ABSTRACT
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1. Introduction:
The production of quality product and its efficient export has become inevitable in era of globalization. The production of international standard quality products are required high modern technology, efficient highly skilled labour, huge investment and modernization of plant. Therefore, there is need of liberal economic laws in terms of duties and tariffs are necessary for promotion of export activity. The promotion of secondary and tertiary activities needs government support, favorable policies and ample space for establishment. These needs emphasized the development of special zone to promote industrial economic development for export oriented unit. It will boost regional development through economic development. These thoughts sow the seed of idea about special zones for economic activities.

2. Study area:
Khed-Shirur Special Economic Zone (SEZ) has been selected for the present investigation. It is lies between 18° 45’ N to 18° 55’ N latitude and 73° 55’ E to 74° 6’ E longitude. This proposed multi product SEZ spread in 17 villages; out of these, 15 villages are falls in Khed tahsil and 2 villages in Shirur tahsil. The total proposed land to acquire for the SEZ is 5000 hectare from the 17 villages. Presently, 1863.44 hectare land has acquired in phase I from Nimgaon, Davadi, Kanheras and Kendur villages.

3. Hypothesis:
“The development of region through special economic zone is based on maximum use of non- irrigated land and involvement of local human resources by creating employment opportunities.”

4. Objectives:
The following are the specific objectives kept in mind for the present study.
1) To study the present socio-economic status of the villages.
2) To understand the spatial distribution of land use.
3) To study the possibilities of development of local people for implementation of special economic zone.

4) To access the impact of rehabilitation package under special economic zone.

5) To suggest strategy for sustainable regional development under special economic zone.

5. Methodology and techniques:

The present investigation aims at understanding role of special economic zone in regional development in the region by quantifying and analyzing aspects of physiography, population and socio-economic status of the study region. The methodology adopted in the study is briefly discussed below:

**Data collection:**

1) **Primary Data:** The questionnaire methods are employed for to understand socio-economic status, impact of rehabilitation package under SEZ, information related to crops, utilization of modern tools and equipments, etc. The continuous dialogue process was used to understand possibilities of development of local people and to suggest for sustainable regional development.

2) **Secondary Data:** The parameters like topography, climate, soil, drainage pattern, etc have been considered for this study. The data regarding rainfall and temperature have been collected from the Indian Metrological Department and National Research Centre for Onion and Garlic, Khed. The data related to topography of the study region is procured from survey of India topographical maps (47 F/13 and 47 J/1).

The data pertaining of different aspects of the study region is collected from the Talathi office, Grampanchayat, Panchayat samiti, tahsil office of Khed and Shirur, department of irrigation, department of education and other departments of the Khed and Shirur tahsil. The some information regarding issues of SEZ, human resources and agricultural situation was collected through reference books, reports of central and state government, various journals, district census handbook, socio-economic abstract and gazette of government of Maharashtra.

- **The Techniques:** Following techniques are used in the present study.

  a) **Computer Techniques:** Usual computer techniques have been employed for compilation, analysis and presentation of data, collected from the primary and secondary sources.
b) GIS Technique: GIS techniques have been used for the preparation of thematic maps and analysis of spatial data.

c) Composite Score: The composite score is employed to understand the level of human resource development and the agricultural development.

d) Statistical Technique: The statistical techniques like percentage and average are used throughout the data analysis in the present study. The co-relation and regression are used for density, rainfall, agricultural productivity, etc. The techniques like Z score and composite score are employed to measured agricultural development. The correlation and coefficient techniques are used for to understand cropping intensity. Crop combination, crop concentration and crop diversification techniques are utilized for agricultural regionalization. The location quotient are used to find out the concentration and specialization of the region for cultivators, agricultural labourers, household industries and other working population.

6. The text:

The entire work has been organized in the six chapters. The **first chapter** opens with the introductions of the topic and the study region. It includes statement of the problems, objectives, methodology, database, techniques, review of previous literature, general information about special economic zone and the problems and prospects of which have been understood with the help of the present study.

