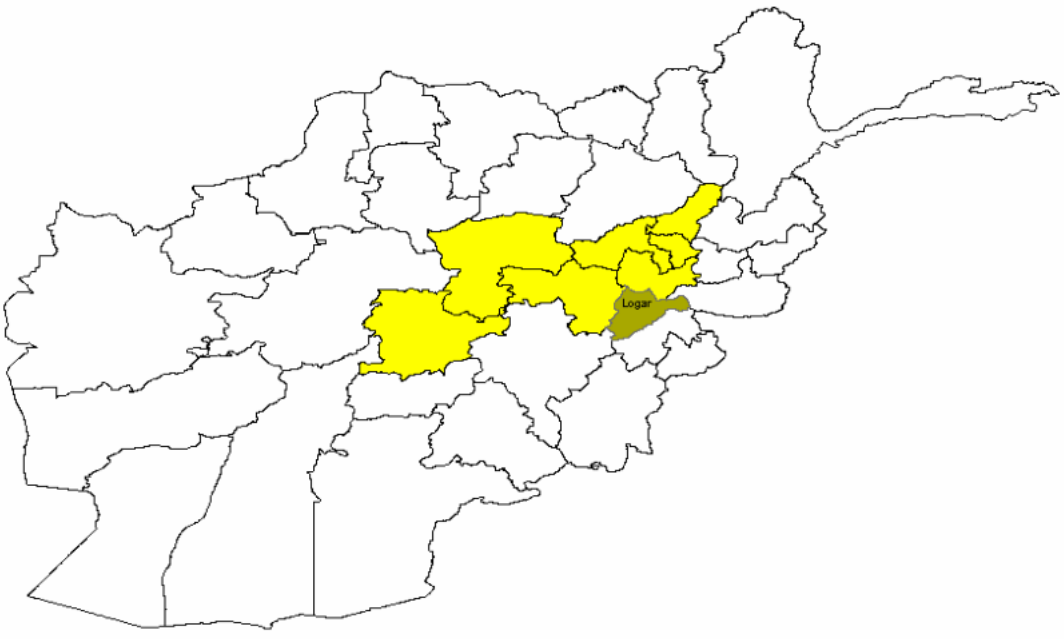
Logar



A Socio-Economic and Demographic Profile

With the financial and technical assistance of UNFPA

Note

Some of the information contained in this report, in particular that related to crops and economic activities, as well as the building stock may not be as accurate as one would wish. However, they are the best estimates available at the time of the Household listing exercise. The most logical explanation is that the sources of the information—local informants—may not have been as knowledgeable as they were assumed to be.

Province of

Logar

A Socio-Economic and Demographic Profile
Household Listing—2003

Acknowledgements

The Socio-Economic and Demographic Profiles were a collaborative effort of UNFPA, the Central Statistics Office, and numerous stakeholders, who made suggestions for the improvement of the final product while it was still being written.

UNFPA wishes to recognize the contributions of Mr. David Saunders, its former representative in Afghanistan, who shared the various drafts of the model Profile with a number of donors, embassies, and other stakeholders stationed in Kabul and collected their suggestions as to how to improve on it.

The profiles could not have been completed without the commitment, enthusiasm and energetic efforts of many CSO staff members. Mr. Mohammad Haroon Aman, Mr. Waheed Ibrahimi, and Mrs Fazila Miri of the Database section produced all the tables and graphics for all 34 provinces. Mr. Tamim Ahmad Shakeb, head of the GIS section, and his colleagues, Messrs Zabiullah Aseel and Abdul Ahmad Sherzai, together produced all the thematic maps included in the body of the text as well as in the annexes—a total of more than 1,300 maps. Messrs Nasratullah Ramzi, Saifrahman Azizi, Sayed Yousuf Hashimi, and Zabiullah Omari of Database section were responsible for editing the profiles and putting the last touches before printing.

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Introduction by the
Acting General President of the Central Statistics Office of Afghanistan

Designing programs aimed at increasing socio-economic development and economic growth to ensure better living conditions for population requires accurate, up-to-date, and comprehensive data. It has been 27 years since Afghanistan's first attempt to conduct a national population census. For reasons known to all, such an attempt had to be aborted. In those 27 years, a number of changes took place, that were related to natural population growth, population movement, and redrawing of the boundaries of the country's administrative units, among others. Such changes need to be apprised and documented, in order to respond to the need for accurate information that is vital for development and reconstruction programs.

Both the Bonn agreement and the emergency Loya Jirga called for the conduct of a second national population and housing census. Jointly with UNFPA, CSO mobilized the required funds from the international donor community, and took charge of the complex task of planning for the census and upgrading the technical skills of the CSO staff that will be responsible for its conduct.

In spite of difficulties of various sorts, and at an enormous cost in terms of staff mobilization, CSO, with the financial and technical assistance of UNFPA, undertook the first phase of the population and housing census. The operation, including door numbering, household listing, updating the enumeration area maps, data entry, cleaning, and processing took less than four years. For the first time, digital maps were produced for all provinces, districts, and village locations.

CSO has the great pleasure of producing this publication, which presents the results of the first phase of the census. It provides such valuable information as population size and spatial distribution, age and sex composition, as well availability of certain facilities to the village populations. We hope that such information will be useful for the widest audience, in particular planners, researchers, and any one with an interest in population data.

Abdul Rashid Fakhri,
Acting General President
Central Statistics Office,
Islamic Republic of Afghanistan.

Introduction by the Representative of UNFPA

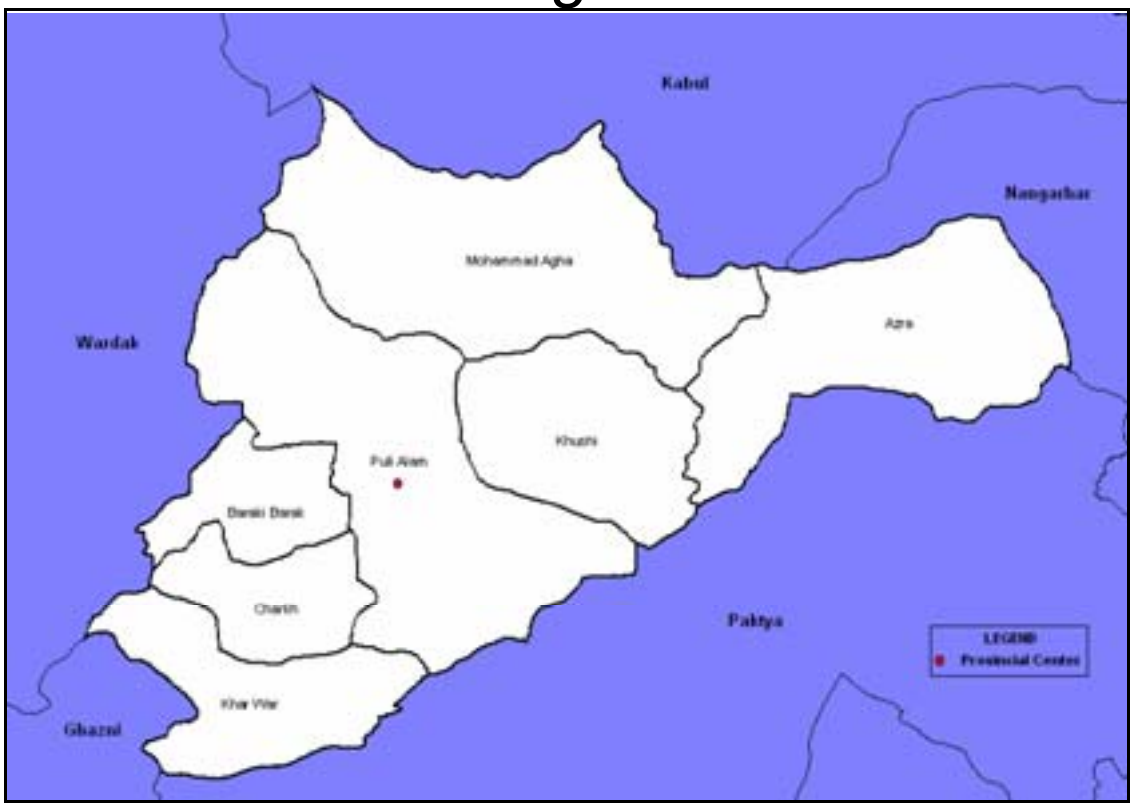
Under the Bonn Agreement, the United Nations agreed to assist the Government of Afghanistan in conducting a Population and Housing Census, the first Census in Afghanistan since 1979. As a leader in population and development issues, the United Nations Population Fund (UNFPA) has been entrusted with this task for its decades of experience and expertise in providing technical and financial assistance in conducting population and housing censuses.

For the past few years, Afghanistan has been making serious attempts at rebuilding and rehabilitating the nation and its institutions after more than two decades of war, conflict, and civil strife. Effective planning for comprehensive social and economic development requires evidence based and reliable data. Data for economic and social development can come from various sources: sample surveys, administrative records, and various other sources. However, no data source other than a Population and Housing Census will provide primary information about the number and characteristics of Afghanistan's population. Likewise, the Census 2008 will allow for comprehensive gender analysis of population based indicators and will provide the baseline for population and any related functional projections that are crucial for planning.

The present publication deals with Phase I of the Afghanistan census—the Household Listing, conducted and the results analyzed between 2002 and 2005. The data collected during this exercise provides a wealth of information on basic population variables in the country — size of the population, age structure and sex composition, and household size. The household listing has also produced much socio-economic data on economic activities, health and education facilities, housing facilities and so on. All such information will be essential in the process of socio-economic reconstruction in Afghanistan. However, it must be noted that the household listing phase unfortunately could not be conducted in a small number of districts due to the security situation that prevailed then. It is hoped that the census proper, scheduled for the summer 2008 and being a benchmark under the London Compact, will encounter more favorable circumstances and fill the gaps left by the Household Listing exercise. UNFPA will extend all possible assistance to the Government of Afghanistan in order to make the census operation in 2008 a successful one. There are a number of positive aspects, which are important to note in the context of conducting the household listing, particularly noteworthy is the cooperation, which the Central Statistical Office has received from the Provincial Administrations, and the assistance, which has been extended to the CSO staff in all of the provinces. The enthusiasm of all of the staff to undertake very difficult work in exceptionally difficult conditions is equally noteworthy and appreciated, as is the quality of the work. At this point, I would like to extend my gratitude and recognition to Dr. Hamadi Betbout, UNFPA's senior advisor who led the exercise of managing the household listing database and publication of the provincial profiles.

Alain Sibenaler
Representative a.i.
UNFPA Kabul

Logar


Kabul
Nangarhar
Mohammad Agha
Wardak
Azra
Khushi
Pul Alam
Baraki Barak
Charkh
Pakiya
Khar War
Ghazni
LEGEND
Provincial Center

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Settlement Patterns

Located in the Central region, Logar is bordered by the provinces of Nangarhar in the northeast, Paktya in the east and south, Wardak in the west, and Ghazni in the southwest. It covers a land area of 4,568 squared kilometers, representing 0.7 percent of the total Afghan territory. The province is divided into seven districts—Markazi Logar—Puli Alam, Azra, Mohammad Agha, Khushi, Baraki Barak, Charkh, and Khar War.

Logar is home to 1.4 percent of the total population of Afghanistan. With its 322,704 inhabitants, it is the 28th most populous province in the country (see Annex 1).

The population is distributed among the seven districts as shown in table 1 and figure 1[1]. The largest share of the population—more than quarter—lives in Puli Alam, the provincial center, while Braki Barak houses about another quarter. Together the two districts account for more than half of the population. On the other hand, Charkh and Mohammad Agha together represent another third of the total population in the province.

The large majority of the population—97.8%—lives in rural areas. The only urban centers[2] are Puli Alam, the provincial capital, which houses a mere 2,425 population, and

[1] Figure 1 is comprised of two panels; in addition to panel A which shows the distribution of the population by district, panel B shows the population density of each district. The latter information was included for conventional purposes only, as in the absence of quantified information on proportion of inhabitable land, density figures can be very misleading. Panel B should therefore be interpreted with caution.

[2] Urbanity in Afghanistan is not based on population size. According to the Ministry of the Interior, are considered urban those places whose administrative structures include a municipality, regardless of their population sizes. In the case of Afghanistan all provincial capitals are urban, with the exception of Panjsher and Nooristan, as well as the capitals of some districts.

Baraki Barak, which counts 4,553 population. Together, they total 6, 978 population, or about 0.15 percent of the total urban population of Afghanistan.

Table 1—Population, sex, and sex ratio, by district, Logar, 2003[3]

District	Total		Males	Females	Sex ratio
	Number	Percent			
Provincial Center—Puli Alam	88,886	27.54	44,675	44,211	101.05
Baraki Barak	78,063	24.19	39,575	38,488	102.82
Charkh	40,492	12.55	20,449	20,043	102.03
Khushi	15,127	4.69	7,608	7,519	101.18
Mohammad Agha	58,979	18.28	29,919	29,060	102.96
Khar War	26,607	8.25	13,359	13,248	100.84
Azra	14,550	4.51	7,485	7,065	105.94
Total	322,704	100.00	163,070	159,634	102.15

Logar's rural population of 315,726 inhabitants is distributed over 672 settlements of extremely varying sizes. The smallest settlement counts as few as four (4) people and the largest as many as 3,926[4].

Figure 2 shows the distribution of the village population by size-class in the total province (panel A) and in each individual district (panel B).

At province level, the distribution is heavily skewed towards villages of very small sizes. Out of the total 672 villages, close to a half—45 percent—have less than 300 inhabitants, and another fifth between 300 and 500 population. In relative terms, however, the number of villages with 1,000 or more population is quite substantial—more than one in ten.

The distribution by district is shown in panel B of figure 2. Its most outstanding feature is the close resemblance between the settlement patterns of Puli Alam, Baraki Barak, and Mohammad Agha one the one hand, and the distribution for the whole province on the

[3] Enumeration started on 10 April 2003 and ended on 8 May of the same year.

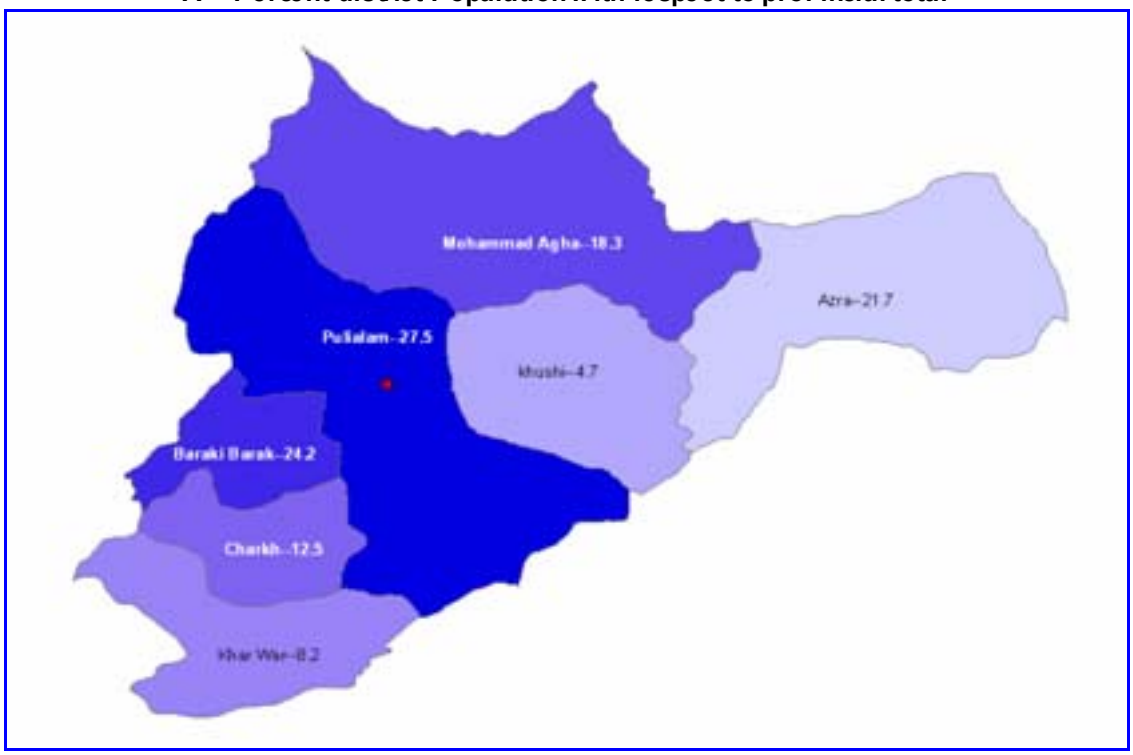
[4] There is one village with zero population. Such villages appear to exist all over the country. According to CSO, this is due to a variety of reasons:

1. During the household operation, some villages were unoccupied because of the draught which caused the inhabitants to relocate in other places where more water was available;
2. Some of the villages were comprised solely of shops, serving the neighboring villages;
3. In some areas, remoteness as well as economic and other types of problems forced the villagers to relocate to other places;
4. In some cases, the villages are mere district centers with no other types of buildings than government offices and shops.
5. Some villages had been partially demolished, which drove the inhabitants away.

other. In these districts as well as in Logar as whole, the proportion of large-sized villages is substantial; it outweighs the proportions of villages in the size-classes just below, i.e., 900-999, 800-899, etc. Together, these three districts make up one category of districts.
A second category is comprised of two districts—Charkh and Khar War. In both, the distributions resemble that of a pile of bricks of unequal width, even though in the case of Charkh, the number of villages with 1,000 population or more is larger than for any other size-class.

A third and final category is comprised of Khushi and Azra, where the distribution of villages is dominated by the large proportion of small-sized villages, i.e., villages with less than 100 population.

Figure 1—Population settlements, Logar, 2003
A— Percent district Population with respect to provincial total



B—Density: population per km^2

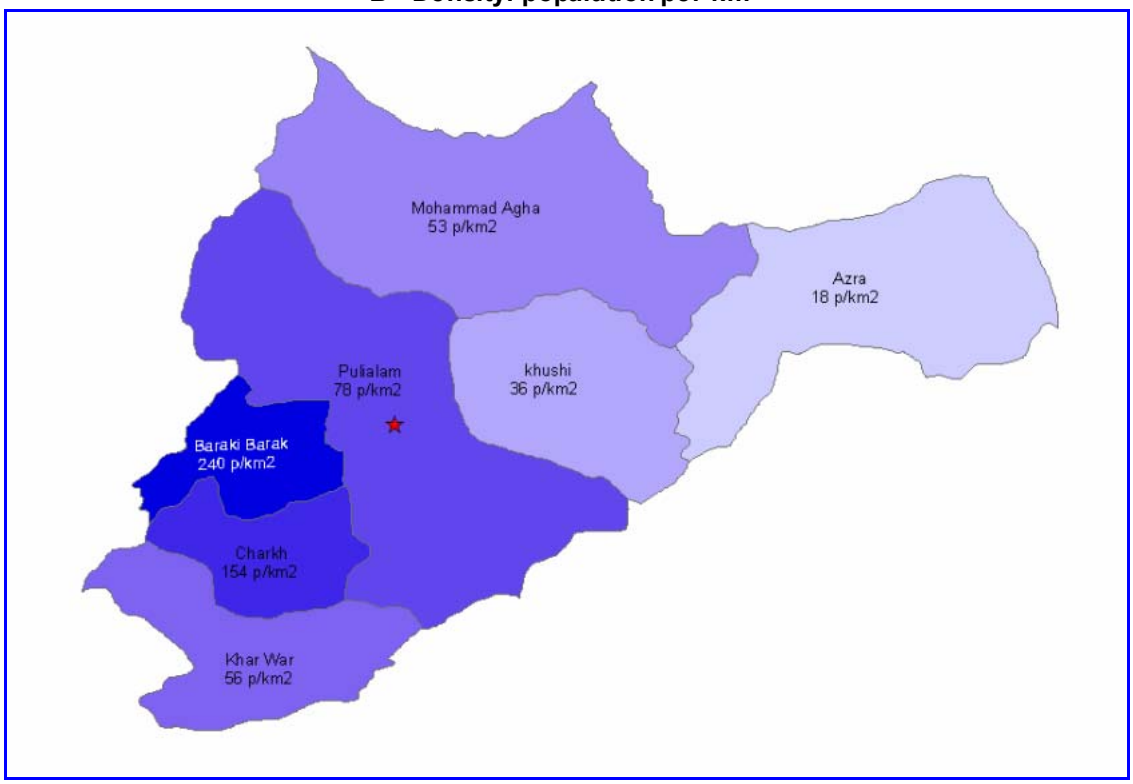
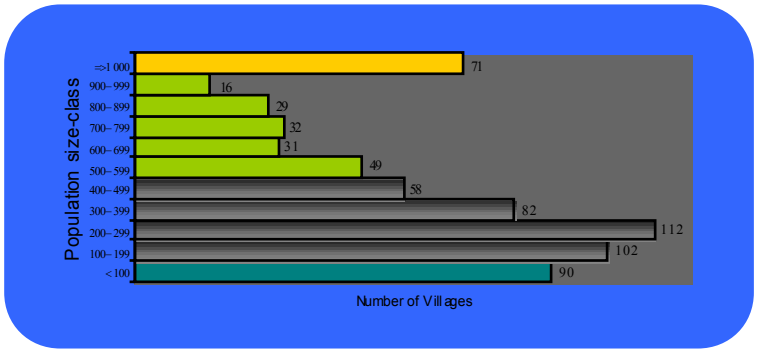


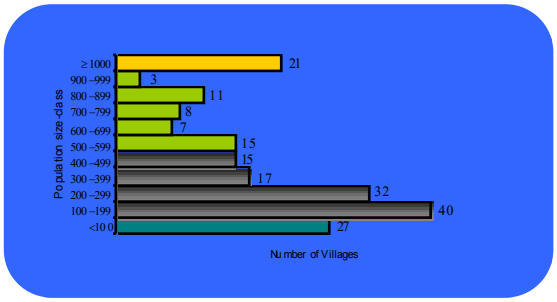
Figure 2—Distribution of the Rural Population Settelments by size-class, Logar, 2003

A—Porvince

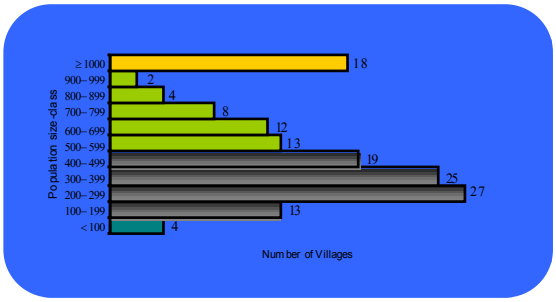


B—Districts

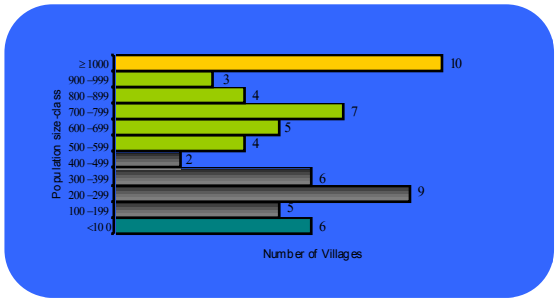
Provincial Center—Puli Alam



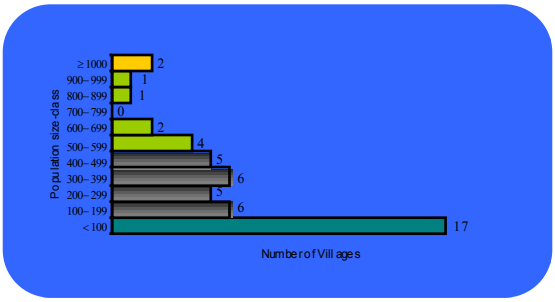
Baraki Barak



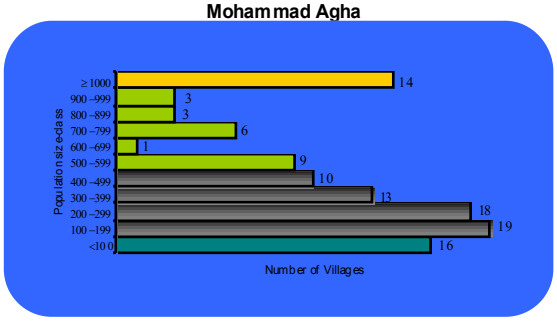
Charkh



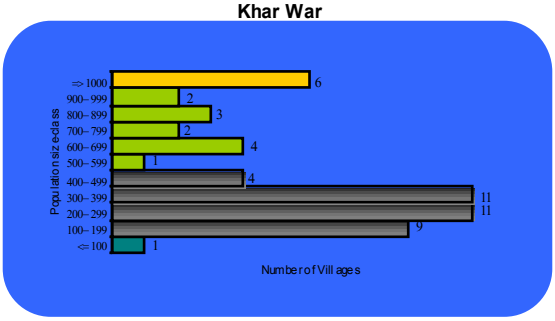
Khushi



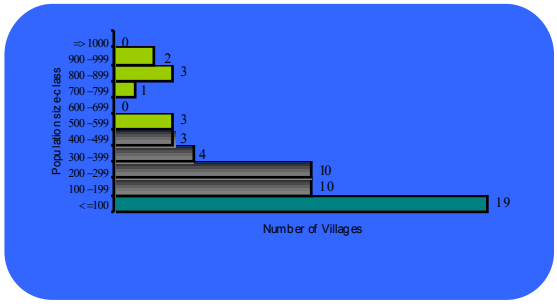
Mohammad Agha



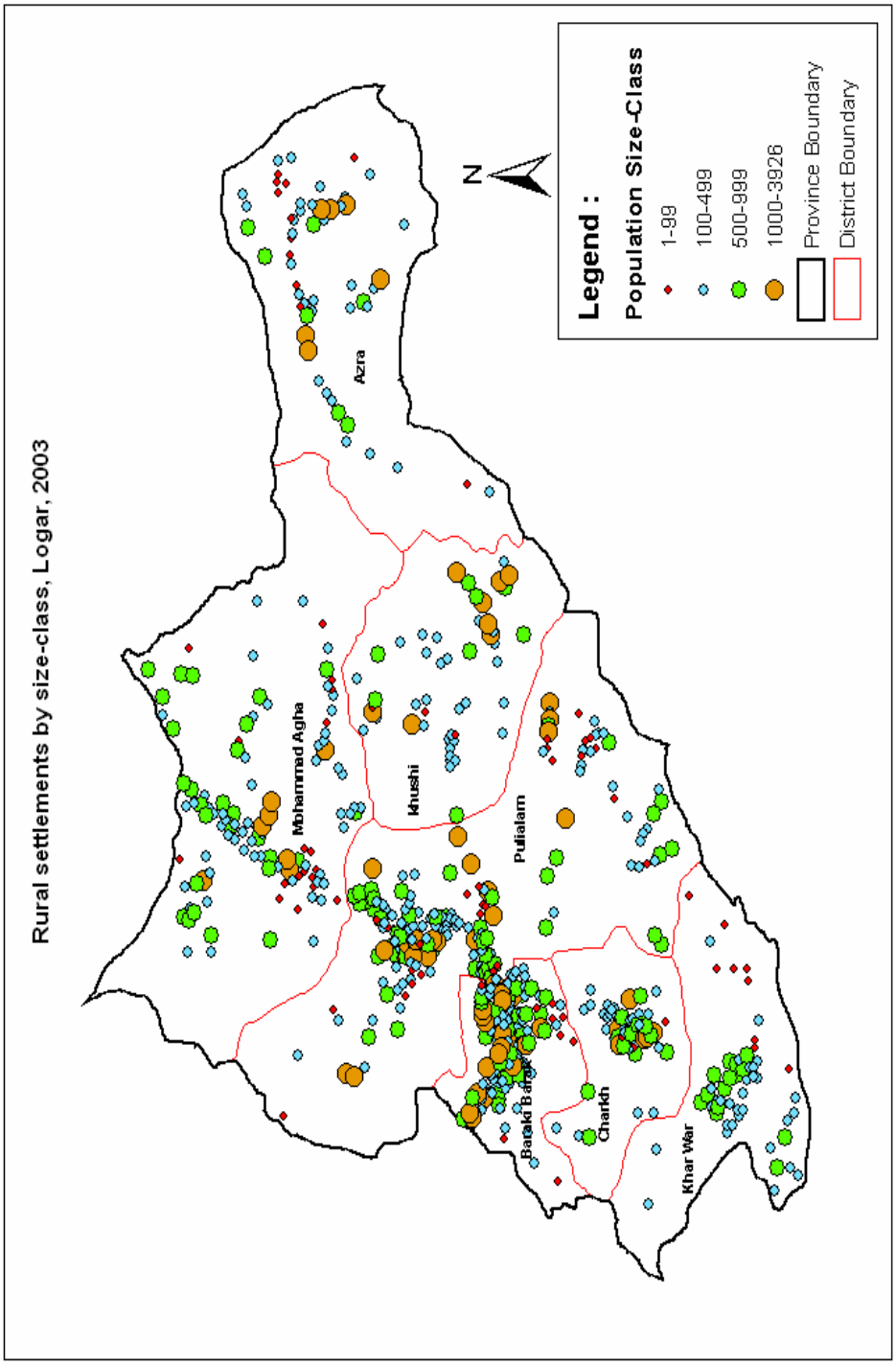
Khar War



Azra



Map1


Rural settlements by size-class, Logar, 2003
N
Legend :
Population Size-Class
1-99
100-499
500-999
1000-3926
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakibarak
Charkh
Khar War

Demographic Characteristics

Age distribution

The distribution by age and sex of the population of Logar is shown in table 2 and figure 3. As the latter clearly shows, the distribution is highly irregular. The overall shape of the age-pyramid is typical of a pre-transition society—characterized by stable high fertility, but certain age groups are noticeably below the expected size. For instance, it is not readily understandable why the proportion of males of the 0-4 age group should be that much lower than the proportion of males of the 5-9 age group, or why it should be smaller than the corresponding one for females. Whereas a deficit in the proportion of children below 5 could be a direct result of war casualties—women married to soldiers having given birth to fewer children than in normal circumstances, it is difficult to account for the sex-selectiveness of such deficit. In the same way, why should the proportions of males in the 55-59 and 65-69 age groups be much lower than expected, while the 70-74 is substantially higher? The same anomalies hold true for females.

