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**“Study of Pradhan Mantri Fasal Bima Yojana for Agricultural Protection – With  
Special Reference to Chhattisgarh State”**

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**Abstract :-** Pradhan Mantri Fasal Bima Yojana Is A Scheme Implemented By The Central Government. Through This Scheme, Farmers Are Provided A Guarantee For Agricultural Conservation. In The Presented Study, States Have Been Analyzed To Study The Prime Minister Crop Insurance Scheme. In The Presented Study, A Comparative Study Of The Claim Amount Received By The Farmers Of Chhattisgarh State And Other States Benefited From The Crop Insurance Scheme Has Been Done. This Study Has Been Conducted By Collecting And Analyzing Primary And Secondary Data For Three Years (2016-17 To 2018-19). For Analysis And Interpretation, Microsoft Excel Was Used To Calculate The Statistical Mean, Standard Deviation, Variance, T-Test, And Z-Test. In This Study, An Analytical Examination Of The Premiums And Claim Amounts Payable By Farmers And Those Applying Under The Crop Insurance Scheme Has Been Conducted. It Is Known From The Study That The Farmers Of Chhattisgarh State Get Proportionately More Benefits In The Prime Minister Crop Insurance Scheme As Compared To Other States And The Farmers Of The State Are More Aware About This Scheme. Farmers Of Chhattisgarh Are Satisfied With The Crop Insurance Scheme For Agricultural Protection. Farmers Of Sugarcane, Wheat And Other Rabi Crops Get Discouraged Due To Pradhan Mantri Crop Insurance Scheme Not Being Given On All Crops. In The Study Presented By The Government In Rabi And Crop Also, A Comparative Study Of The Claim Amount Received By The Farmers Of Chhattisgarh State And Other States Benefited From The Crop Insurance Scheme Has Been Done. This Study Has Been Conducted By Collecting And Analyzing Primary And Secondary Data For Three Years (2016-17 To 2018-19). All The Farmers Of The State Will Be Benefited By Providing Crop Insurance Scheme.

**KEY WORD:-** Crop Insurance Scheme, Prime Minister Crop Insurance Scheme, Agricultural Insurance, Agricultural Scheme.

**Introduction:-** India Is An Agricultural Country, Most Of The Population Here Is Dependent On Agriculture. India's Agriculture Is Based On Monsoon. Monsoon Has A Direct Impact On Agriculture. In India, Farmers Of Large Sections Do Not Have Much Risk. Most Of The Farmers In The Country Have Been Conducted By The Central Government To Provide Protection From The Middle Class, Uncertain Weather And Negative Effects On Agriculture Due To High Class And Landless Farmers. The Main Objective Of This Scheme Was To Introduce The Pradhan Mantri Crop Insurance Scheme (PMFBY) To Increase The Income Of Farmers And Make Farming Safe. This Scheme Provides Farmers With Economic Security From Crop Loss Caused By Natural Disasters, Pests And Diseases. The Scheme Started On 18 February 2016 And Since Then Millions Of Farmers Have Benefited From It. This Scheme Not Only Compensates For Crop Loss Due To Natural Disasters, But Also Makes Farming Safe Through Technical Reforms And Easy Premium Rates. The Government Has Taken A Big Step To Give Relief To The Farmers While Continuing This Scheme So Far. All Farmers Get The Benefit Of The Scheme - Whether They Take Loans Or Cultivate Without Debt. Crop Damage Occurs In Conditions Such As Natural Disasters, Floods, Droughts, Hailstorms, Insect Invasions, And Fires. If Farmers Register On Time, They Get An Insurance Claim On Crop Loss. How Much Premium Rates Of Pradhan Mantri Crop Insurance Scheme (PMFBY) Are, The Government Has Kept The Premium Rates Very Low For Farmers. "Kharif Crop: 2% On Grains And Pulses, 5% Rabi Crops On Commercial Crops: 1.5% On Grains And Pulses, Commercial Crops. The Objective Of The Pradhan Mantri Crop Insurance Scheme Is To Provide Support To Agricultural Production By Providing Affordable Crop Insurance, So That This Scheme Is Implemented On Crops Like Paddy, Maize, Soybean, Moong, Urad, Moongphali, Eragarh Etc. Under The Pradhan Mantri Crop Insurance Scheme On The Basis Of The Field Approach In The Region Approach In The Region Approach In The Region Approach.

