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Identifying Backwardness of Mewat Region in Haryana: A Block-Level Analysis

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Research Team

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Executive Summary

A. Introduction

The advent of globalization has led to emerging concerns about the development of regions. It is envisaged that while the developed regions will continue to grow further, the underdeveloped or backward regions might further get marginalized. To address the issue of growth duality, there is a need for balanced growth or development across all regions. Furthermore, there is a consensus internationally that development should not only be viewed from a lens of economic growth but it must encompass indicators, such as social, equity, health etc. The first step towards building the strategy for a balanced growth is to formulate area specific developmental strategies, which can be prepared by identification of multi-dimensional development indicators at a disaggregated level. This can help in identifying disparities across regions and social groups, and also identifying the share of population in the region that suffers multiple deprivations at the same time. Such information can be utilized to prepare policies for development that are based on strong evidences.

In India, to address the challenge of improving the development of the backward region, the policy makers realised the utmost importance of area-specific development strategies that are based on regional context, including resources. Recognizing the urgent need for such context specific development strategy, the Government of India has taken several initiatives in the past. Several committees, such as Wanchoo Committee, Sarma Committee, National Committee on Development of Backward Areas (NCDBA) and Pande committee, have been constituted to deal with the issue of backwardness. A major policy step in this direction was the setting up of the Backward Region Grant Fund (BRGF), which was designed in 2007, to redress regional imbalances in the development of India. The fund provides financial resources for supplementing and covering existing developmental inflows into identified 250 districts across 27 states, so as to bridge critical gaps in local infrastructure and other development requirements that are not being adequately met otherwise. It is recognized that among the identified BRGF districts, most of them fall in the backward states, concentrated in North-east, East and Central India. In addition, many of these districts are heavily populated by SC/STs and minorities. However, the

Planning Commission also recognizes that a few districts also fall in the developed states, such as Mewat in Haryana, and some districts of Vidarbha in Maharashtra. Mewat district is not identified as a BRGF district but it has huge concentration of minorities, specifically Muslim. Furthermore, in India since population within districts have diverse characteristics and varying stages of development, it is envisaged that the development strategies should consider blocks as a unit of identification of backward areas.

B. Objectives and Methodology of Study

The current study examines the level and typology of development in Mewat district of Haryana. The two main objectives of the study are to analyze the multi-dimensional aspects of development in Mewat region; and mapping the typology of backwardness across blocks within the district, in order to suggest appropriate strategies for development of Mewat district. As development/backwardness is a relative concept and is multi-dimensional in nature, the study first identified indicators of development which are grouped into several indices of development such as Standard of Living Index, Education Index, Health Index, Agriculture, and Livestock Index etc. Both inter and intra-district analysis of development is conducted whereby, initially, Mewat district is compared with other districts of Haryana on selected indices of development and then the typology of development is mapped across five blocks of Mewat.

To obtain a holistic perspective of development in the region, the study utilized both primary and secondary data sources. The district-level variation across Haryana state was analyzed using the secondary data sources, such as Census 2011, Statistical Abstract, District-level Household and Facility Survey (DLHS) IV (2012-13), etc. The block-level development and its typology were studied utilizing primary surveys that were conducted in four blocks (Firozpur Jhirka, Nuh, Punhana, and Tauru) of Mewat district and one block (Hathin) of Palwal district of Haryana. Approximately, 10% villages of total villages in each block were included in the study, which leads to the selection of 50 villages, out of which 42 villages from Mewat, and 8 villages from Palwal district. The sample size comprises of 6% households selected randomly from a total of 178,213 households in all five blocks under the study. Thus, the total sample for data collection is 1,091 from 50 study villages. Combinations of both quantitative and qualitative

methods have been used in the study to identify the indicators of backwardness in Mewat district. A questionnaire has been constructed to collect information from all the sample households on demographics, socio-economic condition, education, occupation, savings and credit, agriculture, hygiene and sanitation, and health. In addition to this, focused group discussions have also been conducted in order to gather deeper understanding on the research components of the study.

To examine the multi-dimensional aspects of development, an intra-state comparison on key development indices (demographic characteristics, standard of living, education, health, livestock and agriculture, public services and infrastructure) across all districts in Haryana is drawn, whereby Mewat is compared with other districts in the state. The state is divided into three analysis regions--Mewat district is compared with other BRGF districts (Mahendergarh and Sirsa), and the rest of the 18 districts in the state. A block-level variation in Mewat district was mapped to understand the typology and dimension of development in the region. Block-level primary data was collected from five blocks on 40 development indicators that were then clubbed into seven broad indices i.e., Standard of Living Index, Education Index, Health Index, Gender Index, Agriculture, and Livestock Index, Economic Index and Demographic Index. To analyse the overall level of development of a block, all the seven domain indices were combined together. While combining the domain indices, each domain index was taken as an individual indicator and the composite index of development was prepared using the factor analysis technique. Furthermore, to identify domains of development that require more attention of the policymakers in Mewat, so as to improve the overall and equitable development in Mewat, the distribution of selected indices across different development levels was analyzed.

C. Major Findings and Conclusions

- The district level analysis of aggregate development reveals that Mewat is the least developed district of Haryana. Specifically in terms of the standard of living, education and health indices, Mewat lagged way behind to other districts in Haryana, including BRGF districts.
- Considering all indices of development, Mewat performance on all parameters, except demographic index, is worse than all districts of Haryana.

- Aggregate development status across the blocks in Mewat masks pervasive inequalities. Overall, Tauru and Nuh are the most developed blocks, and Firozpur Jhirka and Punhana are the least developed. Based on seven indices of development, the typology of development also differs markedly across blocks.
- The spread of development in Mewat reveals that 32 % area show higher level of backwardness (developed only in either one or two out of seven indices of development) whereas, 24 % area show higher level of development (developed in more than five indices).
- The backward or highly deprived region in Mewat is saline-water zone, whereas the developed region is a sweet-water zone. Lack of sustained water supply coupled with higher level of salinity has resulted in increasing households' dependence on either purchasing water or spending enormous time to fetch water from sources far from their villages. Furthermore, in the developed region, farmers having access to fresh water are able to produce high value crops which are of high demand in their neighbouring area, Delhi, and accordingly have higher standard of living. People in backward region are dependent on informal credit and several of them have migrated to work as drivers in nearby states.
- Backwardness is more prevalent among OBC and Muslim community and less among SC population in this region. People in developed region are found to have participated actively in gram sabhas as against poor participation of people in backward region. This has resulted in effective utilization of funds which has contributed to their development.

D. Major Recommendations

- In view of Mewat district's ranking as lowest in Haryana in terms of multi-dimensional development, special steps should be taken to uplift the people in this region.
- Mewat's extremely low ranking on essential development aspects places it on par with or lower than BRGF districts; it should be included under the BRGF scheme.
- The block-level typology of development indicates that different strategies are required for different blocks in Mewat for achieving higher and more equitable growth in the region. In Tauru block, efforts should be directed to check adverse sex ratio. For Punhana

block, more emphasis is required for improving livelihoods options, education, and agricultural development, in view of the facts that remuneration from farming is low and around half of the population is debt ridden. Firozpur Jhirka block requires development towards improvements in the indices on standard of living, health, and gender.

- Aggregate development status across blocks in Mewat masks pervasive inequalities that substantiate that the block, not the district, should be considered as the unit for identification of development gaps. Holistic and balanced development can only be achieved when contextual variations are considered and right gaps are addressed.
- In Mewat, majority population resides in rural area and is engaged in agriculture. Harsh climate conditions coupled with high salinity has limited crop choices and low crop yield. As scarcity of resources limits avenues of industries in the region, and nearly 55% area in Mewat is saline, investment on agriculture technology should receive attention. New saline resistant crop varieties introduced, recently, in several countries can also be introduced in Mewat.
- There is a need to upscale efforts for improving women empowerment in the region as in more than 2/3 villages, there is huge gender gap in literacy and enrolment, and women are spending substantial time in fetching water and collecting wood for fuel. Lack of public transport and delivery centres has also restricted the development of women in this region. In Mewat, in general, villages have access to primary school and merely 20% villages are found not to have access to school beyond primary level. But another factor for girl child drop-out and absenteeism from school is also them being involved in fetching water. Thus, high investment in water infrastructure for drinking and farming purposes should be utmost priority in the region as it has affected adversely all domains of development such as living standard, agriculture, gender etc.

Chapter I

Introduction

1.1 Background

The advent of globalization has led to emerging concerns about the development of regions; it is envisaged that while the developed regions will continue to grow further, the underdeveloped or backward regions might further get marginalised. For sustaining overall development, there is a need for a well-balanced development. For the purpose, it is vital to develop area-specific development strategies which may be framed on the basis of regional context, including, resources. In India, with existence of many backward regions, there is a need to identify the level of backwardness and its extent in order to develop effective strategies for the development of the region.

The current study examines the level and typology of development in Mewat district of Haryana. The Mewat region lies in the semi-arid zone and is majorly inhabited by Meo Muslims. Water is scarce in the region, and consequently, rain continues to be the major source of irrigation. Despite harsh climatic conditions, agriculture is the major livelihood option. Furthermore, due to cultural practices, farmers in Mewat use traditional farming techniques (Mehta, P.K, 2010). In terms of several vital socio-economic parameters, the Mewat district falls way behind other parts of the country, despite being a part of the prosperous state of Haryana. The majority of the district's population (88%) reside in rural areas. The education statistics reveal that merely 37.6% of females are literate as against 73% literacy rate among males (Census 2011). The health data indicates that diarrhoea and acute respiratory infections form the main causes of deaths among children. Majority of the deliveries in Mewat take place at home and in the absence of any trained health personnel putting both the mother and the child at risk; merely 40.3% institutional deliveries are reported in rural Mewat. In addition, only 27.3 % children in between the age of 12-23 months are fully immunized (DLHS, 2013).

Despite such low human development indicators, there is dearth of research studies¹ quantifying the development of Mewat region and its typology across blocks. Several questions for the existing situation in the Mewat districts remain unanswered such as why despite harsh climatic conditions, lack of water for irrigation and low levels of productivity, majority of the people continue to remain in agricultural sector for earning their livelihood; what is the level of gender-related development in the region; are education and health outcomes inter-related in Mewat. All these issues require an in-depth understanding of several dimensions and typologies of development of the region. It is also vital to explore the relative significance of factors so as to inform the policy makers to frame suitable policy measures for the development of region.

The proposed study is to understand the multi-dimensional aspect of poverty in Mewat region; including, health, education, and women's empowerment and examine how it is spread across blocks within the district. The study would be expected to provide an in-depth understanding of the dimensions of development/backwardness and suggest policy actions that are required to improve the situation in the region of Mewat.

1.2. Objectives of the Study

The main objective of this study is to examine the level and typology of backwardness of Mewat region. The study has two specific objectives:

1. To analyse the multi-dimensional aspects of development of Mewat district of Haryana
2. To map the typology of backwardness across blocks within Mewat district and suggest appropriate strategies for the development of Mewat district

1.3. Methodology and Tools

The study employs both primary and secondary data sources. The district-level variation across Haryana state is analyzed using the secondary data sources that include Statistical Abstract of Haryana, Census 2011, District level Household and Facility Survey (DLHS) IV (2012-13), Banking Statistics, Directorate of Secondary/Middle/Primary Education, Haryana,

¹ Narang B. (2014), Institute for Human Development (2008), Sarkar S. (2013), Maheshwari B (2003), Ishtiaque M., and A Hurera (2014) to name a few.

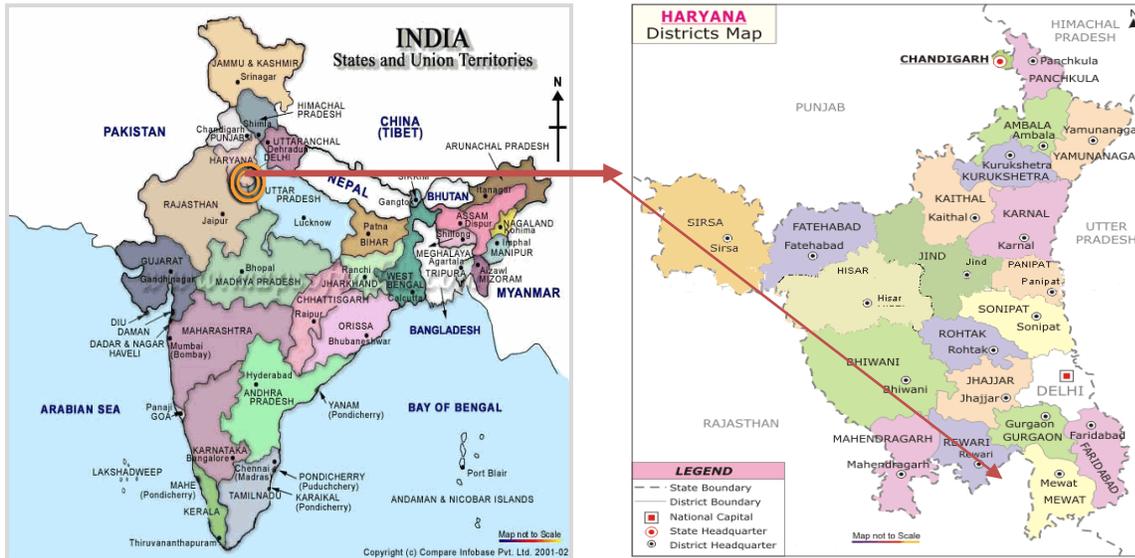
Director General, Animal Husbandry and Dairying, Haryana, Director General of Land Records, Haryana, and Registrar, Co-operative Societies, Haryana. The block-level development and its typology are studied utilizing primary survey that has been conducted in four blocks (Firozpur Jhirka, Nuh, Punhana, and Tauru) of Mewat district and one block (Hathin) of Palwal district of Haryana, with primary focus on education, agriculture, health, economy, gender and standard of living. Approximately, 10% villages of total villages in each block are selected for the study (Refer to Column (e) of Table 1.1). A total of 50 villages have been selected for the study, including 42 villages from Mewat and 8 villages from Palwal district.

Table 1.1: Sample Size

District	Block	No. of Villages*	Total Households*	No. of Sample villages	Average no. of Households per village	No. of Sample Households
(a)	(b)	(c)	(d)	(e) = 10% of (c)	(f) = (d) / (c)	(g)
Mewat	Tauru	79	20117	8	255	142
	Nuh	103	38714	10	376	224
	Punhana	87	36531	9	420	233
	Jhirka	143	44613	15	311	254
Palwal	Hathin	79	38148	8	483	238
Total		491	178123	50	1845	1091

*Source: Census 2011

Figure 1.1 Geographical Locale of the Study Area



The study villages were strategically selected on the basis of average number of households in a village of a block. The total number of households is divided by total number of villages in each block to get average number of households in a village of the respective block. (Refer to Column (f) Table 1.1) Villages which have number of households close to this calculated average were chosen. The sample size comprises of approximately 6% households selected randomly from a total of 1,78,213 households in all the five blocks under the study. The total sample for data collection is 1091 from 50 study villages (Appendix 1.1).

Combinations of both quantitative and qualitative methods have been used in the study to identify the indicators of backwardness in Mewat district. A questionnaire has been constructed to collect information from all the sample households. The questionnaire has been developed to collect information on: demographics, socio-economic condition, education, occupation, savings and credit, agriculture, hygiene and sanitation, and health². In addition to this, focus group

² Pilot testing for the questionnaires and focus group discussion guide was conducted in the month of May, 2014 in 5 villages across 4 blocks. This was done to capture any contextual disparities among the groups. In addition, 5 focus group discussions were also conducted. Results from the pilot testing yielded useful information. On the basis of the experience gained from the pilot study, the tools of the study were finalized.

discussions have also been conducted in order to gather deeper understanding on the research components of the study.

To identify the patterns and typology of development across blocks in Mewat, we first identified 40 village-level indicators of development/backward from the primary data collected at household level. These 40 variables were then grouped to form seven sub indices (Standard of Living Index, Education Index, Health Index, Gender Index, Agriculture, and Livelihoods Index, Economic Index and Demographic Index). Factor analysis using Principal Component Analysis (PCA)³ has been used to analyze the inter-block variations in overall development/backwardness by preparing a composite index of development encompassing all seven domain/indices. In the process, first the index value of seven indices are calculated which then is utilized to compute the composite index of development.

1.4 Structure of the Study

The study is divided into five chapters:

The first chapter comprises of introduction, specific objectives, description of the methodology including research design, tools and methods, sampling, and structure of the report.

Chapter two provides a detailed review of literature on regional development and backwardness done majorly in the context of India.

In the third chapter, macro (district) level analysis is done. A comparative picture of Mewat with other districts of Haryana, including Backward Region Grant Fund (BRGF) districts of Haryana, is mapped across key development indicators.

Chapter four provides a micro-level analysis of selected blocks of Mewat that focuses on examining the level of backwardness and its typology across blocks and villages in Mewat.

³PCA is a useful statistical technique for reducing a large set of variables into a smaller and more coherent set of uncorrelated (orthogonal) factors, while retaining as much as possible variation in the data. (Pal, 2005) Factor analysis assumes that some of the core factors (hypothetical or unobservable) are responsible for the covariance among the observed variables. (Srivastava, 2011) Therefore, weights determined on the basis of factor analysis, reflect the contribution made by variables to the total variation. Higher weights are assigned to variables contributing higher variations.

The last chapter (chapter five) details the conclusions drawn out of the study findings and the major recommendations.

Appendix 1.1: List of Selected Villages

District	Block	List of Villages
Mewat	Tauru	Malahaka, Jahmuwas, Uton, Raniaki, Kota Khandewla, Chilawa, Didhara, Kangaraka
	Nuh	Palla, Murad Bas, Basai, Kotla, Bai, Tapkan, Gangauli, Kurthala, Kairaka, Chhapera
	Punhana	Laphuri, Mohammadpur Ter, Gangwani, Badli, Mubarikpur, Papra, Phalindi, Jehtana, Otha
	Jhirka	Hasanpur Bilonda, Dunghran, Shahzadpur, Santhawari, Lohinga Khurd, Siswan Jatka, Maholi, Dhadoli Kalan, Bhond, Akhnaka, Balai, Aterna Shamshabad, Bazidpur, Rajaka, Ranyala Ferozpur
Palwal	Hathin	Kalsara, Andhrola, Jalapur Hathin, Rupnagar Natoli, Ransika, Swamika, Lakhnaka, Gharot

Chapter II

Literature Review

Uneven and imbalanced regional development has been a persistent problem stretching through decades. Even though inconsistent and patchy development in states has caught a lot of attention of policy makers in India, the trend of disparities across groups and sectors has escalated in recent years (Planning Commission, 2014). According to Social Policy Research Institute (2004) regional and economic inequalities are an outcome of uneven distribution of physical and natural resources.

Realizing that there are differences among districts within a state in terms of socio-economic characteristics, policy makers have shifted their attention long back from the state to the district level for development planning. There are relatively richer states which have districts ranking poorly on all indicators of development, and poorer states which have rich districts ranking relatively better on all indicators of development (Nayyar, 2005). Keeping in mind both interstate and intrastate regional disparities, various committees have been constituted in the past both at national and state level to deal with the issue of backwardness. Over the years, these committees have come up with their findings and recommendations to improve the quality of life of people living in the backward areas. The committees followed one of two approaches to identify backward areas: either identifying a set of indicators or calculating indices. The following sub sections demarcate and discuss the central and state initiatives for identifying and estimating backwardness of regions.

Central Initiatives

At the central level, Planning Commission has been playing an instrumental role in setting up various committees and appointing different commissions to study regional backwardness. Initially, the studies focussed on sector specific problem areas such as economic, industrial or agricultural backwardness. The fourth Five-Year Plan (1966-71) tried to identify the areas with high density of population, low level of income, employment and living conditions. To devise the identification criteria for industrially backward areas, the planning commission in

appointed two working group namely, 'Pande committee' and 'Wanchoo committee'. The committee were appointed to suggest a strategy whereby regional imbalances could be minimised or even eliminated by arranging establishment of industries of all sizes through financial and fiscal incentives. The Pande committee used six criteria from per capita industrial output to length of surfaced roads to identify industrially backward areas and the Wanchoo committee further suggested provision of fiscal and financial incentives for the industrial development of a particular region.

The planning commission also appointed the National Committee on Development of Backward Areas (NCDBA) in 1978, which recommended six types of problem areas to be treated as fundamentally backward. Specifically, they were chronically drought prone areas, desert areas, tribal areas, hill areas, chronically flood affected areas and coastal areas affected by salinity. Taking a different approach, the Sarma committee in 1997 submitted its report on identification of 100 most backward and poorest districts in India. The report assigned weights to 15 socio-economic, geographical and infrastructural parameters to arrive at a composite index. The districts thus identified were to have 'Special Action Plans' for their upliftment. Further in 2005, report of the inter-ministry task group on redressing growing regional imbalances summarised approaches of various committees and study groups looking into development of backward areas at central and state levels and the indicators chosen by each of them. It further deliberated on developing a composite approach to identify backwardness through considering natural resource endowment, human development, physical infrastructure, budgetary resources and regional backwardness. Each of these studies had a high percentage of Scheduled Castes and Scheduled Tribes (SC/ST) population as a core indicator of backwardness.

