

International Multidisciplinary Research Journal

Golden Research Thoughts

Chief Editor
Dr.Tukaram Narayan Shinde

Publisher
Mrs.Laxmi Ashok Yakkaldevi

Associate Editor
Dr.Rajani Dalvi

Honorary
Mr.Ashok Yakkaldevi

Golden Research Thoughts Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

Regional Editor

Manichander Thammishetty

Ph.d Research Scholar, Faculty of Education IASE, Osmania University, Hyderabad

International Advisory Board

Kamani Perera Regional Center For Strategic Studies, Sri Lanka	Mohammad Hailat Dept. of Mathematical Sciences, University of South Carolina Aiken	Hasan Bakfir English Language and Literature Department, Kayseri
Janaki Sinnasamy Librarian, University of Malaya	Abdullah Sabbagh Engineering Studies, Sydney	Ghayoor Abbas Chotana Dept of Chemistry, Lahore University of Management Sciences[PK]
Romona Mihaila Spiru Haret University, Romania	Ecaterina Patrascu Spiru Haret University, Bucharest	Anna Maria Constantinovici AL. I. Cuza University, Romania
Delia Serbescu Spiru Haret University, Bucharest, Romania	Loredana Bosca Spiru Haret University, Romania	Ilie Pinteau, Spiru Haret University, Romania
Anurag Misra DBS College, Kanpur	Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Xiaohua Yang PhD, USA
Titus PopPhD, Partium Christian University, Oradea,Romania	George - Calin SERITAN Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, IasiMore

Editorial Board

Pratap Vyamktrao Naikwade ASP College Devrukh,Ratnagiri,MS India Ex - VC. Solapur University, Solapur	Iresh Swami S. D. M. Degree College, Honavar, Karnataka	Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur
R. R. Patil Head Geology Department Solapur University,Solapur	N.S. Dhaygude Ex. Prin. Dayanand College, Solapur	R. R. Yalikal Director Managment Institute, Solapur
Rama Bhosale Prin. and Jt. Director Higher Education, Panvel	Narendra Kadu Jt. Director Higher Education, Pune	Umesh Rajderkar Head Humanities & Social Science YCMOU,Nashik
Salve R. N. Department of Sociology, Shivaji University,Kolhapur	K. M. Bhandarkar Praful Patel College of Education, Gondia	S. R. Pandya Head Education Dept. Mumbai University, Mumbai
Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai	Sonal Singh Vikram University, Ujjain	Alka Darshan Shrivastava Shaskiya Snatkottar Mahavidyalaya, Dhar
Chakane Sanjay Dnyaneshwar Arts, Science & Commerce College, Indapur, Pune	G. P. Patankar S. D. M. Degree College, Honavar, Karnataka	Rahul Shriram Sudke Devi Ahilya Vishwavidyalaya, Indore
Awadhesh Kumar Shirotriya Secretary,Play India Play,Meerut(U.P.)	Maj. S. Bakhtiar Choudhary Director,Hyderabad AP India.	S.KANNAN Annamalai University,TN
	S.Parvathi Devi Ph.D.-University of Allahabad	Satish Kumar Kalhotra Maulana Azad National Urdu University
	Sonal Singh, Vikram University, Ujjain	



ECONOMIC IMPACTS OF SUGAR-INDUSTRY



Rachakar N. I¹ and Jadhav M. G.²

¹Research Student,

²Former Professor and Head , Department of Geography, Shivaji University, Kolhapur.

ABSTRACT

The present paper aims at analyzing the economic impacts of sugar industry development on people of rural areas of Madha-Tahsil of solapur district of Maharashtra. The Study highlights both positive as well as negative impacts created by sugar-industry development.

KEYWORDS :Sugar industry, Economic impacts, Likert Scale,

INTRODUCTION

While analyzing the impact of sugar industry on people of rural areas more is known about the benefits of it than the associated costs. Therefore, for the sustainable development there should be a balance approach towards there impacts which assets both the benefits and costs of such a development. Economic impacts can not be explained simply by economic factors, because social, political level – Environmental factors have also immense importance.

There is a made spread optimism that sugar industry have been a powerful and beneficial agent which cause economic and social change stimulating employment investment for change in landuse pattern and economic structure of the region. But at the same time it may raise many questions concerning social change and environmental degradation of the region.

