

Inter-Regional Socioeconomic Disparity Levels Within Rural Sindh

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Abstract

The purpose of this study is to investigate the existence of socioeconomic disparity levels in rural Sindh. Determining the reasons behind such disparity is not the scope of this research. Previous studies reflected that compared to lower Sindh, upper Sindh has performed better as per socioeconomic indicators such as health and literacy rate, the Multidimensional Poverty Index (MPI) calculated shows no such pattern on a closer look; even though the MPI values for upper Sindh district are lower in comparison to lower Sindh, the intensity of poverty in upper Sindh is extreme. PSLM household survey questionnaire was used to calculate the MPI of various districts selected through a stratified sampling technique. The results show the MPI values for districts in lower Sindh reflect a greater incidence of poverty compared to upper Sindh. However, the intensity of deprivation in upper Sindh is higher. For instance, the MPI value recorded for Qambar, an upper Sindh district was 0.091 and the intensity of poverty recorded was 0.67.

Keywords: MPI; socioeconomic disparity; deprivation; poverty; Sindh.

JEL Classification: B55

1. Introduction

The notion of development may be understood in the context of economic progress. The main idea of economic progress or prosperity is linked to the well-being of the poor people of the region (Danaan, 2018; Pansera & Martinez, 2017; Anand & Sen, 1997). Contemporary social science relies on measuring levels of deprivation to assess the overall well-being of the people in a given region. The level of deprivation may not be equal even among the districts of the same province where there is homogeneity in terms of political setup and economic opportunities available. Investigating such occurrences in Sindh province of Pakistan is the scope of this study.

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Two concepts crucial to the study of economic progress are the socioeconomic dimension of development and the incidence of poverty. The definitions of both are rather fluid.

It is difficult to have one definition of poverty that is also a standard measure of it and used by all economists or researchers. Some define poverty in the sense of deprivation while others look at it as an effect of the failure of the government in providing enough public goods such as welfare.

Researchers like Singhal and Gill (1991) and Saunders (2004) define poverty as a state of deprivation, a social phenomenon where a section of the society does not meet the minimum requirement of living (Singhal & Gill, 1991). Qureshi (2004) makes an observation reported by Khan et al. (2014) that poverty is a discrepancy in what one has and should have. He also opines that the experience of poverty is individualistic and unique. This makes it a vague and broad concept. So far it appears that poverty has many dimensions. Resource lessness as an indicator of poverty is common in various studies (Memon et al., 2015; Khan et al., 2014). Lack of access to essential public goods and services such as food, safe drinking water, and shelter, or lack of access to 'social resources such as access to information, education, health care, social status, political power, or the opportunity to develop meaningful connections with other people in society' sponsor poverty (Memon et al., 2015).

Mainly, the study of the socioeconomic aspect of poverty is crucial to this study. In order to study poverty and development in the light of socioeconomics, it is imperative to introduce the latter first.

Socioeconomics is characterized as a multidisciplinary concept. The term is sometimes used in specific research using certain methodologies some of which made significant contributions in the fields of "economic sociology" and "political economy". It may be noted that the term socioeconomics does not offer a replacement for doing economics this way in fact it is one of the ways economics can be studied (Hellmich, 2015). Studying economics in the light of socioeconomics offers a contrast to the "homo economics paradigm" which focuses on the neoclassical assumptions* of the rationality of man and self-interest (Hellmich, 2015). Representing alternate views is not the scope of this discussion. This section is only dedicated to stating the departure from the neoclassical way of thinking in economics and introducing the term socioeconomics.

Since, socioeconomics is an attempt to diversify how social science can look at development while in a way undermining the limited, orthodox, neoclassical view, this contract

*The first thing we learn in economics is that man is rational, is motivated by incentives and makes rational decisions on the basis of cost and benefit analysis. This is the neoclassical way of thinking (Weintraub, 2002). As for homo economics, it is a term used to describe an economic man who makes rational decision.

is seen as the opposite of rationality and that is termed as non-rationality which carries a negative connotation. The problem with the rational choice theory is that “once one starts to talk about rationality, it preempts the way we organize our views of human thought and behavior” (Etzioni, 2013). In other words, the focus on rationality in rational choice theory takes human behavior (which may not be repetitive or consistent) out of the context. As it happens, human behavior may not always be consistent with the rational choice theory (Etzioni, 2013). Surely, development and poverty will have socioeconomic aspects if understood in aversion to the rational choice theory. Even more clarity in the realm of the socioeconomic aspect of poverty can be attained by conducting a region-specific study instead of looking at the big picture.