In succession, the Rajinder Sachar Committee was appointed in 2005 by the then prime minister to prepare a report on the social, economic and educational condition of the Muslim community of India. It is the first report that focuses on capturing the backwardness of Indian Muslims. According to the committee, the status of Indian Muslims was found to be below the condition of the SC/ST communities in the country and they were also found to be deprived of all the dimensions and resources necessary to further development. The committee further highlighted that an important cause of concern in Muslim dominant areas across all the states

was the absence of proper civic amenities and infrastructural facilities. Poor road connectivity, lack of sanitation, water, electricity and public health facilities were prevalent in Muslim concentrated localities. The committee also pointed out that the poverty and the absence of basic services like clean drinking water and sanitation were affecting the health of Muslim women especially, which was leading to malnutrition, anemia, and a variety of diseases resulting in poor life expectancy. The committee report specifically highlighted the presence of Muslim majority in the Mewat belt within the state of Haryana, where large number of Muslims are among the most backward in the country.

Persistent and deliberate efforts of the Government of India to tackle the issue of backwardness led to the launch of the Backward Region Grant Fund (BRGF) in the year 2007 to redress regional imbalances in the country. The fund is now operational in 272 (250 earlier) identified backward districts in all states of the country except Goa (Planning Commission, 2014). It subsumes the Rashtriya Sam Vikas Yojana (RSVJ) which was launched in 2003-04 with the objective of promoting growth, accelerating the development process and improving the quality of life of people in the 147 identified backward districts of the country (Ministry of Panchayati Raj, 2014). The BRGF provides financial resources for supplementing and converging existing developmental inflows into identified districts with the aim of bridging critical gaps in local infrastructure and other development requirements that are not being adequately met through existing inflows. It further strengthens local institutions by providing them professional support, thus building their capacities and facilitating participatory planning, decision making, implementation and monitoring to reflect local felt needs.

Further in 2007, the Report of the National Commission for Religious and Linguistic Minorities specifically addresses those areas which have a large proportion of minority communities and identifies the backward districts among them. The report considers findings and suggestions by three separate studies to arrive at two sets of religion-specific socio economic indicators and basic amenities indicators. These have then been used to determine benefactors of the Multi Sectoral Development Programme. Mewat being a Muslim majority area was one of the districts declared as backward using these selected parameters. However, there could be

several other indicators of deprivation that need additional investigation to address the problem of backwardness and its root cause.

Despite unprecedented efforts of GoI to systematically identify backward areas, there were some areas that were not identified in part because of disagreement regarding whether the unit of areas should be regions, districts or blocks. Baruah proposed in 2012 a 'programmable index of backwardness' (PIB) using ten indicators for identifying backwardness in a region. However, the second Administrative Reforms Commission (ARC), GoI, recommends in its seventh report that blocks should be the unit of identification of backward areas since population within districts have diverse characteristics and varying stages of development (Government of India, 2008). It further mandates planning commission to develop a composite criterion for identifying backward blocks based on indicators of human development and indices of social and economic infrastructure. Based on ARC's recommendations, Baruah in 2012 again presented an alternative model to PIB, Principal Component Analysis (PCA), which is consistent with the ARC's recommendations. The author points out that the identified blocks using PIB method are optimal both in terms of efficiency and equity.

State Level Initiatives

While studies at the national level are important, due to heterogeneity at the state and districts levels in India, several researchers argue that identifying backwardness at a micro level provide a better picture in terms of identification and redressal of developmental disparities. Several states including Maharashtra, Karnataka, Madhya Pradesh and Gujarat have attempted to identify the gaps in development within the state. One such study is the Report on Comparative Backwardness of North Bengal Region, which looks into development prospects of five districts of North Bengal region in contrast to the rest of West Bengal (Institute of Applied Manpower Research, 2002). It constructs composite indices for three development dimensions- Demography, Economy, Human Development and including indicators such as district domestic product and institutional credit. The North Bengal report is mostly a statistical exercise which does not make any recommendations. Similarly, a study on backwardness of Karnataka studies, in detail, the inter-district disparities in Karnataka across a range of factors over time. Several indicators have been used including those from the transport, communication, power, banking,

and cooperative sector. It is observed that studies at a micro level are able to include more parameters of backwardness and are able to address specific problems of areas within the study zone. They provide a more comprehensive and grounded picture of the development potential of a backward region. The Social Policy Research Institute (2004), did a study on inter-regional economic inequalities in Rajasthan with the objective to measure inter-district inequalities prevalent in various sectors of the economy and livelihood. The study covered 32 districts of Rajasthan and suggested a model to determine fund allocation across districts to reduce inter-district inequalities.

A similar study was undertaken in the year 2006 by the Planning Commission in Maharashtra with particular emphasis on Vidarbha region to study the regional development situation and the cause of rising disparities within the state (Planning Commission, 2006). The study captured the acute distress among farmers of Vidarbha region majorly due to variable yield from Bt cotton, profuse indebtedness, lack of irrigation facilities, and fluctuating market price for the main crop. Thus, the study recommended various short term, intermediate and long term measures to improve the condition of farmers in the region. Some of the recommendations included distributing seeds, designing advisory for improved farm practices, information sharing on pesticides and fertilizer and streamlining institutional credit flow.

In a nutshell, the focus of most studies on backwardness has been to identify backward areas at either the national level or state level so that programmes and schemes can be framed to address various issues. Such approaches fail to identify many needy areas. These studies do not consider historical, cultural or political factors causing backwardness. Similarly, there can be other factors which are specific to a particular area and cannot be generalised for the state. Observations from such areas would feed back into the current top-to-bottom approach and would help in identifying other outlying regions with similar issues. Moreover, data availability varies between states and between districts of a state. Areas or indicators for which data is not available are often neglected in these studies.

In view of the dearth of region-specific studies, there appears to be a dire need to devise comprehensive measurable indices that could not only estimate the level of backwardness of a region but also capture the causative factors such that these could be addressed correspondingly. The next section presents a comparative macro picture of Mewat in relation to the two BRGF districts in Haryana and the rest of the districts in the state to understand the relative positioning of the Mewat district on key development indicators.

Chapter III

Multi-Dimensional Development in Mewat and others Districts in Haryana: A Comparative Analysis

Haryana, a north Indian state that benefitted enormously from the Green Revolution process in 1970s and 1980s, is considered as one of the most developed states in India and it comprises of 21 districts including Mewat. Most of the population in Mewat is Meo-Muslim, falling within the category of Other Backward Classes (OBCs), and the district lies very near to the capital of the country. Despite nearness to India's capital, Mewat region has not much developed; around 90% of the population in this region still lives in rural area. The present chapter provides an overview of Mewat district and outlines its multi-dimensional aspect of development. The multi-dimensional aspect of development in Mewat is also compared with other districts of Haryana including Backward Region Grant Fund (BRGF) districts of Haryana.

3.1 Mewat: The socio-cultural ethos

Mewat district was carved as the 20th district of Haryana from erstwhile Gurgaon and Hathin Block of Faridabad district on 4th April, 2005; Hathin sub-division was later shifted to new district Palwal in 2008. Mewat district occupies an area of 1859.61 km² and presently comprises of Nuh, Tauru, Firozpur Jhirka and Punhana blocks, with 431 villages and 297 panchayats (Census, 2011). Nuh town is the headquarters of Mewat. There were 512 villages and 365 panchayats in Mewat district before Hathin Block was transferred to Palwal district (Wikipedia, 2014).

“Historically, Mewat - Land of the Meos, has its genesis in its tribal inhabitants, the Meo tribals. The area is a distinct ethnic and socio-cultural tract. Meos, who trace their roots to the early Aryan invasion of Northern India, call themselves Kshatriyas and have preserved their social and cultural traits to a surprisingly large extent, unlike the other tribes of nearby areas. During the regime of the Tughlak dynasty in the 14th century A.D., these people embraced Islam but till today, have maintained their age-old distinctive ethno-cultural identity. Historically, the

region has been extremely turbulent and has been subject to repeated invasions and resultant plundering throughout the post-Vedic period, largely due to the situational peculiarity of the area and the non-sub-jugative attitude of the people” (Mewat Development Agency, 2014).

Mewat falls under the Sub-Tropical, Semi-arid climatic zone with extremely hot temperature in summer. May and June are the hottest months of the year with the temperature ranging from 30°C to 48°C. January, on the other hand is the coldest month with temperature ranging between 2°C to 25°C (Mewat Development Agency, 2014). Mewat district largely comprises of plains. Inconsistency in Mewat’s topography is evident from its patches of land with hills and hillock of the *Aravali* mountains on one hand and plains on the other. The soil of Mewat is light in texture, particularly sandy, sandy loam and clay loam. The upper hills are mostly barren. The annual rainfall varies considerably from year to year. Maximum rainfall is experienced during the monsoon season which reaches its peak in the month of July. The principal precipitation occurs during monsoon period from June to September when about 80% of the rainfall is received. (*ibid*).

3.2 Status of development in Mewat: A comparative and temporal analysis

Development is an elusive term and cannot be defined in a holistic way by using one parameter or a group of parameters. Development is multi-faceted and covers domains ranging from economic to social further delving into specific domains of health, hygiene, education, occupation, and gender to name a few. In India, disparities in development levels are visible in different parts of the country. Government of India has, overtime, made several committees to identify backward districts and address the plight of inhabitants in such regions⁴. The idea was to first identify the backward regions (districts) in terms of certain indicators and then to address the problems with programme-based interventions, with a view to accord special attention to the specific indicators of backwardness in these regions and to address backwardness through

⁴ The mid-term appraisal of the Ninth Five Year Plan (1997-2002) had highlighted the problem of increasing imbalance in regional development, which resulted in a special focus on the issue of balanced regional development during the Tenth Five Year Plan (2002-07). (Planning Commission, 2014)

Centrally-sponsored schemes⁵. In view of the same, the BRGF was designed in 2007 to redress regional imbalances in development. The fund provides financial resources for supplementing and covering existing developmental inflows into identified districts so as to bridge critical gaps in local infrastructure and other development requirements that are not being adequately met through existing inflows⁶. Most of the identified BRGF districts invariably fall in the backward states, and are concentrated in North-east, East and Central India. In addition, many of these districts are heavily populated by the Scheduled Castes (SCs), Scheduled Tribes (STs) and minorities, especially Muslim minorities in eastern India (Planning Commission, 2014). However, the Planning Commission also recognizes that a few districts also fall in the developed states such as Mewat in Haryana, and some districts of the Vidarbha region in Maharashtra. Mewat district is not identified as a BRGF district, but it has huge concentration of minorities, especially Muslim.

The following section looks at various indices constituting development such as education, health, infrastructure, institutions, and standard of living in Mewat. It attempts to capture a comparative picture of Mewat district with respect to other districts in the state, including two BRGF districts of Haryana and also presents an intra district transition over the past decade.

3.3 State of Development: An Intra State Comparison

The state of Haryana has 21 districts of which two⁷ have been identified as backward and are receiving development funds under the BRGF scheme. This section presents an intra state comparison on key development indices. The state is divided into three analysis regions: standing of Mewat district is compared with other BRGF districts and the rest of the 18 districts in the state. The key development domains covered in this section include demographic

⁵ Under the above initiatives of the Tenth Five Year Plan (2002-07), a programme called the Rashtriya Sam Vikas Yojana (RSVY) was launched in 132 selected districts (including 100 backward districts and 32 districts affected by Left extremism) in 2003-04. The 100 backward districts were selected on the basis of an index of backwardness comprising the following three parameters wherein equal weight was accorded to each of them:

- (a) Value of the output per agricultural worker;
- (b) Agricultural wage rate; and
- (c) Percentage of the SC/ST population in the district.

⁶ BRGF Programme Guidelines, Ministry of Panchayati Raj, Government of India, 2014

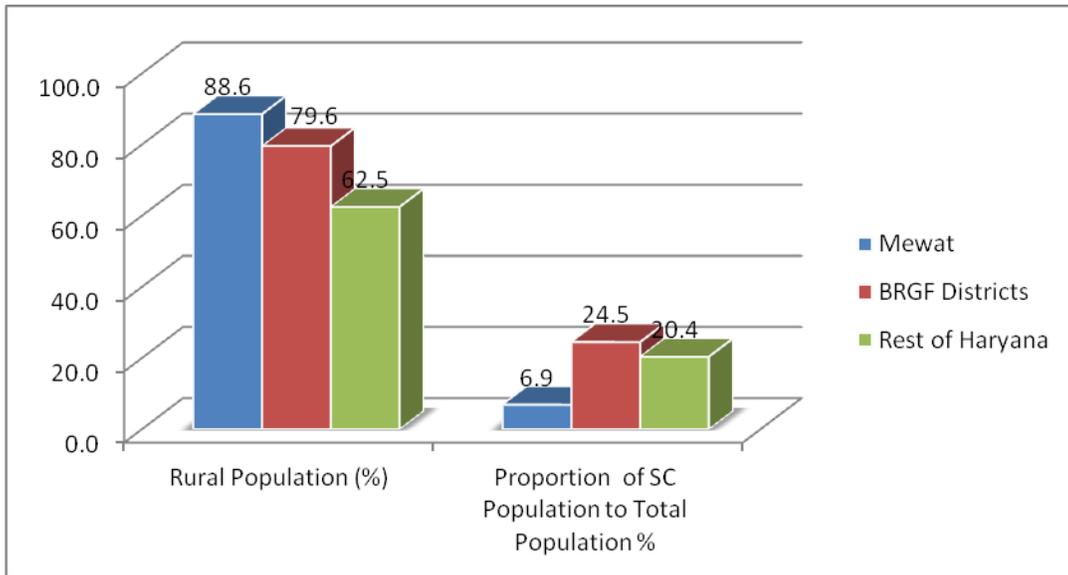
⁷ Mahendergarh and Sirsa

characteristics, standard of living measures, domains such as education, health, agriculture and livestock and status of public infrastructure and financial services.

3.3.1 Demographics

Demographic characteristics are essential indicators used for drawing out a community profile. These include the gender composition of the population, population density, sex and age distribution and fertility measures. Using the recent census data of 2011, a comparative picture of the population characteristics is provided in figure 3.1. Distribution of population according to the regional location reveals concentration of population in the rural pockets of the state. In case of Mewat, the proportion of rural population is found to be 88%. Literature suggests that inhabitants of the rural areas lack access to basic health, sanitation and other infrastructural facilities (Masand, 2008). A higher proportion of rural population in Mewat, therefore, is indicative of the overall socio economic condition of inhabitants of Mewat. Comparatively, the proportion of rural population in the BRGF districts is lesser. The concentration of urban population is found to be relatively higher in the rest of 18 districts of Haryana. Analysis of the caste composition of the regions reveals interesting trends. In case of Mewat, the percentage of scheduled castes is considerably lower than in the two BRGF districts and than the rest of districts in the state. This is because Mewat is inhabited primarily by Meo-Muslims, a unique ethnic group which has been categorized as a backward caste.

Figure 3.1: Population Characteristics

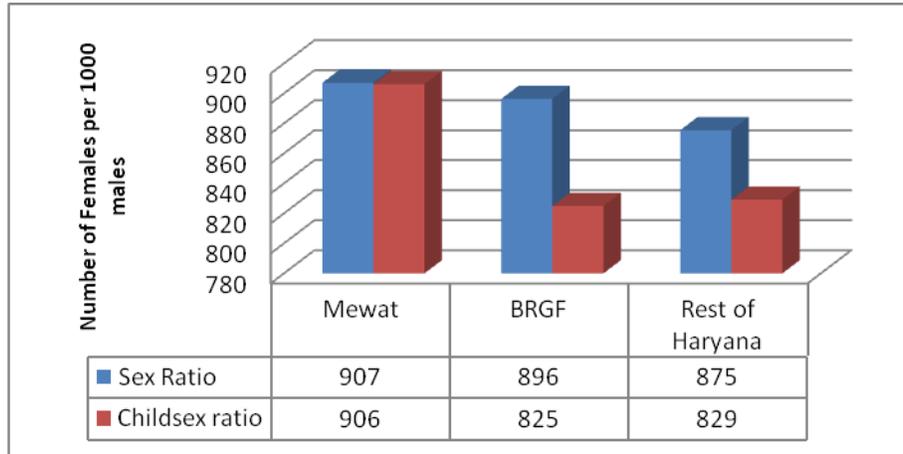


Source: Director of Census Operations, Haryana

A gender disaggregated distribution indicates dominance of males in the population figures across Haryana. Some researchers have attributed the higher proportion of males in Haryana to the patriarchal lineage system followed largely in the northern part of the country (Kambhampati & Rajan, 2004). Males are the sole decision makers in a patriarchal society and being considered as the heir of the household, sons are preferred over daughters resulting in social evils like female foeticide and infanticide. Presence of social evils preventing the survival of girl child gets most reflected in the skewed child sex ratio of 830 girls over 1000 boys in Haryana (Figure 3.2).

The adult and child sex ratio for Mewat are significantly higher than the sex ratio figures for the two BRGF districts and the rest of Haryana. Relatively better sex ratio figures available for Mewat suggest reduced preferential treatment between the sexes. Experience suggests that Meo Muslims of Mewat do not practice family planning and consider children as blessings from god. Hence, pre birth sex determination and foeticide is not much prevalent in the region. This may be one of the reasons for improved sex ratio figures.

Figure 3.2: Sex Ratio



Source: Office of the Registrar General and Census Commissioner, India

Preference given to children and the religious connotation associated with birth also gets reflected in the population distribution according to age. As table 3.1 suggests, in Mewat, almost a quarter of the total population lies in the age group of 0 to 6 years. Comparatively, the proportion of population in this age group emerges to be a little more than half of that of Mewat for the other two categories. A relatively higher proportion of young age group in Mewat indicates greater pressure on the region to be resource rich to ensure that a major chunk of the population is adequately nurtured in their formative years.

Table 3.1: Percentage Distribution of Population in Haryana according to Age

	0 to 6 years (2011)			7 years and above (2011)		
	Total (%)	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)
Mewat	22.8	22.8	22.8	77.2	77.2	77.2
BRGF Districts	12.1	12.6	11.6	87.9	87.4	88.4
Rest of Haryana	13.0	13.3	12.6	87.0	86.7	87.4

Source: Director of Census Operations, Haryana

Population density of the three categories is investigated as it is a key indicator to facilitate development planning. The density also hints at the ethos of a society or a region and underlines the attitudes of the inhabiting population towards growth. Table 3.2 indicates that Mewat is the densely populated region. This trend combined with the concentration of population in the rural pockets in Mewat signals towards the pressure on socio economic and environmental resources in the region eventually impacting the development status of Mewat. Contrarily, the population density of BRGF districts is found to be less than half of that of Mewat thereby indicative of the reduced pressure on local resources affecting growth and development of a region.

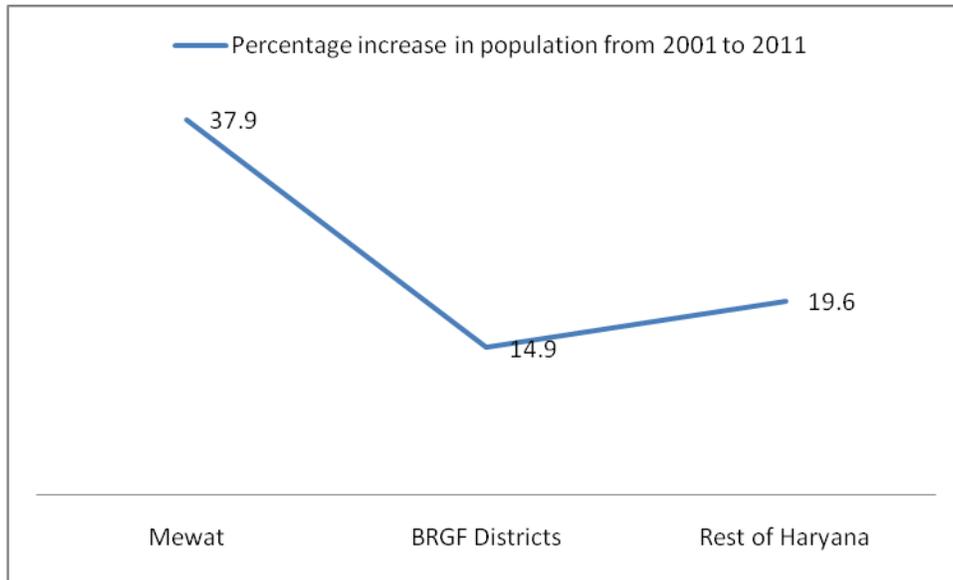
Table 3.2: Population Density

	Persons per Sq. Km. (2011)
Mewat	723
BRGF Districts	394
Rest of Haryana	603

Source: Director of Census Operations, Haryana

The percentage increase in population over the past decade is explored which is further indicative of the heightened pressure on local resources with Mewat having the highest escalation in population figures. A steady increase in the population percentage is evident in Mewat which indicates a steep death rate and stable fertility rate. The population growth in the past 10 years is found to be 38% in Mewat. By contrast, the population growth rate in BRGF districts of Haryana is found to be less than half when compared with Mewat, as is evident from figure 3.3. The emerging trends are indicative of a higher fertility rate in Mewat and therefore, larger families.

