ADB

TA 4319-PAK
Determinants and Drivers of Poverty Reduction and
ADB's Contribution in Rural Pakistan

Rural Economy and Livelihoods in Pakistan

Haris Gazdar

Asian Development Bank

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Asian Development Bank
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Preface

The Asian Development Bank (ADB) and Pakistan have been development partners for almost 39 years. Assistance has averaged close to $1 billion a year since 2004 supporting good governance, sustained pro-poor growth, inclusive social development, and targeted investment projects to reduce poverty and generate employment.

ADB has an active research agenda on economic and social development issues. A technical assistance titled 'Determinants and Drivers of Poverty Reduction and ADB's Contribution in Rural Pakistan,' was approved by ADB in March 2004. It supported a detailed study of both chronic and transitory rural poverty and sought to identify appropriate policy and implementation measures to promote sustained poverty reduction. It was financed on a grant basis from the Poverty Reduction Cooperation Fund (PRF). The PRSP Secretariat of the Ministry of Finance, Government of Pakistan, was the Executing Agency of the technical assistance.

The thematic papers presented here are interim outputs of this project. They are based primarily on fieldwork carried out by the authors and their research teams in diverse regions of rural Pakistan between June 2005 and March 2006. The fieldwork included three types of data collection: (a) qualitative research at the village level, (b) extended household survey of selected villages, and (c) cross-village rapid surveys in selected districts.

The innovative "drivers of change" approach to poverty reduction focuses on long-term structural drivers and determinants as well as on impediments to pro-poor change. Poverty-reduction correlates with higher economic growth, more equal distribution of assets and opportunity, higher real wages, better social indicators, improved governance, better access to resources, level playing field in markets, socio-economic mobility, and pro-poor delivery of public goods and services.

The thematic papers are being made available to support and enrich the debate on poverty reduction and economic growth. Comments and feedback received are appreciated.

Peter L. Fedon
Country Director
ADB Pakistan Resident Mission

Abbreviations

ADB — Asian Development Bank

FMR — female-male ratio

NWFP — North West Frontier Province

PRM — Pakistan Resident Mission

NOTES

Currency Equivalents

(as of 12 February 2007)

Currency Unit	–	Pakistan rupee/s (PRe/PRs)
PRe1.00	=	$0.0164
$1.00	=	PRs60.79

In this paper, "$" refers to US dollars.

The analysis in this paper is up-to-date until January 2006 when the study was completed.

GLOSSARY

barani	rain-fed (normally with reference to agricultural land)
biraderi	clan
deh	(in Sindh) the lowest-defined geographic unit functioning as a revenue village
doab	area of land bordered by rivers on two sides
goth	(in Sindh) hamlet: a consolidated geographic settlement that is normally but not necessarily smaller than a revenue village
hamsaya	euphemistic term for a nonowner (of land) resident; literally translated as “neighbor”
hari	(in Sindh) share-tenant
izafi raqba	additional area (of land)
kachha	construction in material other than burnt brick in cement, mortar, and concrete
kammi	an often derogatory term for a nonagricultural service caste
kharif	summer crop-growing season (April to September)
khuh	Well
koocha	plains area surrounded by hills
malba	debris
marla	unit of measurement of land, roughly equivalent to 25.3 m2
mohallah	(in Dir) an area of land or cluster of houses inhabited by close relatives, taken to mean “neighborhood” in most other areas
nawab	(in Dir) feudal lord
nawabi	(in Dir) feudal
pukka	solid or permanent construction
qabeela	Tribe
qabza	occupancy
qaum	endogamous kinship group
rabi	winter crop-growing season (October to March)
taluka	(in Sindh) administrative unit of local government, equivalent to a subdistrict
tehsil	administrative unit of local government, between a district and union
zaat	endogamous kinship group

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1 Introduction

1.1 Context and Motivation

The aim of this paper is to investigate correlates of poverty and drivers and constraints to poverty reduction using a "village study" approach to represent rural poverty in Pakistan. The paper utilizes qualitative and quantitative data collected at seven primary research sites in order to better understand patterns and dynamics of poverty within and across villages in different agro-ecological zones and sociocultural regions. The paper draws on the accompanying thematic papers on social structures (Mohmand and Gazdar 2007) and governance (Cheema 2007), respectively, to complement the analysis presented here.[1]

Existing empirical work on the economics of rural poverty is mostly based on analysis of household survey datasets of various sizes and levels of national and provincial representation. While these analyses have yielded important insights into the correlates of poverty—e.g., land ownership, access to labor opportunities, and education—they do not answer a number of important empirical questions concerning institutional processes and the dynamics of poverty.

The present study aims to start filling some of these gaps with reference to village studies carried out at a number of sites, and corroborative community surveys at other sites in the reference areas. What are the correlates of poverty within and across villages? How might economic entitlements and opportunities be related to prevailing social structures? How do institutional arrangements for the deployment of labor and access to land vary between regions and villages, and over time? What might be the implications of these variations for poverty and poverty reduction?

1.2 Data Collection and Methodology

This thematic paper is based on data collected specifically for the project. Eight districts were selected in different agro-ecological and sociocultural regions of the country. Four of the eight districts fall within irrigated, crop-growing agricultural zones that account for over nine tenths of Pakistan's rural population. These include (i) Mardan in the plains of the North West Frontier Province (NWFP), (ii) Muzaffargarh in Seraiki-speaking southern Punjab, (iii) Sanghar in central Sindh, and (iv) Toba Tek Singh in central Punjab. The four districts outside this agricultural heartland had specific agro-ecological features of interest: (i) Chakwal in northern Punjab is a *barani* (rain-fed) agricultural area, (ii) Upper Dir in mountainous NWFP is an area where forestry has been important, (iii) Thatta is a coastal district on the Indus delta with a high degree of reliance on marine fisheries, and (iv) Khuzdar in central Balochistan is a Brahui-speaking area with a high level of dependence, historically, on livestock-rearing.[2]

Once the districts had been selected to represent the various types of regions, their precise contours were reexamined using secondary information to ensure that features of interest had been captured. The universe was then adjusted in accordance with these prior criteria. For Chakwal and Toba Tek Singh, the entire district were selected. In Muzaffargarh, the southern half of the district comprising the *tehsils*[3] of Alipur and Jatoi were selected. This choice was motivated by the objective of ensuring some representation of riverine plains areas of Punjab. In Upper Dir, the sample was restricted to the more mountainous northern half of the district. Since Mardan was the only plains district selected in NWFP, the neighboring district of Swabi was added to increase coverage. In Sanghar, Sindh, where the focus was on irrigated agriculture, the mainly arid

1 See: Cheema, A. 2007. Governance Impediments to Pro-Poor Change in Pakistan. Thematic paper prepared under TA4319, Determinants and Drivers of Poverty Reduction and ADB's Contribution in Rural Pakistan. Asian Development Bank (ADB), Islamabad; and Mohmand, S., and H. Gazdar. 2007. Social Structures in Rural Pakistan. Thematic paper prepared under TA4319, Determinants and Drivers of Poverty Reduction and ADB's Contribution in Rural Pakistan. ADB, Islamabad. It is worth reiterating here that these papers do not make specific reference to the regional and international policy contexts or to broader social trends and processes (e.g., mass media). The focus here is quite deliberately on village-level observations.

2 The fieldwork in Khuzdar was carried out in February 2006. See the Appendix for a separate note on Balochistan based on this data.

3 A tehsil is an administrative unit of local government, between a district and union.

taluka (subdistrict) of Khipro was excluded. The entire district of Thatta was selected, but a coastal village was selected purposively for in-depth investigation in order to ensure the representation of a predominantly marine fishing village. In Khuzdar the main survey site was a geographical rather than administrative unit. A *koocha* (plains area surrounded by hills) consisting of several administrative villages was selected here.

Once regional representation was settled, a list of villages was drawn up for each area based on the list of administrative villages reported in the District Census Reports of the 1998 Population Census (Government of Pakistan 2002).[4] It was decided to further narrow the villages list by excluding very small (those with under 300 persons) and very large (those with over 3,000 persons) villages. In Upper Dir, where the average village size is relatively small, only villages with populations in the range of 900–1,100 individuals were short-listed, while in Thatta, the range was set at 1,500–2,500 persons. A random 7% sample was then drawn from the village short-lists in each area. This sampling yielded a total of 61 administrative villages: 11 in Chakwal, 7 in Upper Dir, 7 in Muzaffargarh, 7 in Mardan/Swabi, 8 in Sanghar, 7 in Thatta, and 14 in Toba Tek Singh.

Rapid community surveys were carried out in all 61 administrative villages. In Muzaffargarh, Sanghar, and Thatta, and particularly in the latter two, each administrative village consisted of several sizeable and self-contained settlements. In effect, the total number of villages where community surveys were carried out turned out to be much larger (including over 100 communities) than the original number of administrative villages. One village was purposively selected in each district for in-depth investigation, for which the main selection criterion was that it should not be atypical in terms of its broad agricultural and socioeconomic features from the district or region it was supposed to represent.

Two main research tools were utilized for in-depth study in the seven villages. First, qualitative fieldwork was carried out in each of the seven villages by core team members in order to understand the main features of the village economy, infrastructure, and social structures. The analytical categories developed in the scoping paper (particularly the section on social structures) were utilized to gain an understanding of the internal dynamics of the administrative village. Differences within village and variations across villages were considered sources of insight. Qualitative investigations have paid close attention to the functioning of labor markets and other labor arrangements in these villages. The issue of land, and particularly changes in land ownership patterns over time, were also investigated in some detail.

Qualitative fieldwork was followed up by an extended village census that listed and covered all households and individuals residing in the village. In places where the administrative village encompassed several localities or smaller villages, the census was extended to all these settlements. Village census questionnaires were addressed primarily to the female members of each household. Male household members were also interviewed for supplementary information. The extended village census questionnaire included questions about the household as a whole, and a roster with individual-level information. While much of the census questionnaire was common across the villages, variations were introduced in the light of village-specific conditions noted from the qualitative fieldwork.

The use of multiple strategies in the fieldwork—i.e., rapid community surveys, qualitative village investigations, and extended village censuses—was partly motivated by the study's data requirements, but also by the need for efficient information collection under conditions of time constraint. These practical considerations played an important part in the design and implementation of the fieldwork strategy. A typical extended village census questionnaire, for example, was timed to take around 20 minutes. A standard

4 Government of Pakistan. 2002. *1998 Census Report of Pakistan*. Islamabad: Population Census Organization.

household budget questionnaire fielded in large-scale sample surveys, by comparison, could take anything from 2 to 3 hours, i.e., six to nine times longer. The fieldwork strategy adopted here was innovative, given the data requirements and time constraints, and up to a point, experimental.

1.3 Outline

This paper is divided into seven substantive sections. Sections 1 to 3 provide a quantitative summary of the fieldwork findings based on the extended village census in seven "village study" sites. These sections provide mostly quantitative descriptions of the fieldwork sites with respect to population and infrastructure (Section 2), land and labor (Section 3), and kinship groups (Section 4). Section 4 reports the results of poverty analyses, identifying some of the main correlates of poverty within and across fieldwork villages. In an important departure from existing empirical work, an attempt is made to estimate the correlation between kinship group and well being after taking economic endowments into account. The next two sections provide qualitative dimensions, respectively, on two important emerging issues: (i) labor (Section 5), and (ii) land (Section 6). The focus in these sections is on institutional arrangements and the dynamics of change. The concluding section (Section 7) evaluates the significance of some broad categories of potential drivers of poverty.

2 Population and Infrastructure

2.1 Demographic Features

The in-depth study villages had a total population of over 12,000 people (Table 1). Village sizes varied greatly, with the Chakwal village having around 500 people, compared with nearly 3,000 persons in the Sanghar village. There was wide variation across villages in the female-male ratio (FMR), which is commonly used as an index of female disadvantage. The gap between the lowest FMR (90.5 in Mardan) and highest (100.4 in Chakwal) was nearly 10 females per 100 males. There was wide variation in the FMR for younger population groups (aged 0–15 years), which are less affected by the migration of male workers and, therefore, regarded as a more reliable index of female survival disadvantage. Taking the younger age group, the FMR was lowest in Dir (87.9), followed by Mardan (91.3). Chakwal remained the village with the smallest female disadvantage with an FMR of 103.8.[5]

Chakwal village also stood out in demographic terms as a relatively "older" village, with two thirds of its population aged 16 years or above, compared with the villages in Sanghar, Mardan, and Muzaffargarh which had only half their populations in that age group.

2.2 Physical and Social Infrastructure

2.2.1 Settlement Patterns

The seven villages varied greatly in terms of their access to physical and social infrastructure. Many of the issues in provision of infrastructure related to the geographical pattern of settlement. Although all the villages were selected from the 1998 Population Census (footnote 4) lists of administrative villages, they actually represented very different degrees of compactness. The village in Toba Tek Singh was the only village where the entire population resided in one compact settlement, and whose residents were also relatively well served in terms of physical and social infrastructure.

Table 1: Demographic Features of Census Villages

Demographic Feature	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Population	491	1,171	1,164	1,878	2,999	1,831	2,638	**12,172**
Village as percent of sample population	4.0	9.6	9.6	15.4	24.6	15.0	21.7	**100.0**
Females per 100 males	100.4	94.5	90.5	93.0	98.0	91.3	95.6	**94.7**
Number of households	85	153	121	273	390	248	385	**1,655**
Mean household size	5.78	7.65	9.62	6.88	7.69	7.38	6.85	**7.35**
Age structure (years)								
5 or under	12.4	20.1	20.4	19.7	22.6	15.8	13.3	**18.3**
6 to 15	21.0	30.3	28.8	30.1	29.7	26.7	25.9	**28.1**
16 and above	66.6	49.6	50.9	50.2	47.6	57.4	60.8	**53.6**

Source: Author's fieldwork.

The average household size also varied greatly across villages, with Mardan (9.6 persons) having households that were nearly two thirds larger than those in Chakwal (5.8 persons). The

At the other end of the spectrum, the Sanghar village consisted of several compact villages (*goths*) of varying sizes. Less than half the population of the administrative village actually

5 FMRs for younger age-groups were also calculated using quantitative data collected during fieldwork. However, these are not reported in Table 1.

resided in the main settlement, and some of the other sizeable settlements were at distances of over 5 km from the main settlement. There were 10 distinct settlements in all besides the main village, each inhabited by between 8 and 55 households. The Thatta village had a similar, if not more geographically dispersed, settlement pattern. An additional factor here was that some of the smaller settlements were located across water channels from the main settlement.

The villages in Chakwal and Muzaffargarh each consisted of one main settlement and other smaller settlements located at varying distances. In Chakwal, there was only one additional settlement that accounted for just over 10% of the total population. In Muzaffargarh, the main settlement accounted for only around 40% of the population, although the distance from outlying settlements was shorter compared with the Sanghar settlements.

Finally, the Dir village had a unique settlement pattern that corresponded to its geography. The village was divided into a dozen localities or *mohallas*, but these mohallas too were not compact settlements. Rather, individual clusters of houses were scattered along various slopes. A mohalla was identified more in terms of its residents' social identification rather than with respect to an identifiable settlement. The smallest mohalla had only 3 households, while the largest accounted for over 30.

Given these diverse settlement patterns, and particularly the existence of multiple-settlement villages, inter-village comparison of the provision of infrastructure and public services becomes a complicated task. All seven villages, except the one in the delta area of Thatta, had some access to a blacktopped paved road. This means that at least some part of the administrative village could be reached via a paved road. The Thatta village, however, was located across a major Indus distributary in the delta, and a ferry service was the only means of transport to and from the village. The villages in Sanghar, Muzaffargarh, Chakwal, and Upper Dir all had a paved road reaching one (main) settlement. There were significant parts of the population in each of these villages, however, that did not have access to a paved road. Some goths in the Sanghar village, for instance, were over 5 km away from the paved road, and some of the mohallas in the Dir village were located at over 2 hours' trekking distance. Road access, therefore, was contingent on the precise location of a residence within the village.

Table 2: Sources of Drinking Water (Percentage of Households)

Source of Drinking Water	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Toba Tek Singh	Total
Water supply scheme	0.0	16.3	0.0	0.0	0.8	0.0	**2.0**
Own hand-pump /motor-pump in home	51.8	0.0	52.1	91.7	65.4	97.7	**65.6**
Shared hand-pump /motor-pump outside	18.8	0.0	1.7	6.4	30.8	1.0	**20.5**
Hand-pump/ motor-pump home in neighbour's home	17.6	0.0	21.5	1.9	2.1	1.3	**4.2**
Canal irrigation water	0.0	0.0	0.0	0.0	1.0	0.0	**0.3**
Well	11.8	0.0	24.8	0.0	0.0	0.0	**2.9**
Spring	0.0	83.7	0.0	0.0	0.0	0.0	**4.5**

Source: Author's fieldwork.

2.2.2 Drinking Water

Manual or motor-operated pumps were the main sources of drinking water in the census villages (Table 2). Virtually all the households in the Toba Tek Singh, Muzaffargarh, and Sanghar villages relied on hand-pumps or motor-pumps. In Chakwal and Mardan, around a tenth and quarter of households, respectively, relied on wells. Two of the villages (Dir and Thatta) had water supply schemes. The scheme in Dir was provided by a donor-funded area development project, and covered around a sixth of all households. The others relied on springs. The water supply scheme also brought water from mountain sources down to residential areas using channels and water pipes.

The delta village in Thatta was the worst off, with access only to groundwater of very uneven quality. The main constraints in this village were persistent shortfall in river flows and seawater intrusion into the aquifer. Most households had to pay well owners and water-carriers for fresh water, or put up with brackish water for drinking and washing. A water supply scheme constructed under a grant from the district government had become nonfunctional, partly due to the nonavailability of water from the main source, i.e., the river. The situation changed when the Indus River flooded in the summer of 2005, after which the river became the main source of water and households no longer purchased water from well owners.

2.2.3 Electricity and Fuel

Five of the seven fieldwork villages had some form of electricity supply (Table 3). In Toba Tek Singh, Mardan, Muzaffargarh, and Sanghar, there was government-supplied electricity, but no electricity supply in the Chakwal and Thatta villages. The Dir village had no access to government-provided electricity but most households had a limited electricity supply at night from small hydroelectric generators operated by local individuals and community groups. The use of heating devices or other appliances requiring heavy power was prohibited.

Table 3: Electricity Supply
(%)

Item	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Households with electricity	0.0	96.1	98.3	55.3	70.3	0.0	97.4	**64.4**
Households with own meters as percent of those with electricity			61.3	70.9	73.7		95.2	**80.4**

Source: Author's fieldwork.

Even in village where government-supplied electricity was available, there were interesting intra-village variations. In Sanghar and Muzaffargarh, the main settlements had electricity while some of the more remote settlements did not. Again, in Sanghar, some settlements had proper official connections, while the main village relied on a self-provided transformer that the electricity company had sanctioned but refused to take over. Electricity users here paid electricity charges but had to look after the maintenance of the transformer themselves.

Virtually all households in six of the seven villages used wood as their main source of kitchen fuel, even if they supplemented it with other fuels such as dried cow-dung (Table 4). The exception was the village in Mardan where over two fifths of the households reported using only

cow dung. There was interesting variation between villages in the source of firewood. In Chakwal, Dir, Sanghar, and Thatta, between half and three fourths of the households relied on open sources—common property forest or wasteland, and privately owned wasteland. In the census villages in Toba Tek Singh and Muzaffargarh, the most common way of accessing firewood was to purchase it. Access to this open resource has equity and environmental implications.

villages. It was necessary to probe this issue with some care. When asked whether or not they owned their own homes, 90% or more households claimed home ownership in all seven villages except in Mardan, where only three tenths of the households claimed ownership. Closer investigation revealed that "home ownership" was commonly interpreted as ownership of house buildings and structures, commonly referred to as *malba* or debris. The Mardan village was exceptional in this regard due to the common practice of landlords actually constructing houses to accommodate migrant tenants and farm laborers working on their lands, as implicit part of workers' remuneration.

Table 4: Use of Wood as Fuel by Source
(%)

Item	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Households using wood as source of fuel for kitchen	100.0	99.3	59.5	95.6	79.0	96.7	97.9	**90.3**
Source of wood								
Own farm	24.7	5.9	24.1	33.3	22.3	0.4	27.5	**20.7**
Other's farm	21.2	0.0	55.4	16.7	22.5	2.0	28.8	**19.4**
Open source	49.4	72.4	0.0	14.1	53.9	72.0	2.4	**36.8**
Purchase	4.7	21.7	20.5	35.9	1.2	25.6	41.3	**23.1**

Source: Author's fieldwork.

2.2.4 Housing

There were inter-village variations in home ownership. Moreover, home ownership appeared to be an important issue for poverty analysis and in the internal social dynamics of the

Table 5: Homestead Ownership
(%)

Homestead Ownership	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh
Formal private property	71.1	78.4	19.0	43.6	47.4	29.7	51.4
Right of possession	27.7	18.3	10.7	51.3	22.8	18.3	38.2
Someone else's private property	0.0	2.6	70.2	3.3	16.9	49.2	10.4
Common property	1.2	0.0	0.0	1.8	8.5	2.8	0.0
Other	0.0	0.7	0.0	0.0	4.4	0.0	0.0

Source: Author's fieldwork.

A more appropriate line of enquiry in the other villages was to focus on homestead land, and to establish the precise form of ownership or possession right enjoyed by a household. This revealed variations both across and within villages (Table 5). Formal individual private property rights were widespread only in the fieldwork villages in Chakwal and Dir, where around three quarters of the households claimed this form of tenure. Even in these villages, however, 18 to 27% of households only enjoyed rights of possession. In the fieldwork villages in Toba Tek Singh and Muzaffargarh, those enjoying the right of possession only accounted, respectively, for 38 and 51% of households. This was similar to the structure of homestead rights in the Sanghar village. In Thatta, nearly half the households lived on land belonging to other individuals.

The distinction between "formal private property" and "right of possession" was itself blurred. In Dir and Mardan, for example, formal private property rights were not interpreted as including the unfettered right to buy or sell homestead land. Homestead property rights could only be transacted among relatives, and village or family outsiders were practically excluded from such transactions. In the Toba Tek Singh village, however, even the "right of possession" was transacted without too many obstacles. Rights of possession were, in most cases, underpinned by some collective entity at the village level. If this collective entity was dominated by particular groups within a village, other segments felt vulnerable with respect to their rights of possession.

Table 6 summarizes the distribution of households with respect to the durability of house structure. Construction practices varied between villages in accordance with local conditions, and the classification *kachha* (nonpermanent construction), *pukka* (permanent construction), and semi-pukka provides a simple ranking of houses using local standards. Only 15% of houses in the Toba Tek Singh village were entirely katcha, while in the Thatta village, virtually all the houses were katcha.

Table 6: House Structure (%)

House Structure	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh
Kachha	30.6	68.0	74.4	46.5	43.7	99.2	15.1
Semi-*pukka*	47.1	31.4	7.4	42.5	20.1	0.4	45.2
Pukka	22.4	0.7	18.2	11.0	36.2	0.4	39.7

Kachha = construction in material other than burnt brick in cement, mortar, and concrete, *pukka* = solid or permanent construction.
Source: Author's fieldwork.

