Mapping Agricultural Enterprises Index: Growth Engine to Rural Economy (with Special Reference to Uttar Pradesh)

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Abstract: In any economy agrarian sector occupies one of decisive ingredients for scripting the saga of economic growth and consequently social and political cohesion. In case of developing economy, its role has been vocal enough right from Newtonian age of society down to industrial and post-industrial time horizons. Agricultural sector is complex world itself, comprising of sets of multitude agricultural practices like farming, dairy, Seri culture, flower cultivation and other allied practices dependent either directly or indirectly on all these practices. Agri enterprises are those enterprises based and run by inputs procured by agricultural sector. Since ages, Traditional and cottage enterprise have been looked upon for major source of rural employment and fuel for economic and social prosperity too. Even after 74th years of independence, and so many economic twist and turns followed by recent year century worst medical crisis, rural and agricultural enterprises have meticulously stood by vast section of demographic dividends fell into vulnerability trap posed by medical crisis. In this paper, an attempt was made to gauge the track of agricultural enterprises with help of index computed by taking the agri enterprises statistics published in Uttar Pradesh District statistical diary for year 2019-20. Data regarding to operating agricultural and non agri cultural enterprise in economic census conducted regularly in each district. General index calculation approach was adopted on given indicator with minimum and maximum value within universe of districts in question.

Keywords: Agriculture Enterprises, Agricultural Enterprises Intensity Index, KVIC, SFURTI Scheme. ODOP, Agri Exports.

1. Introduction

In any economy agrarian sector occupies one of decisive ingredients for scripting the saga of economic growth and consequently social and political cohesion. For year 2019-20, the combined gross value addition by agriculture, fishing and forestry sections of Indian economy was accounted for figure 19.48 lakh core. In case of developing economy, its role has been vocal enough right from Newtonian age of society down to industrial and post-industrial time horizons. Agricultural sector is complex world itself, comprising of sets of multitude agricultural practices like farming, dairy, Seri culture, flower culture and other allied practices dependent either directly or

indirectly on all these practices. Agri enterprises are those enterprises based and run by inputs procured by agricultural sector. With gradually dwindling absorption capacity of traditional farm sector on employment and resource utilization variables and further innovation and technological based start-ups in rural sector, inward and outward diversification of farm sector has taken uptick in recent times. Inward diversification of agrarian sector can be taken as shift from conventional food and non-food growing practices to agro-tech enterprises ranging from farm mechanization, food processing and supply chains. All these drivers are key determinants for scale, pattern and sustainability of agricultural enterprises along with complementary institutional and policy interventions by political set up of region.

In context of Uttar Pradesh, the most populous state of India where populated villages are 97814 and primary sector contributes about 24.1% to total state income for year 2019-20, rural economy has always assumed infallible role for balanced and sustainable development of state economy as whole. Traditional and village industries run by local level resources and skills are life line to majority of poor and unemployed section of rural population since ages. In globalized era where space of digitization has penetrated in almost all sectors of economy, growth and sustainability of many traditional and local based agro enterprises have sent alarm to policy makers. In general, enterprises based on agricultural materials are harmonious in character and beneficial to all. They are characterized by high workforce intensity and low capital and least complex technological know-how. In this study, index for measurement of intensity of agri-enterprises points out strong variations across districts of Uttar Pradesh. Districts endowed with conducive natural resources for farming have showed good score on agri based enterprises in operations and support to district economy. Districts located in western U.P. and North West part of state occupy relative highlighted positions in score card.

2. Research Methodology

Cross sectional analytical approach was used to compute agricultural enterprises intensity index and resultant district-wise comparative analysis by taking indicators related to agricultural enterprises.

Data on Number of total operating agricultural enterprises and non-agricultural enterprises in districts have been sourced from Uttar Pradesh Statistical Diary for year 2019-20. Since computation of operating micro, medium and small enterprises is done in economic census on regular basis, data for same study is available for year 2012 as per economic census of Uttar Pradesh. Ratio of agricultural enterprises to non-agricultural enterprises for jth district for ith indicator has been calculated for normalization of index values. Minimum and maximum goal posts for indicator taken, are set 0 and 100.

$$AIIj^1 = \left(\frac{\{ith - minimum\}}{\{Maximum - Minimum\}} \right)$$

AIIJi = Agricultural enterprises intensity index for jth district on ith indicator. Segregation of intensity is spread by division of quintiles values of index score between first to third is grouped into medium intensity districts, below first quartile is low intensity districts and above third quartile scoring districts are grouped into high intensity.

