1. INTRODUCTION

After a decade of moderate growth but little or no long-term change in rural poverty in Pakistan, agricultural output, rural incomes, rural poverty and social welfare indicators all showed marked improvements between 2001-02 and 2004-05. Real agricultural GDP per capita rose by 7.4 percent, average per capita rural expenditures rose by 5.9 percent, and the per capita expenditures of the poorest two quintiles of the rural population rose by 3.1 percent. Rural poverty declined from 39.1 percent to 34.0 percent according to World Bank estimates. Other rural welfare indicators improved even more dramatically. Child immunization rates rose by 26 percentage points, from 46 percent to 72 percent; net primary school enrollment rose by 10 percentage points, from 38 percent to 48 percent; and access to tap water in the home rose by 13 percentage points, from 10 percent to 23 percent.

These impressive achievements notwithstanding, there is little reason for complacency. Not all improvements are the result of government policies or sustainable increases in private-sector productivity. Impressive gains in agricultural output and real incomes of the rural poor relative to 2001-02 reflect in part low output and incomes in that year due to drought and other adverse shocks. Longer term, the agricultural GDP per capita growth rate (1999-2000 to 2004-05) was only 0.3 percent per year. Rural poverty rates in 2004-05 remain at a similar level to those of the 1990s. And social welfare indicators in Pakistan are still significantly below those of other south Asian countries. Moreover, problems related to timing and availability of water for irrigation, inadequate rural infrastructure, a skewed distribution of assets, and low levels of health and education continue to hamper the progress of economic growth and poverty reduction.

Pakistan's Poverty Reduction Strategy Paper (PRSP), which was written in 2003, recognizes the importance of reducing rural poverty as part of the country's overall poverty reduction efforts. The PRSP gives a key role to the rural sector in accelerating growth and reducing rural poverty, placing major emphasis on employment-generating growth in agriculture and other sectors. However, it lacks an explicit integrated rural-development strategy that covers all major aspects of the rural economy, including agricultural production and markets, input markets (seeds, fertilizer, extension), factor markets (land, water, labor and credit), the rural non-farm sector, targeted interventions, and perhaps most important, how local governments and communities can more effectively deliver basic rural services and strengthen the rural investment climate.

This report is designed to help fill these gaps through analysis of the major constraints to rural income growth and poverty reduction in Pakistan and by offering specific policy recommendations for achieving these objectives. Although much of the report's focus is on agriculture, which is at the core of Pakistan's rural economy, the rural non-farm economy is also examined at length, as are government and non-government policies and programs related to rural service delivery, social mobilization and safety nets.

Background: Rural Poverty and Economic Growth in Pakistan

About two-thirds of Pakistan's population and almost 80 percent of the country's poor live in rural areas. According to the 1998 census, 89.3 million people lived in rural areas of Pakistan

in that year.[2] Household incomes are lower and poverty rates are higher in rural areas than in urban areas. Average per capita expenditures of rural households in 2004-2005 were 31 percent lower than those of urban households (Rs 1259/month and Rs 1818/month, respectively). The poverty rate in rural areas is estimated at 34.0 percent, about 15 percentage points higher than the 19.1 rate in urban areas (World Bank 2006b).

Rural, as well as total population growth rates are declining, which bodes well for future per capita income growth. Average fertility rates (the average number of births per woman over her lifespan) have declined sharply since the mid-1980s from about 6.8 children per woman to 4.1 in 2001, although this is still high compared to that of Bangladesh (3.3) and India (3.2). Rural population growth rates have also fallen from 3.5 to 2.6 percent. Nonetheless, the rural population is likely to continue to grow, reaching 122 million in 2015 (64 percent of the total population) at historic rates of migration of 1.2 percent per year. The urban population would reach 70 million in this scenario, and 82 million (43 percent of the population) if net migration rates doubled to 2.4 percent per year (See the Annex to Chapter one).