Therefore development of sugar industry has given rise to increasingly pronounced economic, social political and environmental impacts. However recently attention has been concentrated obviously on the economic impacts.

The economic impacts are prominent which gives varied types of benefits to the people of the region such as employment generation increasing opportunities for entrepreneurship increase in income due to development of agriculture commercialization of agriculture and development of subsidiary occupations like dairy and poultry. It is therefore quite necessary to know the views of the people towards these economic impacts.

Madha Tahsil is an important tahsil in solapur district where development of sugar industry has created some economic, Social, Political and environmental impacts on the people of the region. Therefore, it became necessary to make study of Madha tahsil in the development point of view keeping adverse impact in control and promoting the favourable impacts.

STUDY REGION :-

For present study Madha tahsil of Solapur district is selected purposively. Madha tahsil is extends from 17° 40' to 18°30' North latitudes and 75°00' to 75°40' East longitudes. The total geographical area of Madha tahsil is 1544.9 km², which is 11% of total geography area of Solapur district. It is bounded from the North by Karmala tahsil, on the North-East by Barshi tahsil and at the South & East by Pandharpur and Mohol tahsil and west by Indapur tahsil of Pune District. The Population of Madha tahsil is 324027 (Censes 2011). The principal source of irrigation in Madha tahsil is Ujjani right bank cana, Bhima Sina link canol, Sina Madha Lift irrigation scheme sinchan yojana, Bhima and Sina river. Temperature is high in summer season. The tahsil has hot and dry climate, with an average annual rainfall of 519 mm.

Total area under sugarcane cultivation in Madha tahsil is about 23668 hectors in 2011-15 (This is an average of 2011-2015). About four sugar factories curshing 14750 M. tones of sugarcane per day and produced 300245 in tones of sugar in 2014-15. Therefore to find out economics of sugarcane cultivation in Madha tahsil has got importance from the view point of annually per hectors income to farmers.

OBJECTIVES :-

The main objective of the study is to assess the economic impacts of Sugar, Industry development on rural population of Madha Tahsil.

METHODOLOGY :-

The attitudinal survey has been the common method of assessing the impacts. In this method a questions arrive is designed and respondents are asked to indicate their attitude and feelings towards the impacts, with a set of closed questions or statements. Such a survey can yield useful information about the type of impacts, but it must be remembered that what is being recorded is the perception of respondents about these impacts and these may or may not agree with reality. The impact study is an attempt to examine empirically the views / impacts of sugar industry development on rural areas. It is an investigation of people perception of impacts rather than a measures of actual impacts.

Hense for the study of economic impacts about forty one (41). Indicators were selected and three community groups as farmers, workers and administrators have been selected from the rural population of Madha Tahsil. A set of question mark was designed and a total of 687 farmers, 102 workers and 67 public administrators of sugar industries were interviewed. The response of each question was rated on seven point, " Likert Scale" ranging from -3 to +3 (-3,-2, -1, 0,+1,+2, +3) with zero aquating no effect on item – resulting from sugar industry development. The reaction of these three groups in each care is analysed.

For each statement in a 'Likert scale' the respondent is asked to indicate not only the direction (agree or disagree) of his or her response, but also a commitment to that response as strong moderate or slight. The peoples attitude is represented by his or her scores across all items in the scale and reaction in each case is analysed.

Views of people towards economic impacts of sugar industry in Madha Tahsil.

With the establishment of sugar industry in the tahsil traditional agriculture is gradually being replaced by modern technology and farm practices in many parts of the rural Madha tahsil. Due to the adequate provision of irrigation the cropping pattern has changed and area under sugarcane increased application of modern methods of cultivation increased for various agricultural impacts. Increased income and credit facilities has changed the attitude of farmers towards the sugarcane cultivation. Sugar factory provides services like improved varieties of sugarcane seeds, chemical fertilizers, guidance regarding the use of pesticides and insecticide, soil and water testing laboratories, and arranged workshop and seminars for farmers for development of agriculture in general and to increase sugar cane production in particular.

Varied occupations related to sugar industry are also increased in the region. New class of rural entrepreneurship has developed in the region, which has brought about substantial changes in rural – occupational structure. Family members are getting employment in sugar factories co-operative banks, financial institutions, educational institutions, dairy and poultry farms. These institutions have come in to existence especially due to establishment of sugar factories subsidiary occupations like dairy and poultry farming are important sources of income to farmers.

