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¹Principal Abasaheb Garware
College Pune
Email: viugale@gmail.com

²Research Scholar, S. P.
College Pune
Email: jitendramadake83@gmail.com

Address for correspondence:
Dr. Vilas Ramchandra Ugale
Principal Abasaheb Garware College
Pune
Email: viugale@gmail.com

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The Socio-Economic Impact of Pimpalgaon Joga Dam on Rehabilitated Villages in Junnar Tehsil of Pune District, Maharashtra

Dr. Vilas Ramchandra Ugale¹, Jitendra Vitthal Madake²

Abstract

The present study stresses the socio-economic changes that can bring due to rehabilitation of dam affected peoples in Junnar tehsil of Pune district, Maharashtra. The pimpalgaon-Joga dam was constructed in 1999 on river Pushpawati in north-western part of Junnar tehsil. The dam provide socio-economic benefits which can make positive changes in tehsil, besides this positive changes dam may have also many undesirable impacts on local community. In this paper formulate simple methodology to quantify the level of development in the study area. Various socio-economic parameters for assessment of composite score i.e. education 5th -10th, 12th, graduates, post graduates, self-employed, farmers, job, income above 100000, house pakka/rcc, fertile land, land area more than 5 acre, river, well, borewell, canal etc. were used to assess the impact of victim villages in the study area. For the assessment 156 questionnaire were collected from selected rehabilitated villages. The present study showed that only one village i.e. Madhpargaon is falling under the category of high development while most of the villages are found in the category of very low development.

The findings highlight the persistent inequality and limited rehabilitation benefits for most affected communities, emphasizing that infrastructural and economic advancements from dam projects often fail to translate into holistic rural development. The study suggests that sustainable rehabilitation policies, inclusive livelihood programs, and continuous socio-economic monitoring are essential to ensure equitable growth in post-dam settlements.

Keywords: Impact, Level of Development, Rehabilitated, Pimpalgaon Joga Dam, Rehabilitation, Socio-Economic Impact, Development Disparity, Rural Development

Introduction

Development has always been flexible and open-ended in terms of a clear definition. It's a complex concept with multiple interpretations depending on the context, discipline, individual and time. Places have different resource bases, and endowments have contributed to a variety of growth patterns. It happens often that there is developmental inequality. This research presents a new angle on the disparity in development amongst hill states. In this study, social development has been influenced by the level of urbanization during the post-reform era, whereas rural development has been governed by the non-agricultural makeup of the rural workforce. It shows how development in the hill states of India differs and how growth has occurred there (Kutwa, 2015). It is predicated on secondary data that non-governmental and governmental entities have made accessible. A composite indicator of development has been developed, based on many physical, social, demographic and economic characteristics, and weighted with a score ranging from very low to very high (i.e., 1 to 5). A lower composite score indicates less development, and vice versa. According to the study, there is an increasing disparity between the coastline and interior regions, and most villages have extremely poor operational conditions and services (Suryawanshi and Sawant, 2013).

The most challenging social effect of the Pimpalgaon Joga dam is the relocation of locals. Family relationship problems, low access to clean drinking water, a lack of infrastructure amenities, an absence of electricity, limited access to public restrooms, a dearth of market places, and a shortage of water for irrigation were just a few of the social problems that resettlement had to deal with. The facilities are inadequate, yet the troubled people are getting paid. In certain regions where the affected community donated infertile lands, the standard of living has decreased. Therefore, a thorough examination of the socio-economic changes of individuals aided by rehabilitation initiatives and the consequences of dams has been conducted, utilizing a number of crucial variables such as educational attainment, occupational structure, family income, home type, farmer type, irrigation source, soil type, and cropping pattern. The survey involved 10% to 20% sampling of houses carried out using a questionnaire that was developed taking into account all of the relevant parameters mentioned above.

Objective:

The main objective of the present study is to identifying disparity patterns and for creating composite matrices of development status for selected villages in the Junnar tehsil in rural Pune district of Maharashtra.