During the 1970s and 1980s, agricultural growth was accompanied by substantial reductions in rural poverty, but rural poverty rates in Pakistan did not decline in the 1990s despite substantial growth in agricultural GDP. Even though real agricultural GDP rose by 4.6 percent per annum, the percentage of the rural population living below the poverty line remained essentially unchanged between 1990-91 (36.9 percent) and 1998-99 (33.8 percent).[3]

Several factors explain the non-correlation between relatively rapid agricultural growth and rural poverty reduction, including a possible overestimate of agricultural GDP growth and an increase in real consumer prices of major staples since the mid-1990s. In addition, because of the skewed structure of ownership and access to factors of production in rural Pakistan, 46 percent of the rural poor in non-farm households do not share directly in incomes derived from agricultural crop production. Moreover, even accounting for growth linkage, effects from increases in traditional crop agriculture are relatively small in comparison with the sector's large size.

Positive developments in agricultural output, rural poverty reduction and social welfare indicators in 2004-05 represent a sharp break with 1990s trends. These improvements have been achieved through a combination of increased overall development expenditures and improved service delivery at the local level (in some localities at least), supported by a sound macro-economic environment including a liberalized trade and exchange-rate policy regime with relatively low inflation. The latter in turn spurred high GDP growth and increased demand for construction and other labor-intensive services. Factors that are likely to be more transitory also played a role, including increased increases in workers' remittances and bumper crops related to good weather.[4]

The challenge now will be to extend the success of recent years to the medium term so as to further reduce still-high rates of rural poverty in Pakistan. The strategies adopted to achieve these goals will need to take into account gradual, but increasingly important long-term changes

[2] "Rural" here is defined according to administrative definitions at the time of the 1998 census. Since the 2002 devolution, there has been no formal administrative distinction between urban and rural areas.
[3] Official government estimates show poverty at 35.9 percent in 1998-99 (Pakistan Economic Survey, 2005-06). Poverty estimates vary, however, because of changes in definitions of poverty lines over time and methodological issues related to price deflators. See Chapter 2.
[4] Though levels of remittances and crop yields may be maintained, growth rates are likely to fall.

in Pakistan's economy, particularly rural-urban migration, a declining share of agriculture in total economic output and increasingly severe environmental constraints (particularly related to growing water demand in urban areas and environmental degradation due to drainage problems).

Most importantly, a rural poverty-reduction strategy should focus not on rural sectors, but on rural people. Many of today's rural poor may migrate to small towns and large cities or be employed outside of rural areas for all or part of the year. Because of this, reducing rural poverty rates will not be merely a function of agricultural and rural non-farm growth, but also of development in urban areas (including small towns) and overall economic growth. Investment in rural and small-town infrastructure can facilitate these economic linkages. Likewise, investments in human capital (education and health) can increase the productivity and welfare of the rural poor irrespective of whether they remain in rural areas or not.

PLAN OF THE REPORT

The analysis begins with a detailed examination of recent trends in poverty and rural incomes and determinants of rural incomes, as well as an overview of changes to non-monetary measures of welfare. The focus of this analysis is not on estimates of poverty and rural incomes, per se, but on their determinants, so as to better understand the effects of agricultural growth, growth in other sources of income, and public investments in the welfare of the poor.

Chapters three and four discuss programs and policies for spurring growth in the agricultural and rural non-farm sectors, respectively. Chapter three examines the structure and constraints to growth of Pakistan's agricultural sector that remain at the heart of the rural economy in spite of that sector's declining share in the overall economy. This chapter includes an assessment of water, the key resource constraint in agriculture, measures to increase agricultural productivity and crop diversification, the importance of the livestock sector, agricultural markets and implications for Pakistan's agricultural trade and pricing policies. Chapter four highlights the importance of spurring the rural non-farm sector through more than agricultural growth linkages in order to accelerate reduction of rural poverty. The results of a survey of rural non-farm enterprises undertaken in 2005 follow, along with an analysis of constraints to growth of the rural non-farm sector. The chapter concludes with suggestions on policy measures to overcome these constraints.

Chapter five examines rural service delivery in Pakistan, beginning with a study of fiscal flows among federal, provincial and local levels of government since the 2002 devolution. Subsequently, the results are presented of a 2006 survey on rural public-service delivery in 7 districts and 14 *tehsils*, along with recommendations for enhancing community participation and program effectiveness. Chapter six covers government and NGO initiatives aimed at social mobilization and enhancing rural livelihoods, including an overview of the major programs in Pakistan and lessons learned from the experiences of other developing countries in social mobilization and microfinance. Chapter six also highlights the role of other direct interventions to improve the welfare of the poor, including safety nets and programs targeted to disadvantaged groups, particularly heavily indebted laborers. Chapter seven offers a summary of the main findings and policy recommendations of the study, including a rural development strategy comprised of four main pillars: i) promoting efficient and sustainable agricultural growth; ii) creating an enabling environment for the rural non-farm sector and improving rural public-service delivery; iii) improving the effectiveness and governance of rural institutions; and iv) empowering the poor and protecting the most vulnerable.