A holistic approach to studying incidents of poverty is problematic (Hussain et al., 2019). In the case of huge population studies, some of the impacts is masked because the overall picture does not look devastatingly gloomy. For instance, a report by Sustainable Development Policy Institute (SDPI) shows huge levels of disparity in poverty levels in urban and rural Sindh but the overall incidence of poverty in Sindh seems to match that of Punjab (Naveed & Ali, 2012). Furthermore, in the light of heterogeneity in terms of demographics among all provinces of Pakistan and eighteenth amendment to the constitution that transferred a lot of powers from the federal to the provincial governments (Hussain et al., 2019) provide a strong ground for the regional study.

1.1 Research Problem

Within rural Sindh, which is the area under study for this research, there exist different levels of development albeit no change in provincial government for decades. The United Nations Development Program (UNDP) published a Human Development Index (HDI) report showing that over the period of ten years the HDI of only one district in lower Sindh namely, Dadu has improved from 0.385 in 2005 to 0.632 in 2015 (UNDP, 2017). However, the statistics are not impressive. According to the United Nation Development Program (UNDP) report on MPI, Dadu scores 0.247 on deprivation index which is similar to Rwanda with matching Intensity of Deprivation of 48 percent (UNDP, 2017).

The HDI report published by UNDP (2017) acted as a beacon to guide the study into investigating why some of the districts in Sindh were not doing as well as others.

1.2 Research Question

The main question for this study is:

What is the level of interregional socioeconomic disparity in rural Sindh?

In order to investigate this question, an attempt to work out the Multidimensional Poverty Index (MPI) for at least two rural Sindh districts will be presented in the findings chapter using the PSLM tools.

1.3 Research Objectives

The aim of this study is to investigate whether there exists an interregional disparity in Sindh and if so, to what extent. For this, an index is required to measure the extent. Therefore, a Multidimensional Poverty Index (MPI) is calculated.

2. Literature Review

To view the research problem in the light of the literature available, it is essential to study the history of development efforts made by the government for the nation teeming with poverty and deprivation at multiple levels. This section will give a brief overview of the economy of Sindh while discussing the development scenario in Sindh, the problems of development in Sindh, social and political hindrances together with socio-economic aspects of poverty in Sindh.

2.1 Development and Poverty in Pakistan

In a number of attempts to alleviate socioeconomic backwardness in Pakistan, international organizations set up goals like Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) (United Nations, 2015). After the failure to achieve MDGs, the seventeen SDGs prioritized reducing extreme poverty by putting it as the first goal to be achieved and every other goal directly or indirectly connected to working towards achieving the first goal (World Bank, 2002).

The United Nations while laying out SDGs has pointed out that ‘eradicating poverty in all its forms remains one of the greatest challenges facing humanity’ (United Nations, 2015). Though some countries have pulled themselves out of extreme poverty, some are still struggling for the most basic human needs because progress is uneven (United Nations, 2015). The United Nations claims women to be more likely to experience poverty than men because they have less paid work, education, and own less property’ (United Nations, 2015). On the contrary, Padda and Hameed (2018) claim that women-headed households in rural Pakistan are less likely to experience poverty because of welfare programs like Benazir Income Support (BISP). This claim can be rejected on the basis of reports on corruption in the said program (Mian, 2020). A local newspaper had reported earlier in 2020 that some 2,543 government officers of grade-17 and above had got themselves registered among the beneficiaries of the social safety net (Mian, 2020). Corruption aside, this program does little to help women anyway. A meager amount every four months combined with currency depreciation does not do much to improve the standard of living of a household. Reports on the Ehsaas program, another welfare project initiated in 2019 by the government claimed that it was the biggest welfare program (GOP, 2020; Mian, 2020). However, media reports indicated huge corruption, malpractice and mismanagement (Hasnain, 2020; “Dr. Sania takes notice”, 2020;

“Corruption, Malpractice added to Ehsaas Program”, 2020). Another media report questioned how the program was being financed (Subohi, 2019). Since the current government censors a lot of news (Ellis-Petersen & Baloch, 2019), the details on how much money was actually disbursed to the deserving cannot be estimated.

While Pakistan is trying to turn into a welfare state, ‘it doesn’t have much financial capacity to undertake any substantial investment to that end, especially when this lack of revenue is combined with rising debt repayment and defense spending. It is not possible to be a debt-ridden security state and a welfare state at the same time’ (Wani, 2002). On a political front, considering the 18th amendment that has brought some autonomy for the provinces, has Sindh worked on the development agenda taking advantage of this power balance move?