### **Research Literature**

Ranjan Kumar Ghosh FEBRUARY 2019- PERFORMANCE EVALUATION OF PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)- We Then Focus On What Can Be Done To Warrant Higher Acceptability And Effectiveness. A New Model Of Financial Administration Can Be Thought Of Which Ensures Companies Make Sustainable Profits. According To One Top Expert This Is Akin To A 'Cap-And-Cup' Approach. Insurance Companies Can Carry The Risk With A Cap Of, Say, 120% And A Cup Of, Say, 80%. Which Means Pure Losses (Claim Ratio I.E., Claim/Premium) On The Insurer's Book Beyond 120% Falls On Centre And State

At A Pre-Agreed Ratio Of 50:50 Or 60:40, Whereas Surplus Arising Out Of Pure Losses Below 80% Is Ploughed Back To The Centre And State In The Same Pre-Agreed Ratio.

**Raju And Chand (2009)** The Pilot Crop Insurance Scheme (PCIS) Was Introduced In 1979. Prof V.M Dandekar Of The Indian School Of Political Economy, Known As The Father Of Crop Insurance In India, Recommended The Homogeneous Area Approach As An Alternative. The Recommendations Were Accepted By The General Insurance Corporation Of India, Which Introduced The PCIS, Covering Crops Such As Cereals, Millets, Cotton, Potato, Gram, Oilseeds, And Barley.

Mithila Lalit (2018 Crop Insurance In India A Study: This Research Study Has Studied The Insurance Crop To Reduce The Natural Disaster, Uncertainty Due To Weather And Economic Improvement And Comprehensive Risk For Their Protection. And In Their Research Study, It Has Been Reported That Crop Insurance Policy Should Be Improved To Conserve Farmers.

**Objective-** The Objective Of Presentation Research Is As Follows-

To Study Crop Insurance Scheme For Agricultural Conservation.

To Study The Farmers And Reports Of Reports Applied To The Pradhan Mantri Insurance Crop Scheme On The Basis Of States.

To Study The Farmers And the Beneficial Farmers Applied Under The Pradhan Mantri Crop Insurance Scheme.

#### **Research Method-**

**Study Area-** In The Research Study Presented, There Is A Study Of The Prime Minister's Crop Insurance Scheme Run By The Central Government Which Is Operated All Over India. Through This Research Study, All The States Have Been Compared To Chhattisgarh State Insurance Crop Scheme. In The Study Presented, The Field Of Research Has Been Done By The State Of Chhattisgarh.

**Problem For Study-** In The Research, The Farmers Of Chhattisgarh State Have Studied The Problem Of Farmers Applied To The Farmers Crop Insurance Scheme And The Problem Of Beneficiaries As Per Other States.

**Compilation Of Fears-** Secondary Data Is Mainly Used In The Research Study Presented. For The Compilation Of Vessels, The Report Of The Agriculture Department Of Chhattisgarh, Agriculture Directorate, Letters Published By The Central Government And The Report Published By Various Books, Research Papers, News Papers And Other Institutions Have Been Compiled.

**Research Limits-** The Study Of Research Presented Has Been Conducted Comparatively To The Prime Minister's Scheme For The Conservation Of Farmers From Other States In Chhattisgarh State. This Study Has Been Studied In The Year 2016-17, 2017-18 And 2018-19.

**Research Hypothesis-**

**H<sub>0</sub>:** There Is No Meaningful Difference Between The Farmers And Reported Farmers Applied To The Pradhan Mantri Insurance Crop Scheme On The Basis Of States.

**H<sub>01</sub>:** On The Basis Of States, The Difference Between The Farmers And Reports Of Reports Applied To The Pradhan Mantri Insurance Crop Scheme Is Meaningful.

**H<sub>02</sub>:** There Is No Meaningful Difference Between Farmers And Beneficial Farmers Applied Under The Pradhan Mantri Crop Insurance Scheme.

**H<sub>12</sub>:** There Is A Meaningful Difference Between The Farmers And Beneficial Farmers Applied Under The Pradhan Mantri Crop Insurance Scheme.

