

Analysis the Gap Between Existing and Required Facilities of Health and Education in District Tharparker

Faiza Abbasi

Mir Aftab Hussain Talpur

Gulzar Hussain

Department of City and Regional Planning Mehran University of Engineering and Technology
Jamshoro Sindh Pakistan Jamshoro

Corresponding* 13crp32@student.muet.edu.pk

Department of City and Regional Planning Mehran University of Engineering and Technology
Jamshoro Sindh Pakistan Jamshoro at- aftab.talpur@faculty.muet.edu.pk

Department of Civil Engineering Aror University of Art, Architecture, Design and Heritage
Sukkur Sindh Pakistan Sukkur at- gulzar.faculty@aror.edu.pk

Abstract

Tharparker, situated within the arid regions of Sindh province, faces significant challenges as a result of its arid conditions and shifting climate patterns. These changes represent substantial threats to the well-being and livelihoods of the local community. This study attempts to investigate the disparity between existing and required health and education facilities in district Tharparker. The study delves into the challenges faced by the region in meeting the growing needs of its population in terms of healthcare and education services. Data was collected from recent Census reports i.e. Pakistan Bureau of Statistics 2017 and through key informant interviews. Through data analysis, the research sheds light on the factors contributing to the gap and proposes potential solutions to bridge the divide. Results of the study show that there is low enrollment of students in schools and present health facilities and staff isn't enough to serve the existing population of district Tharparker. The findings underscore the importance of addressing these gaps to enhance the overall well-being and development of Tharparker's residents. This study is significant in a way that it will provide a way forward to government authorities and other supporting agencies in formulating effective plans for addressing the deficiencies (regarding health and education facilities).

Keywords: Disparity, Health, Education

Introduction

Thar encompasses the subsequent areas: (i) Bahawalpur, (ii) Jodhpur (a state in India), (iii) Parts of Jaisalmer (a state in India), (iv) Obaro and Mirpur Mathelo talukas situated in the Sukkur district, (v) The eastern portion of Khairpur, (vi) Specific regions within Khipro and Umerkot talukas, and (vii) The present-day Tharparkar. This research focuses on the current Tharparkar, encompassing the talukas of Mithi, Diplo, Chachro, and Nagarparkar. (Heran et al., 2007). Thar encompasses a desert expanse situated in the southern part of the Sindh province in Pakistan (Allah & Shaikh, 2008). Mithi serves as the administrative center of this district. As per the 2017 census data, Tharparkar district was home to a population of 1,647,036, with 132,534 individuals, making up 8.05%, residing in urban areas. Additionally, the district displayed a sex ratio of 869 females for every 1000 males, while the literacy rate was reported at 29.78%. Within the population, 41.95% of males and 16.61% of females were literate (Census, 2017). Tharparkar ranks at the bottom in terms of Human Development Index among all the districts in Sindh (FAST RURAL DEVELOPMENT PROGRAM, 2018). In 1998, the literacy rate in this area stood at 18.32%. It was observed that males had a higher literacy rate of 28.33%, whereas females had a lower rate of 6.91% (Siyal et al., 2018). The literacy ratio in Tharparkar shows noteworthy disparities, influenced by both gender and location. Urban areas have a considerably higher ratio at 57.27%, while rural areas lag significantly behind, with a rate of only 16.35% (Wasayo & Akbar, 2009). Infant mortality is primarily attributed to several factors such as the absence of essential healthcare infrastructure, a limited number of healthcare professionals, inadequate maternity services, elevated birth rates, large family sizes, malnutrition, and the prevalence of waterborne diseases in the region (RapidAssesmentReport, 2014). The current prevalence of malnutrition in Tharparkar is attributed to the rising livestock deaths.

Additionally, the region faces other health challenges, including pneumonia, diarrhea, and issues related to low birth weight and premature deliveries (Ministry of Health Pakistan, 2012). One of the primary challenges confronting these communities is mobility, as essential services such as healthcare facilities are located at a considerable distance, necessitating extended journeys for access (Sheikh, 2021). Transportation plays a vital role in connecting distant communities and enabling them to participate in various socioeconomic endeavors (Talpur #). In Pakistan's 2017 HDI report, Tharparkar's Human Development Index (HDI) stands at 0.227 (United Nations Development Program, 2020). Tharparkar's position in the survey of districts saw a decline as it ranked 109th out of 114, marking a drop from its 2013

ranking of 103rd, making it the district with the lowest rank in Sindh. Tharparkar was also among the ten districts with the least Human Development Index (HDI) growth between 2005 and 2015. (UNDP, 2019).