Clearly, the age data need to be adjusted before they can be used for planning purposes.

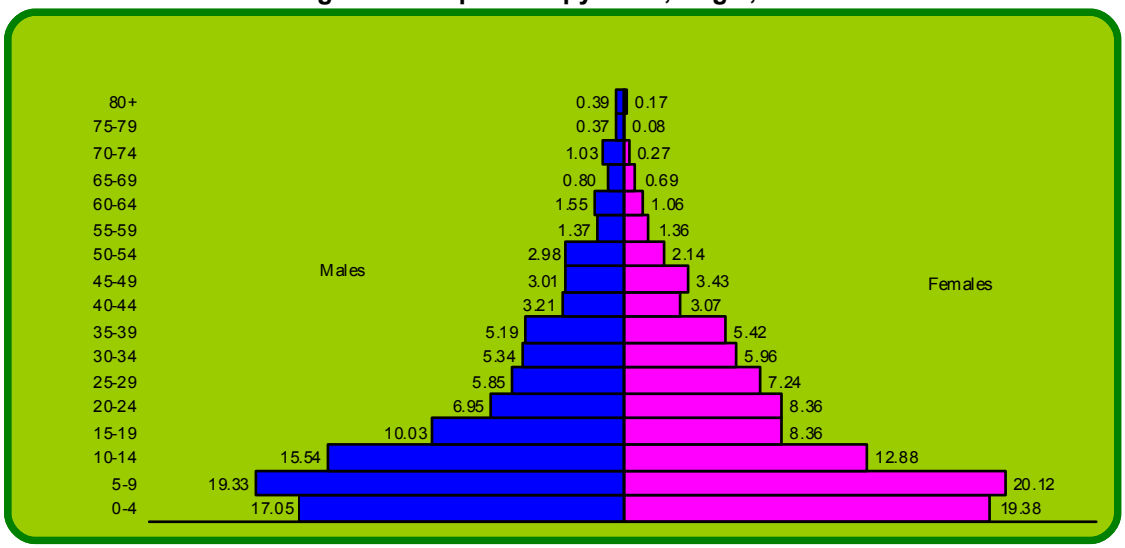
> *"Errors in the tabulated data on age may arise from three different sources:*
> - *inadequate coverage,*
> - *failure to record age, and*
> - *misreporting of age.*
>
> *Coverage errors are of two types. Individuals of a given age may have been missed by the census or erroneously included in it (e.g. counted twice). The first type of coverage error represents gross under-enumeration at this age and the second gross-over-enumeration. The balance of the two types of coverage errors represents net under-enumeration at this age[1]."*

[1] Because under-enumeration commonly exceeds over-enumeration; the balance is typically designated as under-enumeration.

Table 2—Population estimate, by age in 5-year groups and sex, Logar, 2003[2]

	Male		Female		Both sexes	
Age Group	Number	Percent	Number	Percent	Number	Percent
0-4	27,797	17.05	30,940	19.38	58,737	18.20
5-9	31,527	19.33	32,112	20.12	63,639	19.72
10-14	25,344	15.54	20,563	12.88	45,907	14.23
15-19	16,353	10.03	13,346	8.36	29,699	9.20
20-24	11,338	6.95	13,346	8.36	24,684	7.65
25-29	9,537	5.85	11,558	7.24	21,095	6.54
30-34	8,703	5.34	9,519	5.96	18,222	5.65
35-39	8,471	5.19	8,645	5.42	17,116	5.30
40-44	5,240	3.21	4,907	3.07	10,147	3.14
45-49	4,910	3.01	5,477	3.43	10,387	3.22
50-54	4,853	2.98	3,424	2.14	8,277	2.56
55-59	2,240	1.37	2,166	1.36	4,406	1.37
60-64	2,530	1.55	1,696	1.06	4,226	1.31
65-69	1,305	0.80	1,101	0.69	2,406	0.75
70-74	1,682	1.03	436	0.27	2,118	0.66
75-79	600	0.37	130	0.08	730	0.23
80+	640	0.39	268	0.17	908	0.28
Total	*163,070*	*100.00*	*159,634*	*100.00*	*322,704*	*100.00*

Figure 3—Population pyramid, Logar, 2003



> *"In addition, the ages of some individuals included in the census may not have been reported, or may have been erroneously reported by the respondent, erroneously estimated by the enumerator, or erroneously allocated by the census office. Such errors are referred to as response bias".*

Correction of the age distribution of the 2003 household listing poses certain challenges. In addition to the difficulties described above, one must take into account two additional factors:

1. excess mortality among certain age groups due war, and
2. the waves of war refugees that left for neighboring countries.

[2] The age distribution is based on 1/200 sample of the total households.

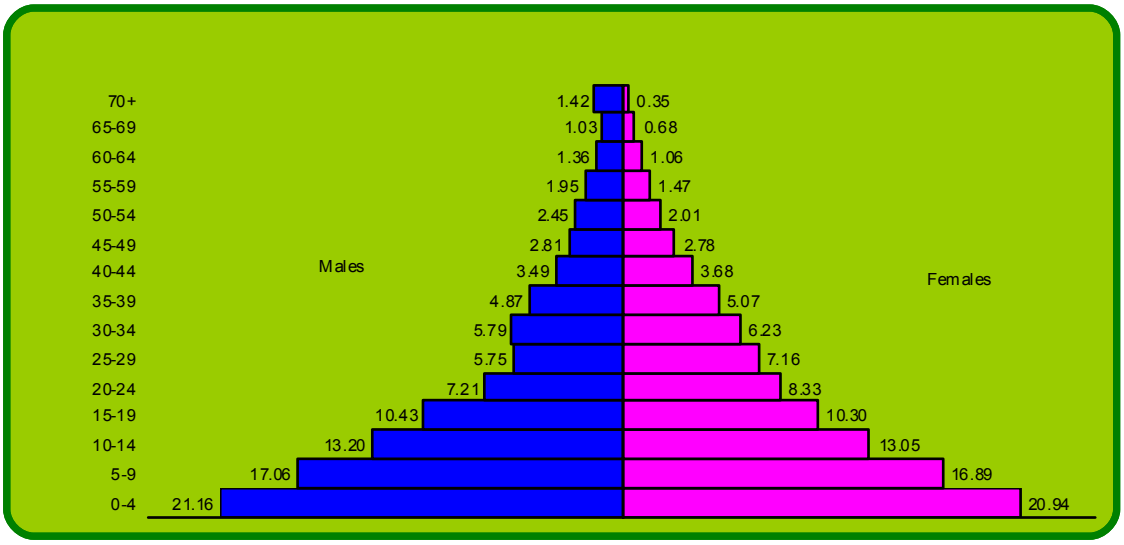
It follows that, in any attempt to correct for the anomalies, care must be taken not to remove the true fluctuations that resulted from such factors.

To correct for these irregularities, we applied a multi-stage procedure[3] that yielded the distribution shown in table 3 and figure 4[4].

Table 3—Adjusted population estimate, by age in 5-year groups and sex, Logar, 2003

	Male		Female		Both sexes	
Age Group	Number	Percent	Number	Percent	Number	Percent
0-4	34,508	21.16	33,427	20.94	67,935	21.05
9-May	27,826	17.06	26,967	16.89	54,793	16.98
10-14	21,525	13.20	20,834	13.05	42,359	13.13
15-19	17,016	10.43	16,450	10.30	33,465	10.37
20-24	11,763	7.21	13,293	8.33	25,055	7.76
25-29	9,380	5.75	11,432	7.16	20,813	6.45
30-34	9,446	5.79	9,939	6.23	19,385	6.01
35-39	7,948	4.87	8,094	5.07	16,042	4.97
40-44	5,695	3.49	5,873	3.68	11,568	3.58
45-49	4,586	2.81	4,436	2.78	9,022	2.80
50-54	3,996	2.45	3,204	2.01	7,200	2.23
55-59	3,188	1.95	2,346	1.47	5,534	1.71
60-64	2,211	1.36	1,689	1.06	3,899	1.21
65-69	1,674	1.03	1,088	0.68	2,762	0.86
70+	2,311	1.42	562	0.35	2,873	0.89
Total	*163,071*	*100.00*	*159,634*	*100.00*	*322,705*	*100.00*

Figure 4—Population pyramid, Logar, 2003



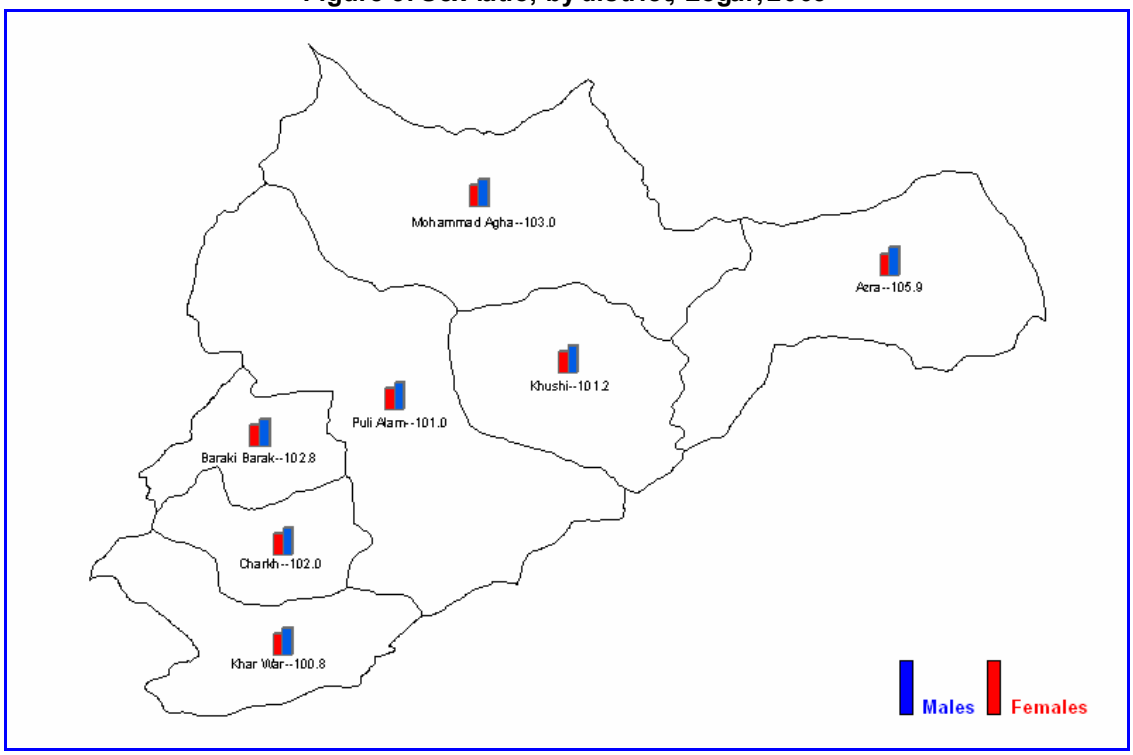
[3] The complete account of the various stages is shown in Annex 2.

[4] For a comparison of the reported and adjusted age-distribution, see annex 3.

Household size and sex ratio

The sex ratio (number of males per 100 females) varies between 100.8 in Khar War, and 105.9 in Azra, the average for the province being 102.2 (figure 5 below and the last column of table 1). No information is available which could explain why the sex ratio is differs as much between Azra and the rest of the districts.

Figure 5. Sex ratio, by district, Logar, 2003



A typical household in Logar has 7.1 persons, which is higher than the national average of 6.3. Such a size is an indicator of a high fertility regime.

Special age groups

Planners attach special interest to certain age groups. For fertility analysis for instance, the total number of women 15 to 49 years of age—the childbearing ages—is more significant than others. The population 6 to 12—primary school ages—is important in

educational research and planning. Table 4 presents data for the above age groups as well as for others, based on an interpolation of the adjusted five-year age distribution[5].

Table 4—Special age groups by sex, in absolute numbers and percents, Logar, 2003

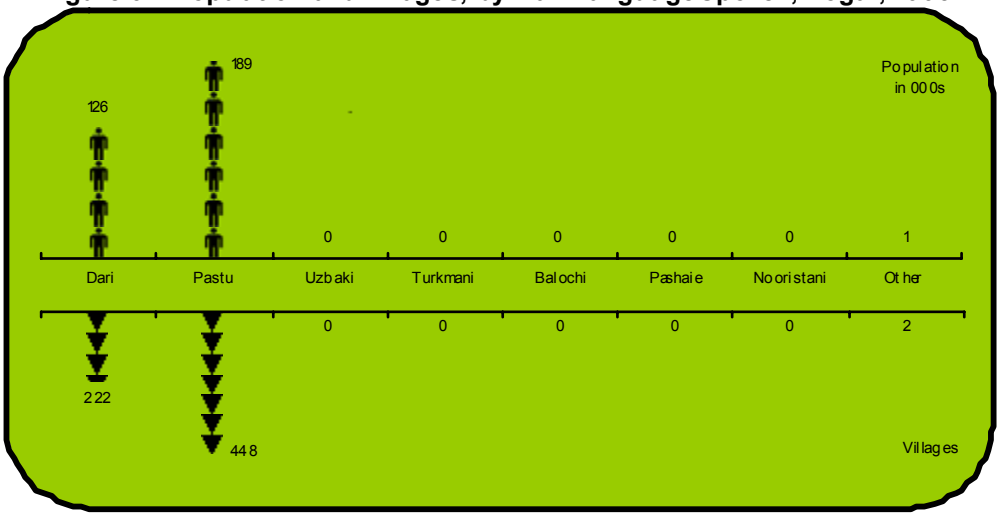
Age	Male		Female		Both sex	
	Number	Percent	Number	Percent	Number	Percent
School age Population						
Primary — 6-12	35,274	34172.3	69,446	21.4	21	21.3
Secondary — 13-18	22,003	21155.5	43,159	13.3	13	13.2
College — 20-24	11,762	13292.6	25,055	7.1	8	7.7
Population in the labor force						
Children — 8-14	31,881	30869.2	62,750	19.3	19	19.3
Earlier working ages — 15-44	61,247	65081.2	126,328	37.1	40	38.8
Later working ages — 45-59	11,770	9986.0	21,756	7.1	6	6.7
Retirement — 60+	8,133	4507.0	12,640	4.9	3	3.9
Voters — 18+	70,345	69266.7	139,612	42.6	43	42.9
Reproductive ages — 15-49	—	69517.4	—	—	43	—

*= Women in the childbearing ages

Main languages spoken

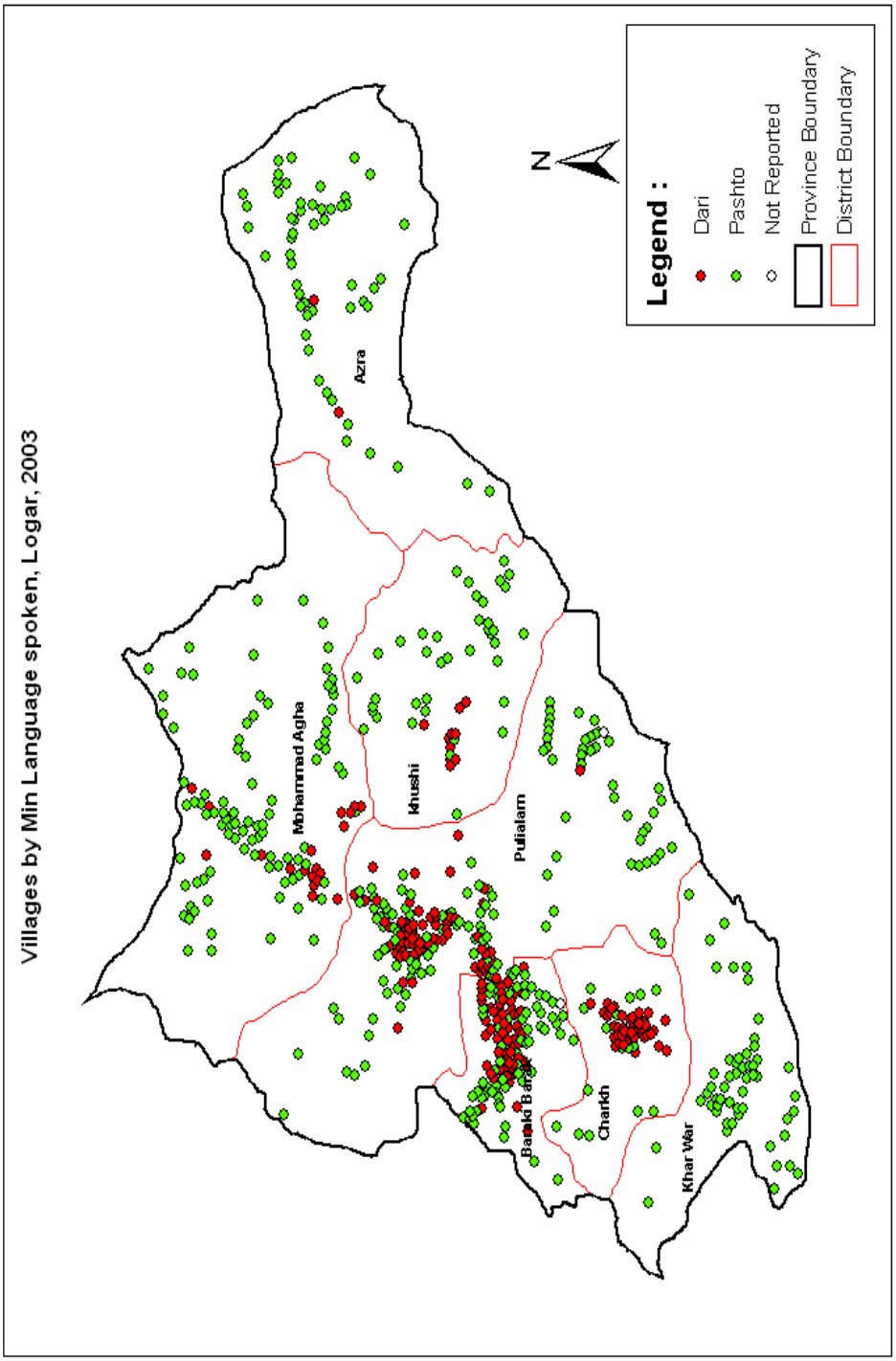
The household listing exercise did not collect any information on the ethnic background of the population. However, it included a question on the languages spoken by the majority of the population. Of the eight languages listed (figure 6), two—Pashtu and Dari—are spoken by 99.8 percent of the population and 99.7 percent of the villages. In another two villages, with a population of 623 population, the main language spoken is unspecified. The ratio of villages speaking Pashtu to those speaking Dari is 2 to one, but the corresponding ratio for population is 1.5 to one.

Figure 6—Population and villages, by main language spoken, Logar, 2003



[5] The breakdown of the five-year age distribution into single years of age was obtained using the Karrup-King Third-Difference formula.

Map2


Villages by Min Language spoken, Logar, 2003
N
Legend :
Dari
Pashto
Not Reported
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

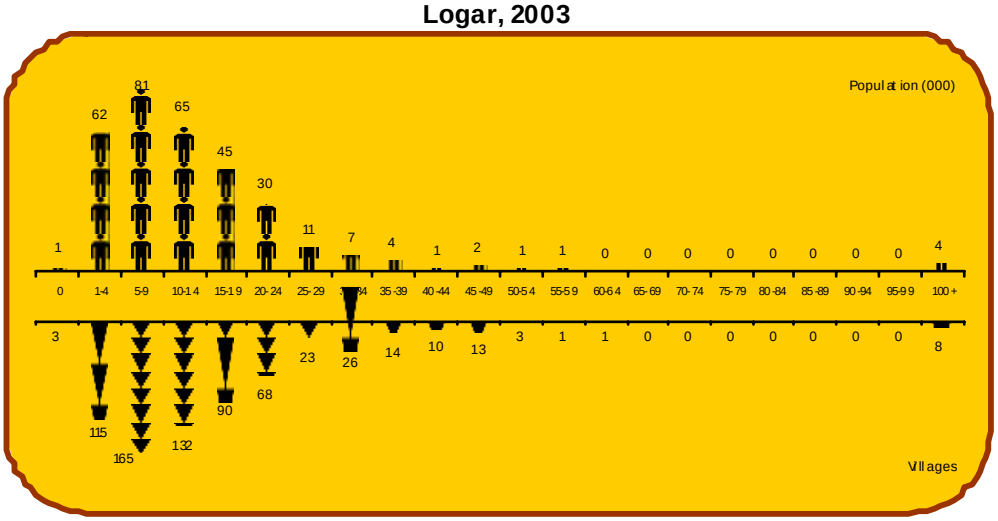
Living Conditions

Other useful information concerned the locations of the villages with respect to their provincial centers, the types of roads, and the topography.

Even though no information was obtained on the social situation of the population, the data collected at village-level make it possible to draw inferences on the availability and/or accessibility of such essential social services as literacy courses; rural schools; primary, secondary, and high schools; health centers and/or dispensaries; drugstores; public phones; mills; as well as radio and television.

Figure 7 shows the numbers of villages by the distances separating them from their respective district centers. Figures 8 and 9 show respectively the types of predominant topography and the types of roads.

Figure 7—Population and villages, by distance from the district center, Logar, 2003



The distribution by distances from the provincial centers clearly shows a reasonable degree of accessibility with respect to those services that can only be provided by the district center. Close to one-fifth of the population lives less than five kilometers away from their respective district centers. Another quarter lives between five and nine kilometers. Altogether, the population living less than 25 kilometers away form the district centers represents four persons out five. The right tail of the distribution, comprised of those among the population that live 50 kilometers or more away from their respective district centers does not represent more 2 percent of the total, including 4,000 situated at more than 100 kilometers. In sum, most of the population of Logar has a relatively easy access to those services that can only be obtained from the district centers. It must be said, however, that given the mountainous nature of the terrain, accessibility may not be as easy as the physical distance may suggest. As figure 8 shows, of the 672 villages, 387, representing 58 percent of the settlements are located in mountainous areas; those located in flat or semi-flat areas represent about one-fifth.

Surprisingly, however, this is not reflected in the types of roads available (figure 9). Of the 672 villages, only three percent do not have roads, and about 13 percent are not accessible by car all year round. The remainder of the villages—84 percent—has practicable roads at all seasons.

Figure 10 presents information on the distances separating villages from certain social services: schools, health centers, drugstores, post offices, public phones, and mills.

Figure 8. Population and villages, by topography of the village. Logar, 2003

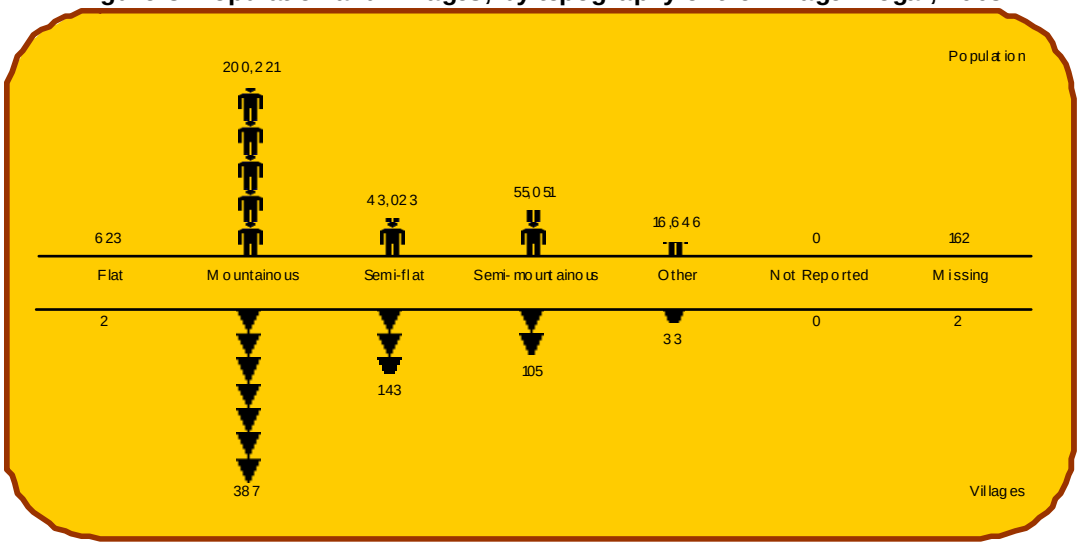
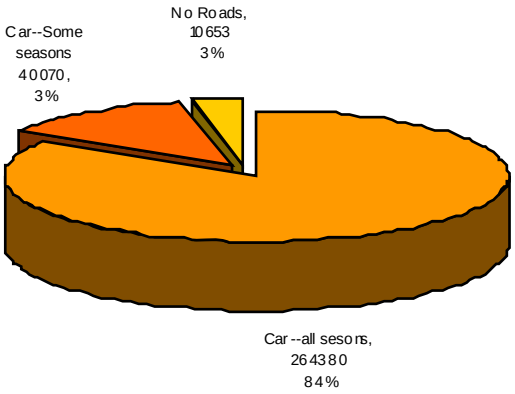


Figure 9—Population and villages, by type of road, Logar, 2003



Educational services

With regard to educational services, accessibility appears to be relatively easier than in other predominantly rural provinces, except for literacy courses and high schools. Literacy courses exist in-village for only six percent of the population and high schools for only eight percent. The other schools—rural, primary, and secondary, exist within the limits of the villages for respectively 30 percent, 35 percent, and more than one-fifth of the population.

Furthermore, those among the populations that don't have to travel more than five kilometers to reach the school represent about three out five, four out of five and two-thirds for rural schools, primary schools and secondary schools respectively.

In sum, the most accessible schools are primary schools, followed by the secondary, the rural, and high schools in that order. Literacy courses appear to be the most problematic. However, that given the large proportion of the respondents who did not answer the questions related to such educational services, it may be reasonable to assume that such a concept may not be well understood.

Health services

Health services in Logar do not appear to be as accessible as schools; and it is slightly better for dispensaries than for health centers. The latter exist in-village for just a little

more than one person out of ten, and the former for about one person out of six. More often than not, people seeking medical attention must travel from five to ten kilometers to get it—more than 70 percent for health centers and more than three persons out of four for dispensaries. In sum, access to health care is comparatively more difficult than for schools, but a little easier than in Badakhshan or Wardak for example. But again, given the nature of the terrain, it may take more time to reach the closest health center than distances would suggest.

Post office & public phones

Post offices exist in three villages, and public phones in 15 (panels I & J). On average, post offices tend to exist in villages with close to 800 inhabitants, and public phones in those with about 1,000. Given the small size of the majority of the villages in the province, close to four people out of five must travel more than 10 kilometers to have access to a post office or a public phone.

Mills

Mills tend to be relatively more available to the population than any of the facilities mentioned above (panel K). They exist in 402 villages and cater to the needs of about 213,000 people, representing close to two-thirds of the total population. Furthermore, less than one person out of 10 must travel more than five kilometers to reach the closest mill.

Radio & television

Whereas 98.8 of the population have access to radio, those that have access to TV represent a mere 16.2 percent. The latter percent, however, is more than three times higher than for Wardak, for example. It goes without saying that public information efforts and media campaigns are seriously hampered by this state of affairs.