Methodology:

The current study is to ascertain the socio-economic changes that can bring due to rehabilitation of dam affected peoples in Junnar tehsil. Because a social impact assessment for the Pimpalgao Joga dam is urgently needed, a comprehensive socioeconomic analysis and assessment of the dam's effects have been carried out. Indicators such as household income, income from agriculture, concrete housing, school and education facilities, access to drinking water and irrigation systems are used to gauge the socioeconomic status of the rehabilitated community. Data were collected from primary data of questionnaire for selected sample villages.

For the questionnaire survey, the random stratified sample approach has been employed. A door-to-door household survey was conducted using the stratified sampling method for collection of data. The villages on the left and right banks of the river Pushpawati form the stratified basin area of the river. Three communities have been chosen from each section. Informal interviews and participant observation make up the fieldwork. These locations have been the subject of socioeconomic research. The socioeconomic surveys cover a variety of topics, such as the number of households impacted by the dam's construction, educational attainment, family income per year, occupational structure, house types, land ownership, cropping pattern, types of farms and soil, and increases in crop productivity. A questionnaire has been developed taking into consideration all of the above-mentioned pertinent factors. Institutional analysis as well as case studies of specific households are included in the methodology.

Result and Discussion:

According to the World Commission on Dams (2000), the social impacts on the displaced were not given as much consideration as the actual physical relocation. Moreover, most displaced people were unable to use the money they received to start over in their new lives.

Dams and reservoirs have a major positive social and economic impact on water management. Water is turning into a scarce resource. The ecology and society may suffer as a result of these reservoirs and dams. The displacement of residents is the dam's most problematic social impact. One of the harshest effects of the dam building on the towns, the people living there, and the entire families who had to leave their homes is this. As such, it is reasonable to anticipate a rise in the demand for thorough and precise socio-economic effect assessments (Sapkale, 2016). Production networks are destroyed, numerous jobs are lost, precious land parcels and other financially important assets are lost as a result of forced migration. Moreover, mass movement negatively impacts the lives of those impacted as well as the local and regional economies (Carena, 1996). The various axes of inequality in India have become more apparent in recent times, with several states requesting special status. One such axe is regional differences. The idea that India's regional backwardness is a fluid concept that contains pockets of extreme poverty and suffering, especially in areas populated by adivasi tribes, has received a lot of attention throughout the process. To identify the dynamics of India's regional backwardness, this essay examines a recent Planning Commission study (Bakshi et al., 2015). This research seeks to address this topic by examining the rates of increase of the gross and domestic product of significant states prior to, during, and following the reform era. According to the findings, regional variations in state domestic product (SDP) have grown considerably more during the past ten years than the GDP growth rate, which has only slightly improved. At present, the industrial states are growing at a substantially quicker pace than the emerging states, and there is no indication that the growth rates of the different states are approaching a convergence. The expansion of SDP is currently uncomfortably associated negatively with population growth. According to Bhattacharya and Sakthivel (2004), this has significant effects on employment and India's political economy.

Table. 01: Selected Rehabilitated Villages for Socio-economic Impact of assessment

Village Name	No. of Questionnaire
Sangore	20 (70)
Kolhewadi	15
Madh- Pargaon	43
Karanjale	27 (227)
Khireswar	29 (224)
Khubi	22 (126)
	156

Village Name	1	2	3	4	5	6	7	8	9	10	11	12	13	Composite Index	Level of Development
Sangore	0.26	0.04	0	0.14	0.05	0.19	1	0.25	0.29	0.24	0.15	0.2	0.12	2.93	Very Low
Kolhewadi	0.02	0	0	0	0	0	1	0.13	0	0	0	0.25	0.42	1.82	Very Low
Madh-Pargaon	1	1	1	0.86	1	1	1	1	1	1	1	1	1	12.86	Very High
Karanjale	0.31	0.48	0.24	1	0.05	0.75	0	0.13	0.36	0.67	0.48	0.5	0.21	5.18	Low
Khireswar	0.05	0.59	0.29	0.14	0.29	0.69	0.5	0.25	0.21	0.71	0.63	0.75	0	5.1	Low
Khubi	0	0.52	0.6	0.14	0.14	0.56	1	0	0.29	0.48	0.41	0	0.08	4.14	Low

