

Under the Rug Swept: Rural Punjab Women in the Ecotone of
Urbanization

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Introduction: Pakistan and the Punjab Province

In 1947, Pakistan emerged as a new country from the fragmented British-Indian Empire and began a development phase to define itself in a post industrial era. Located East of Afghanistan and sharing a northern border with China, the nation contains six distinct geographical regions divided amongst the four provincial governments of Sindh, Balochistan, the North-West Frontier Territories, and Punjab.¹ In 2006, the Central Intelligence Agency estimated the total Pakistani population circa 1.66 million.² The United Nations included Pakistan as a developing country in its 2005 Human Development Report and cites 51.3% of the adult population as being illiterate and a third of the population (32.6%) as living below the national poverty line; overall, the United Nations ranked Pakistan at 135 on its 2004 Human Development Index.³

The Pakistani population consists of diverse, eclectic groups whose common religious affiliation ties together the various regional cultures, ethnic traditions, and numerous dialects. Provincial differences include traditional garb, food, and geographic environments, which can include glaciers in the north, plains in the midlands, and deserts further south towards the coast line. Of the four provinces, Punjab hosts the greatest output of agriculture products, primarily due to its well-endowed access to waterways and crop land potential. The region features five major rivers, tracing to the Himalayas in the north; with access to water and a significant portion of the labor reported in the agriculture sector, Punjab accounts for the majority of Pakistan's grain production. In 2005, Punjab produced the greatest output of food crops and the majority of non-food crops in comparison to the other provinces, further marking the importance of the region's agricultural sector in the spectrum of Pakistani farming.⁴

Overall, the greatest portion of Pakistan's work force falls under the category of agricultural labor, marked at 42%, with industry and other labor services accounting for smaller portions of the labor force.⁵ Although residents of Pakistan's rural area remain primarily agricultural workers, occupational farming has decreased since the late '90s. Between 1996 and 2000, agriculture accounted for 50-55% of the rural labor force; in the past years, national statistics reveal a decline, placing rural occupation within the agricultural sector at 48.83% in 2004 and slight increases in non-farming occupational sectors.⁶ While agriculture remains an important element within the Pakistani economy, a

rising trend of industrial expansion deserves focus. In 2005, the overall national increase in the industrial sector was estimated at 10.7%, and the Punjab province is not oblivious to the current situation.⁷ Within the two year period between 2002 and 2004, Punjab-based manufacturers strengthened their presence in the national market of paper, fertilizers and other manufactured goods.⁸ As industries expand outside of the core cities, rural populations face urban pressures. In face of industrial growth, today's farming communities find themselves facing a new land competitor as well as a foreign urban neighbor in the extending city limits of such areas as Lahore.

Traditions of a historically agricultural environment formulate the community life of rural Punjab; at present, such customs undergo alteration as a reaction to the stress of urban factors. Urbanization is affecting the economics and social structure of rural family life. Alternative employment options, aside from the customary farming sector, allow for several profit generators within a single family. This provides a steadier, more stable income compared to a dependence on fluctuating crop prices. As urban cities expand their industries into the surrounding rural areas, they also extend their services.

Urbanization heightens awareness to inner-city concerns that in the past were overlooked by the rural population. New focus emerges regarding the topic of primary education as agrarian families realize the value of formal education in the new core-peripheral atmosphere. Between 1999 and 2004, surveys reveal a trend of increasing literacy rates amongst the rural population, with progression seen in both sexes (table I). Over a nine year span (1996-2005) 51 new Rural Health Centres were constructed within Punjab, as well as 163 additional Basic Health Units between 2000-2005.⁹ The expansion of such infrastructures has enabled the extension of professional service and primary health education that has been limited in access to peripheral inhabitants. Appearance of urban centers in close proximity increases awareness of sanitation measures and health programs readily available to city dwellers which have been ignored and disregarded within the agricultural community.¹⁰