Figure 10—Population and villages by distance from certain facilities, Logar, 2003

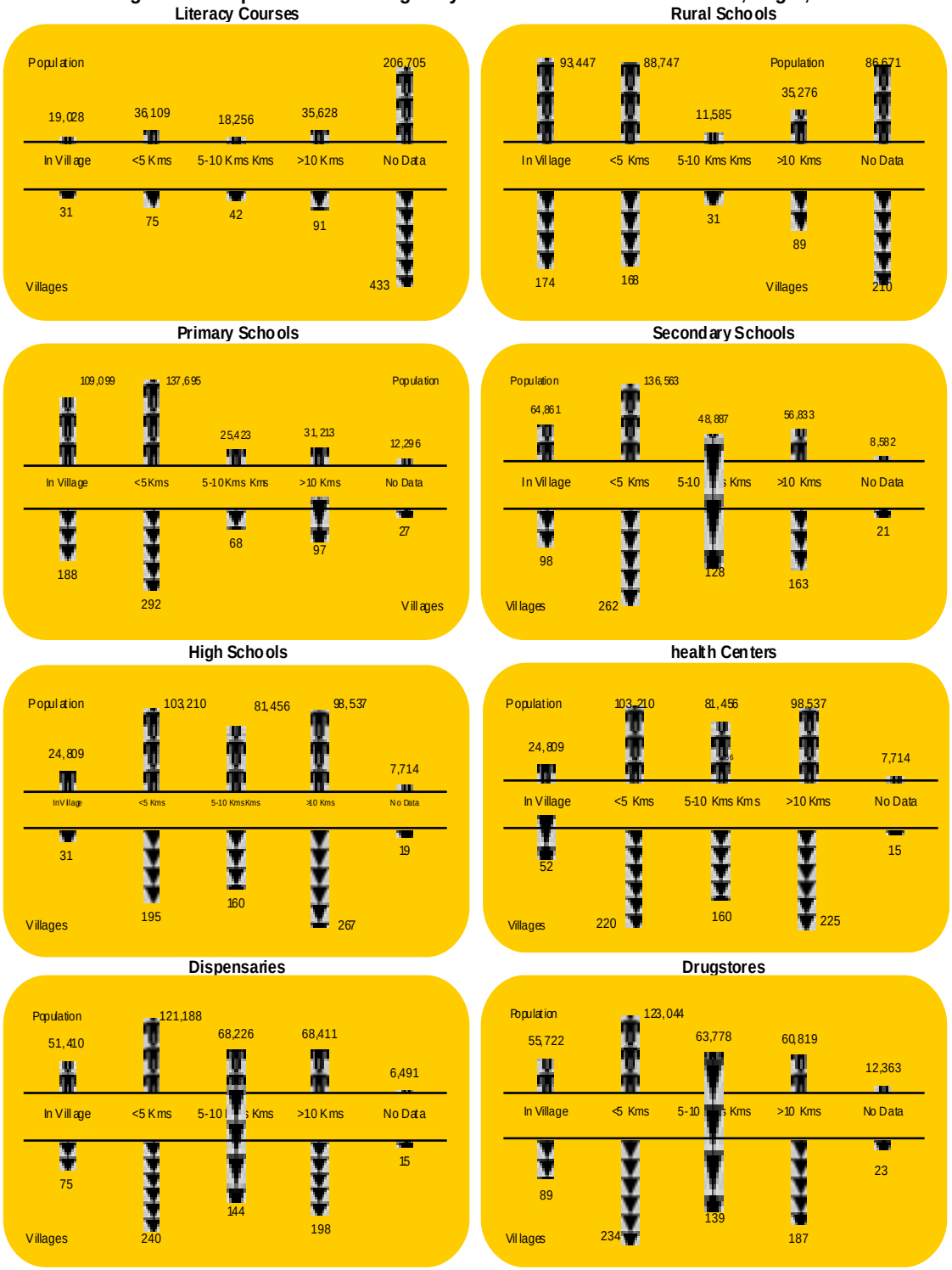


Figure 10 (Cont'd)—Population and villages by distance from certain facilities, Logar, 2003

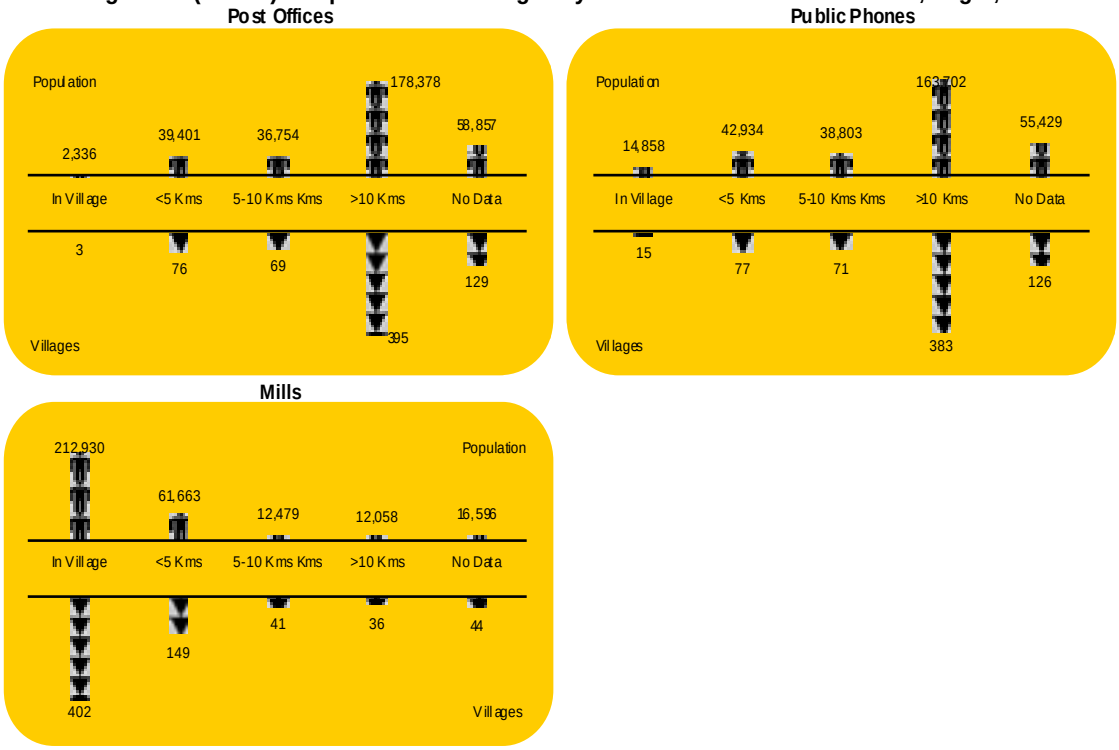
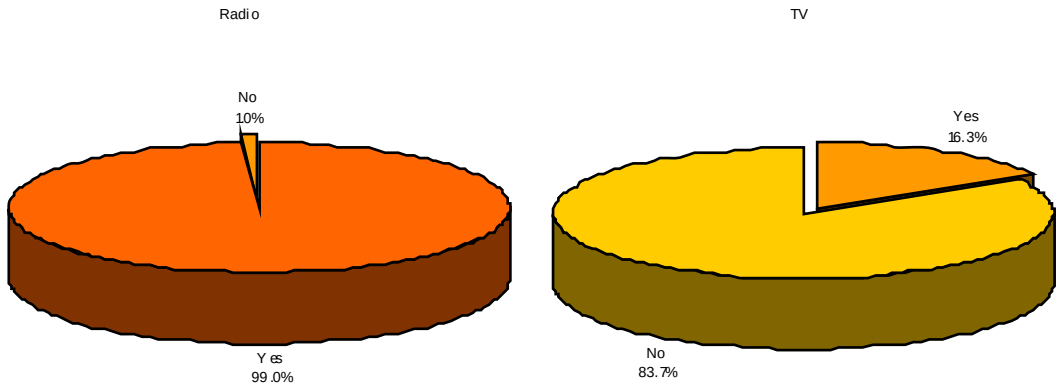
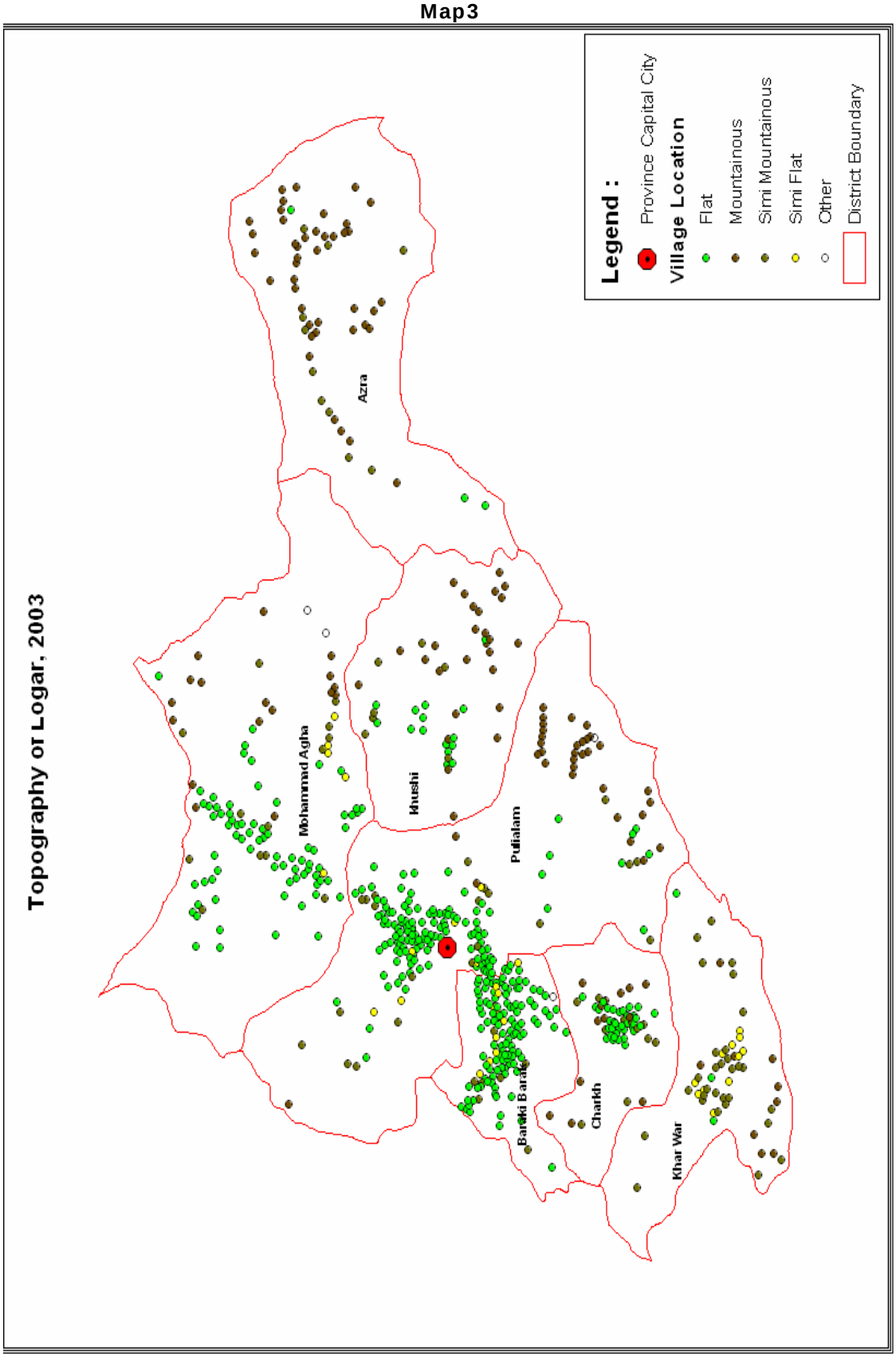


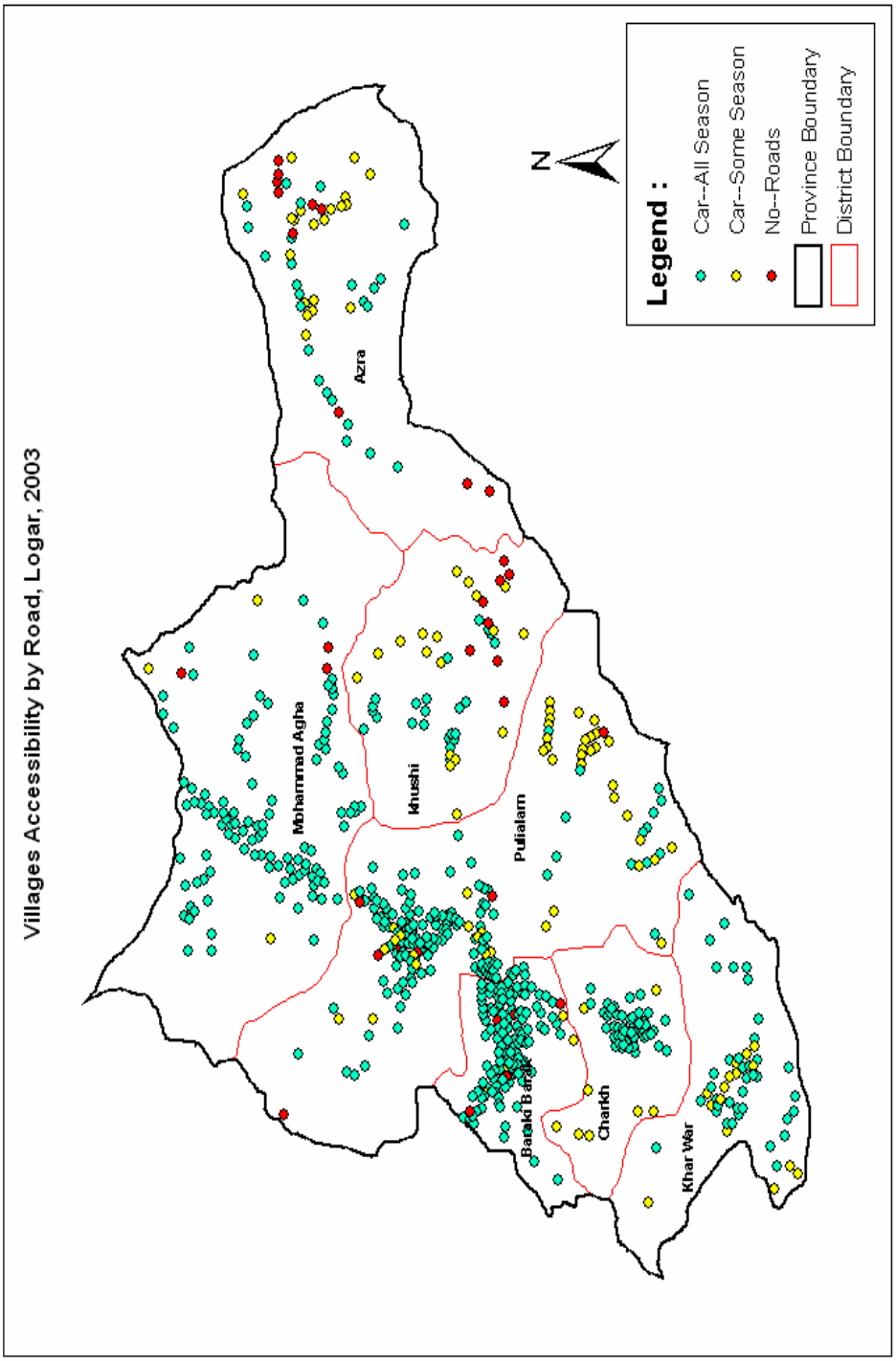
Figure 11—Proportion of the population living in villages where there are radios or TVs, Logar, 2003



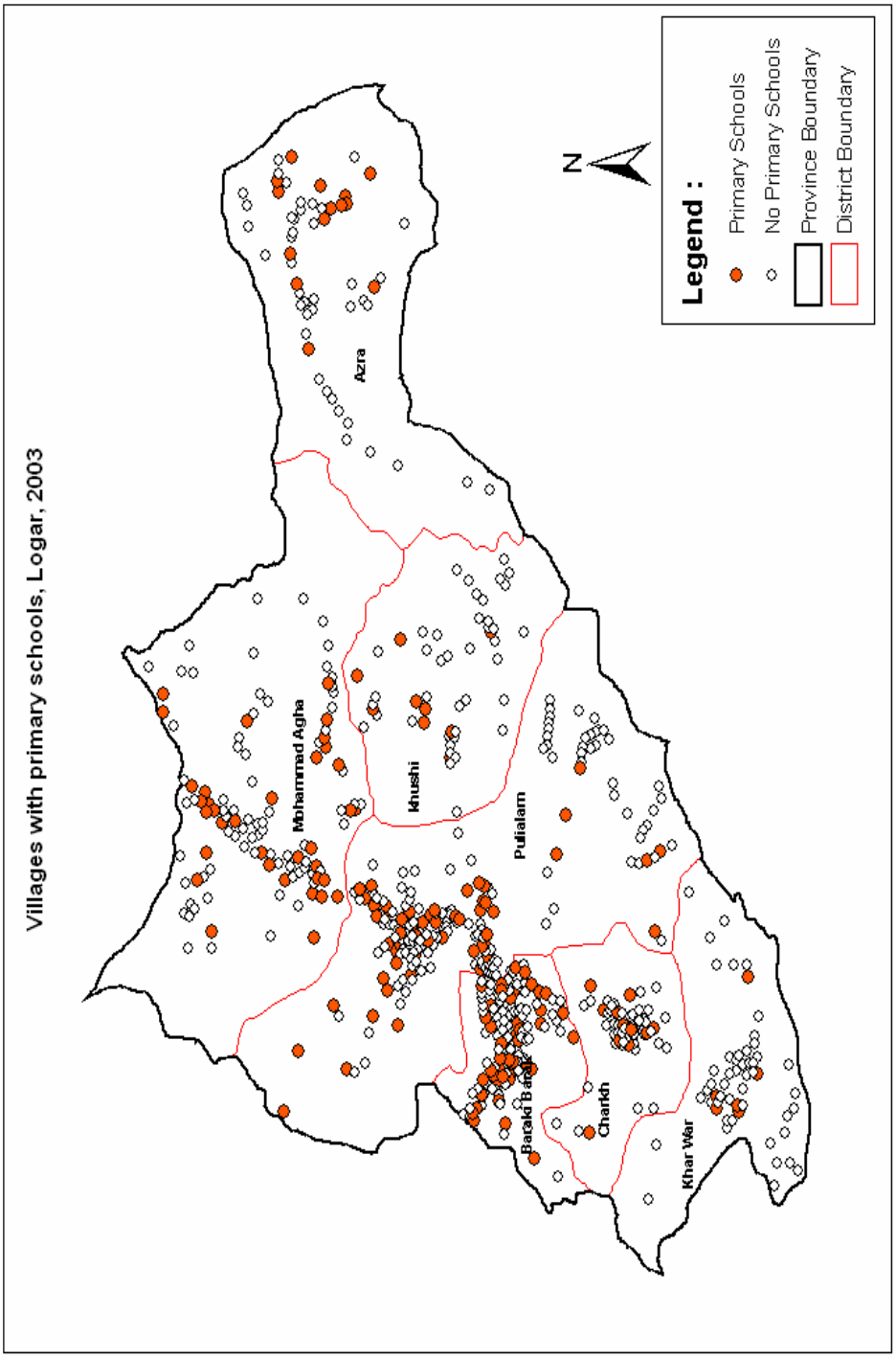
Map3


Topography of Logar, 2003
Legend :
Province Capital City
Village Location
Flat
Mountainous
Simi Mountainous
Simi Flat
Other
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barki Barak
Charkh
Khar War

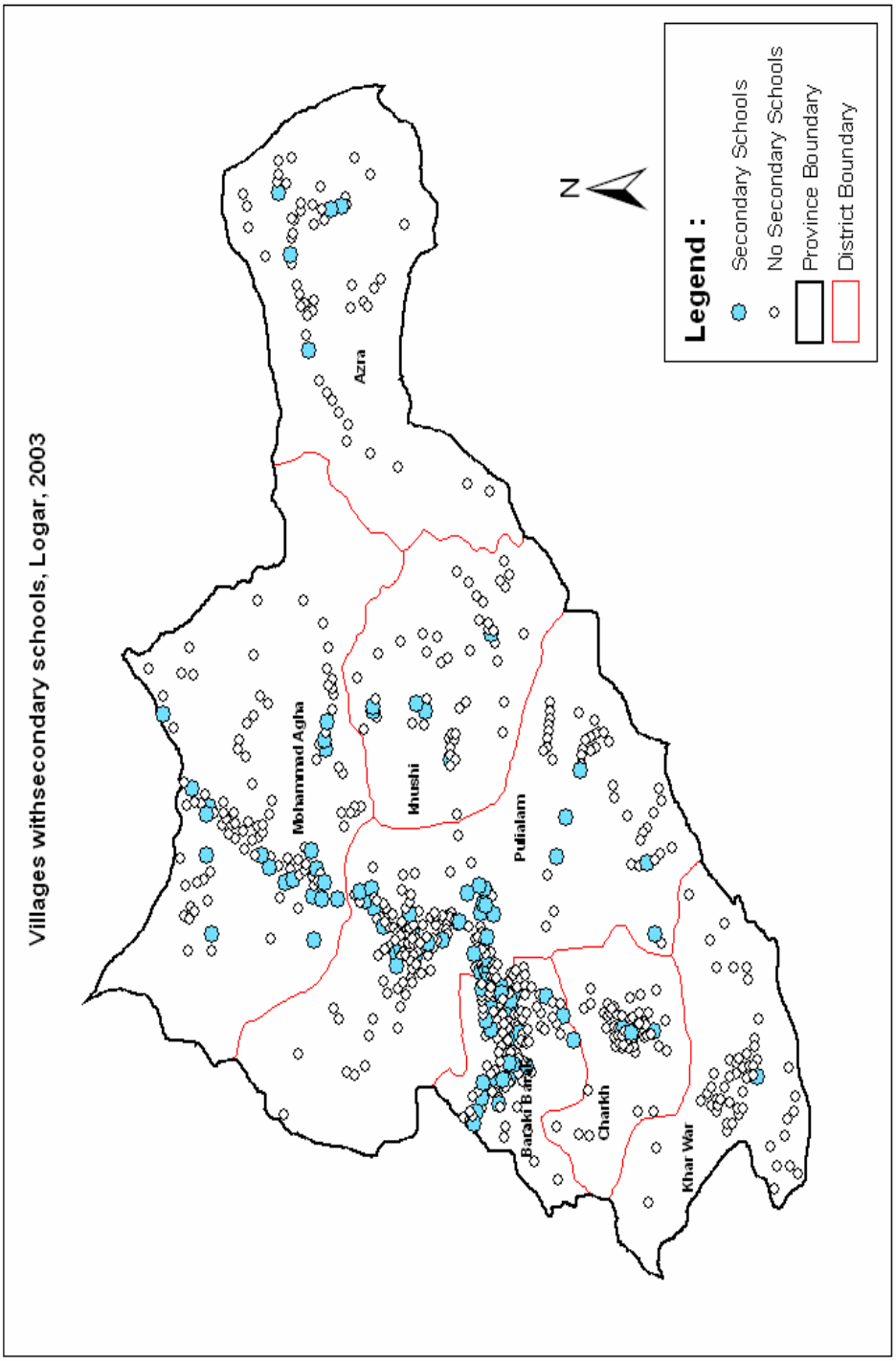
Map4


Villages Accessibility by Road, Logar, 2003
N
Legend :
Car--All Season
Car--Some Season
No--Roads
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

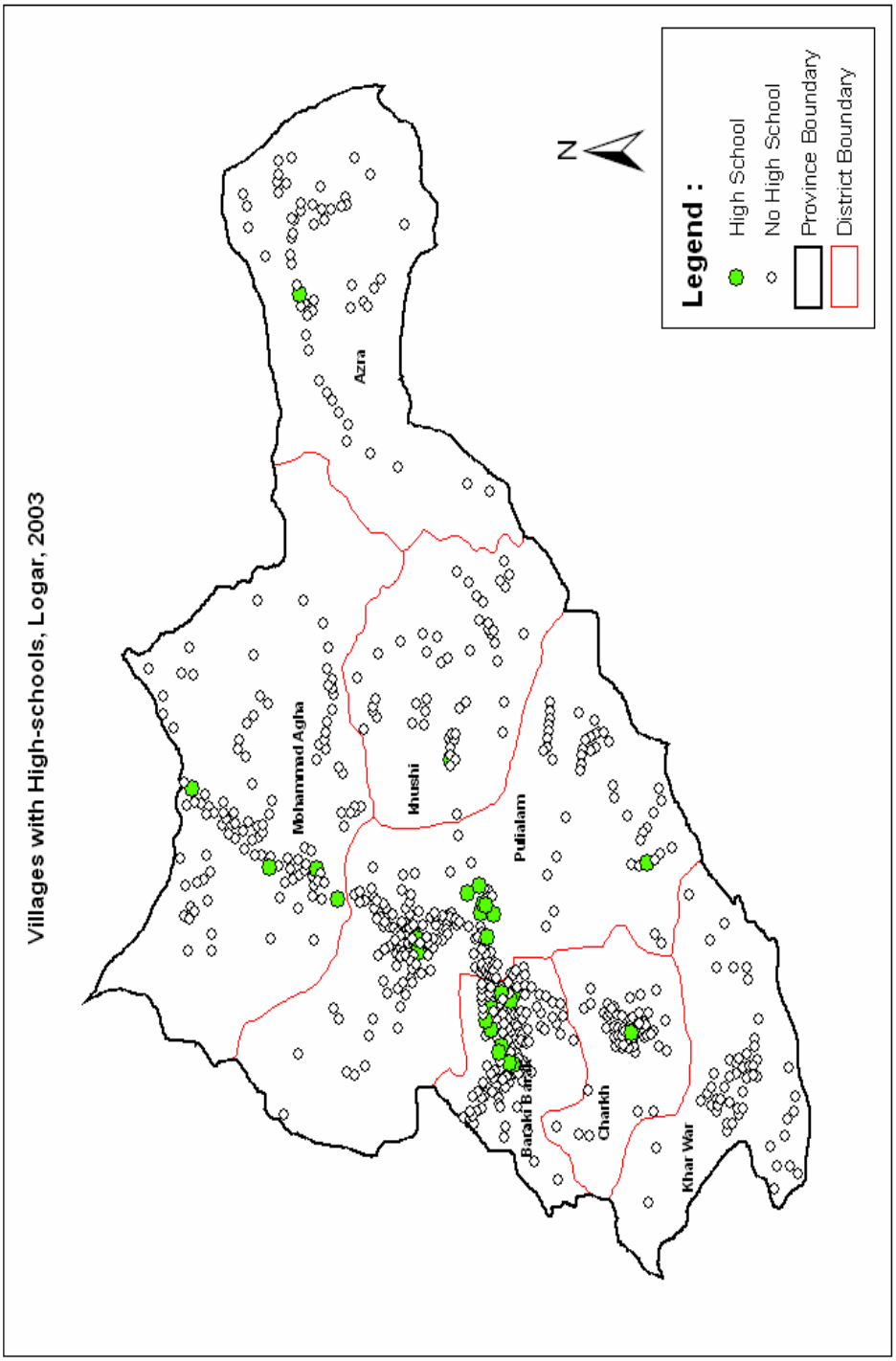
Map5


Villages with primary schools, Logar, 2003
N
Legend :
Primary Schools
No Primary Schools
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

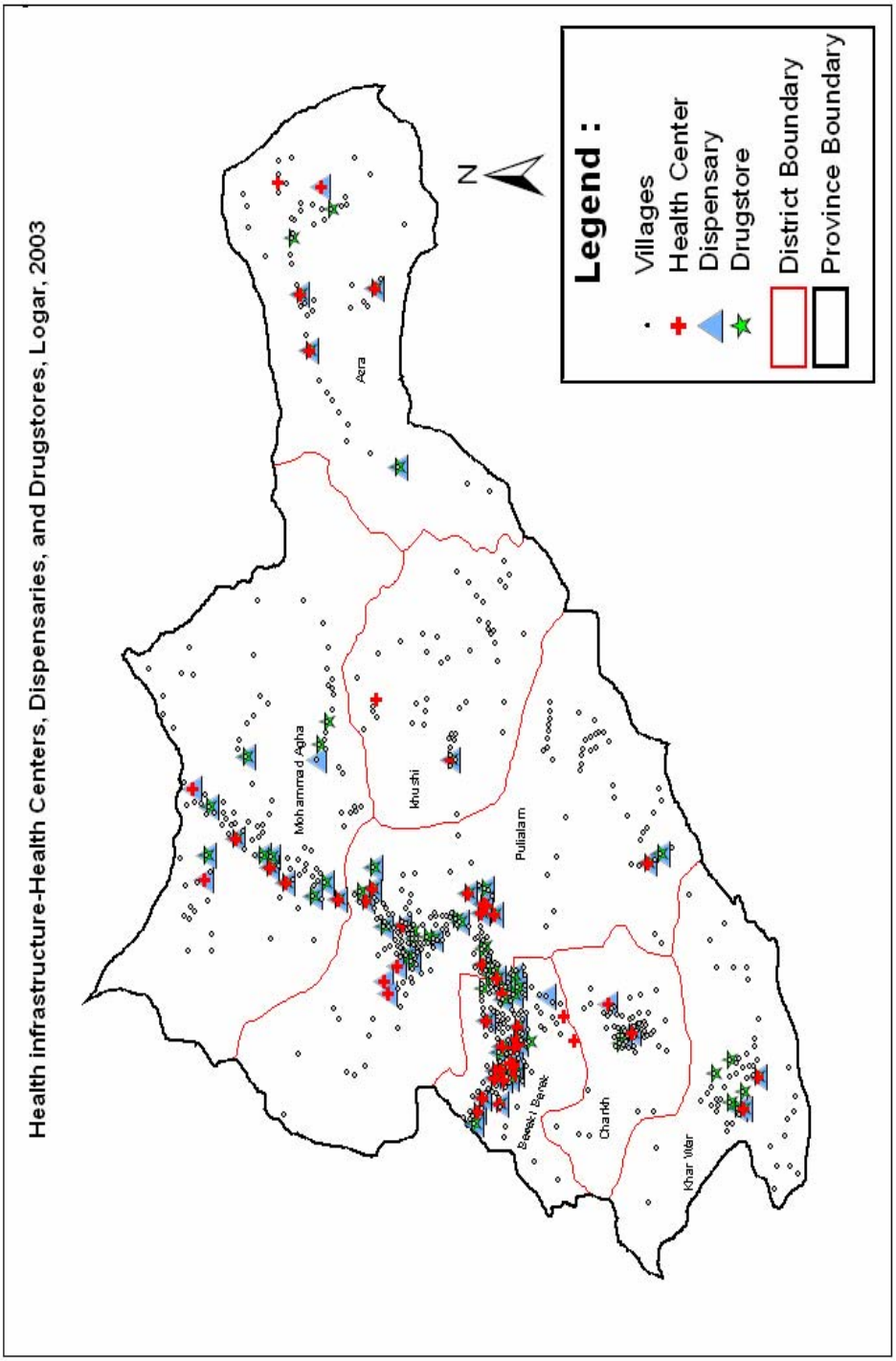
Map6


Villages withsecondary schools, Logar, 2003
N
Legend :
Secondary Schools
No Secondary Schools
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

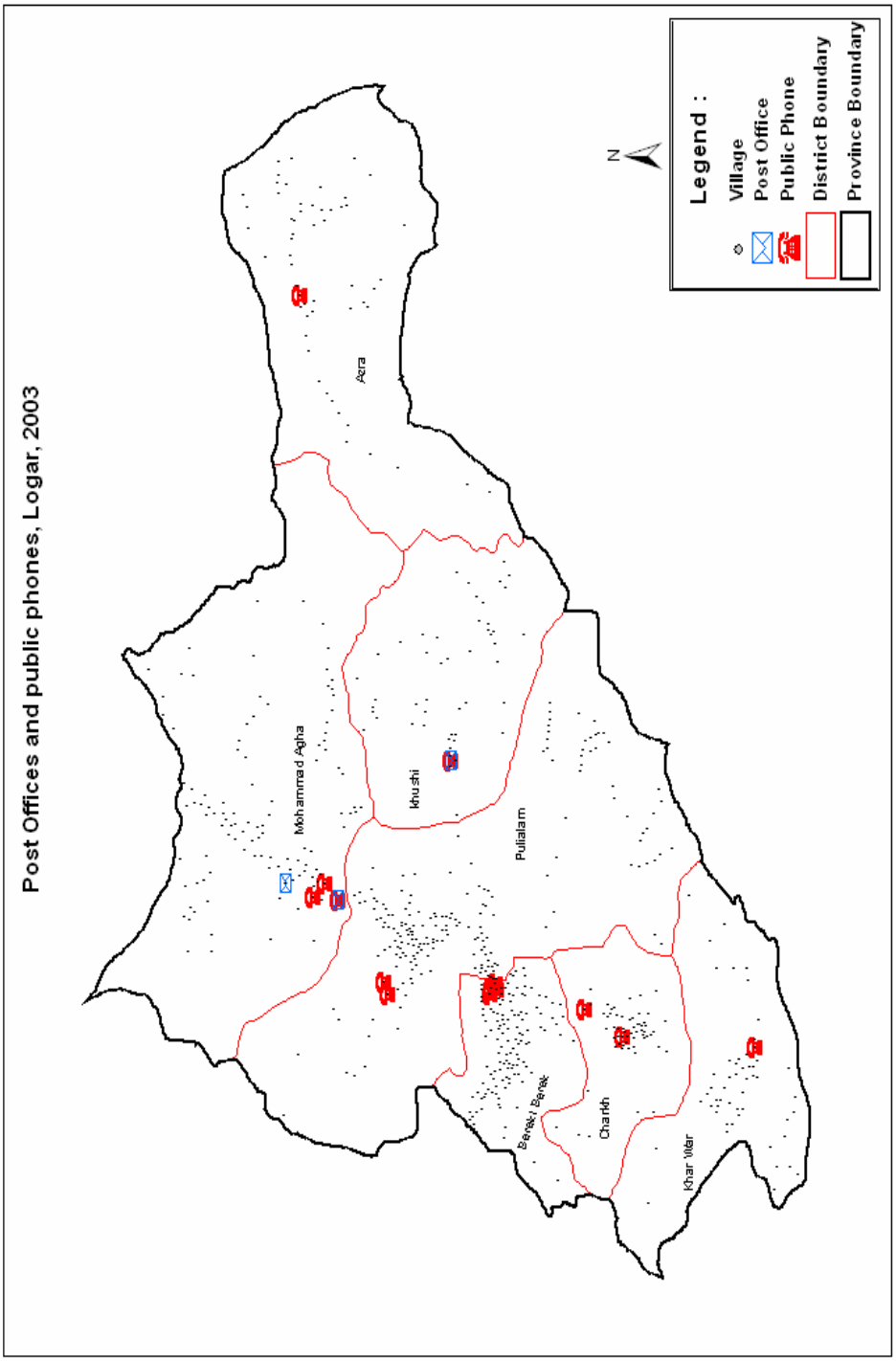
Map7


Villages with High-schools, Logar, 2003
N
Legend :
High School
No High School
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