Figure 3.3: Percentage Increase in Population



Source: Director of Census Operations, Haryana

Investigation of the average family size further reaffirms the high growth rate in Mewat. A look into the Census figures reveals that the average family size in Mewat estimates to be seven. Comparatively, the average family size in BRGF districts of Haryana and the rest of the districts in the state average to be five. The size of the family as well as the household determines to a larger extent the status, class and economic background of the family and society. Moore (1997) identifies a linkage between family size and ethnic groups. Identified factors that influence the choice of family size include religion, health, education, spousal income and sex of children. A smaller family size, that entails less than five children, mainly enjoy better lifestyles including better health care, higher incomes and education and a general social wellbeing. Choosing to have large family sizes also comes with its associated hardships since such families have poor standards of living. The next section discusses the various components defining standard of living and presents the trends emerging for the three analysis categories.

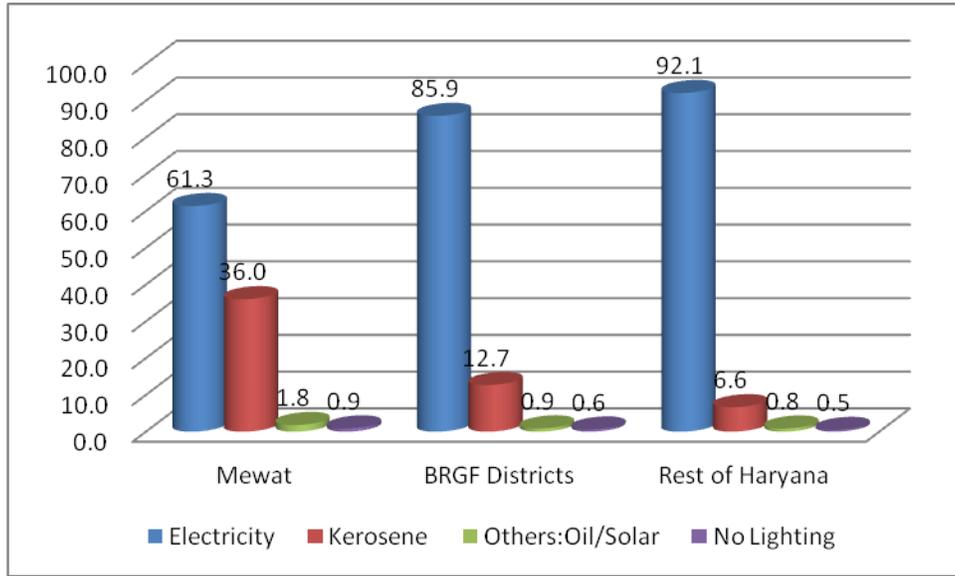
3.3.2 Standard of Living

Standard of living is interchangeably used with quality of life of a population group. It usually encompasses aspects such as type of housing, sources of lighting and cooking, drinking

water availability and ownership of key household assets. In common parlance, standard of living is usually assessed on income and consumption patterns. Generally, it is defined as a minimum of necessities, comforts, or luxuries held essential to maintaining a person or group in customary or proper status or circumstances (Merriam Webster, 2014). Even though, standard of living is found to include varied components such as income, housing, access to health care, availability and quality of education and several others, its measurement is largely around income and consumption. Recent studies have however digressed into assessing the standard of living by ownership of certain assets and other household level characteristics. This is because of an escalating realization that income and consumption details are difficult to obtain and may not reflect accuracy (Bollen et. al, 2001). The current section details the situation in Mewat and its relative position with BRGF districts and rest of districts within the state of Haryana with respect to key indicators constituting the dimension of standard of living such as source of lighting, source of energy for cooking, house type and sanitation.

Source of lighting is an important facet of assessing the standard of living of a region especially in a developing country context. The recent climate change debates highlight the negative impact of kerosene lamps on the atmosphere and the air inside the house. The carbon emissions through the kerosene wick lamps not only heat up the atmosphere but also are a major cause of air pollution within the house (Stumpf, 2013). The trends emerging from data analysis indicate considerably higher percentage of households (36%) in Mewat using kerosene as the source of lighting (Figure 3.4). The percentage of households using kerosene as the source of lighting drops down to one sixth in the rest of the districts in the state. Electricity emerges to be the major source of lighting in all regions. Despite being a safer and a healthier source, the proportion of households using electricity in Mewat is much lower than the BRGF listed districts in the state where around 86% households have electricity as the source.

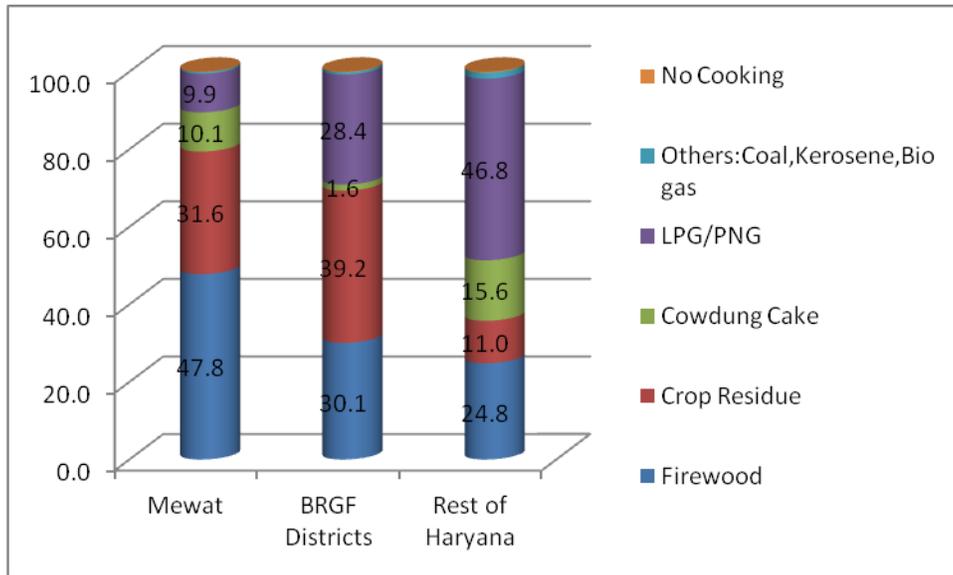
Figure 3.4: Source of Lighting



Source: Director of Census Operations, Haryana

Similar trends emerge while exploring the source of cooking fuel in the three regions (Figure 3.5). Leaving apart Mewat and BRGF districts, almost 50% households in the rest of districts in Haryana use liquefied petroleum gas (LPG) or piped natural gas (PNG) as the source of cooking fuel. In Mewat, the major source of cooking fuel is found to be firewood (48%) followed by crop residue. The higher dependence on firewood is due to the geographical location of Mewat. Situated at the foothills of the *Aravalis*, abundance of firewood emerges to be the most convenient and economical option with the inhabitants. The use of firewood is reduced in the BRGF districts in the state. Instead, a greater reliance is evident on crop residue as fuel for cooking.

Figure 3.5: Source of Cooking Fuel



Source: Director of Census Operations, Haryana

Higher dependence on firewood for cooking in Mewat has grave health and environmental implications. The media report of World Health Organization (WHO) released in the year 2013 states that firewood gathering not only consumes considerable time for women and children limiting other productive activities, its usage also results in emission of black carbon and methane which are powerful climate change pollutants. Thus, high dependence on kerosene for lighting and firewood for cooking has serious health and environmental hazards which are found to be extremely high in case of Mewat.

Assessment of select assets and key household characteristics are used essentially to measure the standard of living of a population group or region. In Mewat, 83% population resides in *pucca* house (Table 3.3). Exploration of the type of housing also reveals consistency across the analysis regions (Table 3.3). Although, the proportion of *kucha* houses is slightly higher in case of Mewat, majority of the households across all regions reside in *pucca* houses. A higher percentage of households residing in *kucha* housing in Mewat is indicative of the grave economic state of the region.

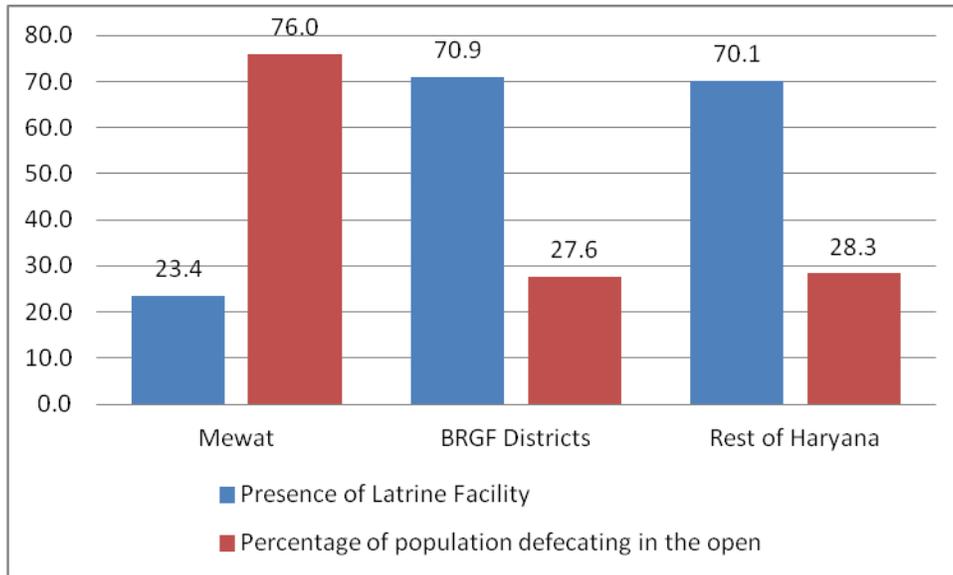
Table 3.3: Type of Housing

	<i>Kucha</i> House	<i>Pucca</i> House	Others
Mewat	16.8	83.0	0.1
BRGF Districts	10.3	89.5	0.1
Rest of Haryana	6.0	93.7	0.1

Source: Director, Census Operations, Haryana

Talking about the facilities within the house reveals alarming trends. Mewat emerges to stand lower on key facilities when compared with BRGF districts and other districts in the state. With respect to presence of kitchen, approximately 30% households have this facility. This percentage is doubled in case of BRGF districts and surfaces to be 68% for the rest of the districts. Lack of a kitchen facility signals towards the unhygienic conditions in which food is cooked and served which are bound to have direct implications on the health status of the inhabiting population. Similar trends emerge with respect to presence of latrine facility within the household. As is evident from figure 3.6, only 24% households in Mewat own a house with a latrine facility. Contrastingly, the percentage surges to 70% in case of BRGF districts and rest of Haryana. The comparative situation yields the grim situation in Mewat with respect to the basic amenities deemed to be essential for a decent living. Lack of sanitation facility further results in higher percentage of population defecating in the open. More than three fourths of the total population in Mewat defecates in the open. Despite a series of efforts by the government and non government organizations to improve the sanitation situation in the villages, Mewat fares lowest on sanitation standards. Hazards of open defecation are well known. Not only are there environmental concerns associated with it, open defecation is also correlated with proving detrimental to economic and social development (Goldon, 2013).

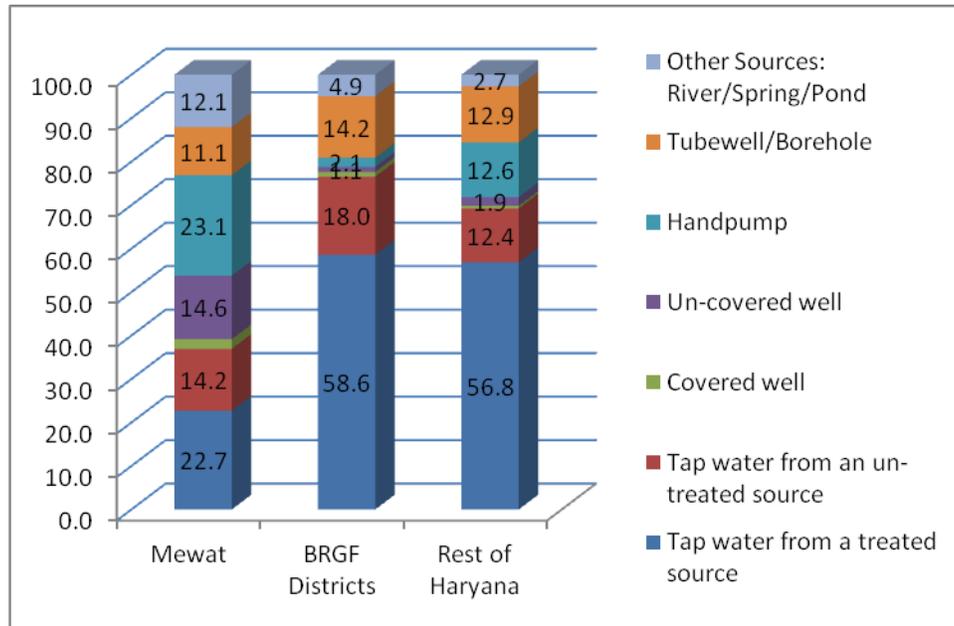
Figure 3.6: Presence of Sanitation Facility



Source: Director of Census Operations, Haryana

Sources of drinking water available to households are also examined (Figure 3.7). The analysis reveals usage of varied sources. Treated government water supply is found to be accessed merely by 22% households in Mewat, whereas it is a major source for more than 50% population in BRGF districts and the rest of Haryana. Field experiences in Mewat also signal erratic or no government water supply in several villages. Inhabitants of Mewat are found to rely on scattered sources such as water from untreated sources, uncovered wells, tube-wells and other sources such as tanks and ponds. The emerging trends raise several questions on the quality of life in Mewat where several health hazards co-exist. Location of drinking water sources further adds to the misery of Mewat with only 23% households having a water source within the household premises. It is widely known fact for Mewat that women have to trudge long distances to fetch water for drinking. Being a semi arid region with high salinity ratio in ground water, there are several villages within Mewat which are reliant on neighbouring villages for water. The situation in BRGF districts and rest of Haryana is found to be way better with 68% households mentioning to have a water source within the household premises. Hence, the drudgery inhabitants undergo in fetching water for drinking purposes is maximum in case of Mewat.

Figure 3.7: Sources of Drinking Water



Source: Director of Census Operations, Haryana

Income and consumption data are both expensive and difficult to collect. These concerns have prompted researchers to use data on household assets and other characteristics to construct alternative measures of welfare or living standards (Grosch and Glewwe, 2000). Exploration of the household assets indicates comparatively reduced percentage of households owning key assets in Mewat (Table 3.4). The relative percentage of households owning assets is higher in BRGF districts and is found to be the highest in rest of the 18 districts of Haryana. An interesting finding is that the proportion of households owning mobile phones in Mewat is comparable to other regions. The trend indicates the pervasive nature of mobile phones finding presence in majority of households while other basic amenities such as latrines continue to be scarce.

Table 3.4: Asset Ownership Pattern

	Radio/Transistor	Television	Computer/Laptop	Telephone/Mobile	Bicycle	Scooter/Bike	Car/Jeep/Van	NA S*
Mewat	9.0	17.4	6.7	71.3	24.0	21.5	4.0	20.7
BRGF Districts	17.3	58.3	9.0	79.4	42.2	29.7	8.1	11.4
Rest of Haryana	17.7	70.7	13.9	79.6	45.8	34.1	11.0	8.7

* None of the assets specified

Source: Director of Census Operations, Haryana

The work participation rate has been examined to gauge the status of availability of livelihood options and the participation of employable population in securing an income. Comparative data reveals interesting trends. While Mewat again emerges to be the lowest with respect to the percentage of employable population engaged in work, the overall work participation rate in the rest of the state does not emerge to be very high (Table 3.5). A gender disaggregated analysis however reveals the miniscule representation of women in the work force in Mewat. Interestingly, the relative participation of women in the work force is found to be the highest in BRGF districts. Consistent with previous trends, the proportion of women in the work force is found to be the least in Mewat. Under representation of women in the work force have serious economic implications. Literature suggests that better opportunities for women can contribute to broader economic development in developing economies and there could be significant macroeconomic gains (Woytek et.al, 2013).

Table 3.5: Work Participation Rate

	Total	Male	Female
Mewat	26.6	39.3	12.6
BRGF Districts	37.9	51.5	22.7
Rest of Haryana	35.3	50.9	17.6

Source: Director of Census Operations, Haryana

Overall, the situation in Mewat is grim on all parameters used to outline the standard of living. The quality of life in Mewat appears to be dwindling and Mewat ranks even lower than the districts classified as BRGF in the state. The following sections explore the comparative situation within Haryana state on essential indicators of development such as education, health, livelihoods and public services and infrastructure.

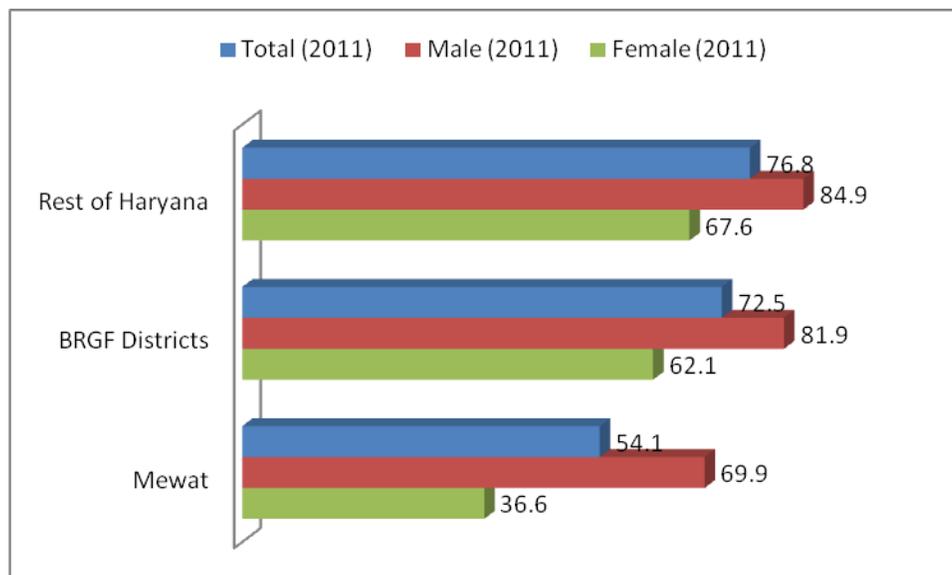
3.3.3 Education

Education is recognized to be instrumental in facilitating holistic development of an individual and of the society as a whole. The dimension of education not only encompasses the supply side composed of educational infrastructure and resources, it also places an equal importance on the demand side which includes people's perceptions about importance of education and dimensions of utilization of educational facilities. Understanding that an individual requires basic education not only for being trained on a skill but to develop personality specific traits which are conducive for effective living, it has been given the stature of a fundamental right in India. Of the six fundamental rights enshrined in part 3 of the constitution, cultural and educational rights own a position. Since independence, the Government of India has undertaken several initiatives to improve the education status in the country as well as provide equitable access to all inhabitants (Singh, 1999). The '*Sarva Shiksha Abhiyan*'-SSA (Education for All Campaign) is also an effort of the government to universalize elementary education through community ownership of the school system. The campaign aims to ensure that all children are in school within a time frame along with narrowing of gender gaps in enrolment (Government of India, 2013). In addition to SSA, several government schemes like Mid Day Meal (MDM), Integrated Child Development Services Scheme (ICDS), School Health Program (SHP) etc. have been introduced to improve the educational situation in the rural areas of the country. This section explores the educational situation in the three analysis categories.

To begin with, the literacy rates are investigated in the state. Mewat continues to have the lowest percentage of literate population (Figure 3.8). Contrastingly, the BRGF districts have a higher percentage of literate population. A gender disaggregated perspective yields extremely low literacy levels for women in Mewat. While women are underrepresented across all three

analysis categories, the worst situation emerges from Mewat. The overall literacy rates are also found to be considerably lower in Mewat when compared with the rest of the state.

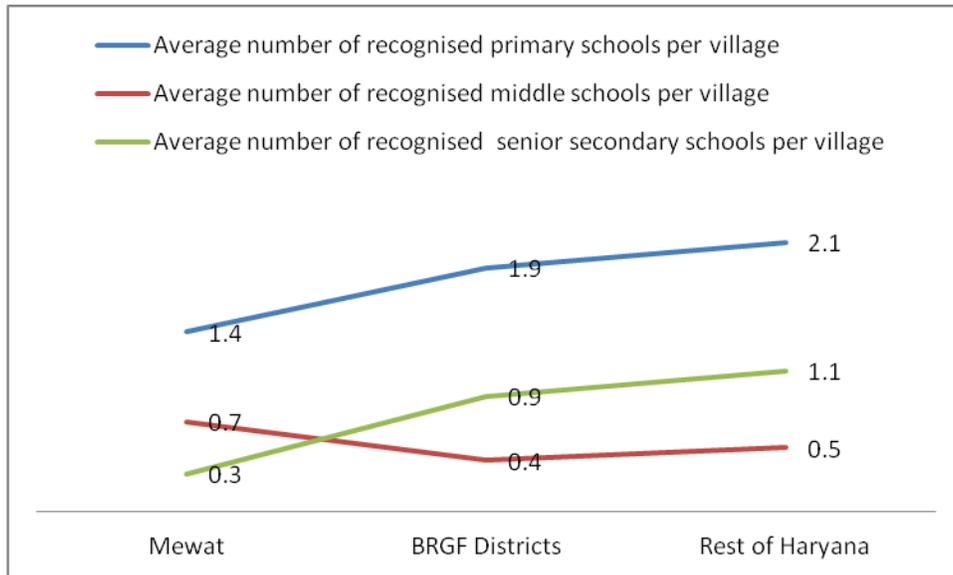
Figure 3.8: Percentage of Literacy Rate in Mewat



Source: Office of the Registrar General and Census Commissioner, India.