2.2.5 Lanes and Drains

In the two villages in Sindh (Thatta and Sanghar), there were neither paved lanes nor drains within settlements. Many of the settlements in these villages were simply small clusters of interconnected compounds with no lanes at all. In the three Punjab villages as well as in Mardan, lanes were paved at least in some parts of the settlements. In Dir, the settlement pattern was such (individual houses built on slopes) that the issue of lanes or drains did not arise. There was scope for track improvement, however, and some work had been carried out in this regard. The provision of lanes and drains in the three Punjab villages was instructive in terms of rationing of public infrastructure.[6]

6 This issue is taken up in greater detail in Cheema (2007).

2.2.6 Public Schooling Facilities

The diverse settlement patterns in the seven villages had implications for the provision of public schooling services. The Upper Dir village, with its scattered mohallas, and the Sanghar village, comprising numerous self-contained villages, had several government schools, nearly all of them for boys. All three Punjab villages as well as the village in Mardan had two government schools—one each for boys and girls. The Thatta village had just one school for boys.

There were six government schools in the Sanghar village—one for girls and five for boys. The girls' school was dysfunctional, while, of the five boys' schools, only two functioned with some degree of regularity. The others were either completely or partially nonfunctional. In all the schools, local teachers played an important role, both positive and negative. Two schools functioned regularly because most of the pupils belonged to families that were related to the schoolteachers. In one school, where the local government-appointed teacher did not work, parents had appointed another local person as a private teacher for their children. In one of the dysfunctional schools, the teacher was also a local landlord and had little interest in teaching. His relatives felt unable to complain about his performance for fear of provoking a family dispute. A similar situation prevailed in both the Thatta and Muzaffargarh villages, where the boys' schools were dysfunctional and the local teacher was protected, effectively, because parents were apprehensive of initiating disputes with their neighbors on his account.

As in Sanghar, the girls' schools were totally dysfunctional in the villages in Muzaffargarh, Mardan, and Upper Dir. The reasons cited were also quite similar across these otherwise diverse villages. The key constraints appeared to be the availability of qualified local women who could go out and work. It was also assumed on the part of the education department that, in these "difficult" areas, it was acceptable for a girls' school to remain dysfunctional.

Boys' as well as girls' schools appeared to function well in the fieldwork villages in Toba Tek Singh and Chakwal, as did the boys' schools in the Mardan and Dir villages, at least in the procedural sense. This means that schools started on time, teachers came to work regularly, and child enrolment and attendance was also regular. Parents spoke highly of the quality of the girls' schools in Chakwal and Toba Tek Singh, and claimed that there had been considerable improvements in recent years. In Toba Tek Singh and Mardan, however, many parents were dissatisfied with the boys' government schools, and those who could afford it sent their children to fee-charging private schools in the vicinity. There were, indeed, private schools in or close to both these villages.

3 Land and Labor

3.1 Overview of Land and Agriculture

Four of the seven survey sites can be said to belong to the crop agriculture rural heartland of the country. These included the villages in (i) Sanghar in cotton-wheat Sindh, (ii) Mardan in irrigated plains NWFP, (iii) Toba Tek Singh in canal colony Punjab, and (iv) Muzaffargarh in cotton-wheat southern Punjab. These sites were characterized by access to canal irrigation (perennial in all four cases), and intensive crop cultivation. The main *rabi* (winter) crop grown in all these sites (and in Chakwal in barani Punjab) was wheat, which was grown primarily for self-consumption. All four sites grew valuable cash crops in the kharif (summer) season: cotton in Sanghar and Muzaffargarh, and mixed cropping in Mardan and Toba Tek Singh.

The other three sites (in Chakwal, Upper Dir, and Thatta) were considerably different from the main agricultural heartland, as well as from one another. The common feature in all three sites was their relatively marginal reliance on crop farming. In Thatta and Chakwal, the main constraint was the availability of irrigation water, while in Dir, in the mountainous region, the binding constraint was the availability of accessible level land.

The Chakwal village was in the barani area of Punjab, and the majority of its cultivable area was dependent on rainfall. Some land in the village, however, was located near wells, where crop productivity was somewhat higher. An important source of livelihood was formal sector employment, particularly in the military.

Agricultural production in the village in Thatta in the Indus delta wa entirely dependent on water releases downstream of Kotri Barrage during the summer flood season. The village had received very small flows of fresh water over the last 6 years, but received water in the summer of 2005. There had been virtually no cropping activity here since around 1999. A number of sources of drinking water had turned saline due to the prolonged absence of freshwater flows. In the absence of crop farming, the main sources of livelihood in the Thatta village were fisheries and retail trade.

The Upper Dir village was located in a forested valley. Over the decades, much of the forested area had been converted into land for crop farming. Farming area consisted of terraces excavated and leveled out of slopes. The overall availability of land was very low, and farming was highly labor-intensive. There were problems, too, with irrigation during part of the year. Even a good grain harvest provided for less than 2 months of a household's annual grain consumption. Cash crops, such as kitchen vegetables, were grown for the market. The village had traditionally relied on forestry labor, but this appeared to have declined since a ban on tree felling in 1992. The predominant source of livelihood in this village was labor migration to Saudi Arabia.

3.2 Access to Land and Irrigation

There were stark differences between the seven villages in the distribution of land ownership (Table 7).[7] Both in terms of the incidence of land ownership, as well as concentration of land holdings, the Upper Dir village was the most equal. All households owned some land, and the largest landowner's holding amounted to only 5 acres. At the other end of the spectrum, in Sanghar, the largest three landowners accounted for over 1,500 acres among them, while around 60% of the village households were landless. The land ownership structures in the Muzaffargarh and Mardan villages were similarly skewed, although the largest three to five owners owned around 300 acres among them.[8] In the Toba Tek Singh village, land concentration was relatively low—the largest owner having around 70 acres—

7 Averages across the sample villages are reported only for reference, and do not represent the country as a whole. As explained above, villages are not statistically representative. Even so, when villages were assigned weights corresponding to the population shares of their respective regions in the country, it was found that the average incidence of land ownership was 46%—just three percentage points higher than the unweighted average.

8 In the Muzaffargarh village, some of the largest owners were nonresidents.

but around 55% of the households were landless. In the Chakwal village, the proportion of landless households was less than 30% (the second-lowest in the fieldwork sites after Dir), and the concentration of holdings much lower than in Sanghar, Thatta, and Mardan. Land ownership was highly unequal in the Thatta village, but given the fact that virtually no land had been cultivated for 6 years, this did not in itself appear to be an important factor in terms of access to livelihood opportunities.

Access to land, however, was not contingent only on land ownership. Tenancy was common in a number of villages, and there was much inter-village variation in the incidence of tenancy. Overall, 27% of the households in the fieldwork villages reported cultivating land belonging to others.

Tenants accounted for two thirds of all households in Sanghar, and a third of all households in Mardan and Chakwal. In both Dir and Thatta, the corresponding proportion was 3%. The low figure in the Thatta village was due to a general decline in farming because of the nonavailability of irrigation water. In the Dir village, however, it was reported that there was very little land available for tenancy, and in any case, able-bodied men preferred to become migrant workers rather than remain in the village. The incidence of tenancy was also lower but by no means insignificant in the Muzaffargarh and Toba Tek Singh villages.

Table 7: Land Ownership and Tenure

Land Ownership	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Households owning agricultural land (%)	70.6	85.6	22.3	48.0	38.2	17.0	45.5	**43.2**
Mean area of land owned (acres)	3.9	0.8	1.9	1.1	5.1	5.1	1.8	**3.0**
Standard deviation	5.2	1.3	6.0	2.1	31.4	22.0	3.1	**17.7**
Households cultivating other's land (%)	31.8	2.8	34.7	17.9	66.2	3.3	12.7	**26.6**
Households reporting female land ownership (%)	5.9	2.0	3.3	3.2	1.0	0.0	2.9	**2.2**

Source: Author's fieldwork.

The average size of landholdings reported in Table 7 indicates inter-village variation in the availability of land. This was highest in Thatta and Sanghar, being six times as high as the Dir village. The figures reported in Table 7 need to be interpreted with some care, however, since they represent ownership holdings of resident households. This does not necessarily reflect overall resource availability, as in the case of the Muzaffargarh village there was a significant proportion of nonresident landowners. The standard deviation (Table 7) provides a rough index of inter-village variation in the distribution of ownership. The data on ownership and concentration indicate that access to land was a likely source of variation in household well-being in all villages with the possible exception of the village in Dir.

The landless in Sanghar had access to land through share-tenancy arrangements. The most prevalent form of share-tenancy was half-shares. There were also instances of fixed-lease rentals, but these were mainly in the form of large local landowners taking land on contract from nonresident landlords and then contracting it out to share-tenants. In Chakwal and Mardan, too,

share-tenancy was common, although there were also cases of fixed-lease rental. The most common form of tenancy in the Toba Tek Singh and Muzaffargarh villages was fixed-leased rental. In the Toba Tek Singh village, the majority of nonowning tenant farmers belonged to the traditional cultivating castes; traditional noncultivators had virtually no access to land through tenancy. The situation was markedly different in Muzaffargarh where traditional noncultivators, too, were involved in tenant farming.[9]

The discussion on land ownership and access has thus far focused on the household as the relevant unit of observation. It is important to note, however, that the most pervasive form of land inequality across the villages was along lines of gender. Only 2% of all households in the census villages reported female land ownership (Table 7). For the village in Chakwal, the figure was higher at nearly 6%. This relatively high incidence of female land ownership in the Chakwal village was in line with the demographic data cited above (Table 1) which shows the village as having less severe female disadvantage.

Land productivity, as noted above, was closely linked to the availability of irrigation water. The four villages with intensive cultivation (Sanghar, Mardan, Toba Tek Singh, and Muzaffargarh) all received water from canal systems. All four villages happened to be relatively well-placed in terms of canal water supplies in their respective areas. They all also reported the current year as a good year for irrigation water supplies. There were no strong patterns of intra-village disparity in the distribution of irrigation water. In three of these villages (Toba Tek Singh, Muzaffargarh, and Mardan), groundwater was of good quality and farmers supplemented this with canal water. In Sanghar, groundwater was poor in quality and crop cultivation relied exclusively on canal flows.

Harvest work generates high peaks of seasonal demand for labor. It is widely believed that harvest work is an important source of sustenance in the rural economy, even for those with no access to land, through ownership and tenancy. It is possible to quantify the significance of harvest labor in the fieldwork villages. Around a third of

Table 8: Prevalence and Significance of Harvest Labor

Harvest Labor	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Households harvesting grain on others' farms (%)	35.7	3.3	33.9	50.9	42.1	2.2	38.4	**32.5**
Amount of grain earned in harvest work per household (kg)	166.8	9.6	95.2	233.2	424.0	4.0	237.2	**210.8**
Grain earnings in harvest work as % of annual grain consumption	17.2	0.5	4.6	19.4	28.0	0.3	23.4	**15.2**
Households doing non-grain harvest work on others' farms (%)			37.2	61.2	67.4		22.1	

Source: Author's fieldwork.

9 For details, see further below. For a discussion of caste in the Punjab villages, see Mohmand and Gazdar (2007) (footnote 1).

10 A tenant farm on someone else's land was counted as an own farm. The findings reported here relate exclusively to people working as harvest laborers for other owner-cultivators or tenant-cultivators.

11 The mean was taken over the entire village, including those households not taking part in harvest labor.

the households across the survey sites reported taking part in grain harvest work on farms operated by other people (Table 8).[10] In the Muzaffargarh village, over half the households had taken part in the wheat harvest. Dir and Thatta reported low levels of harvest labor, the former having very small parcels of land, and the latter with virtually no land under crop.

Harvest labor is usually remunerated on a piece-rate basis, and payment is made in grain itself. In the Sanghar village, the mean earning across households was over 400 kg of grain in the last wheat harvest,[11] which was equivalent to over one quarter of the reported annual consumption of grain. In the Chakwal, Toba Tek Singh, and Muzaffargarh villages, too, grain earnings from harvest work represented a significant proportion of the average household's annual consumption.

In some villages, there were also high levels of participation in nongrain harvest work on other farms. In Muzaffargarh and Sanghar, the incidence of nongrain harvest work was even higher than that of grain harvest work, with nearly two thirds of the households reporting that they took part in the former. This was largely due to the cotton crop in these villages that creates demand for women's labor in the 2–3 months of the picking season.

3.3 Livestock Rearing

Livestock is considered an import source of livelihood in rural Pakistan. Over half the households in the fieldwork villages reported ownership of cattle (cows and buffalos). It has also been found in large-scale surveys that livestock ownership is more equal as well as equalizing (in terms of its contribution to household income) than land ownership. Table 9 provides a cross-tabulation of livestock and land ownership in the census villages. The table shows that the landless, who nevertheless owned cattle, constituted 22% of all households in these villages.

Table 9: Cattle and Land Ownership (Percentage of All Households)

Cattle and Land Ownership	Landless	Landowning	All
No cattle	35.1	11.4	**46.6**
Own cattle	21.7	31.7	**53.4**
All	56.9	43.1	**100.0**

Source: Author's fieldwork.

There was inter-village variation both in the incidence of cattle ownership and proportion of households that sold milk (Table 10). In Dir, over 85% of households owned cattle but only 3% reported selling milk. Milk-selling was important in the Mardan, Chakwal, Sanghar, and Muzaffargarh villages. In the former three, the main market was in nearby towns, while in the Muzaffargarh village, there was a dairy company collection point close at hand.

Table 10: Cattle Ownership and Sale of Milk by Village (Percentage of All Households)

Cattle Ownership	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Own cattle	70.6	85.6	66.1	48.2	68	13.9	47.4	**53.4**
Sell milk	18.8	2.6	21.5	14.6	12.5	3.6	7.8	**10.5**

Source: Author's fieldwork.

Qualitative fieldwork revealed, however, that milk-selling ranked low among the reasons for keeping cattle. Besides self-consumption of milk and dairy products, the most important reason in these villages for holding livestock was that cattle constituted an easily encashable form of saving as well as being a source of current consumption. Households often invested in livestock (particularly cattle) when they had surplus cash. In times of need, livestock could be sold without much difficulty within the village or in nearby markets. Traditional systems of shared livestock ownership were prevalent in all the fieldwork villages. The share-holding of livestock was also a way for many households to get a foothold in cattle ownership in the first instance. It was not surprising then that stories of investment-based upward economic mobility often included the acquisition, accumulation, and then sale of livestock holdings.

The livestock economy was, at one level, closely associated with the crop economy. Fodder was an important crop for many farmers across the fieldwork villages. The livestock economy also had distinctive features that are often ignored in the analysis of rural livelihoods and poverty. Table 11 shows the reported source of fodder by village for livestock holders. The distinctive patterns across villages were indicative of broader issues in land ownership, control over common resources, and traditional entitlements. Most livestock holders in the Chakwal village relied on open grazing or other open sources—in effect, for these households the cost of holding livestock was relatively low. In Sanghar, too, there was substantial recourse to open sources.

Households' own farms remained, however, a predominant source of fodder across villages, thus closely linking the land and livestock economies. In four of the villages (Toba Tek Singh, Muzaffargarh, Mardan, and Sanghar), there was also reliance on other people's farms (Table 11). There were different implicit relations of reciprocity governing access to fodder in these villages. In some cases, e.g., in Toba Tek Singh, the availability of fodder was contingent on an implied relationship of vertical dependence. In the Sanghar village, landlords and share-tenants actively contested over the setting aside of land for growing fodder. According to convention (backed up by tenancy regulations), a sharecropper was entitled to set aside a portion of land for growing fodder exclusively for his own farm animals. In recent years, a leading landlord of the village had put an end to this practice in the cotton season, insisting that the entire land tenanted out be put under the valuable cash crop.

Table 11: Sources of Fodder (%)

Source of Fodder	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Open grazing	32.5	11.0	1.9	6.7	17.5	60.0	9.0	**17.7**
Other open source	28.6	13.1	0.0	0.0	10.7	6.2	0.4	**6.7**
Own farm	31.2	40.7	21.4	48.7	32.3	2.8	48.9	**35.2**
Other's farm	5.2	3.4	63.1	31.3	36.0	9.0	29.9	**27.7**
Purchase	2.6	31.7	13.6	13.4	3.7	22.1	11.9	**12.9**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Author's fieldwork.

3.4 Farm and Nonfarm Work

National-level data show declining trends in the share of agriculture in rural employment.[12]

12 See recent rounds of the Labor Force Survey. Government of Pakistan. 2002. *Labour Force Survey*. Islamabad: Federal Bureau of Statistics.

It is not clear, however, to what extent this decline in agricultural employment is due to push or pull factors. In other words, are there remunerative opportunities in other sectors pulling workers away from agriculture, or has there been a reduction in remunerative opportunities in agriculture itself? While the fieldwork data for the present study cannot provide statistical information about trends, they do provide some insights into patterns of nonfarm and nonagricultural employment across different types of villages.

Table 12 reports the incidence of nonfarm enterprises owned by the residents of the census villages. Even taking a relatively liberal definition of "nonfarm enterprise"—including petty vending—less than a sixth of all households in the census villages reported ownership of such an enterprise. The cross-village mean was raised by the Thatta village where over two fifths of all households ran a nonfarm enterprise. The majority of these people were involved in buying or selling fish (actual seafaring was counted separately and not included in "fish trade"). For the most part, this activity involved small-time buyers and sellers. In the other villages, the proportion of households reporting ownership of nonfarm enterprises ranged from 3.5% (Chakwal) to 13.6% (Muzaffargarh). Shops were the predominant nonfarm enterprise in these villages.

Table 12: Households with Nonfarm Enterprises (Percentage of All Households)

Nonfarm Enterprise	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Household with nonfarm enterprise	3.5	13.1	12.5	13.6	9.0	40.5	10.9	**15.6**
Petty vending	1.2	2.0	1.7	2.6	1.9	4.0	2.9	**2.5**
Shop	1.2	9.2	5.0	8.4	2.9	8.5	6.8	**6.4**
Workshop/flourmill	0.0	2.0	2.5	0.4	2.3	1.2	0.3	**1.1**
Fish trade	0.0	0.0	0.0	0.0	0.0	26.7	0.0	**4.2**
Other	1.2	0.0	3.3	2.2	1.9	0.0	1.0	**1.3**

Source: Author's fieldwork.

The census also documented information on the primary and secondary occupations of all household members. Gender, as expected, was the most striking source of labor market segmentation. The primary occupation of virtually all females was reported as "household work." The respondents in most cases were women of the household. The results for males and females are reported separately here.

Table 13 provides a summary of the occupational distribution of male workers aged 15 years and above. There was inter-village variation in the proportion of the economically active population aged 15 years and above. This ranged from 74% in Dir to 91% in Sanghar. The main source of the variation was thought to be differences between villages in school participation among younger age groups. The villages varied greatly in their distributions of male primary occupations. In only two of the seven villages (Chakwal and Toba Tek Singh) was self-cultivation (farming one's own land) the most prevalent occupation.

Casual labor, defined as unskilled and semi-skilled work on short contracts, was the most important activity in three villages (Muzaffargarh, Mardan, and Thatta). It was also an important occupational classification in the other villages, and was found to be the most prevalent primary occupation for the seven villages taken as a whole. In Thatta, 55% of male workers were casual laborers, most of them employed in the fisheries sector as seafarers or coastal crab-hunters. The latter was a bottom-line activity that had become widespread in recent

years. In the Muzaffargarh village, casual laborers were involved in local farm labor or in seasonal orchard work in other districts. The majority of casual laborers in the Toba Tek Singh village were involved in nonfarm activities, while in Sanghar most were farm laborers.

Tenant cultivation was the most important occupation in the Sanghar village, with 46% of male workers reporting it as their primary occupation. This is in line with the finding reported above that two thirds of the households reported farming land owned by other people. Tenant cultivation was also important in Mardan, involving a fifth of the male workforce.

Table 13: Male Workers by Sector and Activity (Primary Occupation)
(%)

Sector/Activity	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Economically active proportion of reference age group	88.5	74.3	77.1	83.6	90.9	86.7	78.6	**83.3**
Self-cultivator	45.9	23.5	11.9	25.1	22.3	1.6	22.8	**19.7**
Tenant cultivator	2.7	0.4	20.9	6.9	45.6	2.0	4.2	**15.2**
Livestock	2.1	2.2	6.3	0.9	6.6	2.8	2.2	**3.5**
Casual labour	15.1	15	22.1	30.9	8.7	55.4	17.1	**23.9**
Skilled worker/mechanic	1.4	0.4	0.0	3.5	0.1	16.3	2.4	**4.0**
Farm servant	0.0	0.0	0.0	0.5	1.7	0.0	8.2	**2.4**
Nonfarm servant	0.0	0.9	0.4	1.4	0.7	2.2	0.9	**1.1**
Government job	18.5	14.6	5.1	0.7	3.1	1.8	12	**6.4**
Retail	2.1	4.0	2.0	4.4	2.4	11.3	5.2	**4.9**
Transport	0.7	0.0	7.5	0.9	2.0	0.2	2.1	**1.8**
Factory worker	0.0	0.9	2.0	4.8	0.6	0.2	13.5	**4.2**
Labor abroad	0.0	31.4	10.7	0.2	0.0	0.0	1.9	**3.8**
Labour in big city	0.7	2.7	8.3	4.4	0.3	0.6	2.5	**2.4**
Other	11.0	3.5	2.8	15.4	5.7	5.8	4.9	**6.9**
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Author's fieldwork.

There were relatively few "skilled workers/mechanics" in the census villages. This category was meant to include skilled workers in various sectors such as construction, automobile repair, and other technical activities. Thatta had the highest proportion of skilled workers, mainly skilled seafarers employed as captains on fishing vessels. The Thatta village also had a high proportion of shopkeepers and shop assistants. There was a market in the village that served other remote villages in the delta.

Government jobs were the only conspicuous type of formal sector employment in the census villages. There was wide variation in the incidence of government employment, ranging from under 1% in Muzaffargarh to around 19% in Chakwal. Most government employees in Chakwal were in the defense services. Government employment was also important in Dir (14.6%) and Toba Tek Singh (12%).

The Toba Tek Singh village, in fact, appeared to have the most diversified occupation-

al structure. A relatively well-developed and well-connected village in terms of physical infrastructure, it had the highest proportion of factory employment in the census villages. Factory workers commuted to the district headquarters or the industrial city of Faisalabad. The Toba Tek Singh village also stood out as having the highest proportion of its workforce (8%) employed as farm servants. This category was virtually nonexistent in the other villages. Toba Tek Singh farm servants were indebted bonded workers, mostly belonging to the Muslim Sheikh or Musalli kinship group who worked for local landowners. It was paradoxical, indeed, that two such different occupation types—modern factory work and traditional debt bondage—should coexist in the same village.

Migrant labor was very important in some villages. In Dir, the most prevalent occupation was migrant labor abroad, accounting for three tenths of the male workforce. One in ten male workers in Mardan was also abroad, and another 8% were in a big city in the country. The contrast between the NWFP villages, particularly the ones in Dir, with other census villages was striking in this regard. Migrant work abroad was a negligible source of employment in all the other villages, although work in a big city accounted for 4% of male workers in the Muzaffargarh village.

The census also enquired about secondary occupation. Over two fifths of the economically active male population in Dir reported a secondary occupation, compared with just one in ten in the Toba Tek Singh and Thatta villages (Table 14). In Dir, nearly as many people reported self-cultivation as their secondary occupation as those who had reported it as their primary activity. This was not surprising, given the small size of landholdings in the village. In all the other villages, the main secondary occupation was casual labor.