Methodology

The study examines the gap between required and existing healthcare and education facilities in District Tharparkar. To achieve this objective, the study will focus on collecting comprehensive data pertaining to the current number of healthcare and education facilities, as well as the availability of staff and furniture within these establishments. Once the data collection phase is completed, a rigorous comparative analysis will be undertaken (Adiyia, 1995), employing the standards outlined in the national reference manual. By juxtaposing the existing facilities with the required facilities based on the district's current population, the study will identify the extent of the gap between the two. The findings from this analysis will shed light on crucial areas where the district falls short in meeting the needs of its population, providing valuable insights into the necessary steps required to bridge the gap and enhance the healthcare and education infrastructure in district Tharparkar. This research is of paramount importance in ensuring improved access to essential services, enhancing the overall well-being of the community, and contributing to the sustainable development of the region.

Hypothesis

It is hypothesized that a disparity exists between the current health and education facilities available in District Tharparkar and the required number of facilities needed to adequately serve its existing population. Through meticulous data collection and analysis, the research will examine the current state of health and education facilities, including their capacity and resources, and compare it with the standards mentioned in NRM to serve projected needs based on the district's population.

Data Collection Technique

To fulfill the study's objectives, both primary and secondary sources were taken into account (Allah & Shaikh, 2008). Secondary data was collected from Government of Sindh, Bureau of Statistics, Health Profile of Sindh, 2017 and Government of Sindh, School Education & Literacy Department, Sindh Education Profile, 2018. Whereas Primary data collection was carried out through Key informant interviews (KIIs) (Accountability, 2015). Exhaustive KIIs were conducted with EDO education and EDO health.

Data Analysis

Ultimately, the collected data underwent analysis and was subsequently presented through tables, graphs, and maps. Analyzing secondary data regarding health and education facilities collected from the Pakistan Bureau of Statistics provided valuable insights into the current state of these sectors in the district.

Education Sector

Education is pre-requisite to develop human resources for the development (Haller, 2012). The total number of government schools present in the district are 3439 and total enrollment is 154,879. As per NRM (National Reference Manual) and NEP (National Education Policy) standards, students per class room occupancy ratio are 30 students per class room for primary, middle and secondary level but the occupancy ratio is observed 26 students per classroom. The possible reasons elicited in with Key informant interviews (KIIs) revealed that the schools are distant apart to the access of school teachers, low enrollment, less catchment population, continuous absenteeism of teachers or the schools being without shelter and water.

Table 1: Existing Situation of Educational Facilities

S. No	Description	Results
	Total Enrolments	154,679
	Total Number of available Class Rooms	5,912
	Total Number of government Schools	3439
	Student Per Class Room @ NRM Standard (Primary to Secondary)	30
	Present Occupancy Load of Students per Class Room	26
	Class Rooms Required for present need	5,156
	Additional numbers of Class rooms	756

Source: Government of Sindh, School Education & Literacy Department, Sindh Education Profile, 2018. (Sindh et al., 2019)