The **second chapter** presents physiographic set up of the study region, so that it would be easy to identify strength of natural resources of the study region. It may be noted that, the physiographic profile of the study region is favorable for agriculture.

The **third chapter** has studied the micro level distribution of various parameters related to socio-economic and demographic profile. The socio-economic parameters included general landuse, area under irrigation and unirrigation, cropping pattern and cost-benefit analysis of crops. The demographic profile includes density of population, growth rate of population, sex ratio, SC and ST population, working population resources, facilities, amenities and industries. The distribution of these parameters has been useful to understand the present nature of socio-economic status of villages and spatial distribution of land use. The study shows that, the agriculture is the main occupation in the study region; but, area under irrigation is limited. The cropping pattern
has been studied with primary data. The area under cereals crops is predominant in the study region. The cost-benefit analysis has also been studied with the help of primary as well as secondary data. The less production is reached to the market and maximum used for subsistence. Hence, this subsistence farming is unable to give huge amount of profit. It means that, the present agricultural practices are not sufficient for development.

The study shows that, the population density is high along with river bank and canal. During the span of 1961-2001, the maximum decadal population growth is observed in the decade 1971-1981 than the other decades. In the study region, those villages are having maximum sex ratio which is having maximum unirrigated area and seasonal migration is occurred for job. The SC and ST population is remaining backward not only educationally but also economically. The information about working population has been mainly understood with the help of secondary data. The study shows that, the dependant population is more than the working population.

The **fourth chapter** has studied the micro level agricultural development and agricultural regionalization. The agricultural development has been understood with the help of secondary as well as primary data. It includes agricultural situation, agricultural infrastructure and agricultural productivity. The study shows that, the maximum villages are having moderate level of agricultural infrastructure and productivity. It is useful for further agricultural planning and agricultural development.

The agricultural regionalization has been mainly understood with the help of secondary data. The crop concentration, crop diversification and crop combination have been taken into account for agricultural regionalization. In agricultural regionalization, only those crops are concentrated and rotated on large scale in concentration and combination respectively; which is utilized for subsistence. This type of agricultural regionalization is not suitable for agricultural development as well as regional development.

The **fifth chapter** has been devoted to discuss regionalization and planning strategy for human resource development. It includes strengths and weaknesses of the study region, levels of human resource development, possibilities of development of local people, impact of rehabilitation package under special economic zone and planning strategy for sustainable regional development.
The strengths and weaknesses have been studied with the help of primary as well as secondary data. The strengths of the study region are more than the weaknesses. The levels of human resource development have been identified at village level. About 94% villages are having moderate level of human resource development. The possibilities of development of local people have been mainly understood with the help of secondary data as well as primary data. The possibilities of development of local people is possible with the help of increasing agricultural development and irrigation facility, availability of education facilities, employment generation, service sector, transport facility and export market linkages. The impact of rehabilitation package under special economic zone has been understood with the help of primary as well as secondary data. The establishment of industrial development is just started now; therefore, the impact of rehabilitation package is observed on limited sectors. Considering the weaknesses of the study region, the planning strategy is suggested for sustainable regional development. The planning strategy is mainly related to management of land resources, small scale industries, education facility, provision of employment generation, productive use of available forest resources, tribal development, improvement in market linkages and pilgrim development of the study region.

The **sixth chapter** summarizes discussion, conclusion of the research work and provides suggestions of the study.