ANNEX TO CHAPTER 1: POPULATION GROWTH IN PAKISTAN

Available evidence suggests that average fertility rates (average number of births per woman over her lifespan) in Pakistan were stable but remained high until the mid-1980s, but have since declined sharply. Feeney and Alam (2003) show that the average total fertility rate as derived from various population surveys in Pakistan was essentially constant at 6.8 children per woman from 1960 through the mid-1980s. Data from the annual Pakistan Demographic Surveys (PDS), which were begun in 1984, show a sharp decline in fertility (at a rate of 1.8 children per woman per decade) from 6.9 children per woman in 1987 to 4.3 in 2000, and 4.1 in 2001 (PDS 2001). Nonetheless, this figure is high compared to those of Bangladesh (3.3), India (3.2), Iran (2.6) and Sri Lanka (2.1).[5]

Population growth rates have also declined since the early 1990s, which bodes well for future per capita income growth. Official estimates of population from the four national population censuses (1961, 1972, 1981 and 1998) suggest a decline in population growth rates from 3.62 to 3.01 to 2.65 over the inter-census periods. Feeney and Alam (2003), however, use projections of population growth based on fertility and life expectancy data to argue that the censuses of 1972 and 1981 overstated the population relative to the 1961 and 1998 censuses. Their population projections suggest that population growth rates actually increased from 2.6 percent in 1961-65 to 3.5 percent in 1986-90 before falling to 3.0 percent in 1991-95 and then 2.6 percent in 1996-2001.[6]

The implication of these alternative estimates which adjust population growth downward prior to the mid-1980s and upward thereafter is that **per capita agricultural growth in the 1980s and 1990s was substantially less than indicated by the official data.** Real agricultural GDP growth per capita in the 1980-90 period is thus only 0.6 percent, instead of 1.3 percent; for the 1990s, the adjusted growth rate is 1.6 percent, as compared to the official figure of 1.9 percent (Table A1.1). Slower than reported agricultural growth rates per capita are another contributing factor to the rural poverty puzzle of the 1980s and 1990s in which there is a non-correlation between agricultural growth and rural poverty reduction.

Table A1.1. Estimates of Agricultural Growth Per Capita in Pakistan, 1960-2004

	1960-70	1970-80	1980-90	1990-00	1990-2004
Real GDP growth	7.19%	4.71%	6.32%	3.75%	3.62%
Real agricultural GDP growth	4.89%	2.33%	4.04%	4.42%	3.54%
Population growth (official)	2.79%	3.18%	2.70%	2.49%	2.47%
Rural population growth (official)	2.42%	2.73%	2.34%	2.11%	2.06%
Population growth (Feeney and Alam, 2003)	2.68%	3.12%	3.48%	2.74%	2.52%
Real agricultural GDP growth per capita (official)	2.04%	-0.82%	1.31%	1.88%	1.04%
Real agricultural GDP growth per capita (adjusted)	2.16%	-0.76%	0.55%	1.63%	0.99%
Difference in growth rates (adjusted less official)	0.11%	0.06%	-0.76%	-0.25%	-0.05%