Khan et al. (2016) in their article on center-periphery relations and governance gap identified that albeit central government is responsible for the provision of public goods and services, security and ‘political legitimacy in territories under its jurisdiction’ devolution makes governance efficient (Khan et al., 2016). This brings us to question how the local government has fared in Sindh over the years. A detailed critical analysis of the Sindh Local Government Act 2013 presented by Rid and Murtaza (2019) clearly indicates that the move was more political than a means to improve administrative efficacy (Rid & Murtaza 2019). Much of the failure to realize the ambition of offering welfare to the citizens can be attributed to the poor administration and management of such affairs. For the sake of this study let us take Sindh as a point of reference. Drought and famine in Thar have been an issue. Though a renowned economist, Amartya Sen, who was a witness to the systematic destruction of his home state owing to the mismanagement of the famine affair of Bengal in 1943, said that famine cannot take place in a democracy. Shehzad (2017) is baffled at the fact that the government’s efforts to provide food and heavy expenditure (“No child deaths from hunger”, 2014)*, prevalence of famine is implausible rather confusing. Shehzad (2017) blames poor governance for such dismal state of affairs in Thar. He writes that Governance in Tharparkar could be analyzed with respect to social development in the form of rainfall harvesting and water supply schemes, health sector practices and overall agriculture management in the region; he iterates how badly corruption in the government organizations responsible for managing these issues, have affected the drought and famine ridden region of Sindh (Shehzad, 2017).

*The Express Tribune, a Pakistani daily newspaper had reported that the Sindh government claimed to have distributed free wheat worth Rs.2 billion to the residents during the past six years. Retrieved from <https://tribune.com.pk/>

As mentioned above, the 18th amendment has awarded relative autonomy to the provinces. This step should have made governance better. However, the situation in provinces, specifically Sindh, remains unaltered. Other than the problems in Thar owing to bad governance, various sectors of the government have failed to move swiftly towards development in other districts of Sindh as well. A detailed overview of the problems of development in Sindh is presented in the later section of this chapter.

2.2 *The Problems of Development in Sindh*

The key problem areas that need attention for development in Sindh include education, healthcare, infrastructure and agriculture. All these sectors of the economy of Sindh are in a deplorable state. This section will discuss these sectors and the policy adaptation and implementation problem for the same in detail.

2.2.1 *Education in Sindh*

Albeit education having an inverse relationship with poverty (Ahmed et al., 2019), a well-functioning system of inclusive, relevant and quality education remains one of the major challenges facing Pakistan even today' (Hussain et al., 2019). The irregular and uncertain economic development is a result of the low priority rendered to education, training and skill development. The practice of announcing schemes and policies and later revoking them, without any proper evaluation, has become a norm in Sindh's history. Nationalization of all private institutes in the 1970s played its role in putting further dent to the quality of education in Sindh. Financial allocations remained inadequate and unemployment high due to weak education system.

Pakistan and its provinces are constitutionally bound under Article 25(A) to provide free and compulsory education to all children aged 5 to 16. International funding organizations like the United Nations have laid education related framework on the pretext of achieving universal education goal first through Universal Declaration of Human rights in 1948 and then through Millennium Development goals (MDGs) till 2015 and later Sustainable Development Goals (SDGs) to be achieved by 2030. However, the province has failed to achieve targets for universal education by 2015 as over 6.6 million children, that is 53 percent, in Sindh are out of school. The onus of failure lies on the province since the 18th Amendment to the constitution gave the provinces autonomy and hence the responsibility was delegated to the province.

On an infrastructural basis alone, the province has not delivered. There is a total of 46,039 schools in Sindh* and while it may seem that education is accessible in the province, it is not so (Hussain et al., 2019). Around 50 percent of these schools (27,792) are either one-room schools or one-teacher schools. The SEMIS 2016 data shows that over 60 percent of these schools do not have electricity and half of these schools across Sindh lack other basic facilities such as Boundary wall, Toilet and/or Drinking water. It can be inferred from these facts and figures that having too many schools but absence of essential basic facilities shows poor planning and indolent management. These factors encourage the widening of existing gender gap; parents are especially reluctant and feel insecure to send their daughters to schools without boundary walls or toilets (Hussain et al., 2019).

On the policy front, two policies that were aimed at improving governance and reducing the gender gap are worth mentioning. In order to manage the schools better, the School Education and Literacy department of the Sindh government announced the School Consolidation Policy in 2012 (Sohoo et al., 2020). The aim of this particular policy was to convert distinct government schools operating on the same campus into a single functional school. This was a step toward improved governance as it was thought this would increase the smooth transition from primary to secondary school and compensate for the teacher absenteeism problem (Sohoo et al., 2020). Before this policy, the resources of schools like playgrounds and washrooms were used by both schools but no one took the responsibility for maintaining them (Hussain et al., 2019). This policy is aimed at resolving this management glitch and improving resource allocation and utilization. This policy failed at the implementation stage. In theory, this was a good decision. In reality, there was a lack of cooperation between the teachers and school administration. This was because the government did not take the stakeholders into confidence when introducing this policy.