**Analysis Of Fears:-** The Statistical Method Has Been Used Through Microsapt Axle To Analyze The Compiled Sampoles In The Presento Research Study. The Study Mainly Has Analyzed And Interpreted By Using T Tests And Zade Tests To Test The Mean, Prampas And Propagation And Hypothesis.

**Table No.-1** State-Wise Under The Crop Insurance Scheme, Applied Farmers, Area, Premium Amount, Applied Claim, Benefited Farmers

State	Farmers Application	Area	Gross Premium	Reported Claims	Benefitted Farmer
A & N Island	0.0007	0.006	0.24	0.09	0.000
Andhra Pradesh	24.447	18.891	10.9402	1.89005	16.167
Assam	0.740	0.491	13.22	2.79	0.080
Chhattisgarh	15.703	22.746	888.95	10857.56	6.564
Goa	0.003	0.003	0.03	0.10	0.00
Gujarat	21.710	26.112	3141.39	2778.08	13.925
Haryana	14.425	20.549	856.46	946.79	4.223
Himanchal Pradesh	2.690	0.900	79.43	55.00	1.272
Jammu & Kashmir	1.537	1.106	76.67	26.24	0.197
Jharkhand	12.935	6.295	397.39	684.93	0.577
Karnataka	19.882	22.380	1855.59	2947.50	13.834
Kerala	0.570	0.432	35.92	26.74	0.402
Madhya Pradesh	74.210	129.302	5494.60	3777.21	22.630

Maharastra	148.343	90.650	6117.10	6069.36	81.534
Manipur	0.015	0.008	0.21	0.00	0.000
Meghalaya	0.009	0.009	0.14	0.22	0.004
Odisha	20.985	14.854	1121.50	1169.97	6.579
Puducherry	0.101	0.081	2.69	0.45	0.005
Rajasthan	71.793	77.568	3621.10	3466.65	20.929
Sikkim	0.002	0.001	0.03	0.00	0.000
Tamil Nadu	24.644	13.394	1469.43	2656.32	18.938
Telangana	7.991	9.920	545.55	587.90	0.588
Tripura	0.021	0.003	0.09	0.02	0.002
Uttar Pradesh	61.270	51.343	1418.86	469.16	6.255
Uttarakhand	1.928	1.089	75.06	72.38	0.849
West Bengal	51.274	17.678	730.47	535.52	7.088
Grand Total	577.2	525.8	29036	29250	222.6

**Source:- Secondary data-** <https://Pmfby.Gov.In/Faq>

In Table Numer-1 In The Year 2018-19 Of All The States Of India, A Total Of 577.2 Lakh Farmers Under The Pradhan Mantri Crop Insurance Scheme For Agricultural Conservation Of Farmers Were Made Rs 29036 Crore For An Area Of 525.8 Lakh Hectares. Under This Scheme, Farmers Were Clashed For Rs 29250 Crore In Which 99 Percent Of The Farmers Were Paid By The Government. Under This Scheme, 222.6 Farmers Have Been Benefited In India In The Year 2018-19. Under The Crop Insurance Scheme, The Maximum Number Of 148.343 Lakh Farmers In The State Of Maharashtra Applied For An Area Of 90.650 Lakh Hectares And 81.534 Crore Farmers Have Benefited Under This Scheme. In Chhattisgarh, 15.703 Farmers Paid 888.95 Crore Premium For An Area Of 22.746 Lakh Hectares And 6.564 Crore Farmers Were Given Compensation For Rs 10856.56 Crore Rupees. Thus It Is Clear That This Scheme Is Very Beneficial In The State Of Chhattisgarh. Under This Scheme, The Farmers Protect Them From Risk And The Government Provides Positive Inspiration For Farmers To Do More Agricultural Work Through This Scheme.