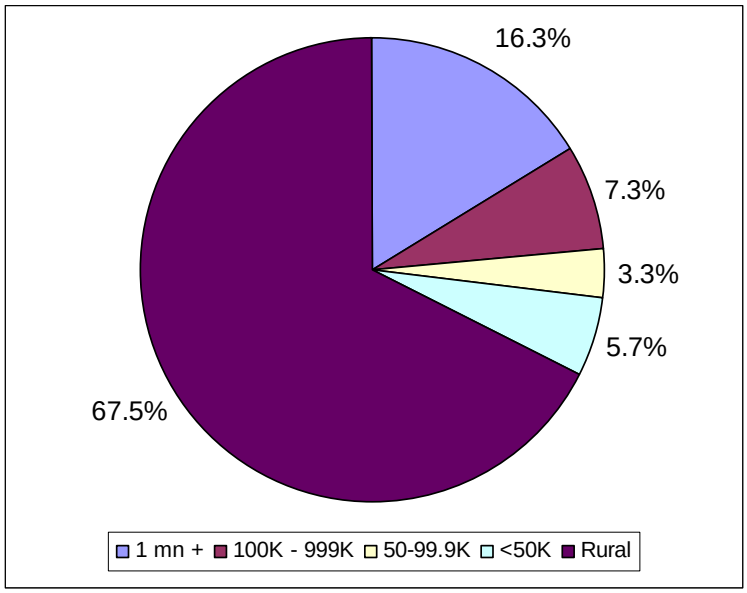
***Source*:** Pakistan Economic Survey (various years), authors' calculations.
Notes: Adjusted per capita agricultural GDP growth uses population figures from Feeney and Alam (2003).

[5] 2001 World Population data sheet, Population Reference Bureau, Washington DC. Quoted in Pakistan Demographic Survey 2001).
[6] Note that analysis based on fertility and mortality rates provides a consistency check on population growth rates, but not levels. Data from a future population census may resolve the issue (Feeney and Alam 2003, p. 83).

Urban and Rural Population Growth

Pakistan's population remains predominantly rural, with half of the urban population concentrated in the six largest cities. Interpretation of census data on urban and rural population levels and growth are complicated by changes in the definition of urban in the various censuses. In the 1981 and 1998 censuses, urban areas were defined according to an administrative definition (municipal corporations, town committees and cantonments), as opposed to the population-based definition used in earlier censuses.[7] Using the former definition, Pakistan's population was 32.5 percent urban in 1998. About one-sixth of the population (16.3 percent) lived in cities of more than one million people: Karachi (9.339 million), Lahore (5.443 million), Faisalabad (2.009 million), Rawalpindi (1.970 million), Multan (1.410 million) and Hyderabad (1.167). Another 7.3 percent of the population lived in the 43 cities with populations of 100,000 people or more. Only 4.3 and 7.5 percent of the population lived in cities of from 50 to 99.9 thousand people and urban areas with less than 50 thousand people, respectively (Figure A1.1).

Figure A1-1. 1998 Population Distribution in Pakistan by City Size (mns)



***Source*:** Government of Pakistan 2000; The 1998 Census Report; Arif 2003.
Notes: The figure is based on a total population of 132.4 million.

Pakistan's urban population has grown significantly faster than the rural population over time, but problems with the various censuses make exact calculations for recent years difficult. Using a consistent administrative definition of urban as adopted in the 1981 and 1998 censuses, Arif (2003) estimated that the proportion of Pakistan's population living in urban areas rose from 17.4 percent in 1951 to 22.4 percent in 1961 and again to 32.5 percent in 1998. Annual growth rates of urban and rural populations over the 1961 to 1998 period were 4.13 and 2.71 percent, respectively. Unadjusted population data imply growth rates of 3.47 percent (urban) and 2.30 percent (rural) from 1981 to 1998, but because the total population in 1981 appears to be overstated relative to 1998, one or both of these growth rates is likely understated. Applying the same percentage adjustment (-9.8 percent) to both urban and rural populations for 1981 as used

[7] The 1951, 1961 and 1972 censuses defined urban as areas with a minimum population base of 5,000 people, though exceptions were made for some localities with less than 5,000 people that had urban characteristics.

by Feeney and Alam (2003) to adjust total population, estimated urban and rural population growth rates in the 1981 to 1998 period were 4.1 percent and 2.9 percent, respectively (Table A1.2).

Table A1.2. Population and Fertility Rates in Pakistan

	1981	1998	Growth Rate 1981-98	Natural Growth Rate 1981-98	Growth due to Net Migration[a] 1981-98
Population Census Data					
Total	84.3	132.4	2.7%	2.7%	0.0%
Urban	23.8	43.0	3.5%	2.6%	0.9%
Rural	60.4	89.3	2.3%	3.0%	-0.7%
Adjusted Population Data[b]					
Total	76.4	132.1	3.3%	3.3%	0.0%
Urban	21.6	42.9	4.1%	2.9%	1.2%
Rural	54.8	89.1	2.9%	3.4%	-0.5%
Fertility Rate	6.8[c]	4.1[d]	---	---	---

Source: Pakistan Demographic Surveys 1984-1997, 2001; Karim and Nasar 2003; Feeney and Alam 2003

Notes: [a] Natural growth rates for figures based on census data derived from Pakistan Demographic Surveys 1984-97 (Karim and Nasar, 2003), p. 172. Natural growth rates for adjusted population figures are calculated on relative natural growth rates of urban and rural populations from Karim and Nasar (2003).