Tharparkar

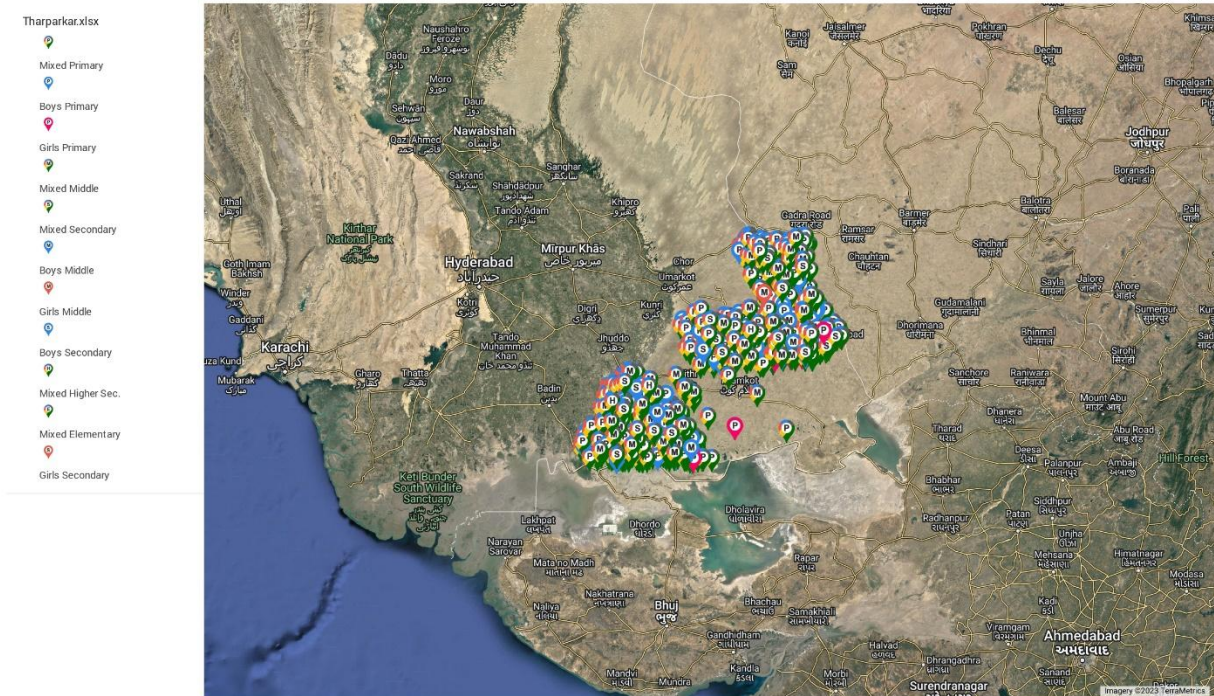


Figure 1: Present number of Educational institutes in District Tharparkar

Source: Reform Support Unit, Government of SINDH, 2017

Health

Health statistics are dire; with nearly one doctor per 6,500 persons, one nurse per nearly 70,000 persons, and one bed per nearly 4,000 persons. There is one district hospital with 74 beds, 3 taluka hospitals with a total of 90 beds, 2 Rural Health Centers (RHCs) with a total of 20 beds, and 40 Basic Health Units (BHUs) with a total of 93 beds. Data lists 96 private hospitals with an average of 1.3 beds each and 3 maternity homes with no beds. In remote areas with limited transport accessibility, the situation is particularly challenging. Doctors and EDOs in the health sector have expressed concerns that people tend to seek medical attention only when their conditions become extremely complicated and beyond their control, posing a significant challenge for healthcare providers. This issue is especially prominent in the expansive deserts of Tharparkar, where the lack of transport facilities makes it impossible to access the District Headquarters Hospital (DHQ) in cases of complicated deliveries

Table 2: Health care facilities in District Tharparker

Health care facilities	Number of Health facilities
Civil Hospital (DHQ)	1
Taluka hospitals (THQs)	3
Private	93
BHUs	40
Total Number of beds	409
Required beds for present Population	2,890
Total Doctors	185
Required Doctors	332

Source: Government of Sindh, Bureau of Statistics, Health Profile of Sindh, 2017.



Figure 2: Existing Healthcare facilities in District Tharparker

Source: WHO, PDMA 2017

Results and Discussion

The findings of this study highlight a significant disparity between the existing health and education facilities in the district of Tharparkar and the ones that are required to meet the population's needs effectively. This disparity can be attributed to the lack of transport accessibility and an inadequate road network in the region. Moreover, after comparing the collected data regarding health and education facilities it is concluded that there isn't standard enrollment ratio of students in schools due to which the literacy rate of district Tharparkar is low. As per NRM, 2,890 number of beds and 334 doctors are required to serve present population of district Tharparkar.

Policy Recommendations

- Enhancing Health Facilities and Human Resources:
 - i) Increase Bed Capacity: Based on the National Resource Requirement (NRM) recommendations, immediate measures should be taken to add the required 2,890 beds to existing healthcare facilities. This will improve the district's capacity to handle its present population's health needs.
 - ii) Healthcare Workforce: Address the shortage of doctors in the district by recruiting and deploying 334 additional doctors. This will help ensure adequate medical attention is available to meet the population's healthcare demands.
 - iii) Training and Skill Development: Invest in training and skill development programs for healthcare professionals, particularly in specialized fields, to improve the quality of care provided.
- Improving Education Enrollment Ratio and Literacy Rate:
 - iv) Educational Infrastructure: Allocate resources to construct new schools and upgrade existing ones to accommodate the student population effectively.
 - v) Teacher Recruitment and Training: Hire qualified teachers to improve the student-to-teacher ratio and ensure better learning outcomes. Additionally, provide ongoing training to teachers to enhance their teaching skills.
 - vi) Educational Outreach: Implement awareness campaigns to promote the importance of education within the community and encourage parents to enroll their children in schools.