Another brilliantly devised policy that the Sindh government introduced was to cater to the smooth transition of female students from one grade to another – especially from primary to secondary. This was a step towards bridging the gender gap. The Girls' Stipend Programmed, 2006 was introduced whereby every female student from grades 6 through 10 received PKR 2500 at the end of every academic year (Unar & Zarif, 2018). A subsequent Differential Stipend Policy was introduced in 45 talukas where female students received PKR 3500 instead because of very low transition rates (Sohoo et al., 2020; Hussain et al., 2019; Unar & Zarif, 2018). The persistent decrease in the transition rates among female students puts a question mark on the effectiveness of the entire initiative (SEMIS, 2016).

*The Express Tribune, a Pakistani daily newspaper had reported that the Sindh government claimed to have distributed free wheat worth Rs.2 billion to the residents during the past six years. Retrieved from <https://tribune.com.pk/>

The failure of this policy initiative could be because of the low proportion of female students actually receiving the stipend*. In short, keeping in mind the most common practice of the government, that is, making policies only to rescind them later, public administration ends at a stage of policy formulation as implementation is rarely reached in the right manner (Hussain et al., 2019).

2.2.2 *Healthcare in Sindh*

Physical, social and mental wellbeing makes an integral part of human development. An overview of healthcare system in Sindh reveals that both public and private sectors provide curative healthcare where performance of government is not impressive in provision of basic healthcare facilities to the citizens; It is not an accessible commodity especially for rural population.

On infrastructure and staffing level, the statistics show Sindh has a highly underdeveloped health system. According to Planning and Development department, Government of Sindh, there are only 17 Civil hospitals for 29 districts of Sindh. This means that some districts might not even has a single Civil hospital. A total of 102 Civil, Specialized and Taluka hospitals for a population of fifty million does not seem enough (GOS, 2017). The table below shows the number of Basic Health Units (BHUs) and Rural Healthcare Centers (RHCs) in Sindh as per Planning and Development Department, Government of Sindh.

Table 1:
Basic Health Units and Rural Health Centers with Bed capacity

HEALTH UNIT/CENTER	NO. OF UNITS	NO. OF BEDS
BHU	800	1615
RHC	133	1703
Total	933	3318

Source: Government of Sindh, Sindh Bureau of Statistics 2017

The services provided in these units and centers are of rudimentary nature and while the total number of units may seem impressive with respect to accessibility, the quality of care is poor; this is evident from the fact that the usage of public-sector health facilities in Sindh is only 22 percent (Hussain et al., 2019). With 3,159 people per doctor (including surgeons, gynecologists, pediatricians and physicians), 12,441 persons per nurse and 1,455

*As per the data shared by Hussain et al. (2019) from Reform Support Unit, Education and Literary Department, Government of Sindh, less than 50 percent female students have been receiving stipend for grade 6 and on average 79 percent female students have been receiving stipends in grades 7, 8, 9 and 10.

people per bed (GOS, 2017), the province seems to be failing at providing healthcare facilities as there exists a wide gap between the demand and supply of the healthcare services (Hussain et al., 2019).

Not only the overall picture of the state of healthcare service is disappointing, but they' also exists a stark disparity even between districts for a number of reasons such as government attention, budget allocation and development schemes*. It may be useful to take Tharparkar district as an example. Most districts in the south of Sindh province except Karachi and Hyderabad are reported to rank low in human development as per UNDP's annual HDI report (UNDP, 2017). However, Tharparkar is the lowest ranking district in Sindh in terms of HDI and MPI. Siyal et al. (2018) claim that the government has been 'successful in providing the basic healthcare facilities to the people of Tharparker, the reports on high number of deaths over the years due to climate change, starvation due to lack of livelihood and social factors such as standard of living and education (skill development that caters to earning decent livelihood) make it less convincing (Khan & Robinson, 2018; Ali et al.,2018).

The case of Tharparkar must not be taken as an outlier. The facts speak for itself; Umerkot, Tando Allah Yar and most district in lower Sindh have also ranked very low on HDI (UNDP, 2017). As mentioned above, save the urbanized cities of Sindh that is, Karachi, Hyderabad and Sukkur, the rest of the districts do not have an impressive ranking on HDI. These urban centers may even have relatively better infrastructure of the healthcare facilities. But the reality about management of public sector hospitals is very shocking. Hussain et al. (2019) have revealed that Civil Hospital Karachi, has two-thirds of its funding emanating from 'philanthropic and charity organizations' while only one third of it comes from the provincial budget. One can only imagine the disappointing state of affairs at these healthcare facilities in rural Sindh.

