

Impact of Geographical Factors on Socio-economic Development in Dhule District: A case study of Kan Basin

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Abstract: People should be made aware of the importance of geographical factors. For the development of villages, the selection of occupation and the use of a right method are essential. Thus, the development of villages is based upon watershed factor, awareness of people and selection of proper occupation. The above said factors are to study in the present research. All geographical factors contain various types of natural resources. Since a socio-economic study involves decision making for efficient utilization of natural resources, a multidisciplinary approach is essential. However involvement of too many disciplines in planning and decision making can lead to inefficiency and unsatisfactory final outcomes. The Present study is correlation between geographical factors and socio-economic development of villages. A study of the Kan basin is at micro level. The primary data is generated through field work which has been carried out in different villages in Kan basin. The formulated hypothesis for some variables is tested with the help of Z-score, Composite score and correlation technique has been adopted. It is found that watershed area development is very essential in every village for the development.

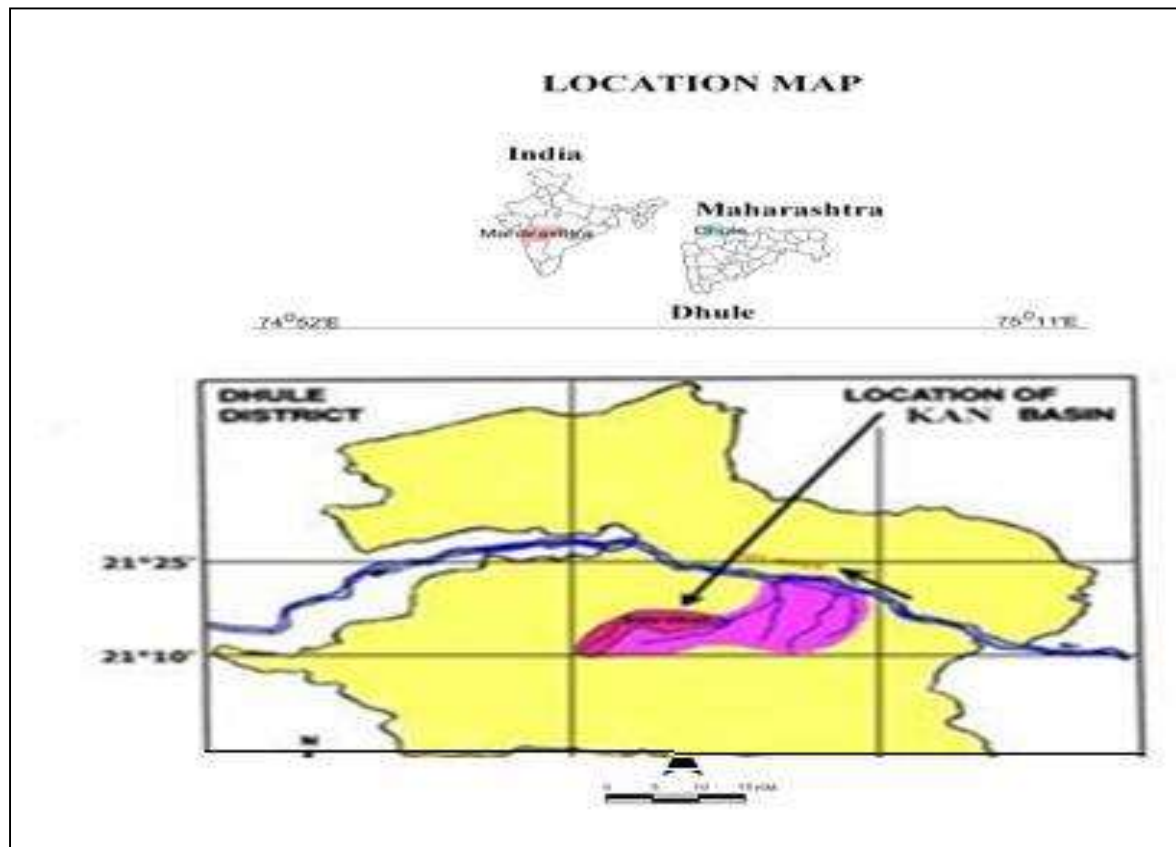
Key words: Socio-economic, natural recourse, agricultural, village development