7. **Results and major findings:**

a) **Physiographic profile:** The study region is comes under drought prone area. The water resource is hardly available in the rabi season. Therefore, the medium black soil it is not fully utilized. The physiographic characteristics and drought prone area compelled to subsistence agricultural based economy.

b) **Socio-economic development:** The agriculture is the main occupation in the study region. The 68.24% area is under agricultural land; but, there is limited scope for expansion. The area under irrigation is 44.90% of net sown area. The proportion of irrigated area in proposed acquisition of land is 4.60% of total net sown area. The undulating area, rainfed condition, medium black soil and availability of irrigation facility are favorable for cereals cultivation. It is cultivated on 48.33% and 55.03% hectare land in kharif and rabi season respectively. The maximum crops have marginal
profit. Therefore, less production is reached to the market and maximum used for subsistence. The study region is socio-economically backward due to the agriculture is subsistence in nature and the received profit the maximum amount are to be spend for dependant population.

c) Demographic profile: In the last four decades, the maximum decadal population growth is recorded in the decade 1971-81. It is decrease in recent decades. The density of population is comparatively less than (162.60/sq.km) the district average density due to agricultural based economy. The study region shows that, the imbalance sex ratio due to male migration for employment to nearest industrial zone and cities. The proportion of total workers to total population is 57.38%. The working population includes 86.80% main and 13.20% marginal workers to total workers. The proportion of cultivators is significant (73.77%) in main workers.

The special economic zone may helps to maintain growth rate, density and sex ratio to utilize optimum resources to the local people and develop quality population. Presently, only those occupations and small scale industries are established which are related to agriculture sector; but, generation of employment through in this occupations and small scale industries are very less (1.33% to total population). It means that, the agriculture sector and small scale industries are unable to provide employment opportunities on large scale.

d) Agricultural development: The average size of land holding of the study region is very less (0.37 hectare). Therefore, it is difficult to utilized modern techniques in small size holding of farms. Consequently, people prefer to work with traditional practices.

The 58.82% villages are having moderate level of agricultural infrastructure in the study region. It means that, the present agricultural infrastructure is insufficient for agricultural development; consequently, regional development. Therefore, there is need to improve agricultural infrastructure in the study region.

The 76.47% villages are having moderate level of agricultural development in the study region. It affects profitability and consequently standard of the living of the local people.

The overall present agricultural situation, agricultural infrastructure and agricultural productivity are unable for agricultural development. Therefore, the special
economic zone may find one of the significant alternatives for development. The capital generation through compensation and employment may find useful for agricultural development.

e) Agricultural regionalization: The study of agricultural regionalization shows that, only those crops are concentrated and rotated on large scale in concentration and combination; which is utilized for subsistence. The village wise degree of crop diversification is tends towards specialization in 2006-07 from 1997-98. The reason for their specialization are declaration of special economic zone, distribution of compensation of land, increasing use of machinery, decreasing of man power, decreasing rainfall, and changing the attitude about agriculture.

   It means that, the maximum crops are cultivated for the purpose of subsistence. This type of agricultural regionalization is not suitable for agricultural development as well as regional development. Therefore, there is need to increased area under other cash crops with proper planning strategy for development.

f) Human resource development: The 19 parameters are selected from the socio-economic, demographic, facilities and infrastructure is taken into account for to understand the human resource development. The composite score techniques is employed to understand the level of human resource development. The range of such composite score is 41 to 63. There is except Chaudharwadi village remaining all villages are having moderate level of human resource development.

g) Possibilities of development of local people: The following observations have been noticed with respect to the phase wise possibilities of development of the local people.

1) Agricultural development: In phase I, the agricultural land is remaining constant due to acquisition of totally barren land. The agricultural development is possible with the help of modern cultivation practices.

2) Irrigation facility: The study region has 44.90% net sown area is under irrigation. There is possibility to improve irrigation facility with the help of canal irrigation; from ‘Chas Kaman’ left canal and ‘lift irrigation’ from ‘Vel River’.

3) Education facility: The study region is not only backward in the field of formal education but also technical education. Therefore; there is possibility to improve in
education facility with the help of establishment of technical college and technical education related to special economic zone.

4) Employment generation: The special economic zone developers are expected to generate 1,20,000 new employment opportunities; but presently, about 450 workers are working within SEZ in various activities. Once a spread formal and technical education is made, the employment in the agro-based activities and other than agricultural sectors should be made available to the villagers.