With the increase in income standard of living is also improved, The pucca houses and modern bungalows are fully furnished with all modern amenities are constructed by farmers two and four wheelers, mobiles, luxurious goods and costly things are now common things to farmers. Therefore region under tremendous change in economic development during last thirty years (1981 to 2011).

ECONOMIC IMPACT INDICATORS

Here to study the view of people towards the economic impact of sugar industry on rural areas following indicators are selected.

1. Increase in income
2. Increase in employment opportunities
3. Increase in subsidiary occupations
4. Development of new class rural entrepreneurship.
5. Increase in used of modern technology in agriculture.
6. Development of irrigation facilities.
7. Shift towards commercial farming
8. Increase in number of financial institutions
9. Change in housing pattern of sugarcane growers.
10. Extravagant expenditure on family function and marriage functions.
11. Increasing tendency to borrow loans from financial institutions.
12. Increase in the cost of agricultural lands
13. Development of transport and communication activities.
14. Intercropping a source of additional income.
15. Development of Farm pond or community Farm pond.

16. Decrease in the production of food grains.
17. Change in the nature of village fairs and festivals.
18. Purchase of modern vehicles.
19. Additional income through sugarcane harvesting and transportation.
20. Tendency towards using costly mobiles.
21. Increase in the cost of nonagree land and housing.

Peoples Response to Economic Impacts of Sugar Industry Development.

Mean of peoples (Farmers, Workers and Administrators in Sugar Industry) response to economic impacts of sugar industry development on the people of rural areas is calculated and given in Table No. 1.

Table No. 1 summarise the response of the economic impact of sugar industry development on the people of rural areas. In general it is observed that due to sugar industry development there is a increase in use of modern technology in agriculture (+2.60) increasing tendency of people to purchase modern vehicles and agricultural machinery (+2.56), extravagant expenditure on family function and marriage functions (+2.70), change in the housing pattern of sugarcane growers (+2.60), increase in the cost of agricultural land (+2.48), increase in the cost of nonagri land and housing (+2.38), development in transport and communication activities (+1.76).

Increase in the cost of agricultural land development of transport and communication activities.

The farmers felt that it has higher effect increase in was of modern technology is agriculture (+2.38), increase in the cost of agriculture land (+2.46) extravagant expenditure of family functions and marriage functions (+ 2.30) change in housing pattern of sugarcane growers (+2.08) increase in the cost of non agree land and housing (+2.04) increasing tendency to purchase modern vehicles and agriculture machinery (+2.04).

According to farmers sugar industry development has moderate effect on development of transport and communication facilities (+1.76) Tendency towards wring costly mobiles (+1.50), Development of irrigation facilities (+1.52) intercropping a secure of additional income (+1.46) shift towards commercial farming (+1.44), increase in employment opportunities (+1.40) increase in the subsidiary occupations (+1.24) additional income through sugarcane harvesting and transportation (+1.22) development of new class of enter prenenreship (+1.16) increase in number of financial intentions (+1.20).

On the otherhand farmers left that it has less effect on decrease in the production of food grains (+0.88) development of farm pond or " community From ponds for drip irrigation (+0.84)

The workers felt that sugar industry develgrament has higher effect on expenditure of on family functions and marriage functions (+2.70) change in the honing pattern of sugarcane growers (+2.60) increase in the use of modern technology in agriculture (+2.60), tendency toward using costly mobiles (+2.44) increase in the cast of nonagree land and housing (+2.36) increasing tendency to purchase modern vehicles and agricultural machinery (+2.08).

The workers are of the opinion that development of sugar industry has moderate effect on increase in the cost of agricultural and (+1.96), development in transport and communication activities (+1.72), increase in income of farmers (+1.68), additional income throgh sugarcane harvesting and transport (+1.64), development of new class of rural entrepreneurship (+1.42) increase in number of financial institutions (+1.40) intercropping a source of additional income (+1.40) development of 'Farm pond' or community Farm pond (+1.24). development of irrigation facilities (+1.08)

On the otherhand workers felt that it has less effect on change in the nature of village fairs and

festivals (+0.92) increase in employment opportunities (+0.88) shift towards commercial farming (+0.68) increasing tendency to borrow loans and independence (+0.63) and increase in subsidiary occupations (+0.64).