Low literacy levels signal a question on the status of education infrastructure and resources available in the region. A look into the number of recognised schools in Haryana reveals interesting facts. In resonance with the numerous efforts by the government to get children to school, primary education infrastructure appears to be adequately placed in the entire state (Figure 3.9). Interestingly, the BRGF districts appear to have the highest number of primary schools per village. Figures for Mewat and the rest of districts emerge to be comparable with at least one primary school per village. The situation deflates while exploring the trends for middle and senior secondary schools. While in case of middle schools, Mewat emerges to be the region with the highest average number of middle schools per village. The situation completely reverses in case of senior secondary schools. While the rest of Haryana emerges to have at least one senior secondary school per village, in case of Mewat, the proportion of senior secondary schools per village is almost nearing zero. Poor higher education infrastructure dents the ability of employable youth to secure a livelihood. This has long drawn socio economic implications.

Figure 3.9: Average Number of Recognised Schools



Source: Directorate of Secondary/Middle/Primary Education, Haryana

Availability of teachers in schools is explored across the three analysis categories (Table 3.6). Resources such as teachers are considered to be essential to ensure quality education is delivered. Student achievement levels are found to be strongly correlated with availability of teachers (Ayeni and Adelabu, 2012). The average number of teachers available per school is explored. The analysis reveals that in case of primary schools, Mewat stands highest with respect to the number of teachers. However, the proportion of teachers drops down tremendously for higher grades. Mewat emerges to be the sparsest region when it comes to availability of teachers beyond the primary level. BRGF districts and the rest of the districts in the state surface to be better off in terms of average number of teachers per school.

A gender disaggregated investigation reveals stark gender imbalance in the availability of teachers (Table 3.6). Consistent with the trends emerging with respect to the work participation rate, the proportion of female teachers in schools is found to be tremendously low. It is only in case of primary grades that the percentage of female teachers is considerably higher than the male teachers. In higher grades, the representation of female teachers deteriorates progressively. This is especially true for Mewat. BRGF districts fare better than Mewat with respect to representation of female teachers in higher grades. However, gender imbalance emerges to be

present across all states. Literature suggests that gender imbalance in teaching staff is associated with imbalance in the gender ratio among pupils (Tamilenthi et. al, 2011).

Table 3.6: Teaching Staff in Schools

	Recognised Senior Secondary/High School (2011-12)			Recognised Middle School (2011-12)			Recognised Primary School (2011-12)		
	% Male Teachers	% Female Teachers	AT*	% Male Teachers	% Female Teachers	AT*	% Male Teacher s	% Female Teachers	AT*
Mewat	73.1	26.9	9.4	82.6	17.4	2.8	19	81	4.8
BRGF Districts	61.5	38.5	12.5	70.1	29.9	11.9	40.4	59.6	2.9
Rest of Haryana	53.1	46.9	10.4	54.1	45.9	13.0	51.2	48.8	3.1

* Average number of teachers per school

Source: Director of Secondary/Middle/Primary Education, Haryana

Enrolment figures across grades certainly demonstrate consistent trends with negatively skewed representation of girls in higher grades. The percentage of enrolment of girl children progressively declines with increasing grade in school. Table 3.7 highlights the reduced enrolment of girls at all levels. The situation in Mewat is found to be particularly grim. Enrolment of girls in Mewat is found to consistently decline with increasing grades. The cultural ethos of Mewat could play a major role in the emerging trend where adolescent girls are married early or are refrained from moving out of their homesteads. While in primary grades, girls' enrolment almost equals that of boys, in higher grades, it falls to less than half of that of boys.

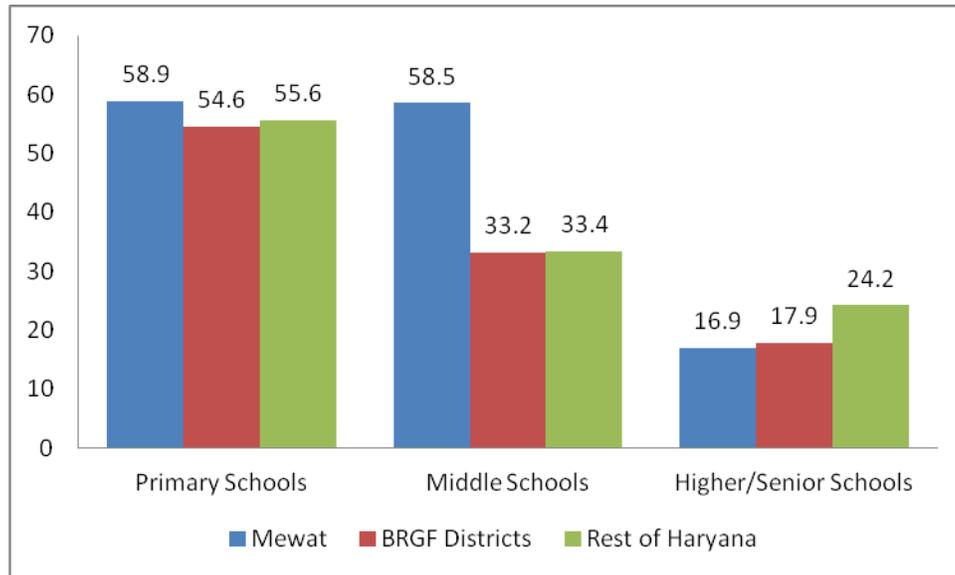
Table 3.7: School Enrolment

	Senior Secondary Schools (2010-11)		Middle Schools (2011-12)		Primary Schools (2011-12)	
	Boys	Girls	Boys	Girls	Boys	Girls
Mewat	71.8	28.2	64.4	35.6	55.4	44.6
BRGF Districts	54.0	46.0	54.4	45.6	54.6	45.4
Rest of Haryana	52.7	47.3	54.8	45.2	54.4	45.6

Source: Director of Secondary/Middle/Primary Education, Haryana

Class size is another dimension which can influence enrolment as well as the quality of education. Literature available on class size suggests that smaller class size facilitates teachers' work by reducing the number of disruptions and increasing the level of attention and participation per student (Diaz et. al, 2003). The pupil teacher ratio for the three analysis categories is investigated (Figure 3.10). It emerges that the pupil teacher ratio is most skewed in the primary and middle schools. Especially in Mewat, lack of teachers in primary and middle schools has resulted in 58 children dependent on one teacher. Heavy burden on the teacher is found to negatively impact the quality of education imparted. Research shows that there exists an important relationship between student teacher ratio and student achievement (National Center for Education Statistics, 2001). The ratio emerges to be resonating with the prescribed figures for higher grades. This may be due to tremendous reduction in enrolment in higher grades which is specifically true for Mewat.

Figure 3.10: Pupil Teacher Ratio



Source: Director- General of Secondary/Elementary education, Haryana

Overall, the education scenario indicates the grim situation of higher education infrastructure and resources particularly in Mewat. The BRGF districts and remaining districts in the state emerge to be faring comparatively better on essential education indicators. Low literacy levels can also have implications on the general health and hygiene practices followed in the region. Emanating from ignorance, illiterate population tends to overlook the essentialities of maintaining hygiene which could potentially impact the health status of a society as a whole. The following section discusses the health infrastructure in the analysis categories.

3.3.4 Health

Good health is central to happiness and well being. Healthy population are found to live longer and be more productive (WHO, 2014). Key indicators related to health infrastructure and situation is investigated to understand the overall health scenario in the three analysis regions. Investigation of the health infrastructure presented in table 3.8 indicates that the least number of registered medical institutions⁸ per lakh of population are in Mewat. Interestingly, BRGF districts stand at the top with around 15 registered medical institutions per lakh of population.

⁸Includes hospitals, PHCs, dispensaries, CHCs and Sub Centers in rural and urban areas

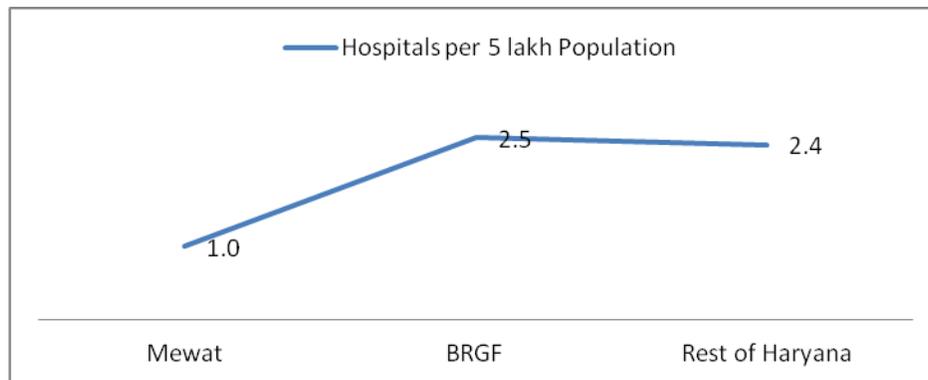
Table 3.8: Health Infrastructure

	Average number of medical institutions per district (2011-12)	Number of Institutions per lakh population (2011)
Mewat	105	9.6
BRGF Districts	162	14.6
Rest of Haryana	156	12.8

Source: Statistical Abstract, Haryana

Access to health care services is imperative to ensure health equity as well as increasing the quality of healthy life for everyone. Figure 3.11 below presents access to health care by resident population in the three analysis regions. Presenting the number of hospitals per five lakh of population, it becomes clear that the BRGF districts comparatively have the best health infrastructure available followed by the rest of the districts in the state. The worst situation exists in Mewat where there is only one hospital on a population of five lakhs. Increased burden on health facility dents the quality of health services available to the intended beneficiaries. This puts a question mark on the health status of the residing population.

Figure 3.11: Number of Hospitals per Five Lakh of Population



Source: Statistical Abstract, Haryana

To capture the health status of the residing population, key indicators on reproductive child health are examined. Reproductive health is considered to be the most important aspect of

assessing the health status of a society as it is considered to be an essential component of young people's ability to become well adjusted, responsible and productive members of the society (United Nations, 2002). Analysis reveals that the mean age at marriage for girls is the lowest in Mewat and almost equivalent for the rest of the two analysis regions (Table 3.9). The mean age at marriage for boys is found to be relatively higher than that of girls and differences across regions yield similar trends as that of girls. Right age at marriage is specifically important in case of girls to ensure that the reproductive system is mature enough to function properly. A look into the fertility measures reveals that around five percent of the total births in Mewat were accounted to women aged 15 to 19 years. Early or premature birthing is rampant in such an age. This percentage is found to be considerably lower in the rest of the study regions. Large family size in Mewat is also reflected through the extent of adoption of family planning in the region. A comparative picture across the analysis regions makes it evident that less than a quarter of the sampled population practices family planning. Contrastingly, a considerably higher percentage of population in the BRGF districts practice family planning.

Reproductive health care is found to be largely in a grim state particularly in Mewat. Antenatal care refers to the regular medical and nursing care recommended for women during pregnancy. It is particularly important to ensure appropriate growth and development of the foetus and elimination of any health risks both, to the expectant mother and the baby (Nath, 2014). A look into the percentage of women receiving antenatal care in the analysis regions reveals that antenatal care is received by less than half of the sampled population in Mewat. Percentage of pregnant women receiving antenatal care in rest of the state is found to be relatively higher. The sorry state of affairs further gets heightened with reduced access to institutional mechanisms of delivery. Only 51% women in the population mention to undergo an institutional delivery in Mewat thereby magnifying the risk to the woman and the baby. The overall situation in the rest of the state is found to be much better than that of Mewat. Lack of access to institutional delivery mechanisms increases the risk of maternal and infant mortality. Health risks among neonates and infants further magnifies with lack of access to vaccination. Comparative data analysis reveals that approximately only a quarter of the total children in the sample receive full vaccination in Mewat. Resultantly, almost three fourths of the child population is at risk of one or the other disease. The situation in BRGF districts is found to be

quite better with around 61% of the children born were provided full vaccination. Interestingly, rest of Haryana ranks lower than the BRGF districts in this aspect. Investigation of mortality figures indicates that Mewat has the highest mortality rate among children under the age of five years. The condition emerges to be the most favourable in BRGF districts. A gender disaggregated look into the under five year child mortality figures reveals interesting trends. While the literature suggests that females are at a biological advantage over males with respect to survival in the early years, the situation is contrasting and completely different in Mewat where female mortality is higher than male mortality figures. In the other two regions, male mortality is higher than female mortality. The contrasting situation in Mewat is indicative of the less care and attention meted out to girl children during the early years which corresponds with high mortality figures among them.

Table 3.9: Reproductive Child Health

Marriage	Mewat	BRGF Districts	Haryana
Mean age at marriage for girls(marriages that occurred during the reference period)	19.7	20.7	21
Mean age at marriage for boys(marriages that occurred during the reference period)	21.7	23.8	24
Fertility			
Births to women aged 15-19 year out of total births	5	3.4	2.7
Current use of Family Planning			
Any Method (in %)	23	67.6	50.1
Antenatal care			
Pregnant women who received any antenatal check-up (in %)	45.5	67.4	73.87
Delivery care			
Institutional delivery (in %)	51.2	71.9	80.3
Child Immunization			
Received full vaccination (in %)	27.3	61.1	52.7
Under Five Mortality			
Under 5 year infant mortality (in numbers)	858.0	274.5	307.1
Under 5 year infant mortality (Females) (in numbers)	512.0	113.5	124.6
Under 5 year infant mortality (Males) (in numbers)	346.0	161.0	182.4

Source: District Level Household and Facility Survey IV

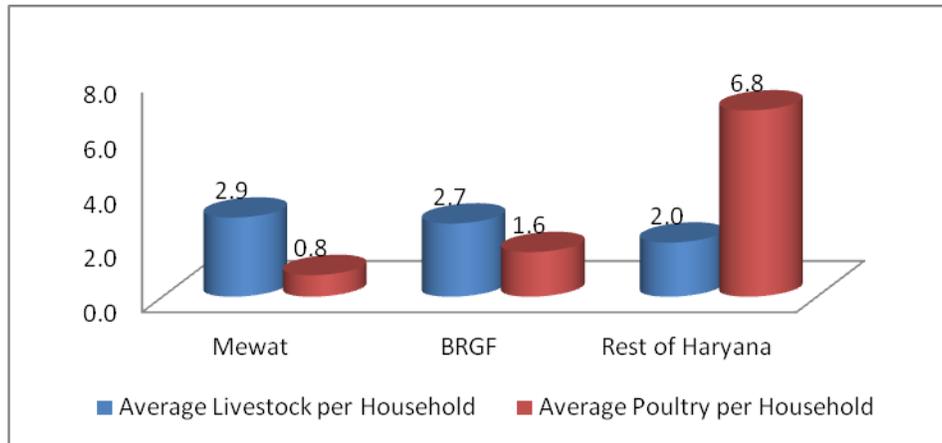
The health infrastructure and status analysis highlights the sorry state of affairs in Mewat district. BRGF districts emerge to be faring better than the rest of the state on key indicators. Basic necessities such as education and health set the stage for the society to be equipped enough to thrust its own socio economic development. Good health and education are necessary precursors to the employable population engaging in remunerative occupations and securing livelihoods. The following section discusses the nature of occupational engagement in the analysis regions. It primarily lays focus on livestock and agriculture aspects in the backdrop of rural India largely relying on these two sources for income.

3.3.5 Livestock and Agriculture

The livestock sector plays a multi-faceted role in the socio-economic development of rural households. Livestock rearing has significant positive impact on equity in terms of income and employment and poverty reduction in rural areas (Ali, 2007). From serving as a helping hand in agriculture to bearer of collateral in credit market, livestock is a lifeline of the rural households. The current section explores the ownership pattern of livestock in the study regions and the availability of infrastructure for livestock maintenance.

Gauging the livestock ownership pattern in the study regions, stark differences emerge across the three analysis categories (Figure 3.12). While the average livestock per household is found to be nearing three in case of Mewat and BRGF districts, it is found to be comparatively lower at two for the rest of Haryana. Interestingly, the average poultry owned per household reveals reverse trends with the rest of the districts owning around 7 poultry per household and Mewat households owning only one. Increased magnitude of livestock in Mewat and BRGF districts indicates a higher dependence on livestock for earning income apart from satiating the domestic demand of milk and meat products.

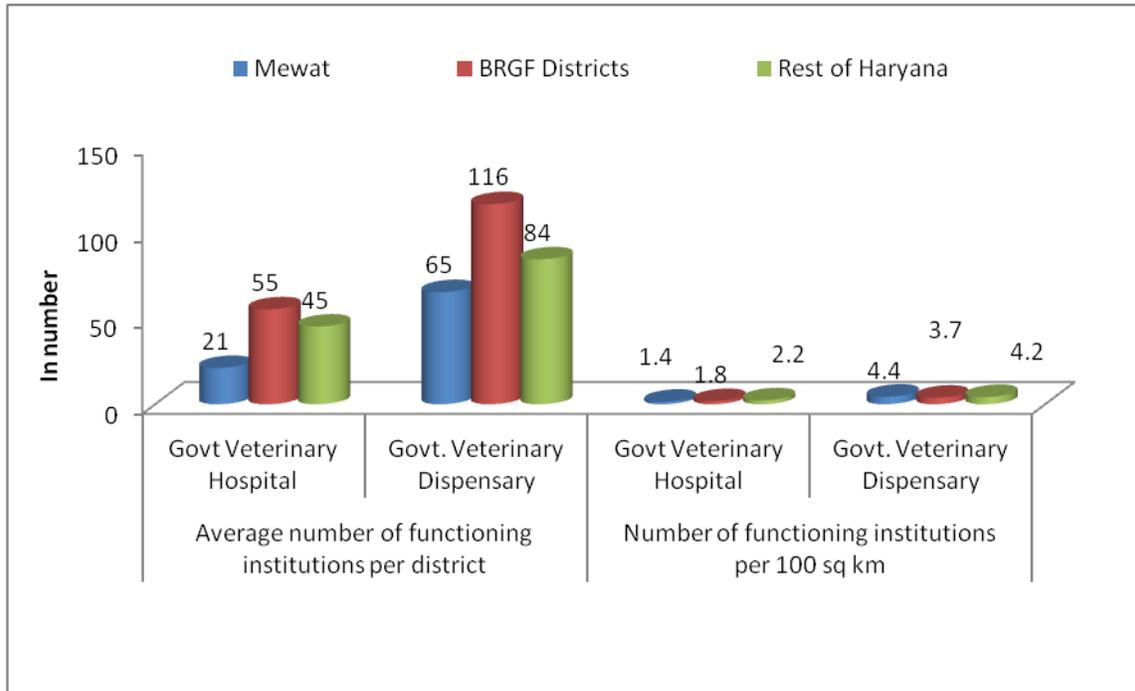
Figure 3.12: Livestock and Poultry Ownership Pattern



Source: Director General, Animal Husbandry and Dairying, Haryana

As discussed earlier, livestock is an asset for the rural population. To ensure their growth and productivity, Government of India has opened several veterinary hospitals and dispensaries. A look into the functional veterinary institutions indicates that BRGF districts have the highest number of government veterinary hospitals and dispensaries i.e., 55 and 116 respectively. Contrastingly, Mewat performs poorly in terms of presence of veterinary institutions i.e., 21 and 65 respectively (Figure 3.13). Lack of availability of veterinary services has a direct negative impact on the health and productivity of livestock thereby putting an extra burden on the rearing household.

Figure 3.13: Average Number of Functional Veterinary Institutions



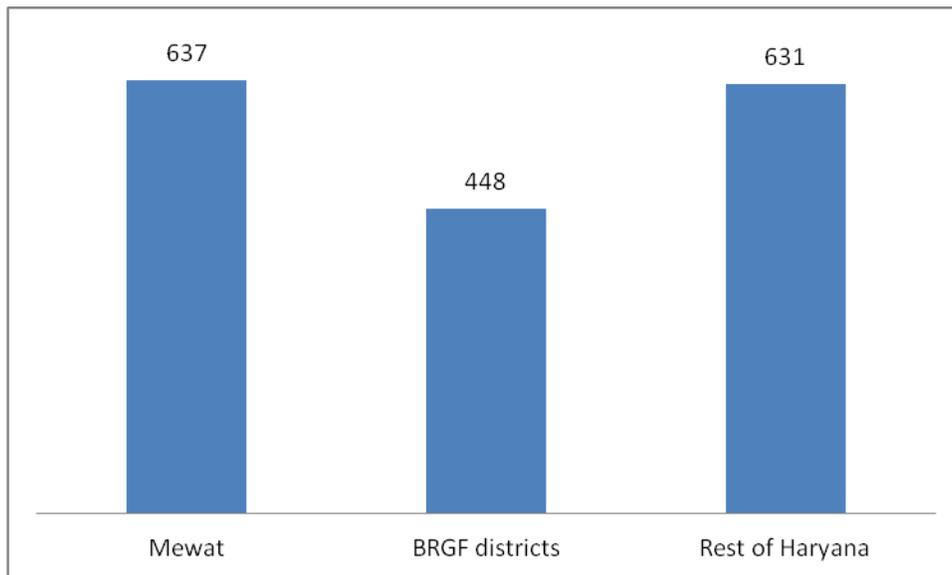
Source: Director General, Animal Husbandry and Dairying, Haryana

The following paragraphs examine the agriculture situation in the three analysis regions. Agriculture is widely known as the backbone of Indian economy. Its importance as a source of livelihood, supplier of food, fodder and raw materials, contributor to national income, foreign exchange reserves, and developing the overall economy is well known. Although the share of agriculture and allied sectors in India’s GDP has come down to 13.7 per cent in 2012-13, it still provides the employment to the majority of rural population (Planning Commission, 2014). In India, Haryana is predominantly an agrarian state. About 70 per cent of its inhabitants are engaged in agriculture. It is at second position in food grain production in the country and the second largest contributor to India’s central pool of food grains. This section explores varied aspects related to agriculture such as irrigation sources, land usage statistics, operational landholdings and farm equipments in Mewat, BRGF districts and other districts of Haryana.