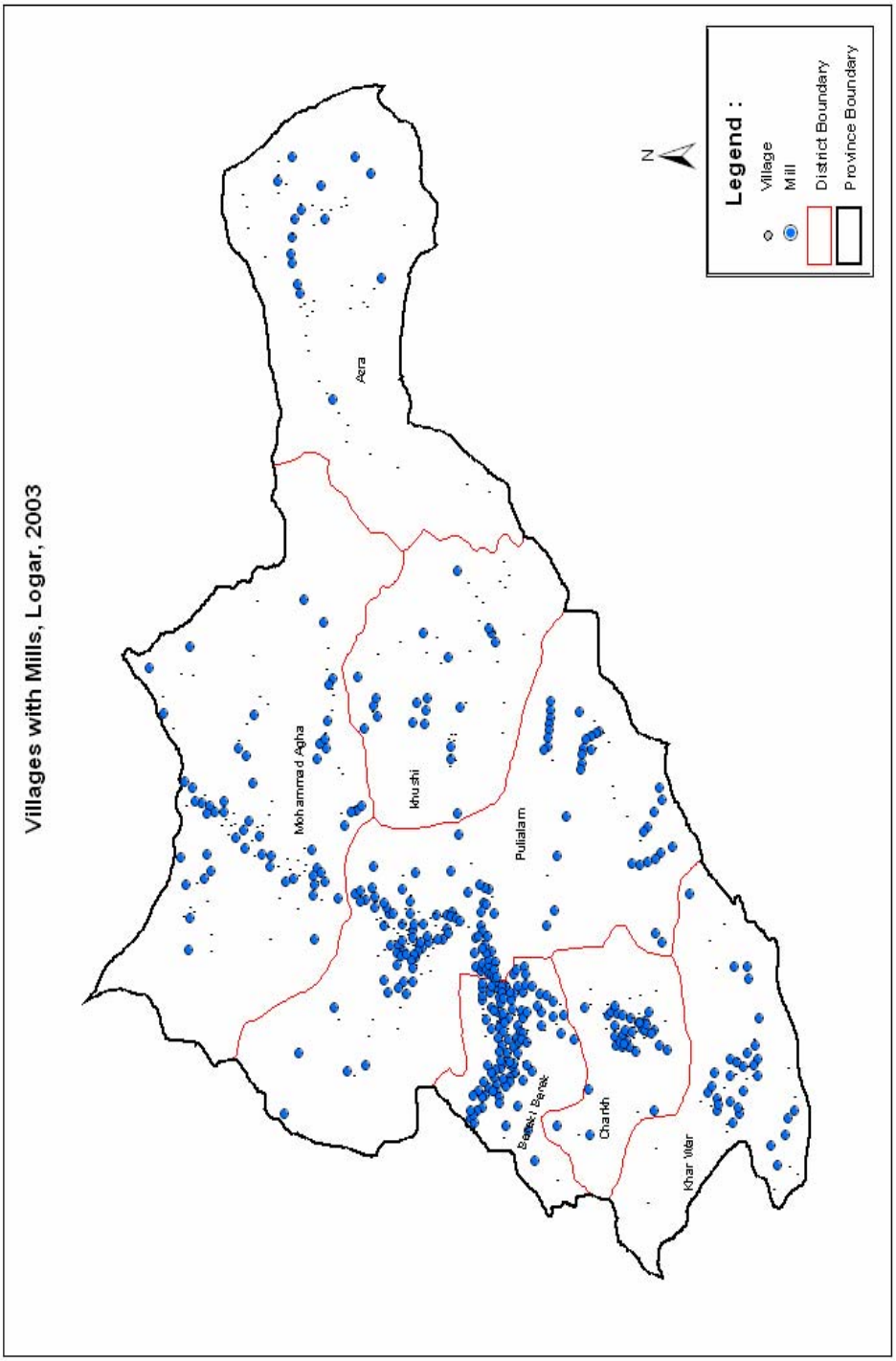
Map8


Health infrastructure-Health Centers, Dispensaries, and Drugstores, Logar, 2003
N
Legend :
Villages
Health Center
Dispensary
Drugstore
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar Wtar

Map9


Post Offices and public phones, Logar, 2003
Legend :
Village
Post Office
Public Phone
District Boundary
Province Boundary
N
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

Map10


Villages with Mills, Logar, 2003
N
Legend :
Village
Mill
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Baraki Barak
Charkh
Khar War

In addition to the major sources of irrigation water, the household listing included information on agricultural and industrial products, handicrafts, and small industries—a total of 64 items grouped into eight categories as shown in table 5 below.

Data on economic activities can be analyzed in various ways. The analysis presented here is based on a graphical depiction of the data and the percent distribution. A more complex one is shown in annex four, based on a technique called compositional analysis.

Table 5—Agricultural, industrial, and animal products, handicrafts and small industries, Logar, 2003

Subsistence Crops	*Industrial Crops*	*Fruits*	*Vegetables*	*Herbal Products*	*Handicrafts*	*Small Industries*	*Animal Products*
Wheat	Cotton	Grapes	Potato	Licorice root	Carpets	Honey	Eggs
Corn	Sugar Extract	Pomegranates	Onion	Caray	Rugs	Silk	Milk
Rice	Sugar Cane	Mellon/Water m.	Tomatoes	Asfitida	Embroidery	Karakul skin	Yoghurt
Maize	Sesame	Orange	Carrots	Zerk	Pottery	Dried sugar	Whey
Beans	Tobacco	Almonds	Cauliflower	Aniseed	Pelisse	Con-fection	Dried yoghurt
Vetch	Olives	Walnuts	Spinach	Hyssop	Jewelry	Sugar candy	Butter
Peas	Sharsham	Mulberry	Leek	Chicory	Shawl making	Sugar sweet	Wool
Other	Other	Other	Other	Other	Other	Other	Other

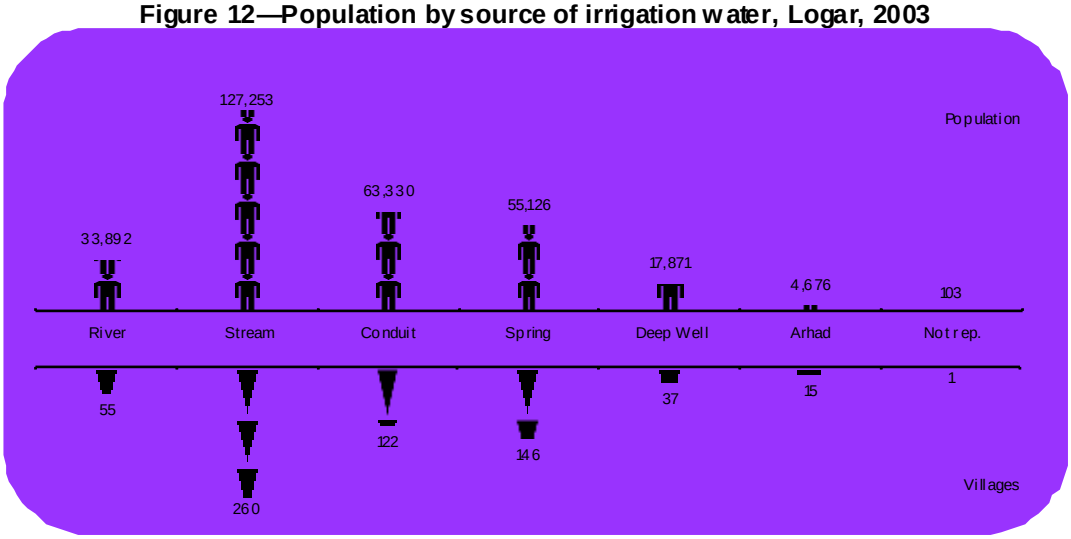
Agriculture

Figure 12 provides information on the sources of irrigation water, and figure 13 (Panels A through F) provides information on agricultural products—crops; fruit; vegetables; herbal, and animal products.

Figure 12 shows that the predominant source of irrigation water is that of streams, which supply two-fifths of the villages with their irrigation water, followed by conduits and

springs. Together, the latter represent the major sources for more than one third of the population and more than two-fifths of the villages.

Figure 12—Population by source of irrigation water, Logar, 2003



A cursory look at figure 13 shows that Puli Alam, the provincial center is the one district that specializes in most of the agricultural products, in particular subsistence crops, vegetables, herbs, and animal products. Out of the 605 villages producing wheat, 178 (30 percent) are located in it, in addition to 121 villages of the 353 villages producing maize. The same is true of vegetables (including potatoes, onion, tomato, and leek), and herbal products, including licorice aniseed, hyssop, and chicory. Puli Alam also comes first in all the animal products (except wool wherein it comes a close second after Khar War), as well as in fruit.

Other districts that specialize in agricultural products more than others are Mohammad Agha and Baraki Barak each in a relatively larger number of the products—Mohammad Agha in corn, maize, beans, vetch, almonds, mulberry, onion, tomatoes, etc; and Baraki Barak in wheat, potatoes, caray, and milk.

Industrial crops, small industries, and handicrafts

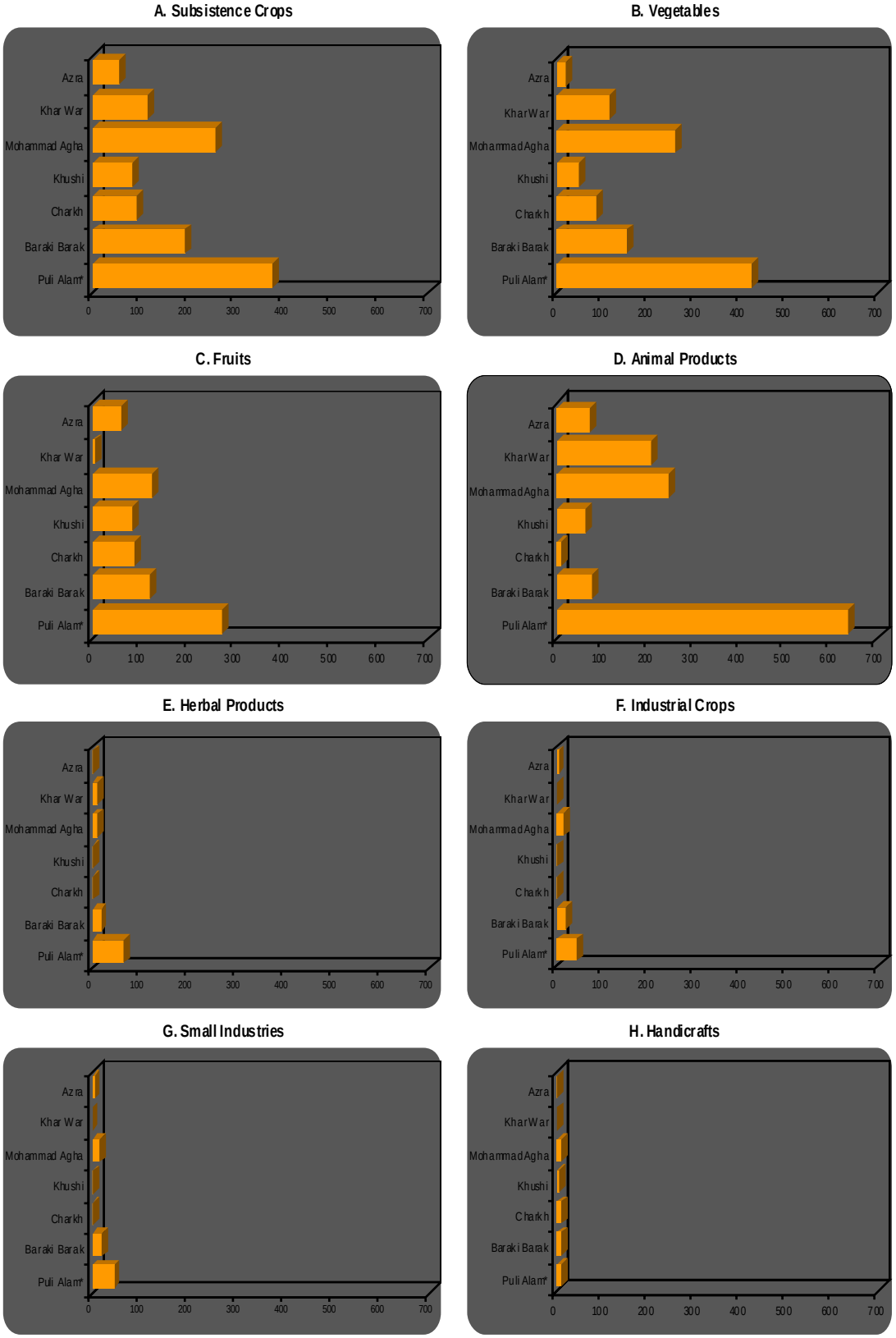
Unlike animal products or crops, industrial commodities—cotton, sugar, sesame, tobacco, olives, and sharsham, etc.—do not appear to occupy the population in a substantial

number of villages. They are present in 88 villages, which is a mere 13 percent of the total 672. They are concentrated in a few districts, mainly Puli Alam again, Baraki Barak, and Mohammad Agha. Together, these three districts account for more than nine villages out of 10 that produce industrial commodities. The two major commodities are tobacco and sugar extract; they are produced in respectively 53 and 27 villages. About half of the villages producing tobacco are located in Puli Alam. Together, Puli Alam, Baraki Barak, and Mohammad Agha grow all the tobacco produced in the province. More than 92 percent of the sugar extracts are produced in Puli Alam and Mohammad Agha.

Small industries are rather scarce in Logar; they exist in only 19 out of the 672 villages. Out of these, 11 specialize in honey—four in Puli Alam, another four in Baraki Barak, and two in Mohammad Agha. The only other district that produces such commodity is Charkh, in one of its villages.

Handicrafts are not omnipresent either. A few villages produce jewelry (26), and another few produce pottery (11). Carpets and rugs are produced in only four and three villages respectively.

Figure 13—Number of villages engaged in certain economic activites, by district, Logar, 2003



* = Provincial Center

Physical Infrastructure

The household listing collected a large amount of data on the physical infrastructure in the provinces. A total of more than 300 different types of buildings were counted, that were later grouped into 17 categories—housing units, schools and educational institutions, mosques, mills, etc. (see figure 14).

The household listing operation counted a total 38,788 buildings in the whole province, 80 percent of which (31,047) are housing units. The remaining 20 percent represent the rest of the various types of buildings.

The number of buildings in a given locality is essentially a function of the size of the population living it: To control for this variable, we divided the total population by the number of buildings, thus obtaining a measure of the extent to which living space, amenities or services—social, economic or otherwise, are available to the population.

Housing units

The largest numbers of housing units are located in Puli Alam and Baraki Barak. This is to be expected given that these two districts are the most populous among the nine. In terms of persons per housing unit, however, the most crowded districts are Khar War, with 13 occupants in each housing unit, followed by Puli Alam, and Baraki Barak with 11 persons each for every housing unit. Living space appears to be more available to the residents of Khushi and Azra; there are respectively eight and nine persons per housing unit in these two districts.

Schools and educational institutions

With regard to schools and educational institutions, the distribution is not excessively skewed. However, to the extent that there is no information on the sizes of the schools, i.e., the numbers of classrooms in every school, it is difficult to draw any definitive conclusions as to class-density. From the information available, and assuming that schools would tend to be of approximately the same size, particularly in the less populated districts, one can group them into three distinct categories with respect to their degree of crowdedness. Azra is in a category by itself, with one school for only 1,455 population. At the other extreme are Khar War and Baraki Barak, with one school for respectively 3,903 and 4,435 population. The middle category includes the rest of the districts with a density ranging from one school for 2,106 population in Mohammad Agha, and one school for every 2.531 population in Charkh. At province level, the average is one school for 1,561 population.

Health infrastructure

The health infrastructure includes hospitals, clinics, doctors' practices, and pharmacies.

Hospitals exist in only three of the seven districts—Baraki Barak, Mohammad Agha, and Azra, but not in the provincial center, Puli Alam (see table 6 and figure 14). Even though close to half of the population lives in these three districts, the fact still remains that the other half is deprived of those medical services that can only be provided by a hospital. This is all the more problematic that access to health centers is difficult for a good proportion of the population, not only because of distance, but also because of the nature of the terrain.

In terms of clinics, however, the situation is much better. There is a total of 41 units of them—more than ten times the number of hospitals, distributed over the seven districts. Some districts are much better off than others, in particular Puli Alam, Baraki Barak, Mohammad Agha, and Azra. Puli Alam is therefore more than compensated for the lack of hospitals within its boundaries—one clinic for each 6,000 population or so, as

compared to one for more than 26,000 in Khar War for example. The question that begs to be asked, however, is: can clinics replace hospitals?

In other districts, the number of clinics varies from one in Khar War to eight in Azra. Controlling for population, however, the picture is different. Setting aside Puli Alam, the districts that appear to be relatively better served is Azra, with one clinic for every 1,819 population, followed at a long distance by Khushi, with one clinic for approximately 7,500 population, and Mohammad Agha, with one clinic for about 10,000 population. At the other end of the spectrum, Khar War stands out as being relatively poorly served by the clinic infrastructure—one clinic for about 27,000 population.

Doctors' practices tend to be more scarce than clinics, albeit not as rare as hospitals: a total of 29. Half of them, however, are concentrated in Puli Alam. The remainder is distributed as follows: five in Baraki Barak and Mohammad Agha, two in Khar War, and one in Azra and Charkh. They are non existent in Khushi. Concerning the population density per doctor's practice, it varies from about 96,000 in Puli Alam to more than 40,000 in Charkh.

With regard to pharmacies, they are relatively considerably more numerous and their spatial distribution is notably more even than for clinics, hospitals, or doctors' practices. They vary from about 1,800 population per pharmacy in Puli Alam, to one per 7,500 in Khushi. The bulk of the districts however, has one pharmacy for every 2,000 or so population, the average being 2,241.

Factories & workshops

The province Logar counts a total of 523 factories/workshops[1], unevenly distributed over the seven districts. Out of the 523, 239 are located in Puli Alam, the provincial center,

[1] This category of buildings refers to a variety of small-scale businesses: repair shops for bicycles, motorcycles, radio/TV, gas and light stoves, musical instruments, weapons, pressure cookers, typewriters, refrigerators; electric workshops, car workshops; juice-making shops, shoe-making shops, briefcase-making shops; electric products factories, plastic shoes and sandals factories, ice-making factories, fruit-processing factories, metal factories, and building companies.

and 128 in Baraki Barak. Together these two districts concentrate seven factories/workshops out of every 10. At the other of the spectrum, Khushi and Azra do not have more than seven such businesses each. In terms of population density per factory/workshop, the average at province level is one for each 617 population. The best served district is the provincial center, with one factory/workshop for every 372 population. In Baraki Barak, Charkh, and Mohammad Agha, the density hovers around the provincial average, but in the remaining districts it ranges from 1,330 in Khar War to 2,161 in Khushi.

In the absence of information on the size of the factories, it is not possible to draw any inferences concerning the number of people employed in such installations.

Bakeries and Mills

Bakeries do not appear to be as present in Logar as one would expect. On average, there is one bakery for approximately 6,000 population; but the variation between districts is quite substantial. It goes from about one bakery for 3,900 population in Puli Alam to one for 15,000 in Khushi. The average is one bakery per 6,200 population; but bakeries are totally absent in Azra and Khasr War.

Mills, on the other hand, are omnipresent, even in Azra and Khar War where there are no bakeries. The average across the province is one mill for every 776 population. Inter-district variations exist without being excessive. The only outlier is Charkh where there is only one mill for every 1,200 population or so.

In conclusion, it may be fair to hypothesize that because of geographic remoteness, households in a majority of villages in certain districts make their own bread at home.

Hotels & Restaurants

There is a total of 63 hotels and restaurants in the whole province of Logar, concentrated in three districts: Baraki Barak (19), Puli Alam (13), and Mohammad Agha (11). The other 20 are scattered throughout the four remaining districts; Khar War having only one.

The information available does not give any indication as to the nature of such establishments. It would appear that in such predominantly rural settings as Logar, hotels and restaurants are mere stopping places for travelers in need of a meal and a place to spend the night. It follows that those districts where there are relatively more such places tend to have more visitors than the others.

Shopping places

Food & grocery stores are the most prevalent businesses in any of the districts of Logar. On average, there is one grocery store for every 158 population, and inter-district variation is minimal. With the exception of Khushi and Mohammad Agha where there is one hotel/restaurant for respectively 360 and 278 population, the density hovers around 100.

There are 222 constructions materials shops in Logar. On average there is one for approximately 1,000 population. Judging by the number of such shops in Khushi (one for 15,127 population) and Azra (one for 14,550 population), there is not much construction projects taking place.

Mosques

The province of Logar counts a total of 1,665 mosques, i.e., an average of one mosque for every 194 population. Inter-district is negligible.

Other places

There isn't one single poultry or livestock farm in the whole province of Logar. Barbers and beauty salons exist in four of the seven districts—a total of 13, eight of which are Puli Alam alone. It would appear that barbers tend to do move from one place to the next, following weekly markets, or from home to home on demand. As for poultry, given the predominantly rural nature of the province, it is justifiable to hypothesize that household tend to raise their own chicken or other farm animals.

Table 6—Number of buildings, and population per building, by type, Logar, 2003

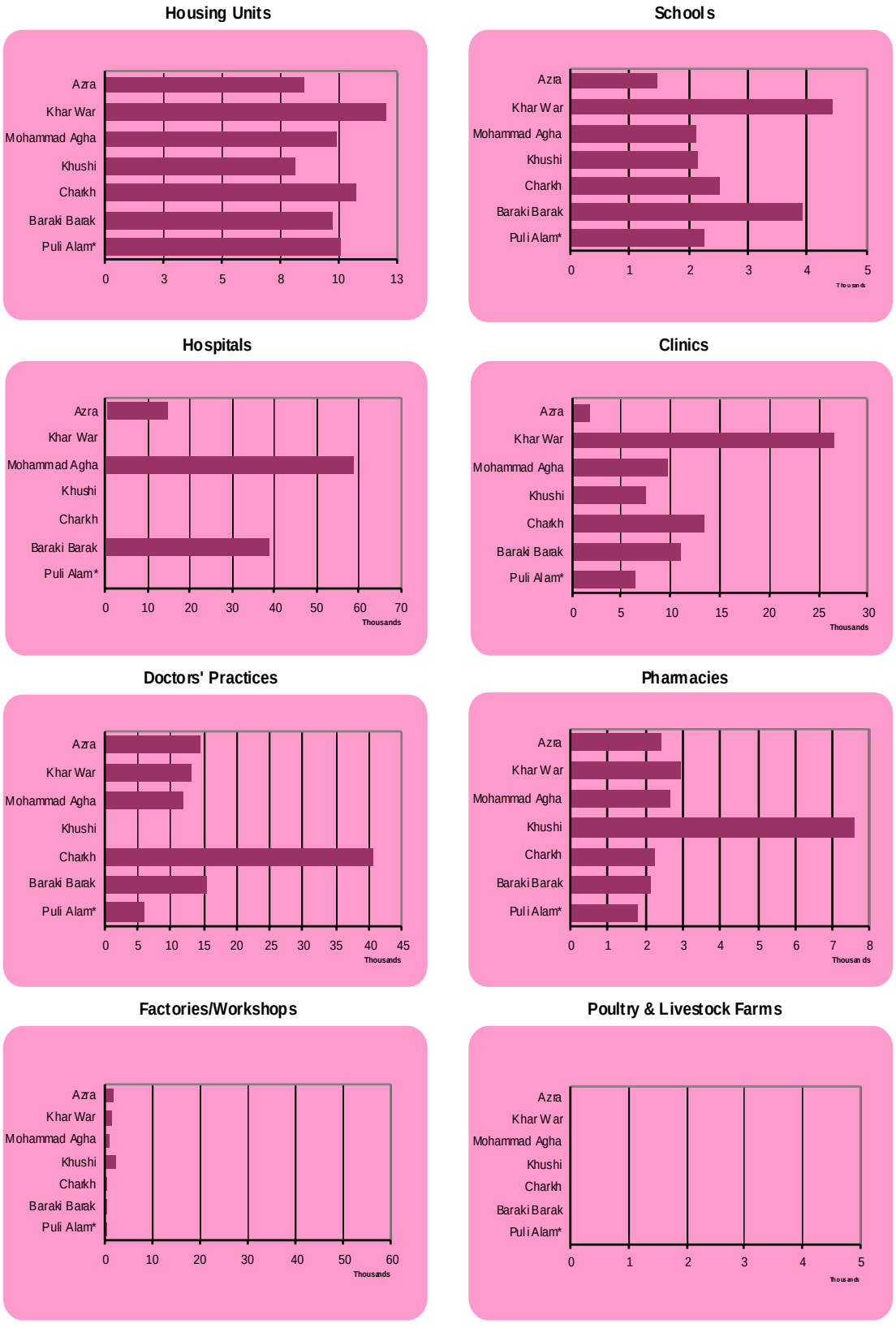
A—Absolute numbers

District	Residential Places	Schools & Educational Institutions	Hospitals	Clinics	Doctors' Practices	Pharmacies	Factories/ Workshops	Food & Grocery Stores	Clothes & Textile Stores	Construction Materials	Poultry/ Livestock Farms	Hotels & Restaurants	Barbers & Beauty Salons	Bakeries	Mills	Mosques	Other	Total	Population
Puli Alam*	8,432	39	0	14	15	50	239	623	147	67	0	13	8	23	97	478	808	11,053	88,885
Baraki Barak	7,720	20	2	7	5	37	128	540	127	67	0	19	3	20	136	421	624	9,876	78,063
Charkh	3,630	16	0	3	1	18	54	398	46	32	0	6	0	3	33	188	237	4,665	40,492
Khushi	1,787	7	0	2	0	2	7	42	4	1	0	6	1	1	20	80	80	2,040	15,127
Mohammad Agha	5,711	28	1	6	5	22	68	212	27	44	0	11	1	5	85	283	171	6,680	58,980
Khar War	2,127	6	0	1	2	9	20	145	9	10	0	1	0	0	30	142	82	2,584	26,607
Azra	1,640	10	1	8	1	6	7	83	11	1	0	7	0	0	15	73	27	1,890	14,550
Total province	31,047	126	4	41	29	144	523	2,043	371	222	0	63	13	52	416	1,665	2,029	38,788	322,704

B—Ratio (Population per Building)