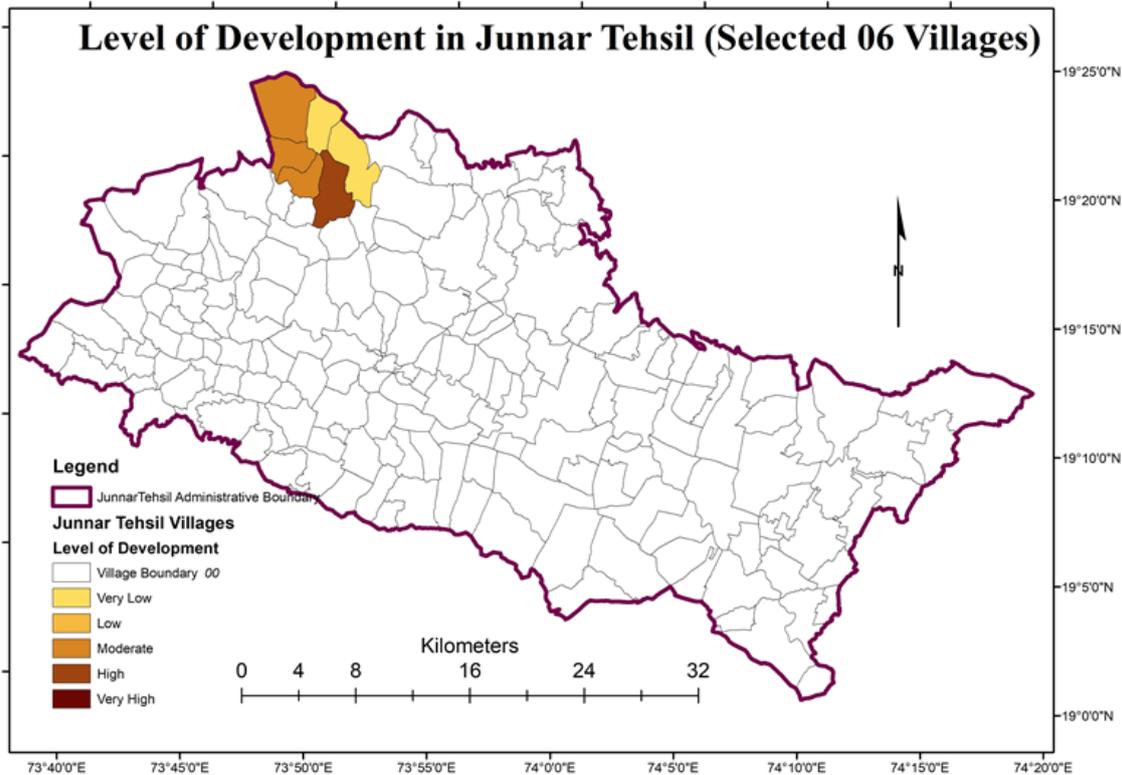
Table. 02: Socio-economic Indicators of Selected Rehabilitated Villages

Note: 1) Education 5th -10th , 2) 12th , 3) Graduates, 4) Post Graduates, 5) Self Employed, 6) Farmers, 7) Job, 8) Income above 100000, 10) House Pakka/RCC, 11) Fertile Land, 12) Land Area more than 5 acre, 13) River, Well, Borewell, Canal etc.

Table. 02 demonstrates the composite index for the level of development of Pimpalgaon-Joga dams rehabilitated villages on the basis of different socio economic parameters such as education level for standard 5th -10, 12th, graduates, post graduates, employment level for self-employed, farmers, farm workers, job etc., economic status, annual family income, houses of pakka/RCC, availability of fertile land, land holders for more than 5 acres, availability of irrigation facilities like rivers, well, borewell and canal etc.

