emerging diversified horticulture farming in Kamjong District which will boost the strength of the horticulture crops in Manipur. Shingkap village in Kamjong district is said to have become a model village for apple cultivation by integrated farming, planting low chilling variety of apple namely Anna, HRMN-99, Golden Dorsett on their community land along with other horticulture crops like banana, papaya, strawberry, avocado, pomegranate in their farm.

Pradeep Kumar Panda's paper presents recent evidence on Fiscal Decentralisation in Haryana. As per the paper, Haryana is constituting state finance commission regularly and following 15th Finance Commission mandate. The debt to GSDP ratio has also been maintained below the norm of 25% as prescribed under the FRBM Act. The paper recommends to standardize procedures for levy of property & other taxes, norms for basic services and norms for staffing & salaries, incentivize performance through levy & collection of taxes & user charges, economy in expenditure and people's participation.

We thank all the authors for their insightful papers which will certainly enrich our readers. We take this opportunity to thank all our reviewers for their structured efforts. We express our heartfelt thanks to all our journal subscribers and readers for their relentless support which provide our team motivation to bring out journal issue in desirable shape. We commit ourself to bring out high quality issues in future.

Thanking You

Best Wishes from IJAR&D !!!

Wishing you all a very happy, safe and fulfilling New Year 2024 !!!

Thanking You

Pradeep Kumar Panda
Managing Editor

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The Strategy of Rural Development: An Investigation into the Agrarian Reform in Assam

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Abstract

The present research analyzed the radical change of agrarian structure in Assam. The state is experienced to the outstanding development in the agrarian structure. The execution of various land modification acts and land policy are assumed to restructure the agrarian economy in the state. Generally, the redistribution of land and reduction of rural poverty are the key measures of changing agrarian structure. Consequently, the objective of the research is to analyze redistribution of land and rural poverty reduction in Assam. The research applied the Gini coefficient method to estimate the efficient land redistribution. The research applied the regression technique to find the relation between rural poverty and Gini coefficient. The study observed the significant development since 1970. The Gini coefficient of land redistribution and poverty in rural area declined on same direction during the study period. Finally, redistribution of land significantly affected to alleviate rural poverty in the state. The research concluded that the government initiatives have restructured the agrarian economy.

Keywords: *Redistribution of Land, Rural Poverty, Gini Coefficient, Operational Land Holdings.*

Introduction

Assam is experienced an extensive development in rural area since 1970. The rural area of the state is characterized by high population pressure, abject poverty, inequality, unemployment etc. These severe constraints act as the barrier to the development and alleviation of its especially poverty and disparity in the rural area are the key challenge of the state government. The reorganization of agrarian system is the significant strategy to eliminate these constraints in the state. The agrarian structure

significantly impacted on the development of rural economy especially the reduction of rural poverty and inequality in Assam.

The agrarian structure is a simple approach to redistribute the assets and rights among the rural population (Albertus, 2019). It is the sole source of income of the population in rural area. On the other hand, agrarian structure also defines poverty and inequality. So, it is hypothesized that changing agrarian structure is the conjecture of the efficient redistribution of assets and

rights and reduction of rural poverty and inequality. Land is a valuable asset used to generate income in rural area. Consequently, efficient distribution of land impacts on the reduction of rural poverty. The land inequality is a fundamental measure of efficient distribution of land and it is linked to the reduction of rural poverty.

The redistribution of land critically impacts on the labour market in the economy. For example, the accessibility of land of the small tenants leads to the increment of both employment as well as income in the economy (Bagi, 1981). Therefore, analysis of such issue still remains the key challenge of the development in the rural area.

A large proportion of people lives in the rural area and their principal source of income is agriculture. The agriculture sector facilitated to employment opportunities to the rural population. Since land is the principal factor of production, the distribution of land then remains the key approaches to the agricultural development. The redistribution of land leads to the higher agricultural production. It increases the income of the rural people. Therefore, equal distribution of land is a crucial strategy for the development of rural area in the developing countries such as India (Besley & Burgess, 2000).

The research on the redistribution of land is a special issue to the agrarian development. The equal distribution of land increases the welfare in the society. The access to land has the potential to increase the earnings of a special group of people in the economy. The procedure not only increases the earnings, but also increases the productivity of the agricultural sector. The redistribution of land generates the more income opportunities in the economy. It facilitated the strong economic strength among the poor agricultural farmers (Finan et al., 2005). It mitigates the problems of debt among the poor as well as landless workers. Such reforms reduce the inequality persisted in the economy. The large volume of inequality caused to the less degree of inclusive development. The less degree of inequality with the high level of rural development improves the economic strength of the people in the society. It significantly impacts on the reduction of rural poverty. Therefore, research on the land inequality is an important issue for the agrarian development.

The present research focused the changing scenario of the agrarian structure in Assam. Assam is one of the developing states in North East Region of India (NER) and introduced several strategies including land reform to develop the agrarian economy. The implementation of several land reform policies changed agrarian structure

of the state. Goswami (1969) studied the effects of the implementations of Adhikar act, 1948 on the agrarian structure in Assam and observed that it was inefficient. Again, people were against to the abolition of Zamindari system in Assam. Then, the state executed several land related acts to the development of agrarian economy.

The availability of land may use in different activities such as plantation, agricultural production etc. in Assam. The rural people of the state primarily engaged in the agriculture sector. The sector provides an income opportunity to the people. The land reforms policies have the significant impact on the change in agrarian structure in Assam. Land reforms agenda led to the redistribution of land among the people. The equal distribution of land is a source of income to the people especially in the rural area. Therefore, the present research explored the development of agrarian structure in the state since 1970 to 2019.

The objective of the study is to analyze the agrarian structure in Assam. The operational land holding and area operated by each size group is the key measure of agrarian structure. We investigated the changes of the two aspects in the rural area of the state viz. redistribution of land and rural poverty. Rural poverty is another measure of agrarian reorganization. We incorporated rural poverty in the study and finally we investigated the relationship between rural poverty and land inequality.

The entire paper is alienated as below. After the introduction of some theoretical concepts, we sited review of literature related to the present research followed by sources of data and methodological content of the paper, empirical evidences and discussion of the research and concluding remarks of the research.

Review of Literature

Carter and Mesbah (1993) discussed the radical change of agrarian structure in Chile. The land market reform policy is one of the key strategies of agrarian growth with poverty reduction of the Chile's democratized political agenda. The implementation of policies allowed to peasant in Chile to access to land market rapidly. The impressive of agro-export growth of Chile has been shifted to the growth of peasant economy. They briefly described the contextual phenomenon of reform of land market in the regime of agro-export growth since the mid-1960s. The land market reform policies were observed as modest in administration and politics. But these policies highly effected on the abolition of agro-export growth. Generally, the interaction of necessary informational imperfections in factor markets generated

economic pressure on displacement of farmers and also on the concentration of land in commercialized and competitive agricultural environments. It improved the competitiveness of small farm agriculture. They explained the difficulties of small and cheap-labor farms in the imperfect land market. It led to the reduction of participation of small-scale commercial farmers from the markets instead of resolving exclusionary growth issues. They argued that empirical analysis was important to examine the competitiveness gap and potentiality of land market reform policies, either solo or combined with the factor market policies, in reducing exclusionary growth. Finally, they observed that progressive land taxation among the components of land market reform policies closed the competitiveness gap and farm land mortgage banks declined the exclusionary features of growth in Chile.

Keswell and Carter (2014) studied the effectiveness of Land Redistribution for Agricultural Development (LRAD) programme on the households' land availability in South Africa. They observed that effect of land transfer among the beneficiary household on their economic well-being was time constraint. Their economic well-being was negligible if they futile to generate the income from the newly acquired land. They applied the binary treatment model and observed that beneficiary households achieved approximately 25 per cent increase in per capita consumption. Similarly, continuous treatment method shows that impact of transfer of land increased the per capita expenditure up to 50 per cent after a certain period. They argued that though initially both the models confirmed a decrease in living standard, after 3 to 4 years, living standard increased up to 50 per cent. They also argued that land transfer declined the poverty through improving the productivity of poor, access to market and mitigating the poverty traps. It was observed that LRAD programme transferred the land from wealthy farmer to poor farmer and declined the ownership of land inequality in South Africa. It improved the life style of vulnerable people compared to the other cash transfer programme in the long run.

Raj (1970) studied the impacts of land distribution on the agriculture sector in India. The research observed that the land reform programme has the potential impact on increasing the productivity of agricultural sector. The research estimated the average and marginal productivity of land after land distribution in India in 1954-55.

Vollrath (2007) studied the effects of redistribution of land on productivity of agriculture sector in the

developing countries. The research used Gini coefficient to measure the equality of redistribution of land and found the reverse association between Gini coefficient and agricultural yield. They observed the inverse relationship of each farm particularly operated by family workers. So, it concluded that distribution of ownership rights has the potential power to increase the productivity in the agriculture sector. However, it has not only the power to increase the productivity in the agricultural sector, but also leads to the social development in the rural economy.

Bakshi (2008) investigated the distribution of land holdings between Dalit, Adivasi, Muslims and other groups in West Bengal in India since 1993 to 2004. The study found that most of the Dalit has the ownership rights of land holdings in the state. The research also observed the potential impacts of land transformations on the deprived people in the rural area in the state. The land reforms such as redistribution of agricultural as well as homestead land accrued to the Dalit, Adivasi and Muslims people in the rural area.

Singla *et al.* (2016) analyzed the land distribution under the land reforms agenda across the state in India since 1992 to 2013. They used the Gini coefficient method to observe the efficient distribution of land. Using the NSSO data, the study observed the declined trend of the Gini coefficient of the operational holdings during the period. The study concluded that the efficient redistribution of lands leads to the reduction of inequality and it is occurred by the land reforms agenda in the country. The study found that Assam efficiently distributed land compared to the other states in India. On the other hand, law of inheritance transfers the property right of land to their inheritor in the country. It results in continuous transfer of ownership to the next generation and had led to the reduction of land inequality.

Bhalla (1987) reviewed the varieties of labor absorption in the change of production structure, institutional policy, implementation of technology in Indian agriculture. The labour saving technology for individual crops deteriorated total labour absorption in the technologically developed states during the period 1971-72 to 1983-84. Again, labour absorption varied from crop to crop production. For example, paddy, sugarcane, cotton, jute etc. highly labour intensive crops. But, there were fewer instances of states India of this category of labour absorption. However, one of the characteristics of Indian agriculture is hiring labour and share of workers to all sorts was falling down during the period 1971-72 to 1983-84. Then, the question of asset distribution

including land for those who continue the means of production was the crucial strategy for the agricultural development in India. Land distribution remained the crucial strategy for labour absorption as well as agrarian development in India.

Materials and Methods

Sources of data: The operational land holding and area operated by several size group paradigms the agrarian structure. The change in agrarian structure depends on the variation of ownership of land and number of owners between the various size groups. Such kinds of the data used in the study are extracted from the several reports of Agriculture Census of India. The Agriculture Census of India published information on agriculture sector since 1970. The department accumulated statistics on different types of inputs especially on the number of operative land assets and area operated by various size groups. The research utilized the opportunities during the period from 1970 and 2015. The Planning Commission of India estimated and published poverty in rural, urban and total for the country and several states since 1970. The poverty data are available in two method – Lakdawala methodology (1973 to 2004) and Tendulkar method (1993 to 2011). The research utilized the opportunity to explore the objective of the research.

Methodology: The Gini coefficient of the redistribution of land is a key measure of agrarian structure. The land inequality is estimated using the operational land holding and area operated by various size groups. The method used to estimate issue changed from time to time. As time passes more advanced methods were developed. The technique of Lorenz curve analyses the inequality in the economy (Rajaraman, 1975). Recently, Gini coefficient technique applied for the estimation of inequality, viz., income inequality of a region (Takayama, 1979). We applied the following technique of Gini Coefficient to estimate the land inequality using grouped data –

$$G = 1 - \sum_{i=1}^n p_i (z_i + z_{i-1}), z_0 = 0$$

Let us discuss the method in a broader way. We need to find the Lorenz curve to analyze the formula. At first, to find the line of equality, one can easily find the Lorenz curve on the basis of data. On the basis of these two lines, we can estimate the Gini Coefficient. We estimate the areas below the Lorenz curve. The area below the Lorenz curve is –

$$\frac{1}{2} \sum_{i=1}^n p_i (z_i + z_{i-1}), z_0 = 0$$

Hence, the area between the line of equality and the Lorenz curve is –

$$\frac{1}{2} - \frac{1}{2} \sum_{i=1}^n p_i (z_i + z_{i-1}), z_0 = 0$$

Since there are half of the areas under the line of equality, therefore –

$$\frac{\left(\frac{1}{2} - \frac{1}{2} \sum_{i=1}^n p_i (z_i + z_{i-1}) \right)}{\frac{1}{2}}$$

$$= 1 - \sum_{i=1}^n p_i (z_i + z_{i-1}), z_0 = 0$$

In the proposed technique,

G = Land Gini

p_i = Percentage of no. of holdings of the i^{th} group

z_i = Cumulative % of area operated in the i^{th} group

i = No. of observations, 1, 2... n

The key advantage of the analysis of land Gini is that it facilitated to observe the variation in the distribution of land in a region. Initially the technique applied to estimate the income inequality. However, the technique reformulated to estimate the land inequality. The technique highlighted the judiciousness of redistribution of land in the society. The value of land inequality varies between zero and one. If the estimation found the value of one, it shows perfect land inequality in the region. Similarly, if the estimation found the value of zero, it shows the perfect equal distribution of land in the society.

Results

The following table 1 shows the individual share of ownership distribution and their occupied land area to total by several groups in Assam since 1970 to 2020. The Department of Agriculture Census classified the all holdings into five classes, viz., 'marginal', 'small', 'semi-medium', 'medium' and 'large'. We found that the 'marginal' class occupied largest share of operational holdings followed by small, semi-medium, medium and large size group. However, the semi-medium size group occupied the largest share of operated area followed by 'small', 'marginal', 'large' and 'medium' class. But the scenario has been changed since 1974. The share of both operational holdings (OH) and operated area (OA) of marginal group increased since 1974 to 2020. The share of OH of semi medium size group declined, but share of OA of this group increased during the period. The shares of all other groups declined.

Table 1: Share (%) of Operational Holdings (OH) to Total Holdings and Area Operated (AO) to Total Area of Each Size Group in Assam Since 1970.

Year	Marginal		Small		Semi-medium		Medium		Large	
	OH	AO	OH	AO	OH	AO	OH	AO	OH	AO
1970	57.04	17.67	23.76	22.95	14.04	26.27	4.78	18.05	0.39	15.06
1975	58.19	18.18	23.26	23.49	13.86	26.92	4.38	16.80	0.32	14.62
1980	59.31	18.68	22.76	24.00	13.66	27.56	4.00	15.60	0.26	14.16
1985	59.98	18.98	22.57	24.07	13.39	27.65	3.80	15.22	0.25	14.08
1990	60.26	18.94	22.19	24.46	13.59	28.64	3.76	15.35	0.20	12.61
1995	62.22	19.80	20.91	24.52	13.09	29.45	3.59	15.76	0.19	10.47
2000	62.65	21.29	20.69	23.46	12.96	30.77	3.52	16.02	0.18	8.46
2005	63.74	24.93	21.51	23.56	11.56	27.75	3.02	13.95	0.18	9.80
2010	67.31	25.83	18.25	22.91	11.16	27.27	3.12	14.58	0.15	9.40
2015	68.15	26.38	18.06	23.39	10.76	27.08	2.88	13.78	0.15	9.38
2020	69.00	26.94	17.87	23.88	10.37	26.89	2.66	13.02	0.15	9.36

Source: Authors' Calculation.

From table 1, we observed that the percentage of small size group continuously decreases except in the year of 2005. In case of possession of land holdings, its share continuously increases except in the year of 2000 and 2010. In both the periods, its share slightly increased. Similarly, in 1990, semi-medium group slightly increase, but during the periods, its share decreased. The share of operational holdings increased till the year of 2000 while its share continuously decreased beyond that. The percentage of medium group continuously decreased except in the year of 2010. But in case of possession of land holdings its shares were waving during the whole period. The final column shows the share of large farmers in the state. The percentage of large farmers continuously decreased in the state. Though the share of holdings slightly increased in the year of 2005, but it is continuously decreased during the whole study periods. The following figure 1 represents the trend of share of different categories of operational holdings in the state since 1970 to 2020.

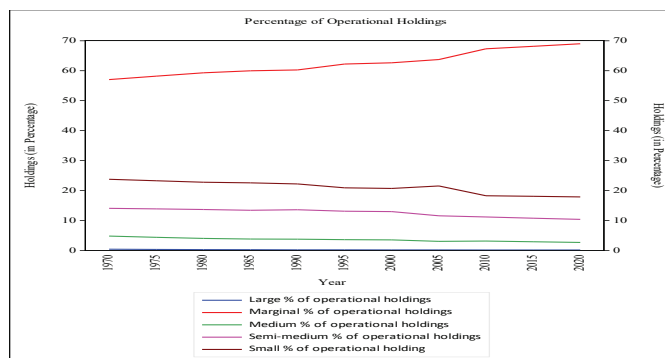


Figure 1: The Shares of Operational Holdings of the Various Size Groups.

Source: Authors' Calculation.

The line diagram of share of operational holdings of marginal size group is upward movement in the state during the study period. On the other hand, the line diagram of the share of the operational holdings of the small, semi-medium, medium and large size groups are in decreasing trend since 1970. The key point of the whole figure is that the share of operational holdings of marginal size group is highest and large operational holdings are lowest in Assam during the period since 1970 to 2020.

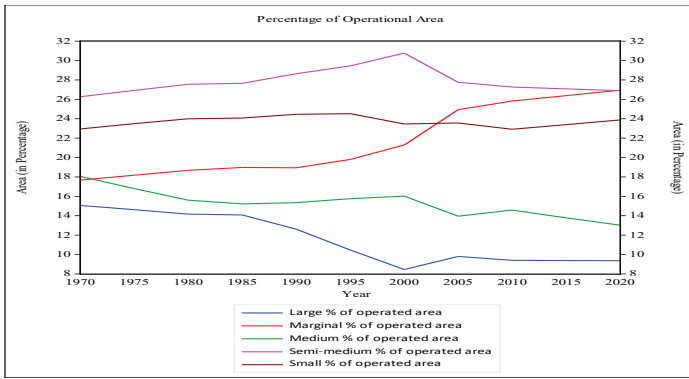


Figure 2: The Share of operated area of the various size groups.

Source: Authors' Calculation.

The above Figure 2 illustrates the share of operated area to total area of each size group since 1970 in Assam. The semi-medium size group holds the large share of operated area from 1970 to 2000. However, the share of the group decreased after 2000. The trend line of the share of small size group shows an upward sloping during the period from 1970 to 2020. It implies that share of operated area by the small size group increased during the period. We observe an upward sloping trend line of the share of operated area by marginal size group. It implies that the share of operated area is increased since 1970 to 2020 in the state.

We found a decreasing trend of the share of operated area by medium size group. Finally, we observed a rapid decrease in the share of operated area by the large size group. The key point of the figure is that trend of share of agricultural operational farm size are moved upward and downward in the state. It implies the agrarian structure of Assam has been changed.

The following table 2 shows the change of agrarian structure. We used Gini coefficient of the operational land holding by different size groups to measure it in Assam. So, the table 2 represents the Gini coefficient since 1970 to 2020.

Table 2: Gini Coefficient of Operated Land Holdings in Assam Since 1970 to 2020:

Year	Land Gini
1970	0.5300
1975	0.5288
1980	0.5279
1985	0.5296
1990	0.5270
1995	0.5259
2000	0.5119

2005	0.4854
2010	0.4958
2015	0.4954
2020	0.4949

Source: Authors' Calculation.

Table 2 shows that land inequality varied from 0.53 to 0.50 since 1970 to 2020 in Assam. Initially, the inequality of land was very high, but it is reduced. However, there is very low differences in the land inequality between initial periods and ending periods. The reduction of land inequality accrues to the implementation of land reforms in the state. The research observed the existence of high land inequality in the state during the analysis period since 1970 to 2020. Hence, government of Assam required to implement the land policy more efficiently in the state to minimize the land inequality in the state.

The Figure 3 shows the trend of land inequality in the state. Inequality rapidly decreased during the period 1970 to 2005, but it is increased from 2005 to 2010 and finally it is declined. Therefore, we may conclude that the impact of land distribution effected to change the agrarian structure during the period in the state.

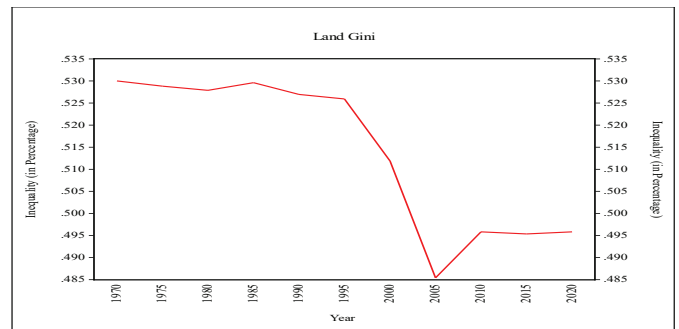


Figure 3: The Gini Coefficient of land in Assam since 1970 to 2020.