5) Service sector: Before the announcement and establishment of SEZ the availability of service sector is insignificant. Only 48 persons are engaged bank facility, two wheeler and mobile service stations, etc. Therefore, there are possibilities of establishment of automobile repairing work shops, mobile repairing, recharges and sales centers and bank facility.

h) Impact of rehabilitation package under special economic zone:

The state government was proposed 17 villages for acquisition of land; but, presently land is already acquired only in four villages. The assessment of rehabilitation package under special economic zone is mainly related to these four villages. Presently, the implemented rehabilitation package includes aspects like, except compensation of land, availability of technical education facility and employment opportunity for some affected people and other facets of rehabilitation packages are yet to be implemented.

1) Positive impact: The positive impact of the declaration of special economic zone and acquisition of land has been observed on agricultural sector, industrial sector, education facility, service, employment and social life.

2) Negative impacts: In phase I, the positive impact is comparatively more than the negative impact. The negative impact has noticed on agricultural and educational sector, family life and wastage of money. On the basis of assessment, we concluded that, the special economic zone is appropriate alternative for regional development in the selected study region, in terms of industrial development and agricultural development as well.

8. Planning strategy: The effective development of the study region could be planned on experience of existing condition and future plan of execution. The planning strategy is mainly related to the improvement of following fields for sustainable regional development.
a) **Management of land resources:** The sustainable management of land resources is possible with the help of following planning strategy:

1) Proper utilization of available agricultural land 15628.73 hectares (63.37% of TGA).
2) Increase use of agricultural land which is not cultivated regularly 4237.13 hectares. This land may be possible to convert in net sown area.
3) Increase area under irrigation with the help of nearest irrigation source (Bhima and Vel river, left canal of Chaskaman dam, Wafgaon dam, etc.) development.
4) The industrial as well as agricultural development may be possible with maximum acquisition of culturable waste land for establishment of special economic zone.
5) The development may be possible with the help of culturable waste land and area not available for cultivation brought under forest cover.

b) **Small scale industries:** The small scale industrial development is possible with the help of manufacturing and repairing of farm implements, agro based industries including potato chips, tomato sauce and milk chilling plants, establishment of pipes and bricks industry and ancillary products related to main products.

c) **Education facility:** The study region has lack of higher education and technical education facility. It can be suggested that, the literacy mission and the spread of technical education in this region should be rooted deep into their system.

d) **Provision of employment generation:** The following planning strategy has designed for project affected people.

1) The technical education related to employment should be made available to the project affected people.
2) The skilled based education should be made available for remaining family members.
3) The priority for every project affected person for employment against vacancies.
4) The guaranteed employment to one person in skilled based industry from every project affected family.

e) **Productive use of available forest resources:** The utilization of potential of forest resources may helps to increase economic gain of villagers as well as development.

9. **Scope for further studies:**

   The present study has potential of further research work in the field of economic geography and regional geography; specifically in the context of special economic zone
implementation for regional development. The study focuses on change in spatial dynamic of the space with respects to government policies and attempted to understand the diverse opposites view about implementation of special economic zone. The study has analyzed all aspects of the conflicts, which will be guideline for the public policy and execution of the plan. The study has put forth the specific approach regarding analysis of physical resources, human resources and socio-economic background of the study area. It is proper guidelines for the analysis of the special economic zone demarcation and execution level. The study is good example for area specific analysis of special economic zone implementation. It has set good example to carry out similar studies in various geographic socio-economic situations.

10. Conclusion:

The study may conclude that, the existing physical and human resources and socio-economic set up of the study region is not sufficient for sustainable regional development. It shows the industrial growth is necessary along with agricultural development. The special economic zone is appropriate alternatives of the regional development. Therefore, there is need to would be implemented all stages of special economic zone efficiently to achieve the well being of the local people along with this minimum disturbance of existing socio-economic and cultural set up of the area in terms of the proper utilization of compensation, employment opportunities and sharing in development. On the basis of rigorous set up, this special economic zone will be known as ideal example of regional development in the country.

Signature of the Candidate

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