Special attention needs to be directed to rural Punjab women, who, in the past, have been overlooked and been figuratively 'swept' under the economic radar. Their domestic role is essential to the family unit, albeit, invisible to the economic grading system. With the appearance of urbanization onto the farmscape, the role of Punjab

women is being revamped, with additions to their household duties and their function as economic contributors. The Compendium on Gender statistics in Pakistan 2004 cites the increase of female headship and accredits the finding to male absence in the rural home.¹¹ Increase of female headship amidst the Punjab population correlates with the higher proportion of Punjab males seeking alternative employment. Between 2001 and 2002, 9.1% of rural Punjab women responded as head of the household compared to 0.4% of women living in the agrarian regions of the Sindh province.¹² The study attributes low levels of female headship to the low rates of migration by Sindhi males into cities and entry into urbanized areas; in contrast, Punjab and NWFP males are more likely to seek higher employment, migrating to areas offering economic opportunities devoid of a “soil-based identity,” and more likely to participate in urban activity.¹³ Male migration is the leading factor in regards to female headship, more so than any social variable.¹⁴ In effect, as men seek alternative occupations outside the peripheral zone, the role of the rural woman alters within the household.

Hitherto, female presence in the Pakistani labor force has been focused in the agricultural sector.¹⁵ However, rural women may seek farming alternative activities, and employment statistics display female involvement in non-agricultural sectors. The majority of Pakistani women employed by the industrial sector participate in the manufacturing division, and, The Compendium on Gender Statistics 2004 reports an improved participation rate of 48.5% among the labor force of rural Punjab women.¹⁶ This increase may be absorbed by either the formal or informal economy, job opportunities offered by the presence of industries, or other forms of employment made available through urban expansion that divert participation from the farming sector.

Heightened concern regarding proper health care has led to methods incorporating the female residents of the agrarian locality. Increase in female activity within the rural health sector is a progression for basic health practices and family planning education.¹⁷ The National Program of Family Planning and Primary Health Care sponsors the Lady Health Worker training and involves local women in the healthcare campaign. Through this program, participants receive instruction and then promote practices through household visitations and meetings with other women in their locality.¹⁸ The success of the program depends on the female within the household, and women are given the

responsibility of basic health services and primary care knowledge.

Constructing the social ecotone

I. Flow concept

Reduction of the agricultural sector is an apparent global trend and sorely affects regions in which farming is the prevalent economic activity, causing a shift of labor to urban centers and land transformations to service a non-agricultural function.¹⁹ Movement between the rural community and the urban city is a dual directional flow, with factors from each environment permeating into the other. Women, in particular, represent an active flow of labor from the agrarian areas into the more urban environment, and Punjab women illustrate the pattern by their entrance into the informal economy. Traditionally playing a domestic position, many of Punjab's rural women have altered their role and taken upon such tasks as street vendors, household helpers and other available service opportunities. While an outflow occurs in regards to the workforce, the rural community experiences an inflow of services from the urbanized centers. Inner-city infrastructures expand to service a faction of the population that, before, was out of reach and not within institutional concern. Newly constructed schools at closer proximity to the farming communities increase educational opportunity, especially among the female population. Consequently, the prospect of higher education promotes social advancement through college and encourages integration into city life where most career teaching facilities are located. As the agrarian mentality assimilates with urban modernity, the intermingling of the two prompts re-evaluation of traditionally held social norms.

With expansion and growth of such industrialized cities as Lahore, urbanization affects the periphery of Punjab and transforms agrarian localities into the transitional communities that serve as intermediary zones located between the urban core and the remaining peripheral areas. This mediating region is unique in its composition and exemplifies the border effect, in which factors from both the industrialized city and the agricultural sector permeate into the economy and social life of the go-between region and its inhabitants. As buffering zones, these localities are characterized by the industrial presence of local factories, while continuing to practice the traditional agricultural trends. However, these mediating regions face a pressuring dilemma with the continued

expansion of Lahore and other major cities within Punjab. In face of continued urban growth, buffering regions located between the commercial hub and the agrarian communities become prone to greater industrial presence while increasing, by diminished distance, the influence of the urban sector on peripheral areas that maintain a dominantly agrarian economy and lifestyle.