Table 14: Male Workers by Sector and Activity (Secondary Occupation) (%)

Sector/Activity	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Economically active population reporting a secondary occupation	34.4	42.9	30.2	23.7	31.1	10.5	10.8	**22.8**
Self-cultivator	8.9	21.2	2.8	3.0	2.0	0.4	2.4	**3.8**
Tenant cultivator	1.4	0.9	3.6	3.5	9.7	0.2	1.5	**3.6**
Livestock	2.1	7.1	3.6	1.2	2.6	1.4	1.0	**2.2**
Casual labour	19.2	8.0	13.4	10.1	12	7.1	3.6	**9.1**
Other	2.8	5.7	6.8	5.9	4.8	1.4	2.3	**4.1**

Source: Author's fieldwork.

Reporting women's remunerative activities tends to be problematic in labor and household surveys in Pakistan. Traditional norms of gender segregation often come in the way of reliable reporting of women's work. The village census attempted to skirt this problem by including "household work" as a valid occupational category and encouraging respondents (mostly female) to also report secondary occupations. It was hoped that variation captured in reported secondary occupations might provide useful insights into women's work.

Tables 15 and 16 report, respectively, the primary and secondary occupations of females aged 15 years and above in the census villages.

Including "household work" as a valid occupational classification led to a relatively high proportion of the reference age group being reported as economically active (Table 15). In fact, this proportion was higher for the female population than for the male. As expected, a very high proportion of female workers was reported as being household workers.

Even so, there were inter-village variations. In the village in Chakwal, 6.5% of female workers reported self-cultivation as their primary occupation. This finding appears to be in line with findings on land ownership and demographic characteristics , which suggest lower female disadvantage in the Chakwal village.[13]

occupations as other than household work. In the fieldwork village in Thatta, sewing/embroidery was the predominant nonhousehold work activity and was also home-based.

As expected, there was far greater variation in the reported secondary occupations of female workers (Table 16). It was striking that the strongly patriarchal village of Dir, where strict gender exclusion was observed in female mobility, nearly a fifth of the female workers reported self-cultivation as their secondary occupation. Another fifth was involved in livestock rearing. Mardan, too, had a high proportion of female workers (10%) reporting livestock rearing as a secondary occupation. In Chakwal, where self-cultivation was reported as the primary occupation of 6.5% of the female workforce, another 9.2% reported self-cultivation as their secondary occupation.

Table 15: Female Workers by Sector and Activity (Primary Occupation) (%)

Sector/Activity	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Economically active proportion of reference age group	87.4	89.6	90.8	91.7	92.6	92.2	85.4	**90.0**
Self-cultivator	6.5	0.0	0.0	0.2	4.5	0.0	0.0	**1.4**
Tenant cultivator	1.3	0.0	1.5	0.0	10.8	0.4	0.0	**2.8**
Casual labour	0.7	0.0	0.0	0.7	6.0	0.2	0.7	**1.7**
Household work	90.2	97.8	95.5	96.1	75.3	85.2	95.1	**89.1**
Sewing/embroidery	0.7	1.1	0.0	0.9	1.2	12.9	0.9	**2.8**
Other	0.7	1.1	2.9	2.1	2.3	1.0	3.3	**2.2**

Source: Author's fieldwork.

The villages in Sindh also stood out in terms of the proportion of female workers reporting occupations other than household work. In Sanghar, these other occupations corresponded closely to patterns of male employment, with the occupational classifications tenant cultivation, casual labor, and self-cultivation dominating. A disproportionate number of the women reporting these activities belonged to the Hindu Bheel and Kolhi families resident in the Sanghar village. It needs to be noted, however, that there were many Muslim women who also reported their primary

Traditional home-based work such as sewing and embroidery was the other conspicuous occupational category reported as a secondary activity. Around 18% of females in the Muzaffargarh village and 15 and 8%, respectively, in the Thatta and Sanghar villages reported this as their secondary activity. In Thatta, this was in

13 The qualitative findings reported in Mohmand and Gazdar (2007) also support this impression (footnote 1).

addition to those females who had reported sewing/embroidery as their primary occupation.

active male adults engaged in one, some, all, or none of these occupations.

Table 16: Female Workers by Sector and Activity (Secondary Occupation)
(%)

Sector/Activity	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh
Economically active population reporting a secondary occupation	21.8	52.7	18.0	33.5	45.8	30.2	13.2
Self-cultivator	9.2	19.5	0.7	0.0	1.6	0.0	0.3
Tenant cultivator	0.7	2.2	0.0	0.0	5.5	0.4	0.3
Livestock	3.9	20.9	10.4	1.6	2.3	4.9	1.6
Casual labour	0.7	0.0	3.0	3.0	16.6	0.4	2.3
Household work	2.0	0.0	0.1	0.2	12.1	8.9	1.2
Sewing/embroidery	4.6	3.6	2.6	17.8	7.7	15.4	2.5
Other	0.7	6.5	1.9	10.9	0.0	0.2	5.0

Source: Author's fieldwork.

Individual-level description of employment and occupations needs to be aggregated up to the household level because much of the analysis of poverty and well being is conducted for the household. Table 17 classifies households in the census villages under three broad employment categories: (i) "casual labor," (ii) "government jobs," and (iii) "labor abroad." Any household where at least one economically active adult male was reported as being involved in casual labor, being a current or retired government employee, or currently working abroad, was classified, respectively, as a "casual labor," "government job," or "labor abroad" household. The three categories were not, of course, mutually exclusive, because a household could have economically

One reason for classifying households on the basis of the occupational characteristics of their individual members was the assumption that individual occupations reflected and affected overall household well being. A household with one working member holding a government job or working abroad was presumed to have access to a predictable source of income. Casual labor—unskilled or semi-skilled low-wage short-contract work—at the other end of the spectrum was presumed to be a "bottom line" activity across census villages. Reliance on casual labor was an indicator of the limited labor market opportunities available to members of a household.

Table 17: Households Classified by Employment Status
(%)

Employment Status	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
Casual labour	38.8	26.1	40.5	48.9	38.9	68.5	27.9	**41.4**
Government job	28.2	19.6	9.1	1.1	6.4	2.8	19.3	**10.5**
Labour abroad	0.0	41.2	15.7	0.4	0.0	0.0	3.1	**5.7**

Source: Author's fieldwork.

Over two fifths of all households in the census villages relied somewhat on casual labor, one out of ten had someone holding a government job, and around 6% had a member working abroad (Table 17). The Thatta and Muzaffargarh villages had the highest ratios of casual labor households. In the former, these were mainly seafarers, while in the latter, farm and orchard labor dominated. These two villages had virtually no households with government jobs. The villages in Chakwal, Toba Tek Singh, and Dir had high ratios of government job households—28, 19, and 20%, respectively. In the Dir village, two out of every five households had someone currently working abroad, while in Mardan every sixth household was in this position.

4 Kinship Groups

The description and analysis thus far has focused on two levels of aggregation above the individual: (i) the household, and (ii) the village. Demographic patterns, access to infrastructure, land ownership and access, and employment and livelihood strategies have been discussed with reference to differences across individuals, households, and villages. The sociological literature and empirical work on rural Pakistan strongly suggests, however, that there are supra-household levels of aggregation—namely wider kinship groups—that act as crucial dimensions of identity, collective action, and mobility. What these kinship groups precisely are, who they are defined by, and how they themselves define the social structures found across regions and villages is, therefore, a crucial aspect of poverty analysis.

The main analytical work on this issue in the context of this particular study is provided in Mohmand and Gazdar (2007) (footnote 1). The present paper's approach to kinship groups is empirical. Respondents in the fieldwork villages were asked to identify the main kinship groups—using appropriate local terms such as *biraderi*, *zaat*, *qaum*, or *qabeela*, for example—and to report their own group identities.[14] The classification of respondents into well-defined kinship groups proved to be an operationally easy task across the fieldwork regions and villages. In fact, in rapid community surveys, respondents found it easiest to provide demographic and economic information about the village population as a whole after first classifying groups of households by these markers of social identity.

The qualitative fieldwork also revealed strong patterns of solidarity as well as hierarchy across and within kinship groups. These findings are reported in detail in Mohmand and Gazdar (2007) (footnote 1), where the kinship group is found to be a critical dimension of social exclusion. A statistical description of kinship groups in the seven census villages is provided here along with brief descriptions of the salient inter-group dynamics. Kinship group names have been disguised here in a number of cases in order to preserve individual and community anonymity. In other cases, where a particular kinship group name cannot be used to identify an individual village, the original name has been used.

Four points about the findings reported here need to be noted at the outset:

(i) Great care was taken in documenting kinship group classifications within each village to ensure that we had a correct understanding of inter-group dynamics. There were many instances where kinship groups were known by more than one name—in most such cases, the change of name was linked to a particular kinship group attempting to acquire a higher status than was accorded it in the village community. Key informants were used to clarify such ambiguities. The village study approach used in the fieldwork helped overcome the common problems of large-scale surveys that enquire about kinship group identity but end up with unusable data due to the lack of prior qualitative probing.

(ii) Kinship groups were exhaustive: all individuals and households in the census villages belonged to some kinship group. There were no individuals or households in the census villages that did not belong to any higher level of identifiable kinship aggregation.

(iii) Kinship groups were mutually exclusive: it was not possible for a household to belong to more than one kinship group. Even in the case of cross-kinship group marriages (which were, in any case, rare) the identity of the household remained fixed within a unique kinship group, almost always on a patriarchal basis.

(iv) All census villages had households belonging to at least two kinship groups. In some cases, kinship groups with small numbers of house-

14 It might be added that the terms listed here are used in official documents such as government school admissions forms. Zaat and qaum refer to endogamous kinship groups, biraderi to clan, and qabeela to tribe.

holds have been grouped together in order to facilitate presentation and analysis. The rough benchmark that has been followed here is that kinship groups with population shares of less than 5% in the total village population have been grouped together with other similar kinship groups. Exceptions have been made in cases where the group is of particular interest for some prior reason. The village in Dir was dominated by the Pukhtoon 1 tribe with only one non-Pukhtoon 1 household resident. This village has been left out of the kinship-based analysis, although social exclusion is discussed with reference to subvillage communities (or clusters of houses inhabited by close relatives, also known locally as *mohallas*) in Mohmand and Gazdar (2007) (footnote 1).

4.1 Overview

The main form of kinship group in the Punjab villages was caste, which was known variously as zaat or biraderi. There were some broader categories within which specific kinship groups were placed. An important distinction was between traditional cultivator and noncultivator castes. Noncultivators included various *kammi* (nonagricultural service) castes as well as extremely marginalized groups associated with low-status work and professions. In the Pukhtoon NWFP census villages, an important broad division was between racial Pukhtoons and non- Pukhtoons. Within the Pukhtoon tribes, subtribes and clans were broad categories of distinction. In the Sindh villages, two types of broader categories were apparent. One was religion—the division of kinship groups between Muslim and Scheduled Caste Hindus. The other was racial-ethnic origin, the main line of demarcation being the distinction between the Sammat (thought to be traditional Sindhi) races and the Baloch.

4.2 Chakwal

There were five main kinship groups in the Chakwal village, and a number of other groups with a few households all belonging to various traditional cultivator castes. The largest group in terms of population size was termed "cultivator 1," which accounted for over three tenths of the village population (Table 18). This was followed by the Awan, who made up 23% of the village, and the Mistri with 20%. The Awans in this village claimed to be cultivators of long standing, although there were some suggestions that they had originally been blacksmiths. The Mistris were clearly a traditional noncultivator caste. The next largest group (7%) were the Mirasis, or traditional minstrels, regarded as being of relatively low social status. They themselves strongly resisted the label of "Mirasi," which was seen as a marker of low social status. The Mehars

Table 18: Chakwal Village: Distribution of Households in Kinship Groups by Land Ownership, Tenure, and Education Status
(%)

Kinship Group	Share of Population	Landowners	Tenant Farmers	Literacy Rate of Age Group 15 Years and Above	
				Male	Female
Awan	22.8	88.2	35.3	81.1	32.4
Cultivator 1	31.4	86.7	20.0	59.6	18.9
Other cultivator	12.0	50.0	33.3	64.7	20.0
Mehar	6.1	80.0	0.0	78.6	30.0
Mistri	19.8	60.0	53.3	85.7	29.0
Mirasi	7.9	0.0	50.0	63.6	50.0
Total	**100.0**	**70.6**	**31.8**	**71.3**	**27.2**

Source: Author's fieldwork.

numbered only a few households (6% of the village population) but were regarded as influential landowners and a cultivating caste of high status. There were a few households belonging to a number of cultivator caste kinship groups that have been grouped together here as "other cultivators," together making up 12% of the population.

The traditional caste hierarchy in this village appeared to have been strong historically and remained symbolically important. Land ownership was relatively widely spread in the village as a whole, with 71% of households who reported owning agricultural land, and most kinship groups—with the notable exception of the Mirasis—owning some land. Tenant farming was also prevalent among all groups except for the Mehar who were all relatively large landowners themselves. The traditional caste hierarchy did not appear to hold with respect to education. Mirasis, Awans, and Mistris appeared to have acquired higher levels of education while the traditional cultivator caste ("cultivator 1") was the least educated.

Table 19: Toba Tek Singh Village: Distribution of Households in Kinship Groups by Land Ownership, Tenure, and Education Status
(%)

Kinship Group	Share of Population	Landowners	Tenant Farmers	Literacy Rate of Age Group 15 Years and Above	
				Male	Female
Araeen	50.4	84.9	12.1	91.9	76.9
Baloch	8.2	8.6	14.3	69.5	16.4
Muslim Sheikh	14.6	0.0	5.4	49.1	13.5
Other noncultivator	20.2	2.8	8.3	68.1	37.2
Other cultivator	6.7	4.8	52.4	47.7	27.5
Total	**100.0**	**45.7**	**12.8**	**77.7**	**54.7**

Source: Author's fieldwork.

4.3 Toba Tek Singh

The village was dominated numerically and in terms of social and political power by the Araeen kinship group, which accounted for 50% of the village population (Table 19). The Araeen, many of whom were related to one another, traced their origins to districts in Indian Punjab. Their migration history spanned a period of over 5 decades, with the first arrivals having settled here in the late 19th century, and the last to have arrived at the time of independence and the division of Punjab. There was a clear, almost ethnic, distinction between the migrants and original inhabitants of the area, who were known as Jaanglis.

After the Araeen, the next largest group (15%) consisted of the Muslim Sheikhs, who were also known as "Musalli." This group was the most downtrodden, its members were all landless and many worked as farm laborers for Araeen landlords. There was a strong correlation here between caste and class, with most Muslim Sheikhs being farm laborers and most Araeen being landowners. The next largest group consisted of the Baloch (8%), which, like the Muslim Sheikh, were also classified as Jaanglis. Unlike the Muslim Sheikhs, however, some Baloch households did own land (9%), and their social position was more autonomous of the Araeen.

Besides these three groups, there were a number of cultivator as well as noncultivator castes in the village. The non-Araeen cultivator castes had few landowners among them, mostly working as tenant farmers. The Araeen in gener-

al, and a number of leading landowning Araeen families in particular, dominated the collective life of the village. Association among the Araeen was premised on cooperation as well as rivalry. With other groups their relations were those of domination and subservience.

The caste-class correlation remained strong in this village in terms of land ownership and education. Nearly all (85%) the Araeen households owned some land while none of the Muslim Sheikhs did. Two fifths of the Araeen households had at least one adult who had studied beyond secondary level—not a single Muslim Sheikh in the village had reached that level of education. While 91.9% of Araeen males and 76.9% of Araeen females aged 15 years and above were literate, these figures were 49.1% and 13.5%, respectively, among the Muslim Sheikhs.

Table 20: Muzaffargarh Village: Distribution of Households in Kinship Groups by Land Ownership, Tenure, and Education Status
(%)

Kinship Group	Share of Population	Landowners	Tenant Farmers	Literacy Rate of Age Group 15 Years and Above	
				Male	Female
Mochi	8.9	27.3	68.2	69.4	7.3
Other cultivator	18.5	87.8	20.4	29.8	5.5
Katanay	13.7	0.0	4.9	26.1	1.6
Baloch	3.1	80.0	10.0	28.6	0.0
Paoli	25.4	47.8	20.3	21.4	0.0
Tarkhan	13.0	48.5	9.1	47.7	1.9
Syed	11.0	52.9	8.8	48.3	14.0
Other noncultivator	6.3	46.7	6.7	24.1	4.5
Total	**100.0**	**48.0**	**17.9**	**35.2**	**4.2**

Source: Author's fieldwork.

4.4 Muzaffargarh

The kinship groups in this village (Table 20) could be classified into the following groups: (i) Syeds (11%), (ii) other landowning castes (18%), (iii) traditional artisan castes—Paoli or cloth-weavers (25%), Mochi or shoemakers (9%), Katanay or reed weavers (14%), Tarkhan or carpenters (13%), and other noncultivator castes such as Kasai or butchers, and Mirasi or minstrels (6%).

They dominated the main settlement of the village in terms of politics and ownership of the village residential area. While the Syeds enjoyed a high social standing and some degree of political power, only around half the Syed households owned any land. In this regard, their position was not much better than that of some of the traditional service castes such as the Paolis and Tarkhans. The other traditional cultivator castes have a higher incidence of land ownership (nearly nine tenths of these households owned some land). They resided mostly outside the main settlement in their own settlements and hamlets.
The marginalized kinship groups are the Katanay, the Mirasis, and the Paolis, who reside within the main settlement. These groups are dependent on their landlords for employment as well as for homestead land. Other similar groups—i.e., those from noncultivating artisan castes—such as the Tarkhans and the Paolis living outside the main settlement are less dependent on their landlords.

The traditional caste-class correlation appears to have given way to a more complex pic-

ture. While the Katanay are all landless and mostly uneducated, some traditional service castes, such as the Mochis and Tarkhans, are almost at par with the Syeds in terms of education.

4.5 Mardan

The main landowners were descendents of two brothers who arrived in the area some 60 years ago. These were Pukhtoon 2 families from the border tribal region of the country. Other Pukhtoon 2 families, some of them relatives of the original landowning family, also resided here and worked as tenants. In all, the Pukhtoon 2 accounted for 46% of the village population (Table 21). The second-largest single kinship group consisted of a group of families who had migrated from the Bajaur Agency (14%). Other Pukhtoon kinship groups from various areas (including Dir and other parts of NWFP and the Tribal Areas) together made up 29% of the population. Non-Pukhtoon ethnic groups, such as Kohistanis, Swatis, and Gujjars, together made up 11% of the population.

4.6 Sanghar

The largest settlements within the village had two major kinship groups, (i) the Baloch 1, and (ii) the Baloch 2, as well as several other groups such as the Khaskhelis, Sammat 3, and Bheels. There were no major landowners residing within this settlement, although the houses of the Baloch 5 landlords were in close proximity. In terms of economic class, therefore, the residents of the main settlement in the Sanghar village were all either smallholders or share-tenants. The Baloch 1 were conspicuous in their involvement in the village's public affairs, given that they dominated the main settlement.

Other settlements, however, were also sizeable, and the majority of the village population resided in small scattered settlements with their own distinctive identities. The settlement of the Sammat 1 kinship group, located some 5 km from the main settlement, was exceptional in that, here, the Bheel and Sammat 3 tenants of the Sammat 1 landlords resided within the same *goth*.

Table 21: Mardan Village: Distribution of Households in Kinship Groups by Land Ownership, Tenure, and Education Status
(%)

Kinship Group	Share of Population	Landowners	Tenant Farmers	Literacy Rate of Age Group 15 Years and Above	
				Male	Female
Pukhtoon 2	46.1	38.6	28.1	68.9	18.0
Bajauri	14.3	11.8	64.7	53.5	16.7
Non-Pukhtoon	10.5	8.3	41.7	35.5	0.0
Other Pukhtoon	29.1	6.3	28.1	52.4	12.0
Total	**100.0**	**22.9**	**34.7**	**58.8**	**14.6**

Source: Author's fieldwork.

Land ownership was concentrated among only 23% of village households, most of them Pukhtoon 2. The other groups were mostly landless, although some households in each group did own land. There was no clear idea of prior hierarchy between social groups. The non- Pukhtoon were obviously "outsiders," and also the least educated.

The Sammat 1 families, like the Baloch 1, were considered powerful and had close personal ties with influential political figures in the area.

Although the language of public interaction was Sindhi throughout the village, the various kinship groups divided into three broad groupings in terms of ethnic background: (i)

Baloch, (ii) Sindhi Sammat, and (iii) Marwari. There was no clear sense of social or cultural hierarchy between kinship groups, with the exception of the Bheels and the Kohlis, who were regarded as being socially and politically marginalized.

Nineteenth-century political history provided another possible set of hierarchies among some of the kinship groups present in the village. Three of the settlements were dominated by kinship groups claiming descent from the former Mir rulers of Sindh. Although of Baloch origin, the Mirs are regarded as having a higher social and political status compared with other Baloch tribes and kinship groups in Sindh. The Khaskhelis, conversely, are thought to have been dependent servants of the Mirs, and, therefore, historically a marginalized group. Both Mirs and Khaskhelis resided in the census village, although there were no active economic ties between them.

The Bheels were the largest single kinship group in the Sanghar village, representing 21% of the population (Table 22). Only 4% owned any land and two thirds of the households did not have any educated adults. One out of four males and no female, aged 15 years or above, was literate. There were also several Kohli households who accounted for 2% of the village population. These were migrants from the Thar area from about 5 years ago, and were still living in makeshift camp-like settlements. None owned any land and virtually all lacked any education.

Between them, the two Mir kinship groups accounted for a quarter of the village population, and over two thirds owned some land. In terms of education, they were worse off than the Baloch 1 and better off than the Khaskhelis. The only other group with over a tenth of the village population were the Baloch 2 (13%). They resided in the main settlement, and although they were twice as numerous as their Baloch 1 neighbors, the political leadership of the settlement appeared to be in the hands of the latter. The Baloch 2 were mostly landless tenant farmers with low levels of

Table 22: Sanghar Village: Distribution of Households in Kinship Groups by Land Ownership, Tenure, and Education Status
(%)

Kinship Group	Share of Population	Landowners	Tenant Farmers	Literacy Rate of Age Group 15 Years and Above	
				Male	Female
Baloch 1	6.9	53.6	67.9	68.0	22.9
Baloch 2	12.6	20.8	79.2	16.3	0.0
Sammat 3	8.0	46.2	73.1	22.2	3.2
Khaskheli	3.7	26.7	66.7	29.7	2.8
Bheel	21.3	3.8	74.7	25.3	0.0
Mir 1	8.8	65.7	62.9	47.9	5.4
Mir 2	17.3	68.7	46.3	35.6	8.6
Kohli	2.0	0.0	50.0	5.9	0.0
Baloch 5	2.6	33.3	50.0	64.7	5.9
Baloch 6	7.5	36.1	66.7	23.9	9.2
Punjabi 1	1.4	0.0	100	18.2	0.0
Sammat 1	4.0	92.3	46.2	95.7	40.9
Sammat 2	2.4	87.5	75.0	64.7	40.0
Other	1.4	16.7	66.7	54.5	0.0
Total	**100.0**	**38.2**	**66.2**	**35.1**	**7.4**

Source: Author's fieldwork.

education.