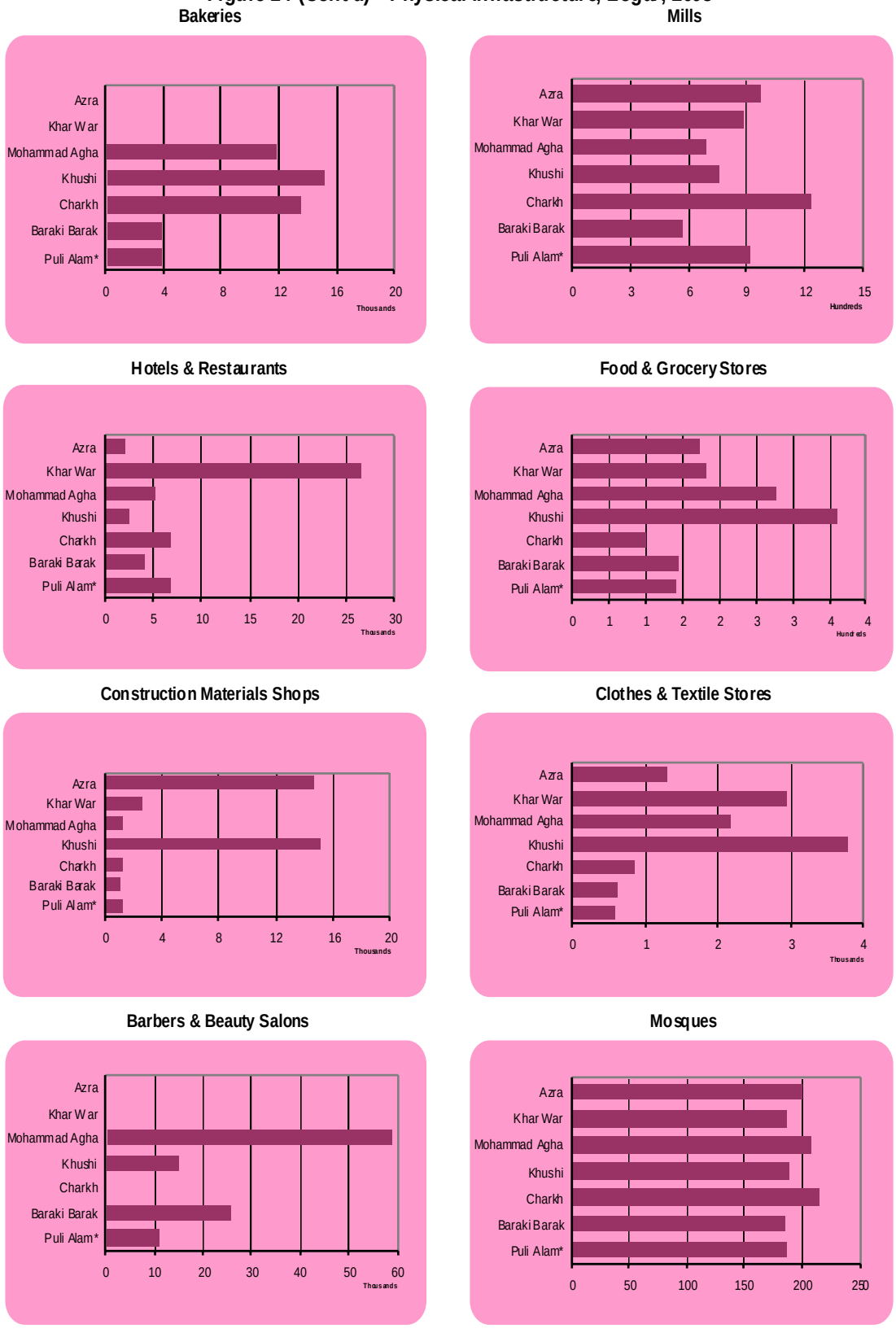
District	Residential Places	Schools & Educational Institutions	Hospitals	Clinics	Doctor's Practice	Pharmacies	Factories/ Workshops	Food & Grocery Stores	Clothes & Textile Stores	Construction Materials	Poultry & Live-stock Farms	Hotels & Restaurants	Barbers & Beauty Salons	Bakeries	Mills	Mosques	Other	Total	Population
Puli Alam*	11	2,279	—	6,349	5,926	1,778	372	143	605	1,327	—	6,837	11,111	3,865	916	186	110	—	—
Baraki Barak	10	3,903	39,032	11,152	15,613	2,110	610	145	615	1,165	—	4,109	26,021	3,903	574	185	125	—	—
Charkh	11	2,531	—	13,497	40,492	2,250	750	102	880	1,265	—	6,749	—	13,497	1,227	215	171	—	—
Khushi	8	2,161	—	7,564	0	7,564	2,161	360	3,782	15,127	—	2,521	15,127	15,127	756	189	189	—	—
Mohammad Agha	10	2,106	58,980	9,830	11,796	2,681	867	278	2,184	1,340	—	5,362	58,980	11,796	694	208	345	—	—
Khar War	13	4,435	—	26,607	13,304	2,956	1,330	183	2,956	2,661	—	26,607	—	0	887	187	324	—	—
Azra	9	1,455	14,550	1,819	14,550	2,425	2,079	175	1,323	14,550	—	2,079	—	0	970	199	539	—	—
Total province	10	2,561	80,676	7,871	11,128	2,241	617	158	870	1,454	—	5,122	24,823	6,206	776	194	159	—	—

Figure 14—Physical infrastructure, Logar, 2003



* = Provinial Center

Figure 14 (Cont'd)—Physical infrastructure, Logar, 2003



* = Provinial Center

Annexes

Annex 1

Population Estimates as of 1 July 2004, by province

	Rural			Urban			Total		
Province	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Kabul	254,048	246,567	500,615	989,851	956,578	1,946,430	1,243,899	1,203,145	2,447,044
Hirat	671,187	667,727	1,338,914	237,260	236,824	474,083	908,446	904,551	1,812,997
Hilmand	668,703	648,297	1,317,000	44,870	43,198	88,068	713,572	691,495	1,405,068
Nangarhar	583,572	559,507	1,143,079	108,538	104,877	213,415	692,110	664,384	1,356,494
Balkh	353,285	342,044	695,329	226,793	219,580	446,374	580,079	561,624	1,141,702
Ghazni	538,665	518,533	1,057,198	22,651	22,313	44,964	561,316	540,846	1,102,162
Kandahar	377,284	360,683	737,968	144,060	141,015	285,075	521,344	501,699	1,023,043
Takhar	368,110	356,810	724,921	64,104	63,549	127,653	432,215	420,359	852,574
Badakhshan	406,595	396,185	802,779	21,113	20,688	41,801	427,708	416,873	844,581
Faryab	376,406	364,010	740,416	52,238	51,734	103,972	428,644	415,744	844,388
Kunduz	297,724	296,776	594,500	97,677	97,892	195,569	395,401	394,668	790,069
Paktika	393,641	378,978	772,619	2,256	2,244	4,500	395,897	381,222	777,118
Baghlan	304,391	288,055	592,445	84,485	82,127	166,612	388,876	370,181	759,057
Ghor	328,739	316,703	645,442	3,176	3,164	6,339	331,915	319,867	651,782
Khost	321,315	306,771	628,086	7,900	7,476	15,376	329,215	314,247	643,462
Wardak	273,003	264,051	537,054	768	813	1,581	273,771	264,864	538,634
Paktya	252,815	242,673	495,487	11,888	11,403	23,291	264,702	254,076	518,779
Badghis	255,280	245,147	500,427	7,433	7,012	14,445	262,713	252,159	514,872
Parwan	220,954	223,407	444,361	26,843	27,398	54,241	247,797	250,805	498,602
Farah	238,743	227,190	465,933	14,271	13,588	27,858	253,014	240,778	493,791
Daikundy	235,515	228,805	464,320	1,799	1,690	3,489	237,314	230,495	467,810
Sar-i-Pul	211,286	202,615	413,901	15,324	14,745	30,069	226,610	217,360	443,970
Jawzjan	153,554	150,860	304,415	64,827	63,839	128,667	218,382	214,699	433,081
Kunarha	204,000	195,375	399,375	9,491	8,920	18,411	213,491	204,295	417,786
Laghman	197,220	187,721	384,941	831	745	1,576	198,050	188,466	386,517
Kapisa	181,021	184,056	365,077	216	195	412	181,237	184,251	365,488
Zabul	176,365	171,446	347,811	4,131	3,989	8,120	180,496	175,434	355,931
Bamyan	169,482	169,049	338,531	3,969	4,384	8,353	173,451	173,433	346,884
Logar	164,468	161,338	325,806	3,579	3,682	7,261	168,047	165,020	333,067
Samangan	144,756	137,454	282,209	19,122	19,163	38,285	163,878	156,617	320,495
Urozgan	160,761	150,438	311,200	4,073	3,887	7,960	164,834	154,325	319,160
Nooristan	68,252	66,306	134,558	—	—	—	68,252	66,306	134,558
Nimroz	44,565	42,910	87,475	15,699	15,025	30,723	60,264	57,934	118,199
Panjsher	56,221	54,028	110,250	—	—	—	56,221	54,028	110,250
Total	9,653,727	9,354,205	19,007,932	2,309,436	2,252,046	4,561,482	11,963,163	11,606,251	23,569,414

Annex 2

Total and urban populations by province, ranked according to their shares of the total urban population of Afghanistan

Province	Total population	Population Urban		Share of the urban population of Afghanistan		
		Number	Percent	Percent	Cumulative %	Rank
Kabul	2,425,067	1,928,752	79.53	42.19	42.19	1
Hirat	1,762,157	457,278	25.95	10.00	52.20	2
Hilmand	1,441,769	434,807	30.16	9.51	61.71	3
Nangarhar	1,342,514	368,762	27.47	8.07	69.78	4
Balkh	1,123,948	208,868	18.58	4.57	74.35	5
Ghazni	1,080,843	188,578	17.45	4.13	78.47	6
Kandahar	957,478	159,432	16.65	3.49	81.96	7
Faryab	833,724	123,824	14.85	2.71	84.67	8
Takhar	830,319	121,241	14.60	2.65	87.32	9
Badakhshan	819,396	102,150	12.47	2.23	89.56	10
Paktika	809,327	97,567	12.06	2.13	91.69	11
Kunduz	773,387	51,980	6.72	1.14	92.83	12
Baghlan	741,690	44,383	5.98	0.97	93.80	13
Khost	638,849	39,505	6.18	0.86	94.66	14
Ghor	635,302	34,806	5.48	0.76	95.42	15
Wardak	529,343	30,565	5.77	0.67	96.09	16
Paktya	514,816	30,016	5.83	0.66	96.75	17
Badghis	499,393	27,822	5.57	0.61	97.36	18
Farah	493,007	23,085	4.68	0.51	97.86	19
Parwan	491,870	17,757	3.61	0.39	98.25	20
Daykundi	477,544	15,162	3.17	0.33	98.58	21
Sar-i-Pul	442,261	13,975	3.16	0.31	98.89	22
Jawzjan	426,987	8,310	1.95	0.18	99.07	23
Kunarha	413,008	8,204	1.99	0.18	99.25	24
Laghman	382,280	7,984	2.09	0.17	99.42	25
Kapisa	358,268	6,978	1.95	0.15	99.58	26
Bamyan	343,892	6,151	1.79	0.13	99.71	27
Logar	322,704	6,012	1.86	0.13	99.84	28
Urozgan	320,589	3,562	1.11	0.08	99.92	29
Samangan	313,211	1,605	0.51	0.04	99.96	30
Zabul	244,899	1,593	0.65	0.03	99.99	31
Nooristan	130,964	434	0.33	0.01	100.00	32
Nimroz	117,991	0	0.00	0.00	100.00	33
Panjsher	109,189	0	0.00	0.00	100.00	34
All provinces	23,147,986	4,571,148	19.75	100.00	—	—

Annex 3

Total populations (as of mid-July 2004), land area, and density per km2, by province, ranked according to land area

Province	Population	Area	Density per Km^2	Rank
Kabul	2,447,044	4,524	540.9	1
Kapisa	365,488	1,908	191.6	2
Nangarhar	1,356,494	7,641	177.5	3
Khost	643,462	4,235	151.9	4
Kunduz	790,069	8,081	97.8	5
Laghman	386,517	3,978	97.2	6
Paktya	518,779	5,583	92.9	7
Parwan	498,602	5,715	87.2	8
Kunarha	417,786	4,926	84.8	9
Logar	**333,067**	**4,568**	**72.9**	**10**
Balkh	1,141,702	16,186	70.5	11
Takhar	852,574	12,458	68.4	12
Wardak	538,634	10,348	52.1	13
Ghazni	1,102,162	22,461	49.1	14
Baghlan	759,057	18,255	41.6	15
Faryab	844,388	20,798	40.6	16
Paktika	777,118	19,516	39.8	17
Jawzjan	433,081	11,292	38.4	18
Hirat	1,812,997	55,869	32.5	19
Panjsher	110,250	3,772	29.2	20
Urozgan	319,160	11,474	27.8	21
Sar-i-Pul	443,970	16,386	27.1	22
Daikundy	467,810	17,501	26.7	23
Badghis	514,872	20,794	24.8	24
Hilmand	1,405,068	58,305	24.1	25
Samangan	320,495	13,438	23.8	26
Zabul	355,931	17,472	20.4	27
Bamyan	346,884	18,029	19.2	28
Badakhshan	844,581	44,836	18.8	29
Kandahar	1,023,043	54,845	18.7	30
Ghor	651,782	36,657	17.8	31
Nooristan	134,558	9,267	14.5	32
Farah	493,791	49,339	10.0	33
Nimroz	118,199	42,410	2.8	34
Total	*23,569,414*	*652,864*	**36.1**	—

Annex 4

Procedure for adjusting the reported age distribution

To adjust for the irregularities of the age-sex distribution, we adopted the following three-step procedure.

Step 1. The reported age-distribution was submitted to the Arriaga technique of age-smoothing.

Step 2. Using a stable population model[1], the distribution obtained in step 1 was corrected for the pronounced sex-imbalances in the 0-4 to 10-14 age groups. While this procedure yielded the desired result in terms of sex ratios, it increased the size of the male population and decreased that of the female.

Step 3. In order to maintain the totals by sex as reported in the household listing tables, the distribution for males was multiplied by a negative factor and that for females by a positive one. The factors were obtained by dividing the adjusted population for each sex by the reported one.

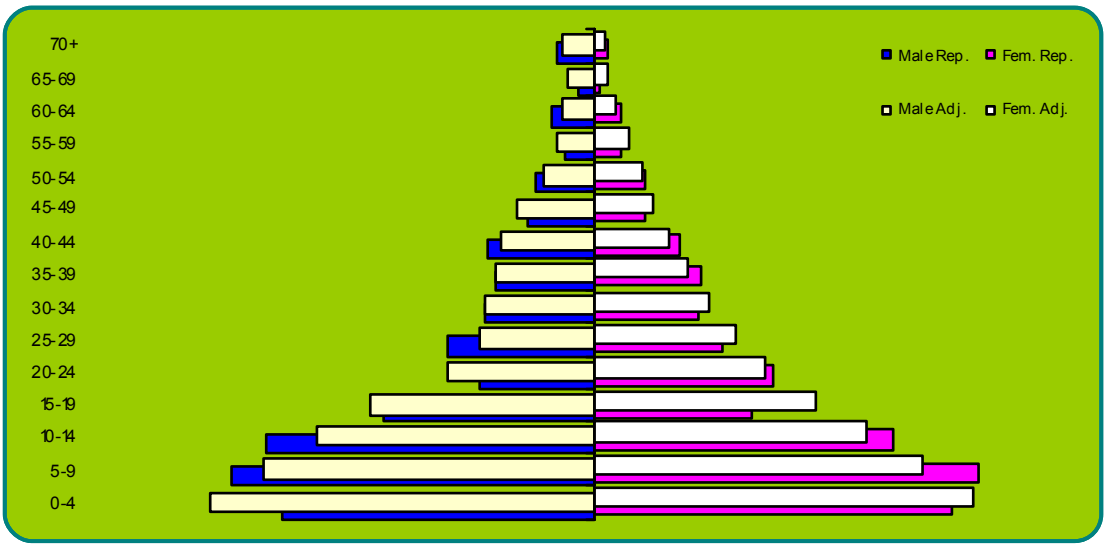
[1] The model used was from the Regional Model Life Tables and Stable Population; Ansley J. Coale and Paul Demeny; Princeton University Press; Princeton, New Jersey; 1966 ("West" model at level 13 for both males and females [e_0: 50 for females, and 47.114 for males] and a growth rate of 30).

Annex 5
Comparsion of the Reported and adjusted age distributions, Logar, 2003

A—Distribution

Age	Reported			Adjusted			Reported /Adjusted		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	27,797	30,940	58,737	34,508	33,427	67,935	-6,711	-2,487	-9,198
5-9	31,527	32,112	63,639	27,826	26,967	54,793	3,701	5,145	8,846
10-14	25,344	20,563	45,907	21,525	20,834	42,359	3,819	-271	3,548
15-19	16,353	13,346	29,699	17,016	16,450	33,465	-663	-3,104	-3,766
20-24	11,338	13,346	24,684	11,763	13,293	25,055	-425	53	-371
25-29	9,537	11,558	21,095	9,380	11,432	20,813	157	126	282
30-34	8,703	9,519	18,222	9,446	9,939	19,385	-743	-420	-1,163
35-39	8,471	8,645	17,116	7,948	8,094	16,042	523	551	1,074
40-44	5,240	4,907	10,147	5,695	5,873	11,568	-455	-966	-1,421
45-49	4,910	5,477	10,387	4,586	4,436	9,022	324	1,041	1,365
50-54	4,853	3,424	8,277	3,996	3,204	7,200	857	220	1,077
55-59	2,240	2,166	4,406	3,188	2,346	5,534	-948	-180	-1,128
60-64	2,530	1,696	4,226	2,211	1,689	3,899	319	7	327
65-69	1,305	1,101	2,406	1,674	1,088	2,762	-369	13	-356
70-74	1,682	436	2,118	1,280	535	1,815	402	-99	303
75-79	600	130	730	1,031	27	1,058	-431	103	-328
80+	641	268	909	-	-	-	641	268	909
Total	163,071	159,634	322,705	163,071	159,634	322,705	0	0	0

B—Population Pyramid



Annex 6

Compositional Analysis

Compositional analysis (also called contingency tables) is a statistical procedure that summarizes the relationship between two variables. It consist in cross-classifying the two variables; each category of one variable is assigned to one of the rows, while each category of the other variable is assigned to one of the columns. The result is a table with a series of cells, each of which represents a unique combination of categories. The number of cases—persons, places, etc.—falling into each cell is called a "joint frequency" or "cell frequency". When the cell frequencies are summarized by rows, the row totals are often termed "row marginals". Similarly, the sum of cells by columns are called "column marginals" By definition, the sum of the row marginals is equal to the sum of the column marginals, which is the total number of cases that have been cross-classified. Based on the table thus generated, as series of other tables can be derived that portray the relationship between the two variables in terms of percentages or proportions.

This technique has been applied to the data on economic activities. The result is shown in the panels shown below. The contents of the panels are described as follows:

Panel A: Raw data—gives the distribution in absolute numbers; individual cells represent the number of villages in a given district (rows) that are engaged in the activity described—producing eggs, honey, carpets, etc. Row totals represent the number of villages in a given district engaged in a given category of activities or products. Column totals represent the number of villages in all the districts producing a given product or are engaged in one type of activity.

Panel B: Specialization—expresses the probability that a village chosen at random from the total number of villages in a given district is engaged, i.e., specializes in the economic activity described.

Panel C: Concentration—expresses the probability that a given product selected at random is produced in a given district.

Panel D: Actual Joint Distribution—is obtained by dividing the cell frequencies by the grand total of all rows or all columns[2].

Panel E: Expected Joint Distribution—indicates the proportion of all villages which would fall in each cell of table if products and districts were completely unrelated.

Panel F: Deviation of the Actual Joint Distribution from the Expected Distribution—is obtained by subtracting the expected values of Panel E from the actual values of Panel D. It shows a pattern of positive and negative values which sum to zero in all marginal totals.

Panel G: Deviation of Actual from Expected as a ratio to Expected—show the extent to which a district specializes in a given commodity or activity or a given

[2] For brevity purposes, panels D, E, and F, which serve as intermediate calculations for panel G, have been excluded from annex 6.

commodity/activity is concentrated in a given district, controlling for the number of villages engaged in such activity/commodity[3].

To summarize the wealth information contained in the various panels of annex 6, we decided to focus on the last one, Panel G, highlighting those among the seven districts that specialize in one or more of the various products/activities in a remarkable way.

With regards to subsistence crops, only two cells stand out, those associating Puli Alam with rice (2.13), and Mohammad Agha with peas (2.04). Stated differently, this means, for instance, that a village in Puli Alam is 2.13 times more likely to produce rice than any other village in any other district. In the same way, the probability that a village in Mohammad Agha will grow peas is 2.04 times higher than for any other village in any other district.

In the area of industrial crops, there is not much specialization or concentration: only two districts stand out—Puli Alam and Mohammad Agha both for cotton, with an index of 21.0 for the former and 1.75 for the latter. It is worth noting however (see Panel A of annex table 6), that the total number of villages producing cotton is only two.

Concerning fruit, four cells stand out—those associating grapes with Charkh (1.54), pomegranates with Azra (3.11), melons/watermelons with Khar War (8.3), and Walnuts with Azra (3.71).

With regards to vegetables, only Khushi stand out for being 2.83 times more likely than any other district to grow cauliflower. Again, looking back at Panel A, one realizes that there is only one village in Khushi that produces cauliflower.

Herbal products seem to be less evenly distributed than other products, judging by the number of relatively high indices that stand out in Annex 6. They associate licorice with Mohammad Agha (8.82), Caray with Charkh and Khar War (respectively 3.91 and 1.45), zerk with Azra (12.5) and aniseed with Khushi (2,09).

Handicrafts appear to be substantially spatially concentrated, in particular with regard to pelisse which is highly associated with Charkh and Khushi (3.33 for both districts). For the rest of the handicrafts, four—rugs, pottery, jewelry and shawl-making—distinguish themselves as being highly associated with three districts—Chark, Khushi and Azra. Carpets, on the other hand appear to be highly associated with all the districts except Puli Alam.

Like handicrafts, small industries tend to be concentrated in space—honey in Puli Alam, Baraki Barak, Charkh, Khushi and Mohammad Agha, and silk in Khushi and Mohammad

[3] It must be stressed that Panel B should be interpreted with caution to the extent that the indexes it shows are summary statistics that need to be related to the raw data in order for them to have their full usefulness in terms of describing the reality on the ground. Stated differently, this means that Panel G should be read jointly with Panel A.

Agha. Mohammad Agha is also highly associated with Karakul skin, dried sugar and sugar candy.

Surprisingly, none of the seven districts appears to specialize in any given animal product, which suggests that animal products are relatively evenly distributed in space.

Annex 6

Agricultural and industrial products, and economic activities, Logar, 2003

Subsistence Crops

Panel A—Raw Data

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1Provincial Center—Puli Alam	178	121	2	49	17	7	2	0	376
2Baraki Barak	142	40	0	0	5	3	0	4	194
3Charkh	57	32	0	1	1	0	0	0	91
4Khushi	38	27	0	8	3	0	0	9	85
5Mohammad Agha	104	80	0	25	24	8	8	9	258
6Khar War	49	37	0	16	2	1	2	9	116
7Azra	37	16	0	1	1	0	0	1	56
Total	**605**	**353**	**2**	**100**	**53**	**19**	**12**	**32**	**1,176**

Panel B—Specialization

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1Provincial Center—Puli Alam	47.3	32.2	0.5	13.0	4.5	1.9	0.5	0.0	100.0
2Baraki Barak	73.2	20.6	0.0	0.0	2.6	1.5	0.0	2.1	100.0
3Charkh	62.6	35.2	0.0	1.1	1.1	0.0	0.0	0.0	100.0
4Khushi	44.7	31.8	0.0	9.4	3.5	0.0	0.0	10.6	100.0
5Mohammad Agha	40.3	31.0	0.0	9.7	9.3	3.1	3.1	3.5	100.0
6Khar War	42.2	31.9	0.0	13.8	1.7	0.9	1.7	7.8	100.0
7Azra	66.1	28.6	0.0	1.8	1.8	0.0	0.0	1.8	100.0
Total	**51.4**	**30.0**	**0.2**	**8.5**	**4.5**	**1.6**	**1.0**	**2.7**	**100.0**

Panel C—Concentration

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1Provincial Center—Puli Alam	29.4	34.3	100.0	49.0	32.1	36.8	16.7	0.0	32.0
2Baraki Barak	23.5	11.3	0.0	0.0	9.4	15.8	0.0	12.5	16.5
3Charkh	9.4	9.1	0.0	1.0	1.9	0.0	0.0	0.0	7.7
4Khushi	6.3	7.6	0.0	8.0	5.7	0.0	0.0	28.1	7.2
5Mohammad Agha	17.2	22.7	0.0	25.0	45.3	42.1	66.7	28.1	21.9
6Khar War	8.1	10.5	0.0	16.0	3.8	5.3	16.7	28.1	9.9
7Azra	6.1	4.5	0.0	1.0	1.9	0.0	0.0	3.1	4.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1Provincial Center—Puli Alam	-0.08	0.07	2.13	0.53	0.00	0.15	-0.48	-1.00	0.00
2Baraki Barak	0.42	-0.31	-1.00	-1.00	-0.43	-0.04	-1.00	-0.24	0.00
3Charkh	0.22	0.17	-1.00	-0.87	-0.76	-1.00	-1.00	-1.00	0.00
4Khushi	-0.13	0.06	-1.00	0.11	-0.22	-1.00	-1.00	2.89	0.00
5Mohammad Agha	-0.22	0.03	-1.00	0.14	1.06	0.92	2.04	0.28	0.00
6Khar War	-0.18	0.06	-1.00	0.62	-0.62	-0.47	0.69	1.85	0.00
7Azra	0.28	-0.05	-1.00	-0.79	-0.60	-1.00	-1.00	-0.34	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Industrial Crops

Panel A—Raw Data

District	Cotton	Sugar Extract	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1Provincial Center—Puli Alam*	0	18	0	0	26	1	0	0	45
2Baraki Barak	0	1	0	0	19	0	0	0	20
3Charkh	1	1	0	0	0	0	0	0	2
4Khushi	0	0	0	0	0	0	0	1	1
5Mohammad Agha	1	7	0	0	8	0	0	0	16
6Khar War	0	0	0	0	0	0	0	0	0
7Azra	0	0	0	0	0	0	0	4	4
Total	**2**	**27**	**0**	**0**	**53**	**1**	**0**	**5**	**88**

Panel B—Specialization

District	Cotton	Sugar Extract	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1Provincial Center—Puli Alam*	0.0	40.0	0.0	0.0	57.8	2.2	0.0	0.0	100.0
2Baraki Barak	0.0	5.0	0.0	0.0	95.0	0.0	0.0	0.0	100.0
3Charkh	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
4Khushi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
5Mohammad Agha	6.3	43.8	0.0	0.0	50.0	0.0	0.0	0.0	100.0
6Khar War	—	—	—	—	—	—	—	—	—
7Azra	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
Total	**2.3**	**30.7**	**0.0**	**0.0**	**60.2**	**1.1**	**0.0**	**5.7**	**100.0**

Panel C—Concentration

District	Cotton	Sugar Extract	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1Provincial Center—Puli Alam*	0.0	66.7	—	—	49.1	100.0	—	0.0	51.1
2Baraki Barak	0.0	3.7	—	—	35.8	0.0	—	0.0	22.7
3Charkh	50.0	3.7	—	—	0.0	0.0	—	0.0	2.3
4Khushi	0.0	0.0	—	—	0.0	0.0	—	20.0	1.1
5Mohammad Agha	50.0	25.9	—	—	15.1	0.0	—	0.0	18.2
6Khar War	0.0	0.0	—	—	0.0	0.0	—	0.0	0.0
7Azra	0.0	0.0	—	—	0.0	0.0	—	80.0	4.5
Total	**100.0**	**100.0**	**—**	**—**	**100.0**	**100.0**	**—**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Cotton	Sugar Extract	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1Provincial Center—Puli Alam*	-1.00	0.30	—	—	-0.04	0.96	—	-1.00	0.00
2Baraki Barak	-1.00	-0.84	—	—	0.58	-1.00	—	-1.00	0.00
3Charkh	21.00	0.63	—	—	-1.00	-1.00	—	-1.00	0.00
4Khushi	-1.00	-1.00	—	—	-1.00	-1.00	—	16.60	0.00
5Mohammad Agha	1.75	0.43	—	—	-0.17	-1.00	—	-1.00	0.00
6Khar War	—	—	—	—	—	—	—	—	—
7Azra	-1.00	-1.00	—	—	-1.00	-1.00	—	16.60	0.00
Total	**0.0**	**0.0**	**—**	**—**	**0.0**	**0.0**	**—**	**0.0**	**0.0**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Fruit

Panel A—Raw Data

District	Grapes	Pome-granates	Melon/ W. melon	Oranges	Almonds	Walnuts	Mulberry	Other	Total
1Provincial Center—Puli Alam*	82	2	22	0	45	18	22	79	270
2Baraki Barak	12	0	2	0	6	0	3	95	118
3Charkh	49	0	0	0	0	0	5	33	87
4Khushi	6	0	1	0	25	9	26	18	85
5Mohammad Agha	16	0	0	0	37	7	39	27	126
6Khar War	2	0	2	0	0	0	1	1	6
7Azra	0	1	0	0	8	21	11	20	61
Total	**167**	**3**	**27**	**0**	**121**	**55**	**107**	**273**	**753**

Panel B—Specialization

District	Grapes	Pome-granates	Melon/ W. melon	Oranges	Almonds	Walnuts	Mulberry	Other	Total
1Provincial Center—Puli Alam*	30.4	0.7	8.1	0.0	16.7	6.7	8.1	29.3	100.0
2Baraki Barak	10.2	0.0	1.7	0.0	5.1	0.0	2.5	80.5	100.0
3Charkh	56.3	0.0	0.0	0.0	0.0	0.0	5.7	37.9	100.0
4Khushi	7.1	0.0	1.2	0.0	29.4	10.6	30.6	21.2	100.0
5Mohammad Agha	12.7	0.0	0.0	0.0	29.4	5.6	31.0	21.4	100.0
6Khar War	33.3	0.0	33.3	0.0	0.0	0.0	16.7	16.7	100.0
7Azra	0.0	1.6	0.0	0.0	13.1	34.4	18.0	32.8	100.0
Total	**22.2**	**0.4**	**3.6**	**0.0**	**16.1**	**7.3**	**14.2**	**36.3**	**100.0**

Panel C—Concentration

District	Grapes	Pome-granates	Melon/ W. melon	Oranges	Almonds	Walnuts	Mulberry	Other	Total
1Provincial Center—Puli Alam*	49.1	66.7	81.5	—	37.2	32.7	20.6	28.9	35.9
2Baraki Barak	7.2	0.0	7.4	—	5.0	0.0	2.8	34.8	15.7
3Charkh	29.3	0.0	0.0	—	0.0	0.0	4.7	12.1	11.6
4Khushi	3.6	0.0	3.7	—	20.7	16.4	24.3	6.6	11.3
5Mohammad Agha	9.6	0.0	0.0	—	30.6	12.7	36.4	9.9	16.7
6Khar War	1.2	0.0	7.4	—	0.0	0.0	0.9	0.4	0.8
7Azra	0.0	33.3	0.0	—	6.6	38.2	10.3	7.3	8.1
Total	**100.0**	**100.0**	**100.0**	**—**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Grapes	Pome-granates	Melon/ W. melon	Oranges	Almonds	Walnuts	Mulberry	Other	Total
1Provincial Center—Puli Alam*	0.37	0.86	1.27	—	0.04	-0.09	-0.43	-0.19	0.00
2Baraki Barak	-0.54	-1.00	-0.53	—	-0.68	-1.00	-0.82	1.22	0.00
3Charkh	1.54	-1.00	-1.00	—	-1.00	-1.00	-0.60	0.05	0.00
4Khushi	-0.68	-1.00	-0.67	—	0.83	0.45	1.15	-0.42	0.00
5Mohammad Agha	-0.43	-1.00	-1.00	—	0.83	-0.24	1.18	-0.41	0.00
6Khar War	0.50	-1.00	8.30	—	-1.00	-1.00	0.17	-0.54	0.00
7Azra	-1.00	3.11	-1.00	—	-0.18	3.71	0.27	-0.10	0.00
Total	**0.0**	**0.0**	**0.0**	**—**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Vegetables