II. Landscape

Moving outward from Lahore towards the periphery requires entry into a bordering phase which features intermixed factors of both urban and rural environments. At times, the shift into the buffering zone is clearly outlined by constructed wall divisions and other methods of separation, constructing a divided landscape, such as the one depicted in Picture I. Urban housing developments paint the background, a bulldozer marks newly incorporated land as part of the housing complex, and farmed land indicates the exact boundary at which urban expansion halts and agriculture begins. In other areas, dried clay walls mark the dividing boundary with one side facing a local farmer's market and the alternate side serving as the backyard fence to an extended urban housing district. Not every transitional point is divided so severely; note, however, that such scenarios do exist and buffering areas may not provide a smooth transition from the urban areas to the rural regions. Instead, through rapid urbanization, areas intermixed with both an agrarian economy and industrial influence become encompassed into the increasing city perimeter. As they are incorporated into the expanding city limits, the result is a moving boundary outcome and the buffering zone fails to maintain a fixed edge. Instead, the perimeter is redrawn continuously in order to reflect the shifting boundary; it is constantly edited, depending on pressuring factors of expansion.²⁰

In contrast to the carved landscape, the social climate between the urban core, buffer zone, and agrarian region exists as an intermixed relationship. The concept of flow, as mentioned above, transfers variables across the boundary line of their economic network; this movement lends to the combination of various factors within the buffer areas and leads to the creation of a blended social environment termed a social ecotone. Inhabitants of such intermediary regions are conscious of both the traditional agrarian lifestyle as well as novel concepts of urban living. The merged environments produce a re-evaluation of traditional social roles, largely affecting the population of rural women.

Economically, residents of the buffering areas maintain traditional farming and continue to raise animal stock; however, they are also observant of novel opportunities offered by the presence of urban expansion.

Amidst the urbanization of Punjab's agrarian community, the role of rural women undergoes a social evolution in reaction to the permeating urban culture. This study questions the effects and progression of the female gender amidst the new paradigm of urban living. It defines new roles of rural Punjab women in reaction to economic conditions, labor demands, and the modern concept of working women, all which have been introduced by urban expansion. Overall, this study evaluates the function of rural Punjab women amidst the agricultural social sphere and examines the re-alignment of gender duties in response to the presence of urban city life which has expanded into the agricultural sector.

Methodology

I. Study Area

The Punjab region in Southeast Asia is composed of a common cultural identity, a provincial dialect and a historically agrarian lifestyle. In 2005, 59 million people reported as residing in Punjab's rural areas, a marked majority of the overall 103 million residents of Pakistan's rural population.²¹ Of Pakistan's four regions, Punjab contributes the greatest amount of crop production to the overall national yield. Eighty percent of the reported area within Punjab is either cultivated or cultivable, highlighting the importance of agriculture within the region.²²

The Punjab province includes several of Pakistan's noted cities, the most popular of which being Lahore. The city holds historical importance and was a well-developed inner-city hub during the existence of the British Indian Empire; at present, it continues to be a cultural and urban destination. Today, Lahore contains an active industrial sector and provides employment of the city's inhabitants. Of Punjab's 2357 factories, 637 are located in Lahore, the highest accumulative number of any reported locality.²³ Production from the Punjab's manufacturing sector contributes significantly to the national tally of manufactured goods. Table II relays the majority share hold of Punjab's manufacturing industry in such areas as cotton cloth, sugar, fertilizers, paper and cardboard, soda ash,

caustic soda, and sulphuric acid; statistical importance is also noted in the cigarette industry, cement, the production of vegetable ghee, and cotton yarn.