[b] Official census data for 1981 (and 1972) appear to be inconsistent with census data from 1961 and 1998. Adjusted population series total is projection by Feeney and Alam (2003) based on fertility rate and life expectancy estimates and 1961 and 1998 census data. Adjusted total population estimate for 1981 is 9.8 percent below the 1981 census figure; urban and rural population estimates for 1981 use the same percentage adjustment (-9.8 percent) to the 1981 census figures.

[c] Adjusted average from various surveys as calculated by Feeney and Alam (2003).

[d] 2001 estimate from Population and Demographic Survey, 2001.

Birth rates remain substantially higher in rural areas than in urban areas, however. Crude birth rates (the number of births per 1000 of the population) for 2001 were 29.4 in rural areas, 18 percent higher than in urban areas (25.0). General fertility rates (the number of births per 1000 of the population of women aged 15-49 years) were 131.6 in rural areas, 28 percent higher than the 103 for urban areas (Table A1.3).

Table A1.3. Birth Rates in Rural and Urban Areas in Pakistan, 2001 and 2002

	All	Urban	Rural	Rural/Urban
Crude Birth Rate				
2001	27.8	25.0	29.4	1.18
2000	29.1	25.8	31.8	1.23
General Fertility Rate				
2001	120.8	103.0	131.6	1.28
2000	127.6	108.2	144.9	1.34

Source: Pakistan Demographic Survey 2001

Notes: The crude birth rate is the number of births per 1000 total population.
The general fertility rate is the number of births per 1000 women aged 15-49 years.

Migration to urban areas accounts for an estimated one-quarter of total urban growth. Estimates by Karim and Nasar (2003) using unadjusted population census and estimated natural

population growth rates in urban and rural areas suggest that net migration added about 0.9 percent per year to urban populations, out of a total of 3.5 percent annual growth. Estimates using figures adjusted for apparent over-enumeration in the 1981 census suggest that urban net migration increased urban populations by 1.2 percent per year out of a total of 4.1 percent per year growth.

In spite of lower fertility rates and natural population growth rates in urban areas, their share of the population is likely to increase, but the absolute rural population will also increase. Assuming a decline in natural population growth rates to 2.0 and 2.3 percent for urban and rural areas, respectively over the 1998-2015 period, if urban populations continue to grow at an additional 1.2 percent per year because of net migration, total urban population growth will average 2.9 percent (Table A1.4). In this scenario, the urban population would rise by 62 percent from 42.9 million, or 33 percent of the total population, to 69.6 million (36 percent of the population). The rural population would increase by 37 percent to 121.8 million. Doubling the rate of migration to an annual 2.4 percent would raise the projected 2015 urban population to 81.5 million (43 percent of the population).

Table A1.4. Urban and Rural Population Growth Scenarios

		Scenario 1		Scenario 2	
	1998	**2015**	**2025**	**2015**	**2025**
Migration rate to urban	1.2%	1.2%	1.2%	2.4%	2.4%
Natural growth rates					
Total	3.3%	2.2%	2.2%	2.2%	2.2%
Urban	2.9%	2.0%	2.0%	2.0%	2.0%
Rural	3.4%	2.3%	2.3%	2.3%	2.3%
Population (mns)					
Total	132.1	191.3	238.0	191.3	238.0
Urban	42.9	69.6	89.2	81.5	111.8
Rural	89.1	121.8	148.8	109.9	126.2
Population share					
Urban	33%	36%	37%	43%	47%

Source: World Bank staff calculations based on Karim and Nasar 2003.
Notes: Scenario 1: Migration rate to urban: 1.2 percent (based on estimates for 1980-1998 from Karim and Nasar, 2003); Scenario 2: Migration rate to urban: 2.4 percent per year.