Panel A—Raw Data

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1Provincial Center—Puli Alam*	143	130	54	28	1	23	44	3	426
2Baraki Barak	93	27	5	2	0	1	24	2	154
3Charkh	30	24	16	0	0	0	13	1	84
4Khushi	15	14	12	2	1	2	2	0	48
5Mohammad Agha	67	63	39	31	3	24	29	3	259
6Khar War	27	27	16	23	1	5	11	3	113
7Azra	8	8	1	0	0	0	1	0	18
Total	**383**	**293**	**143**	**86**	**6**	**55**	**124**	**12**	**1,102**

Panel B—Specialization

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1Provincial Center—Puli Alam*	33.6	30.5	12.7	6.6	0.2	5.4	10.3	0.7	100.0
2Baraki Barak	60.4	17.5	3.2	1.3	0.0	0.6	15.6	1.3	100.0
3Charkh	35.7	28.6	19.0	0.0	0.0	0.0	15.5	1.2	100.0
4Khushi	31.3	29.2	25.0	4.2	2.1	4.2	4.2	0.0	100.0
5Mohammad Agha	25.9	24.3	15.1	12.0	1.2	9.3	11.2	1.2	100.0
6Khar War	23.9	23.9	14.2	20.4	0.9	4.4	9.7	2.7	100.0
7Azra	44.4	44.4	5.6	0.0	0.0	0.0	5.6	0.0	100.0
Total	**34.8**	**26.6**	**13.0**	**7.8**	**0.5**	**5.0**	**11.3**	**1.1**	**100.0**

Panel C—Concentration

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1Provincial Center—Puli Alam*	37.3	44.4	37.8	32.6	16.7	41.8	35.5	25.0	38.7
2Baraki Barak	24.3	9.2	3.5	2.3	0.0	1.8	19.4	16.7	14.0
3Charkh	7.8	8.2	11.2	0.0	0.0	0.0	10.5	8.3	7.6
4Khushi	3.9	4.8	8.4	2.3	16.7	3.6	1.6	0.0	4.4
5Mohammad Agha	17.5	21.5	27.3	36.0	50.0	43.6	23.4	25.0	23.5
6Khar War	7.0	9.2	11.2	26.7	16.7	9.1	8.9	25.0	10.3
7Azra	2.1	2.7	0.7	0.0	0.0	0.0	0.8	0.0	1.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1Provincial Center—Puli Alam*	-0.03	0.15	-0.02	-0.16	-0.57	0.08	-0.08	-0.35	0.00
2Baraki Barak	0.74	-0.34	-0.75	-0.83	-1.00	-0.87	0.39	0.19	0.00
3Charkh	0.03	0.07	0.47	-1.00	-1.00	-1.00	0.38	0.09	0.00
4Khushi	-0.10	0.10	0.93	-0.47	2.83	-0.17	-0.63	-1.00	0.00
5Mohammad Agha	-0.26	-0.09	0.16	0.53	1.13	0.86	0.00	0.06	0.00
6Khar War	-0.31	-0.10	0.09	1.61	0.63	-0.11	-0.13	1.44	0.00
7Azra	0.28	0.67	-0.57	-1.00	-1.00	-1.00	-0.51	-1.00	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Herbal Products

Panel A—Raw Data

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1Provincial Center—Puli Alam*	0	3	0	2	22	14	23	1	65
2Baraki Barak	0	10	0	1	6	0	1	0	18
3Charkh	0	1	0	0	0	0	0	0	1
4Khushi	0	0	0	0	1	0	0	0	1
5Mohammad Agha	1	3	0	1	4	2	0	0	11
6Khar War	0	5	0	2	2	1	0	0	10
7Azra	0	0	0	2	0	0	0	0	2
Total	**1**	**22**	**0**	**8**	**35**	**17**	**24**	**1**	**108**

Panel B—Specialization

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1Provincial Center—Puli Alam*	0.0	4.6	0.0	3.1	33.8	21.5	35.4	1.5	100.0
2Baraki Barak	0.0	55.6	0.0	5.6	33.3	0.0	5.6	0.0	100.0
3Charkh	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
4Khushi	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
5Mohammad Agha	9.1	27.3	0.0	9.1	36.4	18.2	0.0	0.0	100.0
6Khar War	0.0	50.0	0.0	20.0	20.0	10.0	0.0	0.0	100.0
7Azra	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Total	**0.9**	**20.4**	**0.0**	**7.4**	**32.4**	**15.7**	**22.2**	**0.9**	**100.0**

Panel C—Concentration

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1Provincial Center—Puli Alam*	0.0	13.6	—	25.0	62.9	82.4	95.8	100.0	60.2
2Baraki Barak	0.0	45.5	—	12.5	17.1	0.0	4.2	0.0	16.7
3Charkh	0.0	4.5	—	0.0	0.0	0.0	0.0	0.0	0.9
4Khushi	0.0	0.0	—	0.0	2.9	0.0	0.0	0.0	0.9
5Mohammad Agha	100.0	13.6	—	12.5	11.4	11.8	0.0	0.0	10.2
6Khar War	0.0	22.7	—	25.0	5.7	5.9	0.0	0.0	9.3
7Azra	0.0	0.0	—	25.0	0.0	0.0	0.0	0.0	1.9
Total	**100.0**	**100.0**	**—**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1Provincial Center—Puli Alam*	-1.00	-0.77	—	-0.58	0.04	0.37	0.59	0.66	0.00
2Baraki Barak	-1.00	1.73	—	-0.25	0.03	-1.00	-0.75	-1.00	0.00
3Charkh	-1.00	3.91	—	-1.00	-1.00	-1.00	-1.00	-1.00	0.00
4Khushi	-1.00	-1.00	—	-1.00	2.09	-1.00	-1.00	-1.00	0.00
5Mohammad Agha	8.82	0.34	—	0.23	0.12	0.16	-1.00	-1.00	0.00
6Khar War	-1.00	1.45	—	1.70	-0.38	-0.36	-1.00	-1.00	0.00
7Azra	-1.00	-1.00	—	12.50	-1.00	-1.00	-1.00	-1.00	0.00
Total	**0.0**	**0.0**	**—**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Handicrafts

Panel A—Raw Data

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1Provincial Center—Puli Alam*	1	0	0	0	0	9	1	0	11
2Baraki Barak	1	1	0	2	0	3	1	1	9
3Charkh	0	1	0	7	0	3	0	0	11
4Khushi	1	1	0	2	0	2	0	0	6
5Mohammad Agha	1	0	0	0	0	8	0	0	9
6Khar War	0	0	0	0	0	0	0	0	0
7Azra	0	0	0	0	0	1	0	0	1
Total	**4**	**3**	**0**	**11**	**0**	**26**	**2**	**1**	**47**

Panel B—Specialization

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1Provincial Center—Puli Alam	9.1	0.0	0.0	0.0	0.0	81.8	9.1	0.0	100.0
2Baraki Barak	11.1	11.1	0.0	22.2	0.0	33.3	11.1	11.1	100.0
3Charkh	0.0	9.1	0.0	63.6	0.0	27.3	0.0	0.0	100.0
4Khushi	16.7	16.7	0.0	33.3	0.0	33.3	0.0	0.0	100.0
5Mohammad Agha	11.1	0.0	0.0	0.0	0.0	88.9	0.0	0.0	100.0
6Khar War	—	—	—	—	—	—	—	—	—
7Azra	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0
Total	**8.5**	**6.4**	**0.0**	**23.4**	**0.0**	**55.3**	**4.3**	**2.1**	**100.0**

Panel C—Concentration

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1Provincial Center—Puli Alam*	25.0	0.0	—	0.0	—	34.6	50.0	0.0	23.4
2Baraki Barak	25.0	33.3	—	18.2	—	11.5	50.0	100.0	19.1
3Charkh	0.0	33.3	—	63.6	—	11.5	0.0	0.0	23.4
4Khushi	25.0	33.3	—	18.2	—	7.7	0.0	0.0	12.8
5Mohammad Agha	25.0	0.0	—	0.0	—	30.8	0.0	0.0	19.1
6Khar War	0.0	0.0	—	0.0	—	0.0	0.0	0.0	0.0
7Azra	0.0	0.0	—	0.0	—	3.8	0.0	0.0	2.1
Total	**100.0**	**100.0**	**—**	**100.0**	**—**	**100.0**	**100.0**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1Provincial Center—Puli Alam*	1.79	0.08	—	0.22	0.05	0.11	0.07	1.79	—
2Baraki Barak	6.48	0.29	—	0.81	0.19	0.38	0.27	6.48	—
3Charkh	116.64	5.30	—	14.58	3.33	6.86	4.86	116.64	—
4Khushi	116.64	5.30	—	14.58	3.33	6.86	4.86	116.64	—
5Mohammad Agha	10.60	0.48	—	1.33	0.30	0.62	0.44	10.60	—
6Khar War	11.66	0.53	—	1.46	0.33	0.69	0.49	11.66	—
7Azra	58.32	2.65	—	7.29	1.67	3.43	2.43	58.32	—
Total	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Small Industries

Panel A—Raw Data

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1Provincial Center—Puli Alam*	4	0	0	0	0	0	0	0	4
2Baraki Barak	4	0	0	0	0	0	0	1	5
3Charkh	1	0	0	0	0	0	0	0	1
4Khushi	0	1	0	0	0	0	0	0	1
5Mohammad Agha	2	3	1	1	0	1	0	0	8
6Khar War	0	0	0	0	0	0	0	0	0
7Azra	0	0	0	0	0	0	0	0	0
Total	**11**	**4**	**1**	**1**	**0**	**1**	**0**	**1**	**19**

Panel B—Specialization

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1Provincial Center—Puli Alam*	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
2Baraki Barak	80.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	100.0
3Charkh	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
4Khushi	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
5Mohammad Agha	25.0	37.5	12.5	12.5	0.0	12.5	0.0	0.0	100.0
6Khar War	—	—	—	—	—	—	—	—	—
7Azra	—	—	—	—	—	—	—	—	—
Total	**57.9**	**21.1**	**5.3**	**5.3**	**0.0**	**5.3**	**0.0**	**5.3**	**100.0**

Panel C—Concentration

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1Provincial Center—Puli Alam*	36.4	0.0	0.0	0.0	—	0.0	—	0.0	21.1
2Baraki Barak	36.4	0.0	0.0	0.0	—	0.0	—	100.0	26.3
3Charkh	9.1	0.0	0.0	0.0	—	0.0	—	0.0	5.3
4Khushi	0.0	25.0	0.0	0.0	—	0.0	—	0.0	5.3
5Mohammad Agha	18.2	75.0	100.0	100.0	—	100.0	—	0.0	42.1
6Khar War	0.0	0.0	0.0	0.0	—	0.0	—	0.0	0.0
7Azra	0.0	0.0	0.0	0.0	—	0.0	—	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**—**	**100.0**	**—**	**100.0**	**100.0**

Panel G—Deviation of actual from expected as a ratio to expected

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1Provincial Center—Puli Alam*	0.73	-1.00	-1.00	-1.00	—	-1.00	—	-1.00	0.00
2Baraki Barak	0.38	-1.00	-1.00	-1.00	—	-1.00	—	2.80	0.00
3Charkh	0.73	-1.00	-1.00	-1.00	—	-1.00	—	-1.00	0.00
4Khushi	-1.00	3.75	-1.00	-1.00	—	-1.00	—	-1.00	0.00
5Mohammad Agha	-0.57	0.78	1.38	1.38	—	1.38	—	-1.00	0.00
6Khar War	—	—	—	—	—	—	—	—	—
7Azra	—	—	—	—	—	—	—	—	—
Total	**0.0**	**0.0**	**0.0**	**0.0**	**—**	**0.0**	**—**	**0.0**	**0.0**

Annex 6 (Cont'd)

Agricultural and industrial products, and economic activities, Logar, 2003

Animal Products

Panel A—Raw Data

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1Provincial Center—Puli Alam*	153	156	114	71	60	62	20	0	636
2Baraki Barak	25	40	7	3	2	0	1	0	78
3Charkh	4	5	1	0	0	0	0	0	10
4Khushi	11	20	19	4	4	4	2	0	64
5Mohammad Agha	47	49	51	40	12	42	5	0	246
6Khar War	30	30	29	29	28	29	28	3	206
7Azra	9	20	13	9	8	7	7	0	73
Total	**279**	**320**	**234**	**156**	**114**	**144**	**63**	**3**	**1,313**

Panel B—Specialization

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1Provincial Center—Puli Alam*	24.1	24.5	17.9	11.2	9.4	9.7	3.1	0.0	100.0
2Baraki Barak	32.1	51.3	9.0	3.8	2.6	0.0	1.3	0.0	100.0
3Charkh	40.0	50.0	10.0	0.0	0.0	0.0	0.0	0.0	100.0
4Khushi	17.2	31.3	29.7	6.3	6.3	6.3	3.1	0.0	100.0
5Mohammad Agha	19.1	19.9	20.7	16.3	4.9	17.1	2.0	0.0	100.0
6Khar War	14.6	14.6	14.1	14.1	13.6	14.1	13.6	1.5	100.0
7Azra	12.3	27.4	17.8	12.3	11.0	9.6	9.6	0.0	100.0
Total	**21.2**	**24.4**	**17.8**	**11.9**	**8.7**	**11.0**	**4.8**	**0.2**	**100.0**

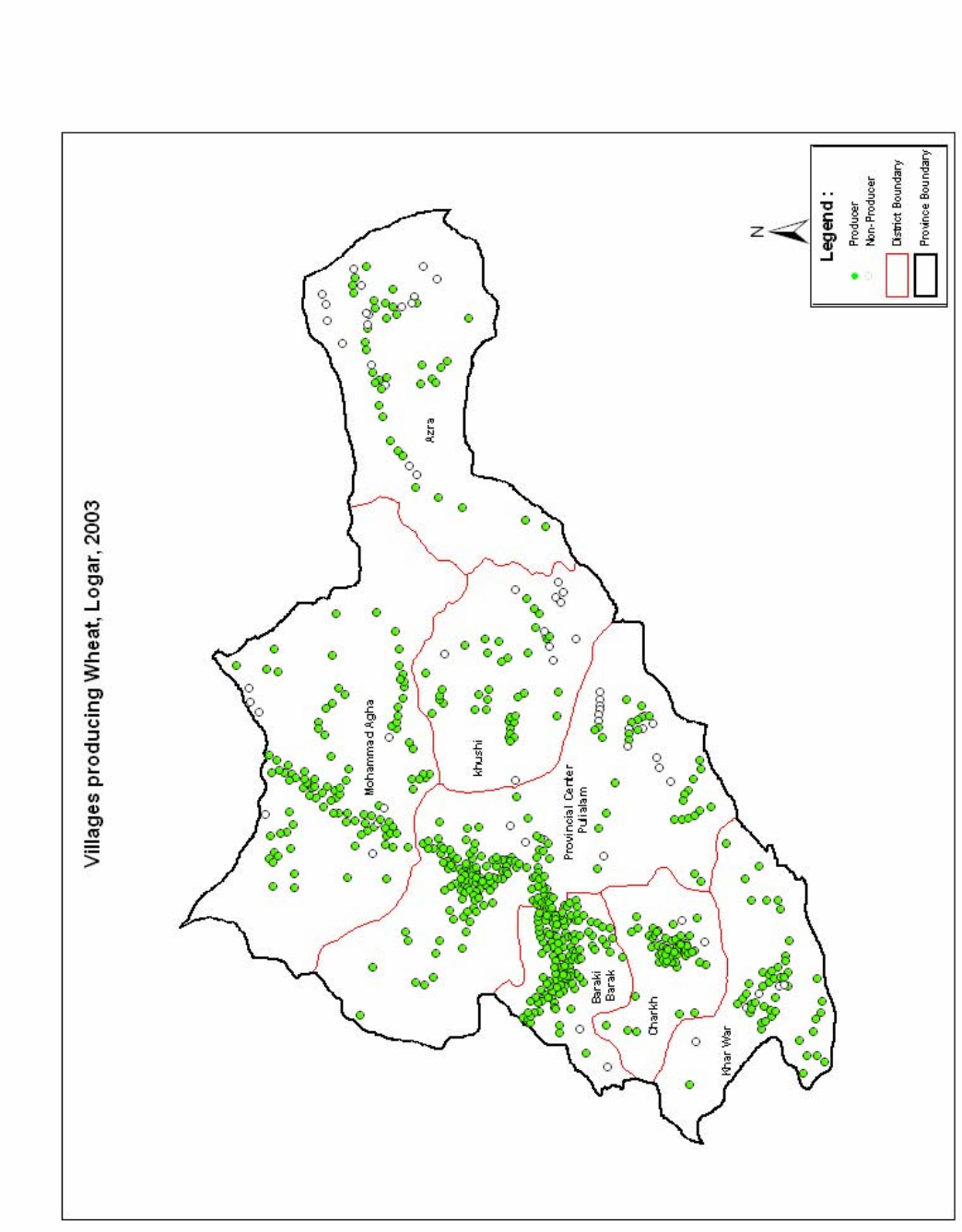
Panel C—Concentration

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1Provincial Center—Puli Alam*	54.8	48.8	48.7	45.5	52.6	43.1	31.7	0.0	48.4
2Baraki Barak	9.0	12.5	3.0	1.9	1.8	0.0	1.6	0.0	5.9
3Charkh	1.4	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.8
4Khushi	3.9	6.3	8.1	2.6	3.5	2.8	3.2	0.0	4.9
5Mohammad Agha	16.8	15.3	21.8	25.6	10.5	29.2	7.9	0.0	18.7
6Khar War	10.8	9.4	12.4	18.6	24.6	20.1	44.4	100.0	15.7
7Azra	3.2	6.3	5.6	5.8	7.0	4.9	11.1	0.0	5.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

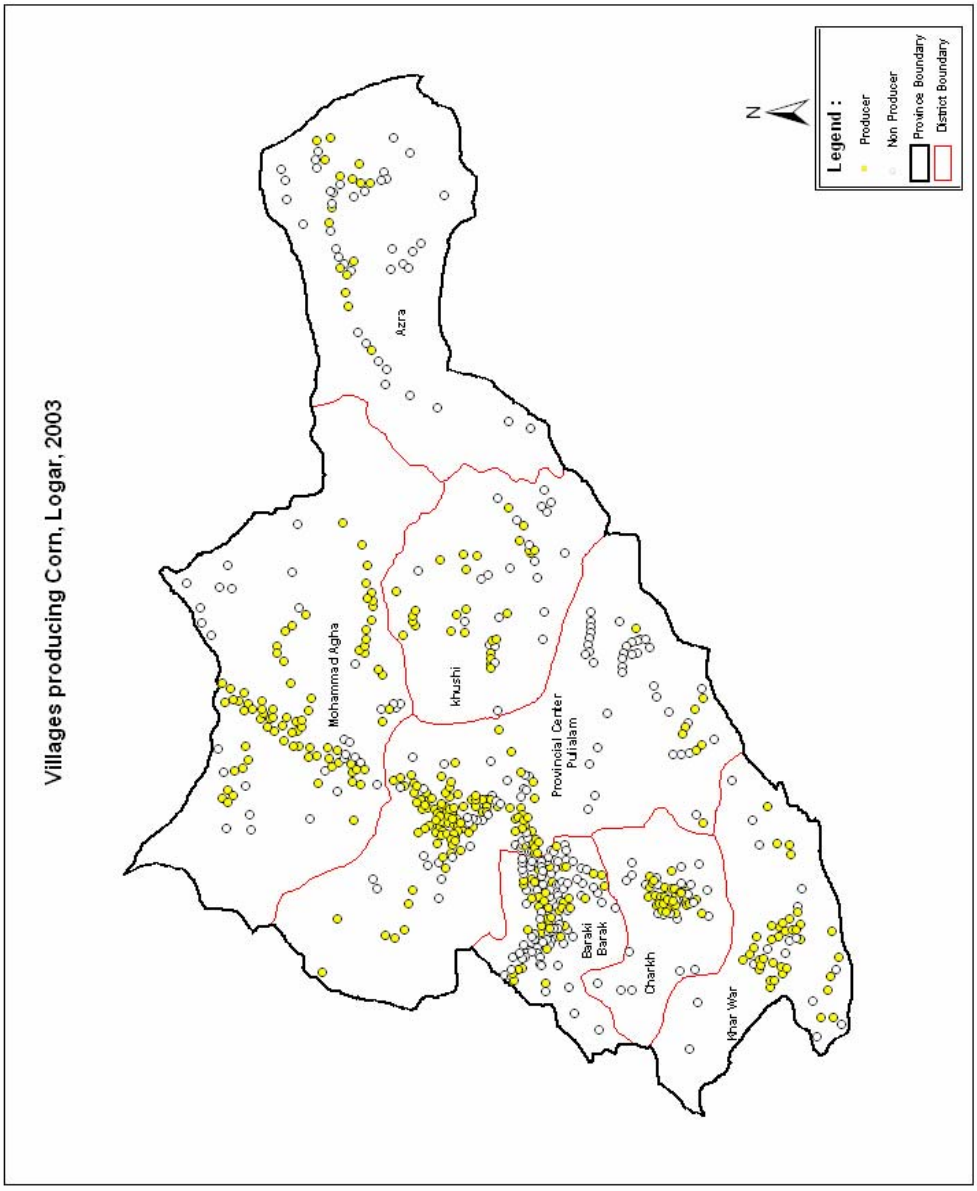
Panel G—Deviation of actual from expected as a ratio to expected

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1Provincial Center—Puli Alam*	0.13	0.01	0.01	-0.06	0.09	-0.11	-0.34	-1.00	0.00
2Baraki Barak	0.51	1.10	-0.50	-0.68	-0.70	-1.00	-0.73	-1.00	0.00
3Charkh	0.88	1.05	-0.44	-1.00	-1.00	-1.00	-1.00	-1.00	0.00
4Khushi	-0.19	0.28	0.67	-0.47	-0.28	-0.43	-0.35	-1.00	0.00
5Mohammad Agha	-0.10	-0.18	0.16	0.37	-0.44	0.56	-0.58	-1.00	0.00
6Khar War	-0.31	-0.40	-0.21	0.18	0.57	0.28	1.83	5.37	0.00
7Azra	-0.42	0.12	0.00	0.04	0.26	-0.13	1.00	-1.00	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

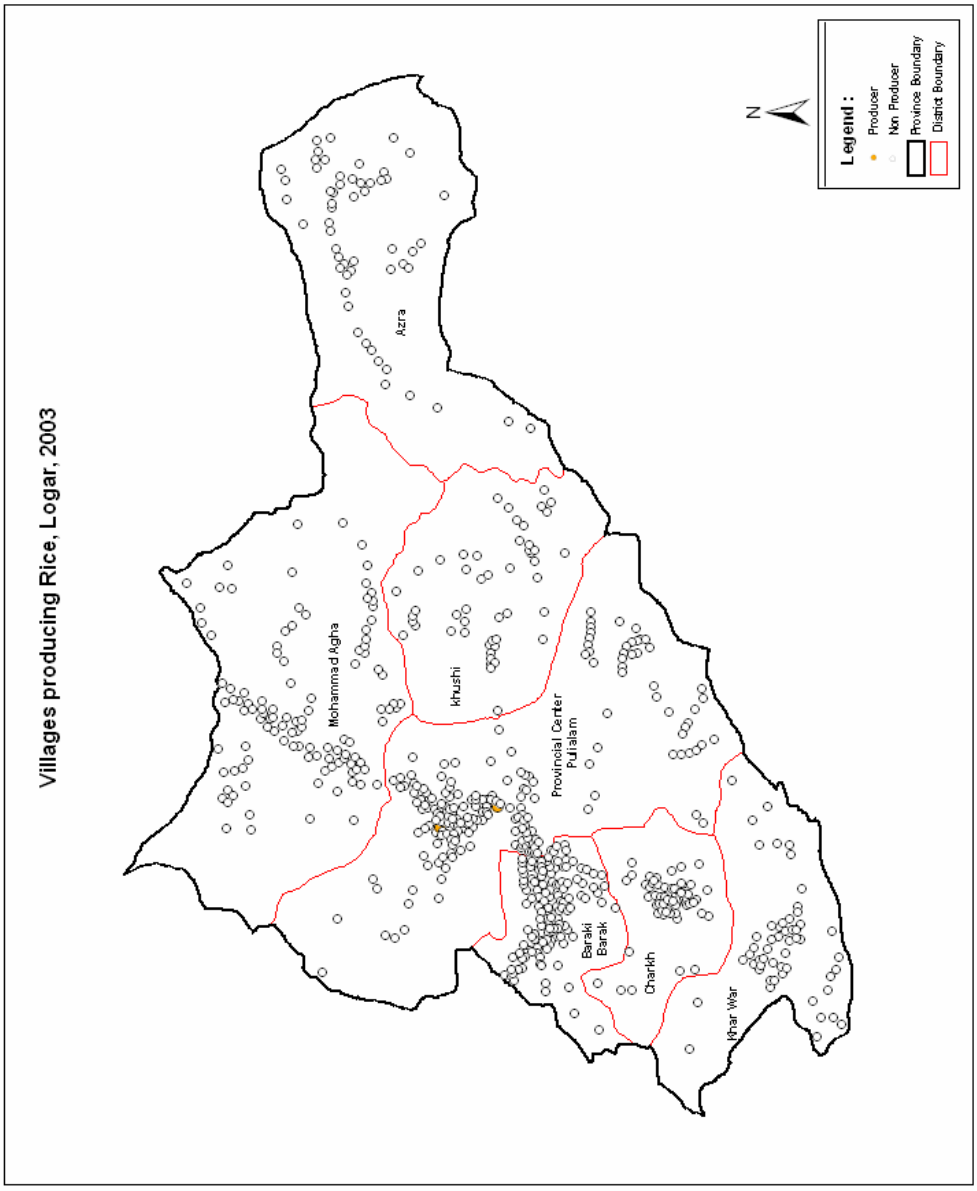
Annex 7


Villages producing Wheat, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

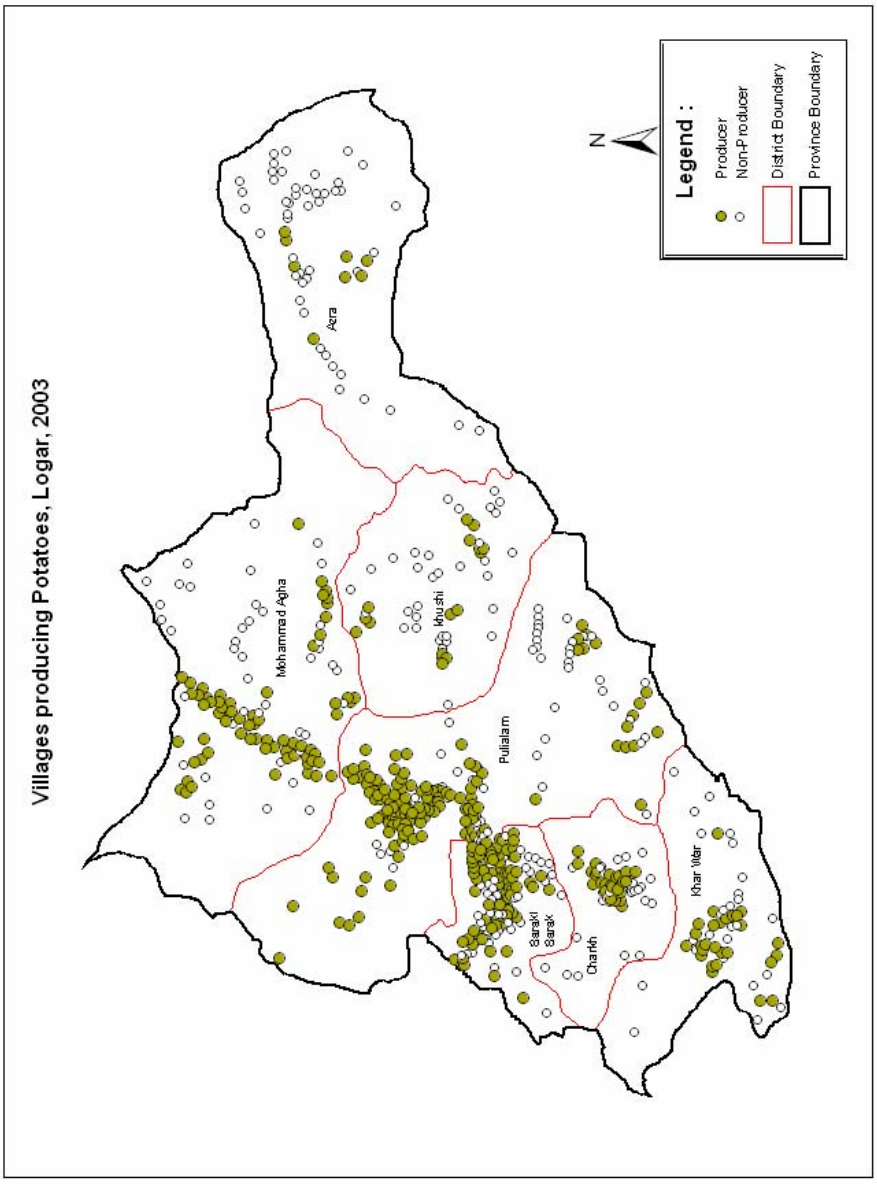
Annex 8


Villages producing Corn, Logar, 2003
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