Administrators in sugar industry are somewhat balanced opinions regarding these impacts, The administrators have reported that it has highest effect on use of modern technology in agriculture (+2.56), increase in tendency to purchase modern vehicles and agricultural machinery (+2.56) increase in the cost of nonagree land and housing (+2.28), increase in the cost of agriculture land (+2.24), change in the housing pattern of sugarcane growers. (+2.12) extravagant expenditure on family functions and marriage functions (+2.06), increasing tendency towards use of costly mobiles (+2.02).

The administrators reported moderate effect on increase in subsidiary occupations (+1.88) development of new class of rural entrepreneurship (+1.78) increases in employment opportunities in rural areas (+1.52), development in transport and communication activities (+1.40) increase in the income of farmers (+1.40), shift towards commercial farming (+1.28) development of irrigation facilities (+1.20) additional income through sugarcane harvesting and transportations (+1.20) increase in number of financial institutions (+1.08), change in the nature of village fairs and festivals (+1.08).

On the other hand they have reported less effect on development "Farm Ponds" or "community Farm Ponds (+0.40).

Table No-01
Vines if people Towards Economic Irpucts of foulard industry development

Sr. No.	Variables	Farmers		Workers		Administrator s	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
1	Increase in income of farmers	+1.02	1.75	+1.68	1.92	+1.40	2.01
2	Increase in employment opportunities	+1.40	1.99	+0.88	1.89	+1.52	1.77
3	Increase in subsidiary occupations	+1.24	1.63	+0.64	1.32	+1.88	1.93
4	Development & new class of rural entrepreneurship	+1.16	1.07	+1.42	1.21	+1.78	1.86
5	Increase in the use of modern technology in agriculture	+2.58	2.00	+2.60	2.51	+2.56	2.41
6	Development of irrigation facilities	+1.52	1.67	+1.08	2.04	+1.20	1.83
7	Shift towards commercial farming	+1.44	1.64	+0.68	1.66	+1.28	1.51
8	Increase in number of financial institutions	+1.20	2.02	+1.40	2.20	+1.08	2.29
9	Change in housing pattern of sugarcane growers	+2.30	2.85	+2.70	2.11	+2.06	2.13
10	Extravagant expenditure on family functions and marriage functions	+2.30	2.85	+2.70	2.11	+2.06	2.13
11	Increasing tendency to borrow loans from financial institution and indebtptedness.	+1.08	1.03	+0.63	1.60	+0.36	2.10

Sr. No.	Variables	Farmers		Workers		Administrators	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
12	Increase in the cost of agricultural land.	+2.46	2.66	+1.96	2.48	+2.24	2.50
13	Development of transport and communication activities	+1.76	1.82	+1.72	2.03	+1.40	1.75
14	Intercropping a source of additional income	+1.46	1.61	+1.46	1.18	+1.76	2.38
15	Development & “Farm Pond” or community Farm pond	+0.84	1.19	+1.24	1.25	+0.40	1.92
16	Decrease in the production of ‘Food grains’.	+0.88	1.55	+1.46	1.61	+1.24	2.00
17	Change in the nature of village fairs and festivals	+1.06	1.02	+0.92	1.89	+1.00	1.66
18	Purchase of modern vehicles and agricultural machinery	+2.04	1.97	2.08	2.54	+2.56	2.47
19	Additional income through sugarcane harvesting and transportation	+1.22	1.10	+1.64	2.11	+1.20	0.53
20	Tendency towards using costly mobiles	+1.50	1.22	+2.44	2.33	+2.02	2.23
21	Increase in the cost of nonagree land and housing	+2.04	1.42	+2.36	2.37	+2.28	2.50

Source- compiled by author

+ values shows positive effect where as

– values shows negative effect

The higher the number larger the effect.

8.0 Frequency Distribution of Economic views index mean

Frequency distribution of economic views index mean.

Sr. No.	Average Scores	Percentage of Respondents		
		Farmers	Workers	Administrators
1	-2.99 to 2.00	0.00	0.00	0.00
2	-1.99 to -1.00	0.00	0.00	0.00
3	-0.99 to 0.00	0.00	0.00	0.00
4	0.00 to 0.99	9.52	23.80	9.52
5	+1.00 to 1.99	61.90	47.61	57.14
6	+2.00 to + 2.99	28.57	28.57	33.33

Source – compiled by author

Farmers Mean = +1.54 S.D.1.67

Workers Mean = +1.59 S.D.1.92

Administrator Mean +1.59 S.D.1.99

+ indicate positive views of respondent

-indicate negative views of respondent

The higher the number larger the effect.