On the policy front, several experiments, with respect to improving governance, like introducing autonomous board of governors, have failed (Nishtar et al., 2013). The management remains weak and governance, poor. Moreover, political involvement in human resource has contributed to human resource policy failures and has put a dent on the budget for non-salary components (Hussain et al., 2019). In short, healthcare system in Sindh faces infrastructural and policy related challenges that the government of Sindh needs to address to move up the ladder of development.

*For instance, health expenditure increased to Rs. 665 billion in 2016 from Rs. 48.4 billion in 2006. But most of the budget was incurred on recurring expenditure (Hussain et al., 2019; GOS, 2017).

2.2.3 *Subsistence in rural Sindh*

Pakistan was predominantly an agrarian economy. However, for more than three decades now, its contribution to the GDP of Pakistan has slowed to 20 percent (Chandio et al., 2016). Sindh has followed the same pattern and the share of agriculture in its economy is merely 17 percent (Hussain et al., 2019). On a policy front, Sindh 1950, many steps were taken to somehow elevate the status of the landless peasants (the haris). The 1950 Sindh Tenancy Act was the first step at benefiting the haris who had worked on the land for three years. It gave them the right to be a permanent hari –lifelong job security on the land they had worked on for three years for the same landlord, and compensation from the landowner were they to be removed from the job. However, the feudal lords cleverly avoided keeping a hari for three years in a row to prevent them from becoming permanent haris (Jamali, 2018; Sindh Laws, 1950).

In 1953 there were a total of 2.5 million landless peasants in Sindh. That made 79 percent of the population of Sindh (Hussain et al., 2019). The reforms in the 1960s and 1970s showed a shift in the land ownership. The top 8 percent of the owners had a share of 32 percent in 1970s compared to 54 percent in the 1950s. However, this does not paint the actual picture. The number of Jagirdars (the landlords with more than 250 acres of land) went down only because their lands were distributed among individual family members. And in some cases, on paper it was given to the benamidars, that is, the servants of the landlord, but the benefits went to the landlord (Hussain et al., 2019). The redistributive land reforms of Bhutto in the 1970s aimed at further protecting the sharecropping tenants (Gazdar, 2009). However, this policy initiative failed due to a lack of proper follow-up by the government officials and many landlords took to saving their lands either through Benami transfers or by giving up barren pieces of land (Hussain et al., 2019).

Another problem relating to agriculture sector is the dependency of the haris on the landlord. Majority of farmers in Sindh continue to rely on the informal sources of credit from their zamindars (landlords). But this dependency is not merely pecuniary; the landlord does not only own the land but the haris as well (Breman, 2013; Azad et al., 2003). One major reason for the dejected state of this kind of dependency of haris is the hope that these landlords who happen to be politically influential if not politicians themselves, promise them a small government job for their sons or relatives (Hussain et al., 2019).

Other than policy issues and the toxic relationship between the landless peasants and the landowners, the reasons for low productivity appear to be related to resource lessness. There exists disparity in productivity of large and small farmers. This is because the small farmers have little access to resources such as the limited subsidized fertilizers and the seeds. Landlords with bigger landholdings use their power in diverting the limited resources to themselves. The same elites breach the modules and divert water towards their lands too.

The tail-enders do not receive adequate supply (Azad et al., 2003). In short, the slowdown in contribution of agriculture to the economy of Sindh is not limited to complex dependencies and policy issues, but the intraregional politics where the elites win. The standard of living of the majority remains low because of the conditions explained above. A system that supports the powerful will not allow any economic and policy reforms to be effective. The disparity in production among small and large farmers is evidence enough. Public policy changes and institutional renewal is required to avert the agriculture crisis in Sindh.

The key problem areas that need attention for development in Sindh include, education, healthcare and standard of living. All these areas of the economy of Sindh are in deplorable state. But the condition of the aforementioned indicators is not uniform across the province and therefore, the development reports reflect disparity among various districts of Sindh (UNDP, 2017). This section sheds some light on such inconsistencies.

2.3 *Interregional socioeconomic disparity levels within Sindh*

Conventionally economic development and growth were assessed in terms of income. With the shift in focus to other dimensions like public welfare, the real concern now is the sharp rise in socioeconomic inequalities accompanying economic growth. In their article Zulfqar and Gillani (2019) discuss how the socioeconomic disparity levels in Pakistan have enabled cronyism and therefore harbored corruption among politicians and bureaucracy which has led to misallocation of resources. The findings of their study report that widening income disparities among the provinces of Pakistan, particularly the rural areas, are not surprises. However, Sindh reported to have the highest rural-urban income disparity level among all provinces of Pakistan.