The presence of Lahore contributes to the study by illustrating the existence of urban factors in a province that has historically been, and continues to sustain, an agricultural economy. The outskirts of Lahore feature small towns and collected housing structures whose tenants exemplify the demographics of a border zone. Residents partake in either of two economies: one which is supported by the inner-city of Lahore and its branched local industrial units or the more traditional alternative of farming at nearby sites.

II. Survey Approaches

National and provincial reports cite only urban and rural statistics and consider the transitional communities within one or the other; for this reason, an interview method was chosen in order to avoid overlapping data between urban and rural areas. As this study concentrates on women residing between the city and periphery, interviews were conducted from the female population of these intermediary regions. Primary data for this study was collected from localities situated just beside the major city of Lahore between the months of June and July in 2006. Less than a decade before, these communities relied dominantly on farming as an income source and had been a considerable distance away from the main city of Lahore. In such rural environments, the government had enacted a policy of basic healthcare to serve the distanced populations. Basic Health Units (BHUs) were strategically constructed to provide agricultural localities with access to professional consultation and medication, while maintaining a low-cost fee to promote a service-to-all policy within the community. These building sites have had a continuous role in the peripheries of Punjab, despite the change in the surrounding landscape and the greater ease of obtaining inner-city medical care.²⁴

The decision to use BHUs as the interaction site between the surveyor and the inhabitants of the region results from the consideration of several factors. Firstly, BHUs are the primary site of health consultation in rural areas;²⁵ high patient count at each facility guarantees a sizeable selection pool of the region's inhabitants from which to conduct surveys. Secondly, BHUs support a community education policy which includes the personal relationship of BHU staff with local residents. Many of the staff members

reside in the localities they serve and play a critical role in the validity of the healthcare unit. As members of the community, they provide familiarity to the patients and promote the acceptance of BHUs as a service facility. Thirdly, women are the greatest fraction of the local population that utilize the BHUs.²⁶ As this study concentrates on the effects of women residing in peripheral areas, a BHU serves as a networking system to communicate and form relationships with the community's females. Lastly, BHU staff includes the Lady Health Worker (LHW) program. These women are local residents who conduct monthly visitations to ensure whether basic healthcare methods are practiced at home. The program requires house calls within the LHW's neighborhood, and its success depends on transfer of knowledgeable healthcare practices through the household's females. Majority of interviews were conducted by accompanying various LHWs on their rounds.

In total, access was gained to seven BHUs and one dispensary. Interviews were conducted with staff members and the in-charge doctor and, if present, the female specialist regarding healthcare policy, successful implementation methods, local diseases, and personal evaluation of the recent healthcare reform. Staff members residing the area were asked open ended questions regarding the locality, such as population demographics, residential areas, recent developments, economic activity within the area, recent industrial movement, and shifts in land ownership. Those interviewed included pharmacy workers, doctor aids, and LHWs. Statistics were provided as to the patient flow in the past four years at every location. By such a method, a basic comprehension of the constituency was obtained.

Primary information on the economic and income generating activity and household statistics was obtained by accompanying LHWs on their monthly rounds. Visitations were conducted during the early afternoon when most men were at work, and the main interaction was with the females of the household. Each household was questioned by means of a constructed survey which considered the effects of urbanization. Questions took into account that urban fringes influence the economic sector by introducing alternative occupations, variance in income, and presence in the informal economy. Social effects include city expansion of educational and health institutions and social acceptance of the female work force. Each household was asked

the following questions as part of the survey: a) household count; b) whether the household was either a joint or a single family system; c) number of income earners and their gender; d) occupation(s) of the income earner(s), as well as whether it was formal or informal; and e) number of children in school in comparison to the number of children eligible for school, along with their gender. The questions were asked verbally in the Punjabi dialect, interlaced with the official Urdu language. Interviews were conducted in the presence of LHWs who are familiar with each family and recognized by the women in the community. Each survey question was asked of the oldest family member present. Of the visitations, 30 households provided complete information.