Table No. 2 shows the views index mean of farmers it is +1.54 indicating a moderate economic impact of sugar industry development on the people of the rural areas. However it is notice that there were 28.57% of farmers index score ranging from +2.00 to +2.99 and at the same time 61.90% of farmers index score ranging from +1.00 to +1.99 and 9.52% of farmers economic views index score ranging from +0.00 to +0.99.

Index mean of worker is +1.59 indicating a moderate economic impact of sugar industry development on the people of rural areas. However it is noticed that there were 28.57 percent of workers index score ranging from +2.00 to +2.99 and at the same time 41.61 percent of workers index score ranging from +1.00 to +1.99 and 23.80 percent of workers economic views index score ranging from +0.00 to +0.99.

The views index mean of administrators is +1.59 indicating a moderate economic impact of sugar industry development on the people of rural areas. However it is noticed that there were 33.33 percent of administrators index score ranging from +2.00 to +2.99 and at the same time 57.14 percent of administrators index score ranging from +1.00 to +1.99 and 9.52 percent of administrators economic views index score ranging from +0.00 to +0.99.

CONCLUSION :-

The study of Economic Impact of Sugar Industry Development on rural population of Madha Tahsil highlights in general, that due to sugar industry development there is increase in use of modern technology in agriculture (+2.60) development of tendency to purchase modern vehicles and agricultural machinery (+2.56), extravagant expenditure on family and marriage functions (+2.70), change in the housing pattern of sugarcane growers (+2.60) increase in cost of agricultural land (+2.48) and increase in the cost of nonagri land and housing (+2.38).

REFERENCES :-

- 1) Baviskar, B. S. (1980) : The Politics of Development of Sugar Co-operative in Rural Maharashtra, Oxford University Press, Bombay.
- 2) Bhanje, B. M. (1993) : Sugar Co-Operative and Rural Transformation : Geographical Perspective of the Command Area of Warana Sugar Factory, Unpublished Ph.D. Thesis, Shivaji University, Kolhapur.
- 3) Deshmukh, S. B. (1983) : Gur and Sugar Industry in Kolhapur District : Geographical Analysis, Unpublished Ph.D. Thesis, Shivaji University, Kolhapur.
- 4) Gaikwad, S. B. (1993) : Post Development Growth of Sugar Industry in Maharashtra : Geographical Appraisal, Unpublished Ph.D. Thesis, Shivaji University, Kolhapur.
- 5) Khan, Y. S. and Nimbargi (2011) : Impacts on the Socio-Economic Conditions Shri Siddheshwar Co-Operative Sugar Factory in North Solapur Tahsil, A Case Study Earth Exploration, Multidisciplinary International Journal, Volume 2, Number 1, June 2011.
- 6) Likert, R. (1932) : A Technique for the Measurement Attitude, Archives of S. Psychology, P.No. 1-55.
- 7) Navale, A. M. (1996) : Pandharpur - A Study in Pilgrimage Tourism Unpublished Ph.D. Thesis, Shivaji University, Kolhapur.
- 8) Nikam, B. T. (2013) : Impact of Sugar Industry on Regional Development - A Case Study of Malshiras Tahsil in Solapur District, Unpublished Ph.D. Thesis, Solapur University, Solapur.
- 9) Nikam, B. T. et al. (2013) : Impact of Sugar Industry on the Socio-Economic like of Sugarcane growers,

Young Researcher, Vol. II, No. 2, June 2013.

10) Phule, B. R. and Nikam, B. T. (2013) : Role of Sugar Factory in Rural Development - A Case Study of Sahakar Maharshi Shankarrao Mohite Patil Sahakari Sakhar Karkhana Ltd. Shankar Nagar Akluj, Enterpneurial Development in Emerging Economics : Issues and Challenges, ISSN 2231-4687.

Publish Research Article

International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication, you will be pleased to know that our journals are

Associated and Indexed, India

- * International Scientific Journal Consortium
- * OPEN J-GATE

Associated and Indexed, USA

- EBSCO
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Database
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database
- Directory Of Research Journal Indexing

Golden Research Thoughts
258/34 Raviwar Peth Solapur-413005, Maharashtra
Contact-9595359435
E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com
Website : www.aygrt.isrj.org