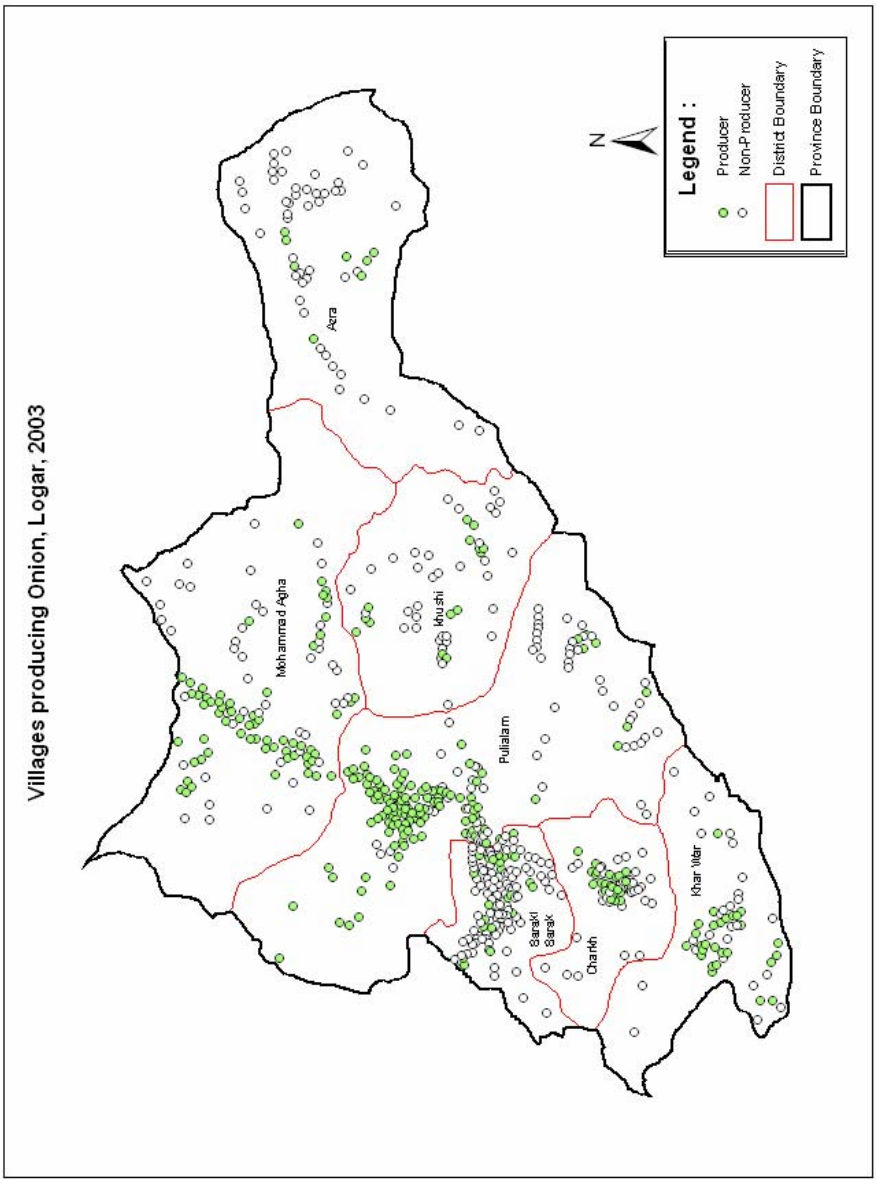
Annex 9


Villages producing Rice, Logar, 2003
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki Barak
Charkh
Khar War

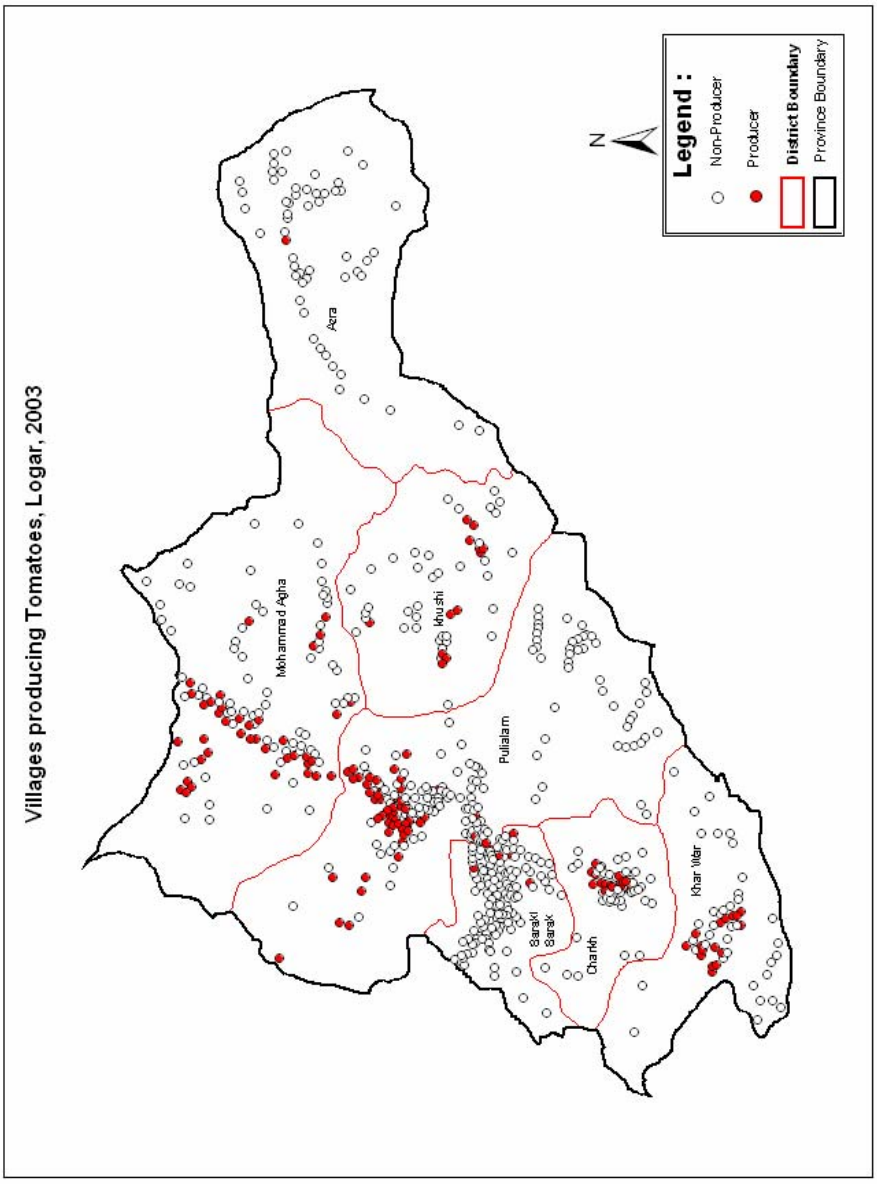
Annex 10


Villages producing Potatoes, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakai Barak
Charkh
Khar Wtar

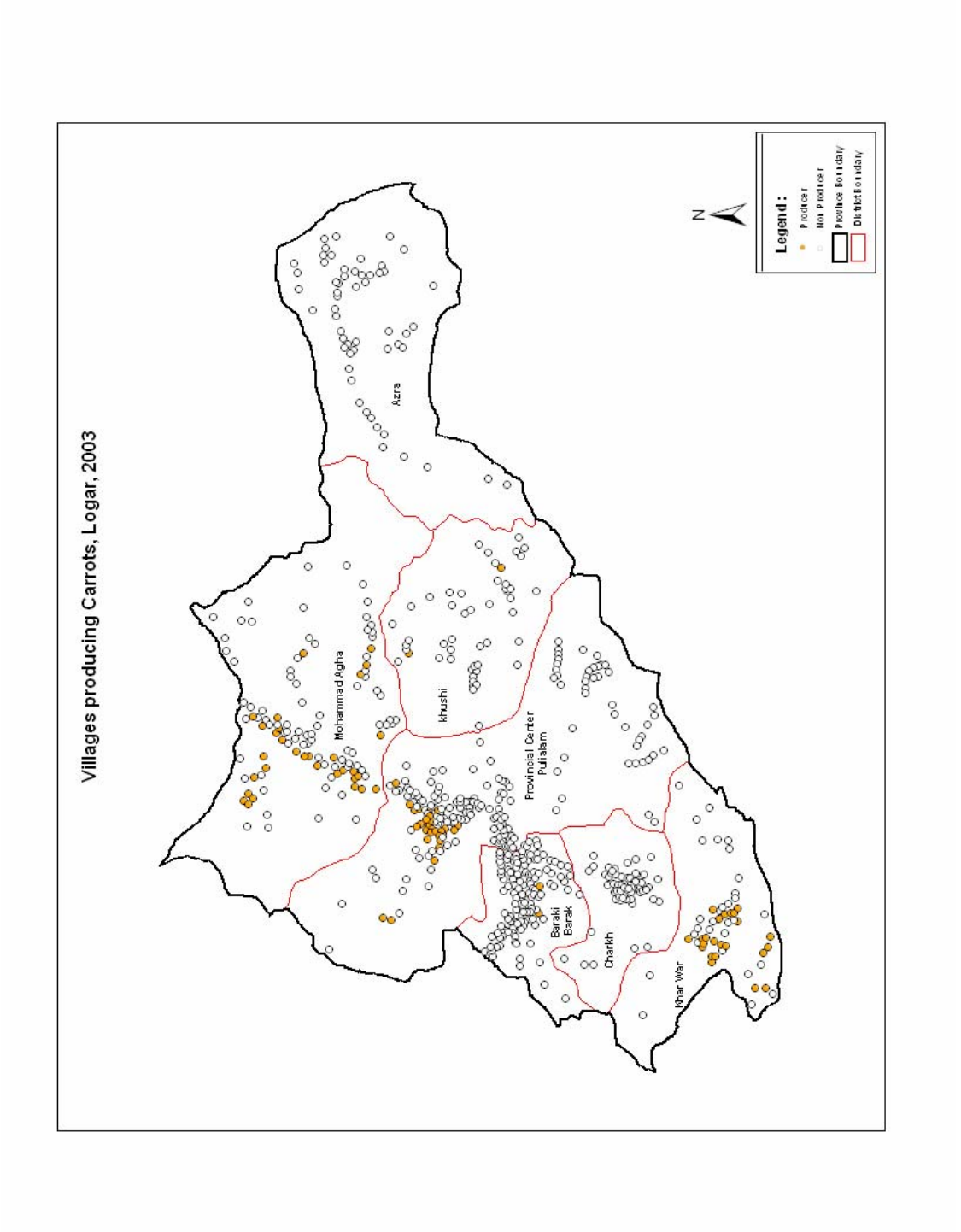
Annex 11


Villages producing Onion, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakl
Barak
Charkh
Khar Wtar

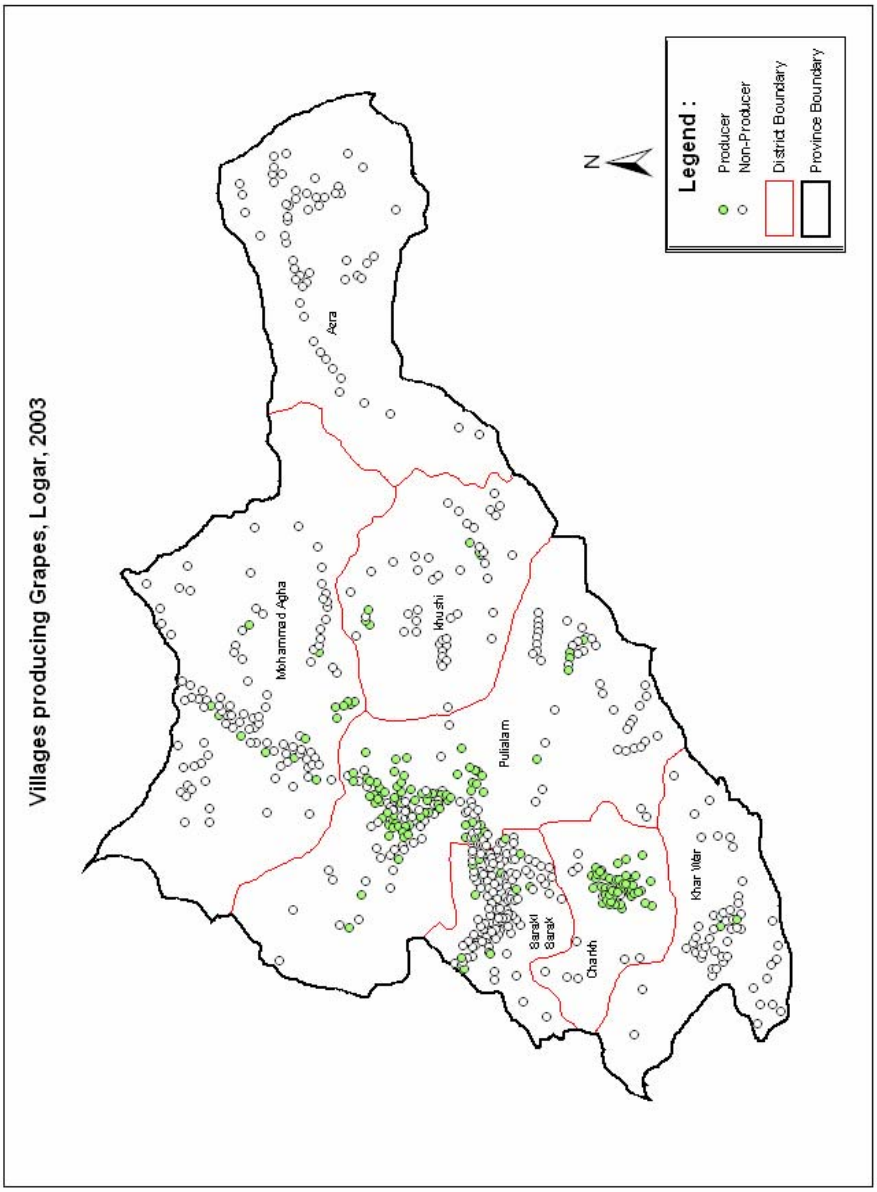
Annex 12


Villages producing Tomatoes, Logar, 2003
N
Legend :
Non-Producer
Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakl
Barak
Charkh
Khar War

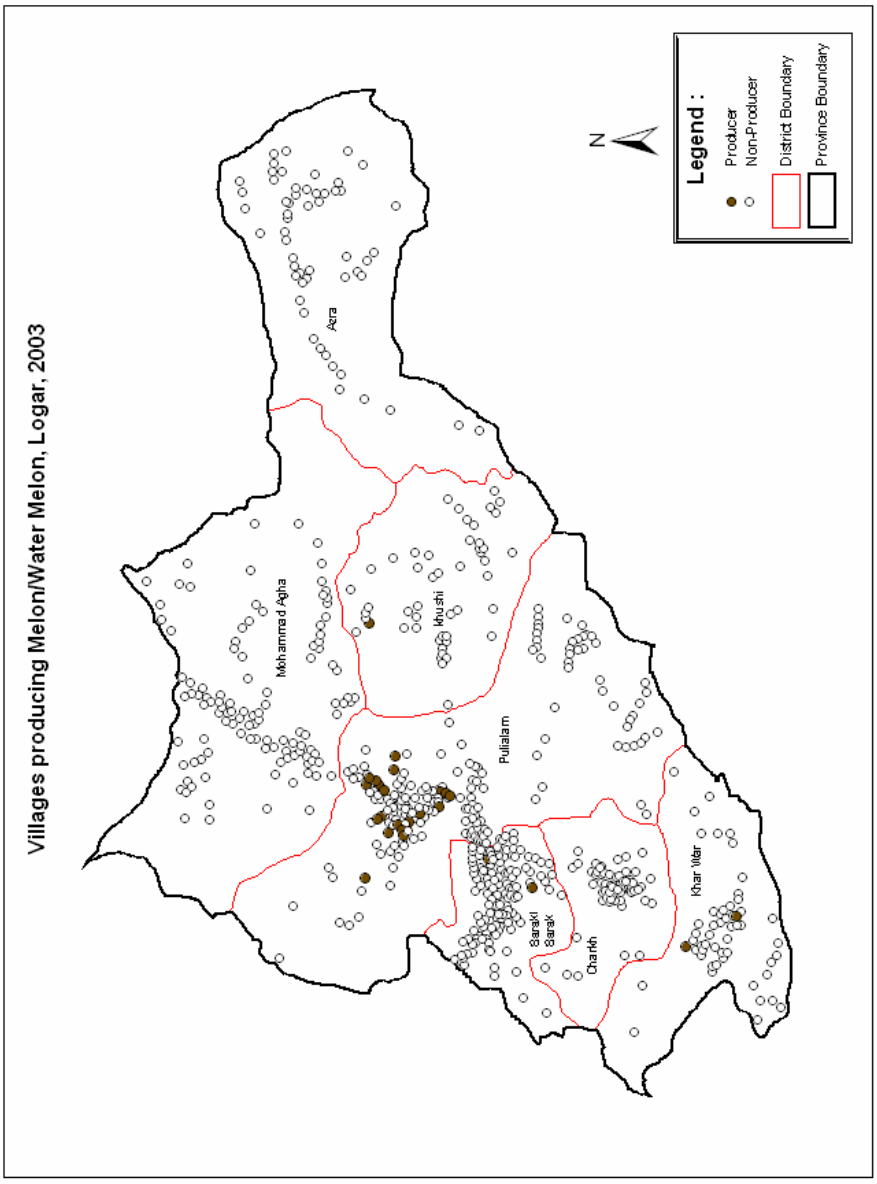
Annex 13


Villages producing Carrots, Logar, 2003
N
Legend:
Producer
Non Producer
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

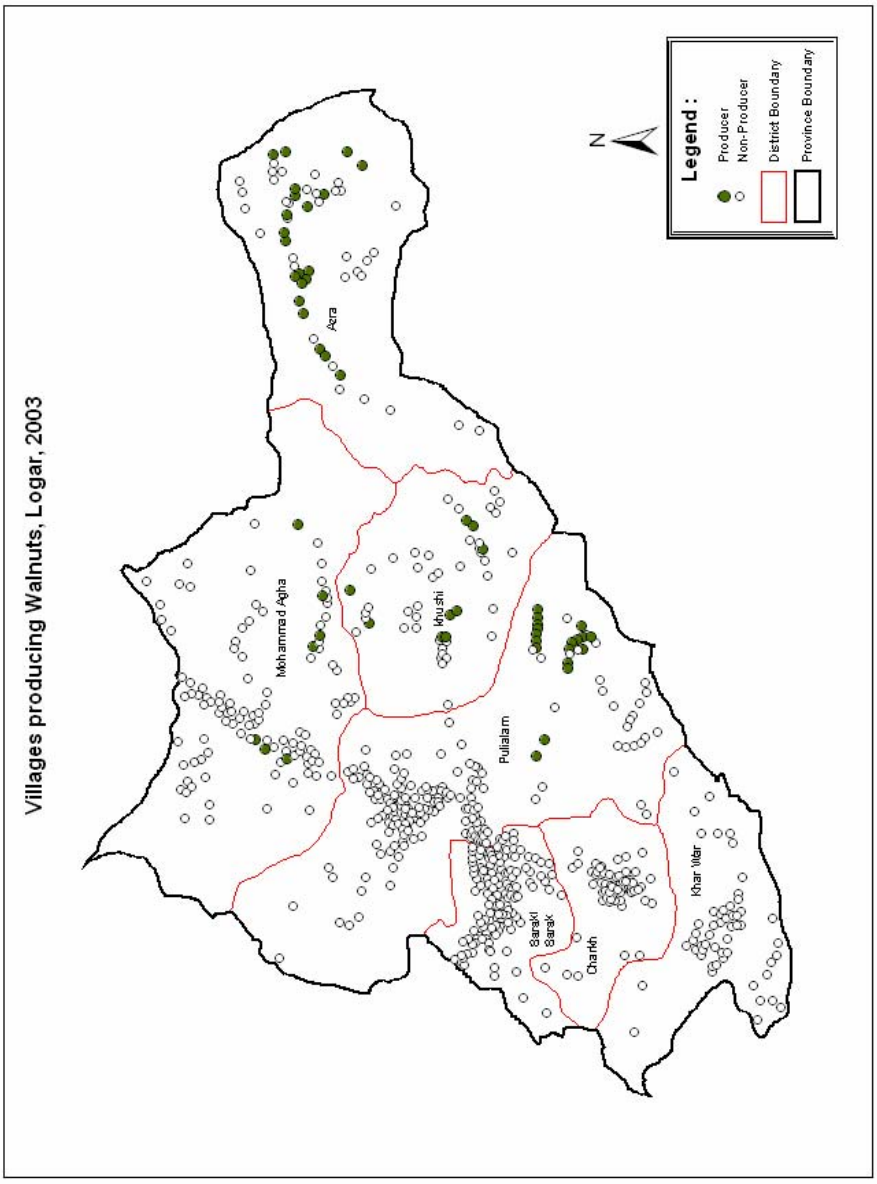
Annex 14


Villages producing Grapes, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Sarak
Sarak
Charkh
Khar Wter

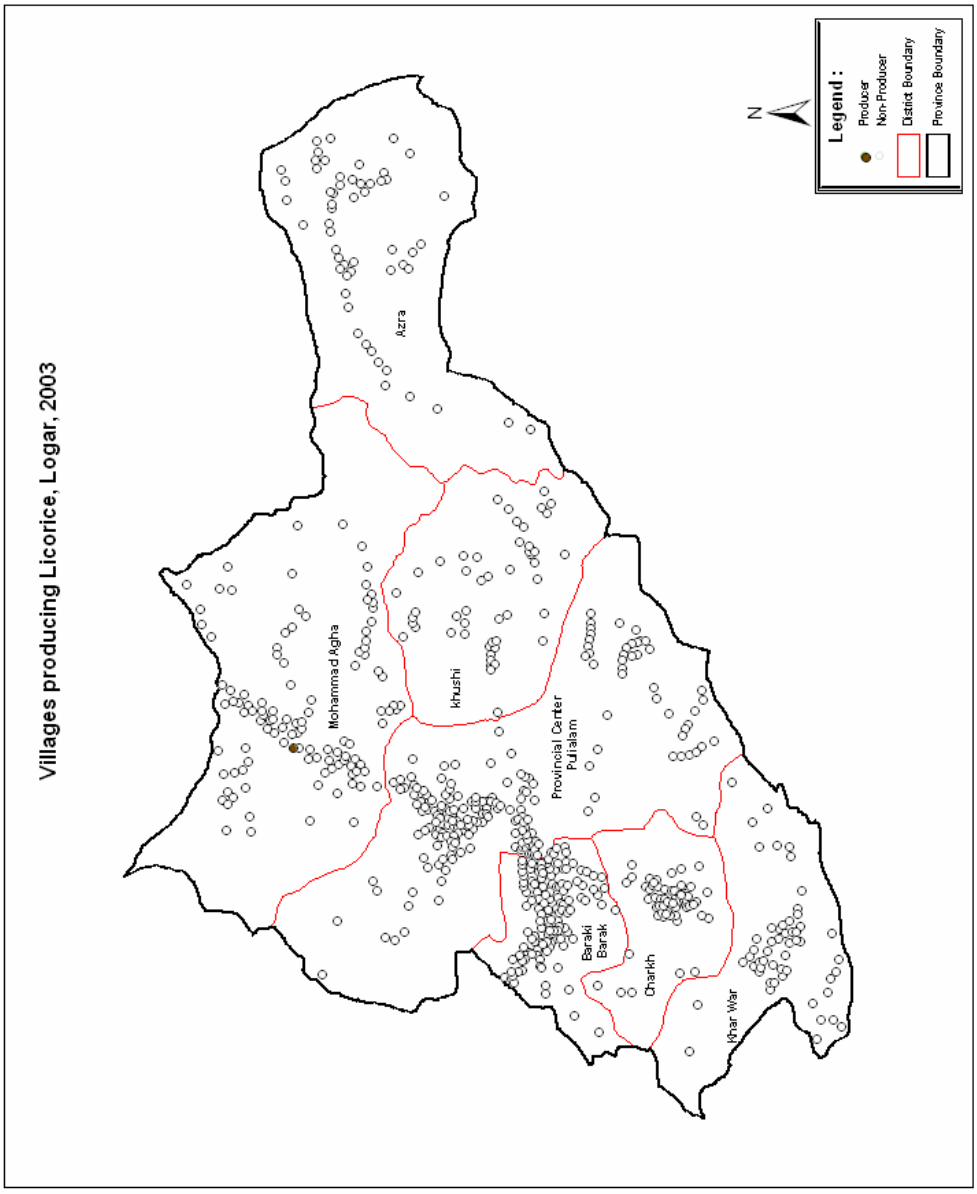
Annex 15


Villages producing Melon/Water Melon, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakil Barak
Charkh
Khar Wtar

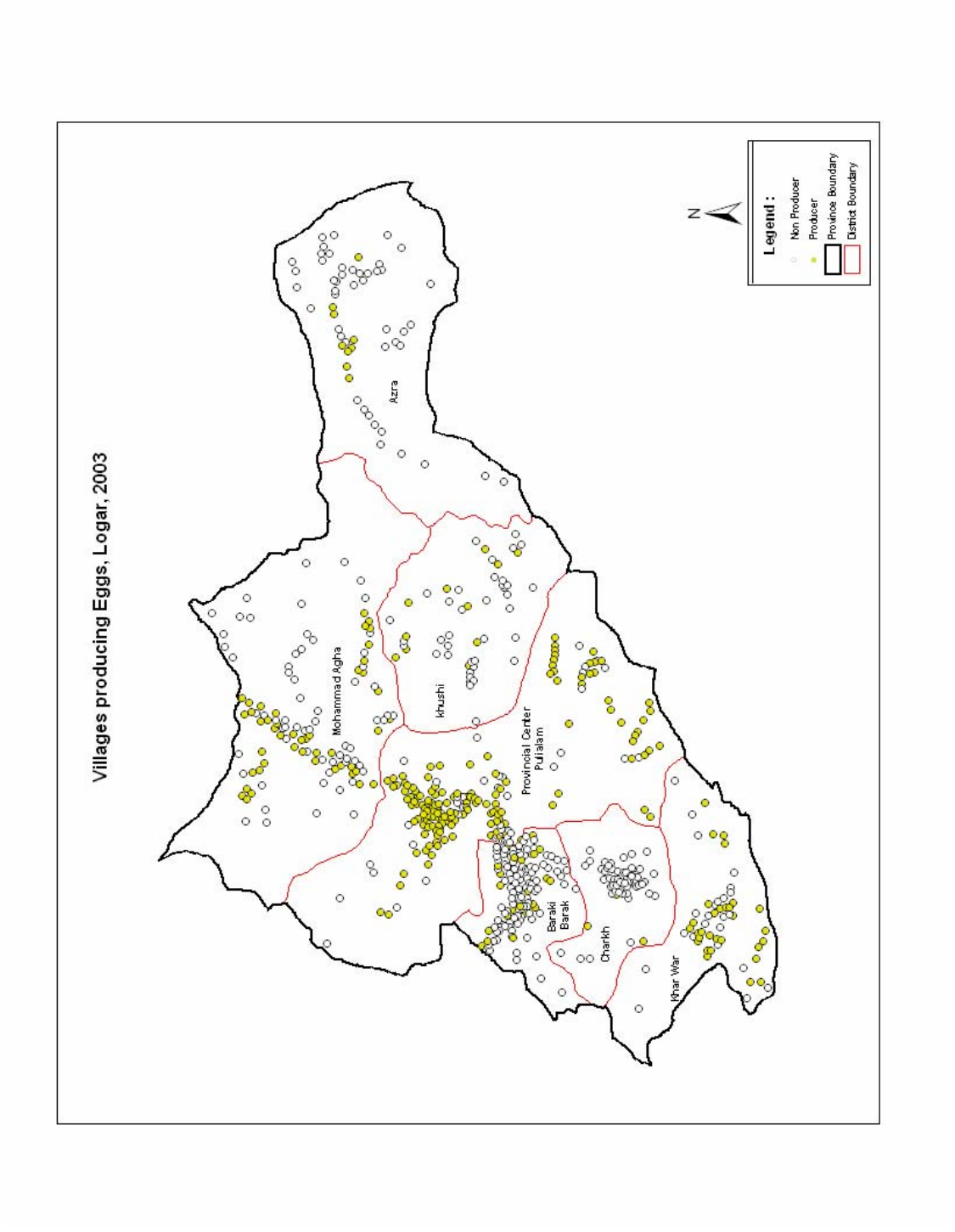
Annex 16


Villages producing Walnuts, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pul-i-alam
Baraki Barak
Charkh
Khar Wtar

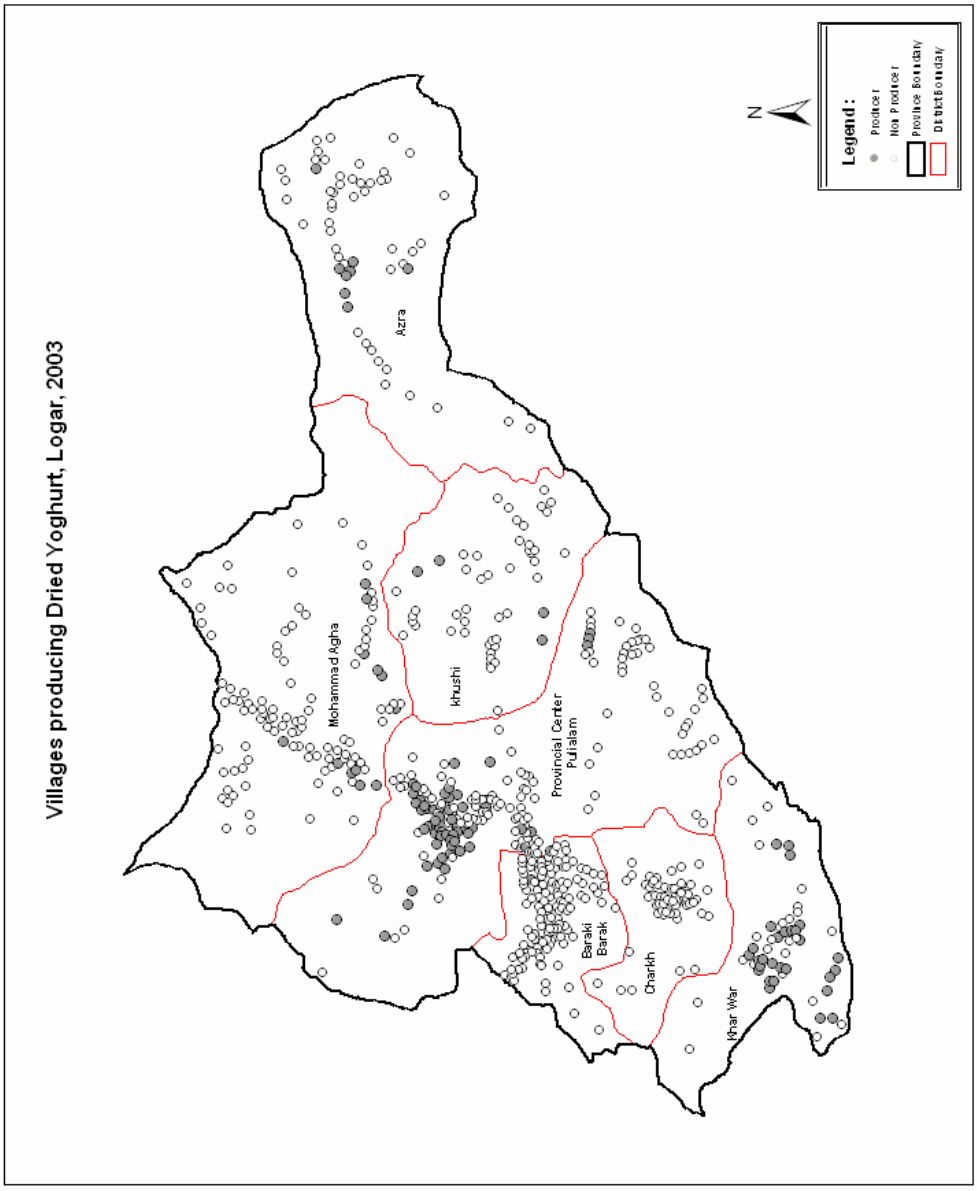
Annex 17


Villages producing Licorice, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pul-i-alam
Baraki
Barak
Charkh
Khar War