Among the selected 06 rehabilitated villages of Pimpalgaon-Joga dam, village Madh-Pargaon exhibits very high composite index value of 12.86 (Table. 02). Educational level of village Madh-Pargaon is found very well with all the available facilities. It is found that the employment, income level and availability of pakka houses/RCC are higher than all other villages, per capita land holding and using of irrigation facilities also higher in this village.

Figure No. 01. Level of Development of Selected Rehabilitated Villages of Pimpalgaon-Joga Dam



The village Karanjale, Khireswar and Khubi fall under the category of low level of development with composite index of 5.18, 5.10 and 4.41 respectively. While village Snagnore and Kolhewadi comes under the category of very low level of development with composite score of 2.93 and 1.82 respectively.

The villages falling under the category of low and very low level of development category are getting very less facilities. Most of the population are dependent on agriculture sector. Most of the young generation are found to jobless. Many villagers in those villages are seen facing problem of low production cost from agriculture due to unirrigated practice of agriculture.

Conclusion:

People receive more and enough advantages from dams, and these benefits have an effect on their social and economic well-being. Different experiences show that dams have both beneficial and bad effects. Dams help to prevent flooding by providing water for irrigation, and they also store large amounts of water that are used to generate electricity. These are the main advantages of dams, but they are also to blame for the decline of society and culture. Resettling the displaced people who have lost their ancestral property is the biggest issue caused by the project. The relocation of local people is the dam's most difficult social consequence. Some villages have not yet shown the readiness to leave their ancestral homes and lands, according to fieldwork findings. Despite being provided new locations for resettling, they are still abandoning the same region. The government attempted to move them into newly renovated villages with force, although some concerns about the newly renovated communities have come from the displaced people. Some residents, especially the elderly, are quite dissatisfied with the Kukadi irrigation project. The availability of drinking and irrigation water is lacking in several places. The population that has been relocated should have more employment options. The government need to give those who have undergone rehabilitation work chances.

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Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

References:

1. **Bakshi S., Chawla A., Shah M.** (2015). Regional disparities in India: A moving frontier. *Economic and Political Weekly*, 50(1): 44–52.
2. **Bhattacharya B. B., Sakthivel S.** (2004). Regional growth and disparity in India: Comparison of pre-and post-reform decades. *Economic and Political Weekly*, 39(10): 1071–1077.
3. **Cernea, M.** (1996). Understanding and preventing impoverishment from displacement-reflections on the state of knowledge. In C. McDowell (ed.) *The consequences of development induced displacement*, pp 23-48, Oxford: Berghahn Books.
4. **Kutwal, P., S.** (2016). Trends and Patterns of Development Disparity among Indian Hill States. *International Journal of Humanities and Social Science Invention ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714*, 4(6): 47-60.
5. **Sapkale, J. B.** (2016). Rehabilitation-The Problem of Dam Affected Displaced People: A Study of Warna River Basin, Maharashtra. *International Journal of Science and Research (IJSR)*. 5 (12): 1917-1925.
6. **Ranyewale, S., K.** (2019). The Impact of Coastal Tourism in Sindhudurg District of Maharashtra a Geographical Analysis. Unpublished Ph.D. Thesis, Savitribai Phule Pune University, Pune.
7. **Sapkale, J., B.** (2017). Socio-Economic Impact of Chandoli Dam: Perception Based Study of the Selected Villages of Warna River Basin. *International Journal of Engineering and Techniques*. 3 (6): 662-669.
8. **Suryawanshi, R., S.** (2013). Assessment of Level of Development in Jawahar, Mokhada, Vikramgad and Vada Tahsil of Rural Thane District, Maharashtra State India. *IOSR Journal of Humanities And Social Science (IOSR-JHSS)*, 19(9): 52-57
9. **Suryawanshi, R., S. and Sawant, N.** (2013). Assessment of Regional Disparity at Micro Level: a study of Talasari and Dahanu Tahsils of Rural Thane, Maharashtra. *Indian Journal of Spatial Science*. 4.0 (1) pp. 28 – 34.
10. **World Commission on Dams** (2000). *Dams and Development: A New Framework for Decision-Making: The Report of the World Commission on Dams*; Earthscan: Abingdon, UK.