The largest landlords in the village were from the Baloch 5 kinship group, who only represented 2% of the village population. While two households among the Baloch 5 owned several hundred acres between them, other Baloch 5 households, who were their relatives, were landless and worked as tenant farmers.

4.7 Thatta

Broadly speaking, there were three kinship groups with high numerical weightage in the Thatta village, and several smaller groups. The most conspicuous were the Sammat 4 (15% of the population) who dominated the main market and also included a number of important local landlords.[15] The second conspicuous group was the Khaskheli, mostly share-tenants of the Sammat4 and other landlords in the past, but now taken to marine fishing and other forms of casual labor due to the long drought. This was the single most numerous group accounting for a quarter of the village population. There were several individuals among the Khaskhelis who were of some local prominence.

The third group was the Mallahs, the name for traditional seafaring communities. Within the Mallahs, there were several distinctive groups. One of the largest landlords of the village was the chief of the Mallah 1 families, who had extensive economic and political links with the powerful fishing cartels based in Ibrahim Hyderi in Karachi. The Mallah 1 chief was a player in local politics as well as in the wider politics of the seafaring communities. While the extended family of the Mallah 1 chief were important land- and boat-owners, most of the other Mallah 1 were landless and poor. There were also other kinship groups claiming Mallah status by virtue of being traditional seafarers and not through any proximate kinship association with the Mallah 1 themselves.

For the Sammat 4 as a group, the incidence of land ownership was 48% and they had significantly higher levels of education compared to the other kinship groups. Among the Mallah 1, there was a sharp distinction between the chief's family and the rest—the former owned land and

Table 23: Thatta Village: Distribution of Households in Kinship Groups by Land Ownership, Tenure, and Education Status
(%)

Kinship Group	Share of Population	Landowners	Tenant Farmers	Literacy Rate of Age Group 15 Years and Above	
				Male	Female
Mallah 2	4.6	11.8	0.0	4.3	3.8
Mallah 3	8.4	10.5	0.0	0.0	0.0
Kalmati Baloch	7.9	4.8	0.0	7.0	0.0
Mallah 1	15.5	12.5	0.0	24.4	7.3
Khaskheli	25.3	10.5	10.5	8.4	0.8
Sammat 4	15.1	48.4	0.0	79.4	13.5
Sammat 5	5.1	0.0	0.0	4.8	0.0
Mallah 4	10.5	26.7	3.3	3.1	0.0
Other	7.6	15	5.0	29.5	12.9
Total	**100.0**	**17.0**	**3.3**	**22.9**	**4.9**

Source: Author's fieldwork.

15 Due to the prolonged drought, however, land was not necessarily a source of wealth or income, and the Sammat 4's commercial activities were the more

had high levels of education, the latter were indistinguishable from other kinship groups. The figures for this group, as reported in Table 23, are higher than other kinship groups and close to the population average, primarily due to just one extended family, that of the clan chief.

5 Poverty and Well-Being Analysis

5.1 Well-Being Indicator

The extended village census conducted for this study did not include complete consumption or income modules. Within the resource constraints, adopting a village study approach—with in-depth qualitative and quantitative analysis of selected villages—meant that it was not possible to conduct full household surveys.

The questionnaire design was extended beyond a standard village census in order to incorporate a number of indicators that could be used to generate a proxy for household income or consumption—namely a household well-being score with which to conduct a poverty analysis. The idea was to obtain reliable information on variables that could be aggregated into an index of household well-being across diverse types of villages. These variables needed to show a high degree of intra-sample variation, and there had to be strong prior economic reasoning to suggest that the observed variation would be correlated with household well-being.

There were at least four sets of variables in the extended village census questionnaire that could be used for this purpose: (i) food consumption, (ii) ownership of livestock, (iii) ownership of durable items, and (iv) housing conditions.

The extended village census did not, obviously, include a full food consumption module. It did focus, however, on the frequency with which particular food items were consumed by a household over a reference period. Female respondents were asked about the frequency of household consumption of various items including grains, dairy products, tea, sugar, pulses, different types of meat, and fruit. These questions could be used, of course, to construct some index of food security, but for our purposes, the focus is on constructing an index of household well-being. This meant focusing on those food items that might, a priori, have a strongly positive income elasticity, and which displayed much intra-sample variation. Not surprisingly, it was found that there was very little intra-sample variation in the consumption of main staple grains. Moreover, the income elasticity of grains was likely to be very low.

Table 24 shows the mean frequency of use of three items over a week: (i) milk, (ii) pulses, and (iii) chicken. While, for milk, the mean frequency was close to the maximum possible, for chicken it was close to the minimum. Pulses, however, appeared to be appropriate for our purposes. It was found that there was much greater variation in the data for chicken and other meat items if a longer reference period (1 year) was taken. The frequency of consumption of pulses over a week and the frequency of consumption of eggs, chicken, mutton, and beef over a 1-year period were selected as appropriate variables.

Livestock ownership, as noted above, was regarded in the fieldwork villages as a readily encashable form of saving. It was simple to obtain

Table 24: Frequency of Food Consumption by Village

Food Consumption	Chakwal	Dir	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Total
No. of days milk consumed last week	6.92	6.82	6.82	5.03	5.64	5.74	6.01	**5.90**
No. of days pulses consumed last week	2.89	4.44	4.56	2.77	3.08	1.20	2.97	**2.95**
No. of days chicken consumed last week	0.34	0.54	0.64	0.23	0.24	0.31	0.22	**0.31**

Source: Author's fieldwork.

reliable data on the numbers of various types of livestock owned by a household. For other durable items, the list of items included different types of vehicles and other nonelectrical durables. For housing conditions, the main variables were the durability of the house structure (whether or not pukka), ownership of a hand-pump, and existence of latrine arrangements within the house.

Care was taken to include only those assets or housing that would have cross-village relevance. Electrical durables could not be used, for example, because two of the census villages had no electricity supply. Inter-village differences in culturally driven preferences were accounted for by including substitute food items and assets.

The principal-component-analysis method was initially used to compute group scores for the four initial classes of variable:(i) food consumption, (ii) livestock ownership, (iii) ownership of durable items, and (iv) housing conditions. Once these scores had been computed, the same method was used to compute a composite well-being score across the four groups. This well-being score was then used as a proxy for household income or consumption to further analyze poverty and well-being.

The well-being score has been used here for three purposes:

(i) It was used to identify poor households across the seven census villages. This was done by ranking households by well-being score and classifying them into three groups. The "poorest" were defined as those households that represented the lowest two deciles of the population in terms of well-being score. The "poor" included the two next deciles, and the rest were classified as nonpoor. The purpose of this analysis was not to measure poverty but to compare it across different population groups.

(ii) For intra-village analysis, a relative poverty classification was constructed using the same method as for overall poverty ranking, except that households were ranked using the well-being score separately for each village. Here, the households that represented the lowest two deciles in any village are classified as the "poorest," the next two deciles as the "poor," and the rest as nonpoor.

(iii) The household well-being score was used to analyze the correlation of household well-being with economic and social variables. In this latter case, the well-being score was used as a continuous variable, much like a consumption or income aggregate would be used in more conventional household surveys.

5.2 Poverty Profiles

Table 25 reports the headcount ratio of poverty by village. The contrast between the Thatta and Muzaffargarh villages on the one hand

Table 25: Cross-Village Poverty Headcount Ratios by Village

Village	Poorest (%)	Poor (%)	Number
Chakwal	2.6	16.7	85
Dir	3.2	15.1	153
Mardan	3.2	25.5	121
Muzaffargarh	35.6	65.7	274
Sanghar	15.1	32.1	391
Thatta	53.9	79.3	251
Toba Tek Singh	10.0	26.3	384
All villages	20.0	40.0	

Source: Author's fieldwork.

and the Chakwal, Dir, and Mardan villages on the other, was striking. In Thatta, 54% of the population fell into the "poorest" category, while another 79% was poor. Only 21% was classified as non-poor in comparison with the reference figure of 60%. By contrast, only 3% of the population in Chakwal, Dir, and Mardan was in the poorest category. The Toba Tek Singh village had more among the poorest (10%) but its headcount ratio for the poor was similar to that of Mardan. Sanghar was less poor than Thatta and Muzaffargarh, but somewhat poorer than Toba Tek Singh.

Poverty was highly correlated with household economic characteristics such as land ownership and employment opportunities (Table 26). Only 5.7% of landowners were among the poorest, compared with the reference figure of 20%. Even the broader category of the poor included only 18% of landowners compared with 40% of the population at large.

A household's reliance on casual labor was another close correlate of poverty. Over a third of the casual labor households were among the poorest, and three fifths were among the poor. A government job or migrant labor abroad strongly reduced the probability of being among the poorest or the poor.

Given the high degree of inter-village variation in poverty ratios, it was necessary to use an indicator of village-relative poverty to note contrasts within villages. Table 27 presents the incidence of relative poverty among landowners by village. In this measure, the reference figures for the poorest and the poor in each village, respectively, are 20 and 40%. In Chakwal and Dir, there

Table 26: Cross-Village Poverty Headcount Ratios by Household Economic Characteristics

Economic Characteristic	Poorest (%)	Poor (%)	Number
Own land	5.7	18.3	714
Casual labour	33.9	59.7	687
Government job	2.7	9.2	174
Labour abroad	2.0	12.4	95
All households	20.0	40.0	

Source: Author's fieldwork.

Table 27: Relative Poverty Headcount Ratios for Landowners by Village

Village	Poorest (%)	Poor (%)	Number
Chakwal	25.00	50.00	60
Dir	19.08	40.45	131
Mardan	0.00	3.70	27
Muzaffargarh	9.45	25.99	127
Sanghar	3.38	16.89	148
Toba Tek Singh	2.29	14.29	175
Thatta	0.00	10.00	40
All households	20.00	40.00	

Source: Author's fieldwork.

was no association between landlessness and poverty. Landowners in Chakwal were, in fact, more likely to be among the poorest and the poor compared with the population as whole. In Dir, land ownership did not make any difference to the probability of being among the poorest or the poor. This finding is interesting because both these villages have relatively equal land ownership holdings and also relatively low reliance on crop farming.

The relationship between landlessness and poverty was positive but also relatively less strong in Muzaffargarh. It might be recalled that the traditional noncultivator castes in this village had managed to acquire education and some level of autonomy. In all the other four villages (Toba Tek Singh, Mardan, Sanghar, and Thatta), there was a strong correlation between landlessness and poverty. Virtually no landowning households were among the poorest in these villages, and the probability of being among the poor was also significantly less for landowners than for the population at large.

A household's educational level—using the education level of the most educated adult in the household as a proxy—was also a reliable predictor of poverty. Table 28 reports the cross-village poverty headcount ratios for households with different levels of education. Those with above a secondary level of education were virtually absent from among the poorest. Only 7% of the population in households with above secondary education were poor compared to the reference figure of 40%. By contrast, those with no education were almost twice as likely to be among the poorest, and over one and a half times as likely to be among the poor compared with the population as a whole. Increasing intermediate levels of education were associated with progressively lower levels of poverty.

Table 28: Cross-Village Poverty Headcount Ratios by Education Level

Education Level	**Poorest** (%)	**Poor** (%)	**Number**
No education	37.3	64.5	687
Up to primary	20.4	43.7	332
Up to secondary	5.4	20.1	443
Above secondary	1.6	7.4	183
All households	20.0	40.0	

Source: Author's fieldwork.

The present study provides a rare opportunity for investigating the correlation between poverty and kinship groups using statistical data. Tables 29 to 34 report cross-village as well as relative poverty headcount ratios for kinship groups in each of the census villages.

For the census village in Chakwal, the caste-poverty findings indicate a reversal of the traditional hierarchy. While the most powerful cultivator caste in the village (Mehar) was entirely free of poverty, other important cultivator castes (e.g., Cultivator 1) were conspicuous in their higher-than-average poverty ratios. Some traditional service castes (such as the Mistris and Mirasis), however, had lower poverty ratios than the village population as a whole. Education and government employment were thought to have played a role in reversing the traditional caste hierarchy. Moreover, land was relatively less valuable as an economic resource compared with access to public sector employment.

In the village in Toba Tek Singh (Table 30), the traditional caste pattern was very much in place. Virtually none of the dominant caste (the Araeen) were among the poorest, and only a relatively small proportion of other cultivator castes.

Table 29: Chakwal: Poverty Ratios by Kinship Group

Kinship Group	Cross-Village Poverty (%)		Relative Poverty (%)		Number
	Poorest	Poor	Poorest	Poor	
Awan	0.9	5.4	11.6	33.9	17
Cultivator 1	3.9	22.1	29.2	61.0	30
Other cultivator	10.2	50.9	50.8	66.1	12
Mehar	0.0	0.0	0.0	0.0	5
Mistri	0.0	9.3	9.3	24.8	15
Mirasi	0.0	7.7	7.7	23.1	6
All households	2.6	16.7	20.0	40.0	

Source: Author's fieldwork.

Poverty ratios were extremely high among the traditionally subservient Muslim Sheikh kinship group and other landless Jaangli groups like the Baloch. In terms of relative village-level poverty rankings, nearly all the Muslim Sheikh population was among the poor.

Table 30: Toba Tek Singh: Poverty Ratios by Kinship Group

Kinship Group	Cross-Village Poverty (%)		Relative Poverty (%)		Number
	Poorest	Poor	Poorest	Poor	
Araeen	1.7	7.0	2.6	17.1	199
Baloch	16.8	49.5	45.8	71.0	35
Muslim Sheikh	36.1	78.5	63.6	91.6	56
Other noncultivator	11.7	31.1	23.8	50.8	72
Other cultivator	4.0	10.8	10.8	26.1	20
All households	10.0	26.3	20.0	40.0	

Source: Author's fieldwork.

Caste appeared to be a weak predictor of poverty in the Muzaffargarh village, and some of the correlations were contrary to the traditional caste hierarchy (Table 31). While "other cultivators" were indeed less likely to be among the poorest, their probability of being "poor" was no different compared with the population as a whole. Mochis and Tarkhans, two traditional service castes, however, were considerably less likely to be poor compared with the village population. It was interesting to note that, in terms of relative poverty rankings, the Syeds were more likely to be among the poorest than even the Katanay and the Paolis—two groups widely identified by village residents as being among the poorest during qualitative fieldwork.

Kinship group was not strongly correlated with poverty in the Mardan village either (Table 32). In terms of relative poverty rankings, the dominant group, Pukhtoon 2, had a higher headcount ratio than other groups in the "poorest" category, and its position was marginally better than other groups in the "poor" category.

In Sanghar, three groups (the Kohli, Punjabi 1, and Bheel) stood out as having very high poverty ratios (Table 33). The Kohlis of Sanghar were, in fact, the poorest single group in

Table 31: Muzaffargarh: Poverty Ratios by Kinship Group

Kinship Group	Cross-Village Poverty (%)		Relative Poverty (%)		Number
	Poorest	Poor	Poorest	Poor	
Mochi	19.4	43.8	9.40	23.8	22
Other cultivator	34.5	59.8	17.20	40.2	49
Katanay	52.7	96.5	24.40	56.6	41
Paoli	47.2	75.8	24.70	52.0	69
Tarkhan	14.7	49.0	10.60	18.4	33
Syed	37.0	63.6	26.60	43.8	35
Other noncultivator	26.3	52.6	21.20	30.5	15
All households	35.6	65.7	20.0	40.0	

Source: Author's fieldwork.

Table 32: Mardan: Poverty Ratios by Kinship Group

Kinship Group	Cross-Village Poverty (%)		Relative Poverty (%)		Number
	Poorest	Poor	Poorest	Poor	
Pukhtoon 2	2.1	28.9	25.0	37.0	57
Bajauri	5.6	12.4	11.1	42.6	17
Non-Pukhtoon	5.9	27.7	11.8	47.1	12
Other Pukhtoon	3.0	22.4	17.3	36.4	32
All households	3.2	25.5	20,0	40.0	

Source: Author's fieldwork.

cross-village poverty rankings. The Punjabi 1 were landless tenant migrants from southern Punjab. Other relatively poor groups included the Baloch 5 and, to some extent, the Baloch 2. The Baloch 1 and Sammat 1 were clearly less likely to be poor as were the two Mir kinship groups. The Khaskhelis, too, were among the less poor. The poverty rankings of groups in Sanghar showed that, while the Hindu Scheduled Castes were among the poorest, there were no straightforward patterns in general. There was no clear hierarchy, for example, between the Baloch and the Sammat kinship groups. The specific local circumstances of groups appeared to matter greatly. The relatively good position of the Mirs was in line with their historically privileged status, but the historically oppressed Khaskhelis appeared to be doing almost as well as the Mirs. The Baloch 5 group were large landlords and virtually free of poverty.

In the Thatta village (Table 34), nearly all the kinship groups came out as being extremely poor in the cross-village headcount ratios. The exception were the Sammat 4, who owned land and also shops and retail businesses in the village and outside. The Mallah 1 taken as a group were actually worse off than most groups despite the fact that their chief and his immediate family were relatively wealthy and influential in the area. The position of the Mallah 1 appeared to be similar in this regard to that of the Pahstun 2 in Mardan: there was strong class differentiation even within an apparently dominant kinship group.

5.3 Multivariate Analysis

The description of the data presented above can be streamlined with respect to multivariate regression analysis. This was done to estimate the fixed effects of different variables such as land ownership, education, and employment

Table 33: Sanghar: Poverty Ratios by Kinship Group

Kinship Group	Cross-Village Poverty (%)		Relative Poverty (%)		Number
	Poorest	Poor	Poorest	Poor	
Baloch 1	0.0	12.5	1.9	23.5	27
Baloch 2	12.4	40.2	17.7	51.0	53
Sammat 3	16.1	38.4	16.1	42.5	27
Khaskheli	8.2	27.3	8.2	37.3	15
Bheel	27.1	46.5	33.4	58.8	79
Mir 1	8.3	24.6	18.9	26.1	35
Mir 2	3.7	13.1	7.3	19.4	66
Kohli	100.0	100.0	100.0	100.0	10
Baloch 5	0.0	7.8	0.0	7.8	6
Baloch 6	21.5	42.5	33.8	52.5	37
Punjabi 1	30.2	81.4	55.8	81.4	8
Sammat 1	0.0	11.7	0.0	11.7	13
Sammat 2	0.0	0.0	0.0	0.0	9
Other	48.8	48.8	48.8	86.0	6
All households	15.1	32.1	20.0	40.0	

Source: Author's fieldwork.

opportunities on household well-being. The household well-being score was regressed first on land ownership and household education (measured in terms of the level of education of the most educated adult in a household), and then on three dummy variables for the household's employment conditions—(i) whether any household member held a government job, (ii) whether any person was a migrant laborer abroad, and (iii) whether any person relied on casual labor for employment.

Estimates for Model 1 (as given in Table 35) show that household well-being is positively correlated with land ownership and education. Dummy variables for government job and labor

Table 34: Thatta: Poverty Ratios by Kinship Group

Kinship Group	Cross-Village Poverty (%)		Relative Poverty (%)		Number
	Poorest	Poor	Poorest	Poor	
Mallah 2	94.9	100.0	47.4	89.7	17
Mallah 3	85.1	91.6	42.2	85.1	19
Kalmati Baloch	61.0	96.3	24.3	32.4	21
Mallah 1	64.0	86.4	25.4	54.4	41
Khaskheli	53.4	79.0	22.4	39.4	58
Sammat 4		31.8		0.0	32
Sammat 5	55.9	83.9	7.5	30.1	12
Mallah 1	64.8	98.0	20.2	40.9	30
Other	54.3	83.6	7.10	32.1	21
All households	53.9	79.3	20.0	40.0	

Source: Author's fieldwork.

abroad are positive and the one for casual labor is negative. Including village level dummy variables (Model 2) improves the explanatory power of the estimation. A second model used all the above variables and also introduced shift dummy variables for villages, and slope dummy variables for land ownership by village. The Toba Tek Singh village was taken as the reference village. Finally, a third model was estimated using all the variables of the second model and kinship group shift dummy variables. All three regressions were run using the ordinary least squares method. Results are reported in Table 35, while details of the kinship group dummy variables are provided in Table 36.

The strong positive effect of land ownership, while expected, needs to be spelt out. Under conditions of a frictionless land sales or tenancy market, current land ownership holdings would

Table 35: Results of Regression Analysis with Household Well-Being as Dependent Variable

Variable	Model 1	Model 2	Model 3
	No Village or Kinship Group Dummy Variables	With Village Dummy Variables	With Village and Kinship Group Dummy Variables
R Squared	0.408	0.526	0.587
Adjusted R Square	0.408	0.526	0.585
Std. Error of the Estimate	0.832	0.745	0.697
F	1,663	788	348
No. of observations	12,082	12,082	12,082
DF	12,077	12,065	12,033
Explanatory variables		Coefficient estimates	
(Constant)	-0.174	-0.257	-0.074
Area of land owned (acres)	0.014	0.146	0.138
Education (years) of most educated adult in household	0.073	0.054	0.044
Government job	0.349	0.300	0.269
Labour abroad	0.224	0.264	0.302
Casual labour	-0.486	-0.343	-0.244
Chakwal		0.130	-0.197
Dir		(-0.024)	-0.184
Mardan		0.281	-0.089
Muzaffargarh		-0.214	-0.564
Sanghar		0.378	0.118
Thatta		-0.310	-0.589
Land Chakwal		-0.124	-0.106
Land Dir		(-0.008)	(0.011)
Land Mardan		-0.056	-0.035
Land Muzaffargarh		-0.061	-0.042
Land Sanghar		-0.131	-0.124
Land Thatta		-0.144	-0.136

Notes: Coefficient estimates are significant at the 5% level unless reported in parentheses. Details of kinship group dummy variables reported in Table 36.
Source: Author's calculations.

be endogenous to a household's other, more fixed endowments and preferences. A household experiencing a decline in its own labor, for example, would reduce its holdings of land and increase other investments until the marginal return on its various investments was equalized. An intermediate solution to sale would be to rent out land. A strong positive effect of land ownership while controlling for human capital variations might indicate frictions in the land sales or tenancy market.

The effect of land ownership in the reference village (Toba Tek Singh) becomes much sharper. The estimated coefficients of the land slope dummy variables indicate that household well-being is highly responsive to land ownership in Toba Tek Singh, Muzaffargarh, Mardan, and Dir, but less so in Chakwal, Sanghar, and Thatta. This division of the census villages into those with strong and weak land effects, respectively, is interesting. Villages with strong land effects are likely to place a higher premium on land ownership due to (i) the higher economic value of land, and/or (ii) higher degrees of friction in the land sales and tenancy markets.

The economic value of land is, indeed, relatively higher in all villages compared with Chakwal and Thatta. Chakwal is a barani area, and in Thatta, long periods of water shortage have meant that crop cultivation is highly uncertain. Sanghar, therefore, appears to be anomalous in that land has a high economic value here but land ownership appears to have a lower fixed effect on household well-being. The presence of an active tenancy market, with most landless households having access to land through tenancy, might be a partial resolution to this apparent anomaly. Landowning and landless households adjust their size of farm through the practice of tenancy, thus possibly dampening the premium on ownership.