1. Introduction:

Geographical factors influence the development of the villages. So far as the geographical characteristics are concerned, they are uneven in the study region for the development, the proper geographical factors is necessary. People should be made aware of the importance of geographical factors. For the development of villages, the selection of occupation and the use of a right method are essential. Thus, the development of villages is based upon socio-economic factor, awareness of people and selection of proper occupation. The above said factor area to study in the present research. The optimum development of resources with minimum adverse environmental impact is essential not only for sustainable development, but also for human survival. Watershed is an ideal unit calling for multidisciplinary approach to the resource management for ensuring continuous benefit on sustainable basis. Integrated watershed development is a prerequisite to only for land, water and bio-mass. The management of degraded areas is for the conservation and protection. So that bio-diversity and genetic riches can be protected for future generations. It is important that watershed development must consider the social and economic factors operating within and outside the geographical area. All geographical factors contain various types of natural resources. Since a watershed involves decision making for efficient utilization of natural resources, a multidisciplinary approach is essential. However involvement of too many disciplines in planning and decision making can lead to inefficiency and unsatisfactory final outcomes. It is therefore, important that participation should be limited to representatives from key government departments and local people which will be directly affected.

2. Demarcation of study areas:

The Kan river originates from the North-East Part of Sahyadri and meets the Panzra river at Sakri in Dhule district. The basin is situated $74^{\circ} 0'$ to $74^{\circ} 22'$ East longitude, and $21^{\circ} 0'$ to $21^{\circ} 07'$ North Latitude.



The northern boundary occupies the Burai river. In the south there is the Panzara river basin and towards the east Panzara is surrounded. The western part occupies Navapur tahsil. In which thirty five villages are included in the Kan basin. Only 07 villages of them belong to non tribal. According to geographical point of view, there are three regions of the Kan basin. At the origin of this river, there is very high steep slope so it is called as **hilly region**. The height of this area from sea level is about 500 to 650m. The middle region of this river is called as **plateau region**. The slope of this area is comparatively gentle. The last part of the basin is called as **plain region**. The height of this area is about 400m from mean sea level. The slope of this region is very gentle, so it is called as plain region.

3. Objectives:

To study the Socio-Economic development of villages in the study area.

To study of geographical factors and socio-economic development of villages.

4. Hypotheses:

Socio-economic development of village in Kan river basin is uneven.

5. Material and Methods:

A study of the Kan basin is a micro level. The data are collected through the various systems, like agricultural department, survey and questionnaires. The primary data is generated through field work which has been carried out in different villages in Kan basin. All together 520 samples are collected from 35 villages of the basin. The secondary data is collected from the statistical review of the district census records and circle office for the year 20012-13. The primary and secondary data pertaining to the various geo-cultural parameters are also collected from the respondents and its classified, tabulated and analyses with; the help of statistical method. The

formulated hypothesis for some variables is tested with the help of Z-score, Composite score and correlation technique has been adopted.

Different features of various parameters are found in the Kan basin. For research 14 parameters are chosen for every village. Separate credit points are given to every parameter 'Z' Score and Composite Score is taken from this and level of individual parameters has been studied.

6. Results and discussion:-

From the above statistical calculation of villages geographical development have been checked. From this 'Z' Score, Composite Score taken. Level groups of high development, medium development and low development are formed. It is found that not a single village is included in the high development level.

6.1 High Development Area:

The composite score of these villages is "greater than 0.5". Not a single village is shown greater than 0.5 composite score. The development level has been checked from the credit of different parameters. The geo-cultural groups of high, medium and low level are formed. Not a single village comes under high development level according to composite score. The various parameters are backward in Kan basin. Due to geographical and cultural factors in associated places development problems come in this basin. So it is essential to development geographical as well as cultural factors.

6.2 Medium Development Area:

The composite score of these villages range between "0.00 to 0.5". There are 10 villages (31.4%) which have medium development level that is Dhaner in hilly region, 3 villages in plateau region and 6 villages in plain region are included in medium level development. Because there is an impact of socio-economic development in hilly and plateau region. In hilly region soil and water conservation work is in progress because of socio-economic development. The result will be achieved in the coming years.

6.3 Low Development Area:

If village composite score is "less than zero" (< 0.0) then village development level is regarded as low development level. 25 villages (71.4%) have low development level in Kan basin. 15 villages (45.7%) have low level in only hilly region. In plain region only two villages have low level. Bodgaon village is more developed and Gartadvillage is less developed in the Kan basin. They lie on the peripheral hilly in accessible track where there is higher slope of relief. This area is sacral suffered from soil erosion and scarcity of water etc. and lack of ground water aquifer. Hence this area is also surveyed out from migration population. Most of the population is below poverty line. The literacy is also very low. Agriculture is traditional, crop intensity is very low, and hence crop production is very low.