3. Data Analysis

1) Table: Source: Uttar Pradesh Statistical Diary: 2019-20
A/RA:- Ratio of Agri-Enterprises to Non- Agri-Enterprieses

From the below table, it is quite evident that total number of agri based enterprises as per economic census for year 2012, was 1443075 and estimated non agri-based enterprises in all districts were 5156959. Districts with top concentration of agri based business entities are Badaun, Bulandshar, Mahrajganj, Gorakhpur, Kanpur, Etawa, Bareilly, Philibhit Paryagraj Mathura, Jaunpur, Varanasi, Ballia, Mirzapur etc. In contrast to districts like Shamali, Sambhal, Harpur and Amethi have no operating agri based enterprises according to economic census of UP. So, distribution of enterprises established and being operated by sourced inputs mainly from farm sectors is unlikely equal. Western, North West and Eastern parts of U.P. have overwhelming presence of such sorts of enterprises.
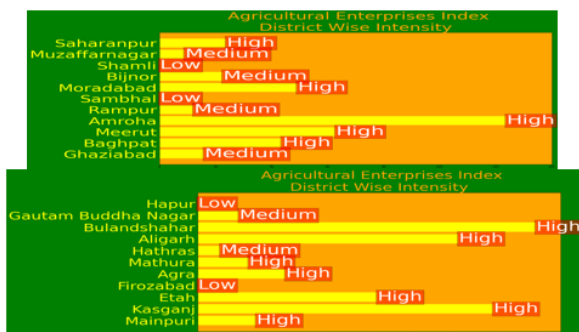
2) Figures

Fig. 1. Agricultural Enterprises Intensity Index

Above figures shed light on agricultural enterprises intensity index (AII) and its magnitude bifurcation having quartiles index scores. Those districts with score below 4 score fall in category of low intensity and other in range of above 4 to 23 are medium intensity districts and districts have secured scores more than 23 on index scale are highly agricultural based industrial activities therein.

4. Summary and Conclusion

Although fluctuations in global climatic conditions and economic exchange in international market are steadily being felt for some years, yet food grains bowl of Indian national territory is gaining year a year. The food grains production stood at record level 296.65 million tonnes for year 2019-20. India claims 15th rank among top exporting nations dealing with agricultural exports with volume worth of 35.09 billion $ in FY 2020. Out of total exported items, products processed in agricultural enterprises directly or indirectly stood 43798 crore Rs. It is estimated that organic food segment of Indian market is expected to grow at 10% CAGR by 2025. The FDI inflow in Indian food industry has been around 10.24 US $ Billion from year 2000 to year 2020.

The full realization of doubling the farmers' incomes by 2022 and capture accelerated momentum of investment in farm sector is organically complementary with sustainable development of rural agricultural industries. Under KVIC and MSME, rural traditional and non-traditional enterprises are extended full length technical and financial supports. SFURTI scheme is initiative in this direction to develop such enterprises nurtured by raw materials derived from nature. Pottery, stone, silk, handicrafts are some of these enterprises footed and flourishing from centuries. They are undoubtedly major source of rural employment and export earnings of country. Cluster based rural agricultural enterprises are road ahead in terms of availing scale of economies that are likely to cast away structural rigidities clamped down the growth of rural economy.

5. Other Policy Responses

A scheme for promoting innovation, rural industry and entrepreneurship basically lay focus on development and promotion of enterprises located in villages so as to accelerate the growth engine of rural economy. One district and one product scheme aims to raise level of global competitiveness and capacity building in village and traditional craft based industries. Cluster development programme has been initiated to provide soft and hard interventions for development of cluster of village based industries for long run.
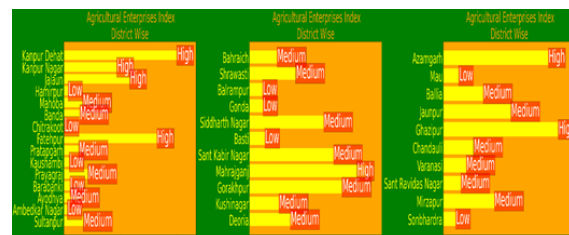
Table 1 Agri-Enterprises Index