The inclusion of village dummy variables also changes the magnitude, but not direction, of the coefficients of other explanatory variables such as education, government jobs, labor abroad, and casual labor. The fixed effect of education declines, as do those of government jobs and casual labor, while that of labor abroad increases. This result is intuitive because it implies some segmentation of the domestic labor market by locale.

Kinship group dummy variables allow us to examine the effects of group identity on current well-being after taking into account other household characteristics such as land ownership, education, and village-specific effects. The introduction of kinship group dummy variables further improves the explanatory power of the model. These dummy variables do not change the story as far as land ownership is concerned. On other explanatory variables, such as education, government jobs, labor abroad, and casual labor, the effect is further movement towards the suggestion of domestic labor market segmentation not only by locale but also by kinship group. The marginal effects of education, government jobs, and casual labor decline further, while that of labor abroad increase.

The coefficient estimates of kinship group dummy variables for Model 3 are reported in Table 36. Given the large number of dummy variables, the analysis has been made more comprehensible by dividing the results into three broad categories: (i) positive fixed effects, (ii) negative fixed effects, and (iii) no significant effect. The reference kinship groups in the seven villages were: (i) the Awan in Chakwal, (ii) the Araeen in Toba Tek Singh, (iii) "other cultivators" in Muzaffargarh, (iv) the Pukhtoon 2 in Mardan, (v) the Baloch 1 in Sanghar, and (vi) "others" in Thatta. Kinship groups that might be considered, *a priori*, to be dominant, have their names written in bold font, while those regarded as subservient or "dominated" are given in italics. All coefficient estimates reported as significant were found to be so at the 5% level. Those with significance levels of 10% or higher are reported here as having no significant effect. It so happens that there were no kinship dummy variables with coefficient estimates that passed the 10% criterion and failed the 5% one.

Table 36: Performance of Kinship Group Dummy Variables in Regression Analysis

Village	Chakwal	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh
Reference Kinship Group	**Awan**	**Pukhtoon 2**	**Other Cultivator**	**Baloch 1**	**Others**	**Araeen**
Positive fixed effect	Other cultivator	Bajauri	*Mochi*	Mir 1	*Khaskheli*	Other cultivator
	Mehar	*Non-Pukhtoon*	*Tarkhan*	Mir 2	Sammat 4	
	Mistri	Other	*Other*	Sammat 1		
	Mirasi	Pukhtoon	*noncultivator*	Sammat 2		
Negative fixed effect				Baloch 2	Mallah 2	*Baloch*
				Bheel		*Muslim Sheikh*
				Kohli		Other noncultivator
				Baloch 6		
				Punjabi 1		
No significant effect	Cultivator 1		*Katanay*	Sammat 3	Kalmati	
			Baloch	Baloch 5	Baloch	
			Paoli	*Khaskheli*	Mallah 1	
			Syed		Mallah 3	
					Mallah 4	
					Sammat 5	

Note: Kinship group names in **bold** signify "dominant kinship group" a priori. Kinship group names in *italics* signify "dominated kinship group" a priori.
Source: Author's calculations.

Kinship group effects were significant in all villages with multiple ethnic groups.[16] Levels of aggregation above household and below village, therefore, play an important role in explaining differences in household well-being even after taking account of economic characteristics such as land ownership, education, government employment, migrant labor abroad, and casual labor.

There were important inter-village differences in the performance of kinship group dummy variables. The Toba Tek Singh village was the only one where the traditional hierarchy appeared to hold completely. The settler cultivator castes were significantly better off compared with the Muslim Sheikhs, "other noncultivators," and (Jaangli) Baloch even after taking into account the considerable differences among them in terms of land ownership, education, and employment opportunities.

In the other villages, the picture was much more mixed. Some kinship groups considered to be "dominant," *a priori*, did have positive fixed effects. These included the Mehar in Chakwal, the Mirs and Sammat 2 in Sanghar, and the Sammat 4 in Thatta. There were other "dominant" groups, such as the "cultivator 1" in

16 The Dir village is not part of this analysis since, with the exception of one household, the village comprised only one kinship group.

Chakwal, "other cultivators" and the Syeds in Muzaffargarh, the Pukhtoon 2 in Mardan, and the Mallah 1 in Thatta, whose position seemed to be the reverse. In other words, once their economic endowments were taken into account, these groups were found to be doing worse than expected. Conversely, while some kinship groups that were thought of as being "dominated"—such as the Kohli and Bheel in Sanghar—were indeed doing badly, others—such as the Mirasis in Chakwal, virtually all the noncultivator castes in Muzaffargarh, the non- Pukhtoons in Mardan, and the Khaskhelis in the two Sindh villages—were actually doing better than expected.

The village in Muzaffargarh provided an interesting case where the traditional caste hierarchy appeared to be in a state of flux. The Katanay in this village were among the poorest people in the seven villages, but their relative position was largely explained in terms of the overall poverty level of the village, their lack of land, education, and access to government jobs, and their reliance on casual labor. There was no additional significance to their kinship group identity in explaining their low levels of well being once these other things had been taken into account. In this regard, their position was similar to that of the Syeds and "other cultivators" who had traditionally dominated the village. The Mochis, Tarkhans, and "other noncultivators," were, moreover, doing better than expected given their economic endowments.

The casual labor market in general, and migrant work in parts of the country (in orchards and construction) in particular, appeared to have had a leveling effect on economic opportunities across kinship groups. This was, of course, a leveling down of sorts since the overwhelming reliance on the casual labor market was itself a function of the absence of remunerative opportunities in the formal sector—opportunities which might have been rationed more closely by social status and political connections.

A similar interpretation could apply to the results for the Thatta village, where the only fixed effects of kinship groups indicated that the Sammat 4 and the Khaskhelis were doing better than the others. Here, the decline in agriculture due to water shortages had forced people to take up low-wage casual labor in the fisheries sector. As in the case of the Muzaffargarh village, this was an instance of leveling down, since the only significant entry barrier was the ability to work for long periods in potentially hazardous conditions. In both Thatta and Muzaffargarh, everyone was generally badly off—the village shift dummy variables were negative, significant, and of similar orders of magnitude.

The results reported here suggest further consideration of institutions, processes, and change with respect to three issues: (i) labor markets and arrangements, (ii) land ownership, and (iii) social structures. The next two sections provide further qualitative insights from the fieldwork into labor and land issues, respectively. Mohmand and Gazdar (2007) takes on the analysis of change and stagnation in social structures in the fieldwork villages (footnote 1).

6 Labor Markets and Other Arrangements

It is possible to classify rural areas as either (i) those where farm productivity is relatively high, and agriculture is the main source of livelihood; and (ii) those with low-productivity agriculture and fragile resource endowments. The former, broadly speaking, include regions in the irrigated plains areas of NWFP, Punjab, and Sindh, and account for the vast majority of Pakistan's rural population. The latter are diverse regions including much of Balochistan, the mountainous areas of NWFP, the barani areas of Punjab and NWFP, the delta regions of Sindh, and arid zones in all provinces. In the former areas, it is important to understand the precise nature of labor arrangements prevalent in the agrarian economy. In the latter, access to nonfarm labor opportunities in general, and migrant labor opportunities in particular, need to be investigated.

6.1 Agrarian Labor

It is useful to focus on the high-farm productivity areas in order to conduct an analysis of agrarian labor arrangements. These areas can be further classified into three types corresponding to differences in the distribution of land ownership. A common feature of all high-farm productivity areas, is the relative inequality in land ownership. A high proportion of rural households in these areas do not own any land at all. Beyond that, there are interesting differences in the ownership structure of those who do own land.

The three types of ownership structure prevalent in the agricultural heartland of Pakistan include the following:

(i) **Monopolistic land ownership**. This is common over much of Sindh, parts of southern Punjab, and some of the plains areas of NWFP. One or a handful of landlords own much of the cultivated area, and the rest of the rural population is composed of (a few) small holders and (many) landless households. The monopolists' holdings range from hundreds to even thousands of acres.

(ii) **Oligopolistic land ownership**. Several landlords, owning between 50 and 200 acres each, dominate the distribution of land ownership. Such villages are also common in Sindh, southern Punjab, and the plains of NWFP. There are typically more small holders, but the landless are also present in large numbers.

(iii) **Egalitarian land ownership**. This prevails in central Punjab as well as in isolated pockets in other regions. Land ownership is relatively equally distributed among families belonging to the dominant landowning caste of the village, while other castes are mostly landless. A large landlord in these villages might own around 50 acres.

Employment opportunities and access to land vary greatly among different regions and types of villages. In Sindh, landless households generally have access to land as share-tenants (*haris*) in all three types of villages. Even in villages with relatively low concentrations of land ownership, i.e., where the main landlord owns around 50 acres, there is a tendency towards share-tenant-based cultivation. Tenant cultivation is also common in parts of the NWFP plains area. The rural landless, therefore, have access to self-employment in agriculture through the institution of share-tenancy.

In central Punjab (mostly egalitarian ownership) and southern Punjab (mostly oligopolistic and monopolistic), there is a tendency towards self-cultivation with the use of family labor and hired farm labor. In this case too, there are two distinctive patterns of agrarian labor deployment. In some villages in Punjab (even among villages with egalitarian ownership), it is common for landowners to employ farm servants under fixed annual arrangements. These farm servants are from historically oppressed castes (e.g., the Muslim Sheikhs), are indebted to their employers, and subsist on low wages and in a dependent status. Farm servants' work includes looking after

farm animals as well as any other labor requirements (e.g., house repairs, etc.) of the employer.

The alternative form of farm organization also prevalent in the high-productivity areas of central and southern Punjab (as well as among Sindh self-cultivators) is the use of casual wage labor in combination with family labor. Farm work is broken up into discrete processes—such as sowing, weeding, watering, spraying, and harvesting—all of which are then subcontracted out to individuals or groups of laborers on a piece-rate or fixed contractual basis.

What is the reason for such diverse forms of labor arrangements in regions with similar cropping patterns and agricultural technologies? How do these labor arrangements relate to existing social structures? What types of changes have there been? What are the implications of these different labor arrangements for the growth-poverty linkage in agriculture?

The diversity of labor arrangements might be ascribed, at least partly, to differences among regions or villages, in their patterns of land ownership distribution. This is suggested by the prior classification of villages and regions by their respective structures of land ownership. In areas of monopolistic land ownership, landlords' costs of monitoring laborer effort might be prohibitive, making it economical for them to enter crop-sharing arrangements with landless workers. Similarly, in areas with low concentrations of land ownership, it might be more profitable for landowners to cultivate their holdings themselves (using family labor) as well as hiring farm help.

While land ownership structure might provide a partial explanation for the diversity of labor arrangements in otherwise similar agricultural economies, other factors are also worth considering. It was found, for example, that landowners with similar holdings across regions—e.g., 50-acre owners in Sindh and central Punjab—tend to use different labor arrangements. The former uses share-tenants while the latter uses hired labor. Changes in tenancy patterns over time also appear to have a strong regional dimension. In Sindh, share-tenancy remains an important form of land tenure, whereas in Punjab it has virtually disappeared.

Share-tenancy and hired-in labor are, of course, different types of contractual arrangements for the deployment of farm labor. The former directly involves the landless in agricultural self-employment to a greater degree than the latter. Even within farm economies based on self-cultivation with hired labor, however, there are distinctive labor arrangements prevalent in Pakistan. The contrast can be illustrated with reference to two polar positions, both documented in the course of fieldwork for the present study.

There are farms where virtually all the labor operations for which laborers are hired from outside the family are contracted out on a piece-rate basis to outsiders. These outsiders are generally landless laborers. There are certain farm operations—the most salient one being harvesting—that are routinely contracted out to laborers on a piece-rate basis in almost all high-farm productivity areas. It does not appear to matter very much if other farm operations are organized around family self-cultivation, self-cultivation using hired laborers, or share-tenancy. Harvesting is generally remunerated on a piece-rate basis and the rate of remuneration reflects, apart from the balance between labor demand and supply, the quality of the harvest. For wheat, a common form of harvest remuneration is in terms of a designated amount of wheat for every acre harvested. Entire family groups are involved in this work, and wheat harvesting provides an important source of food security to the landless poor. The harvesting of other crops such as cotton (in the cotton-wheat areas), sugarcane, and vegetables, too, is generally carried out using workers hired on a piece-rate basis. In the cotton-growing regions, the cotton harvest is carried out almost exclusively by women workers, and is an important source of cash earnings for poor households.

Apart from harvesting, it is now common for a range of other farm operations—such as sow-

ing, rice transplanting, weeding, spraying pesticides, and watering—to be contracted out to laborers on a piece-rate basis. It might be argued that this process of farm reorganization is a significant change, leading to the marketization of agrarian labor. A landless laborer working on a farm on a casual labor basis might as well be working in any other type of unskilled or semi-skilled manual job. Indeed, workers engaged in this form of labor often have a history of having been involved (themselves or through earlier generations) in traditionally dependent economic relations with employers. The marketization of farm work may thus have led to the growth of "free" labor.

It is paradoxical then, that in some high-farm productivity areas with high population densities, self-cultivating landowners rely not so much on casual labor, but on long-term contract employees or farm servants. The farm-servant system, on closer examination, has radically different implications for the poor when compared with a casual labor-based farm economy. The generic form of the arrangement requires a farm servant to be available for work at the beck and call of the employer at all hours. In some cases, the servant actually resides on the premises of the landlord (although his family might reside in their own home in the village). The servant is paid a fixed monthly salary, and provided meals from the employer's kitchen. In addition, he is entitled to one or two sets of clothes and one or two pairs of shoes every year. Some farm-servant arrangements last for 9–10-month periods (i.e., not the full calendar cycle) and farm servants take off to harvest labor on other people's lands in the ninth month.

These laborers have generally taken loans ranging from PRs10,000 to 50,000. While these loans are interest-free in a nominal sense, the farm servant's low rate of remuneration (compared with the casual labor market) implies that there is an effective cost of borrowing. Even after taking kind payments (meals, etc.) into account, the farm servant rarely earns more than PRs2,000 a month. This translates into a significantly lower daily wage rate (about 25% lower) than the prevailing wage rate in the casual labor market.

There are two striking features of the farm servant arrangement. First, the laborers are, almost invariably, from historically oppressed kinship groups such as the Muslim Sheikhs. Second, in areas with a high prevalence of farm servant arrangements, the poor have relatively limited access to the casual labor market in both agricultural and nonagricultural activities. This constraint, paradoxically, emerges from the supply side. Social hierarchy appears to play a critical role in maintaining this system. Worker indebtedness, along with employers' relative social power, implies that this arrangement is at variance with a competitive labor market.

6.2 Casual Labor

In both high-productivity and low-productivity regions, there are active casual labor markets that share common features across and within regions. Transactions in these markets are mostly between anonymous individuals, and the daily wage rate is both well known and responsive to market conditions. There is rigidity in nominal wage rates but real wages change more frequently due to price movements. Periods of high (food price) inflation, such as the one witnessed over the last 2 years, trigger a market response across the board with (at least partial) adjustments in the nominal wage. Real wages have remained mostly stagnant in these markets across regions for over 5 to 6 years. Currently, the real daily wage rate measured in terms of wheat-flour equivalents ranges from 6.7 to 9.2 kg of wheat-flour.

Another common feature of the casual labor markets is that they are regarded as setting the reference wage for the poor. Participation in these markets is relatively open and they provide livelihoods to workers with low initial endowments of human, physical, and financial capital. The casual wage labor market, however, exists for a narrow range of activities, typically in the construction sector and in portering work (loading/unloading produce). While these sectors

are important sources of livelihood for the poor, the number of people who draw sustenance from these jobs is only a small subset of the workforce involved in low-end manual labor.

Moreover, there are social structural issues even in the operation of these relatively open markets. In mountainous NWFP, for example, where poor access creates opportunities for portering work, it was found that local laborers prefer not to work in or near their own villages due to the stigma of being seen to be undertaking menial work. There are issues also on the demand side. In general, employers (mostly contractors or subcontractors) prefer to engage workers on the basis of personal connections. Many activities also involve working in teams, and the employer deals only with the team-leader than with individual team members. Transactor anonymity, therefore, exists but in degrees. Migrant labor provides a useful vantage point for examining how labor markets function, and is taken up further below.

Much of the labor activity in agriculture as well as nonagricultural sectors is organized around piece-rates. In the high-productivity agricultural areas of Sindh and Punjab, there are piece-rates for all kinds of farm work—from sowing, weeding, and watering, to harvesting. Portering work, too, is generally remunerated in piece-rate terms. There is a close correlation, however, between expected daily earnings in piece-rate work and the casual daily wage rate.

The distribution of casual laborers in the fieldwork villages by sector and type of activity is provided in Table 37. The table also indicates the mean number of days worked for each type of activity. The classification of activities and sectors varies between villages, given the different points of interest in each village. In the fieldwork villages in Chakwal and Mardan, where the extended village census probed the location of work, the vast majority of those who reported working as casual laborers said that they worked locally as opposed to in nearby towns.

Table 37: Distribution of Casual Laborers by Activity in Fieldwork Villages (%)

Activity/Sector	Chakwal	Mardan	Muzaffargarh	Sanghar	Thatta	Toba Tek Singh	Days Worked in Month
Farm				90.3		34.4	17.7
Nonfarm				9.7		65.6	20.2
Local	70.6	84.0	75.8		8.8		12.4
Town	29.4	16.0					24.5
Orchard (migrant)			24.2				
Seafarer					67.6		21.4
Crab-hunting					23.6		19.5

Source: Author's calculations.

In Muzaffargarh, the main comparison was between local laborers and those who did seasonal orchard work in other districts. Here too, three quarters of the casual workers were local. Between the Toba Tek Singh and Sanghar villages, the main point of comparison was the distribution between farm and nonfarm work. In Toba Tek Singh, two thirds worked off farms, while in Sanghar, only one tenth were off-farm laborers. Two thirds of the casual laborers in Thatta were seafarers, and another 24% were crab-hunters.

6.3 Migration and Nonfarm Work

Migration and nonfarm employment forms a key channel of labor mobility—both

physical and economic—in all rural areas. In the low-farm productivity areas, migration and nonagricultural employment are the main sources of livelihood. In high-farm productivity areas, too, migration and nonfarm employment can mark the difference between rich and poor villages. Moreover, rural areas are both sources as well as recipients of poor migrant labor.

Public sector employment constitutes the earliest avenue of alternative livelihood opportunities for low-farm productivity regions. Within the public sector, jobs in the defense services have been important in the barani areas of northern Punjab. Long-term investments in public schooling have ensured that families have had the opportunity of preparing their sons for military service since the early part of the last century. In these areas, households with no family members in the military—serving or retired—are relatively more vulnerable to poverty. The public sector was also a leveler of social inequalities, as members of historically oppressed kinship groups in these areas found job openings and were empowered through access to formal sector employment.[17] There has been a relative decline in the availability of public sector employment over time.

In other low farm-productivity areas, labor migration to other countries, particularly to the Middle East, emerged as a significant source of livelihood opportunities in the 1970s. In the fieldwork village in Dir, migration to Saudi Arabia had become a mainstay of the economy. Remittances from migrant workers were, by a long margin, the most important source of earnings for that village. Even the retail economy in and around the village had adapted to the remittance factor. Workers would often directly remit payments to local shopkeepers in order to settle the credit built up by their families at home. Although the costs of migration had increased in the last few years and the returns to workers had declined correspondingly, migration still remained economically viable.

Even international migration, however, was mediated strongly through social structures. There was a strong clustering of workers both in terms of their places of origin and their destinations. In the Dir village, for example, nearly all the migrant workers resided in the same city in Saudi Arabia, and most worked in the same sector along with other workers from their area of origin. Workers from a neighboring village who had migrated abroad had all gone to Dubai and all worked in the same sector. There was also a social "trickle-down" process in the supply of migrant workers. For a man to be able to migrate. he needed to be supported by a person already working in Saudi Arabia. Preference was given to immediate kinsfolk. The chain of migration, therefore, was mediated through kinship association.

Villages in the high-farm productivity areas—particularly southern Punjab—were sources of both rural-urban migration as well as rural-rural migration. This migration represented continuity with the local casual labor market. People who would be employed as casual wage or piece-rate workers in the local economy were going to other areas for agrarian as well as nonfarm work. In the fieldwork village in southern Punjab, for example, there was a large pool of workers who worked on orchards on a seasonal basis in central Punjab and Sindh. Many worked in citrus orchards in central Punjab in winter and in mango orchards in Sindh in summer.

6.4 Women and Labor

Gender is a key source of labor market segmentation in rural Pakistan. The gendered division of space carries over to women's work outside the home or family environment. While it is considered acceptable across regions for women to work outside the home on family-operated farms (even if the land actually belongs to someone else), working in other families' homes or on their farms might not always be so. There is, of course, a strong class and caste dimension to the gender segregation of the labor market. It is not uncommon, particularly in high-farm productivity areas, for women from poor and landless fami-

17 This issue is taken up again in Section 5 below in the discussion on patterns of change and stagnation.

lies to work in the homes of landowners. Sometimes their domestic labor is linked to the engagement of the family in farm work for their employers. In other cases, women work for extremely low wages—less than half those earned by men—in the homes of better-off households who may or may not be their landlords or their husbands' employers.

A household's upward socioeconomic mobility is linked to the withdrawal of female workers from work outside the family setup. It is possible to sketch a hierarchy of the types of work that are considered acceptable or unacceptable along a social hierarchy. For a woman to be working in other people's homes is considered a sign of extremely low social and economic status. Supplying labor on other people's farms—although as part of one's own family unit—is more widespread and seen to be less of a violation of the private sphere. The importance of working in one's own family unit, the unit being represented by male family members, needs to be stressed. There are some important exceptions, for example, in cotton harvesting and in the harvesting of seasonal vegetables. In these cases, groups of women from a family might work autonomously of the male members of their families on someone else's land. These harvesting jobs, particularly in cotton-growing areas, are considered important sources of cash earnings for the family and for women workers.

Finally, there is an increasing tendency, particularly in upwardly mobile families and kinship groups, to withdraw female labor from outside the home and focus on home-based work in crafts and other sectors.

A significant break in the gendered division of the workspace is women's employment in the formal public sector. Women schoolteachers and health workers are primary examples of changing social norms regarding women's employment. Public sector employment, therefore, can be a significant factor of change in social norms of female employment, and the gendered division of the labor market.

6.5 Forms of Employer Power

Three forms of employer power vis-à-vis poor workers (particularly the landless poor) are conspicuous in the high-farm productivity areas of rural Pakistan. These have already been alluded to above in the discussion on farm servants and landless share-tenants. An analysis of these forms of employer power is critical for an understanding of the livelihood options for the poor, and the constraints as well as routes to change. Employer power also implies the absence or highly restricted nature of labor markets. The three main issues are (i) debt bondage, (ii) control over homestead land, and (iii) caste and social marginalization.

6.5.1 Debt Bondage

Employer credit is frequently associated with coercive labor arrangements. Some of the most dependent sections of the poor, such as the farm servants of central Punjab and segments of the share tenants of Sindh, are also indebted to their employer-landlords. In other sectors, too, (e.g., brick kilns) employer credit is thought to be associated with debt bondage. Debt bondage, in short, is the loss of autonomy of a worker, his/her family, and their future generations, in lieu of a loan taken from the employer or landlord.