The major Kharif crops of Haryana are rice, *jowar*, millet, maize, cotton, jute, sugarcane, sesame and groundnut. For these crops, the ground is prepared in April and May and the seeds are sown at the commencement of rains in June. Kharif crops are largely rain-fed and hence,

rains are an important input in the agricultural process. Average annual rainfall patterns are thus explored. Figure 3.14 clearly shows that the average rainfall received in the year 2010 is higher in Mewat than both BRGF districts and other districts of Haryana.

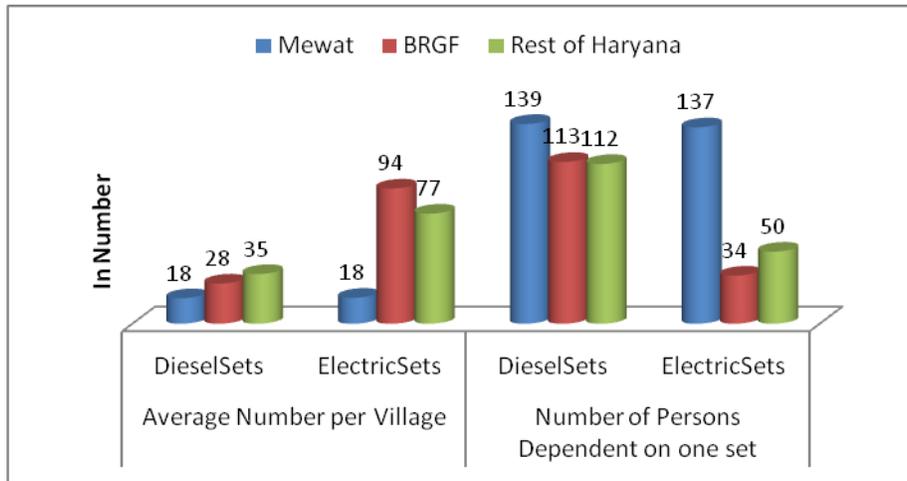
Figure 3.14: Average Annual Rainfall per District (2007-11) (in Millimeters)



Source: Director General of Land Records, Haryana

Apart from a typical Indian farmer who looks up to the sky whether the rain gods will favor him this time, irrigation means a wide range of interventions taken at farm level to assure the perennial and non perennial water supply. Indian farmers generally gain access to irrigation via two sources - surface and ground water. However, majority of farmers depends on ground water for irrigating their farms. It is apparent from the figure 3.15 that Mewat villages have the lowest number of diesel and electric sets for irrigation as compared to BRGF districts and other districts of Haryana. Furthermore, average number of diesel and electric sets are equal in Mewat whereas electric sets outnumbered diesel sets in BRGF districts and other districts of Haryana. Mewat also ranks lowest when it comes to the average number of persons depending on one set in one village for irrigation.

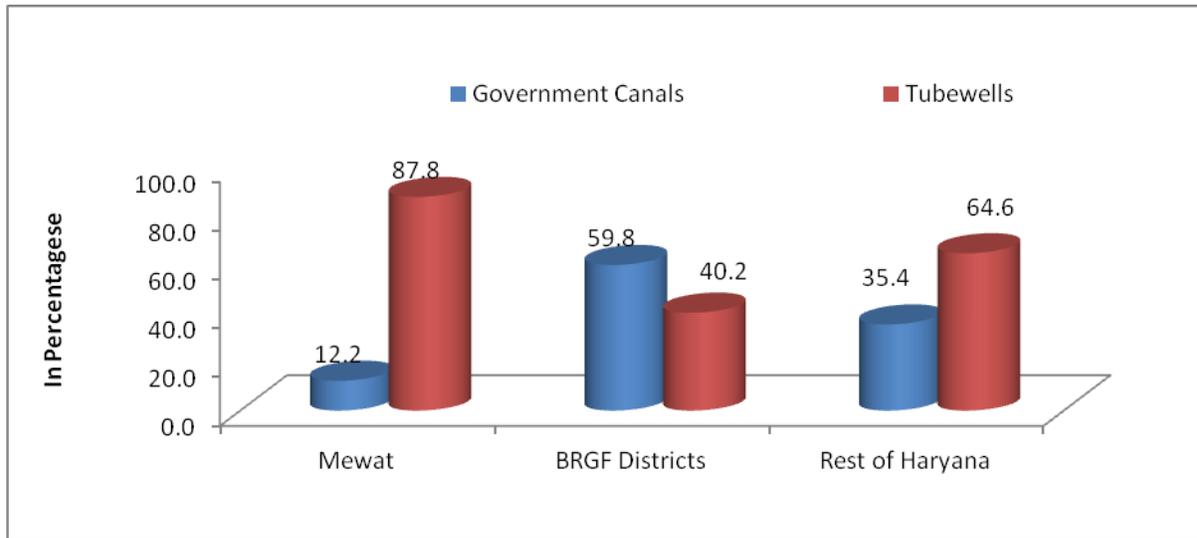
Figure 3.15: Ownership of Irrigation Sets



Source: Statistical Abstract, Haryana

Talking about the sources of irrigation, constructing canals has been one of the several initiatives taken by the Government of India to ensure perennial source of water supply to help the distressed farmers. The picture emerging from the analysis of sources of irrigation in the study region reveals contrasting trends (Figure 3.16). While in BRGF districts, usage of government canals is rampant with around 60% farms being irrigated. Contrastingly, the usage of canals for irrigation is found to be a little more than half for the rest of Haryana. Usage of government canals in Mewat is miniscule putting a question on the functioning of canals in the rest of the state apart from the BRGF districts. This also shows that the incidence of burden of irrigating farms is completely on tube wells in Haryana. The dependence of almost 88 per cent of farmers in Mewat on tube wells further puts a down ward pressure on the ground water level.

Figure 3.16: Sources of Irrigation



Source: Director of Land Records, Haryana

Land is one of the fundamental factors of production in an agrarian society without which no agricultural production can take place. An understanding of the pattern of ownership and land holding is, therefore, of great importance to develop an understanding of the agrarian class structure (Rawal, 2008). In the Indian context, land plays a dual role of serving both as a source of livelihood and collateral in credit market. A closer look at table 3.10 indicates the dominance of small and marginal farmers in Mewat with around 77% farmers having land holding of less than 2 hectares. The highest percentage of semi medium farmers owning land between 2 and 4 hectares are found in BRGF districts. For the rest of the districts in the state, around 30% farmers have land holdings between 2 and 10 hectares. Dominance of marginal farmers in Mewat hints at the dominance of subsistence farming in the region. Field experience suggests agriculture being non-remunerative in Mewat region which is not only due to fragmented land holdings but also traditional farming practices.

Table 3.10: Land Holding Pattern

Size Group (in Hectares)	Mewat		BRGF Districts		Rest of Haryana	
	Number of Farmers	Area	Number of Farmers	Area	Number of Farmers	Area
Below 0.5	34959	10407	56263	14309	392193	112188
0.5—1.0	14616	11338	37834	26921	242277	185312
1.0—2.0	9552	13605	44895	63823	260371	385273
2.0—3.0	7450	18642	26484	64957	141025	353749
3.0—4.0	3616	12548	18185	61004	87068	303572
4.0—5.0	2056	9090	11285	50405	57455	260102
5.0—7.5	2097	12553	12945	79598	68205	421722
7.5—10.0	877	7342	5983	52499	33791	292126
10.0—20.0	723	9802	5715	76519	30650	422363
20.0 and Above	221	7535	1380	46313	7140	259987
Total	76167	112862	220969	536348	1320175	2996394
Average size of Holdings	1.5		2.4		2.3	

Source: Director of Land Records, Haryana

A look into the land usage statistics across all study regions reveals absence of fallow land in Mewat (Table 3.11). Further, 41.9 per cent area in Mewat is irrigated while remaining 58.1 per cent is rain fed. However, in BRGF districts and other districts of Haryana, more than 85 per cent of the area is irrigated. This hints at the availability of better irrigation sources and facilities in the entire state excepting Mewat. The grim irrigation situation in Mewat could also be attributed to the high ground water salinity rampant in several villages of the district.

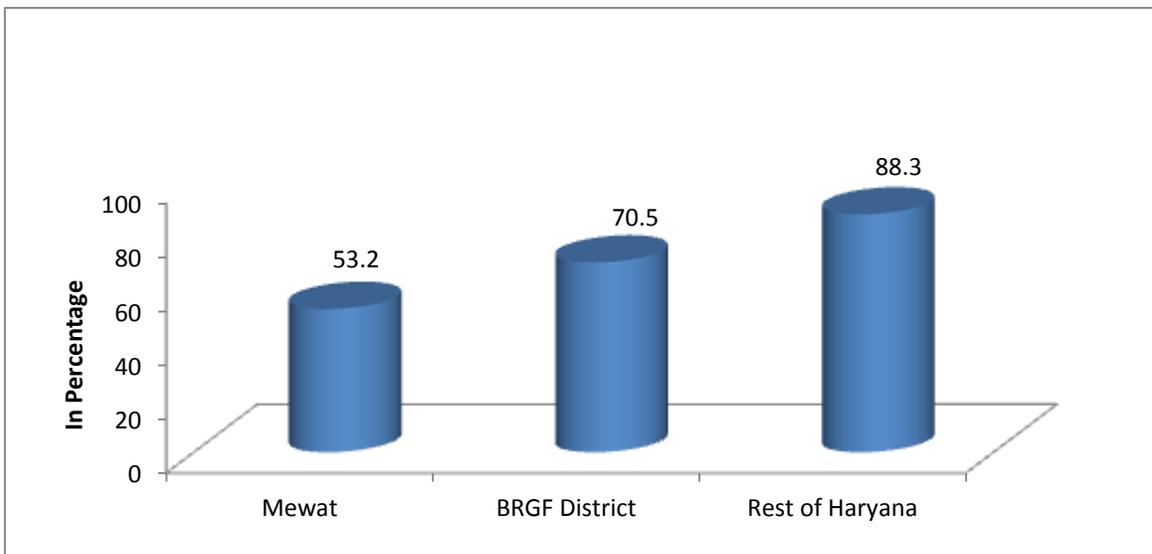
Table 3.11: Land Usage Statistics

	Net area sown (000 hectares)	Percentage area sown to total cultivable area (%)	Net area irrigated (000 hectares)	Percentage irrigated area to cultivable area (%)
Mewat	117	100	49	41.9
BRGF Districts	545	97.5	481	88.3
Rest of Haryana	2852	94.3	2542	89.1

Source: Directorate of Economics and Statistics, Haryana

Looking at the percentage of gross area irrigated to gross area sown, it emerges that only half of the area sown in Mewat is irrigated (Figure 3.17). This indicates the pre dominant dependence on rain for irrigation in Mewat. Contrastingly, the ratio is found to be way better in BRGF districts and the rest of Haryana.

Figure 3.17: Percentage of Gross Area Irrigated to Gross Area Sown



Source: Director of Land Records, Haryana

Examining the gross value of agricultural output per hectare in 2005-06 to 2008-09, Mewat obtains the lowest rank among the three analysis categories, the output is almost same as compared to BRGF districts (Table 3.12). There could be an interplay of several reasons causing the reduced value obtained for agricultural output. Given less number of regulated markets in Mewat, farmers are unable to negotiate better prices for their produce. Additionally, due to the semi arid topography and unfavorable ground water conditions, the agricultural production is considerably low in Mewat.

Table 3.12: Gross Value of Agricultural Output per Hectare (INR) at Current Price

District	2005-06 to 2008-09
Mewat	57,685
BRGF Districts	58,778
Rest of Haryana	82,794

Source: Directorate of Economics and Statistics, Haryana

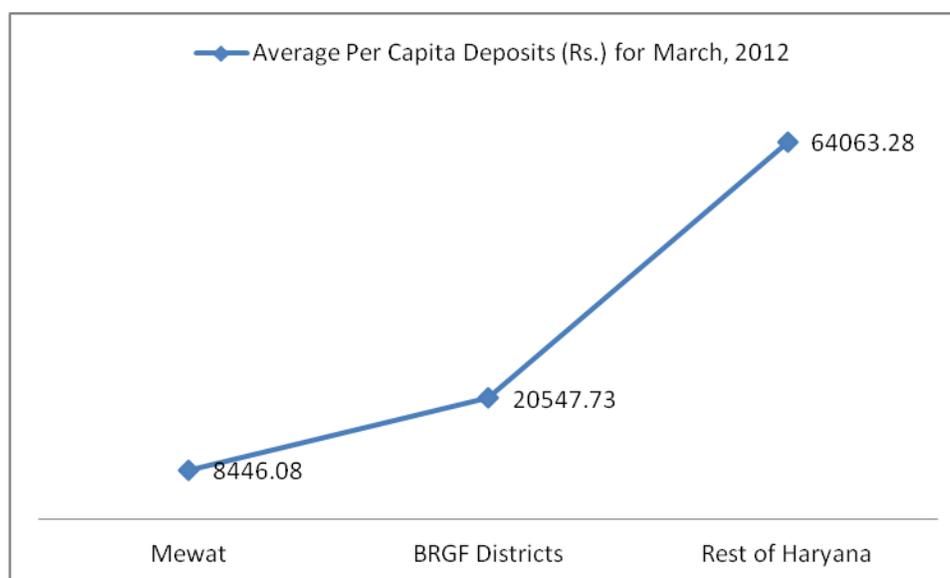
As described above, the value of agricultural output is also largely dependent on the availability of regulated markets where the produce can be sold for better prices through negotiation. Access to such markets requires road connectivity. Literature suggests that road connectivity can tremendously influence agricultural productivity (African Development Bank Group, 2011). Hence, it is necessary to understand the status of public services and infrastructure in the study regions. The following section discusses the expanse and state of public services and infrastructure such as banks, roads and factories.

3.3.6 Public Services and Infrastructure

Public services and infrastructure are deemed to be essential in ensuring socio economic development of a region. These include access to roads, banks, presence of factories and availability of government funds for development. The availability of banks and usage by the resident population is explored. Findings reveal that Mewat has the least number of commercial banks followed by the BRGF districts. While for Mewat, the average number of people per bank

counts up to 26600, it is less than half at 11400 for BRGF districts. Due to the reduced availability of banks, the proportion of households availing bank services is also found to be lowest in Mewat. Only 41% of the total households in Mewat avail bank services. BRGF districts fare better in terms of usage with around 65% households accessing bank services. Rest of the districts in Haryana have a slightly higher percentage (70%) of households accessing bank services. Reduced access to banks could be interplay of several factors. Literature suggests that barriers such as minimum account and loan balances, account fees and documentation requirements are negatively correlated with outreach and these barriers exclude a large percentage of the population from using banking services in many countries (Beck et. al, 2007). Hence, there is a need to explore the reasons causing reduced access to and utilization of bank services by the inhabitants of Mewat. A look into the average per capita deposits in scheduled commercial banks reveals consistent trends. Figure 3.18 suggests that the average per capita deposit is lowest in Mewat and shows an upward incline for the rest of the regions.

Figure 3.18: Per Capital Deposits in Scheduled Commercial Banks



Source: Banking Statistics

Coexisting with the banks are cooperative societies which have found ground especially in the rural pockets of the country. Cooperative societies are businesses that are set up by a number of individuals with the intention of gaining mutual benefits from them (Sephton,

2014). The presence of cooperative societies and their membership pattern is examined. The surfacing trends signal towards a state wide presence of cooperative societies. However, the average number of societies in a district is found to be the lowest in Mewat. Field experiences suggest that cooperative societies could not flourish as much in Mewat due to erratic income patterns and reduced or almost absenteeism of women in their functioning. As table 3.13 details, the average number of cooperative societies emerges to be the highest in the 18 districts of Haryana. The situation is found to be grim in Mewat particularly. A direct implication of reduced number of societies is on the proportion of members to the total population. While in Mewat only 11% of the total population are members of such societies, in the rest of the two study regions, membership almost doubles. Inclusion of women in entrepreneurial activities can escalate the functioning and expansiveness of cooperative societies thereby fetching larger socio economic benefits for the region.

Table 3.13: Cooperative Societies and Membership Pattern

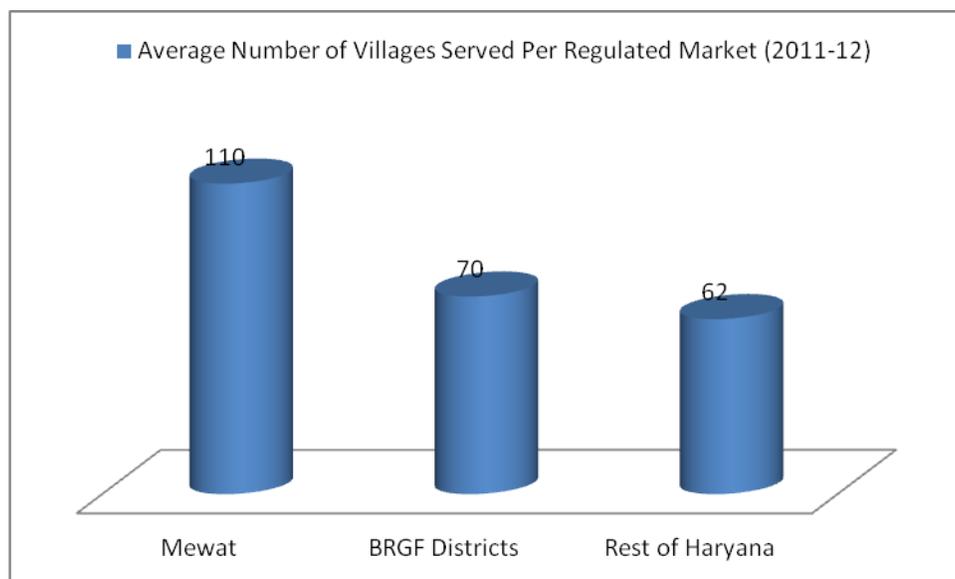
	Average number of Co-operative Societies/District (2012-13)	Percentage of Members to Total Population (2012-13)
Mewat	340	10.5
BRGF Districts	1290	21.7
Rest of Haryana	1768	22.3

Source: Registrar, Co-operative Societies, Haryana

To examine the situation of public infrastructure in the region, condition of road, availability and location of markets and presence of factories are examined across the three analysis categories. Road connectivity is considered to be critical for raising agricultural productivity (African Development Bank Group, 2011). Enough evidence exists which indicates that improved access to roads can thrust movement out of poverty; people can travel for different tasks and explore more socio economic opportunities (Helvetas, 2014). Consistent trends emerge from the data which indicates that almost all villages across the entire state are connected with metalled roads. But in terms of coverage of metalled roads, Mewat records 51 per 100 sq kms of

area against 64 per 100 sq kms for rest of Haryana. Apart from roads, presence of markets across the study regions is investigated. As is evident from figure 3.19, Mewat has the least number of markets as the proportion of villages served by every market emerges to be the highest at 110 when compared with the other two categories. For BRGF districts and the rest of Haryana, presence of markets is almost equivalent with an average of 66 villages served per market. Comparatively, lesser number of markets in Mewat hints towards reduced economic opportunities especially from the view of selling crop produce.

Figure 3.19: Average Number of Villages Served per Regulated Market



Source: Statistical Abstract, Haryana

Apart from markets and roads, factories in the rural pockets of the country are considered to be the most viable livelihood sources available to the inhabitants. Factories boost employment as well as address the problem of seasonal unemployment in the surrounding regions. A look into the average number of working factories per district reveals miniscule presence in Mewat. The situation is particularly grave in Mewat with only eight working factories in the entire district (Table 3.14). Despite its strategic location being in the vicinity of Gurgaon, Mewat has not been utilized for setting up factories. Resultantly, the percentage of working population in the factories is also found to be extremely grim. The proportion of factories in the rest of the state is found to be much higher than that in Mewat. Ample evidence is available on the advantages of

factories on the rural economy. However, Mewat hasn't been able to harp upon its strategic location and thus, falls way behind.