A second method was attempted in order to survey families not residing in the neighborhood clusters. Stops were made at various field sites where attempts were made to interview the workers. However, this method did not prove successful. Whereas the context of the BHU and LHWs provided a legitimized status of inquiry, the second approach was most often met with suspicion and a guarded reaction. Interviews that did not provide full context and those which failed to completely answer the questions asked of in the survey remain uncounted in the study.

Results

Data collected through the door-to-door surveys in the areas of Jallo, Arriana, and Halloki includes 28 family units, totaling 262 persons, which provided complete information regarding economic activity and household composition (Appendix I). These sites were chosen due to their location on the outskirts of Lahore. These areas exemplify the geographical border effect that defines buffering zones.

Of the families surveyed, 64.3% reside in a joint family household, ranging from a six member household to the highest recorded at 18 members. Joint family status requires the home to include members outside of the immediate family and a system of sharing resources. Within the 18 joint families surveyed, the average number of household members is 11.2, with the median at 10.5. Single family households are defined as those qualifying as nuclear families and compose 35.7% of the homes surveyed. Single families averaged at 6 members per home, with the median at 5.5.

In Jallo, 12 families provided full surveys regarding household income, residence,

occupation, and child education. 36 household members reported as income earners, inclusive of both males and females. Of those employed, 11 males listed farming related activities as source of income, nine of whom belong to one joint family system. Five women responded as income earners and all cited occupations inclusive in the informal economy. Of the women, housework and at-home stitching were the only cited activities. Of the remaining 20 income earners, all are male and hold non-farming occupations such as construction work, carpet weaving, wagon drivers, and shop keepers. Two households included LHWs, who were excluded as income earners; the program gifts them a monthly stipend but is not considered an employer. One family failed to provide occupational information due to the limitations of the member interviewed. Overall, farming accounts for less than a third of those employed and only 16% (2 households) of all households surveyed within Jallo.

Ten families completed the survey in Arriana. Including both males and females, 35 household members reported income earning status. Nine males cited farming related activities such as cattle raising, commercial crop production, and land ownership. Within the men, alternative occupations to farming included property dealership, workshops, welding, shoemaking, store owners, construction, insurance, cart drivers, and gardeners. This accounts for 21 of the overall employed persons. Five women contribute to their household's income. Three of the women participate in the formal economy, holding teaching positions in local schools; of the remaining two, one is employed by a local factory and the other works at the family-owned vegetable store. One LHW was excluded as an income-earner. Of the ten families surveyed, three participate in farming related activities. Of those surveyed, the greatest income garnered is by a farming-based family whose members are all highly educated and informed on various crop techniques. The majority of families, however, rely on income from jobs made available by the expanding urban districts of Lahore.

In Halloki, six families completed the provided survey. Inclusive of both males and females, 14 household members are recorded as income earners. Within the men, six cite farming related activities; alternatives to farming include industrial related occupations such as construction and factory labor. Those families taking part in farming and animal stock also feature other household members employed in non-farming

occupations. Only one female income earner was recorded, and two women were excluded due to their status as LHW. The sole female did at-home stitching and is categorized within the informal economy.

Each family also provided information regarding the number of children eligible for primary education, and the number of those children actually attending local schooling facilities. Of eligible children, 75% are enrolled in a formal educational setting; 6.5% are apprenticed and receiving focused training. Overall, of the 92 children eligible for elementary to secondary level schooling, 75 are enrolled in some form of educational environment, whether it be formal schooling or an apprenticeship.