This region requires implementation of intensive soil as well as water conservation program it means watershed development program and adaptation of modern agricultural technologies. The socio-economic development area is below 60 percent in 12 village and 13 villages have more socio-economic area but the development level is low because other 14 parameters show impact on development level. Watershed development area is an important factor of human development. It is a new concept of the development. It plays an important role in different parameters of human development.

Table No. 1. Composite Score in Villages in Kan river basin in Dhule District

Sr. No.	Name of the villages	CSS	Sr. No.	Name of the villages	CSS
1	Hanumantpara	-0.85	18	Khardbari	-0.7
2	Lohardodi	-0.85	19	Satarpara	-0.49
3	Shivrimal	-0.92	20	Malgaon	-0.35
4	Kakarde	-0.99	21	Bodkikhadi	-0.06
5	Kuher	-0.99	22	Maindane	0.01
6	Rohad	-0.7	23	Bodgaon	0.3
7	Gartad	-1.06	24	Dahivel	0.08
8	Chaupale	-0.56	25	Kirwade	-0.27
9	Jamkhaeli	-0.77	26	Amode	-0.49
10	Sutare	-0.99	27	Dolipara	-0.35
11	Torankudi	-0.85	28	Godade	0.15
12	Amali	-0.06	29	Surpan	0.01
13	Kuruswade	-0.42	30	Astane	0.01
14	Shirsole	-0.27	31	Chadvel P.	-0.13
15	Machamal	-0.56	32	Kavathe	0.01
16	Daner	0.08	33	Perajpur	0.08
17	Khandbara	-0.56	34	Ambapur	-0.35
			35	Bhadne	0.01

Source: Computed by Researcher, 2015

The development of watershed area is done by various departments. According to Spearman Rank co-efficient co-relation method between watershed development area and composite scooter is taken out. The calculation is as follows

$$P = 1 - 6 \sum D^2 / N(N^2 - 1), \quad p = 0.416$$

From the above co-relation value mention 'co-relation is marginally or no positive correlation (association)'

The villages having more watershed area development level is found more according to composite score high development level is not found in Kan basin because the socio-economic development work is not qualitative and associate parameters are not developed. The output of socio-economic development area is yet to come. Watershed development area is more in those villages having more development. Some villages have developed watershed area but the development is not found there because, there is negative impact of other parameters.

7. Conclusion:

Watershed area development is an important issue of the study. Socio-economic development shows low development level excessively. It is still essential to develop socio-economic area in many villages in Kan basin. Weekly market distance is not suitable for high development. Because of bank distance there is low development. Many villages do not have local bank for loan facility. Many tribal people do not know bank and its function. Hospital service and Bachat gats do not help for development. Many villages have no hospital service and Bachat gat. Drinking water facility is good about 40 percent. Education facility is not good in 54 percent villages. There are no nursery and secondary schools in many villages. Road facility is good for medium development. About all the villages are connected to road network. From the above geographical and cultural parameters, it is found that there is low and medium level development. Co-relation is taken through watershed development area and 'Z'

score of various parameters. It is 0.416; from this it shows that the correlation is marginal or no positive. Hence it is found that socio-economic area development is very essential in every village for the development.

8. Suggestions:

Soil conservation is essential for watershed development. The works like Continuous Contour Trenches, Vegetative Contour and Graded Bunding, Bench Terracing, Ill-drain Land Improvement, Brush Wood Dam, Earthen Structure, Loose Boulder Structure, GabianBandhara etc. are necessary. For water conservation the following work is necessary. Farm pond, Underground Bandhara, Recharging Trench, Earthen Nala Bund, Cement NalaNund, Diversion Bandhara etc. are essential. The socio-economic development works should be done from top to bottom by forest, irrigation, and agriculture and ground water level development departments. Such works can also be done by different NGOs. The Phad Irrigation system should be developed by old system with new technique. The government may control the releases in the river and through bandharas, However the irrigation management in the command is continued with the beneficiaries through existing panch committees. There should be the availability of local employment to increase the population density. Hilly region is more backward economically. Plateau and plain regions is too here economic backwardness. Following schemes should be implemented to improve their economy. Farmers should have the availability of training camps to increase agricultural production. Forecast about changing climate should be made available to the farmers. Encouragement about scientific soil testing should be given. Agricultural machinery should be made available in low rates. It is essential to do watershed development works from top to bottom. Stopping of soil erosion should increase soil productivity. Double crop pattern should be developed.

From the above factors it is found that the development level is not satisfactory. For this, Socio-economic should have an improvement. Socio-economic development works should be done simultaneously and within time by different agencies. Because of socio-economic development there will be a multidimensional development.

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