Socioeconomic disparity levels among provinces painted a grim picture; disparities in access to education, health facilities and infrastructure were reported. The most surprising figure stated was that only 10 percent of people in Sindh had access to electricity while even in KPK, at least 34 percent of people had access to it (Zulfqar & Gillani, 2019). One interesting variable is taken into consideration while discussing the extent of socioeconomic disparities in the gender disparity. The report stated that Pakistan has been ranked second last in the annual Gender Gap Index 2013- 2016 (Zulfqar & Gillani, 2019). The current scenario implies that females suffer more due to lack of opportunities, access to education, healthcare and financial services. While this overall picture may guide the researchers to the real concerns of present-day Pakistan, regional analysis reveals that socioeconomic disparity levels within the rural set up of any given province of Pakistan are varying.

Consider the case of Sindh. Although Sindh has the second largest economy of the country, but poverty rate of the province is also high (Iqbal & Khan, 2020). Khan et al. (2014) acknowledges that the concept of poverty is not limited to just the monetary attributes but

includes ‘several dimensions directly influencing the level of individuals’ socio-economic status’ (Khan et al., 2014). It analyzes the incidence of multidimensional poverty (MDP) at regional levels in the Sindh province of Pakistan and revealed in its findings that there are varying degrees of poverty levels across the province with socio-economic aspects. Furthermore, the magnitude of poverty is higher in rural areas of Sindh.

A comprehensive report published by the UNDP ranks all the districts of all the provinces of Pakistan on the basis of the Human Development Index. There are three observations worth noting in the case of Sindh. Most districts in Sindh have a low ranking as compared to that Punjab. For instance; the lowest-ranking district of Punjab, Rajanpur has an HDI of 0.506 while the lowest ranking district of Sindh, Tharparker has an HDI of 0.22 which is lower than half of Punjab’s lowest-ranked. Secondly, within Sindh, there seems to be a huge disparity among the districts’ HDI. Lastly, in contrast to the disparity among the districts of Punjab, there seems to be no pattern to the disparity among the districts in Sindh. Some of the upper Sindh districts show poor ranking than those of lower Sindh ones. This suspicious variability needs to be examined. The methodology section below will cater to the research design selected for examining such disparities. Since there exists no recent data such as the MPI for the seemingly existing disparities, this paper will try to mirror the methodology adopted by the Pakistan Social and Living Standard Measurement (PSLM), Pakistan Bureau of Statistics.

3. Research Methodology

This is a cross-sectional, inductive study and thus focuses on a single point in time, i-e. 2021-22. The qualitative data in the form of a survey is quantified into an index namely, Multidimensional Poverty Index (MPI). The survey questionnaire used is the same that Pakistan Social and Living Standard Measurement (PSLM) uses for a countrywide survey. There were two instances where sampling was required for this research. The first stage was when selecting the upper and lower Sindh districts for data collection. Stratified random sampling was done for Talukas of upper Sindh and lower Sindh districts separately. The Talukas were grouped as per the level of Human Development (HD) described in the United Nations Development Program’s report on HDI. These sub levels marked on the Index were: Medium HD, low medium HD, low HD, and very low HD.

Table 2:

Stratified Sampling for upper and lower Sindh w.r.t Human Development

District	MHD	LMHD	LHD	VLHD	Sample size
Lower	0	2	4	1	7
Upper	2	3	0	0	5
Total					12

Here,

MHD = Medium Human Development

LMHD = Low Medium Human Development

LHD = Low Human Development

VLHD = Very Low Human Development

Sample size for Talukas was 12 in rural Sindh districts as this is not a funded research. Keeping practicality and time constraint in mind that only one researcher will have to collect data from the districts, the number of households interviewed from each Taluka/Tehsil was 22-25. Therefore, total sample size appeared to be 264 households from the selected 12 districts of upper and lower Sindh. The second stage required selection of the Talukas from the categorized set of HDI levels. The Talukas are selected at random using simple random sampling technique. It is reiterated that the number for each HDI level/ category was decided through stratified sampling.

The questionnaire for the interview survey is a mild modification of the one used in the PSLM data analysis. It is a bilingual questionnaire. The original English version is translated in Sindhi.