Rural Poverty in Assam

The various expert committees setup by Planning Commission, Government of India estimated the poverty for rural, urban and combination of rural and urban in India and states. However, Lakdawala committee and Tendulkar committee are used to estimate the poverty. Using the method of Lakdawala committee, the Planning Commission published the poverty separately for rural urban and total since 1973 to 2004. Similarly, using the method of Tendulkar Committee, the Commission published the same since 1993 to 2011. Figure 4 represents the rural poverty (HCR) of Lakdawala Methodology in Assam. According to this method, the rural poverty decreased from 52.67 per cent in 1973-74 to 22.3 per cent in 2004-05 in Assam.

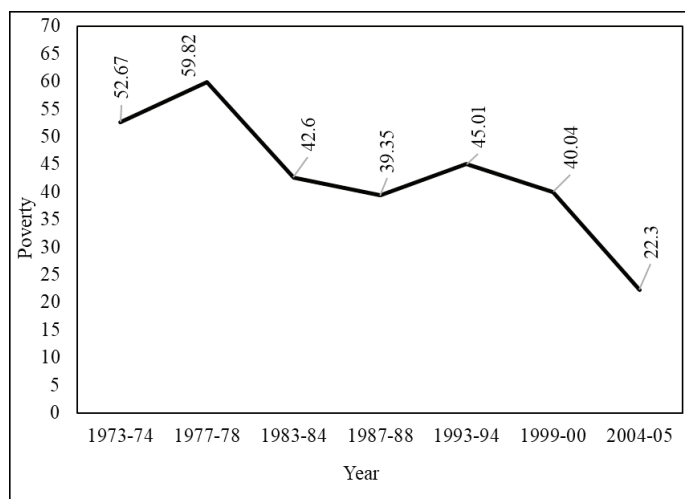


Figure 4: Rural Poverty in Assam since 1973-74 to 2004-05: Lakdawala Methodology

Figure 5 represents the rural poverty (HCR) using the Tendulkar Methodology in Assam. The study observed that the rural poverty decreased from 54.9 per cent in 1993-94 to 36.4 per cent in 2004-05 in Assam. It is increased from 36.4 per cent in 2004-05 to 39.9 per cent in 2009-10 and decreased again to 33.9 per cent in 2011-12.

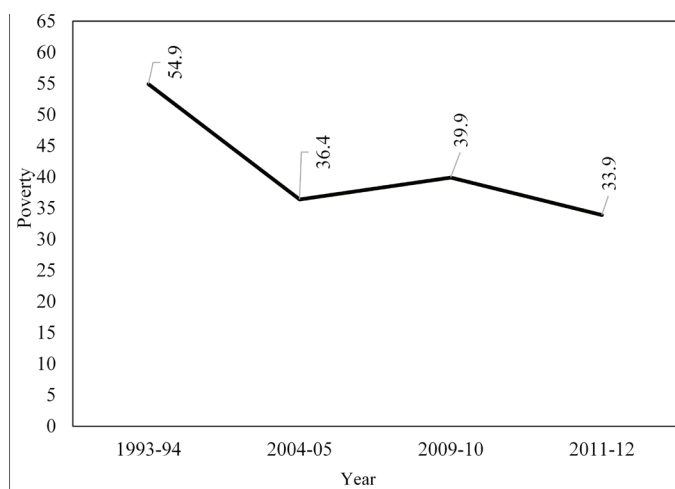


Figure 5: Rural Poverty in Assam since 1993-94 to 2011-12: Tendulkar Methodology

The rural poverty reduction is closely related to the redistribution of land. The Gini coefficient is the common measure of land distribution and the lowest value of it implies the equal distribution. The decreasing value of Gini coefficient of land again signifies the transformation of land from largest group to the comparatively lowest group. The following estimated result shows the impact of land distribution on rural poverty since 1973 to 2004. The dependent variable 'LNRPOV' indicates the

natural logarithm of rural poverty using Lakdawala methodology. Similarly, the independent variable 'LNLGINI' indicates the natural logarithm of land Gini coefficient. The sign of the coefficient of the independent variable 'LNLGINI' specifies the direction of the relation to the dependent variable 'LNRPOV'. The positive sign implies the movement of change of the variables in the same direction, while the negative sign shows the inverse relation. The coefficient of the variable 'LNLGINI' has the positive sign and significant at one per cent level of significance. This implies rural poverty and land inequality moved in the same direction. Figure 3 and Figure 4 represented the downward movement of both land inequality and rural poverty since 1973 to 2004. Then, if we investigate the impact of land inequality on rural poverty we must observe that the decreasing inequality contributed to decrease rural poverty. Finally we conclude from the estimated result (Table 6) that one per cent decrease in land inequality the rural poverty declined by 10.21 per cent in Assam during the period 1973 to 2004.

Table 6: Estimated Results of Regression Analysis – I

Dependent Variable: LNRPOV				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Time Period: 1973 2004				
n = 32				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-36.63697	5.536443	-6.617421	0.0000
LNLGINI	10.20481	1.404409	7.266269	0.0000
AR(1)	1.592873	0.241063	6.607715	0.0000
AR(2)	-0.702970	0.269547	-2.607965	0.0147
SIGMASQ	0.000805	0.000279	2.891480	0.0075
R ² = 0.9820; Adjusted R ² = 0.979387; F-statistic = 369.22; Prob (F-statistics) = 0.0000				

Source: own estimated results.

Similarly, we observe the same evidence of rural poverty using Tendulkar methodology and land inequality during the period 1993 to 2011 from Figure 3 and Figure 5. The estimated results in Table 7 show the direct relation between rural poverty and land inequality. The coefficient of the independent variable 'LNLGINI' is significant at one percent level of significance and we conclude that one per cent decrease in land inequality contributed to decrease in rural poverty by 4.60 per cent.

Table 7: Estimated Results of Regression Analysis – II

Dependent Variable: LNRPOV				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Time period: 1993 to 2011				
n = 19				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-14.33868	3.161214	-4.535813	0.0005
LNLGINI	4.607334	0.806819	5.710494	0.0001
AR(1)	1.386261	0.317457	4.366762	0.0006
AR(2)	-0.728417	0.366264	-1.988775	0.0666
SIGMASQ	0.000769	0.000465	1.654133	0.1203
R ² = 0.9585; Adjusted R ² = 0.9466; F-statistic = 80.8288; Prob(F-statistic) = 0.0000				

Source: own estimated results.

Discussion

The study perceived an amazing evolution in the agrarian structure in Assam since 1970. The implementation of various land reforms acts contributed to this development. The implementation of land reforms had led to reduce the share of large landholders in ownership in terms of numbers and areas during the period due to the successfully introduction of the land reforms policies (Land Policy 1958; Land Policy 1968; Land Policy 1972; Land Policy 1989 and Land Policy 2019) by the Government of Assam since 1950. Thereafter, the state government implemented the various act (The Assam State Acquisition of Zamindaries Act, 1951; The Assam Fixation of Ceiling on Land Holdings Act, 1956; The Assam State Acquisition of Lands belonging to Religious or Charitable Institutions of Public Nature Act, 1959; The Assam Consolidation of Holdings Act 1960; The Assam Gramdan Act 1961; The Assam Boodan Act 1965; Tenancy Act, 1971). The various land policies transferred the land from large size group to comparatively small size groups and contributed to the change in agrarian structure in Assam.

The government implemented the law time to time as per requirements. The effect of the land reforms is positive in the state. The reforms redistributed the land from rich landlords to poor tenants. As discussed earlier, the ownerships rights transferred to the poor tenants from the rich landlords, it leads to the reduction of land inequality in the state. Land is the primary source of agricultural production and acts as the key factor of agricultural production. However, large proportion of people in the state depends on the agricultural sector. Hence, redistribution of land has led to the improvement in the economic strength of these poor tenants. The procedures work as an incentive to tenants to work more

and more on their own agricultural farm. It significantly impacts on productivity of sector in the economy. For example, the state implemented the Zamindari act to initiate the redistribution system of land in the state. The act facilitated the permanent legal transfer of ownerships rights to the tenants i.e., it transfer the land from rich Zamindars to poor farmers. It helped to the reduction of land inequality in the society. The land reform act, 1968 focused the redistribution of land among landless people. The act contributed to the rural homeless family to possess maximum of two bighas of land. It also notified that the persons holding less than ten bighas of operational lands are eligible to ask for the cultivation on new Government land. The policy restricts the transfer of agricultural land to non-agriculture purposes. It significantly helped in the reduction of land inequality in the state. Similarly, other land reforms also led to the tenurial securities, transfer of ownerships to poor tenants, improvements of the conditions of the poor tenants etc. All these measures led to the redistribution of land in the state that caused to the reduction of inequality in the rural economy of Assam. The ceiling of land such as extreme limits of land holdings of an individual is implemented by the 1989 land policy. The policy restricted the maximum seven bighas as agricultural land and one bigha as homestead land to a particular individual. The policy suggested different measures of land reforms to deal with the redistribution of land holdings. The act suggested different policies to ST/SC category as well as transfer of agricultural land for non-agricultural purposes.

In the state the implementations of land reforms reduces the share of large landholders in the operational holdings both in terms of numbers as well as areas during the whole periods. It is the effect of implementation of land reforms in the state. We noticed the numbers of marginal farmers continuously increases in the society over time beings. The one of the key causes of increasing trend of these marginal farmers associated with the fragmentation of land holdings. Since traditional periods most of the people were rural in the state, hence they possess very small plots of land. Therefore, division of these small lands leads to the generation of more small plots of lands in the society. It is one of the key causes of continuous increasing trend of new marginal farmers in the society over the time periods. Except the marginal farmers, the share of all categories of agricultural producers reduces in the society.

The research observed that the number of marginal farmers continuously increased in state. One of the causes of the increasing trend of such marginal farmers is associated with the fragmentation of land holdings in the state. However, natural resources such as land

cannot be increased frequently. So, it is a fixed factor in agricultural production. Again, the existence of the law of inheritance offered the properties to its inheritor. Since the land has been considered wealthy property, each inheritor may get the land as their right. It leads to the continuous fragmentation of land. Therefore, the division of lands leads to the generation of more small plots of land in the state. It is one of the critical causes of the continuous increasing trend of new farmers in the state during the period. Except for the marginal farmers, the share of all categories of agricultural farmers was reduced in Assam from 1970 to 2019.

On the other hand, the possession of land is the key factor of production in rural Assam. The holdings of large size of land facilitated extra income opportunities to these rural people. Similarly, lack of operational holdings forced the rural poor people to work as a daily wage earner or leasing in the land. The leasing in the land is depending upon the various institutional factors. Though the proper legal land market offer the landless people to leasing in the land, but due to the lack of it most of the tenants has the possibilities of being exploit. Therefore, the development of the rural poor people depends on the redistribution of land from richer section to lower section in the state. The equal distribution of land leads to the reduction of inequality as well as rural poverty in the state.

Conclusion

The discussion shows the decreasing trend of land inequality as well as restructured the agrarian system in Assam. This is due to the implementation of land reform policy in the state. Land reform policy remains the fundamental issue for the development of agrarian structure in the developing countries such as India. The present research found that the land reforms have a significant impact on the change in agrarian structure in Assam. The redistribution of land from the richer section of agricultural land holders to the poor land holders leads to the change of agrarian structure. However, the reduction of land inequality is very less. The efficient land distribution has the potential role to improve the economic strength of rural poor people. The state faced severe rate of inequality since 1970 to 2020. Though the rate of inequality decreased as compared to the initial years in the state, but the state still faced a high rate of inequality. It may not be beneficial for the development of the agrarian economy in the state. Such a high inequality also stands as an impediment to the reduction of rural poverty in the developing economies. Nonetheless, the high level of land inequality significant contributed to the reduction of rural poverty. The research suggests restructuring the agrarian economy through the

continuous redistribution of land. It is a prerequisite of reduction of rural poverty as well as inequality in the state. Therefore, the government of Assam requires an active role to the efficient distribution of the land for the agrarian development in the state.

References

- Bagi, F. (1981). Relationship Between Farm Size and Economic Efficiency: An Analysis of Farm-Level Data from Haryana (India). *Canadian Journal of Agricultural Economics*, 29(3), 317-326.
- Bakshi, A. (2008). Social Inequality in Land Ownership in India: A Study with Particular Reference to West Bengal. *Social Scientist*, 36(9/10), 95-116.
- Besley, T., & Burgess, R. (2000). Land Reform, Poverty Reduction, and Growth: Evidence from India. *The Quarterly Journal of Economics*, 115(2), 389-430.
- Finan, F., Sadoulet, E., & Janvry, A. (2005). Measuring the poverty reduction potential of land in rural Mexico. *Journal of Development Economics*, 77(1), 27-51.
- Keswell, M. & Carter, M. R. (2014). Poverty and land redistribution. *Journal of Development Economics*, 110, 250-261.
- Raj, K. N. (1970). Ownership and Distribution of Land. *Indian Economic Review*, 5(1), 1-37, 41-42.
- Rajaraman, I. (1975) Poverty, inequality and economic growth: Rural Punjab, 1960/61 -1970/1971. *The Journal of Development Studies*, 11(4), 278-290.
- Series of Land Policy, Govt. of Assam, 1951, 1962, 1966, 1971, 1972, 1975, 1999, 2019.
- Singla, N., Kaur, P., & Ahmed, M. (2016). Role of Land Reforms in Eradicating Land Inequalities in Rural India. *Indian Journal of Economics and Development*, 12(1a), 413-418.
- Takayama, N. (1979). Poverty, Income Inequality, and Their Measures: Professor Sen's Axiomatic Approach Reconsidered. *Econometrica*, 47(3), 747-759.
- Government of Assam. (1956, 1959). *The Handbook of Land Reforms, Assam*.
- Vollrath, D. (2007). Land Distribution and International Agricultural Productivity. *American Journal of Agricultural Economics*, 89(1), 202-216.
- Albertus, M. (2019). *Agrarian Structure in Latin America. 2030 – Food, Agriculture and Rural Development in Latin America in the Caribbean*. Santiago, Document No.17. FAO.
- Goswami, P.C. (1969). Land Reform in Assam. *Economic and Political Weekly*, 4 (42), 1662-1664.
- Carter, M. R., & Mesbah, D. (1993). Can Land Market Reform Mitigate Exclusionary Aspects of Rapid Agro-Export Growth? *World Development*, 21(7), 1085-1100.
- Bhalla, S. (1987). Trends in Employment in Indian Agriculture, Land and Asset Distribution. *Indian Journal of Agricultural Economics*, 42(4), 537-560.

Study on Challenges and Scope of Apprenticeship Program in Bundelkhand Region in the View of Viksit Bharat@2047

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Abstract

This study delves into the current skill development landscape in Jhansi, Uttar Pradesh, India. It examines various initiatives undertaken by the government and international organizations, such as the "Learn and Earn" program, TITP (Technical Intern Training Program), and SSW (Specified Skilled Worker) program, to enhance the skill set of the local workforce. However, the analysis also acknowledges the challenges faced by Jhansi. Limited access to quality education, outdated curriculum content, and a lack of qualified teachers impede the progress of skill development efforts. Despite these hurdles, positive trends emerge. Jhansi boasts a significant rise in literacy rates, signifying a growing interest in education and skill acquisition. Additionally, the Indian government's dedication is evident through programs like "Skill India Mission". Furthermore, international collaborations with countries like Japan, demonstrate an ongoing commitment to skill exchange and development. While challenges persist, growth opportunities remain. By implementing a comprehensive model encompassing needs assessment, curriculum development, teacher training, industry-academia partnerships, financial assistance for students, technology-enabled learning, community engagement, and ongoing monitoring and evaluation, Jhansi can effectively address its existing gaps. This model holds the potential to transform Jhansi into a region with a skilled and competitive workforce, paving the way for a thriving economy.

Keywords: Skill Development, Apprenticeship, Viksit Bharat , BIDA

Introduction

With 1.42 billion inhabitants, India is the most populous nation and a prime candidate for substantial economic expansion through the demographic dividend (Saini, 2015). As India grows into a global superpower, it must provide its workforce with the knowledge and abilities necessary to meet international quality standards, advance commerce, integrate cutting-edge technologies into domestic enterprises, and boost industrial and economic advancement (Bano & Varghese, 2023). Thus, education and skills are the primary drivers of socioeconomic development and advancement in any country. An all-encompassing strategy for the future prosperity of the country is India's "Viksit Bharat 2047", which prioritizes inclusive development and economic success. (Singh, 2024). It is a vision or objective that aims to make India a fully developed country, usually by addressing several issues including social fairness, economic growth infrastructural development, and technological improvement. The phrase is frequently used in long-term strategies and plans meant to accomplish notable advancement and development in India.

With a life expectancy of 80.89 years, Jhansi has attained a literacy rate of 36.1% and an employment rate of 65.3%¹. The noteworthy increase in literacy rates from 36.1% to 65.3% indicates a populace that is becoming more adept at skill development and vocational training, which is consistent with the goal of Viksit Bharat @2047. Bundelkhand's increasing literacy rates encourage apprenticeship programs, but to guarantee that every district contributes to India's development objectives by 2047, the focus needs to be placed on places where rates are falling. For equal involvement in national efforts and long-term success, a better-educated workforce is essential.

Talent Optimization using Skill Mapping

In higher education, there is frequently a misalignment between the government's knowledge-based economic goals, the characteristics companies desire in graduates, and the skills offered by educational institutions. This mismatch might result in a skill deficit and graduates who aren't "work-ready." Degree apprenticeships (DAs) are ideal for bridging this gap since employers are directly involved in the design and delivery of education.

1 (Research) Changes in Demographic Characteristics in Bundelkhand Region: Evidences from Census 2001 & 2011 by Sarda Prasad, JNU. (n.d.). Retrieved from <https://bundelkhand.in/changes-in-demographic-characteristics-in-bundelkhand-region>

Employers collaborate with higher education institutions (HEIs) to shape the skills that graduates require through work-integrated learning (Konstantinou & Miller, 2020). Skill mapping involves evaluating the unique abilities that employees bring to the organization, tapping into the goldmine of skills within the team. This helps recognize and leverage diverse skill sets. By assessing the proficiency levels of key skills, skill mapping aids in determining how well those skills align with the needs of ongoing projects or tasks. In today's complex environment, where resources are limited, it has become essential for countries to use their existing resources as effectively and efficiently as possible. These resources include personnel, materials, equipment, and finances, all of which must be well-coordinated to maximize returns and minimize waste. The most important resource within any organization is its human capital, both managerial and technical. Other resources cannot be properly used unless people are present. Therefore, optimizing human capital is critical. However, it is also the most challenging resource to manage because each individual has unique abilities, talents, attitudes, motivations, and expertise. Therefore, optimizing human capital is critical. However, it is also the most challenging resource to manage because each individual has unique abilities, talents, attitudes, motivations, and expertise. These elements have a significant impact on their success (Murthy & Rajan, 2022). Apprenticeship programs aim to provide young learners with valuable, diverse skills. These programs help to solve talent shortages in a variety of underpopulated industries. Apprenticeships are especially advantageous to the construction industry, which is dealing with an aging workforce and low worker productivity. Despite this, several nations worldwide still have low apprenticeship completion rates in the construction business (Daniel et al., 2020). Employability, as defined by employers, typically refers to work readiness or job eligibility, which is linked to having the necessary skills, knowledge, and attributes to perform a job effectively. Employers expect individuals to be functionally adaptable by acquiring complementary skills, as well as behavioral and social competencies, to take on different roles (Meethal, 2014).

Role of HEI

Higher Education Institutions (HEIs) play a key role in skill development by providing specialized knowledge, and practical experience, and fostering both technical and soft skills. They enhance communication, teamwork, leadership, and problem-solving abilities while promoting innovation through startup incubators

and workshops² HEIs collaborate with industries for internships, ensuring graduates are job-ready with relevant skills. Digital literacy and lifelong learning are supported through online courses and technology integration HEIs also encourage global competence through international programs (Glazunova et al., 2022) Higher education institutions play a vital role in nurturing holistic development by emphasizing critical thinking through the use of case studies and interactive teaching methods. (Goteng et al., 2022). Furthermore, global exposure through international collaborations, exchange programs, and different curricula prepares students to work in international situations, ensuring they are well-prepared to tackle the difficulties of both their profession and a globalized world (Salem et al., 2022).