In Sindh, it is a common norm for there to be a credit relationship alongside a landlord-tenant arrangement. The crop cycle is financed, in the first instance, by the landlord, and the tenant's share is deducted at harvest time. The costs of the crop cycle, moreover, include both the production costs (of hiring tractors and paying for other inputs), and also, quite often, the consumption needs of the tenant household. The tenant cannot leave the landlord without clearing his debt, although this debt can be transferred to another landlord for which the tenant then has to work.

The position of farm servants in central Punjab might also be described as being in debt bondage. Landlords acquire the services of laborers for very low wages in lieu of loans ranging

from PRs8,000 to PRs30,000. A worker must complete the contractual period of 9–12 months with a landlord, after which he is free to negotiate a new debt-employment relationship with someone else. If the worker leaves the landlord without notice within the contract period, the amount of his debt is doubled as a penalty. Landlords are quite able to enforce these contracts, going to the extent of pursuing absconding workers to distant cities in order to "recover" them.

In both cases—i.e., that of the indebted share-tenants in Sindh and farm-servants in Punjab—credit was a legitimizing device to control the labor of the debtor. The ability of the landlord-creditor, however, to enforce exploitative contracts, depended on his greater social power compared to the debtor. In rural Sindh, share-tenants from minority groups such as the Bheels or Kohlis were particularly vulnerable to exploitative conditions. In Punjab, socially marginalized kinship groups such as the Muslim Sheikhs were in the same position. Other comparable groups—even indebted ones—enjoyed effective contractual conditions that were closer to open labor markets.

6.5.2 Control over Homestead Land

Landlord-employer power was also often premised on control over the homestead land used by the tenant-worker. This control was sometimes direct, in the sense that the land on which the landless tenant or worker had set up his homestead actually belonged to the landlord-employer. In other instances, control was less direct but still insidious. Many village settlements are located on land jointly held by "village owners" for residential purposes. Village "ownership," moreover, is vested with the owners of agricultural land. This is highly institutionalized in Punjab, where even in terms of land revenue records the village is under joint ownership of landowning families. Other residents, mostly from non-landowner classes and kinship groups, enjoy different degrees of tenurial security. Even in villages (such as those in the canal colonies) where residential land is individual-leased and owned, families and individuals from landowning classes and kinship groups can exercise effective power over other residents.

6.5.3 Caste and Social Marginalization

The key issue that emerges in the analysis of employer power—particularly with respect to coercive labor arrangements—is the relative social position of employers and employees. Marginalized groups, such as the Bheels and Kohlis in Sindh and "low castes" and Muslim Sheikhs in Punjab, are vulnerable to exploitative labor arrangements—enforced sometimes through debt bondage, and at other times through control over homestead land. The common factor among these groups is their traditionally subservient status, something that has been reproduced over generations through collective action among the landowning classes and kinship groups in their respective regions. Labor markets tend not to be anonymous and, therefore, information on background and kinship needs to be routinely disclosed to prospective employers. Given the prevalence of debt bondage or other forms of bondedness among these particular groups, landlord-employers are immediately alerted to the possibility that a potential tenant-employee might already be indebted to someone else. The kinship group identity, therefore, marks out an individual for a particular (low-wage, highly exploitative) segment of the labor market. Incremental economic changes appear not to have a direct impact on this form of labor market segmentation.

7 Land and Property Rights

It is common practice to regard access to land as a historically settled matter. Property rights in farm, homestead, and uncultivated land are assumed to be fixed and durable. Changes in the distribution of these property rights (or rights and entitlements of use) are effected, it is presumed, through demographic and environmental changes, inter-generational transfers, and market transactions. Government policy, for instance, land reforms, or the allotment of homestead land plays an additional role.

Qualitative fieldwork has shown, however, that property rights and entitlements to land have undergone significant nonmarket and involuntary changes over time. Many of the events and processes associated with these changes have marked turning points in the evolution of poverty and social structure in their respective areas.[18] The range of processes associated with changing patterns of access and entitlement to land and environmental resources is illustrated below with the use of real cases from various parts of the country.[19]

7.1 Land Distribution and Change: Policy, Struggles, and Conflicts

7.1.1 Public Investment and Social Engineering

Canal colony villages in central Punjab provide an excellent example of rural communities in high-farm productivity areas that have virtually been created by policy. The village in Toba Tek Singh was settled in the early twentieth century as part of the development of the canal colonies in the Punjab *doab*s (land bordered by rivers on two sides). The land that was made cultivable belonged to the government. It was allocated to settler-farmers in units of 25 acres each. The settler-farmers came from a district of eastern Punjab, now in India. Land was allotted exclusively to individuals belonging to an officially recognized "cultivator" caste or kinship group. This particular kinship group was regarded by other more powerful landowning kinship groups as being of "low status" in the district of origin. With the award of land, however, the situation began to change, and the relative and absolute conditions of the settler-farmers improved over time.

Caste and kinship group was a critical consideration in land allotment policy. A large number of the poor were explicitly excluded from land allotment on the ground that they did not belong to traditional cultivator castes. This exclusion applied both to the natives of the area opened up for settlement, as well as to the landless in source districts.

The state was closely involved with all aspects of land distribution and use, including the setting aside of land for residential purposes and social infrastructure. State systems were also active and effective in enforcing property rights. The traditional social structure inherited, modified, and institutionalized at the time of settlement proved to be resilient. The current structure of access to land corresponded closely to historical patterns of social privilege and hierarchy.

7.1.2 Political Upheavals, Policy, and Contestation in High-Farm Productivity Villages

National political events and policy shifts played an important part in shaping the evolution of property rights and access to land in the fieldwork site in Sanghar (cotton-wheat Sindh). This provides valuable insights into the way in which macro-level interventions might play themselves out at the micro-level. The same holds true in

17 This issue is taken up again in Section 5 below in the discussion on patterns of change and stagnation.

18 The nature of ownership and usufruct rights over environmental resources such as land, water (aquifers as well as irrigation supplies), and forests have important implications for poverty. The discussion here focuses on cropped and homestead land, since this is widely believed to be held as private property in a market economy.

19 The cases presented here are used to provide insights into the types of processes prevalent across the country. Specific empirical details pertain to the seven fieldwork villages that were part of this study.

good measure for the fieldwork site in Mardan (NWFP plains).

In both the Sanghar and Mardan villages, land ownership was monopolistic—a few of the large landowners accounted for a large proportion of the owned area, while most other residents were landless. There had been important changes in land ownership over time, however, that were not captured by a static account. Tracing the history of the two villages back to around the time of independence, it was found that, even at that time, land was monopolistically owned. In the Sanghar village, one Hindu Vanya family owned virtually the entire *deh* (village), as well as the surrounding dehs. The land in the Mardan village belonged to a wealthy Khan whose ownership holdings also measured in thousands of acres.

At the time of independence, however, the Hindu Vanya landlords in the Sanghar village migrated to India. Their former share-tenants, who included much of the village population, continued to cultivate the land. According to local informants, the share-tenants were recognized by the revenue department as the new rightful owners, and many also received documentary evidence of ownership. This could have been a major transformation of almost revolutionary proportions. The beneficiaries included historically oppressed kinship groups such as the Bheels. The situation persisted for around 10 years, at the end of which new migrants from India arrived in the area with claims of ownership. These claims, which were legally sanctioned by the revenue department, were based on the law of refugee compensation. Within a span of 10 years, then, land ownership had undergone two radical changes in opposite directions. The share-tenants of the Hindu Vanya landlords, who had acquired property rights in land, reverted to being share-tenants of the new migrant landlords.

The next set of conspicuous changes in local agrarian politics came in the early 1970s with the election of a populist government in the country. While the promise of redistributive land reforms remained unfulfilled—at least with respect to the fieldwork village—pro-tenant changes in share-tenancy law received much support. The new law revised input shares in favor of tenants. The revised shares were actually realized on ground, as a number of local share-tenants became vocal activists for change.

Some of the ground gained by tenants was subsequently lost when the populist government lost office and landlord power was restored. The struggle over share-tenancy arrangements continues to date. Most recently, a major local landlord had rescinded on a conventional (and legal) provision that a share-tenant could set aside a small plot (usually half an acre) to grow fodder for his farm animals. This landlord insisted that, for the cotton crop, the entire area tenanted out (usually around 4–6 acres per share-tenant) be used for sowing cotton alone, thus depriving his share-tenant of a customary (and arguably legal) entitlement.

From the mid- to the late 1970s onward, there was another round of changes in the ownership of land in the village. The main direction of change was that some large migrant landowners began to sell their land to emerging local landlords. Changes in national and provincial politics had strengthened the relative position of local farmers over nonresident landlords, particularly those belonging to nonlocal ethnic groups. As some landlords encountered difficulties in maintaining their "hold" over share-tenants and became fearful of losing control over their holdings, they began to sell out.

The principal beneficiaries in the fieldwork village were a set of former share-tenants who had acquired sufficient capital to make land purchases. One particular family managed to acquire more than 2,000 acres over a period of 25 years. Besides these new landlords, there were a number of other tenant families who acquired between 10 and 20 acres as the nonresident owners sold land.

The process of change in land ownership, while it appeared to be conducted in the form of a series of market transactions, was generally

accompanied by a great deal of political contest. In fact, the very reason that land had become available was that nonresident landlords were experiencing difficulty in maintaining control over their lands. Under conditions of political turmoil in the province and changes in the relative political power of various groups, the threat of *qabza* (occupation) loomed large. Some of the transactions involved litigation and collective action on the part of the buyers.

In the fieldwork village in Mardan, the original monopolist landlord—a Khan with several thousand acres in the district—began to sell land in the 1940s in order to make nonagricultural investments. The buyers in the fieldwork village were former tenants of the Khan, who had arrived in the area from the tribal region adjoining the province. The initial purchases amounted to dozens of acres, with the Khan retaining control over much of his holdings. Land reforms in 1959 delivered a serious blow to his position and he lost control over entire villages. He was also eager to sell more land in order to hedge against involuntary acquisition by the government. The former tenant family, who had initially acquired a few dozen acres, continued to increase their holdings to the point that they currently owned around 300 acres.

7.1.3 Political Upheavals, Policy, and Contestation in a Low-Farm Productivity Village

The fieldwork village in Upper Dir provides an interesting case of significant change in land entitlements, and the effects of such change, in an area where land is not a primary source of livelihood. A feudal *nawabi* (feudal) system had prevailed in the Dir area until the 1970s. The *nawab* (feudal lord) of the area was the virtual sovereign, and land ownership was vested in him through the state. A government drive in the 1960s to integrate some of the feudal territories into mainstream administrative systems resulted in the nawab losing his political control.

Previously, all land resources belonged to the nawab, and all residents, farmers, and land-users were obliged to pay various tithes to him. The nawab maintained a system of governance that included revenue and judicial functions. His local agents at the village level kept the order and enforced taxation. In the fieldwork village, there was a struggle for freedom from feudal rule and against the nawab in the 1960s and 1970s. This was encouraged by the nawab's loss of status in the national political context. Changes on the ground—e.g., the assertion of property rights over land formerly seen as belonging to the nawab, nonpayment of tithes, and the eradication of controls over development activities—were fought for by local leaders. Some of these activists continue to command political support for the work they did to subvert the nawab's rule.

7.2 Homestead Land

The ownership, possession, and use of land for homesteads is even more complex and contested than is the case for land for agricultural use. Although rural landlessness—in the sense of cultivated area—is very high, the vast majority of rural households enjoy some ownership of or ownership-like rights over homestead land. The systems, legal as well as customary, for the ownership or use of homesteads, vary between regions and also between villages within regions. Outright and legally titled ownership of land and structure is only one among many possibilities. In some villages, a segment of the residents ("village owners") are joint owners of the residential area, and can, through a prescribed procedure, dispossess or evacuate a "nonowner." In other cases, "nonowners" have informal but transactable and enforceable rights of possession. Moreover, the length of stay and possession can change the legal status of the various parties. It is perhaps not surprising that contest over the right to homestead land is an important part of the story of change—pro-poor or otherwise.

7.2.1 Public Provision and Illegal Possession

Canal colony villages in central Punjab included provision for residential land. At the

time of settlement, the residential land was allocated to settler-farmers in accordance with their allotments of agricultural area. No specific provision was made for residential quarters for noncultivator kinship groups, and the latter lived on plots belonging to the landowners or on their homesteads. Village settlements, however, had additional land set aside for future expansion. The original residential area was 25 acres and the additional area (*izafi raqba*) amounted to nearly 40 acres.

In the early 1970s, the populist government announced a homestead scheme for the rural landless in Punjab. This was specifically targeted at the noncultivator labor classes and kinship groups. Government land was identified near existing settlements and allotted to landless laborer households. In the fieldwork village in Toba Tek Singh, however, landowners had already started illegal encroachments on government-owned izafi raqba in the 1960s. When faced with the possibility of a homestead scheme in the village,[20] the landowners used their influence with revenue officials to amend the records to show that the possessions were legal, and that no land was available in the village for new allotments. Many landless laborers had by then purchased plots of land from the landowners both within the original village and on the izafi raqba.

7.2.2 Ongoing Struggle and Contestation

Contests over homestead land characterized a number of cases of mobility in the fieldwork village in Muzaffargarh. The village settlements consisted of an "original settlement," several settlements on wells (*khuh*), and one "poor colony" adjacent to the original settlement. The original settlement was marked out in the revenue records as a residential area jointly owned by landowners from several kinship groups. Other nonlandowning laborer households who resided in the village were known as *hamsaya* or "neighbors." Although the "neighbors" claimed that they had bought possession rights over their individual plots from the "owners," the term hamsaya continued to be used in order to indicate their unequal status.

A number of traditional landowners did not reside within the main settlement, but on their agricultural lands in the surrounding area. These settlements were mostly around old wells that had been the primary source of irrigation before the canal system. Many families from traditional noncultivator labor households, too, had been able to acquire agricultural land and had settled along the wells. Their ownership holdings were often only large enough to accommodate homesteads.

The largest concentration of the poor resided in a part of the village known as the "poor colony." This land, lying outside the original settlement, had belonged to a local landlord who had allowed some landless families from a traditionally oppressed kinship group to settle there. The first of these families arrived around 50 years ago. The landlord eventually sold the land and the inhabitants of the "poor colony" invited more of their relatives, many of whom worked as menial laborers for landlords in neighboring villages, to join them. Currently, there are over 50 households in the "poor colony," with the most recent arrivals having come as late as 3 years ago.

Although the residents of the "poor colony" claimed that their property rights were settled and legal, there was ongoing contestation. After the death of the original landlord (who had allowed the first few residents of the "poor colony" to settle here), his son appeared to have hardened his attitude. His agricultural lands lay adjacent to the "poor colony" and, in the last year, he had ploughed up part of the footpath leading up to the colony on the ground that he needed additional land for cultivation. Residents suspected, however, that this was done in order to make them feel less secure about their rights of possession and ownership. All approaches to the "poor colony" went through other people's farms, and there was no land set aside for a proper footpath,

20 Under the "five-marla" scheme, households were to be allotted small plots of land, each roughly equivalent to 5 *marlas* (25.3 m2) or 126.5 m2.

let alone a lane that might have allowed vehicular traffic of any sort.

7.2.3 Attrition and Violence

The settlement pattern in Sindh (somewhat in line with southern Punjab) leads to the dispersion of the village population into small clusters, generally consisting of just one kinship group. One's own goth, even if it is on someone else's land, provides a greater sense of autonomy and independence. The land revenue system made a distinction between agricultural area and the area for residential settlement. The land area designated for residential use, however, belonged to one or several individuals. Other residents were either descendents of the original landowners or people who had acquired occupancy rights after having been permitted by the original owners to stay on the land. Many of the settlements, however, are on land not officially recognized as residential. In a large number of cases, landless share-tenants live on land provided by the landlord on the implicit condition that they can continue living there so long as they are working for the landlord.

In 1985, the government introduced a formal system (Goth Abad Scheme) for the official registration of villages that were located on land not belonging to residents. Residents were required to prove continuous possession of land. Once a claim had been processed and approved, the village was formally recognized and the residents acquired property rights to their homesteads. The original landlord, then, was not legally entitled to evict the residents. The Goth Abad Scheme led to the registration of a large number of settlements. People also began to demand official facilities in their villages (even if these were nonfunctional) in order to successfully assert their claims of continuous possession.

A number of settlements in the fieldwork village in Sanghar had acquired legal protected status through the Goth Abad Scheme. There were, nevertheless, many landless households who continued to live on land formally owned by others. Some had acquired ownership rights and were no longer obliged to work for their original landlords. Others simply asserted physical possession without necessarily having a legal title. The struggle for possession of homestead land was an active one in the area, and was translated into a struggle for the recognition of an entire settlement (rather than individual title).

This struggle, moreover, was not always attritional or peaceful. There was a conspicuous case in the fieldwork village in Sanghar of a settlement of around 50 households (all belonging to a landless poor kinship group) that had been evicted and then razed to the ground in 1996. This settlement had existed for many decades, from before independence according to local accounts. A sign that the settlement was well established was the provision of a government school. According to some informants, the residents were share-tenants of a migrant landlord who, due to weak local political connections, was unable to assert his authority over them. Eventually, this landlord sold his land to a local landlord who used the police to forcibly evict the residents and raze their houses. The former residents of this settlement had now scattered, with many households having disintegrated.

8 Drivers of Poverty Reduction

The approach adopted in the present study has yielded some useful insights into and analyses of the material dimensions of rural poverty, its patterns and correlates, and the dynamics of change and continuity. An attempt was made here to maximize the complementarities between qualitative and quantitative data from the fieldwork. Some innovative research methods were adopted in order to efficiently harness the potential of an old but very useful and under-utilized research strategy, i.e., the village study. The level of detail demanded by the village study can be tedious at times, but it does, nevertheless, have a point.

The description of a variety of features of village life—including demographics, physical and social infrastructure, economic and livelihood strategies, the significance of common property resources, access to land, types of labor demand, gendered segregation of work, and kinship groups—contribute to a clearer identification of the lines of comparison across and within villages. Comparisons across and within villages thus provide the substance of any analysis of poverty. It is hard to reduce any discussion of poverty and livelihoods to a single dimension such as income or consumption, although it can be both necessary and useful to do so for many purposes.

The analysis of a household well-being score, informed by detailed quantitative and qualitative description, has suggested fresh perspectives on poverty and change in rural Pakistan. Land ownership remains a strong predictor of well being and poverty, but its effect varies greatly between villages. This variation is due partly to agro-economic conditions, but also possibly, to differences in institutional arrangements for access to land. Education is another important correlate of household well-being, as are employment opportunities in the formal sector. The potential economic benefits of education and formal sector employment appear to be conditioned, however, by region and kinship group. Kinship group identity is an important determinant of relative well-being. There is much diversity across communities in the way in which inter-group dynamics operate, and there are ways of identifying relatively mobile and stagnant groups.

Stories of change are not always straightforward and a number of paradoxes become apparent. One observed route toward the reduction of inter-group inequalities is the leveling down of all groups. Conversely, development interventions and provision of economic opportunities can increase inter-group inequalities. The observed casualization of labor and apparent rise in nonagricultural employment might simply represent the transfer of underemployment or low-wage employment under a different heading. The history of land endowments is fraught with political and policy interventions and conflicts. Depending on the time horizon, land ownership distribution is neither exogenously determined, nor entirely an outcome of voluntary transactions.

It is now possible to return to the bigger question that has motivated this research: namely, what are the important determinant and drivers of poverty reduction in rural Pakistan? While no single study can claim to answer this question in all its dimensions and complexities, it is possible to suggest some lines of argument in the light of the work done thus far for this project. The starting point can be the three broad dimensions of poverty suggested (and anticipated) at the very outset in this study: (i) economic, (ii) social, and (iii) political. These three dimensions might, in the first instance, be translated into three broad categories of drivers of change: (i) market, (ii) society, and (iii) government. Much of the contemporary thinking on drivers of poverty reduction, nevertheless, implicitly presumes that economic issues are best left to markets, and that governments should focus on improving governance and political accountability.[21] We close here with some lines of argument concerning the role of

21 Mohmand and Gazdar (2007) and Cheema (2007) deal with social change and the role of electoral accountability in delivering pro-poor outcomes.

markets and government as drivers of poverty reduction based on the findings of this study.

8.1 Market

A standard view of markets as drivers of change sees economic opportunities being mediated and transmitted through the market mechanism. Key strategic issues for poverty reduction, then, revolve around the identification and rectification or amelioration of market imperfections and distortions that adversely affect the poor.

Our findings confirm the value of markets as channels of economic opportunity in rural areas in general and for the poor in particular. The two markets that were the main focus of the present study—labor markets and markets for land sales and tenancy—have been important components of livelihood strategies of the poor. However, the study also shows that prior institutional arrangements play an important part in the way that markets might interact with poverty reduction. The difference across technologically similar villages in the deployment of farm labor, for example, is instructive of the diverse outcomes that are possible due to prior hierarchies of social power.

Labor markets were also shown to have resulted in the erosion of social hierarchies and inequities in some of the villages where established power structures were changing. Access to the open labor market had allowed previously dominated groups to acquire upward economic mobility. In other villages, some of the poorest were excluded from the labor market through dependent employment relations. These diverse outcomes are possible and likely, given the different types of social hierarchy present in different communities.

Land ownership distribution remained a structural feature of poverty. In those few places where land tenancy markets were active, the poor had access to land for agricultural self-employment. For the most part, however, the economic premium on land ownership remained high.

While land ownership appeared to be a structural issue over short time horizons, a longer view revealed significant changes in both the availability of land as well as its distribution across different types of villages. Land availability and distribution were, indeed, endogenous to both policy and politics. There had been major changes in entire geographies of villages through policy action and infrastructure development. There were also significant changes in land ownership over time—many wrought through or closely associated with political contestation and conflict. As far as land was concerned, therefore, the market mechanism had provided only a very partial channel of change.

To the extent that land and labor market outcomes were both shaped by prior social structures, it needs to be acknowledged that the two markets might function in a recursive manner.[22] Pro-poor reforms in one market would be constrained by conditions in the other, and the pace of change in both markets is likely to be governed by changes in social structures.

8.2 Government

The government was the most significant driver of change in the study areas. This was despite the fact that many of the villages were under-provided in terms of public services and infrastructure. The main point here is not that the government was necessarily present everywhere and bringing about change, but that wherever change was observed, the government was visible as a crucial driver. These findings were in line with the perceptions of the rural poor, who also identified the government as a critical agent of change.

However, the context in which the government had acted as a driver of change—both historically and currently—was somewhat different from the standard current view of narrowly-focused interventions. There were, in fact, rela-

22 The author is grateful to Dr Sajjad Akhtar for raising this point in his review of an earlier draft of this paper.

tively few instances of such "poverty-specific" interventions in the fieldwork villages.

The government's role had been somewhat different and, arguably, far more radical. As mentioned with respect to land, government policy and infrastructure investments over time had changed the very basis of the agrarian economy. Investments in irrigation systems were, historically, perhaps the most important drivers of change in the majority of fieldwork villages.

As it happened, some of the villages and regions that had not benefited from irrigation development were disproportionate beneficiaries of public sector employment. Government jobs were and continued to be crucial determinants of household well-being. Qualitative as well as quantitative data vouch for the significance of government jobs in the avenues of change perceived by the poor. Access to government jobs had even enabled people from historically marginalized groups to overcome their old positions of subservience. This finding is important and needs to be placed within the context of receding rather than expanding public sector employment.