**Diagram Number-1** Details Of The Farmers And Reports Of Reported Claims Applied To Crop Insurance Crop Insurance-

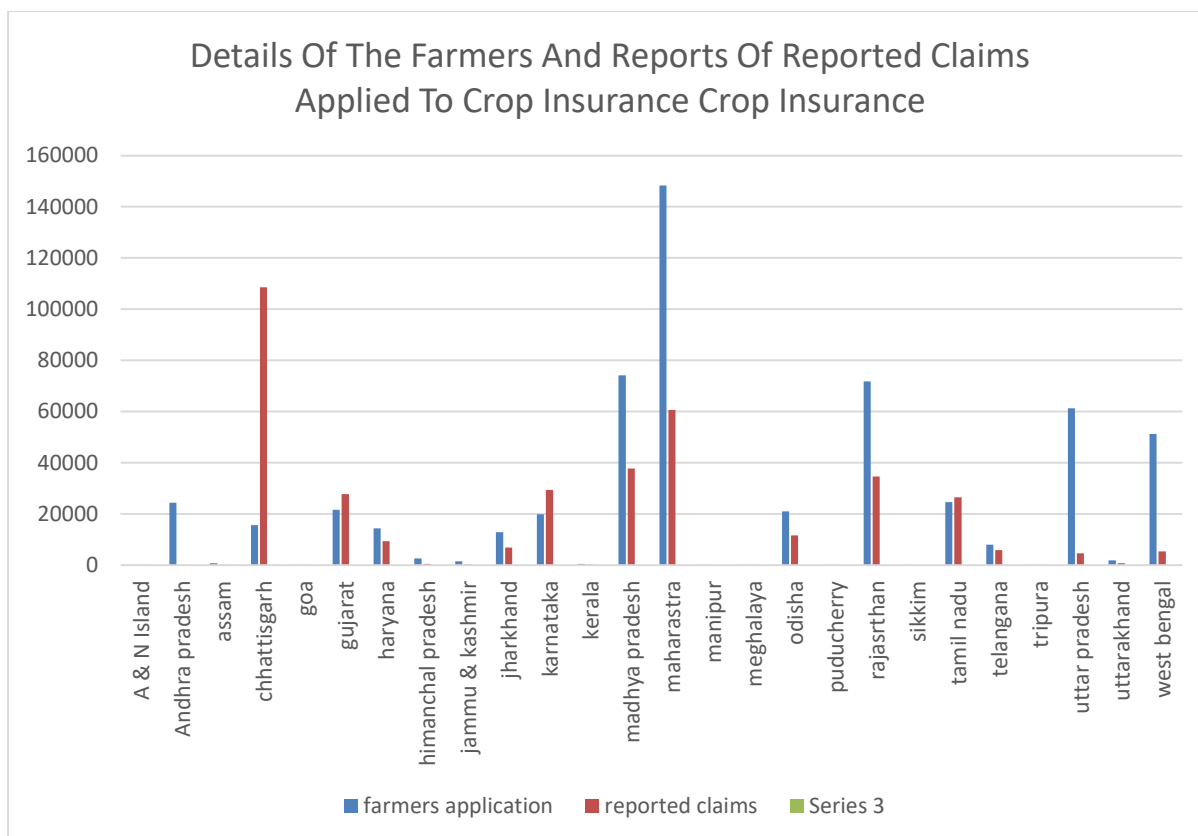


Diagram Number-1 In Various States Of India, The Pradhan Mantri Crop Insurance Scheme Has Shown The Farmers And Reports Applied To The Report. The Number Of Farmers Applied In The Diagram Is The Highest In Maharashtra, But The Number Of Reported Claim Is Not In That Proportion. The Ratio Of Reported Claim Is The Highest In Chhattisgarh State. The Ratio Of Reported Claim In The State Of Chhattisgarh Pradesh, Gujarat, Karnataka Is Good In Proportion To The Applied Farmer. Thus, It Can Be Said That Most Of The Farmers Of The State Are Benefiting From The Benefits Of Pradhan Mantri Crop Insurance Scheme In Chhattisgarh State. Therefore, The Pradhan Mantri Crop Insurance Scheme Has An Important Place For The Economic Development Of Farmers In Chhattisgarh.