Table 3.14: Factories and Employment

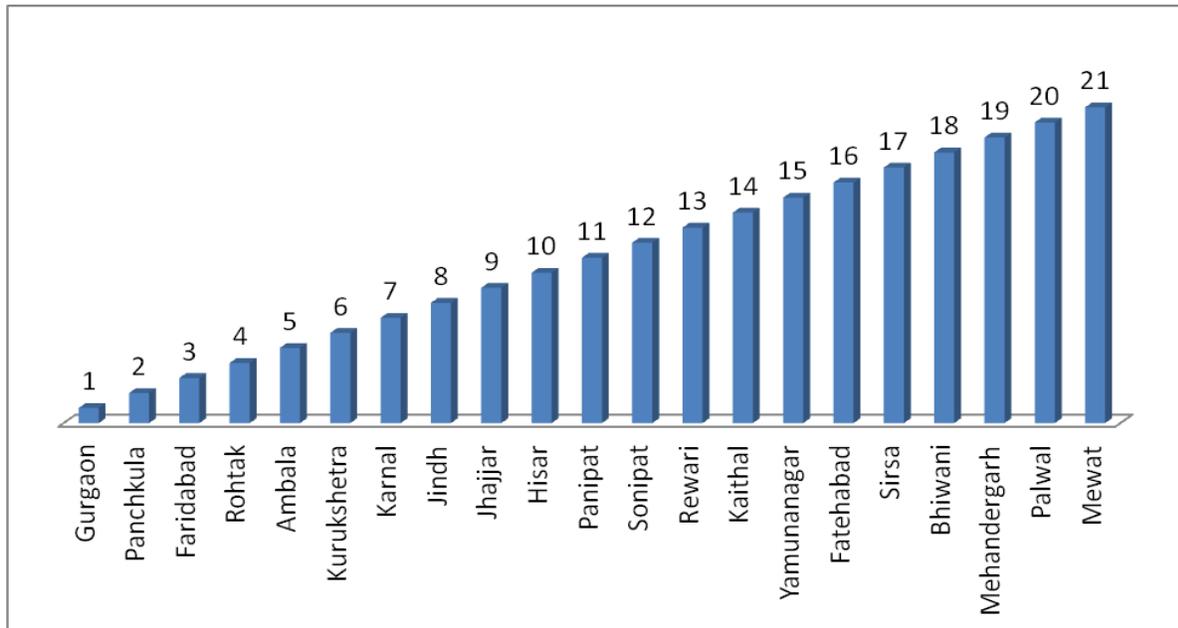
	Average Number of Working Factories Per District (2012)	Average Number of Working Factories Per Village (2012)	Percentage of working population employed in factories (2012)
Mewat	8	0.02	0.22
BRGF Districts	107	0.31	1.44
Rest of Haryana	598	1.89	10.39

Source: Statistical Abstract, Haryana

3.3.7: Ranking of districts in Haryana

Using Principal component analysis, the composite index of development encompassing all indicators across all districts of Haryana is calculated and all the districts are accordingly ranked on the basis of level of overall development. The results reveal that Mewat received the lowest scores and ranked last (21st) in terms of overall development. The BRGF districts including Sirsa and Mahendergarh are also one among the low ranked districts, ranking 17 and 19th respectively. In addition, Palwal and Bhiwani districts also fall among least developed districts of Haryana. It is important to note that Gurgaon, Panchkula and Faridabad, where proportion of urban population is high, are the most developed districts. The next section discusses the intra district development witnessed over the last decade. The temporal transition in Mewat from 2001 to 2011 is discussed to understand the development on key indices through time.

Figure 3.20: Ranking of Districts of Haryana on the basis of Overall Development



3.4 Temporal Transition in Mewat (2001- 2011)

Till date, Mewat has not caught much attention of policy makers and government agencies. The comparative picture highlights the grim state of affairs in the region. This section maps the transition that Mewat has witnessed internally over the past decade. The decadal transition is examined along similar dimensions discussed in the previous section. A limitation of this section is dearth of data figures available for the year 2001 as Mewat was carved out as a district only in the year 2005. However, limited data available for select development indicators has been utilized to present a comparative picture over time.

3.4.1 Demographic Transition in Mewat

India, at present, is at the third stage of the *four stage model*⁹ of demographic transition from stable population with high mortality and fertility to stable population with low mortality and fertility, with some of the states/UT's already in to stage four (Wikipedia, 2014).

⁹**Stage1:** Less developed countries, high birth rate, high no. of deaths due to preventable causes, stable population

Stage2: Death rates fall due to improved public health but high fertility due to limited access to health and contraceptive services, spurt in population

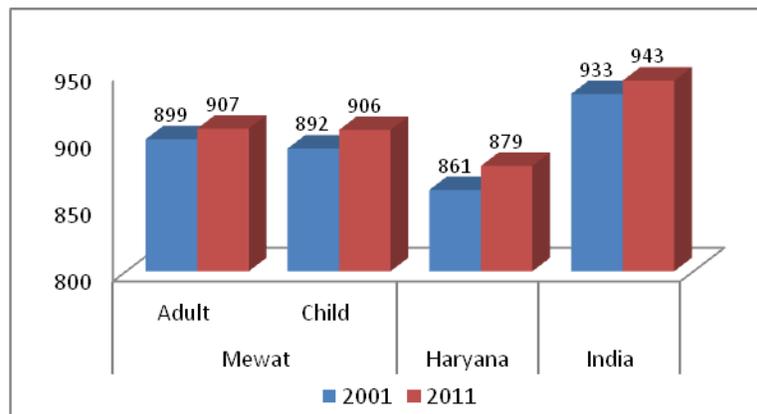
Stage3: Birth rate also falls, population continues to grow due to large no. of people in reproductive age group

Stage4: Stable population but at a level higher than the initial, low birth & death rates, high social & economic development

According to the 2011 census, population of Haryana stands at about 25 million making it the 17th most populated state in India. The state has a growth rate of about 19% slightly exceeding the national growth rate of about 17%. While in Mewat, a robust 37.93% increase is observed in total population growth rate between 2001 and 2011. This puts a great pressure on limited land and other resources reflected by average density of population which has increased from 524 persons per square kilometre to 729.

The average family size in the district continues to be 7 through the decade. Interestingly, Mewat stands at the top in terms of proportion of child population¹⁰ (22.78%) when compared with other districts in the state despite a fall of 12.45 percentage points in the last decade. Higher proportion of child population is an indicator of higher dependency on the earning members of household. This creates pressure on limited resources available to an individual as a member of a particular household.

Figure 3.21: Sex Ratio in Mewat



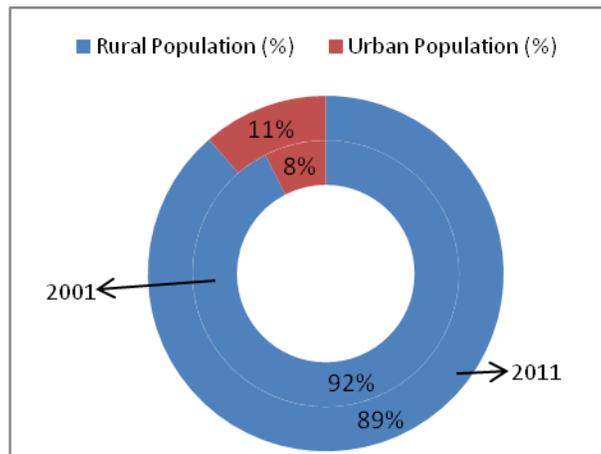
Gender disaggregation of the population data suggests that Mewat has performed fairly better in terms of sex ratio¹¹ (Figure 3.21). An increase in the number of females is observed for both adult and child population. While Mewat performs best with respect to other districts of Haryana and Haryana as a whole, but, is still low when compared to the average at the national level of 943 females per 1000 males.

¹⁰Population in age group 0-6 years

¹¹Number of females per thousand males

The caste composition of the population has shown modest presence of SC (Scheduled Caste) population (6.9% in 2011) which is similar to proportion in year 2001. This is because the Meo-Muslims, dominant residents of Mewat are categorized as backward castes. The rural urban transition in Mewat hasn't seen much change over the past decade from 2001 to 2011 (Figure 3.22). Only 3% rural population is found to have moved to an urban locale within Mewat. This indicates relatively low level of urbanization in a time period of ten long years.

Figure 3.22: Rural Urban Transition in Mewat



3.4.2 Education in Mewat

Education is a primary need of each individual making it an indispensable component in the holistic development process. A well intended education infrastructure thus becomes a crucial ingredient to achieve a better education scenario in the country. A closer look at the secondary data on education infrastructure available for Mewat presents a deplorable situation of current education system which hasn't really shown remarkable improvements since 2001 (Table 3.15).

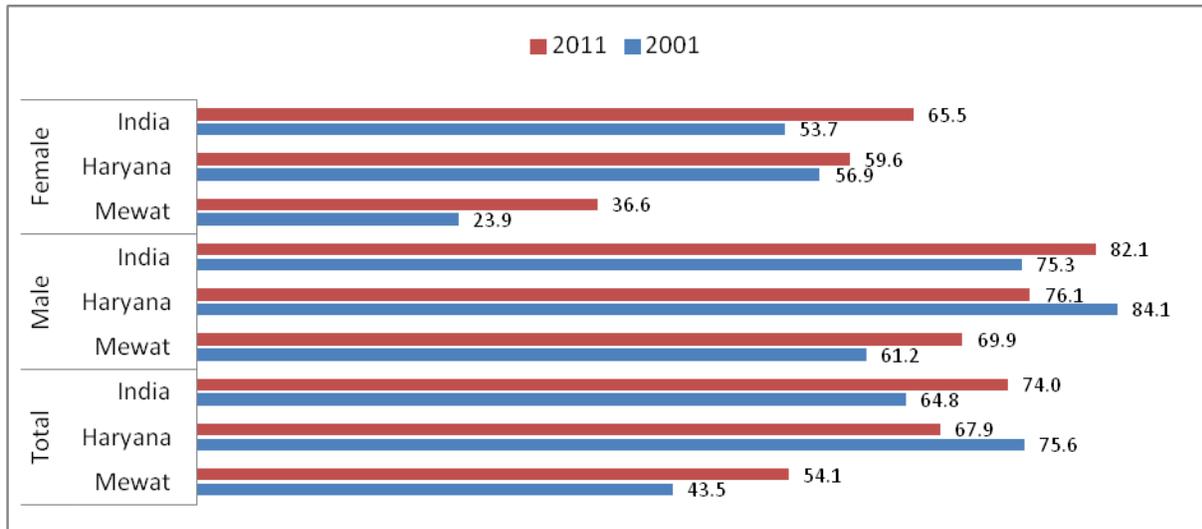
Table 3.15: Education Infrastructure in Mewat

Type of school		2001	2011
Recognised Senior Secondary Schools	Number of Schools	65	70
	Average Schools per Village	0.12	0.16
Recognised Middle Schools	Number of Schools	129	272
	Average Schools per Village	0.24	0.62
Recognised Primary Schools	Number of Schools	468	550
	Average Schools per Village	0.88	1.25

The above table portrays unavailability of recognized middle and senior secondary schools for each village in Mewat district. Even though, the average number of recognized middle schools has increased more than double over the past decade, not every village has access to a middle school. The situation worsens in case of the average number of recognized senior secondary schools with not much change over the past decade. Contrastingly, the number of recognized primary schools has considerably improved from 2001 to 2011 with one primary school in every village.

Inadequate educational infrastructure coupled with poor quality of teaching and absence of secure livelihood options dent the educational status of a region. Enrolment is directly impacted by factors such as non availability of teachers, poor school infrastructure, distance from school and several others. These factors tend to prevent enrolment of eligible children in school, a situation which magnifies in case of girl children who are usually considered as not requiring education especially in a context like Mewat. In rural areas, it is observed that sons are still sent to distant schools for attaining education but girl children are predominantly restricted from doing the same. Inaccessibility to proper education infrastructure is reflected in literacy rates in Mewat district of Haryana (Figure 3.23). Mewat district has witnessed an increase in literacy level from 43.5% in 2001 to 54.1% in 2011. In spite of this increase, literacy levels are way below the status in Haryana and national standards.

Figure 3.23: Literacy Rates in Mewat



A gender disaggregated perspective further sheds light on the subordinate status of women in Mewat region with their extreme under representation in the literacy scenario. Literacy rate among females is considerably lower than that of males in Mewat. This is because many parents do not allow their daughters to go to schools. This is due to unavailability of schools in the proximity, engagement of girl children in household work or taking care of younger siblings. They often get married off at a young age. Even though, the literacy rates among females have increased by 13 percentage points over the past decade, it continues to lie far behind the state and national average. The problem of illiteracy continues to thwart the development in Mewat and the implications are long drawn.

3.4.3 Health in Mewat

Health is an important constituent thrusting development. Improvement in the health status of a population is considered instrumental for increasing productivity and economic growth (Planning commission, 2014). For this purpose, it is essential that the health infrastructure is in place to provide health services adequately to meet the demand of the resident population. This becomes fundamental for rural areas where people reside in unhygienic living conditions which is a major cause of deterioration of health status. During the past decade, only eight new medical institutions have been added to the health infrastructure available in the district (Table 3.16).

Considering a population growth of around 38%, these small additions (8%) are unlikely to meet the health demands of the inhabitants of the area. As the country undergoes demographic and epidemiological transition, it is likely that larger investments in health will be needed even to maintain the current health status (Planning Commission, 2014).

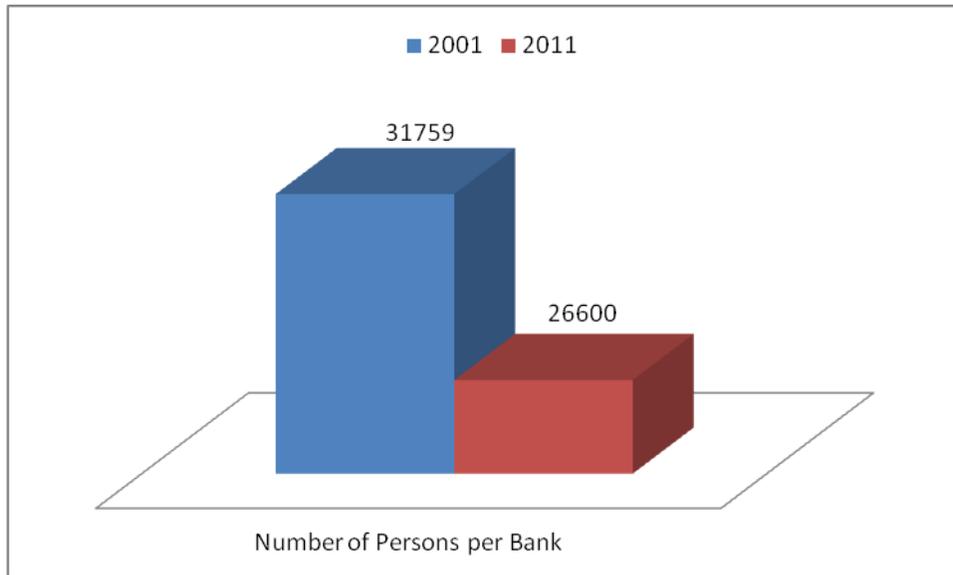
Table 3.16: Health Infrastructure in Mewat

Health Infrastructure	2001	2011
Number of Functioning Medical Institutions	97	105
Number of Institutions Per Lakh of Population	12.3	9.6
Number of Institutions Per 100 Sq. Km	6.4	7

3.4.4 Public Finance in Mewat

Finance is an extraordinarily effective tool in spreading economic opportunity and fighting poverty (Basu, 2006). With limited avenues to save and avail credit facilities, there is less mobilization in financial resources. Without access to credit, an opportunity like self employment is contained and as a result, the poor are doubly damned. They not only lose an option but also their bargaining power is weakened when they work for those who have resources (Basu, 2006). Secondary data for Mewat reveals that banking services in the district have improved over the past decade (Figure 3.24). The burden on banks in catering to the local populace has witnessed a deceleration of 16% over the past decade. While in 2001, one bank catered to 31759 persons, the number has been reduced to 26600 in 2011 despite enormous increase in population which implies improvement in financial infrastructure in Mewat.

Figure 3.24: Number of Persons per Bank in Mewat



3.5. Conclusion

The multi-dimensional aspect of development reveals that Mewat is one of the most backward regions in India but Mewat has not found much place on the policy agenda till date. Despite being given a discrete identity in the year 2005 when it was carved out of Gurgaon as a separate district, Mewat's performance on key development indicators surfaces to be alarmingly low. Demographic composition, in terms of sex ratio is the only positive trend emerging from the census data obtained for Mewat. Development indicators pertaining to domains of education, health, standard of living and public infrastructure and services indicate a grim state of affairs across the district. The average figures yield low literacy rates for men which worsen among women. Being a Muslim dominated region, the cultural ethos is conservative restricting the movement of women outside their homesteads. Education is considered as a not so important resource and thus, does not feature on the priority list of inhabitants. This may be due to the lack of livelihood connect with education with only farming being the most plausible occupation option available to the local population. Government and private jobs are few. Ironically, dependence on agriculture doesn't yield much returns with traditional farming methods in use and an unsupportive topography. Resultantly, income levels are low and large family size adds to the economical burden on the earning members. Women work extensively on the farms but are

not identified as farmers and land inheritance and ownership is patriarchal in nature. Low literacy levels and subordination of women have a direct impact on the health status of families. Health and hygiene practices are not adequate. Alongside, lack of health infrastructure in the region adds to the plight of the inhabiting populace. Apathetic attitude of the local administration combined with a resigned way of life of the communities has resulted in Mewat ranking extremely low on development. A holistic impact of these factors features in the standard of living data obtained for the region. Mewat ranks low on all essential standard of living measures such as wood continues to be the major source of cooking fuel and around 75% population continues to defecate in the open. Thus, there emerges to be a dire need for policy level interventions in Mewat to address the gaps between public service supply and beneficiary demand.

Analysis of the overall situation on key development indicators yields that Mewat falls way behind the BRGF listed districts and the rest of the districts in the state, especially in terms of standard of living measures and essential infrastructure facilities in the domain of education, health and public services. Ironical pictures emerge when compared with the districts listed as BRGF in the state. Mewat performs worse than the BRGF districts on key development indices such as education, health and standard of living. The domain in which Mewat has performed better than other district of Haryana is the sex ratio and proportionate of SC population. The intra district analysis further reveals dearth of development over time. Even though, relative development in terms of education and health infrastructure has improved over time within Mewat, there continues to be a wide gap between the demand and supply. Despite ranking low on essential development aspects, Mewat has not caught the attention of policy makers and the government agencies. It continues to survive in the era of deprivation and suffering, still trapped in the shackles of extreme poverty and backwardness. The following chapter captures the analysis of primary data collected from the four blocks of Mewat and Hathin block of Palwal. Inter block variations on key development indicators are captured to understand the relative situation within the district.

Chapter IV

Typology of Development in Mewat: A Block-level Analysis

The previous chapters have provided a glimpse of variation in multiple parameters of development in Mewat district as compared to other districts in Haryana state. Comparative analysis revealed that Mewat district is relatively backward on almost all the key development parameters. More specifically, Mewat is lagging behind in terms of education, health, and sanitation, among others. However, at the same time, the district is found to be performing well in case of demographic features like sex ratio. Mewat, like many other districts in India, encompasses huge area and hence, a high possibility of variations across blocks within the district. It calls for a block-level analysis. Due to existence of big blocks across several districts in India, the Administrative Reforms Commission (ARC) recommended that a block, and not a district, should be the unit of identification of backward region (Government of India, 2008). In India, a district encompasses fairly large area and population with diverse characteristics and varying stages of development. The rationale for block-level analysis is further substantiated on the basis of limitation of nature and type of variables on which the district-level data is available in India. For several indicators like availability of electricity, the district-level data is available in a dichotomous form, i.e., Yes and No. For instance, in case of availability of electricity, value of 1 signifies a village with electricity, irrespective of how many villagers are having access to it and the duration of electricity supply (Baruah, 2012). Furthermore, district-level data mostly comprises of infrastructure-related variables and limited information is available on its access and utilization. For instance, having a school in the village does not necessarily guarantee enrolment of children from the villages. Micro-level primary data can facilitate capturing such details. Through primary data, one can also capture a level of gender development that cannot be mapped at the district level, due to lack of information. In this chapter, we analyzed the block-level variations across multiple parameters of development using primary data.

Identification of micro regions, like blocks according to their differential levels of development and typologies of development, is vital for planning to achieve the objective of promoting overall growth and reducing disparities. Homogenous regions could then be

delineated, so that different strategies may be adopted for different types of regions (Shastri, 1998). In this chapter, we have looked into the status of development across five blocks of Mewat on 40 development indicators that are clubbed into seven broad domains. A region or a block may emerge to be developed in one domain and at the same time could be backward in another domain of development. In such cases, it is rather difficult to classify a block or a region as developed or backward. Thus, to analyse the overall levels of development of a block, all the seven domain indices have been combined together. While combining the domain indices, each domain index has been taken as an individual indicator and the composite index of development has been prepared by using the technique of factor analysis. Furthermore, to identify domains of development that require more attention of the policy makers in Mewat so as to improve the overall and equitable development in Mewat, we then analyzed the distribution of selected seven domains.

4.1 Inter-block variations across multi-dimensional aspect of development in Mewat

Development or poverty is a multi-dimensional phenomenon which is difficult to measure by any given indicator. Though for a long time, development was regarded as uni-dimensional generally measured by income or expenditure, there has been growing international consensus about the multi-dimensional nature of both poverty and development and their irreducibility to the income dimension (Muro et al. 2009). This section tries to capture inter-block variations across multi-dimensional aspects of development. In total, the study encompasses 40 indicators (appendix 4.1) that are categorized into 7 broad domains of development namely (1) Standard of Living (SOL), (2) Education, (3) Health, (4) Gender, (5) Demographic, (6) Agriculture and livestock, and (7). Economy.