Discussion

Women accounted for 12.9% of income-earners within the study, and over half cited some type of informal occupation. Although industrial presence offers factory related employment to the rural population, female involvement is highest in sectors otherwise encouraged by urbanization and account as a labor source to the nearby growing urban sector. In this new environment, rural women have found the opportunity to transform their domestic training into wage-earning roles as household workers in the urban residential districts. Growth of housing developments at closer proximity increases the ease of transport and promotes unskilled occupations such as housecleaning and domestic sewing. Participation within the formal economy is limited. Concentration within the informal sector may be due to lack of education as well as restricted access to the formal economy. As emphasized by this study, these women are no longer invisible members to the economy; instead, in light of economic setbacks, working Punjab women may find themselves as sole income providers for husbands who are seasonal workers. Aside from their growing economic importance, rural Punjab women experience a changing role within the community in reaction to the urbanizing environment.

Provincial government interest has increased to ensure proper treatment and health education amongst the Punjab population residing in the urbanizing areas. The process is an education policy originating from the urban core and extending itself into the peripheral areas, exemplifying the urbanization of the rural health sector. New programs stress the role of women within the community and have increased female

participation within health education. Awareness campaigns are projected to the women of the community, and the female is stressed as the healthcare instigator within her family. At visited BHU locations, doctors cite females the majority of primary patients and the head role of family health supervision. By employing the community's women within the LHW program, the rural Punjab female becomes a leading source on wellness and health. These women serve as role models and examples amongst the females of their community, stressing the modern concept of working and educated women, which is more likely found in the urban areas.

Although rural Punjab girls may not receive teaching to the equivalence of their male counterpart, urbanization promotes the social norm of female education. Of the 96 children eligible for formal schooling, 79.31% of those reported attendance at an educational institution. This statistic is significantly higher than the national average and does not characterize the trend of low literacy in rural areas. Certain factors need to be considered in this evaluation. The survey was conducted from a selection of families that had access to local schools and had children primarily falling in the category of basic educational obtainment. No guarantee was given as to the continued education of the child once reaching working age. Also, educational institutions attended included madrassas, a community religious school. Curriculum and systemized teaching varies, and basic subjects may not be taught in the environment. On visiting a female school located in the community, Arabic was the only subject taught, and classes were held for only half the day. However, a marked increase regarding the attainment of education needs to be highlighted. Families with girls and boys of primary level age allowed school attendance for both sexes. In a farming alternative environment, education is stressed for future job training, and primary education has become a stressed factor in the urbanizing community.

This study concludes the alteration of gender-role activity among rural Punjab women in reaction to urban expansion. Urbanization supports the economic transition of rural women by introducing farming alternative occupations and promotes the existence of multi-income earners within the household. Healthcare programs extend into the peripheral areas, and awareness campaigns stress the female's responsibility to the basic healthcare needs of her family and community. Rural Pakistani women are the least

literate demographic within the nation (table I); however, future job training in the urbanizing peripheral area stresses the educational attainment of the upcoming female generation. This case study of rural Punjab women can be applied to the general discussion of gender alteration within the rural population of developing countries and offers insight into the existing trend of urban expansion.

¹ Central Intelligence Agency, "Pakistan," *The CIA World Factbook*, <http://www.cia.gov/cia/publications/factobok/geos/pk.html> (accessed August 23, 2006).

² Ibid.

³ United Nations, "Pakistan," *Human Development Report*, http://hdr.undp.org/statistics/data/cty/cty_f_PAK.html (accessed September 20, 2006).

⁴ Federal Bureau of Statistics, "Agriculture: 1.5 Area, Production and Yield per Hectare of Agricultural Crops," *Pakistan Statistical Year Book 2006* (Islamabad: Federal Bureau of Statistics, 2006), 34, <http://www.statpak.gov.pk/depts/fbs/publications/yearbook2006/agriculture/1.5.pdf>.

⁵ Central Intelligence Agency.

⁶ Federal Bureau of Statistics, "Labour: 12.4 Percentage Distribution of Employed Persons by Occupation Groups," 244.

⁷ Central Intelligence Agency.

⁸ Bureau of Statistics, "Manufacturing: production of major manufactured items," *Development Statistics 2005* <http://203.215.180.58/portal/docimages/9327manufacturing.pdf>.