Strengthening Skill Acquisition and Employability

Across 660 training centers, 42% of participants received job offers, boosting the state's young employability rate to 72.7%, ranking it highly for computer skills, corporate communication, and critical thinking (De La Harpe et al., 2000). Uttar Pradesh has produced many employable graduates in polytechnic, MCA, and BCom fields, with 46.51% of female applicants employable, placing it just behind Rajasthan³. The Ministry of Skill Development and Entrepreneurship (MSDE) integrates employability outcomes and technical solutions through updated platforms and councils, while the Confederation of Indian Industry (CII) focuses on sustainable development across sectors, including education and skill development (Kausar, 2003) CII's analysis suggests that if India's demographic dividend is fully leveraged, its GDP could increase significantly by 2030 and 2047. The Association of Indian Universities (AIU) supports both central and state universities and collaborates globally, with 635 of India's 831 universities as members. Meanwhile, the All-India Council for Technical Education (AICTE), which started with engineering and technology programs, has become a leading authority in technical education, promoting industry growth and skill development nationwide (Sonam Prabhakar & Ashok Nimesh, 2022) The Association of Indian Universities (AIU) supports

both central and state universities and collaborates globally, with 635 of India's 831 universities as members (Mustafa et al., 2022)

To address the growing need for skilled workers and drive economic growth, governments are concentrating on improving skilled labor by funding vocational instructor training. Underwritten by a Memorandum of Cooperation (MoC) signed on October 17, 2017, Japan and India support the Technical Intern Training Program (TITP), which trains interns in skills relevant to developing nations. As a component of the Skill India Mission, India's "Learn and Earn" initiative provides a range of training options to enhance career opportunities and financial independence. Furthermore, the January 2021 program known as Specified Skilled Worker (SSW) covers twelve industries, including construction and nursing. To assist in their reemployment, the Swadesh plan seeks to compile a database of skilled individuals who are returning.

Viksit Bharat

"Hamara Sankalp Viksit Bharat" is a national effort to create awareness and ensure that government schemes are fully implemented in all Gram Panchayats, Nagar Panchayats, and Urban Local Bodies in India. It attempts to reach out to vulnerable persons who are qualified but have yet to benefit from these programs, as well as to disseminate information and build awareness. The initiative also aims to learn from beneficiary experiences and enroll new potential beneficiaries. The program aims to enhance citizen participation and accomplish the goal of a developed India by utilizing a "whole of government" approach that includes numerous Ministries, State Governments, and Central Organizations.⁴

Viksit Bharat is supposed to give its services based on three flagship programs.

- Tribal (under M/O Tribal Affairs): Several key initiatives are in place through the Ministry of Tribal Affairs to support and empower tribal communities. The Sickle Cell Anaemia Elimination Mission offers low-cost healthcare and seeks to reduce Sickle Cell Disease (SCD) prevalence through awareness and screening. The Eklavya Model Residential Schools offers free, high-quality education to ST children, and the Scholarship Schemes provide financial help to 30 lakh ST students. The Forest Rights Act acknowledges tribal rights to forest resources for their livelihood. Furthermore, the Van Dhan Yojana

2 Mokski, E., Filho, W.L., et al. (2022) Education for sustainable development in higher education institutions: an approach for effective interdisciplinarity. Available at: <https://www.emerald.com/insight/content/doi/10.1108/IJSHE-07-2021-0306/full/html?skipTracking=true> (Accessed: 06 September 2024).

3 State-wise Card Issued Record Ministry of Labour & Employment: Government of India. (n.d.). Retrieved from <https://labour.gov.in/state-wise-data>

4 (N.d.). Retrieved from <https://viksitbharatsankalp.gov.in/about>

increases tribal revenue through Minor Forest Produce (MFP), whereas PM Vishwakarma expands the market accessibility of artists' items.⁵

- **Rural Outreach:** The Government of India's Rural Outreach efforts aim to improve the quality of life for rural communities through a variety of schemes. Ayushman Bharat - PMJAY offers free health coverage of ₹5 lakhs per household annually to over 12 crore underprivileged families. 27.16 crore beneficiaries have now received Ayushman cards. PM Garib Kalyan. Anna Yojana provides free food grains to migrants and the destitute. The Deendayal Antyodaya Yojana - National Rural Livelihoods Mission seeks to alleviate deprivation by promoting self-employment and skilled wage jobs. Additionally, PM Awas Yojana (Rural) provides pucca houses, and PM Ujjwala Yojana offers free of charge connections for cooking fuel to those females who belongs to poor houses, promoting clean cooking fuel.⁵
- **Urban saturation Awareness:** Urban Saturation Awareness projects seek to broaden the reach and impact of important government programs in urban areas. The PM Svanidhi initiative, which is wholly supported by the Ministry of Housing and Urban Affairs, gives working capital loans to street vendors, promoting formalization and economic development. PM Vishwakarma has a goal to increase the market reach of artists, improvise their product quality and crafts people's products.

Pradhan Mantri MUDRA Yojana provides loans to small businesses which are free from any collateral deposits, whilst Startup India and Standup India promote entrepreneurship and innovation, particularly in underserved communities.⁶

Bida: Sectors of Opportunity

Uttar Pradesh, a state in India, is aggressively pursuing a strategy to boost its economic growth and development through numerous industries. This comprehensive approach encompasses initiatives in aviation, defense, semiconductors, MSMEs, films, agro-food processing, pharmaceuticals, electric vehicles, textiles, tourism, startups, IT & ITES, data centers, sports, logistics, renewable energy, and township development. Uttar Pradesh aims to create a conducive environment for investment, job creation, and economic growth by focusing on these key sectors. The state provides a variety of incentives and support measures to attract investors and enterprises, including as tax reductions, subsidies, infrastructure development, and talent development programs. The following sections will delve deeper into the specific policies and initiatives implemented in each of these sectors.

Sector	Role	Skill Required	Suggested Course
Aviation	Airport operations, MRO facilities, air cargo hubs, and fulfillment centers	Aviation management, MRO skills, logistics	Aviation Management, MRO Technology, Logistics Management
Defense	Defense & Aerospace projects, infrastructure development, and skill development	Defense technology, project management, engineering	Defense Technology, Aerospace Engineering, Project Management
Semi-Conductors	Semiconductor manufacturing, R&D, infrastructure building	Semiconductor technology, electronics, R&D skills	Semiconductor Technology, Electrical Engineering, R&D Management
MSME	Support for local businesses, quality certifications, and infrastructure development	Business management, quality control, entrepreneurship	Business Administration, Quality Management, Entrepreneurship
Films	Film production, cultural heritage promotion, and film city development	Film production, cultural studies, project management	Film Production, Cultural Studies, Media Management
Agro & Food-Processing	Agro-processing, food value addition, and market development	Agro-processing technology, market analysis, food science	Agro-Processing Technology, Food Science, Market Research

5 (N.d.). Retrieved from <https://viksitbharatsankalp.gov.in/flagship>

6 (N.d.). Retrieved from <https://viksitbharatsankalp.gov.in/flagship>

Pharma	Pharmaceutical production, R&D, and infrastructure development	Pharmaceutical technology, R&D, regulatory knowledge	Pharmaceutical Sciences, R&D Management, Regulatory Affairs
EV Manufacturing	Electric vehicle production, battery management, and sustainable practices	EV technology, battery management, sustainability	Electric Vehicle Technology, Battery Management, Sustainability Studies
Textile	Textile manufacturing, investment attraction, and skilled labor development	Textile engineering, manufacturing processes, design	Textile Engineering, Fashion Design, Manufacturing Management
Tourism	Tourism development, infrastructure, and service provider training	Tourism management, hospitality, customer service	Tourism Management, Hospitality Studies, Customer Service Training
Startup	Startup support, incubator space development, and entrepreneur support	Entrepreneurship, business development, innovation	Entrepreneurship, Business Development, Innovation Management
IT & ITEs	IT infrastructure development, smart town projects, and business ecosystem enhancement	IT management, software development, infrastructure planning	IT Management, Software Engineering, Urban Planning
Data Centers	Data center development, operation, and investment	Data center management, IT infrastructure, operations	Data Center Management, IT Infrastructure, Operations Management
Sports	Sports facility development, athlete training, and public-private partnerships	Sports management, physical training, public relations	Sports Management, Physical Education, Public Relations
Logistics	Logistics infrastructure, storage capacity, and employment generation	Logistics management, supply chain management, infrastructure planning	Logistics Management, Supply Chain Management, Infrastructure Planning
Renewable Energy	Renewable energy projects	Project management, sustainability	Renewable Energy Technology, Environmental Engineering, Sustainability Studies
Fortune 500	Investment attraction, regulatory framework development, and workforce skill development	Investment analysis, regulatory knowledge, workforce development	Investment Management, Regulatory Affairs, Workforce Development
Township	Planned city development, affordable housing, and urban sprawl management	Urban planning, real estate management, public policy	Urban Planning, Real Estate Management, Public Policy
Fig : Sectors of Opportunity (BIDA)			

Review of Literature

The rapid advancement of technology, globalization, and the scarcity of educational opportunities in emerging countries all contribute to the growing importance of knowledge and skills. Despite India's planned transition to a knowledge-based economy, the vast majority of its citizens lack the skills required for employment.⁷ India's enormous and diversified population poses both obstacles and possibilities in the area of education and developing necessary skill. Competitive and adaptive workforce which is skilled is critical to economic progress. Specific actions are required to bridge the employability gap and connect skills with rising industries. Current difficulties include access gaps, outdated curricula, and geographical disparities. The evaluation and enhancement of government activities such as the Skill India Mission and other related programs is vital for promoting education and skill development throughout

⁷ Roy, S., Dutta, A., & Bose, M. (2023). *The Indian Journal of Labour Economics*, 66(3), 885–909. doi:10.1007/s41027-023-00461-6

the country. (Patel & Judan Fernandes, n.d.) Moreover, the notion of "creative thinking" and its educational framework have been focusing on cognitive development, personality traits, and effective instructional approaches for improving creative thinking abilities. It demonstrates that the development of these skills is dependent on an individual's cognitive orientation and attitudes toward tasks. The technique comprises a review of psychological and educational research, as well as an examination of individual work, observations, and discussions, all of which indicate that individuals' cognitive orientation and attitudes toward tasks influence the development of creative thinking skills.(Assem et al., 2020). The integration of youth with Special Educational Needs and Disabilities (SEND) into vocational education and training (VET) is investigated, with a focus on supported internships (SIs), which include life skills development, job training, and academic courses in literacy and numeracy. The pedagogical framework of SIs and the role of systematic instruction are examined to better understand their effectiveness in promoting vocational learning for SEND students. An exploration of the design of SIs and the expansive-restrictive model of apprenticeship learning reveals significant implications for social inclusion and employment outcomes, drawing insights from an empirical study conducted in England.⁸ Successively Indian governments have implemented a variety of initiatives and expenditures to strengthen labour capacities. For instance, The Learning and Skills Council addressed these difficulties with the Support for Success quality improvement effort, which is handled by the Learning and Skills Development Agency(Okumu & Bbaale, 2019). The purpose is to draw attention to the outdated educational system that is still in place in our government-run institutions. This system has the potential to be a major deterrent and a curse for the future of this country—today's kids, tomorrow's young. We put up a plan to boost the country's skilled employment rate and get it closer to the "make in India" ideal.⁹

Nonetheless, many professional workers in India work in informal jobs, frequently without enough salary or benefits. Addressing critical criteria is required to increase the success of skill development programs in creating meaningful jobs. Initiative of Government of India's National Skill Development Mission is based

8 Khatwani, P. A., & Desai, K. S. (1970). *ERP Modules for Industry-Institute Interaction, Training and Placement, and Alumni Management*. Retrieved from <https://www.igi-global.com/chapter/content/70268>

9 (Proceedings of the 2014 IEEE International Conference on MOOCs, Innovation and Technology in Education (IEEE MITE 2014): 19-20 December, 2014, Thapar University, 2014)

on the concept that improving skills leads to more job possibilities(Narayanan & Nandi, 2017) .Based on enterprise and employment characteristics, respectively, clarifies the factors that influence informality. The literature defines informality as —"informal sector" and "informal employment". It is determined that workers' education, training, and gender are important for their contribution in the informal sector (Sheikh & Gaurav, 2020). The implementation of India's modified skills strategy in 2009, as well as its influence on blue-collar occupations, highlight substantial problems for HR and industrial relations professionals in workforce management. Employers are under pressure to secure temporary workers and offer job stability. A discrepancy between the government's skills policy aims and actual outcomes has emerged, exposing the ethical quandaries and ambiguities confronting businesses, students, and vocational training providers. This situation necessitates a more balanced approach to skill development, one that meets industrial issues while promoting workforce stability.¹⁰ When businesses have issues with the amount and quality of competent workers, they usually turn to internal training as their primary answer. Moreover, these companies are willing to collaborate on skill development efforts and take part in government-funded joint projects. It is proposed that key components of the German dual system be revised to better align Indian VET with labor market demands.(Mehrotra et al., 2015). A study was conducted on the Austrian firms using training companies and apprentices. The methodology successfully connects social participation and skill development, with variations in company practices reflecting the diverse purposes of training organizations give insights into vocational training legislation, educational methodologies, and related research which are offered, with a focus on the relationship between supportive work environments and the unique design of apprenticeship programs inside organizations.(Schlögl & Mayerl, 2024) .Employers focus on overcoming skills deficits for individual career growth, while employees prioritize external attributes like convenience and organizational brand. Employers prioritize content and accumulating specific human capital for the enterprise's needs. Employees' choice is related to higher assessment of qualifications by other employers. Informal forms of learning are prevalent among respondents with higher and secondary vocational education, and most employees prefer learning from experienced colleagues and receiving a university-rated certificate.

10 Ruthven, O. (2018). *Getting Dividend from Demography: Skills Policy and Labour Management in Contemporary Indian Industry*. *Journal of South Asian Development*, 13(3), 315-336. <https://doi.org/10.1177/0973174118822398>

Gaining entrepreneurial and vocational training skills is recognized as a benefit and safety net for escaping poverty, particularly during the last stages of the economic downturn and high unemployment. The variables affecting the perceived value and usefulness of skill development and empowerment to support the influence of these initiatives on reducing poverty in Nigerian families by encouraging more women to participate in small-scale companies. The target population will participate in comparable training more frequently in the future if government policy and program interventions take these findings into account. This will reduce regional poverty and assist to achieve its SDGs. (George et al., 2021) .

Objectives

1. To study the trends of education. (Bajna, Badanpur, Bachuni) block in Jhansi District.
2. To find opportunities in BIDA for the relevant education
3. To identify the skill gap among the students in the BIDA location of Jhansi

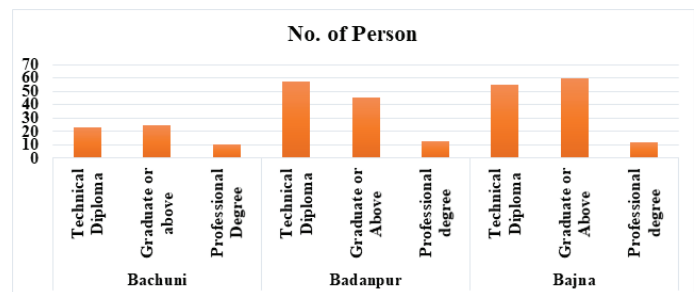
Methodology & Analysis

Sample Size: 300

Sampling Method: Simple Random Technique

Ha: *There is a significant relationship between geographical location and Educational Profile*

S. No	Area	Education Profile	No. of person
01	Bachuni	Technical Diploma	23
		Graduate or above	25
		Professional Degree	10
2	Badanpur	Technical Diploma	57
		Graduate or Above	45
		Professional Degree	13
3	Bajna	Technical Diploma	55
		Graduate or above	60
		Professional Degree	12



Based on the demographic information obtained through primary data collection, the educational qualifications of students living in Bachuni, Badanpur, and Bajna have been taken into account. The above graph and table show that Badanpiur has the most technical diploma students with 57, followed by Bajna with 55, and Bachuni with the fewest with 23. In the field of graduation, Bajna has the most students 60, followed by Badanpur with 45, and Bachuni with the fewest 10 pupils. In the field of professional degrees, it is least liked with 12 in Bajna, 13 in Badanpur, and 10 in Bachuni.

Based on the information the contingency table is as follows:

Chi-Square Test: The test of independence is a method used to decide if two categorical variables have a significant relationship. In other words, it helps to determine whether one variable's distribution is independent of another's.

Contingency Table: The rows indicate the various educational levels: technical diploma, graduate or above, and professional degree. Columns symbolize the villages of Bachuni, Badanpur, and Bajna. The figures in the table show the number of people with each educational profile in each community.

CONTINGENCY TABLE			
Education	Bachuni	Badanpur	Bajna
Technical Diploma	23	57	55
Graduate or above	25	45	60
Professional Degree	10	13	12

Observed Table(O): displays the actual counts (frequency) of individuals in each combination of two category variables: Education and Village. Specifically, it shows how many people in each hamlet (Bachuni, Badanpur, and Bajna) have a specific level of education. Total Column: Displays the total number of persons in all villages at each educational level. Total Row: Displays the total number of individuals in each village.

OBSERVED (O)				
Education	Bachuni	Badanpur	Bajna	Total
Technical Diploma	23	57	55	135
Graduate or above	25	45	60	130
Professional Degree	10	13	12	35
Total	58	115	127	300

Expected Frequencies Table (E): are the frequencies we would expect to find in each cell of a contingency table assuming the two variables Expected Frequencies: (row total*column total)/overall total

EXPECTED(E)			
	Bachuni	Badanpur	Bajna
Technical Diploma	26.1	51.75	57.15
Graduate or above	25.133	49.83	55.03
Professional Degree	6.76	13.41	14.81

Chi-square (Test of Independence):

(observed value -expected value) ^2/expected value

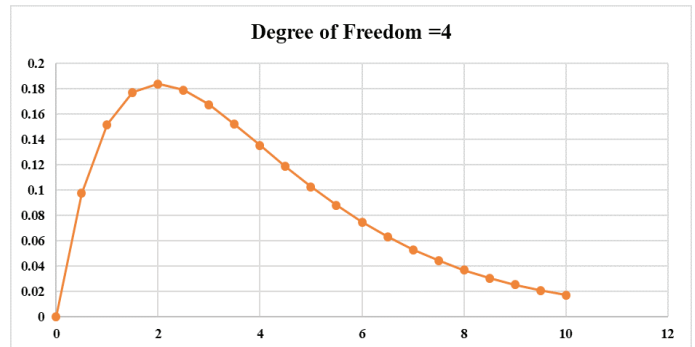
(O-E) ² / E			
	Bachuni	Badanpur	Bajna
Technical Diploma	0.36	0.53	0.08
Graduate or above	0.00	0.46	0.44
Professional Degree	1.54	0.01	0.53

Degree of Freedom: The degree of freedom is a key term in statistical tests, such as the Chi-Square Test of Independence. It represents the number of values that can be varied in the calculation of a statistic. The total number of categories or levels in a single variable (for example, the many educational profiles: Technical Diploma, Graduate or Above, Professional Degree). The total number of distinct categories or levels in the other variable (for example, the villages of Bachuni, Badanpur, and Bajna).

Degree of Freedom = (No. of row -1) *(No. of Columns -1)

P-Value: The p-value is the probability that assesses how significant evidence/s are that support the acceptance of the alternate hypothesis. A p-value (below ≤ 0.05) indicates significant evidence to reject the null hypothesis. In our study, p-value is greater than 0.05, therefore, we fail to reject the null hypothesis.

X-Square	3.99
Degree Of Freedom	4
P-Value	0.40



Findings & Suggestions

Based on the results, we conclude that there is no significant association between village and educational profile of students. This means that the distribution of educational profiles (technical diploma, graduate or above, professional degree) is not significantly different across the three villages (Bachuni, Badanpur, and Bajna).

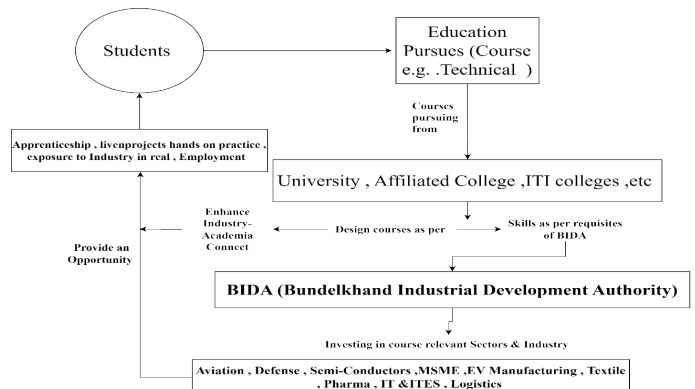


Fig: Industry -Academia Connect : BIDA

BIDA enhances skill development by aligning educational efforts with regional investment needs. Its strategic investment, both locally and internationally, improves job readiness and compensation prospects. BIDA's collaboration with international centers of excellence and NSDC introduces advanced technologies, enhancing skill development standards and driving economic progress and regional growth in Bundelkhand.