**Table Number-2** Number Of Farmers Nominated Farmers, Benefits To Farmers

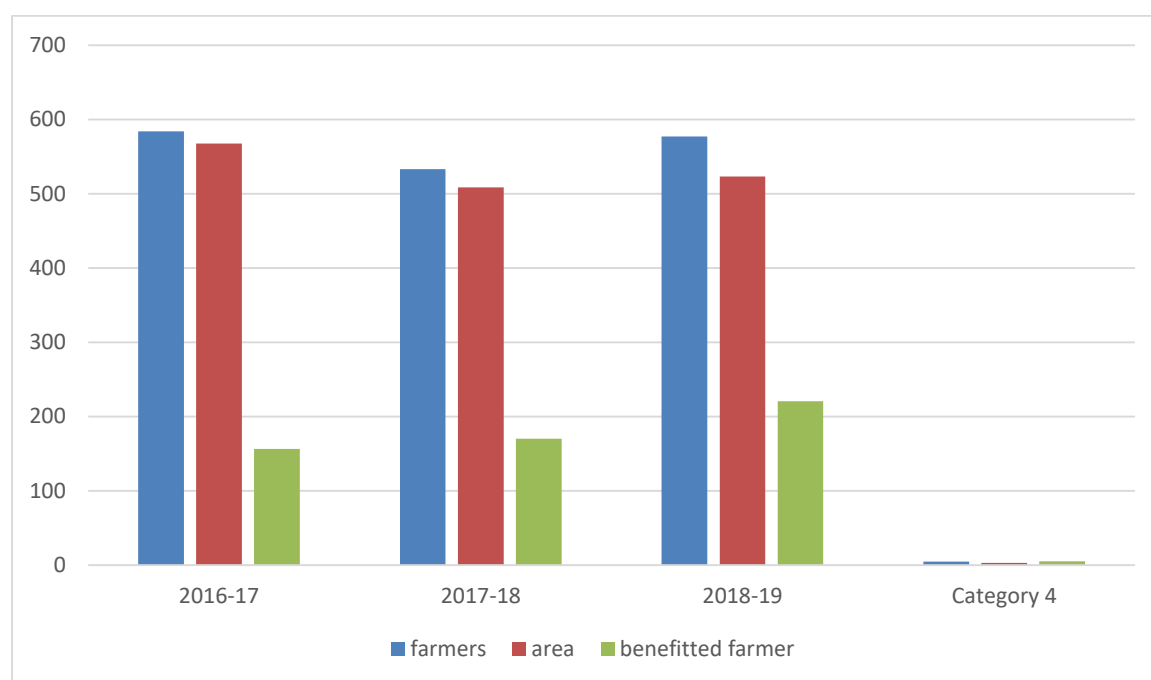
Year	Farmers	Area	Benefitted Farmer
2016-17	583.7	567.3	156.4
2017-18	533	508.3	170.4
2018-19	576.9	523.	220.5

**Source:- Secondary data-** <https://Pmfby.Gov.In/>

It Is Clear From Table Number-2 That 2016-17 583.7 Lakh Farmers Were Nominated For Crop Insurance Scheme For 567.3 Hectares Of Area And 156.4 Lakh Farmers Are Benefited Under This Scheme. Table Number-2 Is Aware That The Number Of Farmers Enrolled In The Year

2017-18 Has Decreased But The Number Of Farmers Benefited Has Benefited 220.5 Lakh Farmers. From The Very Beginning In The State Of Chhattisgarh, The Farmers Pay The Premium To The Crop Insurance Premium Under Appropriation. This Is The Reason That Farmers Also Do Agricultural Work On The Uncertainty Of Monsoon And Take Advantage Of Crop Insurance Scheme. Farmers Of All Areas And All Classes In The Country Take Premium With Full Capacity And Do Agricultural Work Due To The Prime Minister's Crop Insurance Scheme.

**Diagram Number-2** Number Of Farmers Nominated Farmers, Benefits To Farmers



It is clear from the diagram number- 2 that in the year 2016, the number of farmers enrolled for the crop insurance scheme and the hectare area is almost equality, but in the year 2017-2018 and 2018-19, there is less equality in the number and area of farmers enrolled in the year 2017-2018 and 2018-19. In this way, it can be said that farmers are becoming aware of agriculture and farmers are getting more and more insurance for the conservation of their crops. Under this scheme, the number of farmers benefitted in Chhattisgarh state is continuously growing. Thus, the Pradhan Mantri Yojana is playing an important role for the development of the state, which is providing motivation to the farmers to do agricultural work by conserving more and more farmers. From the year 2016.17 to 2018.-19, the number of farmers taking advantage of the Pradhan Mantri Crop Insurance Scheme is continuously increasing.

### Testing of Hypothesis-

**H<sub>01</sub>** - There Is No Meaningful Difference Between Farmers And Beneficial Farmers Applied Under The Pradhan Mantri Crop Insurance Scheme.