⁹ Bureau of Statistics.

¹⁰ Jallo Basic Health Unit Staff, verbal interview noted, June, 2006.

¹¹ Federal Bureau of Statistics, "Household and Family Structure," *Compendium on Gender Statistics 2004*, 13 (Islamabad: Federal Bureau of Statistics, 2006).

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Muddassir Rizvi, "Pakistan: female labor out cold," *Women's Feature Service*, 2004, via Galileo, <http://proquest.umi.com.proxy-remote.galib.uga.edu:2048/pqdweb?did=622472351&sid=1&Fmt=3&clientId=30345&RQT=309&VName=PQD>.

¹⁶ Federal Bureau of Statistics, *Compendium on Gender Statistics 2004*, 53.

¹⁷ C. Coren, "Doorstep delivery increases adoption of contraceptives in rural areas of Pakistan," *International Family Planning Perspectives*, 31, no. 2, 2005, <http://www.guttmacher.org/pubs/journals/3109505b.html>.

¹⁸ Tariq Mahmood, verbal interview noted, June, 2006.

¹⁹ Bret Wallach, *Understanding the Cultural Landscape*, (New York: The Guilford Press, 2005).

²⁰ Richard T. Forman, *The Ecology of Landscapes and Regions*, (Cambridge: Cambridge University Press, 1995).

²¹ Bureau of Statistics, "Population by Area and Sex."

²² Bureau of Statistics, "Land Utilization."

²³ Bureau of Statistics, "Table 191:-Summary Statistics of Census of Manufacturing Industries by District The Punjab: 2000-01," *Development Statistics 2003*, http://203.215.180.58/portal/docimages/9209industries_2003.pdf

²⁴ Tariq Mahmood, verbal interview noted, June 30, 2006.

²⁵ Ibid.

²⁶ Ibid.

Picture I.



Table I. Literacy Rates (%) in Rural Pakistan (1999-2004)

	1999-00	2001-02	2003-04
Total Rural Population	36.1	40.5	41.6
Male	51.1	55.0	56.3
Female	20.6	25.4	26.6

Modified from Compendium on Gender Statistics 2004, Islamabad

Table II. Pakistan, Punjab Production of Manufactured Materials (2003-04)

Manufactured Item	Pakistan	Punjab	% Share of Punjab
Cotton Yarn (a)	1929	737	38.2
Cotton Cloth (b)	683	368	53.9
Vegetable Ghee (c)	888	385	43.4
Sugar (d)	4021	2633	65.5
Fertilizers	5313	3798	71.5
Cement	12862	5221	40.6
Paper & board	405	365	90.1
Soda Ash	287	286	99.6
Caustic Soda	188	177	94.2
Sulphuric Acid	65	40	61.5
Cigarettes (e)	55399	27309	49.3

(a) Not inclusive of man-made yarn or fiber; measured in million kgs

(b) Not inclusive of man-made cloth or fiber; measured in million square meters

(c) Inclusive of Islamabad Units but does not include cooking oil produced by Ghee Mills; measured in 'oo' M. Tons

(d) Inclusive of sugar derived from cane, sugar beet and gur

(e) Measured in millions

Modified from Bureau of Statistics, Punjab Lahore

Appendix I

Statistics from survey conducted Summer 2006

Results displayed below

Considered factors:

1. Household Count
2. Joint/Single
3. Income earners
4. Occupation (formal/informal)
5. Children attending school/Children eligible for school

Location: Jallo (12)

Population: 12,000 overall, 3,000 living in the core area

The residents in the core area are not landowners; they commute to Lahore; primarily laborers