References

- Assem, A., Almaz, N., Dault, K., Aliya, M., Raushan, K., Gulmira, T., & Ulbossyn, A. (2020). Pedagogical Conditions for the Effective Formation of Creative Thinking of Art Students. In *Journal of Intellectual Disability-Diagnosis and Treatment* (Vol. 8).
- Bano, T., & Varghese, A. (2023). Viksit Bharat Sankalp Yatra: The Health Perspective. In *Indian Journal of Community Health* (Vol. 35, Issue 4, pp. 389–391). Indian Association of Preventive and Social Medicine. <https://doi.org/10.47203/IJCH.2023.V35I04.001>
- George, T. O., Oladosun, M., Oyesomi, K., Orbih, M. U., Nwokeoma, N., Iruonagbe, C., Ajayi, Lady, & Lawal-Solarin, E. (2021). Usefulness and expectations on skills development and entrepreneurship among women of low socioeconomic status in Ogun State, Nigeria. *African Journal of Reproductive Health*, 25(5 Special Issue), 171–187. <https://doi.org/10.29063/ajrh2021/v25i5s.16>
- Mehrotra, S., Kalaiyarasan, A., Kumra, N., & Ravi Raman, K. (2015). Vocational training in India and the duality principle: A case for evidence-based reform. *Prospects*, 45(2), 259–273. <https://doi.org/10.1007/s11125-015-9358-x>
- Narayanan, A., & Nandi, E. (2017). Do Skilled Workers Have Decent Jobs? In *Indian Journal of Human Development* (Vol. 11, Issue 1, pp. 124–132). Sage Publications India Pvt. Ltd. <https://doi.org/10.1177/0973703017715920>
- Okumu, I. M., & Bbaale, E. (2019). Technical and vocational education and training in Uganda: A critical analysis. *Development Policy Review*, 37(6), 735–749. <https://doi.org/10.1111/dpr.12407>
- Patel, A., & Judan Fernandes, J. (n.d.). GAP BODHI TARU A GLOBAL JOURNAL OF HUMANITIES THE SIGNIFICANCE OF SKILL DEVELOPMENT AND EDUCATION IN INDIA. www.jacksanfernandes.com,
- Proceedings of the 2014 IEEE International Conference on MOOCs, Innovation and Technology in Education (IEEE MITE 2014) : 19-20 December, 2014, Thapar University. (2014). IEEE.
- Saini, V. (2015). SKILL DEVELOPMENT IN INDIA: NEED, CHALLENGES AND WAYS FORWARD (Vol. 4, Issue 4). www.abhinavjournal.com
- Schlögl, P., & Mayerl, M. (2024). ‘How’ and ‘why’ cannot be separated: empirical insights into the company-based part of apprenticeship training in Austria. *Studies in Continuing Education*, 46(2), 230–245. <https://doi.org/10.1080/0158037X.2023.2219444>
- Singh, N. R. (2024). Inclusive And Viksit Bharat 2047: A Proactive Strategy To A Better Future. *Educational Administration: Theory and Practice*, 9116–9122. <https://doi.org/10.53555/kuey.v30i5.4521>
- Entrepreneurship Skill Development. (n.d.).
- Ganie, g. R. (2022). Nep, 2020: challenges and possible solutions of vocational education and training in India. *Towards excellence*, 708–720. <https://doi.org/10.37867/te140168>
- Rathod, f. D., & Shrivastava, p. (2021). Prospects and implementation of nep-2020: competency-based education for employability. <https://doi.org/10.25215/2455/0604008>
- Sadhna; Tallapragada, r., & abba, e. (n.d.). Nurturing sustainable careers: how new India’s nep 2020 is driving employability through skills-based education. *Journal of management for global sustainability*, 11(2), 7. <https://doi.org/10.13185/jm2023.11206>
- Saini, v. (2015). Skill development in India: need, challenges and ways forward (vol. 4, issue 4). www.abhinavjournal.com
- Wankhade, r. S. (2021). International journal of researches in social science and information studies higher education and nep-2020: vol. I. www.ijrssi.in (industry reports | national skill development corporation (NSDC), 2018)
- Periodic labour force survey (PLFS) annual report 2022-2023 released. (2022). pib.gov.in. <https://pib.gov.in/pressreleaseiframepage.aspx?prid=1966154>
- (N.d.). Retrieved from <https://www.msde.gov.in/sites/default/files/2023-09/Final%20Skill%20AR%20Eng.pdf>
- Kumar, K., Prakash, A., & Singh, K. (2021). How National Education Policy 2020 can be a lodestar to transform future generation in India. *Journal of Public affairs*, 21(3), e2500.
- Suwarsi, S., Frendika, R., Abdurrahman, D., Herdiyati, S. D., & Nurfiani, A. (2020, March). Effectiveness of Training and Development Toward Cultural Competence of Indonesian Fisheries Migrant in South Korea. In 2nd Social and Humaniora Research Symposium (SoRes 2019) (pp. 435-440). Atlantis Press.
- Efendi, F., Aurizki, G. E., Auwalin, I., Kurniati, A., Astari, L. D., Puspitasari, I. T., & Chong, M. C. (2022). The paradox of surplus and shortage: A policy analysis of nursing labor markets in Indonesia. *Journal of multidisciplinary healthcare*, 627-639.
- (N.d.). Retrieved from <https://committees.parliament.uk/publications/39117/documents/192286/default/>
- (N.d.). Retrieved from <https://www.msde.gov.in/sites/default/files/2023-09/Final%20Skill%20AR%20Eng.pdf>
- Baporikar, N. (2022). Entrepreneurial University Challenges and Critical Success Factors to Thrive. *International Journal of Applied Management Theory and Research (IJAMTR)*, 4(1), 1-15.
- Petrenko, Y., Masood, O., Javaria, K., Vechkinzova, E., & Elena, V. (2019). Entrepreneurship education and startups: a case study of less developed countries. *Journal of System and Management Sciences*, 9(4), 39-49.
- Bandono, A., Bastari, A., & Suharyo, O. S. (2021). The relations concept of Indonesia-India; political, education, and defense perspective. *Global Journal of Engineering and Technology Advances*, 7(3), 071-082.
- Hardiyansyah, H. (2022, August). Proceedings of the 2nd Social and Humaniora Research Symposium (SoRes 2019). In Proceedings of the 2nd Social and Humaniora Research Symposium (SoRes 2019).

- Kaliraj, P., & Devi, T. (2022). Innovating higher education 4.0 in the era of industry 4.0. In *Industry 4.0 technologies for education* (pp. 1-10). Auerbach Publications.
- Donitsa-Schmidt, S., & Ramot, R. (2020). Opportunities and challenges: teacher education in Israel in the Covid-19 pandemic. *Journal of Education for Teaching*, 46(4), 586-595.
- Venning, E. (2023). Size is Everything: What small, specialist and practice-based providers tell us about the higher education sector.
- Abo-Khalil, A. G. (2024). Integrating Sustainability into Higher Education Challenges and Opportunities for Universities Worldwide. Heliyon.
- Hart, D. D., Buizer, J. L., Foley, J. A., Gilbert, L. E., Graumlich, L. J., Kapuscinski, A. R., ... & Silka, L. (2016). Mobilizing the power of higher education to tackle the grand challenge of sustainability: Lessons from novel initiatives. *Elementa: Science of the Anthropocene*, 4.

Growth Performance of Aspirational District Programme in India

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Abstract

An attempt has been made to analyse the growth performance of aspirational district program in India. As indicated by the decline in employment flexibility and productivity during the past few years, India has had phenomenal GDP growth rates, considerably over the national average. In this paper, the growth and performance of ADP in terms of composite score (% improvement) at the national level from 2020 to 2023 were analysed. The final analysis calculated each aspirational district performance as a percentage and a year-by-year growth rate at the national level. The growth rates are both positive and negative in the study districts, but the changes are optimistic given the scheme's rural focus. In the coming years, unemployment and poverty can be eliminated. Slow and steady growth can result in long-term changes. The present study recommends.

Keywords- Employment Generation, DDU-GKY, Skill Development, Aspirational District Program, NITI Aayog, India

Introduction

In January 2018, the Government of India launched the Aspirational District Programme (ADP), which is a ground-breaking initiative to expedite development in the most impoverished districts of the nation. The program aimed to uplift 115 districts of the country that have been identified as aspirational due to their socio-economic challenges by concentrating on key sectors like health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure. The main goal of the ADP is to quickly raise the standard of living and economic prosperity of the people living in these areas by utilising a "convergence, collaboration, and competition" strategy. The goal of this research paper is to present a thorough analysis of the growth performance of Aspirational District Programme on a national scale. The objective of the study is to examine the growth and performance

of aspirational district programs in terms of composite score (% improvement) and growth rate at the national level from 2020 to 2023. The study relied on the secondary data taken from the website called champions of change. The examination spans the time from the launch of the program to the present and provides insights into areas that have progressed and those that still need work.

The motivation for this research stems from the critical need to assess large-scale policy interventions aimed at reducing disparities and promoting inclusive development. Replicating or improving comparable initiatives can benefit greatly from policymakers, stakeholders, and researchers having a thorough understanding of the growth trajectories of aspirational districts. This analysis highlights the success stories while also identifying bottlenecks that may impede the growth of these districts. This research is significant as it aligns with the broader national agenda of fostering inclusive

growth and addressing socio-economic disparities. By evaluating the composite score, this study endeavours to inform policy interventions and strategic interventions thereby contributing to the realisation of a more equitable and prosperous society in India.

Review of literature

The Aspirational Districts Programme (ADP) reports provide a comprehensive evaluation of this transformative initiative aimed at improving the socioeconomic status of India's most underdeveloped districts. The concepts of Convergence, Collaboration, and Competition are emphasised in the "Transformation of Aspirational Districts: Primer" and "Deep-Dive: Insights from Champions of Change" documents. The Champions of Change (CoC) Dashboard plays a crucial role in promoting data-driven, in-the-moment decision-making. The "Aspirational Districts Programme: An Appraisal" and "An Assessment of the Aspirational Districts Programme" reports use techniques like the Difference-in-Difference (DiD) analysis to substantiate these gains, highlighting notable improvements in important sectors like health, education, and agriculture. They also emphasise the importance of ongoing capacity development and propose tailored interventions through peer group formation among districts. By presenting case studies and success stories that highlight how specific initiatives have improved people's lives in measurable ways, "Stories of Change 2022" humanises the ADP and gives it a more grounded edge. Collectively, these reports validate the efficacy of the ADP, its strategic utilisation of data and collaboration, and its potential to serve as a replicable model for inclusive development in other regions confronting comparable challenges.

Several key factors influence the growth performance of the ADP in India. First and foremost, the ADP prioritises a data-driven governance system in order to accomplish developmental goals that are in line with the UN Sustainable Development Goals (Chakrabarty and Konwar, 2024). Second, the implementation of irrigation facilities for farming has significantly increased agricultural productivity and commercial crop production in the districts, resulting in increased cultivation on agricultural lands (Roli, Misra, Kumar, Tewari, 2023). Also, districts have been designated by the National Health Mission (NHM) as the centre of health programs, highlighting the role of district officials and leadership in enhancing overall health (Bhatia, Rath.,

Kumar, Singh. 2018). The ADP can effectively promote growth and development in aspirational districts throughout India by concentrating on these elements, such as data-driven governance, district-level healthcare initiatives, and agricultural productivity.

Objectives

The main objective of the study is to examine the growth and performance of aspirational district programs in terms of composite score (% improvement) and growth rate at the national level from 2020 to 2023.

Methodology

Secondary data from the "Champions of Change" dashboard on the official website of NITI Aayog is used in this research. The analysis centres on the composite scores obtained over a three-year period, from 2020 to 2023, from all districts taking part in ADP. These composite scores show the incremental improvement each district has made in relation to 49 Key Performance Indicators (KPIs) that are divided into five major socioeconomic themes: education (30%), health and nutrition (30%), agriculture and water resources (20%), financial inclusion and skill development (10%), and infrastructure (10%). The annual growth rates of these composite scores were computed and examined at the state and district levels in order to perform a comprehensive evaluation. Based on the KPIs' annual improvements, the incremental progress was calculated and ranked. Following that, the data were sorted to make comparison analysis easier and to spot trends and patterns in the performance of various states and districts. The study aims to provide a comprehensive assessment of the impact of the ADP and identify areas of significant progress as well as those requiring additional intervention by concentrating on these particular KPIs and themes. This methodological approach guarantees a thorough comprehension of the program's efficacy in promoting socio-economic development in India's most impoverished areas.

Data analysis and discussion

Table 1 gives the data of composite scores and growth rates for districts across various states in India under the ADP. These scores indicate the percentage improvement over a baseline period (t-3), reflecting the development progress of the districts. The following graphs were made upon differentiate state wise progress and for better insights.

Table-1: Year Wise Composite Score (% improvement t-3) of ADP in India

State Name	District Name	2020	2021 (Growth rate)	2022 (Growth rate)	2023 (Growth rate)
Andhra Pradesh	Visakhapatnam	16.55	—	—	—
Andhra Pradesh	Vizianagaram	19.65	—	—	—
Andhra Pradesh	Y.S.R kadapa	13.91	16.46 (0.18)	18.11 (0.1)	19.05 (0.05)
Arunachal Pradesh	Namsai	29.88	32.9 (0.1)	35.4 (0.07)	37.03 (0.04)
Assam	Baksa	20.99	24.83 (0.18)	27.72 (0.11)	30.13 (0.08)
Assam	Barpeta	27.64	30.36 (0.09)	32.39 (0.06)	34.78 (0.07)
Assam	Darrang	34.33	37.77 (0.1)	39.93 (0.05)	41.58 (0.04)
Assam	Dhubri	20.48	24.26 (0.18)	26.71 (0.1)	27.99 (0.04)
Assam	Goalpara	27.83	32.54 (0.16)	35.39 (0.08)	37.64 (0.06)
Assam	Hailakandi	20.15	23.76 (0.17)	24.37 (0.02)	24.17 (0)
Assam	Udalguri	23.13	24.92 (0.07)	26.45 (0.06)	28.34 (0.07)
Bihar	Araria	33.26	36.6 (0.1)	38.37 (0.04)	40.52 (0.05)
Bihar	Aurangabad	22.02	23.05 (0.04)	23.09 (0)	23.14 (0)
Bihar	Banka	24.24	26.4 (0.08)	27.75 (0.05)	29.19 (0.05)
Bihar	Begusarai	30.1	31.91 (0.06)	31.73 (0)	31.76 (0)
Bihar	Gaya	20.39	21.78 (0.06)	20.99 (-0.03)	20.9 (0)
Bihar	Jamui	25.51	25.16 (-0.01)	24.58 (-0.02)	24.43 (0)
Bihar	Katihar	21.85	27.37 (0.25)	31.43 (0.14)	34.4 (0.09)
Bihar	Khagaria	24.69	26.69 (0.08)	27.24 (0.02)	27.89 (0.02)
Bihar	Muzaffarpur	16.04	17.76 (0.1)	19.88 (0.11)	21.71 (0.09)
Bihar	Nawada	18.29	20.26 (0.1)	22.48 (0.1)	24.21 (0.07)
Bihar	Purnia	23.28	27.02 (0.16)	31.96 (0.18)	36.19 (0.13)
Bihar	Sheikhpura	26.02	28.72 (0.1)	30.58 (0.06)	32.53 (0.06)
Bihar	Sitamarhi	15.79	19.01 (0.2)	22.14 (0.16)	24.65 (0.11)
Chhattisgarh	Bastar	18.14	19.46 (0.07)	19.87 (0.02)	20.72 (0.04)
Chhattisgarh	Bijapur	14.03	15.74 (0.12)	16.34 (0.03)	16.04 (-0.01)
Chhattisgarh	Dakshin Bastar Dantewada	20.63	21.41 (0.03)	21.31 (0)	21.26 (0)
Chhattisgarh	Kondagaon	19.86	20.21 (0.01)	19.38 (-0.04)	19.05 (-0.01)
Chhattisgarh	Korba	17.03	18.51 (0.08)	18.65 (0)	18.4 (-0.01)
Chhattisgarh	Mahasamund	19.31	20.96 (0.08)	21.51 (0.02)	21.12 (-0.01)
Chhattisgarh	Narayanpur	17.54	19.55 (0.11)	20.15 (0.03)	21.2 (0.05)
Chhattisgarh	Rajnandgaon	18.42	19.03 (0.03)	19.64 (0.03)	20.38 (0.03)
Chhattisgarh	Sukma	25.4	31.43 (0.23)	34.83 (0.1)	36.78 (0.05)

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Chhattisgarh	Uttar Bastar Kanker	23.98	24.5 (0.02)	25.21 (0.02)	25.96 (0.02)
Gujarat	Dohad	17.8	19.52 (0.09)	19.99 (0.02)	19.98 (0)
Gujarat	Narmada	22.98	24.36 (0.06)	24.19 (0)	24.31 (0)
Haryana	Mewat	25.85	26.53 (0.02)	27.07 (0.02)	28.06 (0.03)
Himachal Pradesh	Chamba	21.98	23.29 (0.05)	23.57 (0.01)	23.33 (-0.01)
Jammu & Kashmir	Baramula	14.7	15.79 (0.07)	16.45 (0.04)	17.27 (0.04)
Jammu & Kashmir	Kupwara	24.24	25.17 (0.03)	25.25 (0)	25.24 (0)
Jharkhand	Bokaro	14	14.85 (0.06)	15.45 (0.04)	15.97 (0.03)
Jharkhand	Chatra	13.32	13.44 (0)	14.16 (0.05)	13.92 (-0.01)
Jharkhand	Dumka	13.66	15.15 (0.1)	14.75 (-0.02)	13.36 (-0.09)
Jharkhand	Garhwa	17.83	20.32 (0.13)	20.8 (0.02)	20.58 (-0.01)
Jharkhand	Giridih	19.11	21.28 (0.11)	21.86 (0.02)	21.83 (0)
Jharkhand	Godda	22.41	22.73 (0.01)	23.64 (0.04)	23.93 (0.01)
Jharkhand	Gumla	16.7	18.57 (0.11)	19.81 (0.06)	20.64 (0.04)
Jharkhand	Hazaribagh	16.8	18 (0.07)	17.92 (0)	17.75 (0)
Jharkhand	Khunti	21.16	21.81 (0.03)	21.27 (-0.02)	20.51 (-0.03)
Jharkhand	Latehar	24.28	26.12 (0.07)	27.62 (0.05)	29.49 (0.06)
Jharkhand	Lohardaga	22.2	22.93 (0.03)	22.3 (-0.02)	22.34 (0)
Jharkhand	Pakur	16.64	18.03 (0.08)	18.48 (0.02)	18.68 (0.01)
Jharkhand	Palamu	25.66	26.89 (0.04)	26.44 (-0.01)	26.2 (0)
Jharkhand	Pashchimi Singhbhum	15.32	18.35 (0.19)	17.79 (-0.03)	16.94 (-0.04)
Jharkhand	Purbi Singhbhum	16.67	18.3 (0.09)	18.05 (-0.01)	17.82 (-0.01)
Jharkhand	Ramgarh	12.66	12.61 (0)	12.37 (-0.01)	12.3 (0)
Jharkhand	Ranchi	35.99	35.58 (-0.01)	35.43 (0)	35.75 (0)
Jharkhand	Sahibganj	24.7	26.1 (0.05)	26.95 (0.03)	28.43 (0.05)
Jharkhand	Simdega	34.54	36.42 (0.05)	38.18 (0.04)	39.19 (0.02)
Karnataka	Raichur	11.54	13.19 (0.14)	13.04 (-0.01)	12.88 (-0.01)
Karnataka	Yadgir	11.32	12.09 (0.06)	12.19 (0)	11.63 (-0.04)
Kerala	Wayanad	25.08	29.41 (0.17)	32.14 (0.09)	34.23 (0.06)
Madhya Pradesh	Barwani	27.28	30.42 (0.11)	33 (0.08)	35.35 (0.07)
Madhya Pradesh	Chhatarpur	14.46	16.45 (0.13)	16.95 (0.03)	17.39 (0.02)
Madhya Pradesh	Damoh	22.72	24.68 (0.08)	25.9 (0.04)	26.75 (0.03)
Madhya Pradesh	Guna	10.23	16.5 (0.61)	20.1 (0.21)	22.33 (0.11)
Madhya Pradesh	Khandwa (East Nimar)	18.71	20.58 (0.09)	20.47 (0)	20.06 (-0.02)