While poverty reduction has never been an explicit goal of public sector employment, its role in providing a channel of mobility needs to be acknowledged. There might be important public finance as well as efficiency considerations for scaling back public employment. The essence of public employment (from the perspective of the poor) is that it provides access to predictable and secure remuneration in an otherwise unregulated and risk-prone labor market. In the absence of expanding public sector employment opportunities, therefore, it is sensible to expect a pro-poor growth strategy to focus on the creation of contractually secure and regulated jobs in the private sector.

There were villages and regions, however, that had neither benefited (in the case of the Indus delta village, actually suffered) from government investment, nor received government jobs. These are arguably among the most marginalized regions and communities in the country.

Government had been an important driver of pro-poor change in other ways too. Government policies and programs on land redistribution, tenancy rights, and homestead land have often been criticized for not having reached the poor. While this criticism might be true (although this study was not aimed at verifying it), it misses a crucial feature of these past policy campaigns. Many of the local struggles of the poor documented in the fieldwork villages rallied around these government initiatives and announcements. These local struggles had been active, and in some cases remained active, in virtually all parts of the country. The point of reference for the poor was often some clause in a law or some policy that allowed them to argue and mobilize for greater local leverage.

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APPENDIX: Determinants and Drivers of Poverty Reduction in Rural Balochistan

Introduction

This appendix[1] presents research findings of the Asian Development Bank (ADB)'s study, "Determinants and Drivers of Poverty Reduction and ADB's Contribution in Rural Pakistan," that pertain specifically to the Balochistan province.

The fieldwork for this study was to cover rural communities in eight districts of Pakistan, corresponding to various agro-economic and socio-ocultural zones. Seven of the eight districts (Chakwal, Upper Dir, Mardan, Muzaffargarh , Sanghar, Thatta, and Toba Tek Singh) were covered between June and September 2005. The eighth fieldwork site was in the Khuzdar district and was meant to "represent" not only Balochistan as a region, but also an as area with a high reliance on livestock rearing. It may be recalled that the other sites included representations of specific agro-economic conditions such as canal irrigation agriculture, *barani* (rain-fed) farming, forestry, and marine fisheries.

The fieldwork in Balochistan—carried out in February–March 2006—could not be completed in time for the findings to be incorporated in the main thematic papers. As a result, it was decided to prepare an additional note on the determinants and drivers of poverty reduction in rural Balochistan. This note makes use of in-depth fieldwork data from Khuzdar and earlier rapid appraisal fieldwork carried out by the team in other parts of the province (including Barkhan, Gwadar, Jaffarabad, Kalat, Kech, Loralai, Panjgur, Quetta, and Sibi districts).[2]

The research team was already familiar with the conditions in Balochistan, even prior to the in-depth fieldwork. The broad findings of the thematic papers, therefore, were not likely to change as a result of fresh fieldwork. At the same time, however, there were issues that were specific to Balochistan and needed to be explored and represented in the policy paper of the project. This appendix, therefore, builds on the broad analytical understanding of the determinants and drivers of poverty reduction arrived at in the thematic papers, in order to highlight a number of specificities of Balochistan.

Diversity and Representation

Of all the provinces of Pakistan, Balochistan is probably the most diverse in terms of its geography, agro-economic conditions, and sociocultural patterns.

Geographical Diversity

The expanse of Balochistan sustains very diverse environmental conditions and, therefore, highly diverse systems of livelihood. Two dimensions of environmental diversity are important to note from the viewpoint of poverty reduction: (i) diverse ecological systems, and (ii) multiple water basin systems. These are described briefly below.

Ecological systems. There are at least four major ecological systems in Balochistan corresponding to the various types of environmental conditions. These include (i) flood-plains (former Naseerabad division); (ii) uplands (former Quetta division minus Chaghai, former Zhob division, former Kalat division minus Kharan, Awaran, and Lasbela, and former Sibi division); (iii) western desert (Chaghai, Kharan, and Awaran); and (iv) coastal area (former Makran division and

1 This note was prepared in addition to the thematic papers already submitted and approved as part of TA4319-PAK (Determinants and Drivers of Poverty Reduction and the Asian Development Bank [ADB]'s Contribution in Rural Pakistan). The substantive fieldwork for this note was carried out in February–March 2006 by a research team that included Azmat Ali Budhani, Haris Gazdar, Hussain Bux Mallah, and Noorulain Masood. Noorulain Masood helped in drafting this report and Sohail Javed assisted with the analysis of quantitative data. The author is responsible for all errors.

2 This note draws, with permission, on work done for ADB's Project Preparation Technical Assistance for the Balochistan Resource Management Program (TA4230-PAK).

Lasbela). There are also variations within these broadly defined categories. For example, the uplands include both high-rainfall and low-rainfall areas. The ecological systems correspond to very different types of livelihood systems and implications for poverty and poverty reduction. These systems include (i) conventional plains irrigation agriculture, (ii) orchards, (iii) livestock-based economies, and (iv) marine fisheries.

Water systems. Pakistan has a highly integrated water economy. Around 87% of the total available water in the country is found in just one river system: the Indus basin. Most of Balochistan, however, lies outside the Indus basin, and this one province accounts for three fifths of all non-Indus basin floodwater in the country. In contrast to the rest of Pakistan, Balochistan's water economy is highly segmented, with 14 distinct basins accounting for much of its vast territory. An integrated hydrological system has, nevertheless, allowed for economies of scale in irrigation development as well as risk management. In Balochistan, by contrast, there is little possibility of risk pooling.

Sociocultural Diversity

Balochistan is also very diverse in terms of the ethnic distribution of its population. According to the Population Census 1998,[3] 55% of people reported Balochi as their mother tongue, 30% reported Pashto, and the rest were divided among speakers of Sindhi, Seraiki, and other languages. Brahvi speakers, who probably dominate a number of districts, are most likely subsumed under Balochi speakers for historical reasons. Issues of representation in Balochistan are often complicated by ethnic diversity, as it is believed that social structures vary greatly between the Baloch and Pukhtoon.

The geographic, agro-economic, and sociocultural diversity of Balochistan raises special problems for the analysis of poverty reduction processes. It is difficult to think of one district or region that might "represent" the province in the way that districts in other parts of the country have been used to represent their respective regions.[4] One solution, of course, is to increase the number of districts and villages to be studied in order to account for intra-provincial differences. This was not deemed possible within the time and resource budgets available, and statistical representation was not, in any case, an objective of the research project.

Site Selection

It was decided to select Khuzdar district as a principal research site. According to the 1998 Population Census the district is predominantly Balochi-speaking (footnote 3). In fact, much of the district lies in the Brahvi-speaking belt of Balochistan. Geographically, Khuzdar is classified as part of the "uplands" although it is located at a relatively lower altitude. The climate is mostly dry, agriculture is reliant upon rainfall/the use of groundwater. The main national highway (RCD Highway) connecting Karachi with Quetta runs through the district, and Khuzdar city is a popular midway transit point.

A set of villages located some 30 km from the district headquarters were selected for in-depth study. The choice of villages and study areas was guided by prior fieldwork in the area. The fieldwork site was located away from the black-topped road, but with relatively easy access compared with some of the more remote parts of the district. The fieldwork site was identified using its geographical contours. Plains surrounded by low-lying hills are known locally as "koocha," and we will use this as a pseudonym to refer to the fieldwork site.

Koocha comprised 11 revenue villages or *mauzas*,[5] four of which did not have any residents

3 Government of Pakistan. 2001. *1998 Census Report of Pakistan*. Islamabad: Population Census Organization.

4 Chakwal, for example was used to "represent" barani upper Punjab, Toba Tek Singh to "represent" canal colony central Punjab, Sanghar to "represent" central and northern Sindh, Thatta to "represent" coastal Sindh, Mardan to "represent" the settled plains area of the North West Frontier Province (NWFP), and Upper Dir to "represent" mountainous NWFP.

5 A mauza is the lowest defined geographic unit functioning as a revenue village in Balochistan.

at the time of the fieldwork. The total land under Koocha, as recorded by the revenue department, was nearly 24,000 acres, of which around half was recorded as cultivable. The fieldwork in Koocha included social mapping and qualitative community profiles in the seven inhabited mauzas. In two of the largest mauzas, an extended household and population census was carried out to collect data on demography, livelihood, well being, social development, and political and civic participation. A household listing was also conducted in both mauzas to include not only those households that were present at the time of the fieldwork, but also those who were currently resident elsewhere. This was done in order to gain a better understanding of patterns of migration.

The basic parameters of the analysis of the drivers of poverty reduction in rural Balochistan presented in this note are derived from existing secondary sources. The fieldwork done in Koocha is used here to elaborate, substantiate, and better understand some of the dynamics at the micro-level.

Remoteness

The low population density and the difficult terrain combined make much of Balochistan's rural population relatively less accessible compared to other parts of Pakistan. The costs of providing infrastructure—per unit of population—are much higher in the province. Transaction costs are likely to be much higher here due to longer travel time and harsher transit conditions between rural communities and market centers.

Remoteness increases the costs of providing essential social services in a number of ways. The initial capital costs of setting up a facility are likely to be much higher due to the longer distances involved in the provision of supplies and personnel. Costs of monitoring and maintenance are correspondingly high. While in some parts of the province (e.g., Makran), there are remote localities with relatively high population concentrations. In many areas, the effect of remoteness is compounded by the relatively small size of individual settlements.

High transactions costs imply the possibility of a high degree of spatial market segmentation. Fieldwork around the province suggests diverse patterns of market integration.

Physical remoteness implies that labor markets ought to be more highly segmented by geography than markets for goods. At any given time, there is a small potential pool of employers and workers, and the transaction costs of accessing other locations is high. Moreover, high travel and freight costs mean that there are large price differentials between locations in the price of basic commodities.

Fieldwork carried across the province in 2004 indicated that the casual daily wage rate varied from PRs50 per day in Rakhni in Barkhan district (bordering Punjab) to PRs125 per day in the headquarter of the neighboring district of Loralai (Table A.1). There was also a great deal of variation in the price of the main staple, wheat-flour, from PRs11 per kg in Panjgur to PRs20 per kg in remote Aranji in Khuzdar district. It is useful, therefore, to analyze wage rates in terms of their wheat-flour equivalent. The range of wage rates was even wider in wheat-flour equivalent terms, with the daily wage in Rakhni purchasing 3.3 kg of wheat-flour compared with 9.1 kg in Panjgur.

Labor markets tended to be segmented by location due to high transportation costs. It so happened that the locations visited in Loralai were all within easy commuting distance of market towns or road construction sites. In Khuzdar, where there was also a great deal of new road construction, it was possible to observe the effects of high transportation costs. The region of Aranji in Khuzdar, which had been badly affected by drought, was located some 100 km away from the main RCD Highway. That particular segment of the highway was under construction and there was some demand for local labor at a daily wage rate of PRs80. Aranji workers, however, could only take up these jobs if they were willing to live

in camps by the construction site.

Besides labor market conditions, high transaction costs also affected real wages through the price of consumer goods. As mentioned earlier, the price of 1 kg of wheat-flour varied from PRs11 rupees in Panjgur to PRs20 in Aranji. The Panjgur price was lower than any other location in the province due to the availability of cheap Iranian wheat-flour that was smuggled across the border. In Aranji, the exceptionally high price was due to the cost of transport over 100 km of rocky track.

Case Study of Koocha

Koocha was a vast expanse of land surrounded and bifurcated by barren mountains. affected by the lack of infrastructure, and that of women, by strong patriarchal norms. The settlements were different from the compact cluster of houses that might be seen in parts of Punjab or Sindh, being rather sparse with distinct clusters of houses.

The local population vaguely described village organization using terms from the local Brahvi dialect—*shahr* and *khalq*, with the central and often larger settlement of houses called the shahr, and the surrounding groups of houses called khalqs. Whether a certain cluster was a khalq or a shahr was rather subjective, depending on the importance a particular group seemed to give the cluster.

Table A.1: Casual Daily Wages in Selected Locations in Balochistan

No.	Location	District	Casual Daily Wage (PRs)	Price of 1 kg of Wheat-Flour (PRs)	Wage in kg of Flour
1	Aranji	Khuzdar	80	20	4.0
2	Bonistan	Panjgur	100	11	9.1
3	Dehpal Kalan	Sibi	100	13	7.7
4	Gurmai	Loralai	100	15	6.7
5	Hajika	Kalat	80	15	5.3
6	Kakar Colony	Quetta	120	13.5	8.9
7	Khuzdar	Khuzdar	90	14	6.4
8	Kudan	Kech	120	14	8.6
9	Loralai	Loralai	125	14	8.9
10	Mal Chandio	Sibi	75	13	5.8
11	Malikabad	Panjgur	100	11	9.1
12	Mangochar	Kalat	100	14	7.1
13	Mekhtar	Loralai	90	14	6.4
14	Pishkan	Gwadar	100	15	6.7
15	Rakhni	Barkhan	50	15	3.3
16	Usta Mohd	Jaffarabad	90	12	7.5
17	Wadh	Khuzdar	90	17	5.3

Source: Asian Development Bank (ADB). 2005. Structural Issues in Poverty Reduction in Balochistan. Background paper prepared for the Balochistan Resource Management Program. ADB, Islamabad. Based on fieldwork carried out by the Collective for Social Science Research in 2004

The spatial organization within Koocha was in the form of different settlements that were quite close to each other. The larger settlement of Mauza 1 was, on average, 2 km from each settlement. Despite this, the mobility of men was

There was significant variation in the time required to commute between different villages, determined by the condition of the roads and distances between them. The mauza closest to the metalled road had a travel time of around 60

minutes to Khuzdar in a private vehicle, while the mauza farthest away was over 2 hours from the town. On public transport, travel times were much longer.

Koocha was selected for fieldwork partly because of its higher accessibility compared to other similar-sized settlements. Although the area was approximately 30 km from the main urban center of Khuzdar city, the condition of the roads made commuting to the city significantly difficult. Some of the roads had been paved while other tracks were mere tyre-marks on stony soil. For inhabitants of the rural area, an added constraint to mobility was the small number of transport services available.

There was just one bus that connected the entire Koocha villages to Khuzdar. The bus would leave its first stop at around 7 am in the morning, and arrive at its last stop within Koocha at 8 am. It took another hour or so to get to Khuzdar. The bus did not reach all the settlements, for some of whom the nearest bus stop was nearly a day's walk away. In the evening, the bus would set off from Khuzdar at 4 pm to ensure that it arrived at its terminal stop before sundown. The fare from Koocha to Khuzdar was PRs25. This amount appears high given the distance involved. The fare was considered justifiable, given the poor quality of the road for half the journey and resultantly high fuel and wear-and-tear costs. The poor road conditions also meant that there was relatively little competition for the sole bus operator. The high cost of travel to Khuzdar and the long time it took to get there meant that daily commuting was not feasible. A large number of men from Koocha lived in Khuzdar for most of the week and returned home only at weekends.

Summing Up

Remoteness, therefore, is a structural parameter of the economy of rural Balochistan. While markets (for labor and goods) tend to be locally segmented, there are also patterns of market integration across district, provincial, and even international boundaries. An important consequence of the geographical segmentation of labor markets is that the economic incentive to migrate is very high. Different patterns of migration are possible, as illustrated by the Koocha case study. The migration theme remains a crucial aspect of poverty and poverty reduction in Balochistan.

Water Scarcity and Drought

Water scarcity is a structural characteristic of the agrarian economy of Balochistan. Much of the land area is used not for crop cultivation but as rangeland for grazing livestock. Balochistan's agricultural profile also differs significantly from other provinces in its high prevalence of orchards and fruit production (in contrast with extensive crop farming). Both livestock rearing and fruit orchards are associated with nonstaple high-value products. It can be argued that the agrarian profile of the province is suited to conditions of relative water scarcity.

In conditions of chronic water scarcity, crop cultivation is vulnerable to even one drought season. Livestock rearing and fruit production are somewhat protected against a single adverse period but are vulnerable to prolonged periods of deficit rainfall. Responses to water scarcity and drought have thrown up serious challenges for future poverty reduction and sustainable development. It has been argued that water scarcity and drought ought to be regarded not as crises but as recurrent phenomena, given the fundamental ecology of Balochistan. The basic demographic and economic structure—including institutional arrangements for access to rangeland and groundwater—have evolved as "balanced" responses to a fragile environment.

If the demographics of Balochistan—i.e., the low population density—evolved as a long-term response to its fragile environmental conditions, economic diversification and social development have raised new opportunities as well as challenges. A more diversified economy is likely to create demand for labor. Depending on the rate of diversification, it is likely that the demand for

labor might not be met from within the province. The economic feasibility of sustaining a larger population, therefore, could be met by migration from outside the province. The impact of such migration on poverty reduction and economic opportunities within the province needs to be understood.

Land and Livelihoods

There is great diversity among as well as within regions in terms of local economic conditions and rural livelihood opportunities and strategies. This is largely an outcome of the diverse geography of the province. Systems of farming, orchard cultivation, and livestock rearing, vary according to agro-climatic conditions and the availability of water. While crop farming is carried out in some form across the province, it dominates rural livelihoods only in those areas where there is greater assurance of water availability.

Land ownership distribution and tenure systems also vary greatly among regions. Unlike the high-intensity farm economies of the Indus plains, much of Balochistan has abundant land that is not in private use. This does not mean, obviously, that such land is not owned by anyone. Land that is not in private use—i.e., developed for farming or orchards—is, nevertheless, a valuable economic resource. Systems of usufruct right over this land—be it forest, hills, or rangeland—are highly developed. In many parts of the province, tribes, clans, lineages, and kinship groups assert joint ownership of open resources and trace the existence of private property back to an original division of jointly owned resources by earlier generations.

Livestock rearing has historically been important across Balochistan, particularly in those areas where crop farming was not a dependable source of livelihood. Systems of rearing small animals such as goats and sheep, and large animals such as cattle and camels, have functioned alongside crop farming. Pastoral life allows people to adapt to chronic water scarcity conditions, as well as to severe water stress (drought). People and livestock move seasonally and over drought cycles in order to minimize risk. Migration patterns have been closely connected with the seasonal demand for labor in areas with intensive crop-farming, and livestock rearing.

Koocha Case Study

Insights from the fieldwork site in Khuzdar are used here to illustrate some of the above observations on land and livelihoods with reference to primary fieldwork. The aim of presenting the case material is to highlight some institutional processes and changes at the micro-level of a "koocha," rather than making claims of statistical representation.

Land and Water

Only half the Koocha land recorded in the revenue system was classified as "cultivatable" or *mazroo'a*. The remainder was classified as uncultivable. In all the mauzas save two, the entire cultivable area was classified as *khushkaba* or rain-fed and supplemented by runoff from adjacent fields or catchments. It was clear from the fieldwork that only a relatively small proportion of the cultivable area was actually under crop. Nonkhushkaba land relied on two sources of water: (i) one mauza had access to water from a spring as well as a *karez*,[6] and (ii) the second had a diesel-operated tubewell (known locally as "machine") for pumping groundwater for irrigation.

Land ownership patterns varied in Koocha between mauzas. Two of the mauzas were dominated by tribal chiefs or *sardars* of the "N" tribe. In one such mauza, all the land was owned by the sardar's family, but was cultivated by *buzgars* (share-tenants) because the family had shifted to another location. In another mauza, the land was in possession of local residents, but was held, in revenue records, in the names of the sardars of the "P" tribe. These sardars had never

6 Karez is a traditional system of harvesting groundwater using wells that are linked by tunnel, and carry water from the aquifer to the fields.

resided in the area, but had successfully asserted their property rights and regularly took a one-third share from the local resident farmers at harvest time. The local residents claimed that the land was rightfully theirs, but this claim was not accepted either in the land records or supported by the wider community in Koocha.

Overall, however, land ownership was relatively equally distributed in Koocha. In the two mauzas where census data were collected, 83 of the 93 resident households (or 89%) owned some land. The common form of land area measurement in these communities was in terms of *bunds* or terraces, and these varied greatly in size. For khushkaba land—i.e., land not irrigated by wells, springs, or karez—rainfall was the only source of water. This, however, reached the fields in two ways: first, as direct rainfall over the cropped area, and second, as run-off flows from the surrounding hills and slopes. The latter was a significant source of water, and a system of terracing was designed to take advantage of run-off flows.

Because rainfall was both sparse and very localized, run-off water from the surrounding hills and slopes was seen as a valuable resource. Ownership of the plains area and terraces was linked notionally to ownership of the hills and slopes from which the run-off to those particular terraces naturally flowed. While the hills and slopes were "owned" jointly by tribes and clans, individual members of these tribes or clans owned cultivable land in the "command" area.

Tenure

The traditional system of tenant farming is known as *buzghari* and the share-tenant is called a buzghar. Various forms of buzghari were observed in Koocha, although its prevalence was relatively small. The traditional form of buzghari was thought to be half-shares—with the tenant providing draught power. In a situation where the tenant did not own bullocks, his share was reduced to one third, and in situations where the landowner's tractor was used, the tenant received only a quarter of the harvest. In one mauza of Koocha, however, residents—tenants of Sardar "P"—provided all the inputs and their share was thus two thirds. This was a variant of the *shishak* system prevalent in other parts of the province where the sardar extracted a tribute of one sixth of the harvest.

Although ownership of land and the economic and social relations embedded in various systems of tenant cultivation were important factors in Koocha's economy, farming was no longer the major source of livelihood. The area of land officially recorded as being cultivable was only half the total area. Most of this cultivable area, too, was not actually cropped. Cropped land area was measured locally with reference to the amount of seed sown in units of 100 kg of wheat (a *bori* or gunnybag). In the census mauzas of Koocha, it was found that, on average, each household had sown 1.6 boris of wheat. In contrast, 10 years prior to the fieldwork, they had sown 2.8 boris.[7] Drought conditions were thought to be responsible for this 43% decline in sown area.

Livestock

Livestock rearing had been an important source of livelihood in Koocha. Goat and sheep herds were held by families and grazed on the commonly held hills and slopes. Livestock ownership and herding had traditionally been a more important source of livelihood than crop farming. There were systems of share-holding, too, which allowed families without capital to begin acquiring their own animals. The livestock economy was the most acutely affected by the long period of drought. In the two mauzas of Koocha where household censuses were carried out, it was found that the total stock of goats and sheep had declined from 3,753 animals 10 years prior to the fieldwork to just 159 animals in 2006. The average household now owned just 1.7 animals compared with over 40 animals 10 years ago.

7 This was based on recall, and might have an upward bias.

Nonagricultural Activities

Table A.2 reports the distribution of the male population aged 18 years or above in the two census mauzas of Koocha by their reported primary occupations. The largest single category, comprising 30% of all males, comprised casual laborers. Agricultural self-employment was reported as a primary occupation by around 27% of the age group, and within this 17% were

Table A.2: Distribution of Primary Occupation of Male Population aged 18+

Primary Occupation	Number	Percentage
Self-cultivator	32	17.68
Tenant cultivator	5	2.76
Livestock rearing	12	6.63
Casual labor	46	30.38
Servant	10	5.52
Government job	9	4.97
Retail	7	3.87
Transport	18	9.94
Factory labor	2	1.10
Catering	5	2.76
Unwell	1	0.55
Too old to work	11	6.08
Student	12	6.63
Others	11	6.08
Total	**181**	**100.00**

Source: Author's fieldwork.