S.N.	Districts	Agricultural Enterprises	Non-agricultural Enterprises	Total	*Ratio(A/NA)	index	Intensity
0	Saharanpur	27678	115718	143396	0.239185	23.92	High
1	Muzaffarnagar	10475	114704	125179	0.091322	9.13	Medium
2	Shamli	0	0	0	0	0	Low
3	Bijnor	24922	109822	134744	0.226931	22.69	Medium
4	Moradabad	79943	162398	242341	0.492266	49.23	High
5	Sambhal	0	0	0	0	0	Low
6	Rampur	10512	85868	96380	0.12242	12.24	Medium
7	Amroha	75547	61039	136586	1.237684	123.77	High
8	Meerut	96950	154121	251071	0.629051	62.91	High
9	Baghpat	14489	33092	47581	0.43784	43.78	High
10	Ghaziabad	27790	173833	201623	0.159866	15.99	Medium
11	Hapur	0	0	0	0	0	Low
12	Gautam Buddha Nagar	11588	59791	71379	0.193808	19.38	Medium
13	Bulandshahar	159557	100633	260190	1.585534	158.55	High
14	Aligarh	124317	101706	226023	1.222317	122.23	High
15	Hathras	5872	54644	60516	0.107459	10.75	Medium
16	Mathura	13240	55253	68493	0.239625	23.96	High
17	Agra	64092	155491	219583	0.412191	41.22	High
18	Firozabad	18	68322	68340	0.000263	0.03	Low
19	Etah	32122	38150	70272	0.841992	84.2	High
20	Kasganj	45492	32838	78330	1.385346	138.53	High
21	Mainpuri	10922	39646	50568	0.275488	27.55	High
22	Budaun	121005	96238	217243	1.257352	125.74	High
23	Bareilly	44864	217176	262040	0.206579	20.66	Medium
24	Pilibhit	15484	67352	82836	0.229897	22.99	Medium
25	Shahjahanpur	5833	74494	80327	0.078302	7.83	Medium
26	Kheri	2332	71050	73382	0.032822	3.28	Low
27	Sitapur	2795	103092	105887	0.027112	2.71	Low
28	Hardoi	3343	81641	84984	0.040948	4.09	Medium
29	Unnao	1662	54126	55788	0.030706	3.07	Low
30	Lucknow	25945	205960	231905	0.125971	12.6	Medium
31	Rae Bareli	5178	64069	69247	0.080819	8.08	Medium
32	Amethi	0	0	0	0	0	Low
33	Farrukhabad	2474	39459	41933	0.062698	6.27	Medium
34	Kannauj	1433	39770	41203	0.036032	3.6	Medium
35	Etawah	44042	44265	88307	0.994962	99.5	High
36	Auraiya	5957	26338	32295	0.226175	22.62	Medium
37	Kanpur Dehat	18757	31261	50018	0.600013	60	High
38	Kanpur Nagar	44296	157010	201306	0.282122	28.21	High
39	Jalaun	16056	45767	61823	0.35082	35.08	High
40	Hamirpur	501	21491	21992	0.023312	2.33	Low
41	Mahoba	2090	20766	22856	0.100645	10.06	Medium
42	Banda	2711	31759	34470	0.085362	8.54	Medium
43	Chitrakoot	63	15083	15146	0.004177	0.42	Low
44	Fatehpur	30512	61689	92201	0.49461	49.46	High
45	Pratapgarh	4514	55454	59968	0.081401	8.14	Medium
46	Kaushambi	1051	34579	35630	0.030394	3.04	Low
47	Prayagraj	25656	197935	223591	0.129618	12.96	Medium
48	Barabanki	2537	75346	77883	0.033671	3.37	Low
49	Ayodhya	2083	52319	54402	0.039813	3.98	Medium
50	Ambedkar Nagar	1063	51321	52384	0.020713	2.07	Low
51	Sultanpur	8039	76287	84326	0.105378	10.54	Medium
52	Bahraich	3150	50019	53169	0.062976	6.3	Medium
53	Shrawasti	1673	15821	17494	0.105746	10.57	Medium
54	Balrampur	1075	35311	36386	0.030444	3.04	Low
55	Gonda	1478	47749	49227	0.030954	3.1	Low
56	Siddharth Nagar	8353	49440	57793	0.168952	16.9	Medium
57	Basti	1774	49942	51716	0.035521	3.55	Low
58	Sant Kabir Nagar	10137	52999	63136	0.191268	19.13	Medium
59	Mahrajganj	15664	59201	74865	0.26459	26.46	High
60	Gorakhpur	22998	109162	132160	0.210678	21.07	Medium
61	Kushinagar	4533	67310	71843	0.067345	6.73	Medium
62	Deoria	7162	72150	79312	0.099265	9.93	Medium
63	Azamgarh	24331	101779	126110	0.239057	23.91	High
64	Mau	2515	70502	73017	0.035673	3.57	Low
65	Ballia	7112	77931	85043	0.09126	9.13	Medium
66	Jaunpur	14011	90911	104922	0.154118	15.41	Medium
67	Ghazipur	20904	79911	100815	0.261591	26.16	High
68	Chandauli	2419	34815	37234	0.069482	6.95	Medium
69	Varanasi	7174	136929	144103	0.052392	5.24	Medium
70	Sant Ravidas Nagar	1692	41903	43595	0.040379	4.04	Medium
71	Mirzapur	6281	53850	60131	0.116639	11.66	Medium
72	Sonbhardra	837	29158	29995	0.028706	2.87	Low
	Total	1443075	5156959	6600034			

References

[1] Indian agriculture and allied industries Industry Report, accessed from www.ibef.org/industry/agriulture-India.

[2] Singh, S.P., Rural non-farm employment in uttar pradesh: determinants, dimensions and regional pattern. The Indian Journal of Labour Economics, vol. 49, no. 4, 2006

[3] Srivastava. S., Role of MSME Sector in Indian Economy: With Special Reference To Gujrat. www.researchgate.com

[4] Lanjouw.J/O., The rural non-farm sector: issues and evidence from developing countries. 2001. Accessed from www.researchgate.com

[5] Uttar pradesh statistical diary, 2019-20.

[6] Vijay. S.K., Role of Micro, Small & Medium Enterprises (MSMEs) in the Rural development of India: A Way Forward. www.researchgate.com