The indicators, deprivation cut-offs and weights assigned to each dimension are presented in the table below:

Table 3:
MPI indicators, deprivation cut-offs and weights

Dimension	Indicator	Deprivation cut-off	Weights
<u>Education</u>	Years of Schooling	Deprived if no man OR no woman in the household above 10 years of age has completed 5 years of schooling	1/6 = 16.67%
	Child school attendance	Deprived if any school-aged child is not attending school (between 6 and 11 years of age)	1/8 = 12.5%
	School Quality	Deprived if any child is not going to school because of quality issues (not enough teachers, schools are far away, too costly, no male/female teacher, substandard schools), or is attending school but remains dissatisfied with service	1/24 = 4.17%
<u>Health</u>	Access to health facilities/ clinics/ Basic Health Units (BHU)	Deprived if health facilities are not used at all, or are only used once in a while, because of access constraints (too far away, too costly, unsuitable, lack of tools/staff, not enough facilities)	1/6 = 16.67%
	Immunization	Deprived if any child under the age of 5 is not fully immunized according to the vaccinations calendar (households with no children under 5 are considered non-deprived)	1/18 = 5.56%
	Ante-natal care	Deprived if any woman in the household who has given birth in the last 3 years did not receive ante-natal check-ups (households with no woman who has given birth are considered non-deprived)	1/18 = 5.56%
	Assisted delivery	Deprived if any woman in the household has given birth in the last 3 years attended by untrained personnel (family member, friend, traditional birth attendant, etc.) or in an inappropriate facility (home, other) (households with no woman who has given birth are considered non-deprived)	1/18 = 5.56%
<u>Standard of Living</u>	Water	Deprived if the household has no access to an improved source of water according to MDG standards, considering distance (less than a 30 minutes return trip): tap water, hand pump, motor pump, protected well, mineral water	1/21 = 4.76%

Table to be continued...

Dimension	Indicator	Deprivation cut-off	Weights
	Sanitation	Deprived if the household has no access to adequate sanitation according to MDG standards: flush system (sewerage, septic tank and drain), privy seat	1/21 = 4.76%
	Walls	Deprived if the household has unimproved walls (mud, uncooked/mud bricks, wood/bamboo, other)	1/42 = 2.38%
	Overcrowding	Deprived if the household is overcrowded (4 or more people per room)	1/42 = 2.38%
	Electricity	Deprived if the household has no access to electricity	1/21 = 4.76%
	Cooking fuel	Deprived if the household uses solid cooking fuels for cooking (wood, dung cakes, crop residue, coal/charcoal, other)	1/21 = 4.76%
	Assets	Deprived if the household does not have more than two small assets (radio, TV, iron, fan, sewing machine, video cassette player, chair, watch, air cooler, bicycle) OR no large asset (refrigerator, air conditioner, tractor, computer, motorcycle)	1/21 = 4.76%
	Land and livestock (only for rural areas)	Deprived if the household is deprived in land AND deprived in livestock, i.e.: a) Deprived in land: the household has less than 2.25 acres of non-irrigated land AND less than 1.125 acres of irrigated land b) Deprived in livestock: the household has less than 2 cattle, fewer than 3 sheep/goats, fewer than 5 chickens AND no animal for transportation.	1/21 = 4.76%

Source: UNDP's Multidimensional Poverty report on Pakistan

The questionnaire is imported from the PSLM data base available at Pakistan Bureau of Statistics (2017)

which is used to calculate the national MPI. The methodology used will be the same as used by the Planning Commission of Pakistan's report on National MPI for the year 2014-15.

Calculation of MPI

$$MPI = A \times H \quad (1)$$

Where,

A is intensity of deprivation and

H is the headcount.

During the course of research, no such actions were taken that may qualify as misconduct. According to the United States Office of Research Integrity (ORI), misconduct in research refers to ‘fabrication, falsification or plagiarism in proposing, performing or reviewing research, or in reporting research results’ (University of California, 2014).

4. Results

This section contains the findings of the data collected from the respective districts selected through stratified and then random sampling. There were 31 villages in total from where the data was collected and recorded. Each district was represented by at least two villages.

Below is the table displaying the Talukas selected at random for upper and lower Sindh districts mentioned earlier:

Table 4:

List of Talukas selected at random for household survey

	Medium HD	Low Medium HD	Low HD	Very Low HD
<i>Upper Sindh</i>	Khairpur Mirs (Khairpur)	Qambar (Shahdadt)		
	Dadu (Dadu)	Khanpur (Shikarpur) Khairpur Mirs (Khairpur)		
<i>Lower Sindh</i>		Ghorabari (Thatta)	Tando Mohammad Khan (TMK)	Kaloi (Tharparker)
		Tando Allah Yar (Tando Allah Yar)	Tando Ghullam Hyder (TMK) Kharo Chan (Sujawal) Mirpur Khas (Mirpur Khas)	

*District names are mentioned in parenthesis.