Madhya Pradesh	Rajgarh	20.9	24.33 (0.16)	25.68 (0.05)	26.71 (0.04)
Madhya Pradesh	Singrauli	25.03	29.38 (0.17)	32.1 (0.09)	34.64 (0.07)
Madhya Pradesh	Vidisha	26.25	28.64 (0.09)	29.5 (0.03)	30.04 (0.01)
Maharashtra	Gadchiroli	14.89	15.64 (0.05)	14.74 (-0.05)	13.85 (-0.06)
Maharashtra	Nandurbar	20.56	23.8 (0.15)	24.92 (0.04)	25.97 (0.04)
Maharashtra	Osmanabad	15.63	16.43 (0.05)	16.03 (-0.02)	15.57 (-0.02)
Maharashtra	Washim	15.86	17.51 (0.1)	17.4 (0)	16.88 (-0.02)
Manipur	Chandel	32.43	34.7 (0.06)	36.69 (0.05)	37.16 (0.01)
Meghalaya	Ribhoi	15.92	17.55 (0.1)	17.92 (0.02)	18.32 (0.02)
Mizoram	Mamit	22.54	26.13 (0.15)	28.9 (0.1)	30.24 (0.04)
Nagaland	Kiphire	8	12 (0.5)	14.8 (0.23)	16.97 (0.14)
Odisha	Balangir	15.32	18.1 (0.18)	19.07 (0.05)	19.83 (0.03)
Odisha	Dhenkanal	22.2	25.97 (0.16)	27.12 (0.04)	27.79 (0.02)
Odisha	Gajapati	25.27	26.29 (0.04)	26.97 (0.02)	27.44 (0.01)
Odisha	Kalahandi	20.66	24.66 (0.19)	26.91 (0.09)	28.35 (0.05)
Odisha	Kandhamal	20.37	24.53 (0.2)	26.5 (0.08)	27.62 (0.04)
Odisha	Koraput	30.74	33.79 (0.09)	35.14 (0.03)	36.15 (0.02)
Odisha	Malkangiri	13.09	15.77 (0.2)	17.42 (0.1)	18.53 (0.06)
Odisha	Nabarangapur	11.91	16 (0.34)	18.85 (0.17)	20.98 (0.11)
Odisha	Nuapada	15.78	21.12 (0.33)	24.51 (0.16)	27.18 (0.1)
Odisha	Rayagada	26.39	29.28 (0.1)	30.07 (0.02)	30.48 (0.01)
Punjab	Firozpur	22.68	23.77 (0.04)	24.3 (0.02)	24.63 (0.01)
Punjab	Moga	20.71	24.93 (0.2)	26.87 (0.07)	27.77 (0.03)
Rajasthan	Baran	16.93	18.14 (0.07)	18.27 (0)	18.38 (0)
Rajasthan	Dhaulpur	10.82	11.95 (0.1)	11.96 (0)	12.19 (0.01)
Rajasthan	Jaisalmer	21.85	23.65 (0.08)	25.26 (0.06)	26.64 (0.05)
Rajasthan	Karauli	20.72	22.75 (0.09)	23.6 (0.03)	23.89 (0.01)
Rajasthan	Sirohi	19.71	22.18 (0.12)	23.44 (0.05)	24.66 (0.05)
Sikkim	West District	18.47	20.28 (0.09)	—	—
Tamil Nadu	Ramanathapuram	17.46	18 (0.03)	18.26 (0.01)	18.34 (0)
Tamil Nadu	Virudhunagar	23.17	24.58 (0.06)	25.15 (0.02)	25.4 (0)
Telangana	Asifabad (Adilabad)	17.81	22.34 (0.25)	25.81 (0.15)	28.77 (0.11)
Telangana	Bhadradi- Kothagudem	17.46	22.19 (0.27)	26.37 (0.18)	28.78 (0.09)
Telangana	Bhoopalapalli (Warangal)	5	5 (0)	5 (0)	5 (0)

Growth Performance of Aspirational District Programme in India

Tripura	Dhalai	21.05	21.68 (0.02)	21.83 (0)	22.31 (0.02)
Uttar Pradesh	Bahraich	28.06	32.83 (0.16)	35.87 (0.09)	38.03 (0.06)
Uttar Pradesh	Balrampur	49.03	55.67 (0.13)	60.36 (0.08)	64.09 (0.06)
Uttar Pradesh	Chandauli	31.79	35.88 (0.12)	38.64 (0.07)	40.54 (0.04)
Uttar Pradesh	Chitrakoot	28.81	33.87 (0.17)	36.05 (0.06)	36.29 (0)
Uttar Pradesh	Fatehpur	31.48	35.35 (0.12)	37.7 (0.06)	39.19 (0.03)
Uttar Pradesh	Shrawasti	30.08	33.01 (0.09)	35.13 (0.06)	36.68 (0.04)
Uttar Pradesh	Siddharthnagar	37.7	42.44 (0.12)	45.86 (0.08)	47.69 (0.03)
Uttar Pradesh	Sonbhadra	32.75	36.5 (0.11)	39.1 (0.07)	41.14 (0.05)
Uttarakhand	Hardwar	18.16	20.82 (0.14)	22.36 (0.07)	23.55 (0.05)
Uttarakhand	Udham Singh Nagar	15.69	17.34 (0.1)	19.03 (0.09)	20.66 (0.08)

Source: Author Computation

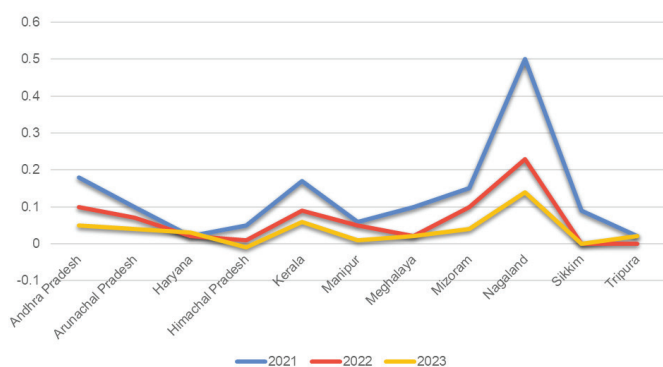


Figure 1: Composite Score Growth Rate for 11 States in India

Figure 1 presents annual growth rates for the composite scores of districts in different Indian states that are part of the ADP for the years 2021, 2022, and 2023. The total growth rate for each district over the course of these years is represented by each bar, with segments coloured blue for 2021, red for 2022, and yellow for 2023. Kiphire district of Nagaland displays the highest cumulative growth, with 2021 and 2022 showing especially strong growth, indicating notable improvements in these years. Mamit district of Mizoram Similarly shows noteworthy growth, increasing steadily over the course of the three years. In Kerala Wayanad district Shows significant growth, especially in 2021, and continues to advance steadily in the years that follow. Both Andhra Pradesh (Y.S.R kadapa)and Arunachal Pradesh (Namsai) exhibit notable growth in 2021, with moderate growth in the years that follow. West District of Sikkim, Manipur (Chandel), and Tripura (Dhalai) Shows a moderate to high growth, with rates that vary annually. Haryana

(Mewat) and Himachal Pradesh (Chamba) Show more moderate growth, suggesting comparatively slower progress in comparison to other states. Chamba district having negative growth in the year 2023.

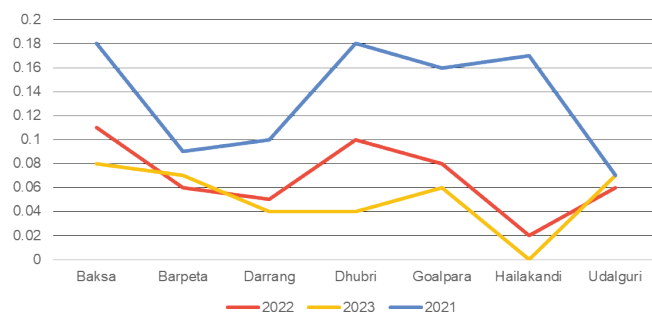


Figure 2: Composite Score Growth Rate for District of Assam

Figure 2 depicts the composite score growth rates for districts in Assam covered by the ADP in 2021, 2022, and 2023. Baksa exhibits rapid growth in 2021, a sharp decline in 2022, and then a stabilisation of the rate in 2023. Barpeta has shown a declining trend over the years, with a higher growth rate in 2021 and a steady decline in 2022 and 2023. In Darrang, the growth rate peaks in 2021, declines in 2022, and then stabilises again in 2023, when it experiences the lowest growth rate out of the three years. In 2021, Dhubri exhibits a consistently high growth rate; however, in 2022 and 2023, this declines sharply. Goalpara grows rapidly in 2021, continues to grow steadily in 2022, and then experiences a minor decline in 2023. With a relatively high growth rate in 2021 and a sharp decline in 2022 and 2023, Hailakandi exhibits a declining growth trend. Udalguri's growth rate increases in 2021, decreases

in 2022, and recovers in 2023, culminating in a growth rate that is higher than in 2022. All things considered, the graph shows differing patterns in the growth rates in Assamese districts. Certain districts—like Baksa and Udalguri—show fluctuations in growth rates but show signs of recovery by 2023, while other districts—like Barpeta and Dhubri—show a persistent decline. This variability indicates varying levels of effectiveness and challenges in the implementation of the ADP in these districts, emphasising the need for further analysis of the specific factors contributing to these trends in order to provide insights into the program's success and areas for improvement.

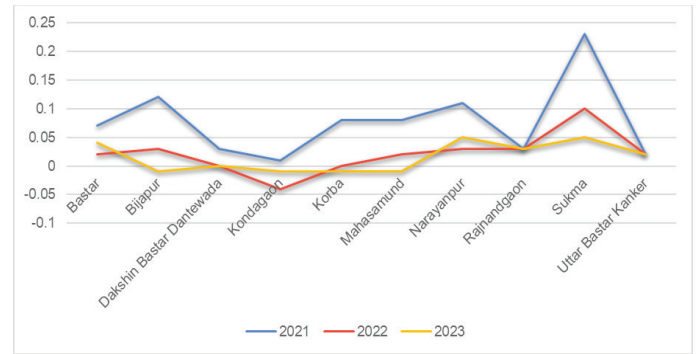


Figure 4: Composite Score Growth Rate for District of Chhattisgarh

Figure 4 shows the composite score growth rates for the years 2021, 2022, and 2023 for different districts in Chhattisgarh under the ADP. Sukma stands out in particular with a notable growth rate spike in 2021, a slight but steady decline in 2022, and a sharp decline in 2023. This district has the biggest improvement in 2021, but then experiences a downturn. Some districts, like Bastar and Bijapur, show moderate growth in 2021, but then gradually contract in the years that follow, suggesting a slowdown in momentum. On the other hand, districts such as Kondagaon and Korba exhibit a declining pattern, exhibiting negative growth rates in certain years, especially in 2021 and 2023, indicating possible difficulties in these regions. During all three years, Mahasamund, Narayanpur, and Rajnandgaon show low but consistent growth rates, indicating slow but steady progress. The Uttar Bastar Kanker exhibits only slight variations, growing at a relatively slow rate each year. Overall, the graph shows that, while Sukma experienced remarkable growth at first, many districts either struggled with negative growth or showed only modest improvements, highlighting the need for targeted interventions to sustain and enhance development in these areas.

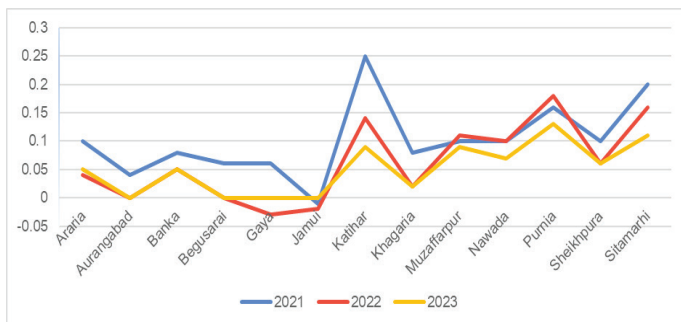


Figure 3: Composite Score Growth Rate for District of Bihar

Figure 3 shows the composite score growth rates for the years 2021, 2022, and 2023 for different districts in Bihar under the ADP. With a notable uptick in growth in 2021 and a subsequent decline in growth, but still positive, Katihar stands out as having made significant progress, especially in 2021. In 2022 and 2023, Sitamarhi continues to demonstrate steady progress, with slightly lower but consistent growth rates in those years. In contrast, districts such as Aurangabad and Begusarai show consistent, low growth rates over the course of the three years, indicating a gradual but steady progress. However, Gaya and Jamui show concerning trends with negative growth rates in some years, particularly Gaya, which shows a declining trend from 2021 to 2023, indicating potential challenges in maintaining development momentum. Purnia exhibits notable expansion, particularly in 2022 and 2023, after a robust 2021, indicating successful interventions in this district. Over the years, Khagaria and Muzaffarpur have shown moderate but steady improvement, indicating positive trends. The graph shows that the districts have different growth patterns overall, with some, like Sitamarhi and Katihar, showing strong growth and others, like Gaya and Jamui, facing difficulties.

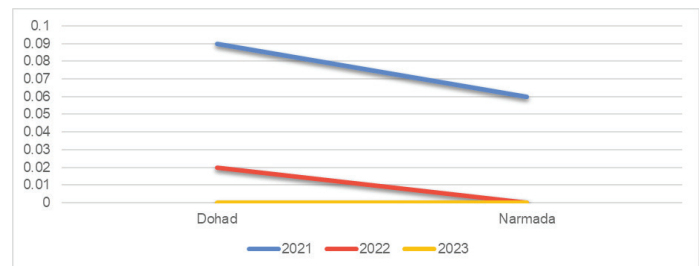


Figure 5: Composite Score Growth Rate for District of Gujarat

Figure 5 displays the composite score growth rates for the ADP in Gujarat for the districts of Dohad and Narmada for the years 2021, 2022, and 2023. The growth rates over these years show a downward trend in both

districts. Dohad exhibits a consistent decline in 2022 and 2023 after beginning 2021 with a relatively higher growth rate. Comparably, Narmada exhibits a declining trend, even though its overall growth rates are lower than those of Dohad. It is clear that progress has slowed significantly because by 2023 both districts have reached near-zero or minimal growth.

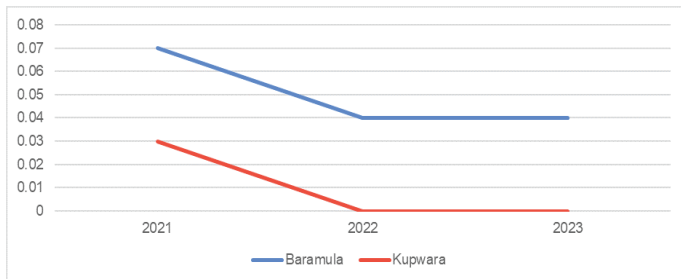


Figure 6: Composite Score Growth Rate for District of Jammu & Kashmir

The ADP composite score growth rates for the districts of Baramula and Kupwara in Jammu & Kashmir for the years 2021, 2022, and 2023 are displayed in the graph. The growth rates over these years clearly indicate a downward trend in both districts. Baramula's growth rate is relatively higher in 2021, but by 2022 it has dropped sharply, and by 2023 it is stagnant. In a similar vein, Kupwara shows a steady decline in growth rate between 2021 and 2022, finally reaching zero growth in 2023. This pattern points to possible difficulties or inefficiencies in maintaining progress and indicates a considerable loss of momentum in these districts' development efforts.

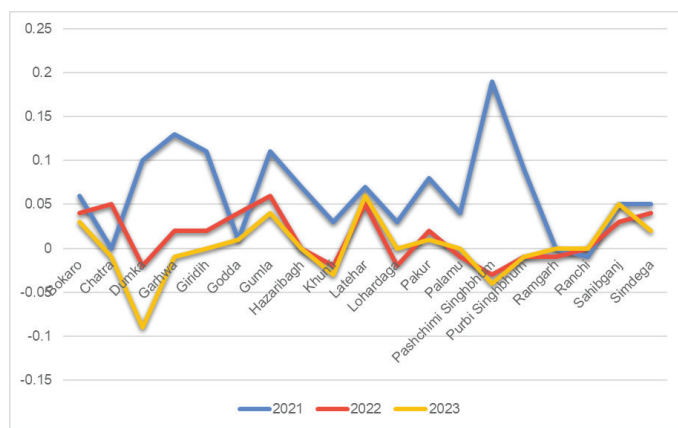


Figure 7: Composite Score Growth Rate for District of Jharkhand

Figure 7 shows notable performance variability, displays the composite score growth rates for different districts in Jharkhand under the ADP for the years 2021, 2022, and 2023. Significant growth rate spikes were observed in districts such as Garhwa and Giridih in 2021; these were

followed by a decline in 2022 and a further reduction or stabilisation in 2023, suggesting that the initial progress made was not maintained in subsequent years. After experiencing moderate growth in 2021 and 2022, Dumka exhibits a sharp decline in 2023, with its growth rate going negative, which reflects difficulties in maintaining development momentum. Chatra shows comparable oscillations as well, with different rates of growth over time. The growth rates of Latehar, Khunti, and Palamu are negative or almost nonexistent, indicating ongoing difficulties in sustaining advancement. Conversely, districts such as Godda, Gumla, and Simdega show comparatively low growth over the course of the three years, indicating slow but steady progress. After experiencing inconsistent growth in the preceding years, Sahibganj and Simdega exhibit a minor rebound or stabilisation by 2023. The graph, taken as a whole, highlights the uneven performance of Jharkhand's districts, with some going through notable ups and downs and others exhibiting more steady but modest improvements. This underscores the need for tailored strategies to address the unique issues that each district faces.

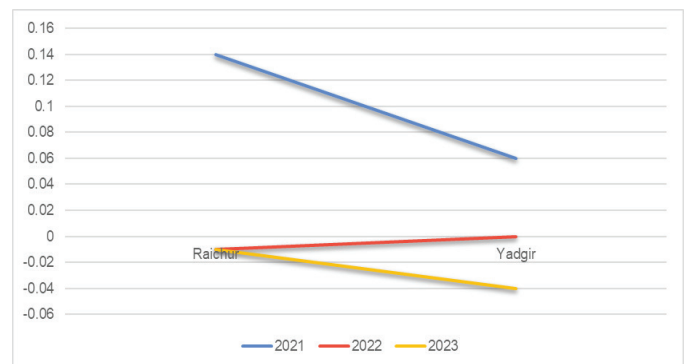


Figure 8: Composite Score Growth Rate for District of Karnataka

In Karnataka, the districts of Raichur and Yadgir are represented on the graph by their composite score growth rates for the years 2021, 2022, and 2023 under the ADP. Raichur shows a comparatively high growth rate in 2021, but over the next few years, this rate gradually drops, suggesting a major loss of momentum. The growth rate of Raichur has significantly slowed by 2023. In contrast, Yadgir experiences a slightly negative growth rate in 2021 and further declines in 2022 and 2023. This pattern indicates that Yadgir may continue to face difficulties in attaining favourable development results. Overall, the growth rates in both districts are trending downward, with Raichur seeing a significant decline and Yadgir dealing with continuous negative growth.

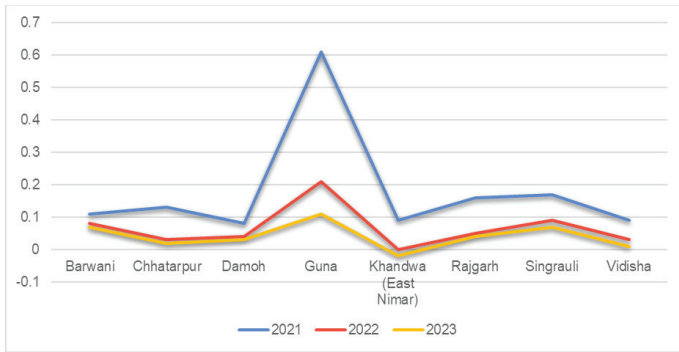


Figure 9: Composite Score Growth Rate for District of Madhya Pradesh

Figure 9 shows the Madhya Pradesh composite score growth rates for the years 2021, 2022, and 2023 under the ADP. In 2021, the Guna district displays an impressive growth rate spike that is noticeably higher than that of the other districts, suggesting a notable improvement during that year. But in 2022 and 2023, this growth rate drops significantly, indicating that the initial momentum was not maintained. With only slight variations, the growth in other districts like Barwani, Chhatarpur, and Damoh is comparatively steady over the course of the three years. Their modest but positive growth rates show that they are making steady but slow progress. The growth rates of Khandwa (East Nimar), Rajgarh, Singrauli, and Vidisha are moderate in 2021 and gradually decline in the following years. There are no notable ups or downs in these districts, indicating steady but modest development efforts. Overall, the graph shows that Guna is an anomaly due to its remarkable growth in 2021, while the other districts show more consistent, if less dramatic, growth trends. This implies that although Guna saw a significant uptick in development, maintaining such growth may be difficult, and other districts are developing more slowly.

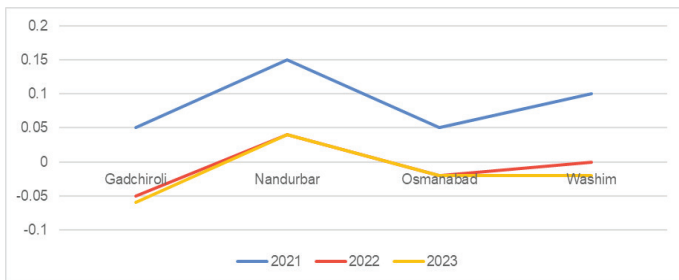


Figure 10: Composite Score Growth Rate for District of Maharashtra

Figure 10 displays the composite score growth rates for the districts of Gadchiroli, Nandurbar, Osmanabad, and Washim in Maharashtra under the ADP for the years 2021, 2022, and 2023. Gadchiroli exhibits a negative growth rate in 2021, which persists in 2022 before exhibiting a slight improvement in 2023, though it

remains negative overall, indicating persistent challenges in attaining positive development outcomes in the district. Nandurbar, on the other hand, shows a notable spike in growth rate in 2021, reaching 0.15; however, this rate drops to 0.04 in 2022 before slightly recovering to 0.05 in 2023. Despite these fluctuations, Nandurbar continues to show a positive growth rate over the three years. But Osmanabad continuously displays a negative or zero growth rate, and in 2022 and 2023, it dropped slightly to -0.02, signifying a lack of advancement and stagnation. Washim shows very little growth as well, increasing to 0.02 in 2023 from zero in 2022, indicating a slight improvement but generally slow progress. The graph, taken as a whole, shows how differently these districts perform. Though it has trouble keeping up its initial momentum, Nandurbar stands out for its notable improvement. In contrary, Gadchiroli and Osmanabad face persistent challenges with negative or negligible growth, and Washim shows only limited progress.