By implementing these policy recommendations, the district of Tharparkar can make significant strides in narrowing the health and education disparities, leading to improved well-being and opportunities for its population.

References

- Accountability, M. E. (2015). *Multi- - Sectoral Rapid Need Assessment District Tharparkar Muslim Aid UK – Pakistan Field Office*. 1–23.
- Adiyia, M. (1995). Comparative Research Grant. *Anthropology News*, 36(8), 43–43.
<https://doi.org/10.1111/an.1995.36.8.43.1>
- Allah, G. M. H. and M. W. P. and, & Shaikh, W. R. and R. A. (2008). Livestock: A Reliable Source of Income Generation and Rehabilitation of Environment at Tharparkar. *Economic Policy*, 2116, 0–33.
- Census, B. (2017). *Provincial Census Report Balochistan*.
- FAST RURAL DEVELOPMENT PROGRAM. (2018). *Drought in D Istrict T Harparkar*. October, 1–16.
<http://frdp.org.pk/>
- Haller, A.-P. (2012). Concepts of Economic Growth and Development. Challenges of Crisis and of Knowledge. *Economy Transdisciplinarity Cognition Wwww.Ugb.Ro/Etc*, 15(1), 66–71. www.ugb.ro/etc
- Heran, G. M., Rajar, A. W., & Khaskheli, M. A. (2007). Reforming farmland and rangeland in Tharparkar: suggested implementations for income generation. *Indus Journal of Management & Social Sciences*, 1(1), 16–36.
- Ministry of Health Pakistan. (2012). Ministry of Health Pakistan. *National Nutrition Survey*, 1–84.
<http://www.mhinnovation.net/sites/default/files/downloads/innovation/research/Pakistan National Nutrition Survey 2011.pdf>
- RapidAssesmentReport. (2014). *Drought assessment report, Districts Tharparkar and Umerkot*. November.
- Sheikh, H. Y. (2021). *Pakistan Social and Living Standards Measurement Survey (2019-20)*. 645.
https://www.pbs.gov.pk/sites/default/files//pslm/publications/pslm_district_2019-20/PSLM_2019_20_District_Level.pdf
- Sindh, S., Reform, E., Credit, L., & No, I. D. A. (2019). *On the Accounts of Government of Sindh For the Financial year 2018-2019 AUDITOR GENERAL OF PAKISTAN*. 5218.
- Siyal, S., Peng, X., & Siyal, A. W. (2018). Socioeconomic analysis: A case of Tharparkar. *Journal of Public Affairs*, 18(4), 10–13. <https://doi.org/10.1002/pa.1847>
- Talpur, Mir Aftab Hussain, Analyzing Public Sector Education Facilities: A Step Further Towards Accessible Basic Education Institutions in Destitute Subregions. 4 ed, vol. Vol. 7, Malaysia, Canadian Center of Science and Education, 2014. 7 vols. EBSCO, <http://dx.doi.org/10.5539/ies.v7n4p110>. Accessed 30 March 2014.

- Talpur, Aftab Hussain. "Public Sector Education Institution's Analysis: A Way Forward to Curtail Rural-Regional Education Accessibility Problems." *Mehran University Research Journal of Engineering & Technology*, vol. Volume 33, no. No.4, 2014. Research gate, https://www.researchgate.net/publication/275410617_Public_Sector_Education_Institution's_Analysis_A_Way_Forward_to_Curtail_Rural_Regional_Education_Accessibility_Problems/link/553c5d830cf2c415bb0b2ced/download. Accessed October 2014.
- UNDP. (2019). Human Development Report 2019: beyond income, beyond averages, beyond today. In *United Nations Development Program*.
- United Nations Development Program. (2020). Pakistan Human Development Report. In 2020. <http://hdr.undp.org/en/countries/profiles/PAK>
- Wasayo, A., & Akbar, A. (2009). *Munich Personal RePEc Archive Demographic, Social and Economic Changes in Tharparkar (1988-2006)-An Analysis*. 12256.