Name	Household Count	Joint/Single	Number of Income earners (gender)	Occupation (formal/ Informal)	Children in school/ Eligible
Yamad Ali	17	Joint	9 (m)	Farming	--
A*	4	Single	(m/f)	Waiter (400/day) Housework (200/temp)	2/2
Zabia	5	Single	1 (m)	Painter (500/wkly)	0/1
Unwar family	7	Joint	4 (m)	2-3000/mnth	3 /6
A*	3	Single	1	Homeschool Center/ will not disclose	—
Bushra	11	Joint	2 (m/f)	Construction/ Housecleaning (5,000/mnth)	3/3
Abdul	8	Joint	2 (m/f)	Construction/ Clothing detail (will not disclose)	1/1
Zaida	15	Joint	4 (m)	Construction/ wagon driver/ carpet (4500/mnth)	0/1 (apprentice for a welder)
Bulqees	9	Joint	4 (3m/1 f)	3 apprentices Sewing/carpet housework	

Jallo, cont'd:

Name	Household Count	Joint/ Single	Number of income earners (gender)	Occupation (Formal/ Informal)	Children in school/ Eligible
Haneez	13	Joint	3 (2m/1f)	Cow herder/ Tenant farmer/ Household help (4000/mnth)	7/8
Bushra (L)	8	Joint	1 (m) 1 LHW	Workshop (unemployed) / LHW (3,000)	—
Nazra (L)	15	Joint	3 (3m) 1 LHW 1 pension	Storekeeper/ Police/ Construction/ LHW/ pension (11,000/mnth)	—

Location: Arriana (10)

Name	Household Count	Joint/Single	Number of income earners (gender)	Occupation (Formal/ Informal)	Children in school/ Eligible
Muhammad Ashwad	7	Single	2 (m)	Hosiery worker/ farming crops, animals (5-6,000/mnth)	2/5
Rafika	6	Single	1 (m)	Driver 150/day	2/2
Skina	10	Single	2 (m/f) (both temp due to sickness)	Construction/ Factory (temp) 2000/mnth	2/4 2/4 (apprentice)

Sardara	10	Joint	2 (m)	Workshop/ wagon driver (1500/mnth; 150/day)	5/8 2 apprentice 1 chronically ill
Hajra	6	Joint	1 (m)	Woodman (furniture) (3000/mnth)	2/2
Qurshied	18	Joint	6 (5m/1f)	Vegetable store (m,f)/ Utility store/ Gardener/ 2 construction (17,000/mnth)	4/5 1 apprenticed
Sakina Walaid	14	Joint	3 (m)	2 construction / cart driver (400/day; 3000/mnth)	6/9
Nuzhat (L)	8	Joint	5 (4m/1f) 1 LHW	Shoemakers/ Teacher/ LHW (8-10,000; 1,000/mnth; 1800/mnth)	—
Asif family	9	Single	8 (6m/2f)	Family farming/land owners-- rentals/ cattle/ Insurance/ Teachers (f) (+20,000/ mnt)*	— *highly educated; modern farming techniques
Mohammad Sadiq	7	Joint	5 (m)	Farming/ Property dealer/ Welder/ car Workshop (11,000/mnth)	4/6

Location: Halloki (6)

Name	Household Count	Single/ Joint	Number of Income earners	Occupation (Formal/ Informal)	Children attending school/ Eligible
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Arfaan	10	Joint	6 (m)	Cows/ factory (5,000/mnth) *	2/5
Khalid	5	Single	3 (m)	Factory/ Sustainable farming (1800/wk)	1/1

Halloki, cont'd:

Name	Household Count	Single/Joint	Number of income earners	Occupation (Formal/ Informal)	Children attending school/ Eligible
Tanuka	3	Single	1 LHW	LHW	2/2
Zafar Iqbal	8	Single	2 (m/f)	1 acre/Cow herder/ Sewing (temp) (3,000/mnth; temp)	6/6
Naseem (L)	14	Joint	3 (2m/1f)	Factory/ LHW (6800/mnth)	6/6
Rani	12	Joint	1 (m)	Construction (1-2000/mnth)	9/9 (basic ed)