- (1) **Standard of living indices (SOL):** Standard of living is very closely linked to quality of life. It is defined in several ways and broadly encompasses a minimum of necessities, comforts, or luxuries held essential to maintain a person or group in customary or proper status or circumstances (Merriam Webster, 2014). The multi-dimensional poverty index (MPI) formulated by UNDP in 2010 was the first index that captured standard of living in defining development of a region. The MPI index includes six parameters i.e., cooking

fuel, toilet, water, electricity, floor type and assets. In the present study, referring to the UNDP's MPI index, we have included the following parameters (a) Electricity as primary source of lighting (b) *Pucca*¹² house and floor, (c) LPG as primary source of energy for cooking, (d). Households owning mobile, (e). Households owning TV/Radio as a mean of communication, and (f). Households having toilets. The results reveal that overall, Nuh block has the highest rate of development as against other blocks. The block has highest number of *pucca* houses with *pucca* floors and highest number of households with inbuilt toilets. Nuh is the only block which has almost similar proportion of *pucca* houses which is existing in rural Haryana (93%) (NSSO, 2013). All other blocks are lagging far behind in the proportion of *pucca* houses with floors. More importantly, the proportion of households having toilets is way below the rural Haryana average of 74% (NSSO, 2013). In terms of LPG as an important source of energy for cooking, it is also well below rural Haryana average of 19%. It is important to note that most of the people are using LPG as one of the source of cooking (appendix 4.2) but not many of them are using it as primary source due to easy and free availability of other sources of energy for cooking such as cow dung and firewood.

Table 4.1: Standard of Living across blocks in Mewat

Block	Electricity as primary source of lighting	<i>Pucca</i> house & floor	LPG as primary source of energy for cooking	Mobile	TV and Radio	Toilets
Jhirka	75.9%	78.3%	1.96%	93.6%	16.1%	20.8%
Hathin	74.8%	86.1%	4.25%	96.6%	30.3%	33.6%
Nuh	61.6%	92.4%	4.05%	94.2%	42.0%	44.1%
Tauru	97.9%	76.8%	2.47%	95.8%	45.8%	42.9%
Punhana	70.8%	78.5%	2.16%	95.7%	13.3%	40.3%

- Education indices.** The level of development in the field of education is captured through several parameters such as (a). Education status of household head, (b). Male literacy rate, (c). Female literacy rate, (d). Male child enrolment, (e). Female child

¹²Built of substantial materials such as stone, brick, cement, concrete, and timber. The term *pucca* means 'solid' and 'permanent' (NSSO, 2013).

enrolment, (f). Male child drop out, (g). Female child drop out, (h). Male child never went to school and (i). Female child never went to school. Results show that female literacy is 50%, way lower than male literacy level that stands at 83%. But, there exists wide inter-block variations in female literacy which is as low as 45% in Punhana as compared to more than 60% in Tauru. Also, huge variation exists among children who are eligible to be enrolled in school. 74% male children are currently enrolled in school as compared to 56% of female children. Among the non school going children, huge number of girls are either never enrolled or tend to dropout from school whereas in case of boys, majority of them drop out after entering the school at least once. Focussed group discussions with villagers revealed that due to large family size and to attend other household chores, girls are never enrolled or drop out when the requirement arises. On the other hand, reasons for male drop-out include no interest in education by the child and pulling them out for involving them in income generation activities. Overall, Tauru block has topped and Punhana performs the worst in terms of level of development of education in the region.

Table 4.2: Education development across blocks in Mewat

Block	Educated Household Head	Female Literacy Rate	Male Literacy Rate	Male Enrolled	Male Drop Outs	Male Never enrolled	Female Enrolled	Female Drop Outs	Female Never enrolled
Jhirka	56.7%	46.2%	82.0%	75.2%	22.0%	2.9%	54.2%	26.7%	19.1%
Hathin	54.6%	49.5%	81.4%	73.1%	21.5%	5.3%	57.4%	22.3%	20.3%
Nuh	60.3%	50.8%	86.5%	76.7%	19.6%	3.7%	53.2%	27.4%	19.4%
Tauru	58.5%	60.3%	88.3%	78.9%	16.7%	4.4%	63.5%	24.9%	11.7%
Punhana	50.6%	45.3%	78.8%	69.6%	24.5%	5.9%	56.3%	20.5%	23.2%

- Health indices:** Health is one of the vital parameters of development of any region. The study captures the level of development in terms of (a). Child vaccination (BCG at the time of birth), (b). Institutional delivery, (c). Incidence of diseases- Diarrhea and Malaria and (d). Access of a medical institution for treatment. The results revealed that most of the children (83%) in the region are getting their first dose of vaccination at the time of birth. This is exceptional in the case of Jhirka block, which still lags behind other blocks. In India, the government has established several health institutions such as Sub health

Centre (SHC), Public Health Centre (PHC), Community Health Centre (CHC), and Integrated Child Development Services (ICDS) to ensure that health facilities are provided to all including children right from birth. In this regard, institutional delivery becomes very vital that also ensures, to great extent, that vaccination can be provided to children at the time of birth. The status of institutional delivery reveals that in the district it is 53% which is far below than the Haryana state average of 79%. The distribution shows that institutional deliveries are as low as 44% in Firozpur Jhirka and as high as 65% in Tauru block. Incidence of diarrhea is one the most prevalent water-borne diseases in rural India. The block level results reflect that it is higher in Hathin and Firozpur Jhirka whereas it is low in Tauru. More importantly, around half of the population is accessing either private institutions or government institutions or doctors for treatment of disease. Again, Tauru block emerges to be the most developed block and Firozpur Jhirka is faring lowest in terms of development on health indices.

Table 4.3: Health Indices across Blocks in Mewat

Block	BCG vaccination	Institutional delivery	Incidence of diarrhea	Incidence of malaria	Accessing institutions for treatment
Jhirka	77.2%	44.0%	6.3%	1.7%	41.8%
Hathin	81.6%	63.9%	7.1%	2.0%	53.9%
Nuh	92.8%	50.7%	4.4%	1.1%	50.4%
Tauru	98.5%	64.7%	3.6%	0.1%	54.5%
Punhana	78.3%	51.3%	4.8%	1.0%	62.2%

4. **Gender indices:** Women empowerment is essential for improving and sustaining the overall development of the region. India lags behind other countries in terms of gender development and is ranked 101 out of 136 countries in the gender gap index (World Economic Forum, 2013). The parameters of women empowerment across blocks in Mewat in this study include (a). Proportion of households headed by females, (b). Gender gap in literacy, (c). Gender gap in enrolment, (d). Proportion of women in jobs (either government or private), (e). Proportion of households where only women fetch water, and (f). Amount of time women spend in fetching water. The results reveal that Tauru block is exceptional where considerable proportion of households are headed by females

and women (above 18 yrs) are involved in formal jobs which may either be government or private. The gender gap in literacy in the selected villages is found to be 33% which commensurate with overall Mewat census 2011 figures and this is more than double as compared to India's average (16%). With exception of Hathin and Nuh, in other blocks, it is only the women who are bearing the burden of fetching water for drinking. This situation is not much problematic in case of Tauru where the distance to nearest source of water is less and hence, relatively less time is spent. The situation is much worse in Punhana block where water availability is very low and women still have to spend huge time in fetching water.

Table 4.4: Gender Development across Blocks in Mewat

Block	Household headed by female	Gender gap in literacy	Gender gap in enrolment	Women in jobs (govt/pvt)	Men in jobs (govt/pvt)	Household where only women fetch water	Average time spent by women in fetching water (minutes/day)
Jhirka	2.4%	35.8%	21.0%	0.58%	4.49%	100.0%	225
Hathin	5.9%	31.9%	15.7%	0.44%	9.57%	87.3%	356
Nuh	5.8%	35.7%	23.5%	1.40%	9.31%	88.7%	286
Tauru	14.8%	28.0%	15.5%	5.48%	11.33%	98.4%	80
Punhana	3.4%	33.4%	13.3%	0.45%	3.78%	97.6%	318

5. **Demographic indices:** The development of a region in terms of demographic features is captured through the parameters of child sex ratio and average family size in the region. The block-wise results reveal an interesting picture whereby great variation exists within the district. Firozpur Jhirka block which appears to have performed poorly on key indicators discussed previously, has better child sex ratio with 977 females per 1000 males. Hathin and Tauru block which have done remarkably well on other parameters of development including women empowerment, lag way behind in terms of child sex ratio. In case of family size, it is found to be very high in Nuh, Hathin and Punhana block. It is found to be lowest in Tauru block. Due to better child sex ratio and low family size, Firozpur Jhirka block is found to be most developed in terms of demographic features, whereas, Hathin performs the worst.

Table 4.5: Demographic Indices across Blocks in Mewat

Block	Child sex ratio	Average family size
Jhirka	977	6.78
Hathin	790	7.02
Nuh	848	7.31
Tauru	802	6.43
Punhana	852	7.08

6. **Agriculture and livestock indices:** In Mewat, around 90% population resides in those rural areas where agriculture and livestock are one of the major sources of livelihood. The situation is quite grim due to poor availability of water in Mewat. Water in 55% of this region is mostly saline which is not fit either for drinking or for irrigation purposes and eventually affects crop and land productivity. This makes many people dependant on purchased water which adds to their household expenditure. In this study, we have looked into the following parameters to see the corresponding patterns of development across blocks: (a). Proportion of households purchasing water, (b). Gross irrigated area, (c). Proportion of small and marginal farmers, (d). Proportionate land under commercial crops, (e). Proportion of farmers owning tractors, (f). Proportion of farmers using drip irrigation, (h). Proportion of households owning buffaloes and cows, (i). Productivity of major crops grown in the region i.e., wheat and mustard. The results reveal that in Firozpur Jhirka block, around one-fourth of farmers are dependent on purchased water to meet their farm needs. This is also probably one of the reasons for lowest level of irrigation in this block. Tauru block, where most of the villages have access to sweet groundwater, no household is dependent on water purchase and this block also has the highest irrigation level. In Tauru block, relatively less proportion of people are owning livestock which is due to most of them being involved in formal government or private jobs as this block is near to the capital of the country. Due to conducive geographical location, the block enjoys the highest level of productivity of wheat which is grown by most of the farmers in this region. However, in Tauru, not many farmers are growing

commercial crops such as onion or carrot as they are mostly small and marginal farmers (95%). It is in Firozpur Jhirka and Nuh block where considerable area is put under commercial crops production like onion, tomato, carrot, brinjal etc. Focused group discussions revealed that most of the households in these blocks are relying solely on agriculture for their livelihood and hence, they either dig the land deeper for drawing water from the ground or purchase water to produce these high water intensive crops. This is further resulting in depleting water resources in the region which jeopardizes the sustainability of this precious resource that is critical for the inhabiting population. More non-farm jobs need to be created in this region to check over-exploitation of water.

Table 4.6: Agriculture and livestock development across blocks in Mewat

Block	Household purchasing water	Gross irrigated area	Small & marginal farmers	Land under commercial crops	Tractor	Drip irrigation	Livestock	Wheat yield (Qtls/acre)	Mustard yield (Qtls/acre)
Jhirka	25.2%	67.6%	88.1%	33.6%	9.4%	0.0%	65.4%	15.20	7.2
Hathin	17.2%	70.7%	91.6%	7.7%	16.9%	0.0%	76.5%	17.04	8.39
Nuh	22.8%	79.6%	86.4%	32.0%	16.4%	1.4%	67.4%	16.50	6.46
Tauru	0.0%	97.3%	94.7%	21.3%	14.5%	15.8%	59.2%	17.48	6.98
Punhana	13.3%	78.8%	94.2%	12.2%	9.5%	0.0%	67.8%	17.34	7.06

7. **Economy indices:** We have also looked into the economy of the households from the perspective of their pattern of saving, debt propensity and migration. The parameters to capture this include: (a). Work participation rate, (b) Proportion of households saving, (c). Migration (proportion of household where at least one member migrated in last one year), (d). Proportion of households taken debt, and (e). Proportion of households taken debt from institutions. The results show that not much difference is found across the blocks in terms of work participation rate which varies from 27% to 31%. In case of Firozpur Jhirka, 39% households are having at least one member in the household migrating for employment, mainly due to lack of non-farm jobs. Tauru block has the least number of migrants. Interestingly, around half of the population in Punhana has taken debt in the past one year, which is reduced to 17% in case of Tauru. Around 60% of the loans taken by the households have been for the purpose of either dowry, health or to

settle previous debt. More interestingly, it is some of the backward blocks like Punhana, and Firozpur Jhirka where most people are able to get loan from any institutional source.

Table 4.7: Economy indices across blocks in Mewat

Block	Work Participation Rate	Migration	Savings	Debt	Institutional debt
Jhirka	29.4%	39.0%	32.3%	37.0%	25.3%
Hathin	27.0%	23.1%	44.5%	38.7%	16.9%
Nuh	30.0%	23.2%	40.6%	34.4%	20.8%
Tauru	31.4%	4.9%	25.4%	16.9%	20.8%
Punhana	28.5%	29.2%	40.8%	45.5%	26.4%

Relative ranking of blocks encompassing all the seven domains of development reveals that Tauru block is the best performing block followed by Nuh Block. These two blocks remain in one of the top positions in case of most of the 40 indicators of development. Hathin and Jhirka stand at third and fourth rank respectively whereas, Punhana rank fifth and hence, is the least developed block in the district. It is revealed that widespread variation exists across blocks within the district. More attention needs to be given to Firozpur Jhirka, Punhana, and Hathin block that lag way behind as compared to other blocks.

Though, Tauru and Nuh block are the most developed blocks in Mewat, but as discussed previously, there are always possibilities that these blocks are not developed on all domains of development and the case also applies to other blocks that may be backward but may not be backward in all the domains. To understand the typology of development across blocks, we used composite index of development (C) obtained through factor analysis. We have employed the methodology used by Baruah to disaggregate level of development at village level. The fifty

villages across 6 blocks correspond to a specific value of C^{13} , describing the overall level of backwardness. Lesser the value of C , more is the level of backwardness.

Table 4.8 provides a snapshot of division of domains of development across five blocks of Mewat. The results reveal that Tauru is developed in all domains except in demographic characteristics as it is characterized by adverse child sex ratio and high family size. Similarly, Nuh is also not developed in all domains i.e., it is not developed in gender and economy which is primarily due to huge gap in gender literacy and considerable distance covered by women to fetch water. Interestingly, the least developed blocks including Firozpur Jhirka and Punhana are found to be developed in demographic index as they have better child sex ratio. The block level typology of development indicate that different strategies are required for different blocks in Mewat for achieving higher and more equitable growth in the region. For instance, in Tauru block, efforts should be directed to check adverse sex ratio in the block. For Punhana block, more emphasis is required for improving the livelihoods option (example, increase the reach of MGNREGA) and agricultural development, as remuneration from farming is low and around half of the population is debt ridden. Education and health also needs considerable attention in this block. Overall, education needs to be given more emphasis in Firozpur Jhirka, Hathin, and Punhana block, whereas agricultural sector needs more impetus in Punhana block.

Table 4.8: Typology of development across blocks in Mewat

Block	SOL Index	Demographic Index	Education Index	Health Index	Gender Index	Agriculture Index	Economy Index
Jhirka	0.234	0.422	0.457	0.555	0.139	0.516	0.347
Hathin	0.381	0.447	0.489	0.689	0.235	0.523	0.288
Nuh	0.458	0.457	0.586	0.678	0.226	0.577	0.377
Tauru	0.481	0.341	0.725	0.794	0.469	0.577	0.714
Punhana	0.321	0.480	0.368	0.593	0.189	0.411	0.257

The typologies of backwardness show that Mewat is most backward in the domain gender followed by standard of living and education. Among all the indices, most of the villages are developed in health domain due to increased vaccination, treatment of diseases in institutions. Correlation among different indices would further help in identifying linkages

¹³ The value of 'C' provides an improved measure of multidimensional backwardness by reconciling the issues of objective and endogenous weights, continuity in measurement and joint distribution of indicators (Baruah, 2012).

among development domains. The correlation index of seven selected domains of development in Mewat reveals that there is a positive and significant correlation of education and standard of living with all other domains of development except demographic features (Table 4.9). It is clear from the table that both standard of living and education indices are positively and significantly correlated. Both these indices are also positively and significantly correlated with indices of health, gender, and agriculture. This indicates that improving the standard of living and education facilities can positively lead to better health, gender and agriculture development or vice versa. This is quite intuitive as well. For instance, increasing the number of toilets would help in reducing prevalence of diseases and more education can lead to better development in gender and agriculture due to improved understanding and knowledge. It is also noted that it is the demographic index which in most cases, is negatively correlated with other indices. This was also revealed in the block-level analysis in the preceding section whereby the blocks which did the best in demographic indices of child sex ratio and family size have done poorly in other indices of development such as education and gender. This reflects that the general demographic features in Mewat are not linked with other development indicators. The most positive and significant correlation is found between education and standard of living (.62) followed by education and gender (.48) and standard of living and gender (.46).

Table 4.9: Correlation matrix of domains of development in Mewat

	SOL Index	Demographic Index	Education Index	Health Index	Gender Index	Agriculture Index	Economy Index
SOL Index	1.000	-.075	.625*	.381*	.459*	.246*	-.063
Demographic Index	-.075	1.000	-.120	.071	-.245*	-.157	-.490*
Education Index	.627*	-.120	1.000	.393*	.487*	.313*	.162
Health Index	.381*	.071	.393*	1.000	.218	.045	.050
Gender Index	.459*	-.245*	.487*	.218	1.000	.149	.443*
Agriculture Index	.246*	-.157	.313*	.045	.149	1.000	.011
Economy Index	-.063	-.490*	.162	.050	.443*	.011	1.000

* significant at 1% level of confidence

4.2: Dimensions of Development in Mewat and its determinants

The dimension of development across villages is analysed by categorizing the selected fifty villages on the basis of the extent of development in terms of number of parameters on which they are developed or backward. For instance, some villages follow the pattern of uni-dimensional development whereas some follow multi-dimensional pattern. The distribution of villages and their spread across blocks is provided in table 4.10. The results show that none of the villages are developed in all the seven domains of development. There are 5 and 7 villages which are developed in six or five domains of development respectively and these villages belong to Tauru, Nuh and Hathin block. Furthermore, there are 9 and 13 villages respectively which are developed in four and three domains of development. There are 5 villages which are developed only in one domain which belong to Firozpur Jhirka, Hathin and Punhana blocks and there is only one village in Punhana block which is not developed in any domain of development.

Table 4.10: Dimension of development in selected villages in Mewat

Dimension of development	Number of villages	Distribution across Blocks				
		Hathin	Tauru	Nuh	Jhirka	Punhana
All dimension development	0	-	-	-	-	-
Six- dimension development	5	2	2	1	-	-
Five- dimension development	7	1	3	3	-	-
Four- dimension development	9	-	2	3	3	1
Three- dimension development	13	1	2	3	3	4
Bi- dimension development	10	2	-	-	6	2
Uni-dimension development	5	2	-	-	2	1
All dimension backward	1	-	-	-	-	1

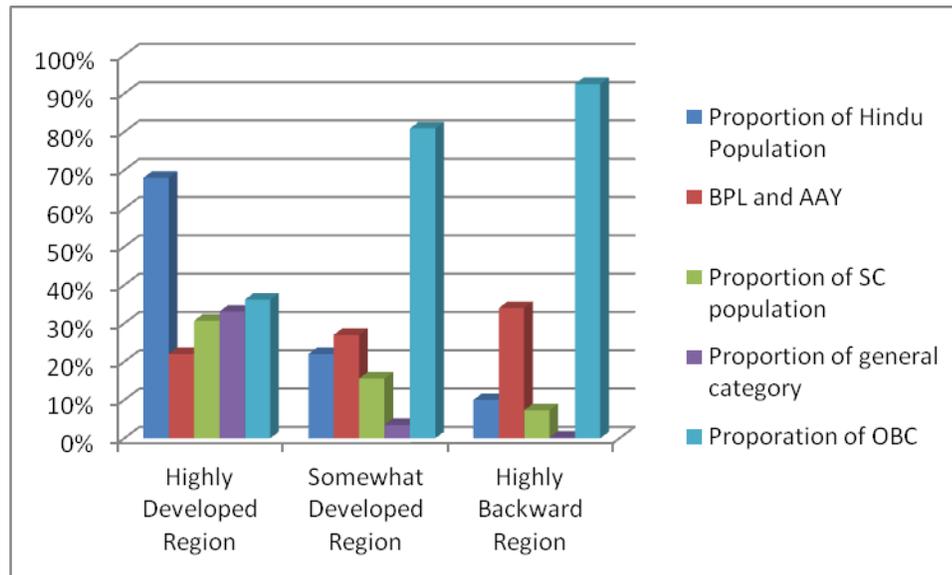
On the basis of dimensions of development, the villages are categorised into three groups. The first group (Group A), termed as highly developed includes the villages that are developed in five and six domains of development. In total, there are 12 villages (24%) under this category. In the second group (Group B), termed as somewhat developed or marginally developed or backward, there are those villages which are developed in either three or four domains of development (22 villages). The third category (Group C) includes the backward villages (16 villages) which have developed only in two, one or none of the development indices. The results

reveal that 32% of the region (group C) is highly backward, which have higher level of backwardness in several domains of development. It is found that none of the villages in this region (group C) is developed in education, gender and standard of living. There is huge gap in gender enrolment as well as most of the women spend most of their time in fetching water which is scarce in the region. Out of 16 villages, merely 13 villages have schools beyond primary level. It plays pivotal role in drop-out after grade 5, especially by female children. This calls not only for establishment of more schools but recruitment of more teachers, especially female staff. Low standard of living in this region is mainly due to lack of toilet facilities at home along with very less usage of LPG as a source of energy for cooking. The villages under this category have some development in demographic and economy. In group B, very few villages are found to be developed in gender and economy. In group A of highly developed villages, it is only the demographic aspect in which the villages are not much developed.