**Table Number-3 T Test**

T-Test: Paired Two Sample For Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	564.5333	182.4333
Variance	757.3233	1135.803
Observations	3	3
Pearson Correlation	0.189355	
Hypothesized Mean Difference	0	
Df	2	
T Stat	16.85431	
P(T<=T) One-Tail	0.001751	
T Critical One-Tail	2.919986	
P(T<=T) Two-Tail	0.003502	
T Critical Two-Tail	4.302653	

**Source:- Calculated values**

In Table Number-3, The Testing Method Of Testing The Testing Method Has Been Used Between Farmers And Beneficial Farmers Applied To The Pradhan Mantri Crop Insurance Scheme. It Is Clear From The Test That The Middle Of The Applied Farmers Is 564.533 And The Middle Of The Beneficiaries Is 182.433. Thus The Middle Of The Farmers Applied Are More Than The Beneficiaries. And The Value Of Pursuit Is Higher Than The Farmers Applied Than The Applied Farmers. And Between The Two Cheers, The Corrective Quality Of Karlpirisana Is 0.189, Which Is Low Positive Correlation. The P Price Value In T Test Is 0.0035 Which Is Less Than 0.05. Therefore, There Is No Meaningful Difference Between Zero Hypothesis I.E. The Farmers And Beneficial Farmers Applied Under The Pradhan Mantri Crop Insurance Scheme. Alternative Hypothesis Ie The Difference Between Farmers And Beneficial Farmers Applied In The Pradhan Mantri Crop Insurance Scheme Is Approved. Thus, It Can Be Said That The Difference In The Number Of Farmers And Benefited Farmers Applied To The Pradhan Mantri Crop Insurance Scheme Is Important, That Is, The Farmers Benefited Are Very Less Than The Applied Farmers.

### Testing of Hypothesis-2



**H<sub>02</sub>**- There Is No Meaningful Difference Between The Farmers And Reports Of The Reported Farmers Applied To The Pradhan Mantri Insurance Crop Scheme On The Basis Of States.

Table Number-4 Z Testing

Z-Test: Two Sample For Means		
	0.0007	0.09
Mean	23.08912	1485.311
Known Variance	1177.877	275.7405
Observations	25	25
Hypothesized Mean Difference	0	
Z	-191.76	
P(Z<=Z) One-Tail	0	
Z Critical One-Tail	1.644854	
P(Z<=Z) Two-Tail	0	
Z Critical Two-Tail	1.959964	

**Source:- Calculated values**

In Table number-4, There Is No Meaningful Difference Between The Farmers And reports applied To The Pradhan Mantri Insurance Crop Scheme On The Basis Of States. The Middle Of The Farmers In The Test Is 23.09 And The Middle Of The Report Is 1485.3 And The Sequence Is 1177.9 And 275.7 Respectively. In The Zade Test, The Value Of The Zed Critical Price Is 1.96 And 1.6 And The Value Of The P Price Is Less Than 0.05. In This Way, There Is No Meaningful Difference Between The Farmers And Reports Of The Prime Minister's Insurance Crop Scheme On The Basis Of Zero Hypothesis States And There Is No Meaningful Difference Between The Claims And The Alternative Hypothesis Is Approved On The Basis Of The Alternative Hypothesis States. Therefore, It Is Clear From The Jade Testing That based on The States, There Is A Difference Between The Applied Farmers And Reports In The Pradhan Mantri Crop Insurance Scheme, That Is, There Is A Difference Between The Number And Clam Ratio In Different States.

**Conclusion-** Research Studies Revealed That The Central Government Has A Positive Impact On Economic, Social And Health Due To The Conservation Of Small And Landless Farmers And To Prevent Natural Risks. It Was Also Clear From The Study That Farmers Of Chhattisgarh Have Been More Benefiting Than Other States And The Farmers Are Aware Of This Scheme. In Chhattisgarh State, A Large Number Of Crop Insurance Schemes Apply And The Ratio Of The Clam Is Also Very Good. The Biggest Problem Of This Scheme Is That This

Scheme Does Not Conserve All Crops, Due To Which The Farmers Produce Only The Same Crop, Which Gives Them The Benefit Of The Bima Scheme, Due To Which The Reduction In Food Supply And The Problem Of Excesses. With The Government Providing This Scheme On All Crops, The Area Will Be Reduced, Which Will Benefit The Government, Common People And Farmers Etc.

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