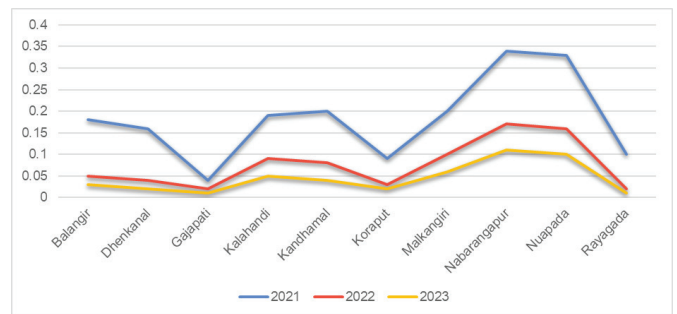


Figure 11: Composite Score Growth Rate for District of Maharashtra

Figure 11 shows the composite score growth rates for the years 2021, 2022, and 2023 for a number of Odisha districts being in the ADP. Nuapada exhibits a notable pattern of growth, peaking in 2021 and then declining in 2022 and 2023, despite continuing to grow positively throughout this time frame. This suggests that although Nuapada saw significant improvement at first, maintaining that momentum has proven difficult. In all three years, the growth rates of Kalahandi and Kandhamal are steady; Kalahandi reaches a notable peak in 2021 and then stabilises at lower but consistent levels in 2022 and 2023. Similar to this, Kandhamal's growth rate has been largely steady, with a small decline in 2023. Koraput and Malkangiri exhibit more volatile patterns, with Koraput experiencing a sharp drop in growth in 2021, followed by a recovery in 2022 before declining again in 2023. Malkangiri, on the other hand, exhibits a consistent downward trend, with growth declining year after year. Districts such as Balangir, Dhenkanal, Gajapati, and Rayagada experience modest growth, with some fluctuations, particularly in 2021, but their growth rates remain relatively low and consistent over

time. The graph demonstrates significant variability in the performance of Odisha's districts under the ADP. Nuapada experienced a notable initial growth spurt, but maintaining this progress will be difficult.

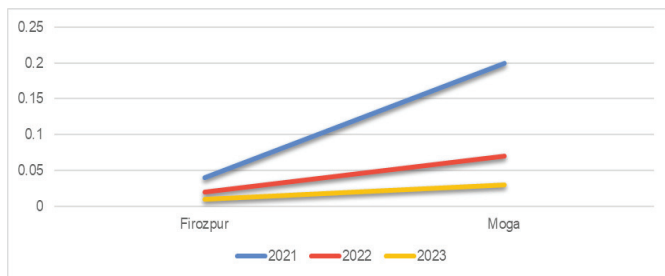


Figure 12: Composite Score Growth Rate for District of Punjab

Figure 12 shows the composite score growth rates for Firozpur and Moga districts of Punjab under the ADP in 2021, 2022, and 2023. The growth rates in both districts have been steadily rising over the past few years. Firozpur shows a steady increase, beginning with a modest growth rate in 2021 and increasing in 2022 and 2023, with the highest growth rate in 2023. This indicates that Firozpur's development progress has been continuous and possibly accelerating over the last three years. Similarly, Moga shows an upward trend, albeit from a slightly lower starting point than Firozpur. The growth rate steadily rises each year, with the rate in 2023 higher than in previous years, indicating sustained and improving development outcomes. Both Firozpur and Moga show positive growth trends, with Firozpur showing a more noticeable increase.

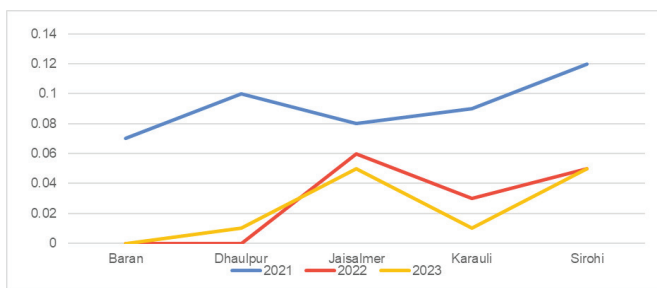


Figure 13: Composite Score Growth Rate for District of Rajasthan

The districts of Baran, Dhaulpur, Jaisalmer, Karauli, and Sirohi in Rajasthan are shown on the graph along with their composite score growth rates for the years 2021, 2022, and 2023 under the ADP. Baran exhibits a growth rate that is increasing steadily over the course of three years, with a particularly noticeable upward trend in 2023. Dhaulpur likewise exhibits an upward trajectory, with growth rates rising over time, especially in 2023, indicating a slow but steady improvement. A

distinct pattern can be seen in Jaisalmer, where there is a notable growth rate spike in 2022 and a subsequent decline in 2023. This suggests that although there was a significant push for development in 2022, it was difficult to maintain that momentum in 2023. Karauli exhibits a cyclical pattern, peaking in 2022 and then declining until marginally rebounding in 2023, suggesting some volatility in growth performance over time. Over the course of the three years, Sirohi's growth rates have increased gradually and consistently; 2023 has the highest growth rate, indicating steady progress.

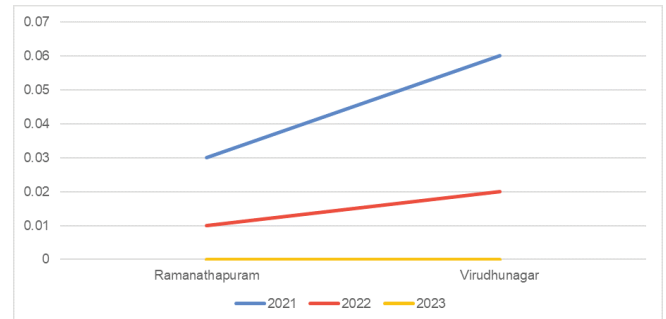


Figure 14: Composite Score Growth Rate for District of Tamil Nadu

Figure 14 depicts the composite score growth rates for the ADP districts of Virudhunagar and Ramanathapuram in Tamil Nadu for the years 2021, 2022, and 2023. With a growth rate that increased steadily from 2021 to 2023, Ramanathapuram exhibits a distinct upward trend. The district has shown consistent and improving development efforts over the three years, as evidenced by the most notable growth in 2023. Conversely, Virudhunagar exhibits very little growth over the course of the time. In comparison with Ramanathapuram, the growth rate is relatively modest overall in 2021–2022, with a slight increase in 2023.

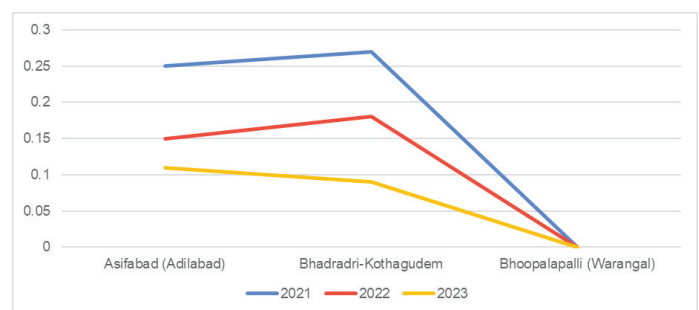


Figure 15: Composite Score Growth Rate for District of Telangana

The districts of Asifabad (Adilabad), Bhoopalapalli (Warangal), and Bhadradri-Kothagudem in Telangana under the ADP for the years 2021, 2022, and 2023 are represented in figure 15 by their composite score growth

rates. Asifabad, also known as Adilabad, exhibits a notable growth rate in 2021, followed by a sharp decline in 2022 and a continued decline in 2023. This suggests a vigorous early push for development that was not maintained in the ensuing years. Similar trends can be seen in Bhadradri-Kothagudem, where growth rate peaks in 2021 and then declines in 2022 and 2023. Although the decline is less steep than in Asifabad, it still demonstrates the difficulty in maintaining consistent growth. In 2021, Bhoopalapalli (Warangal) experiences positive growth; however, by 2023, this growth rate has dropped to zero. This shows that by 2023, the district had stagnated because it was unable to maintain any growth progress.

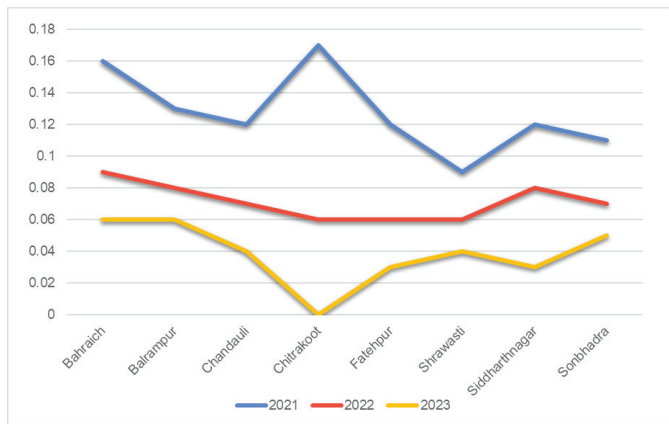


Figure 16: Composite Score Growth Rate for District of Uttar Pradesh

Figure 16 shows the composite score growth rates under the ADP for the districts of Bahraich, Balrampur, Chandauli, Chitrakoot, Fatehpur, Shravasti, Siddharthnagar, and Sonbhadra in Uttar Pradesh for the years 2021, 2022, and 2023. The growth rates of Bahraich, Balrampur, and Chitrakoot exhibit notable oscillations, with each region recording a peak in 2021, a decline in 2022, and varying degrees of recovery in 2023. In particular, Chitrakoot is notable for having a notable spike in 2021, followed by a fall in the years that followed, suggesting that the initial momentum was difficult to sustain. The trends of Chandauli and Fatehpur are more consistent, with less noticeable fluctuations in their growth rates. Over the course of three years, the moderate growth rates in both districts remain relatively stable, indicating consistent, if not particularly remarkable, progress. More sluggish growth trajectories are seen in Shravasti, Siddharthnagar, and Sonbhadra, with the latter exhibiting a minor uptick in 2023 following a period of decline. These districts appear to be growing more slowly over time, with little increases in growth rates.

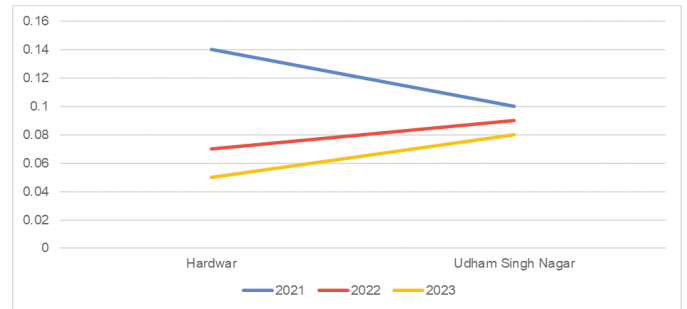


Figure 17: Composite Score Growth Rate for District of Uttarakhand

Figure 17 displays the composite score growth rates for the ADP in the districts of Hardwar and Udhm Singh Nagar, Uttarakhand, for the years 2021, 2022, and 2023. In Hardwar, the growth rate exhibits a relatively high beginning in 2021, but subsequently displays a declining trend, continuing to decline steadily into 2022 and 2023. This shows that even though there was a lot of early progress, it was not maintained. Udhm Singh Nagar, on the other hand, shows a steady upward trend in growth rates during that same time frame. Beginning with a lower growth rate in 2021, the district's growth rate gradually increases each year, peaking in 2023. This shows consistent improvement over the course of the three years.

Conclusion

The Aspirational District Programme in India is the subject of a comprehensive analysis in this study, with a particular emphasis on the growth rates and composite scores of individual districts between 2020 and 2023. The analysis demonstrates how growth trajectories vary amongst districts, with some demonstrating notable improvements and others facing stagnation or difficulty sustaining momentum. In some of the poorest areas, the program has effectively sparked development; districts such as Nuapada in Odisha and Asifabad in Telangana have shown significant growth in certain years. The overall findings, however, show that maintaining this momentum has proven difficult, especially in districts where growth rates have either plateaued or decreased, such as Bhoopalapalli in Telangana and Gaya in Bihar. The study emphasizes the importance of continuous monitoring and tailored interventions to address the unique challenges that each district faces.

Suggestions

Targeted Interventions: Future efforts should concentrate on more specialized interventions that address the unique needs and difficulties of each district, as there is variation in growth performance amongst districts. This strategy can support and expand on early successes.

sustaining Momentum: It's important to pinpoint the causes of the loss of momentum in districts like Guna in Madhya Pradesh and Sukma in Chhattisgarh that demonstrated early success but afterwards saw a drop in growth rates. It will be essential to address these problems by putting more emphasis on vital areas like infrastructure, education, and health.

Data-Driven Governance: The Champions of Change dashboard is a key tool in advancing data-driven governance, as the study emphasizes. More precise, real-time data can be provided by expanding and improving this tool, which will improve decision-making and enable more flexible and responsive interventions.

Building Capacity: To guarantee that local administrations can successfully carry out and maintain the ADP's initiatives, district-level capacity building must continue. This covers instruction in resource mobilization, program implementation, and data management.

Peer Learning and Knowledge Sharing: Districts with notable advancements can act as role models for other districts. Creating forums for knowledge exchange and peer learning can aid in the district-wide dissemination of creative solutions and best practices.

Future Scope: Longitudinal studies that monitor the effects of the ADP after its initial years of implementation may be the main focus of future research. This would shed light on the development interventions' long-term viability as well as their effects on eradicating poverty and creating jobs. It's still vitally important to make sure that everyone in society, especially the most marginalized members, benefits from the ADP. In order to evaluate the program's inclusivity, future research could examine how it affects various demographic groups within the aspirational districts.

In conclusion, even though the ADP has started development in some of India's poorest districts, maintaining and growing these successes will need consistent, focused work, data-driven decision-making, and an emphasis on inclusive growth. The program's capacity to adjust to the particular requirements of each district and to draw lessons from past mistakes and achievements will determine how successful it is in the long run.

References

- Kant, K. et.al (2018). Aspirational Districts: Unlocking Potentials. New Delhi, India: NITI Aayog. January
- Kapoor, A., and Green, M. (n.d) An Assessment of the Aspirational Districts Programme, India: Institute for Competitiveness. NITI Aayog.
- Khasnobis, U. et.al (2020). Aspirational Districts Programme: An Appraisal. UNDP. New Delhi, India.
- Nilanjana, C., and Juthika, K. (2024). An Examination of Socio-economic Well-being in Aspirational and Non-aspirational Districts of Assam: A Comparative Analysis of Their Performance. Indian Journal of Public Administration.
- NITI Aayog. (2018). Deep Dive: Insights from Champions of Change The aspirational districts dashboard. New Delhi, India: NITI Aayog.
- NITI Aayog. (2018). Transformation of Aspirational Districts: Primer. New Delhi, India: NITI Aayog.
- NITI Aayog. (2022). Stories of Change from India's aspirational districts. Center for social and behavioural change (CSBC), Asoka University, New Delhi, India: NITI Aayog.
- Roli, M., Misra, Nagendra, K., Maurya, and Shivani, T. (2023). Handicrafts, ODOP and Aspirational Districts: Qualitative Observations from the Field Survey. Productivity, New Delhi.
- Vikas, B., Rama, S., Rath., A., and Kumar, S. (2018). Developing the underdeveloped: Aspirational districts program from public health point of view.

Apple Farming: Emerging as a Diversified Horticulture Farming in Kamjong District of Manipur (A Case study of Shingkap Village)

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Abstract

In India, varieties of fruits and vegetable are grown in different region according to the suitability of its climatic conditions enabling us to avail all kinds of fruits and vegetables of different season at the same time throughout the year. Horticulture is one of the key factors providing employment, raw materials to food industries and nutritional requirements in our body. Manipur climatic conditions and the fertility of the soil varies from one region to another, endowing us with all kind of fruits and vegetables throughout the year. Apple farming in Manipur is one of the emerging diversified horticulture farming in Kamjong District which will boost the strength of the horticulture crops in Manipur. Shingkap village in Kamjong district is said to have become a model village for apple cultivation by integrated farming, planting low chilling variety of apple namely Anna, HRMN-99, Golden Dorsett on their community land along with other horticulture crops like banana, papaya, strawberry, avocado, pomegranate in their farm.

Keywords: Horticulture Farming, Apple Farming, Apple Growers, Shingkap Village.

Introduction

Horticulture is the art and science of growing fruits, vegetables, flowers, trees and shrubs, resulting in the development of the minds and emotions of individuals, the enrichment and health of communities, and the integration of the garden in the breadth of modern civilization (HortTechnology 1992).

In India, varieties of fruits and vegetables can be grown in different region according to the suitability of its climatic conditions. For instance, due to the seasonal variations in different places both tropical fruits like mango and sub-tropical fruits like guava as well as temperate fruits like apple can be produce at the same season in a year. India is the second largest producers of horticulture products next to China which is a plausible

achievement. Horticulture is one of the key factors providing employment, raw materials to food industries and nutritional requirements in our body.

Agriculture is the backbone of the Indian economy, so does for the state of Manipur. The climatic conditions and the fertility of the soil varies from one region to another endowing us with all kinds of fruits and vegetables throughout the year. Under horticulture farming in Manipur, banana, pineapple, orange, avocado, kiwi, kachai lemon etc can me mentioned. However, there is a huge gap to tie up with those of the advance states that have successful story in horticulture farming. The potential of horticulture farming is narrowing due to lack of investment in horticultural activities, bad transportation facilities in rural areas, systematic marketing facilities, pre and post-harvest management for better production

and storing of horticultural crops, unaffordable inputs for better farming and management are few of the important factors blocking as a great hindrance for the improvement in the fields of horticulture. A collaborating survey conducted by Department of Horticulture and Soil Conservation with National Board identify and indicates that 12 per cent of the total geographical area of the state are available for horticulture farming and other allied activities. However, only 14 percent of the potential areas have been brought underutilization (Dept of Horticulture and Soil Conservation Government of Manipur). Thus, there is a wide scope for expansion and development of horticulture farming in Manipur.

Apple is a temperate pome fruit cultivated worldwide which is very nutritious and a healthful component in our balanced diet. It is considered as one of the most important and widely grown fruit in the temperate zones of the world due to its acreage, production, economic returns, nutritive value and popularity (Arvind et al.,2023). China tops apple production in the world. In India, apple is mostly grown in the states of Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Arunachal Pradesh. Apple production plays an imperative role in humanizing the standard of living, per capita income and employment generation. The income per acre in apple cultivation is much higher than any other horticulture crops, if done in a systematic way. Apple are the key ingredients of manufacturing sectors by adding value such as sauce, jam, dried apple, juice, etc., scoring a high market demand both in domestic and abroad (Ripin et al;2024)

Recently, Manipur is witnessing Apple farming as one of the emerging diversified horticulture farming which will enable to boost the strength of the horticulture crops in the state of Manipur. Apple farming is practice in Ukhrul District, Senapati District, Kamjong District, Chandel District, kakching District, Bishnupur District in a very limited areas and the farming is at initial stage. Among these places, Shingkap Village in Kamjong District has undertaken a step in apple farming at the larger areas in their community land. Kamjong District is one of the hill districts of Manipur created in the year 2016 from the Ukhrul District which previously was a sub-division of Ukhrul. The climatic conditions as well as the fertility of the soil are found favourable for the cultivation of low chilling varieties of Apple namely Anna, HRMN-99, Golden Dorsett. Gala, Fiji and Golden Dorsett are grown in Ukhrul District of Manipur.

The HRMN-99 variety of apple was largely planted by the apple growers in Manipur. This variety can successfully grow in high temperature as 40°C to 45°C during summer and above 700 sea level. It was successfully grow in the lower Himachal Pradesh, Karnataka and Manipur.

HRMN-99 is a self-pollinating variety that can grow in tropical, sub-tropical, and plain areas. It does not require long chilling hours for flowering and fruit setting. The variety is said to be tolerant to scap disease and starts fruiting after 3(three) years of planting.

Objectives of the Study

Objectives of the study are to:

1. Indicate the importance of horticulture farming.
2. Analyse apple farming as a diversified horticulture farming in Manipur.

Review of literature

Jiang at el (2022) in their article, "Multi-objective optimization of smallholder Apple Production: Lessons from the Bohai Bay Region" states that China objectives on the perspective of apple production is to yield high economic benefit with low environmental impact by improving the efficiency of P-use. The study finds that the potential for multi-objective improvement for small holders and corresponding implications for horticultural practices are not fully appreciated. One of the challenges face by China in apple production is that the growers are predominated by smallholder. The input of P-use chemical in the production of apple is said to be three times more than that of the developed countries which will result to a bad condition for the water bodies as most of the orchards are cultivated in the sloping fields and thus have a high risk of water entrophication due to soil erosion. The excessive P-use supply reduce the quantity of apple which further result in deteriorating the economic benefits of apple production. Surveys found that small holder apple growers (90%) were primarily concerned about economic benefits and yield, contrastingly the society is concern in sustainable apple production with high produce quality and low environmental damage. The study states that for smallholder growers, an integrated, systematic and holistic approach rather than a single technology is needed to achieve multi-objective apple production. The study recommend the need for more research to improve P use in apple production with robust and urgent cooperation and between scientists, entrepreneurs and policy makers inorder to achieve effective solutions to achieve sustainable apple production from the grassroot level.