Table A.3: Distribution of Primary Occupation of Nonresident Male Population aged 18+

Primary Occupation	Number	Percentage
Tenant cultivator	2	2.9
Casual labor	30	42.9
Servant	4	5.7
Government job	4	5.7
Retail	6	8.6
Transport	11	15.7
Factory labor	1	1.4
Catering	5	7.1
Student	4	5.7
Other	3	4.3
Total	**70**	**100.0**

Source: Author's fieldwork.

involved in self-cultivation, 3% as tenants, and 7% engaged in livestock rearing. Nonagricultural activities, therefore, dominated as primary occupations and sources of livelihood.

Of a total of 181 males in the 18+ age group, 12 were either infirm or too old to work. Of the remaining 169 persons, 70 (or 41%) did not normally reside in the village. Table A.3 provides the occupational breakdown of nonresident males. The largest group among these (43%) was employed as casual labor, while others were in sectors such as transport, retail, and catering.

Migration and Dual Residence

It was striking that over two fifths of the adult male population did not normally reside in the village. A large number of these men lived in Khuzdar town during the week and returned to their homes at the weekend. There were some settlements in Koocha where not a single adult able-bodied male was present during the week. Women and children stayed in the village because it was less expensive than renting a house in Khuzdar, and because it was easier for them to tend to the limited livestock and crops that remained. The closest parallel to this pattern of migration or dual residence was in the Thatta fieldwork site from where the men went out to the sea on fishing boats.

The village economy was clearly unable to sustain the population. Casual laborers in Khuzdar worked mainly on building sites. Khuzdar town has grown rapidly in size, and had become an important intersection on the Karachi-Quetta national highway. Some workers were also employed at a daily wage or in piece-rate work on the construction of local link roads.

The industrial zone of Hub, close to Karachi but within the provincial boundaries of Balochistan, was another important destination for migrant workers from Koocha. Factory workers were generally hired on short-term contracts, even though their work and residence was inside the factory compound. A number of men from Koocha were either working in Hub or had worked there in the recent past.

Social Structures and Social Services

Three dimensions of the social structure in Koocha receive specific attention here: (i) ethnicity, (ii) tribes and hierarchy, and (iii) patriarchy. These three dimensions are integrally linked with one another. Ethnic identity has been an important feature of political discourse in Balochistan. On the surface, the major division of the polity is between the Baloch and Pukhtoon. At the micro-level in rural areas, however, ethnic identities tend to be mediated through tribal and kinship affiliations. Relations of cooperation or conflict between tribes and kinship groups living in close proximity dominate higher-level ethnic affiliations.

Tribes and Hierarchies

Both among the Baloch (including the Brahvis) and Pukhtoons, the tribe is the predominant form of association between families. In fact, for much of Balochistan, with the possible exception of Makran, tribe and ethnicity are closely interlinked. The tribe acts as the institution for organizing intra-group collective action on the one hand, and simultaneously defining the boundaries of the group on the other. Social inclusion and exclusion, therefore, are delineated along the lines of tribal affiliation. Standard economic analyses and policy prescriptions premised on individual agents interacting in markets need to be modified to allow the possibility of market segmentation along the lines of tribe, subtribe, and lineage.

The tribal system of public action, governance, and conflict management runs in parallel to the formal systems of the state. It is widely argued that pro-poor strategies tend to be subverted by the anti-poor bias of tribal leaders who are able to capture public resources for private appropriation. At its extreme, the tribal system is manifested in the *sardari* (tribal chieftainship) system where the sardar obstructs any development ini-

tiative for fear of losing control over his tribespeople. At the same time, it is argued that tribes and tribal leaders provide focal points for collective action and dispute resolution under conditions of a weak or absent state.

On the one hand, tribes and tribalism appear to be means of exclusion, hierarchy, and the perpetuation of social conflict and backwardness. On the other hand, the poor rely on these very structures for social protection, solidarity, and upward mobility. It is possible to make some stylized observations about tribal social organization in Balochistan in order to gain a closer insight into this paradox.

There are some common features between Baloch and Pukhtoon societies in their tribal structures. Lineage and kinship are important binding factors. Tribes and subtribes are affiliated with one another on the basis of lineage and kinship, and solidarity as well as conflict is often passed down along these lines from one generation to the next. Tribal affiliation transcends territory and is invoked and reciprocated across long distances. There are established norms and unwritten codes of conduct with respect to common resources, modes of negotiation, and dispute resolution. Tribal affiliation has remained stable and robust—despite many specific changes in the content of the tribal relationship—in both societies.

The differences between the Baloch and Brahvis on the one hand, and the Pukhtoon on the other are also sources of insight. Casual observation suggests that the main contrast, currently, between the Pukhtoon and Baloch systems is the relative erosion of authority of the tribal chiefs or *maliks* among the Pukhtoons, and the resilience of the sardar's political and social power among the Baloch. The well-known tribal leaders of Balochistan are mostly Baloch or Brahvi, and they exert great influence not only among their own tribes but on provincial politics as a whole.

Closer examination of the tribal structures in the two societies reveals, however, that perceptions about the power of the chiefs are related to the very architecture of the tribes. Pukhtoon tribes can be broadly labeled as operating a form of "exclusive equality" within the group and strong exclusion of lineage outsiders. Baloch tribes, by contrast, are more inclusive of lineage outsiders, and slot them into a loosely formed but active "inclusive hierarchy."

The Pukhtoon tribe is more rigorously based on common ancestry and strictly excludes nonlineage people from common tribal resources or protection. The Baloch model, on the other hand, is designed to maximize the number of affiliates, regardless of blood ties, in order to further mutual economic and political advantage. The Pukhtoon tribe is, therefore, more egalitarian within, but strongly exclusionary. The hierarchy is between insiders and outsiders. The Baloch tribe is more inclusive, but also much more hierarchical within. Instead of a sharp dividing line between insiders and outsiders, the Baloch tribe facilitates different degrees of association within a broad hierarchy. Social hierarchy is likely to be an inter-tribe issue among the Pukhtoons and an intra-tribe phenomenon among the Baloch.

There is, however, a significant exception to the Baloch-Pukhtoon tribal social organization in the Baloch-dominated region of Makran. While Baloch sardars are thought to be much more powerful than their counterpart Pukhtoon maliks, Makran is one major Baloch region where tribal chiefs are relatively unimportant in the social hierarchy. The Baloch identity in Makran is also distinctive, in the sense that tribal affiliation is not regarded as being the essence of being Baloch. Makran does have a social hierarchy of its own, however, and this relates to the social, cultural, and economic position of people of African descent. While there appears to be wide acceptance that, at least in public discourse, the Baloch identity dominates tribal, kinship, or racial origins, there is a history of discrimination against people of African origin. Terms such as *darzada*, *naqeeb*, and even *ghulam* (slave) have been used to label Makranis of African origin.

Patriarchy

One form of exclusion that occurs across ethnic groups and tribal social structures—be they of the Baloch "inclusive hierarchy" type or the Pukhtoon "exclusive equality" model—is the position of women. The tribal systems sustain strong patriarchal norms concerning the rights of women, their access to resources and spaces, and their participation in social and political life. It is widely perceived that the one region of Balochistan where patriarchal norms are less restrictive and unequal is Makran—which also happens to have weaker tribal social organization.

There is close inter-linkage between patriarchy and tribalism in Balochistan. Women's roles are strictly regulated, and their access to extra-family interactions restricted. It is, however, these very interactions that offer opportunities for economic and social development. Tribal systems pay much heed to notions such as "honor," and this is often defined with reference to women's agency (or lack thereof). Intra-tribal relations between male members require the maintenance of unequal gender norms. The tribal system, moreover, operates along the lines of an extended family. Patriarchy, quite literally "the rule of the father," is about the control exercised by the male head of the household not only over women but also over other males and children. The tribal system simply provides an extensive domain for perpetuation of "the rule of the father."

These observations are meant to highlight the stable structural relationship between tribalism and patriarchy—not necessarily as an indictment of these institutions, but to indicate that change in either one would be linked to changes in the other. Changes in social norms concerning the position of women, therefore, are likely to weaken tribal social structures, and vice versa. This signifies both opportunities for addressing social exclusion as well as the challenges the task is likely to throw forward.

Koocha Case Study

The Koocha population was exclusively Brahvi-speaking, and belonged to a number of different tribes and kinship groups. While the literal translation of tribe in the local language was *qabeela*, the word *qaum* (which otherwise denotes nation) was commonly used. It was always clear to the respondents that qaum was a wide kinship group, usually but not exclusively within a unique ethnic community.

The notion of a qaumi sardar ("national" or tribal chief) was important in the way various groups in Koocha were identified. There were two sardars of some eminence who were represented directly in Koocha through the direct ownership of land. The sardar of the "N" qaum was, in fact, based in Koocha, and a number of the mauzas in Koocha had significant numbers of the "N" qaum resident. The sardar of the "P" qaum, who claimed to own all the land of one of the mauzas, was however, not locally resident, and there were only a few people belonging to the "P" qaum who were resident here. A large number of families belonging to the "T" qaum looked, ultimately, to the "P" sardar as their "national" chief. Some members of the "T" qaum asserted that they only gave allegiance to their own immediate "T" sardar, but it was clear that their connection with the "P" sardar remained strong and active.

The distribution and hierarchies of various qaums in Koocha illustrate quite well the confederal and inclusive hierarchy that pervades the Baloch/Brahvi tribal system. Even the "N" qaum, whose "national" chief was considered an influential player, looked to yet another sardar (that of the "G" qaum) as the ultimate source of leadership and authority. In numerical terms, besides the "N" qaum the other major groupings were branches of the "Q" qaum. In all these cases, the group identified itself as narrowly or broadly as required (given the issue or problem at hand), and defined its tribal affiliation with reference to its allegiance to a particular chief or his immediate clan.

Qaums were further subdivided into *taks*—roughly, subtribes. While mutual relations between various taks in a qaum might be based on common ancestry, this is not always or necessarily the case. There were several taks among the qaums in Koocha that did not claim to have traceable kinship ties with one another. In fact, there was contest even over whether a particular group was a qaum or a tak. Higher-level leaders were interested in asserting that the various subtribes affiliated with them were all taks of the main qaum, while lower-level leaders often asserted that they represented their own qaum but also paid allegiance to a more powerful qaumi sardar. The leader of a tak was referred to as the *takari*. The clearest way in which a tak could be identified was through the personality of a takari.

Below the tak, clans and subclans were known as *shalwars*. A shalwar was always a kinship group that enjoyed close and traceable kinship ties with other shalwars of the same tak. In many cases, joint ancestry could be traced back to just four to five generations. The shalwar could be seen essentially as an extended family that was part of a bigger extended patriarchy.

There are five salient features of the traditional social organization described above in Koocha:

(i) The entire system of connections and networks is premised on patriarchal relations between families and groups of families. Bloodlines are traced through male ancestors, and the position of various levels of leader is analogous to that of male heads of family. It was interesting to observe, however, that cross-kinship group marriages were not uncommon. Also, compared to other tribal systems where lineage is the only acceptable source of affiliation, political and historical connections between qaums were both possible and prevalent in Koocha.

(ii) Entitlements to resources, particularly to common or open-access resources were related to a person's tribal/kinship identity. The hills and slopes surrounding the plains area of Koocha were all recognized as being the commonly-held resources of particular qaums. The access of other qaums to these resources depended on the nature of relations between these groups.

(iii) Perhaps most importantly, the qaum, tak, and shalwar remained significant arenas for the organization of collective action. Dispute resolution and conflict management were conducted routinely within the framework of the tribal hierarchy. One of the main functions of the sardar was arbitration and dispute resolution. Mobilization in the face of a conflict or for political office was also routinely managed within this framework. While the system of affiliation was robust in Koocha, and the power of the sardars to act as arbiters widely accepted (and sometimes feared), sardars did not have an overt coercive presence. The system of tribal affiliation was seen as restrictive as well as protective.

(iv) The tribal system in Koocha was clearly hierarchical in the sense that the various qaums affiliated with a particular qaumi sardar, and the different taks within a qaum, had unequal mutual social relations. Typically, the "ruling family" of any qaum belonged to a particular tak of that qaum. Tribal leadership had been passed down from father to son and never left the ruling family. Other taks were, by design, seen as being of lesser status. There were some taks within each qaum who did not have any kinship ties at all with the ruling family, and these were regarded as being even lower.

(v) There were some kinship groups among the current or recent residents of Koocha that did not seem to fit anywhere in the tribal hierarchy at all. Among these were the Sarmastanis or the Lohris. There were 15 landless families who were referred to as "Lohri" by other residents, but who called themselves Sarmastanis and resided in Mauza 1 of Koocha. They migrated on a seasonal basis to Kech and were not present at the time of the fieldwork.

Other residents regarded the Sarmastanis as being "outsiders" who did not belong to the village or Koocha community through any kinship or tribal connection. Historically, the Lohris are thought to have been artisans who worked as virtual slaves of the landowning tribes.

Social Services in Koocha

All the villages in Koocha lacked basic facilities, including electricity, Sui gas and telephone services. There were two primary schools in the entire area that were located in the two largest mauzas. One of these schools was fully functional, while the other operated only erratically. Both schools catered for both boys and girls. The system of Islamic religious instruction was strong and well-organized. There were at least five *madrassas* (Islamic educational institutions) of various levels and sizes in the different mauzas. Madrassa enrolment and attendance was high, and children (both boys and girls) who were enrolled in the government primary schools also attended the madrassas.

There was one main madrassa at which instruction was provided up to the *hafiz* (committing the Quran to memory) level. The instructor had been taught in Khuzdar and Karachi, and had returned to his village to teach. Other madrassas provided lower levels of instruction, but were linked to the larger madrassas. All these were part of a network of religious schools that were connected to a seminary in Khuzdar town. The religious educational system was associated with the Deobandi tradition, and various organizations, such as the Tableeghi Jamaat (a missionary organization), and the political party Jamiat-Ulema-Islam were active in the area through these madrassas.

The madrassas in Koocha were well organized, regular, and functional. Teachers were always present, and large numbers of boys and girls attended. The contrast with the inadequate access and indifferent functioning of government schools in the area was stark. Madrassas also managed to impart basic literacy to many of their pupils, in addition to basic religious instruction. The madrassas were supported by wider charitable networks and various Deobandi organizations. Some respondents were of the view that the madrassas had arrived in the area over the last 20 years or so, and had led to religious change whereby Deobandi religious traditions had been adopted in the place of other Islamic doctrines.

The area lacked basic health facilities such as basic health units, rural health centers, or lady health visitors. The more remote and inaccessible settlements were even more marginalized in terms of such facilities. In the space created by the lack of these services, more traditional methods had been adopted, including spiritual healing and an elaborate system of using herbs to make medicines. Women were at the forefront of traditional healing practices. The hills and slopes around Koocha were used not only for collecting fodder and firewood, but also various wild herbs. These herbs were used for food as well as for medicinal purposes, and women possessed and passed on much of the traditional knowledge of these.

Access to facilities was highly gendered in this patriarchal region, with restricted female mobility impacting women's access to larger health facilities. In order for a woman to access the large hospital at the nearest urban center, she needed to be accompanied by her close male relatives. The situation of health is rather perturbing with ailments of the respiratory and digestive tracts being very common.

Transhumance: Koocha Case Study

An interesting livelihood pattern in Koocha was the prevalence of households with more than one home. In some cases, the family was distributed, with some members living in the rural home and others living in a different home elsewhere. In other cases, the rural home was closed, with the entire family moving to an entirely different geographical region for part of the year and returning to the village periodically. This norm of "living" in two houses at a time and

maintaining presence in two geographical regions is known as transhumance.

Initial descriptions of transhumance in the area were made with reference to traditional seasonal migration with livestock to parts of rural Sindh. Local residents had familial ties in Sindh and some of the more aged members of the community could speak Sindhi fluently. Now, however, there is a change in the form of transhumance, with the destination changing from rural to urban centers.

The traditional pattern of seasonal migration from Koocha to other rural areas had allowed households to sustain at least three forms of agricultural livelihood. It was common practice for a family to sow wheat (after the frost in March) and then migrate with its herds to Sindh where the wheat harvest was about to begin. There, it would travel across the province, performing harvest labor and availing grazing opportunities for its animals. The family would then return to its home in Koocha in time for the wheat harvest. Sometimes, it would send one person to inspect the crop mid-season in order to judge whether or not it was worth returning for the harvest. Many families also settled in Sindh as share-tenants, but maintained close ties with their own lands back in Koocha.

The traditional system of transhumance appears to have ended in the 1980s. Several reasons were given in Koocha for its demise. It was argued that more local labor had become available with the growth of Khuzdar town and the development of local infrastructure. The recent drought further reduced the incentive to migrate seasonally to Sindh, as the livestock herds had been devastated, removing an important reason for migration.

The conventional anthropological approach to transhumance is premised on the existence of a pastoral economy. In Balochistan and elsewhere, transhumance has been linked to the migration of families with their livestock, and the maintenance of multiple homes as a result of this.[8] Currently, however, the practice of transhumance continues in Koocha despite the loss of livestock herds. The fact that families have close connections in Sindh and other places makes it possible for them to divide their members and time of individual members between more than one place in order to optimize economic opportunities. Moreover, it appears that the "culture" of transhumance makes it easier for families to take advantage of economic opportunities over long distances.

People from Koocha lived and worked in various urban centers such as Khuzdar city, Quetta, and Karachi. Some had also moved abroad to Saudi Arabia or the United Arab Emirates. Most transhumant men were involved

Table A.4: Distribution of Absentee Households by Current Residence

Year of Migration	Khuzdar Town	Rural Within District	Within Province Outside District	Sindh	Abroad	Total
1965–1979		1			8	**9**
1980–1989	6	5		1	1	**13**
1990–1999	35	2	2	2	3	**44**
2000–2006	27	17	1	4	1	**50**
Total	**68**	**25**	**3**	**7**	**13**	**116**

Source: Author's fieldwork.

8 Transhumance was found under very different geographical conditions in the fieldwork sites in NWFP where the Gujjar community was known to maintain stable places of residence in high pastures as well as on the plains.

in casual labor. Families who practiced this form of transhumance were seen to be more affluent than those who did not. With a lack of employment opportunities in Koocha, households had chosen to take this route out of poverty.

In the two census mauzas of Koocha, a prior listing of households included those who had left the mauza but maintained some connection with it. Absentee households numbered 116, compared to 93 resident households. In other words, the majority (56%) of households were absentees.

Table A.4 shows that the majority of absentee household lived in Khuzdar town. The next-largest group was in a different rural area within the district, and this was followed by families that had gone abroad. Local respondents were of the view that some 40% of absentee households intended to return to Koocha while 20% did not. Local respondents said they were not aware of the intentions of the remaining 40%. Over three quarters of the absentee households had visited their homes in Koocha within the last 3 years, and 14 % had never visited

Concluding Remarks

This note on Balochistan reflects the fieldwork carried out in the province as part of TA4319-PAK, as well as secondary and primary research conducted by the author for earlier ADB-commissioned tasks. The note provides additional region- or province-specific information and insights into the national-level analysis of the determinants and drivers of poverty reduction in rural Pakistan. These insights have been incorporated, along with findings from other fieldwork sites, into the policy papers of the project. Some specific issues arising from the Balochistan fieldwork are reiterated and highlighted here.

Physical infrastructure

Physical infrastructure was identified as a major driver of poverty reduction in rural areas across Pakistan. In Balochistan, this finding had a number of specific implications.

Geographical conditions and historical neglect have combined to make physical infrastructure development a particularly pertinent issue. Local infrastructure, particularly the provision of link roads and electricity connections, can have stronger poverty implications than large-scale infrastructure projects. While the latter improve the economic integration of Balochistan with the rest of the country, they do little to break the severe market segmentation that exists at the local level.

Large-scale infrastructure projects are important for the long-term economic development of the province, but in the absence of local infrastructure development they might lead to new forms of market distortion. Markets in Balochistan tend to be geographically segmented and integrated with economic activity across provincial and international boundaries. Skewed infrastructure development could exacerbate the problem of internal segmentation and external integration. Such outcomes are likely to moderate the pro-poor potential of infrastructure development.

Local infrastructure improvements have several province-specific advantages in Balochistan. They could lead to substantial reductions in transaction cost, and therefore open up diverse labor market opportunities for the poor. Given the limited opportunities for agriculture-led growth over much of Balochistan, the short- and long-term employment generation potential of local infrastructure development is likely to be very important. Communities are likely to be able to cope better with droughts and water scarcity if they are better served with local infrastructure.

Nonfarm Employment and Migration

The farm sector in Balochistan is weak compared to other provinces, due to chronic water scarcity and periodic spells of drought. The recent drought has also inflicted serious damage on the livestock sector that was formerly a mainstay of the rural economy. Rural communities in

Balochistan rely largely on nonagricultural sources of livelihood.

Migration has been a traditional livelihood and survival strategy for rural communities in Balochistan. Historically, seasonal migration and transhumance were common features of the annual cycle, and these population movements were linked to the rearing of livestock herds.

Other forms of migration have become more important, with new employment opportunities within Balochistan, outside the province, and abroad. Traditional systems of mobility—such as transhumance—have not disappeared, but have been adapted to new conditions. Livestock rearing is no longer the core motivation to migrate, but existing social networks and cultural proclivities for migration and transhumance imply that rural communities in Balochistan are adept at taking advantage of far-flung economic opportunities.

Social Networks

Tribal social networks are pervasive in Balochistan. Tribe, subtribe, clan , and kinship groups are important markers of identity, solidarity, and common resource management. At the same time, these structures are patriarchal and can be hierarchical and oppressive. Tribal social networks provide focal points for collective action, dispute resolution, and political mobilization. They also limit individual choice and provide strategic advantages to traditional leaders, thus narrowing the scope and effectiveness of modern institutions. They both facilitate as well as restrict economic opportunities available to the poor.

Political Spaces

Party politics, as well as religious mobilization, have tended to open up different types of political space in Baloch society. There is a strong sense of Baloch identity that cuts across regional and tribal affiliations. Political parties and alliances that operate within as well as across regional and tribal boundaries tend to reinforce this form of identity. Ethnic identity is an important lever for accessing public resources (such as government jobs, infrastructure development, and greater attention to the province's economic interests). This could lead to the state emerging as a more potent driver of pro-poor change in Balochistan. Ethnic identity, however, does not necessarily challenge the tribal system at the micro-level.

At this level, the case study in Koocha revealed that religious organizations have been successful in opening up and utilizing political spaces that are autonomous of existing tribal leaders. The madrassas in Koocha and their connections with wider support systems based on religious sect appear to provide alternatives to government as well as tribal sardars. While government schools function poorly, the madrassas, even in remote mauzas, appear to be well organized. In some spheres of collective action traditionally associated with tribal chiefs, religious/political networks have been active. These include lobbying for services, dispute resolution, and of course, political mobilization.

It is not clear at present whether the religious movement will eventually challenge the tribal system itself, or particular leaders, or simply co-opt or be co-opted into the existing social organizations. In any case, this movement creates new opportunities for communities and individuals, and tends to improve the bargaining power of the poor vis-à-vis traditional leaders and hierarchies. There are other areas in which the religious movement is likely not to challenge existing social structures, and might in fact lead to their reinforcement. There is nothing in the ideology of this movement that opposes traditional patriarchy, for example, and in fact the reverse happens to be the case.

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