In table 5. Results of Multidimensional Poverty Index (MPI) for rural Sindh are displayed. MPI is the measure of deprivation spread over three dimensions namely; education, health and standard of living. The Intensity (A) is a measure of the degree of deprivation whereas, the Incidence (H) is the poverty headcount in a given district.

Table 5:
District-wise MPI for rural Sindh

S.no	DISTRICT	Intensity (A)	Incidence (H)	MPI
1	<i>Sujawal</i>	0.58	0.91	0.524
2	<i>Thar</i>	0.51	0.68	0.349
3	<i>Thatta</i>	0.62	0.55	0.336
4	<i>Tando Muhammad Khan</i>	0.56	0.59	0.329
5	<i>Tando Ghullam Hyder</i>	0.54	0.55	0.295
6	<i>Mirpurkhas</i>	0.6	0.41	0.243
7	<i>Tando Allahyar</i>	0.52	0.45	0.235
8	<i>Khairpur</i>	0.46	0.36	0.167
9	<i>Dadu</i>	0.49	0.32	0.156
10	<i>Naushero Feroz</i>	0.44	0.32	0.139
11	<i>Qambar</i>	0.67	0.14	0.091
12	<i>Shikarpur</i>	0.38	0.14	0.051

The district-wise MPI results are arranged in a descending order of MPI values. This arrangement suggests that the districts of lower Sindh have greater incidence of poverty than that of upper Sindh. This may appear as a pattern until it is gauged from the table above that albeit the MPI and H values for districts of lower Sindh may be higher than that of upper Sindh, the highest intensity of deprivation recorded was for Qambar, a district of upper Sindh. This break in the pattern validates the socioeconomic disparity among the lower and upper Sindh districts identified in the HDI report discussed in the literature reviewed. It also raises the question as to why one of the least deprived districts shows the greatest intensity of deprivation. This can be further investigated in the subsequent future study as it is not the scope of this research.

5. Discussion and Conclusion

The discussion in the literature reviewed pointed out three problem areas suggesting disparities in access to education, health facilities and standard of living among various districts of Sindh.

5.1 *Practical and Theoretical Implications*

On policy front, there were multiple loopholes discussed in the literature reviewed. A major loophole of most development policies formulated was not taking stakeholders into confidence. This had caused the policy to fail at implementation stage. Moreover, the socio-economic setup of the rural Sindh had contributed in the lack of development owing to the prevailing feudal system. While these remain, qualitative variables awaiting exploration in the area of development, one thing which has become certain from the quantitative point of view is that the rural areas of Sindh are deprived in education and that upward social mobility is not reflected in terms of standard of living.

The empirical data in the form of MPI calculated confirmed socioeconomic disparity levels existing in rural Sindh. Based on the descriptive answers to some question in the research tools used, it was discovered that most of rural Sindh had shown high deprivation in the areas of education. It was revealed in the data that in most cases, the children themselves are not willing to attend school owing to lack of interest and in some cases due to school violence. Furthermore, the data analysis confirmed the claims presented in literature reviewed regarding lack of access to basic facilities like gas and electricity. Most households in rural Sindh do not have access to gas or electricity. Such deficiencies hinder the social mobility of the rural population. At first, there seemed to be a pattern suggesting that upper Sindh is relatively less deprived of education, health and access to basic facilities, however, an abnormally high intensity of deprivation was recorded for Qambar district of upper Sindh suggested there is no pattern to this deprivation.

5.2 *Policy Recommendations*

This study would make one recommendation to cater to depressing deprivation levels in rural Sindh: administrative attention would resolve the school violence issue and subsequently improve school attendance. The government must make sure that education is imparted in a friendly environment so that it would encourage the children to attend school. Improvement in delivery of education service would positively impact the literacy rate and offer better employment opportunities to the people of rural Sindh. This step would play a key role in improving the standards of living of the people of rural Sindh.

5.3 *Limitations and Future Research*

Since this research was neither an independent study with no financial support nor human resources and therefore the area under study was not explored on a large scale. The cooperation from the households in rural Sindh was mostly conditional and limited. One huge obstacle that was somehow later overcome was fake data provided by the interviewees in district Sujawal as they were under an impression that this research came with financial

benefits. The data was discarded and it was collected again from a different village in Sujawal. In Shikarpur district there was a turf war going on between locals and probably some law agency. Therefore, it was dangerous and difficult to collect data. Keeping such nuances among different districts in mind, it would be relatively easy for a public institution to conduct such research. The scope of this research was to identify disparity levels among various districts of Sindh. However, the reasons behind such socioeconomic disparity within a single province were not the scope of this research but it can be taken up as future research.

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