Sharatchandra and Mukhara (2018) in their article titled, "Prospects of Rural and Urban Horticulture in Manipur" emphasize the role of male and female farmers from the local or rural areas of Manipur in the diversification of horticultural activities. The paper highlight the prospects of horticulture in both the rural and urban areas for self reliant nutrition, job creation and environmental concern.

The study states that horticulture has two main goals that is providing food and impacting the environment. Majority of the horticulturists of Manipur are unaware of the assistance extended by the government either due to lack of knowledge cause by inefficient awareness programmes, improper implementation of the scheme and other factors. There is an urgent need for the establishment of training centre to improve the skills of the farmers, upgrade the used of improved modern inputs, promotion of appropriate market infrastructures and promoting awareness of environmental pollution.

Shah et al (2022) in their article, "Sustainable Fruit Growing: An analysis of differences in Apple productivity in the Indian states of Jammu & Kashmir" analyse the importance of apple as a temperate fruits and as the most produced fruits contributing in employment, nutrition and environmental impact in both the developed and developing countries. Almost 89% of Kashmir horticulture land is under apple cultivation. Despite the huge contribution made by the apple growers, the industry still faced a major challenges and constraints from establishing apple orchards to marketing of the fruits. The study found that age, farming experience, level of education, annual income and adoption of technologies have direct impact in the level of apple production. This article states the different constraints encountered by the farmers that cause low productivity and yield gap in apple and therefore recommends the improvement in research technologies and pull the interest of the policy makers to help the farmers in every possible way.

Basannagari and Kala (2023) in their article, "Climate change and Apple farming in Indian Himalayas : A study of local perceptions and responses" states that the important activity of the Himalayan farmers is engaging in traditional apple farming. Their study was undertaken to examine the effects of the climate change in the cultivation and production of apple along the altitudinal gradient. It aims to understand the causes of reducing apple farming in the state despite the high preference of the local people to continue the apple farming with reducing productivity. Through their survey it was reportedly found that there is an increase in the atmospheric temperature resulting to the declination of quality, fruit size and late harvest. Another challenges faced by the farmers at mid hills and low hills are apple scab and pest attack respectively and therefore the apple farming was involuntarily replaced by the coarse grains, seasonal vegetables and other horticulture species.

Singh & Meitei (2013) in their article titled, "Marketing of Horticultural Produce in Manipur" highlights the important issues of marketing the horticultural produce as well as the main sectors of marketing system which

remain unorganised that ultimately uplift the economic development of the state in particular and country in general. This article pointed out that the unsystematic marketing system hoarded a large share of consumers' money by innumerable middlemen working in between the producer and the ultimate consumers. The various problems and challenges for marketing of horticultural crops are lack of organization among farmers, forced sales of the produce right after harvesting crops, lack of financial assistance, etc. Their article have suggested that a good marketing system will helps in giving price signals, development of non-agricultural sectors in the economy. Moreover, agriculture production and marketing must develop hand in hand to have progress.

Ucar et al (2017) in their article, "Analysis of changes in Apple Production in Turkey" highlight the changes in the trend of apple production in Turkey by evaluating the prevailing conditions between the year 1995-2015. Between the period of 1995-2015, the apple trees increased from 38.61 million to 52.27 million as well as estimate the rate of increase in apple trees upto 69.60 million in 2025. Likewise it also forecast that the production of apples will reach a whopping harvest of 2.22 million tonnes by 2025. However, the study found that number of apple trees and harvested area are increased in Turkey but the production and yield increased for the last five years and would remain constant in the next ten years contrasting to the estimation. The study further states that the success of the apple farming depend upon the cooperation given among the farmers and moreover on the support of the government.

Analysis

There is a factor underlying diversification in favour of fruits and vegetables as they are about five times more productive compare to other crops (Chand Ramesh et al.2008). Majority of the population living in hilly areas grow horticulture crops as subsistence crops and does not further expand or promote for sale. In Kamong District, there are varieties of fruits found abundantly throughout the year. For instance, fruits like mango, guava, pomelo, gooseberry, pineapple, passion fruits, jackfruits etc. are found abundantly during their fruit bearing and harvesting season. However, the local does not inculcate the value of market price as it was overshadowed by their generosity for consumption purposes rather than commercial purposes. This becomes one of the factors for market failure from grassroot level in horticulture products despite the probable potential for producing in large-scale.

In Kamjong district, apple farming being one of the emerging pilot project initiated by the Government, Shingkap village is said to have become a model village

for apple cultivation by adopting organic practices. The apple growers developed their own organic compost and liquid pesticides from smoke by burning herbs, grasses and wood chips called as wood vinegar for using in their apple orchard and for other purposes. Using the wood vinegar has improves the quality of the soil serving as an excellent pesticides and fertilizer. Unfortunately the wood vinegar is unable to produce in sufficient quantity in order to meet the demand of the apple growers within the village itself. As the farming is at initial stage, the farmers are still in lack of know how in order to undertake the farming in organic methods. Making of manure from unwanted weeds, animal wastes and affording of organic based pesticides and insecticides and manures may also be mention as a challenges faced by the apple growers. For instance, one particular farmer from Poi Village of Ukhrul district used animal waste as a manure in their small farm however, in the long run there arise a problem as there is insufficient animal waste to supply the farm. Comparing to Poi Village, Shingkap Village is undertaking in a large scale and indeed the largest area of apple farm in Manipur, thus it is impossible to depend on the few available livestock wastes for manure.

Shingkap apple farming is practiced in integrated farming method on their community land. Banana, papaya, strawberry, avocado, pineapple and pulses are planted along with the apple. The villages as of now depend heavily in shifting cultivation for their immediate consumption. Various types of vegetables are grown richly in their fertile land such as cabbage, cauliflower, brinjal, mustard leaf, potato, tomato, chayote, pumpkin, ash gourd, maize, bitter brinjal, etc. Both men and women are very hardworking. As the farmers slowly diversified their farming from shifting to horticulture, they have started acknowledging the benefits of horticulture farming. The apple growers are having a great prospect in their farming. However, there is a need of room for improvement in farming by adopting modern farming technologies, better irrigation facilities, nursery for proper maintenance and growing of the apple saplings, attending more training programmes related to apple farming and better input knowledge system. Among all the different challenges faced by the farmers, irrigation facilities is the most urgently needed area for improvement since apple farming needs utmost care at the initial stage and proper irrigation of the plants is necessary for the apple plant to grow and nourish.

The people living in hilly areas are directly engage in agriculture even though their marginal productivity of labour is zero. For the urban population it acts as a beautification in their small holding environment to grow in the process of gardening or setting up of small nurseries (Sharatchandra and Mukhara 2018).

Horticulture farming can uplift the economic conditions of the farmers as it can provides job opportunities through farming and other allied activities such as exports of the products, advancing to entrepreneurship through food processing, upgrading the rural market products and what not. Manipur favours for the cultivation of all horticultural crops as the hills of the state are well defined for temperate fruits and the valley for sub-tropical fruit however, the cultivation of horticulture crops in Manipur is largely practiced as non-commercial by farmers in their homestead and orchard and thus, hardly helps in development of proper market of horticulture crops (Singh & Meitei 2013). Since majority of the cultivators are illiterate, they tend to stick to the traditional methods of farming by giving importance to food crops for subsistence purposes. The fruits and vegetables grown by them were mostly shared among themselves for immediate consumption, thus, hardly reaching to the markets for sale. Moreover, the farmers do not cultivate their crops in large area due to lack of capital, modern machineries and inputs and lack of technical know-how. However, in a steady transformation, we can witness the changing pattern of cultivation into larger area of farm or orchards. Pineapple, orange, banana, kiwi, avocado, kachai lemon are some suitable example to be mentioned which are grown in large area. In recent years, we saw farmers started planting and cultivating apple in some parts of Ukhrul, Senapati, Kamjong districts. Among the hill districts of Manipur, Ukhrul District perform better in case of fruits production and the reason behind was that the farmers practiced their farming in integrated methods using quality and disease free materials and inputs as well as better management practices (Ansari et.al 2013). The integrated farming system are now practice in apple farming of Shingkap Village and thus the farmers are yielding the benefits to a greater extend and was encourage to continue in a proper improved farming management system. These start-up cultivation and production is a plausible achievement. In Manipur, apples are only imported from other states/countries therefore it is hardly available at affordable prices converting into luxurious goods for the people living with their daily earnings especially from the rural areas.

In Kashmir, after changing the traditional system of crops cultivation to horticulture, the farmers economic scenario has change. The farmers were able to afford new machines and other agricultural inputs. This upgradation relatively improves the welfare of the people in other fields such as education, infrastructure, employment, health, business and other basic necessities (Lone Aadil Altaf 2019). The exporting amount of Indian apples are worth USD 10 million annually out of which half was contributed by the apples from Jammu & Kashmir

states providing jobs to 1.2 million people directly and indirectly with their allied activities (Shah et al 2022). Similarly, if horticulture farming were undertaken to a great possible extent in Kamjong district, the economic well-being of the people might escalate. The employment opportunity will increase along with their allied sector. The apple growers are having a great prospect in their farm and was more interesting to know that they are planning for their children future. Since unemployment and underemployment rate was rising, the farmers thought that they could make a space for their children to return to their apple farm and execute their learned knowledge in different allied activities of apple farming so that it will help in improving the farming at the best level and create or provide more job opportunities for other unemployed youth. This type of basic steps in rural or hilly areas can further escalate and contribute to the economy of individuals as well as reduce the problem of unemployment. There is a great potential for improving the horticulture farming as presently the resources are under utilised. Since the climatic conditions and other environmental factors are favourable for cultivation of horticulture farming in Kamjong District, it will be a wise decision to practice horticulture farming which is more closely related to sustainable farming rather than practicing Jhum cultivation which harm the environment to a great extent. Thus, this study would like to stress the needs for improvement in horticulture farming for economic development of the state as well as the farmers.

Material and Method

The study was conducted based on Shingkap Village of Manipur. Materials were collected using primary and secondary data. Field visit of the village and through the methods of personal interview to the farmers vague idea of the current farming methods prevailing in the village could be known. Secondary data was gathered from published research articles, reports, newspapers, journals, etc.

Conclusion

There is a positive change in the field of agricultural activities by diverting and giving equal importance to horticultural crops along with the staple food crops. The central government and the state government undertake immense measures to uplift the quality and quantity of horticultural crops under different departments by giving various types of assistance since India's horticulture crops are in great demand at world market. Despite all the efforts put in by the government,

still there are more ways to channel the needs for upgradation as there is a great potential for development since the resources are underutilized. Thus, this study chalk out the problems faced by the farmers such as lack of proper market facilities, lack of provisions of credit facilities, lack of training, transportation, proper irrigation facilities for the farm, storage facilities and other basic inputs require for the farm to flourish which serves as the major factors for underutilizing the area of cultivation for horticulture purposes. With all the arising problem faced in the farm, the apple growers are holding on with their available resources to keep the farming alive at their possible level. As of now there is no proper assistance from the government therefore, it is really necessary for the concerned authority to look into this matter and encourage the apple growers of Manipur. Improved horticulture farming can play a significant role in increasing production, remunerative returns and nutrition requirements as well as employment opportunities for the tribal population.

References

- Basannagari, B., & Kala, C.P. (2013). Climate Change and Apple Farming in Indian Himalayas: A Study of Local Perceptions and Responses. *PLoS ONE* 8(10).
- Chand, R., Raju, S.S., & Panday, L.M. (2008). Progress and Potential of Horticulture in India. *Research in Agricultural & Applied Economics AgEcon Search*.63(03) :299-309.
- Kumar, A., Pandey, V., Sharma, K., Pal, A., Pal, D., & Kumar, A. (2023). A comparison of apple varieties based on yield and production efficiency under north western plain zones of Uttar Pradesh. *Environment conservation Journal*; 24(3):25-30.
- Lone, A. A. (2019). Agriculture Transformation and Rural Development in Kashmir Valley (with special reference to District Baramulla). 4(03): 2222-2239.
- Ansari, M.A., Prakash, N., Baishya, L.K., Punitha, P., Yadav, J.S., Sharma, P.K., Sailo, B., & Ansari, M.H. (2013). Comparative study and improved integrated farming system for sustainable production, income generation and employment opportunity among the tribal farmers in hilly regions of Manipur. *Indian Journal of Agriculture Sciences*. 83(7):765-72.
- Meetei, Th.S., Devi, K.M., & Singh, W.C. (2015). Prospects of rural and urban horticulture in Manipur. *Research Gate*. 6(2):45-56.
- Relf, D. (1992). HortTechnology. *Human issues in horticulture*. 159-171.
- Ripin, Khandelwal, K., Gupta, M., Mishra, S., Ekka, S.K., Kujur, R., & Lakra, J. (2024). Development Prospects of Apple Farming in India. *Asian Journal of Advances in Agriculture Research*. 24(1):11-18.

- Shah, Z.A., Dar, M.A., Dar, E.A., Obianefo, C.A., Bhat, A.H., Ali, M.T., El-Sharnouby, M., Shukry, M., Kesba, H., & Sayed, S. (2022). Sustainable Fruit Growing: An Analysis of Differences in Apple Productivity in the Indian State of Jammu and Kashmir. *Sustainability MDPI*. pp 1-24.
- Shepherd, A.W. (2005). The implications of supermarket development for horticultural farmers and traditional marketing systems in Asia. *Revised version of paper first presented to the FAO/AFMA/FAMA Regional Workshop on the growth of Supermarkets as Retailers of Fresh Produce, Kuala Lumpur, Oct,2004.*
- Singh, L.K., & Meitei, Kh. D. (2013). Marketing of Horticultural Produce in Manipur. *International Journal of Marketing and Technology*. 03(2):115-123.
- Ucar,K., Engindeniz,S., Markovic,T., & Kokot, Z. (2017). Analysis of changes in Apple Production in Turkey. *Conference paper from 27th International Scientific-Expert Congress of Agriculture and Food Industry, sept 2016, Bursa Turkey*, 147-151.
- Wani, F.A. & Songara, M. (2017). Production and Marketing of Apple in Himachal Pradesh: An Emperical Study. *IJRCS*. 1(10):34-40.

Fiscal Decentralisation in Haryana: Some Recent Evidence

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Abstract

Through 73rd and 74th Constitutional Amendments, Panchayat and Municipal systems were provided a systematic and endurable structure of participatory political process at grass root level. State finance commission is constituted for determination of vertical and horizontal transfers to municipalities and panchayats. Haryana is constituting state finance commission (SFC) regularly and following 15th Finance Commission mandate. Sixth SFC was constituted on 22nd September 2020 for the period 2021-22 to 2025-26. The state has also showed progressive development towards achieving sustainable development goals except gender equality (SDG 5) and life on land (SDG 15) goals. Haryana has been a pioneer state in carrying out fiscal reforms. As per the budget estimates for 2020-21, fiscal deficit was projected at Rs. 25,682 crore, constituting 2.73% of GSDP, which is well within the stipulated norm of 3% under FRBM Act. Similarly, the debt to GSDP ratio has also been maintained below the norm of 25% as prescribed under the FRBM Act. The state of Haryana through the Panchayati Raj Act, 1994 has devolved all 29 functions included in the Eleventh Schedule of the Constitution, to the three levels of Panchayats through inclusion in the Schedules to the Panchayati Raj Act, 1994. Fifth SFC recommended vertical devolution of 7% and horizontal devolution in the ratio of 45% for Municipalities and 55% for Panchayats. Sixth SF report may review previous SFC report, suggest new local taxes, present data on which the reports are based, complain about poor data base, attempt estimates of local taxable capacities in terms of measurable indicators, indicate full O&M requirement of core services and suggest budget and accounting reforms of the local governments. It may recommend to standardize procedures for levy of property & other taxes, norms for basic services and norms for staffing & salaries, incentivize performance through levy & collection of taxes & user charges, economy in expenditure and people's participation.

Keywords: Haryana, State Finance Commission, Devolution, Panchayats, Municipalities, Local Governments

Introduction

73rd and 74th Constitutional Amendments were passed by Parliament of India in 1992 and ratified by States in 1993. Through these amendments local self-government was introduced in rural and urban India respectively. Through this enactment, Panchayat and Municipal systems were provided a systematic and endurable structure of participatory political process at grass root level. The amendment has also enlarged the space for people's representation and their agency in matters of governance and moved decisions making closer to them. The operative vision of grass root governance mandated by constitution has given greater emphasis devolution of

powers to panchayats and municipalities as enshrined in the Constitution of India. Article 243 G and other articles of the constitution has made it very explicit that there is greater need for devolution of roles and responsibilities and power and authority to local governments. This translates to statutory transfer of rights, powers, authority and resources as also roles, responsibilities, duties and obligations from State Government to local governments by an Act of Legislative Assembly.

State finance commission is constituted for determination of vertical and horizontal transfers to municipalities and panchayats in the state. Haryana is constituting state finance commission regularly and following 15th Finance

Commission mandate. Sixth State Finance Commission (SFC) of Haryana was constituted consisting of Mr. P. Raghavendra Rao as the Chairman on 22nd September 2020. The award period of the Sixth SFC is 2021-22 to 2025-26.

The Commission will make recommendations relating to the following matters:-

- “1. (a) the principles which should govern-
 - (i) The distribution between the State and the Zila Parishads, Panchayat Samitis and Gram Panchayats, of the net proceeds of the taxes, duties, tolls and fee leviable by the State which may be divided between them under Part IX of the Constitution of India and the allocation between the Zila Parishad, Panchayat Samiti and Gram Panchayats at all levels of their respective shares of such proceeds;
 - (ii) The determination of the taxes, duties, tolls and fee which may be assigned to, or appropriated by, the Gram Panchayats, Panchayat Samitis and Zila Parishads;
 - (iii) The grants-in-aid to the Zila Parishad, Panchayat Samiti and Gram Panchayat from the Consolidated Fund of the State;
 - (b) The measures needed to improve the financial position of the Gram Panchayats, Panchayat Samitis and Zila Parishads;

2. (a) the principles which should govern-
 - (i) The distribution between the State and the Municipalities of the net proceeds of the taxes, duties, tolls and fee leviable by the State, which may be divided between them under Part IX A of the Constitution of India and the allocation between the Municipalities at all levels of their respective shares of such proceeds;
 - (ii) The determination of the taxes, duties, tolls and fee which may be assigned to, or appropriated by the Municipalities;
 - (iii) The Grants-in-aid to the Municipalities from the Consolidated Fund of the State;
 - (b) The measures needed to improve the financial position of the Municipalities.

In making its recommendations, the Commission shall have regard, among other considerations, to:-

- (i) The objective of balancing the receipts and expenditure of the State and for generating surplus for capital investment;
- (ii) The resources of the State Government and demands thereon particularly in respect of expenditure on Civil Administration, maintenance and upkeep of capital assets, maintenance expenditure on plan

schemes and other committed expenditures or liabilities of the State; and

- (iii) The requirements of the Panchayati Raj Institutions and the Municipalities, their potential for raising resources and for reducing expenditure.”

The state of Haryana was carved out on November 1, 1966 as a result of bifurcation of the state of Punjab. It is surrounded by Himachal Pradesh in North, Uttar Pradesh in East, Punjab in West and Rajasthan in South. Adjacent to the National Capital Territory of Delhi, the state surrounds it from three sides. It is spread over an area of 44,212 sq. km with an area covering 1.3% of the country. Haryana contributes significant amount of wheat and rice to the pool i.e. a national repository system of surplus food grain. Haryana is India’s 4th largest producer of cotton. The state has also made rapid strides in development of industrial sector. Major industries in Haryana are automotive, IT, agriculture and petrochemicals. Haryana’s structural transformation has been seen from an agrarian State to industrial State, with services sector recording robust growth. The state has also showed progressive development towards achieving sustainable development goals except gender equality (SDG 5) and life on land (SDG 15) goals (NITI Aayog, 2021).

Though Haryana is geographically a small State, the contribution of the State to the National Gross Domestic Product at constant (2011-12) prices has been estimated as 3.8% as per Quick Estimates of 2019-20. As per the Advance Estimates for the year 2020-21, the GSDP of the State at current prices has been estimated as Rs. 7,64,872.41 crore, recording the negative growth of 2.0% in 2020-21 due to Covid-19 as compared to the growth rate of 10.7% achieved in 2019-20. The GSDP at constant (2011-12) prices is estimated to be Rs. 5,28,069.75 crore with a negative growth of 5.7% in 2020-21 as compared to the growth of 8.2% recorded in 2019-20. However, this negative growth of 5.7% recorded in real GSDP is lower than the negative growth of 8.0% recorded at All India level in 2020-21. The GSDP of the State at current and constant (2011-12) prices is given in Table 1.