In the past, several committees on backwardness have highlighted high percentage of Scheduled Castes and Scheduled Tribes (SC/ST) population as a core indicator of backwardness. This was because the districts falling under the category of being backward were found to have a high proportion of SC/ST population. As most of those studies were district level, this was challenged by Baruah who for the first time conducted a block-level study to understand varied dimensions of development/backwardness. In his study covering 223 blocks in India, Baruah found that the proportion of SC/ST was not linked with level of backwardness. In addition, Rajinder Sachar Committee in 2005 studied social, economic and education condition of the Muslim community in India. The committee found that the status of Indian Muslims was below the condition of SC/ST in the country and they were also found to be deprived of all the dimensions and resources necessary to further development. Findings by the Rajinder Sachar committee and Baruah are echoed in our study as well. In the present case of block level study, we found that in Mewat, backwardness is not linked with proportion of SC population but with the Muslim population within Mewat (Figure 4.1). In fact, there is equal proportion of general, SC and OBC population in the highly developed region. Furthermore, in the highly developed region, around 68% of the population is Hindu. The results also reveal that backwardness which is calculated mostly in non-economic multi-dimensional aspects is mostly prevalent among the

poor households as majority of the households in the highly backward region are Below Poverty Line (BPL) and Antyodaya (AAY) card holders.

Figure 4.1. Selected Demographic features across different level of Development



The differences in the development across the three groups are further investigated by looking at infrastructure, economic, and governance related factors. The data on these aspects is collected from questionnaire and focus group discussions and resource mapping done in all 50 villages. The results reveal that infrastructure in the villages does play a pivotal role in explaining the differences of development. The highly developed region has higher proportion of *pucca* roads (83%) as compared to other groups where it is either mostly *kucha* or partially *pucca*. All the villages have schools at least until primary and few of them (9) still don't have schools beyond primary level. Children from these villages have to travel to other villages which could be one of the hindering factors for enrolment after 5th, especially by the female child. The distribution of villages across the three regions reveal that in the highly developed region, only one village do not have school beyond primary whereas in case of highly backward region, three villages does not have schools beyond primary. The focus group discussion with the villagers revealed that income generation, taking care of household chores, and lack of transport facilities as major factors for either dropped out or never enrolment by the eligible children. Thus, it can be concluded that school infrastructure also, to some extent, played a role in drop-out of children

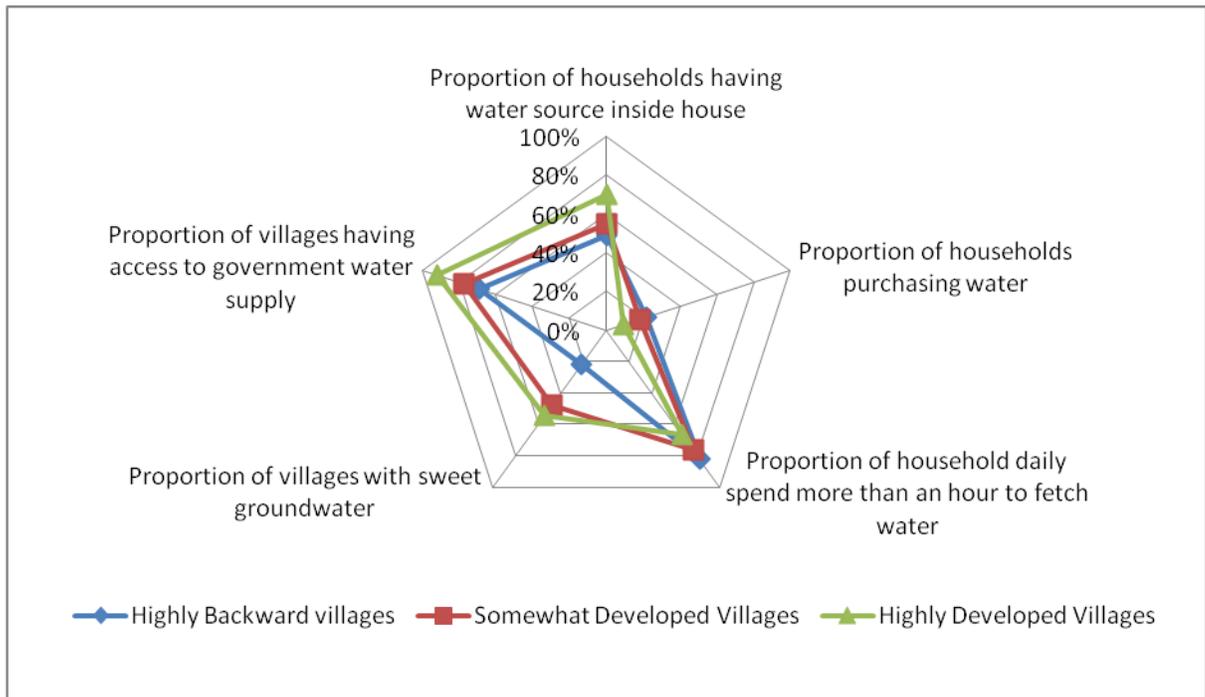
in the selected villages. In terms of infrastructure, distance to nearest bank and high is found not to be significantly vary across the three regions.

Table 4.11: Infrastructure features across different level of Development

Block	Proportion of villages with <i>Pucca</i> Roads	Average distance to nearest Bank (in Kms)	Proportion of villages having schools beyond primary	Average Distance to Highway (in Kms)
Highly Backward villages	59.38%	4.31	81.25%	10.06
Somewhat Developed Villages	59.09%	4.34	77.27%	8.55
Highly Developed Villages	83.33%	4.75	91.67%	10.75

Mewat is a water scarce region whereby most of the water is saline and not fit for drinking. The water infrastructure is looked into by several parameters, i.e., water source inside house, proportion of household purchasing water, time spend to fetch water, proportion of villages with sweet groundwater and government water supply. For all the five indicators of water infrastructure shows linear pattern of being poor in the highly backward region to better in the highly developed region. In other words, in the highly developed villages, sweet water is available with higher proportion of households having water inside their house. This saves time for fetching water which releases time for other productive activities especially by girls and women, like going to school etc. More than 90% of the villages in highly developed villages have government water supply and merely 9% of the households are dependent on purchasing water for meeting their household needs. Better water infrastructure releases both economic resources and spares time for other activities that are found to be crucial in explaining difference in development across the region.

Figure 4.2: Water Indices across different level of Development



For economic factors, we have looked into the work participation rate, proportion of household engaged in regular and formal jobs, and rate of migration. The work participation rate indicates the proportion of population engaged in work, either formal or informal. Higher the work participation rate, higher is the possibility of development. Formalisation of job is also vital as that reduces the risk of income of the household. Migration is one of the strategies undertaken by the household which can be proved to be both positive or negative for the development of the region as it depends on who migrates, how many migrates, where they migrates, how much they earn and capacity building at home. The results reveal that though the work participation rate is higher in the highly developed region but not much significant difference exists across regions. The proportion of households involved in formal jobs (either private or government) does play a more pivotal role in explaining difference in development across region; significantly higher proportion of households in developed regions are engaged in formal jobs. In Mewat, the numbers of factories or industries are very few and agriculture is also backward due to climatic conditions and water scarcity, which drive people toward migration to other regions. In the selected villages, around one-fourth of the household have at least one member who has

migrated in the past one year. The question arises whether migration has helped in development of the region or not. The results reveal merely 11% of the households in the highly developed region have opted for migration against 33% of the households in the highly backward region. This shows that people in Mewat are not benefitting from migration. It is still a survival strategy adopted by the select households which is not helping in the overall development of the region.

Table 4.12: Economic Indices across different level of Development

Block	Work Participation Rate (%)	Proportion of household engaged in regular and formal jobs	Proportion of households in which at least one member migrated
Highly Backward villages	29.3%	1.6%	33.3%
Somewhat Developed Villages	27.5%	4.4%	27.0%
Highly Developed Villages	31.0%	9.3%	11.2%

We have also investigated into selected governance related factors for explaining differential development. In specific, we looked at availability and functioning of ICDS, awareness about School Management Committee (SMC) and Village Health Sanitation and Nutrition Committee (VHSNC) and participation in the *gram sabha* meetings. The results reveal that the number of ICDS does not vary considerably across the regions however; there is a marked difference in the perception of the people in the region about its functionality. In the developed region, more than 90% villages have reported that ICDS functions regularly and effectively which influences gender and health development of the region. On the other hand in case of backward regions, around 80% villages reported better functioning of ICDS. In the previous section, it was found that among the seven indices of development, health is the most developed domain, and it could be attributed to better functioning of health institutions like ICDS. Gram Panchayat is the local self-governing institution at the village level. Most of the households in the highly developed region are found to have participated in the meeting as compared to the villages in the backward region. Furthermore, relatively more proportion of people in the highly developed region are aware of VHSNC committee which work towards the development of health situation in the villages. Not much variation found across regions in terms

of awareness of SMCs. Better awareness about the local institutions, its' function and participation in meeting can potentially lead to better functioning of the institutions at the village level.

Table 4.13. Governance Indices across different level of Development

Block	Number of ICDS per village	Proportion of villages reported regular and effective functioning of ICDS	Proportion of villages where villagers participated regularly in Gram Sabha meeting	Awareness of SMCs	Awareness of VHSNCs
Highly Backward villages	2.56	81.25%	75.00%	68.75%	68.75%
Somewhat Developed Villages	2.32	77.27%	77.27%	68.18%	72.72%
Highly Developed Villages	2.58	91.67%	91.67%	58.83%	83.33%

4.3. Conclusion

Understanding the typology and dimensions of development is vital to frame any developmental strategy, which aims not only to improve the overall growth of the region but also aims to decrease inter-regional disparities. It is required to prepare proper planning of various sectors in the region and also to fix priorities for developing the backward regions. It is important to note that reduction in such disparities is a long-term process calling for a perspective plan with the twin objective of sustaining the present level of development in the developed blocks and promoting relative growth of backward blocks. The district average should go higher not by a huge increase in sectoral performance of a few blocks, but it should go up with improved performance of the backward blocks (Venkatesh, 2000).

The block level typology of development indicates that different strategies are required for different blocks in Mewat for achieving higher and more equitable growth in the region. For instance, in Tauru block, efforts should be directed to check adverse sex ratio in the block. For Punhana block, more emphasis is required for improving the livelihoods option (example, increase the reach of MGNREGA) and agricultural development, as remuneration from farming is low and around half of the population is debt ridden. Development policies should focus on

agricultural activities for improving the livelihoods of people in Punhana block. Education and health also needs considerable attention in this block. Overall, education needs to be given more emphasis in Firozpur Jhirka, Hathin, and Punhana blocks; whereas the agricultural sector needs more impetus in Punhana block. Major part of the district is grappling with low level of development on gender domain, primarily due to the huge gap in male and female school enrolment, and the responsibility placed on girls to fetch water in water-scarce regions. This calls for development in both education infrastructure¹⁴ and water infrastructure¹⁵ to improve the women's situation in the district. Education should also receive considerable priority as in around 20% of the selected villages, there are schools only upto primary level, which is the major cause of school drop out after fifth class, especially in case of female children. The study also revealed that in Mewat, multi-dimensional backwardness is more prevalent among the OBCs, Muslim and economically poor (BPL and AAY card holders) people who should be the target for improving the overall and equitable growth in the region. Though considerable number of households have migrated for earning better livelihoods, due to lack of industries and under-developed agriculture, it has further hindered the process of development of the region. There is a requirement of creating more jobs in the region and develop the water infrastructure for the development of agriculture sector to check migration. Furthermore, water infrastructure, formal jobs and better governance in terms of awareness and participation are the key factors that need push for development of the region.

¹⁴Includes establishment of schools and increased availability of teachers, especially female teachers.

¹⁵Includes provision of quality water supply near to villages

Appendix 4.1: Selected Indicators of Development

S.No	Domain	Indicators
1	Standard of Living	Electricity as primary source of lighting
2		<i>Pucca</i> House & floor
3		LPG as primary source of energy for cooking
4		Mobile
5		TV and Radio
6		Toilets
7	Education	Educated Household Head
8		Female Literacy Rate
9		Male Literacy Rate
10		Male Enrolled
11		Male Drop Outs
12		Male Never enrolled
13		Female Enrolled
14		Female Drop Outs
15	Female Never enrolled	
16	Health	BCG Vaccination
17		Institutional Delivery
18		Incidence of Diarrhea
19		Incidence of Malaria
20		Accessing institutions for treatment
21	Gender	Household headed by female
22		Women in govt/pvt jobs
23		Men in jobs (govt/pvt)
24		Average time spent by women in fetching water (minutes/day)
25	Demographic	Child sex ratio
26		Average family size
27	Agriculture and livestock	Household purchasing water
28		Gross Irrigated area
29		Small & marginal farmers
30		Land under commercial crops
31		Tractor
32		Drip Irrigation
33		Livestock (Buffalo and Cows)
34		Wheat Yield
35		Mustard Yield
36	Economy	Migration
37		Work Participation Rate
38		Savings
39		Debt
40		Institutional Debt

Appendix 4.2: Usage of LPG as a source of energy for cooking across blocks in Mewat

	Jhirka	Hathin	Nuh	Tauru	Punhana
Proportionate of households using LPG with other sources	9.8%	21.0%	24.1%	41.5%	10.7%

Chapter V

Conclusion

After over 60 years of independence, India faces concerns about widening disparities in growth and development. It is usually considered that developed regions are growing further while the underdeveloped or backward regions are getting marginalized. Sustainance of overall development requires adequate balance. In the past, the Indian government formulated, area-specific development strategies based on the regional context including resources. Several committees have been constituted both at the national and state level to deal with the issue of backwardness. Overtime, these committees have come up with findings and recommendations to improve the quality of life of people living in the backward areas.

A major policy step in this direction was the setting up of the backward region grant fund which was designed in 2007 to redress regional imbalances in development in India. The fund provides financial resources for supplementing and covering existing developmental inflows into identified 250 districts across 27 states so as to bridge critical gaps in local infrastructure and other development requirements that are not being adequately met otherwise. It is recognized that among the identified BRGF districts, most of them fall in the backward states, and are concentrated in North-east, East and Central India. In addition, many of these districts are heavily populated by the SC/STs and minorities. However, the Planning Commission also recognizes that a few districts also fall in the developed states such as Mewat in Haryana, and some districts of the Vidarbha region in Maharashtra. Mewat district is not identified as a BRGF district, but it has a high concentration of minorities, specifically Muslim.

In this backdrop, the current study examined the level and typology of development in Mewat district of Haryana. The study aimed at providing an in-depth understanding of the dimension of development or backwardness and attempts to suggest policy actions that are required to improve the situation in the region. The two main objectives of the study include analysing the multi dimensional aspects of development in the Mewat region; and mapping the

typology of backwardness across blocks within the district and suggesting appropriate strategies for development. To obtain a holistic perspective of development in the region, the study utilized both primary and secondary data sources. The district level variation across Haryana state was analyzed using the secondary data sources. The block level development and its typology were studied utilizing primary surveys that were conducted in four blocks (Firozpur Jhirka, Nuh, Punhana, and Tauru) of Mewat district and one block (Hathin) of Palwal district of Haryana. The major domains of investigation in the primary surveys were education, agriculture, health, economy, gender and standard of living. Approximately, 10% villages of total number of villages in each block were included in the study.

To examine the multi dimensional aspects of development, an intra state comparison on key development indices across districts in Haryana is drawn, whereby Mewat is compared with other districts in the state. The state is divided into three analysis regions; Mewat district is compared with other BRGF districts (two districts: Mahendragarh and Sirsa) and the rest of the 18 districts in the state. The key development domains on which the comparisons are drawn include demographic characteristics, standard of living measures, education, health, agriculture and livestock and status of public infrastructure and financial services. Analysis of the overall situation on key development indicators yields that Mewat falls way behind the BRGF listed districts and the rest of the districts in the state; Mewat performs worse than the backward districts on key development indices. Standard of living measures and essential infrastructure facilities in the domain of education, health and public services emerge to be low in case of Mewat. Decadal transition within Mewat is also mapped to understand the development that has taken place over time. The analysis further reveals dearth of development over time. Even though, relative development in terms of education and health infrastructure has improved over time within Mewat, there continues to be a wide gap between the demand and supply.

A block level variation in Mewat district was mapped to understand the typology and dimension of development in the region. Block level primary data was collected from five blocks on 40 development indicators that were then clubbed into seven broad domains. To analyse the overall level of development of a block, all the seven domain indices were combined together. While combining the domain indices, each domain index was taken as an individual indicator

and the composite index of development was prepared using the technique of factor analysis. Furthermore, to identify domains of development that require more attention of the policy makers in Mewat so as to improve the overall and equitable development in Mewat, the distribution of selected seven domains was analyzed.

The block level typology of development indicates that different strategies are required for different blocks in Mewat for achieving higher and more equitable growth in the region. For instance, in Tauru block, efforts should be directed to check adverse sex ratio in the block. For Punhana block, more emphasis is required for improving the livelihoods option (example, increase the reach of MGNREGA) and agricultural development, as remuneration from farming is low and around half of the population is debt ridden. Development policies should focus on agriculture activities for improving the livelihood of people in Punhana block. Education and health also needs considerable attention in this block. Overall, education needs to be given more emphasis in Firozpur Jhirka, Hathin, and Punhana block, whereas agricultural sector needs more impetus in Punhana block.

The spread of development in Mewat reveals that 32 % area show higher level of backwardness with developed only in either one or two out of seven indices of development whereas 24 % area show higher level of development with being developed in more than five indices. The backward or highly deprived region in Mewat is saline-water zone whereas the developed region is a sweet-water zone. Lack of sustained water supply coupled with higher level of salinity has resulted in increasing households' dependence on either purchasing water or spending enormous time to fetch water from sources far from their villages. Furthermore, in the developed region, farmers having access to fresh water are able to produce high value crops which are of high demand in their neighbouring area, Delhi, and accordingly have higher standard of living. People in backward region are dependent on informal credit and several of them have migrated to work as drivers in nearby states. In Mewat, majority population resides in rural area and is engaged in agriculture. Harsh climate conditions coupled with high salinity has limited crop choices and low crop yield. As scarcity of resources limits avenues of industries in the region, and nearly 55% area in Mewat is saline, investment on agriculture technology should

receive attention. New saline resistant crop varieties introduced recently in several countries can also be introduced in Mewat.

The district is featured with low level of development on gender domain. As there exists huge gender gap in enrolment, and responsibility of fetching water and collecting fuel wood on female child in the region where water is scarce, there is an urgent need to improve both education infrastructure and water infrastructure for improving the women's situation in the district. Lack of public transport and delivery centres has also restricted the development of women in this region. In around 20% of the selected villages, there are no schools beyond primary level which is the major cause of school drop out after fifth class, especially true in case of female children. Among the different groups, multi-dimensional backwardness is more prevalent among the OBC, Muslim and economically poor (BPL and AAY card holders) people. In Mewat, migration is experienced by 25% of the selected households primarily due to lack of industries and under-developed agriculture in the region. But migration has not proved to be improving development of the region. There is a requirement of creating more jobs in the region and develop the water infrastructure for the development of agriculture sector to check migration. Furthermore, water infrastructure, formal jobs and better governance in terms of awareness and participation are the key factors that need push for development of the region.

Understanding the typology and dimensions of development is vital to frame any developmental strategy that aims not only to improve the overall growth of the region but also aims to decrease inter-regional disparities. It is required to prepare proper planning of various sectors in the region and also to fix priorities for developing the backward regions. The findings emerging from primary and secondary data analysis yield that Mewat performs poorly on key development indices. The situation is even worse than the BRGF districts within the state. Furthermore, block level variations within the district also highlight contextual differences and the need to look at development from a multi dimensional perspective.

The low performance of Mewat on key development indices certainly demonstrates that the district should be included under the BRGF scheme. The purpose of the scheme is to “bridge critical gaps in local infrastructure and other development requirements that are not being

adequately met through existing inflows; strengthen, to this end Panchayat and Municipality level governance with more appropriate capacity building, to facilitate participatory planning, decision making, implementation and monitoring, to reflect local felt needs; provide professional support to local bodies for planning, implementation and monitoring their plans; and improve the performance and delivery of critical functions assigned to Panchayats, and counter possible efficiency and equity losses on account of inadequate local capacity”. (Government of India, 2014). Also, considering block level analysis as the unit for identification of development gaps could be further explored. Holistic and balanced development can only be achieved when contextual variations are considered and right gaps are addressed. This is consistent with the approach of the BRGF scheme, which aims to strengthen local governance and participatory planning.

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