Table 1: Gross State Domestic Product of Haryana
(Rs. In thousand Crore)

Year	GSDP at Current Prices	GSDP at Constant Prices	Nominal GDP Growth Rate (%)	Nominal GDP Growth Rate of India (%)
2011-12	0.29	0.29	16.04	15
2012-13	0.34	0.32	16.63	13.3
2013-14	0.39	0.34	15.05	11.5

2014-15	0.43	0.37	9.49	10.5
2015-16	0.49	0.41	13.35	8.7
2016-17	0.56	0.45	13.30	9.9
2017-18	0.64	0.48	14.88	10
2018-19	0.70	0.51	9.30	11.2
2019-20 (Q)	0.78	0.55	10.73	7.2
2020-21 (A)	0.76	0.52	-2.02	-3

Note: Q: Quick Estimates A: Advance Estimates

Source: Department of Economic and Statistical Analysis, Haryana

Per Capita Income

The per capita income is the average income earned per person. At the time of formation of Haryana State in 1966, the per capita income of the State at current prices was only Rs. 608. Since then, the per capita income has increased multi fold with the exception in 2020-21 due to the impact of Covid-19 pandemic. The per capita income of the State at constant (2011-12) prices is estimated to be Rs. 1,63,992 during 2020-21 with a negative growth of 6.9% as compared to the growth rate of 6.8% recorded in 2019-20. At current prices, the State's per capita income is likely to be Rs. 2,39,535 during 2020-21 showing the contraction of 3.3% as compared to the growth of 9.4% recorded in 2019-20. Though, the State is maintaining per capita income during 2020-21 at both current and constant prices higher as compared to the National per capita income of Rs. 1,27,768 and Rs. 85,929 respectively.

Structural Transformation of Haryana's Economy

At the time of formation of Haryana State, the State's economy was predominantly an agrarian economy. At the beginning year (1969-70) of Fourth Five Year Plan, the contribution of Agriculture and Allied Sectors (crops, livestock, forestry and fishing) to the GSDP at constant prices was the largest (60.7%) followed by Services (21.7%) and Industry (17.6%) Sectors. During the period of 37 years (1969-70 to 2006-07) intervening Fourth and 10th Five Year Plans, Industry and Services Sectors registered higher average annual growth than the Agriculture and Allied Sectors which resulted in the increased share of Industry and Services Sectors and decreased share of Agriculture and Allied Sectors in the GSDP. The share of Agriculture and Allied Sectors in GSDP declined from 60.7% in 1969-70 to 21.3% in 2006-07 while the share of Industry Sector increased from 17.6% in 1969-70 to 32.1%

in 2006-07. The share of Services Sector increased from 21.7% to 46.6% during this period. Since the 11th Five Year Plan, the pace of structural transformation of the State's economy remained continued. In spite of the robust growth recorded in Services Sector during the past era, the spread of Covid-19 pandemic has largely affected the economic activities in 2020-21. Almost all the sectors with the exception of Agriculture and Allied Activities have been adversely affected. As a result, the share of Agriculture and Allied Sectors has improved to 18.9% in 2020-21 but the share of Industry Sector has decreased to 30.2%. The share of Services Sector at constant prices has been recorded as 50.9% in 2020-21.

State of Public Finance

Haryana is one of the most progressive States in the country. It has been a pioneer State in carrying out fiscal reforms and fiscal management is reckoned as one of the model state in the country. Public finance relates to the collection of taxes by the Government from those who benefit from the provision of public goods and the use of those tax funds towards production and distribution of public goods. Resource generation, resource allocation and expenditure management (resource utilization) are the essential components of a public financial management system. The purview of public finance is considered to be three fold namely; efficient allocation of resources, distribution of income, and macro-economic stabilization. As a result of prudent fiscal management, fiscal parameters such as fiscal deficit and Debt to GSDP ratio of the State are within the stipulated limits prescribed by the Union Finance Commission and Government of India. As per the budget estimates for 2020-21, fiscal deficit was projected at Rs. 25,682 crore, constituting 2.73% of GSDP, which is well within the stipulated norm of 3% under FRBM Act. Similarly, the debt to GSDP ratio has also been maintained below the norm of 25% as prescribed under the FRBM Act.

Revenue Receipts and Revenue Expenditure

The revenue receipts comprises State's Own Tax and Non-Tax Revenue, Share in Central Taxes and Grant-in-Aid from Centre. As per Budget Estimates of 2020-21, the revenue receipts of the Government of Haryana are expected to be Rs. 89,964.14 crore against the estimated revenue expenditure of Rs. 1,05,338.09 crore. The revenue receipts of the State Government was Rs. 77,580.73 crore against revenue expenditure of Rs. 92,256.10 crore in 2019-20 (RE). It was Rs. 65,885.12 crore against revenue expenditure of Rs. 77,155.54 crore in 2018-19.

Table 2: Tax Position of the State

(Rs in Crore)

Year	State's Own Tax Revenue (OTR)	Share in Central Taxes (SCT)	Total Tax
2017-18	41099.38	7297.52	48396.90
2018-19	42585.60	8250.34	50835.94
2019-20 (RE)	47842.04	7111.53	54953.57
2020-21 (BE)	52095.65	8484.82	60580.47

Note: RE - Revised Estimates, BE- Budget Estimates

Source: State Budget Documents.

Total Tax

The tax position of Haryana State from 2017-18 to 2020-21 (BE) is given in the Table 2. Total tax comprises of State's Own Tax Revenue (OTR) and State's Share in Central Taxes (SCT). State total tax is expected to increase from Rs. 48,396.90 crore (Rs. 41,099.38 crore OTR + Rs. 7,297.52 crore SCT) in 2017-18 to Rs. 60,580.47 crore (Rs. 52,095.65 crore OTR + Rs. 8,484.82 crore SCT) in 2020-21 (BE).

Own Tax Revenue

The contribution in Own Tax Revenue from Sales Tax is estimated at Rs. 10,702.15 crore in 2020-21 (BE) as compared to Rs. 10,900.18 crore in 2019-20 (RE). Sales tax is estimated to decrease by 1.82% in 2020-21 (BE) over 2019-20 (RE) due to the implementation of State Goods and Service Tax (SGST). The contribution in tax revenue from SGST is estimated at Rs. 22,350 crore in 2020-21 (BE) as compared to Rs. 19,723.86 crore in 2019-20 (RE) showing an increase of 13.31% in 2020-21 (BE) over 2019-20 (RE). The contribution in tax revenue from State Excise is estimated at Rs. 7,500 crore in 2020-21 (BE) as compared to Rs. 6,700 crore in 2019-20 (RE) showing an increase of 11.94% in 2020-21 (BE) over 2019-20 (RE). The contribution in tax revenue from Stamps and Registration is estimated at Rs. 7,500 crore in 2020-21 (BE) as compared to Rs. 6,600 crore in 2019-20 (RE).

Share in Central Taxes

Transfer from Centre mainly consists of State's Share in Central Taxes, grant for centrally sponsored schemes, grant under the award of Union Finance Commission and other grants. The Share in Central Taxes is estimated at Rs. 8,484.82 crore in 2020-21 (BE) against Rs.7,111.53 crore in 2019-20 (RE). It shows that Share in Central Taxes is likely to increase by 19.31% in 2020-21 (BE) over 2019-20 (RE).

Grant-in-Aid

The Grant-in-Aid received in the State is shown in Table 3. Apart from the valuable amount from Central taxes, Union Finance Commission has made recommendations regarding Grant-in-Aid to the States for specific purpose. State is expected to receive about Rs. 13,955.45 crore as Grant-in-Aid in 2020-21 (BE) against Rs. 12,492.07 crore in 2019-20 (RE). It indicates that Grant-in-Aid is likely to increase by 11.71% in 2020-21 (BE) over 2019-20 (RE).

Table 3: Grant-in-Aid Received from Central Government

(Rs. in crore)

Year	Amount Received
2017-18	5185.12
2018-19	7073.54
2019-20 (RE)	12492.07
2020-21 (BE)	13955.45

Note: RE - Revised Estimates, BE- Budget Estimates

Source: State Budget Documents

State of Fiscal Health of Haryana

There are various indicators of measuring fiscal health pertaining to state governments. For the purpose, we would only be using three indicators of fiscal health namely Revenue Deficit (RD), Fiscal Deficit (FD) and Primary Deficit (PD). Broad deficit indicators of – revenue, fiscal and primary deficits – for the period 2001-02 to 2013-14 as ratio of Gross State Domestic Product (GSDP) at current prices are given in Table 4. Data indicates that fiscal health of state improved in early half of the decade upto 2006-07. Since then it started an upward trend and fiscal deficit was as high as 4.9% in 2009-10 primarily due to implementation of sixth pay commission recommendations and fiscal measure undertaken in wake of global financial crisis. Still Haryana has manageable gross fiscal deficit as FC-XII target of 3% for the year 2013-14 is well above fiscal deficit of 2.1% realised by Haryana. But the state is not able to bring its revenue deficit to zero as mandated by 13th Finance Commission. This indicates that though Haryana has fiscal deficits within limits set by FRBM Act but it had higher deficits than most of other states in the country and state is able to bring revenue deficit to zero as mandated by FC-XIII. Haryana Fiscal Responsibility and Budget Management (FRBM) Act, 2005 which stipulated that (i) Revenue Deficit to be reduced to zero by 2008 – 09 (ii) Fiscal Deficit to be brought down to 3% of GSDP by 2009 (iii) Debt Liability to be contained to 28% of GSDP by 2010. As per the guidelines of Ministry of Finance, Government of India, the Government of Haryana has

amended its FRBM Act, 2005. Now the Government of Haryana has to attain zero revenue deficit target from 2011–12 and maintain the same till 2014–15, fiscal deficit to be brought down to 3% of GSDP from 2011–12 and maintain the same till 2014–15. The total debt liability to be retained at 22.4% of GSDP in 2010–11, at 22.6% in 2011–12, 22.7% in 2012–13, 22.8% in 2013–14 and 22.9% in 2014–15.

Table 4: Deficit Indicators of Haryana

Year	Revenue Deficit (%)	Fiscal Deficit (%)	Primary Deficit (%)
2011-12	0.49	2.40	1.06
2012-13	1.28	2.99	1.62
2013-14	0.97	2.08	0.61
2014-15	1.90	2.88	1.29
2016-17	2.23	4.27	2.51
2017-18	1.69	3.05	1.14
2018-19	1.20	2.90	0.95
2019-20	2.04	2.88	1.80
2020-21 RE	2.43	2.90	0.85

Source: State Budget Documents

Devolution to Local Governments

As per mandate of 73rd Constitutional Amendment, the State Government has been regularly constituting the State Finance Commission under Article 243-I read with Section 213 of the Haryana Panchayati Raj Act, 1994 from time to time to review the financial position of the Panchayats and to make recommendations on the principles which should govern the distribution between the State and the Panchayats of the net proceeds of the taxes, duties, tolls and fees leviable by the State, which may be further divided between them and the allocation between the Panchayats at all levels of their respective shares of such proceeds; the determination of the taxes, duties, tolls and fees which may be assigned to, or appropriated by the Panchayats; the grants-in-aid to the Panchayats from the Consolidated Fund of the State and the measures needed to improve the financial position of the Panchayats. The grants sanctioned by State Government on the recommendations of the State Finance Commission is distributed/ released to the GPs, PSs and ZPs.

Table 5: Local Governments in Haryana

Particulars	No
Panchayats	7030
Zila Parishads	21
Panchayat Samitis	126
Gram Panchayats	6234
Municipalities	90
Municipal Corporations	11
Municipal Councils	22
Municipal Committees	57

Source: Haryana State Finance Commission Reports

An amount of Rs.31245 lakhs had been released during the year 2016-17. An amount of Rs.45500.00 lakhs had been released in the year 2017-18. Under the Scheme, an amount of Rs.111743.85 lakhs have been spent during the tenure. A budget provision of Rs.50050.00 lakhs has been made for the year 2018-19. An amount of Rs.31245 lakhs had been released during the year 2016-17. An amount of Rs.45500.00 lakhs had been released in the year 2017-18. Under the Scheme, an amount of Rs.146773.85 lakhs have been spent during the tenure. An amount of Rs.50050.00 lakhs has been made for the year 2018-19. An amount of Rs.35030.00 lakh has been released. A budget provision of Rs.114000.00 lakhs has been made for the year 2019-20. An amount of Rs.23125.00 lakh has been released so-for.

Table 6: Share of Local Governments in Haryana

Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Total Revenue (Rs '000 cr)	5416	6032	6269	6588	7758	8996
Own Tax Revenue (Rs '000 cr)	3493	3784	4183	4274	4784	5209
Transfer to Municipality and Panchayat (Rs cr)	308	424	391	222	232	184

Source: Haryana State Finance Commission Reports

State Finance Commissions in Haryana

SFC was set up in Haryana so that it can improve the condition of the local government in the state. The First SFC was set up in May, 1994. The award period of the First SFC was 1997-98 to 2000-2001. The State Government has accepted the recommendations of the First SFC regarding sharing of taxes/duties/fees and has

also recommended certain grants to Panchayats. Second SFC was set up on September, 2000 to review the financial position of Panchayats and to make recommendations with regard to distribution of the net proceeds of taxes/duties and fees etc. between the State Government and Panchayats and to suggest measures needed to improve their financial position. The award period of the Second SFC was 2001-02 to 2005-06. It made recommendations for transfer of Rs. 578.58 crore to Panchayats for the period 2001-06. There is no information as to whether these recommendations were accepted. According to the figures available on the transfer of funds to Panchayats, it does not seem as if they have been accepted. Third SFC has also been set up in February, 2005 to review the financial position of Panchayats and to make recommendations with regard to distribution of the net proceeds of taxes/duties and fee etc between the State Government and Panchayats and to suggest measures needed to improve the financial position of Panchayats. The Fourth SFC was constituted on 16th April 2010 to review the financial position of PRIs and to make recommendations with regard to distribution of the net proceeds of taxes/duties and fee etc. between the State Government and PRIs and to suggest measures needed to improve the financial position of the Institutions. Under this scheme, an amount of Rs. 82862 lakh has been earmarked for the 12th Five year plan (2012-17). Rs. 17186 lakh has been approved for the Annual Plan 2012-13. The Governor of Haryana constituted the Fifth SFC of Haryana on 26th May, 2016. The award period of the Fifth SFC was 2016-17 to 2020-21. Fifth SFC recommended vertical devolution of 7% and horizontal devolution in the ratio of 45% for Municipalities and 55% for Panchayats.

Box 1: Glimpses of State Finance Commission's Recommendations

First State Finance Commission

- First SFC was constituted on 31st May, 1994 covering the period of 4 years i.e. 1997-2001
- The report of 1st SFC was submitted in March 1997 and the ATR was laid in September 2000.
- State Government considered only one year i.e. 2000-01.
- No reasons mentioned in the ATR for non-acceptance of the recommendations.
- SFC recommended Rs. 263.38 crore for 2000-01, Rs.144.59 crore for Panchayats, and Rs.118.79 crore for Municipalities.
- State Government accepted of Rs.99.49 crore, Rs.34.13 crore for Panchayats and Rs.65.36 crore for Municipalities.
- Only Rs.66.36 crore were transferred to the local government during 2000-01.
- Municipalities were given Rs.65.36 crore, but Panchayats were given only Rs.1.00 crore

Second State Finance Commission

- 2nd SFC was constituted on 6th September, 2000 covering the period of 4 years i.e. 2001-2006
- The report of 2nd SFC was submitted in September 2004 and the ATR was first laid in December 2005, then on 16th September 2006 and on 6th March 2007.
- State Govt. considered only one year i.e. 2005-06.
- No reasons mentioned in the ATR for non-acceptance of the recommendations.
- SFC recommended Rs.231.05 crore for 2000-01, Rs.138.43 crore for Panchayats, Rs.92.62 crore for Municipalities.
- State Govt. accepted of Rs.100 crore, Rs.50 crore for Panchayats and Rs.50 crore for Municipalities.
- Rs.100 crore were transferred to the local bodies during 2005-06.
- Municipalities were given Rs.50 crore and Panchayats were given Rs.50 crore

Third State Finance Commission

- Third SFC was constituted on 22nd December, 2005 covering the period of 4 years i.e. 2006-2011
- Recommended sharing of state taxes at the rate 4% excluding Excise Duty and LADT with Panchayats and Municipalities after retaining 1.25% as collection charges of the Government
- Devolution to Panchayats and ULBs in the ratio of 65:35 giving a weightage of 40% to population, 25% to SC population, 25% to number of villages & cities/towns and 10% to literacy gap.
- State Govt. accepted @ 2% i.e. Rs. 637.94 crore. Panchayats: Rs. 414.66 crore (65%) and Municipalities: Rs. 223.28 crore (35%)
- State Government already provided Rs. 284.28 crore to Panchayats and Rs. 190 crore to Municipalities for the period of 2006-2009
- In 2012-13, State Government has given Rs. 266.56 crore to Panchayats.

Fourth State Finance Commission

- 4th SFC was constituted on 16th April, 2010 covering the period of 4 years i.e. 2012-2015
- The report of 4th SFC was submitted in June 2014.
- As per the recommendations of 3rd SFC and the decision of the government Rs. 1674.33 crore has been provided to the local bodies from the years 2010-11 to 2014-15.
- The Panchayats share to allocate among GPs at the district level: PSs: ZPs in the ratio of 75:15:10 respectively.
- The share of local bodies, both Panchayats and Municipalities, has recommended 7% of the divisible pool i.e. net own tax revenue.

Fifth State Finance Commission

- 5th SFC was constituted on 26th September 2016. The report of the commission covers the five year period commencing from 01 April, 2016 to 31 March, 2021.
- A basic grant of nearly 3495.17 crore has been granted to the Panchayats during 2015-20 and 1663.95 crore to Municipalities.
- It is recommended that financial devolution of 7% of the State's Own Tax Revenue (SOTR) to local bodies in the ratio 55:45 (Panchayats: Municipalities) and stamp duty of 2% will be over and above the recommended devolution of 7% of SOTR to local bodies.
- Distribution criteria will be based upon the population and area in the ratio of 80:20.
- Inter-se share of rural bodies will be in the ration of 75:15:10 among Gram Panchayat, Panchayat Samiti and Zilla Parishad.
- Specific grants of Rs. 250 crore for establishment of State Level Urban Shared Service Centre and Rs. 70 crore for Swarna Jayanti Haryana Institute for fiscal management.

Source: Haryana State Finance Commission Reports

Devolution and Delegation as per State Panchayati Raj Act and Rules

The state of Haryana through the Panchayati Raj Act, 1994 has devolved all 29 functions included in the Eleventh Schedule of the Constitution, to the three levels of Panchayats through inclusion in the Schedules to the Panchayati Raj Act, 1994. However, so far, activity mapping has been done for fourteen departments only along with funds and functionaries been devolved upon Panchayats.

Panchayat Finances

Provision of adequate financial powers to the Panchayats by equipping them to generate sufficient resources on their own is necessary to enable them discharge their functions and obligations satisfactorily. Under the Haryana Panchayati Raj Act, 1994, Panchayats have been given powers to impose taxes and fees. The Act also provides that the Panchayats may impose any tax, duty or cess which the State Legislature has powers to impose, if so authorized by the government. However, only house tax has been imposed as per 117 (I) of Panchayat Rules in the following rates :

- (i) A land owner or a shop keeper Rs. 30 per annum
- (ii) A tenant of land or an artisan Rs. 20 per annum
- (iii) An unskilled labourer Rs. 10 per annum
- (iv) Any other person not falling under above categories may be bracketed with the above classes as may be determined by GP.

House tax is an important source of income to Panchayats. The State Government had abolished House tax with effect from 01.11.2007. Again State Government has enabled the Gram Panchayats by issuing a notification to impose house tax in rural areas. Our field study reveals that in almost all sample panchayats, house tax is being collected by GPs. In Haryana, Shamilat land is the main source of income to Panchayats. The panchayats have 849587 acres of shamilat land out of which 233051 acres are cultivable shamilat land and 598856 acres of uncultivable shamilat land. During the year 2012-13, the income from shamilat land was Rs. 230.94 crore. Our study in sample panchayats reveals that lease money is being collected from shamilat land in almost all villages.

References

- Alok, V.N. (2021). Fiscal Decentralization in India: An Outcome Mapping of State Finance Commissions, Palgrave Macmillan, New Delhi.
- Bishnoi, N.K. (2018). Fiscal Management in Haryana: A Review, National Institute of Public Finance and Policy, New Delhi.
- Dholakia, R.H. (2003). The Role of the State Government in Promoting Private Sector Growth: A Case Study of Haryana in (eds.) Stephen Howes, Ashok K. Lahiri, and Nicholas Stern, State Level Reforms in India: Towards More Effective Government, Mcmillan India, New Delhi.
- Government of Haryana (2019). Memorandum submitted to the Fifteenth Finance Commission, Chandigarh.
- Government of Haryana (2021), Economic Survey 2020-21, Chandigarh.
- Government of India (2020). Economic Survey 2020-21, New Delhi.
- NITI Aayog (2021). SDG India Index & Dashboard 2020-21, New Delhi.
- Reserve Bank of India (2020). Handbook of Statistics of Indian Economy. Mumbai.
- Sarma, Atul. (2000). "Haryana Finances: Reforms of Budgetary Management", Economic and Political Weekly, August 26.
- Sen, Tapas K. and R. Kavita Rao, (2000). State Fiscal Studies: Haryana, National Institute of Public Finance and Policy, New Delhi.
- Sen, Tapas K., (1997). Relative Tax Effort by Indian States. Working Paper No.5, National Institute of Public Finance and Policy, New Delhi.
- World Bank, (2020). State Fiscal Reforms in India: Progress and Prospects. New Delhi.