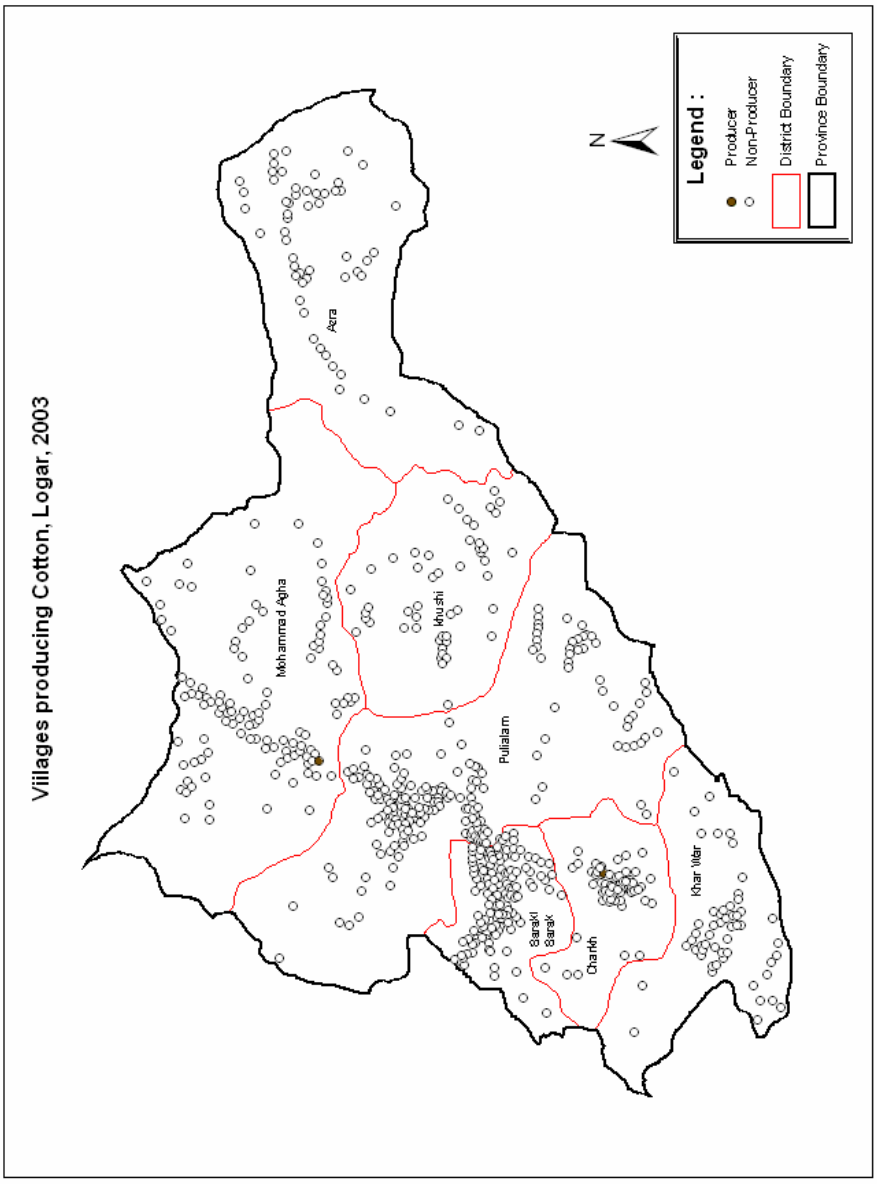
Annex 18


Villages producing Eggs, Logar, 2003
N
Legend :
Non Producer
Producer
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

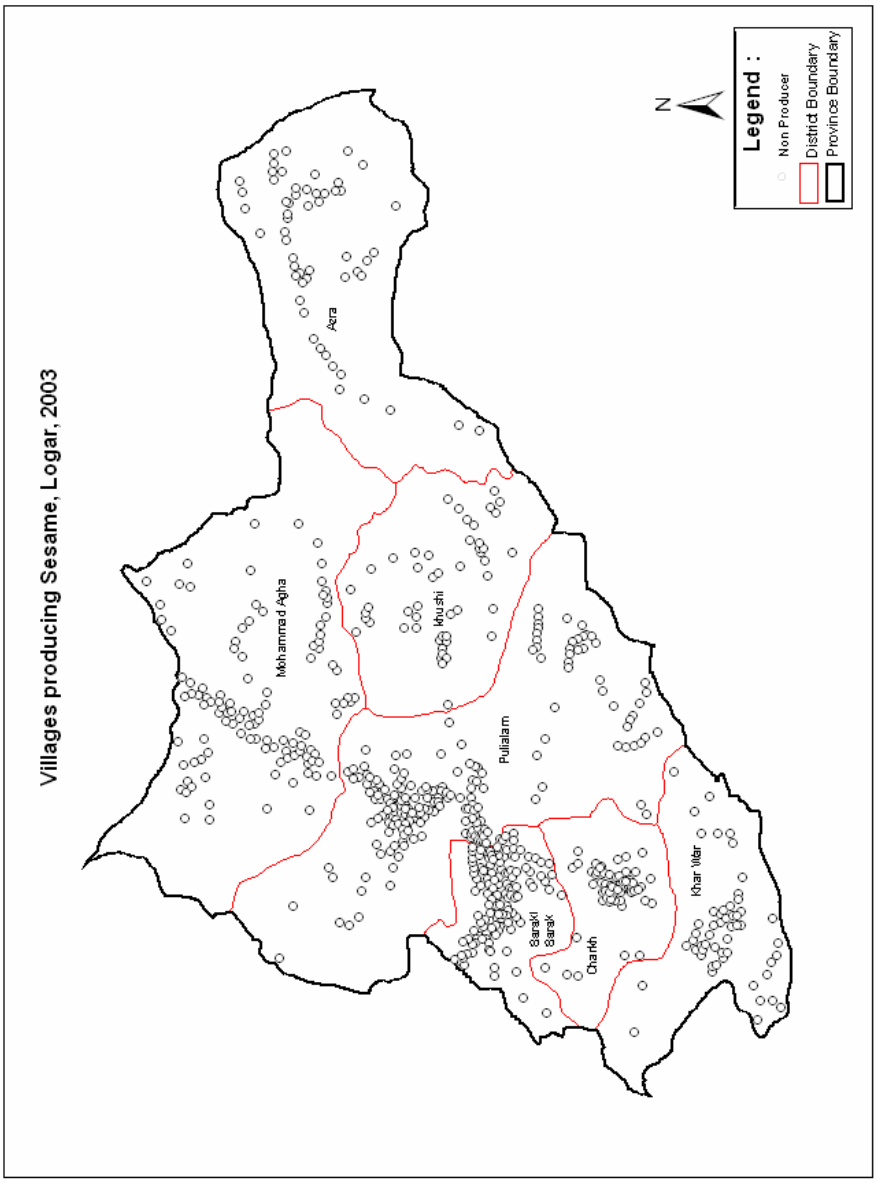
Annex 19


Villages producing Dried Yoghurt, Logar, 2003
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki Barak
Charkh
Khar War

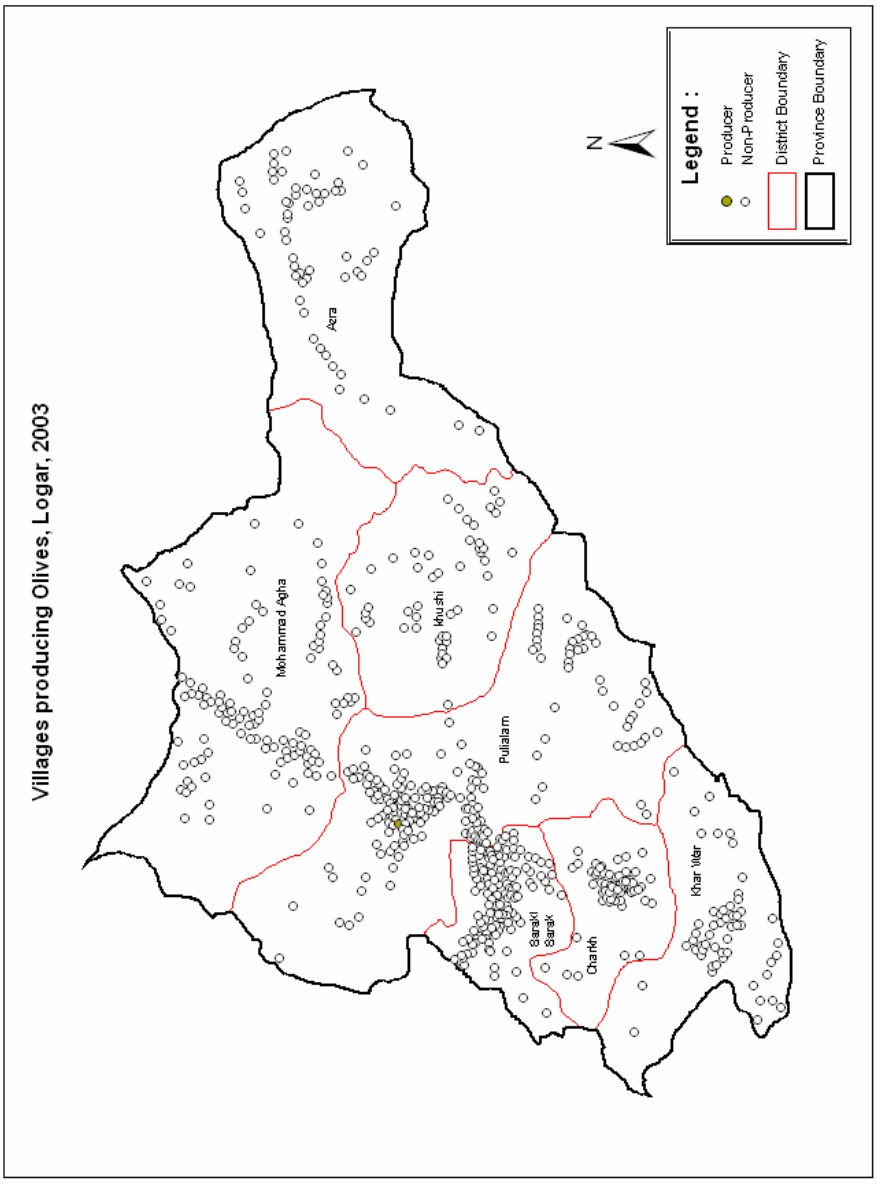
Annex 20


Viilages producing Cotton, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Sarakl
Sarak
Charkh
Khar Wtar

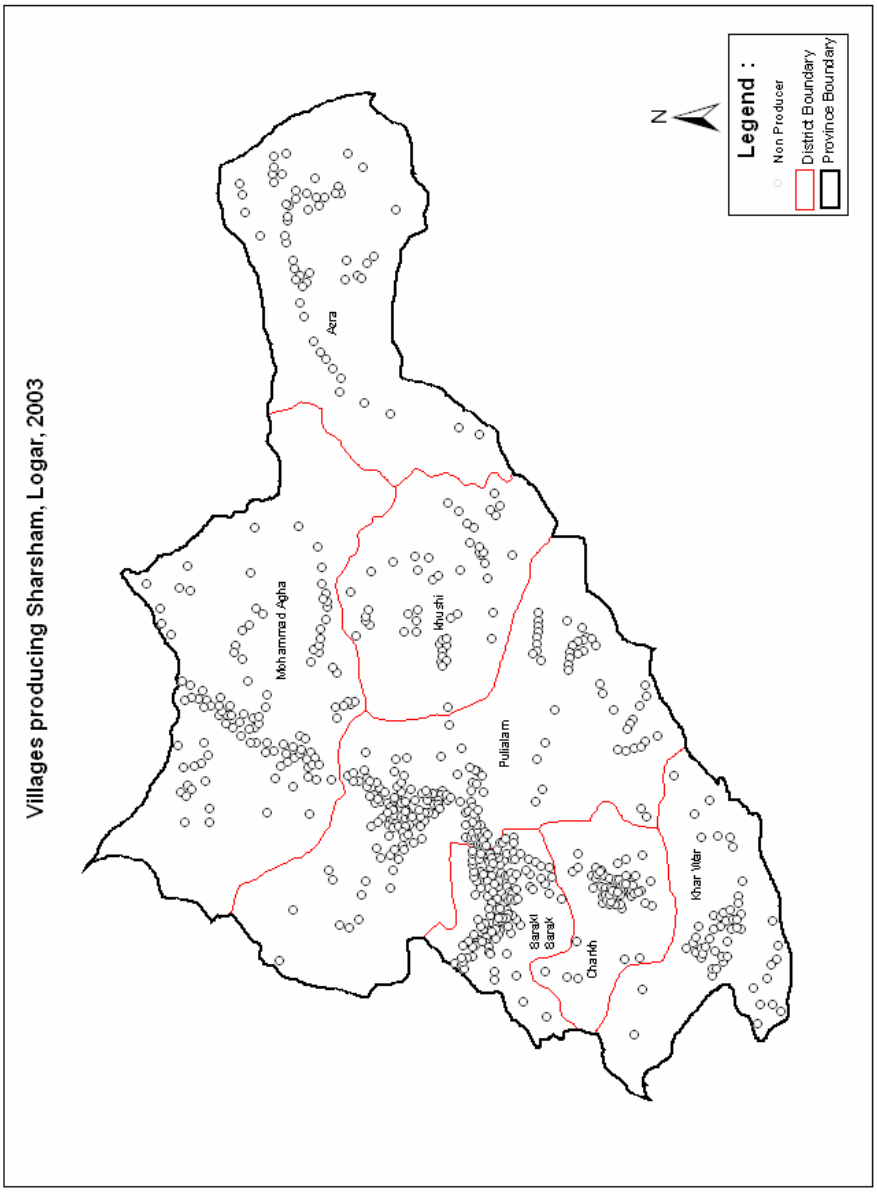
Annex 21


Villages producing Sesame, Logar, 2003
N
Legend :
Non Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakil Barak
Charkh
Khar Wtar

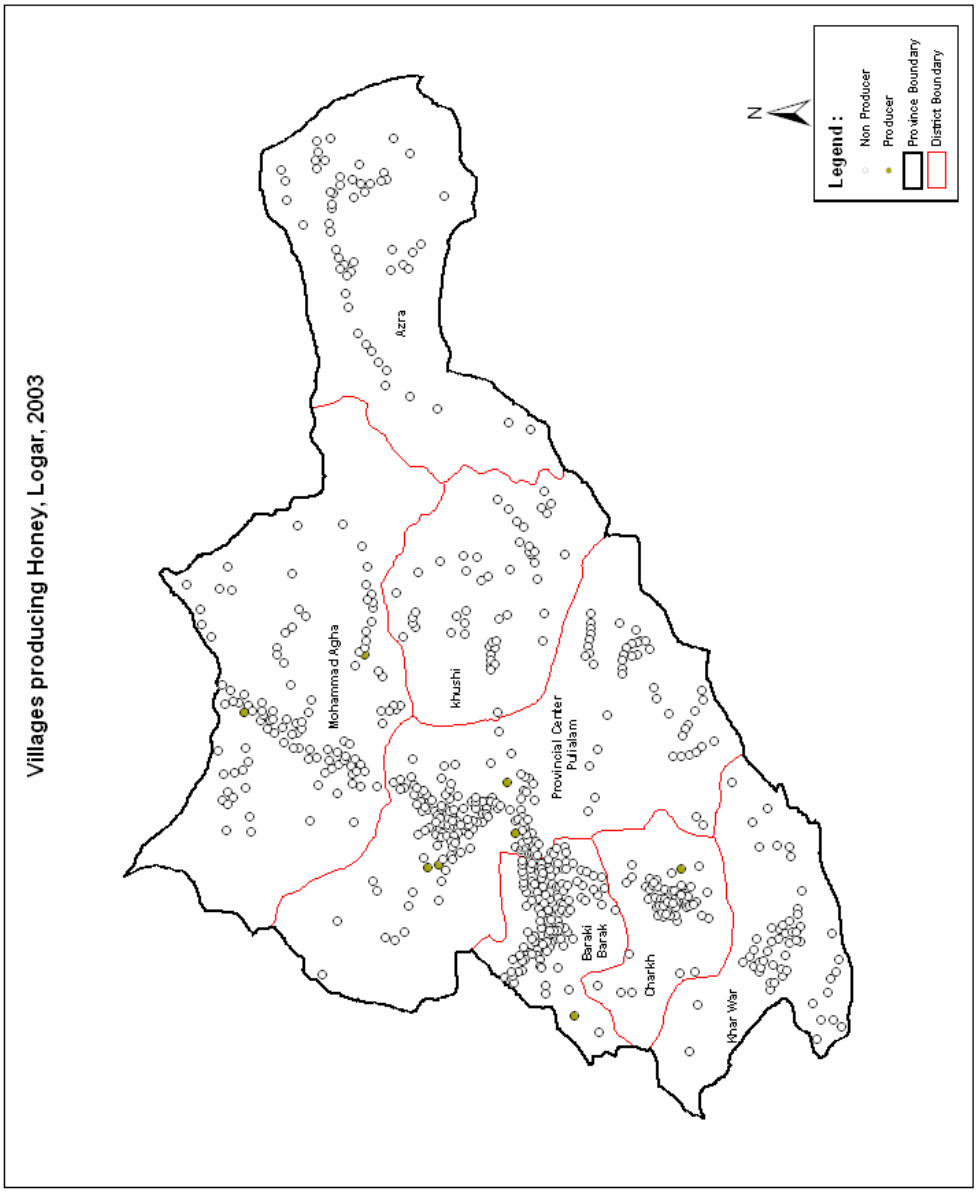
Annex 22


Villages producing Olives, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Barakai
Barak
Charkh
Khar Wtar

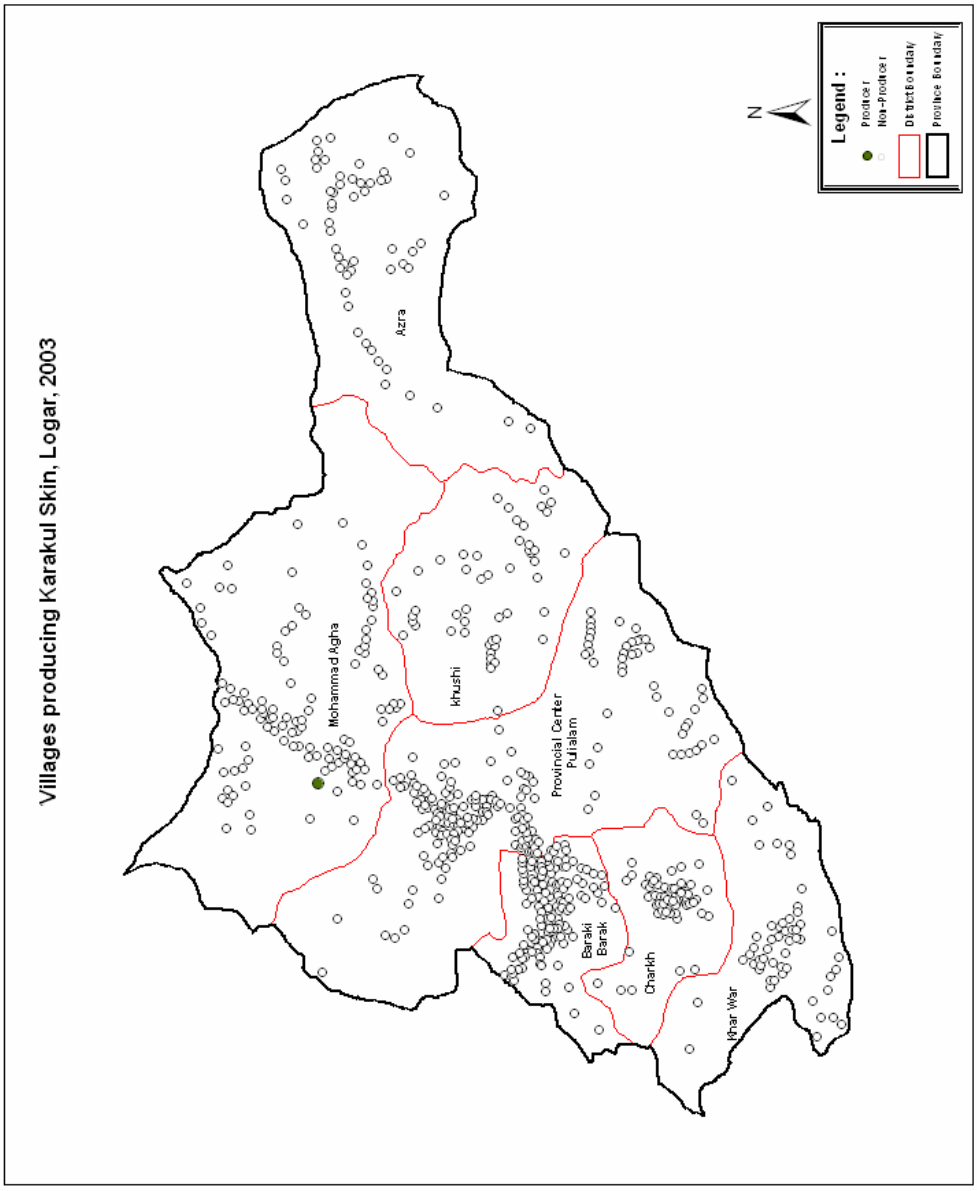
Annex 23


Villages producing Sharsham, Logar, 2003
N
Legend :
Non Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Pulialam
Sarayi Saraik
Charkh
Khar Wter

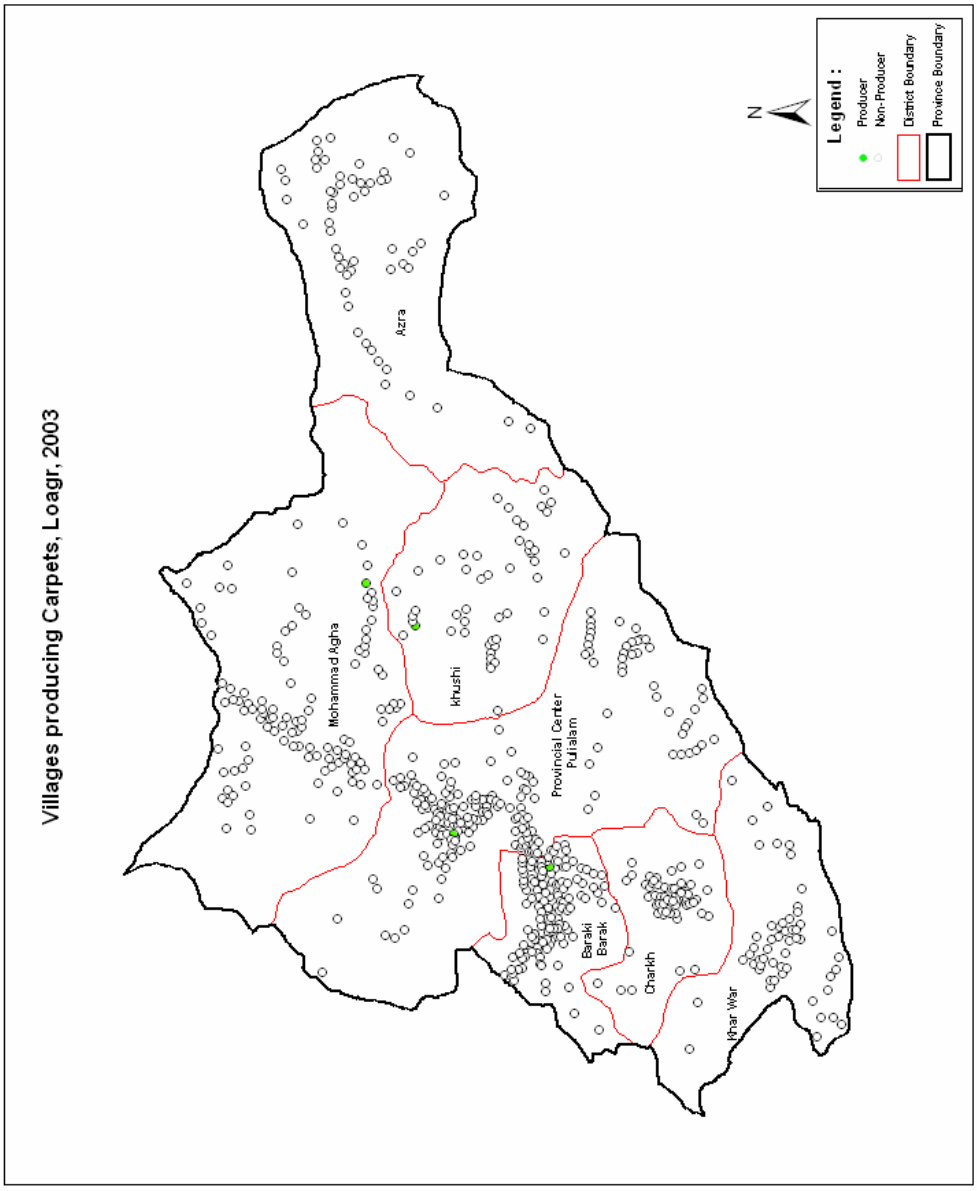
Annex 24


Villages producing Honey, Logar, 2003
N
Legend :
Non Producer
Producer
Province Boundary
District Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pul-i-alam
Baraki
Barak
Charkh
Khar War

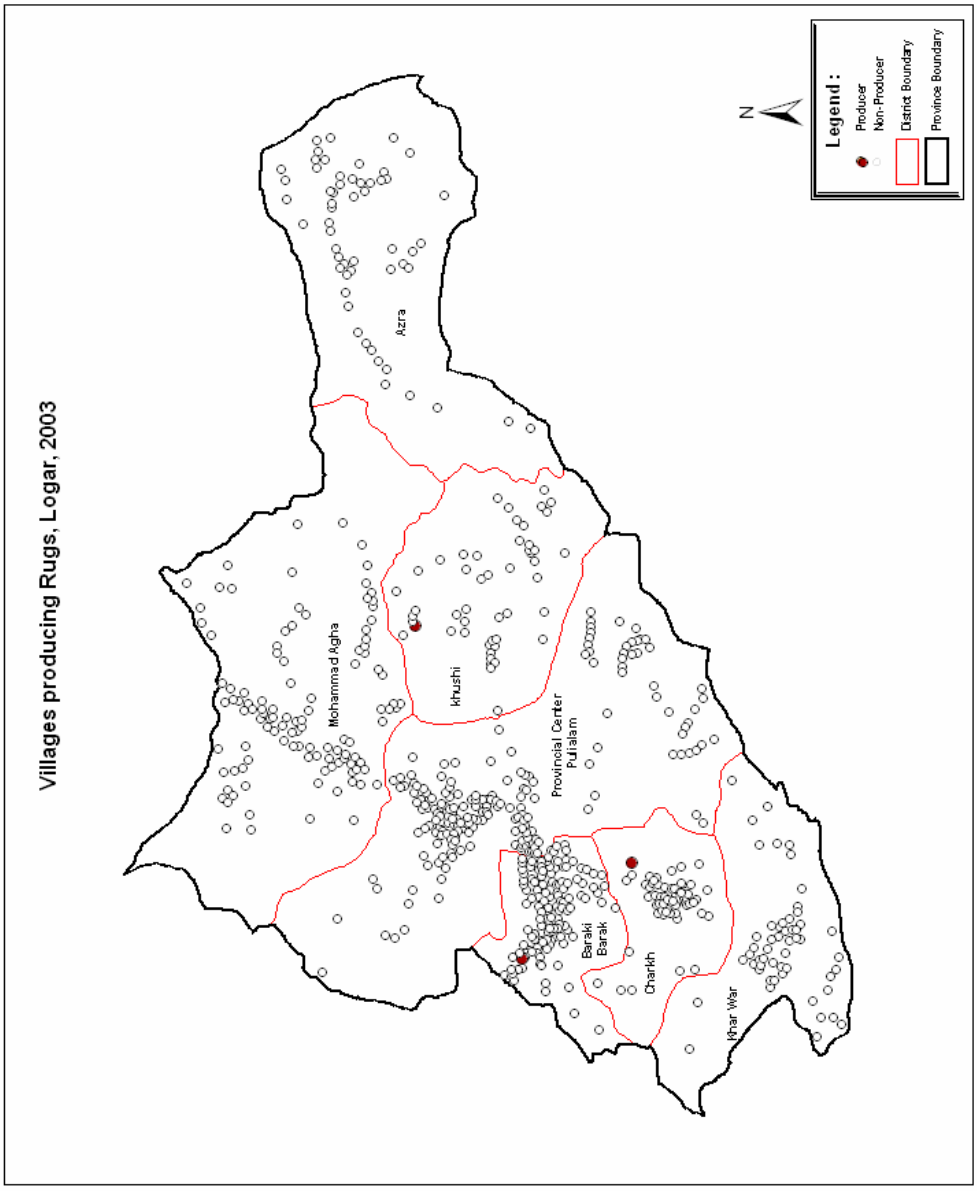
Annex 25


Villages producing Karakul Skin, Logar, 2003
N
Legend :
Province
Non-Province
Districts boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

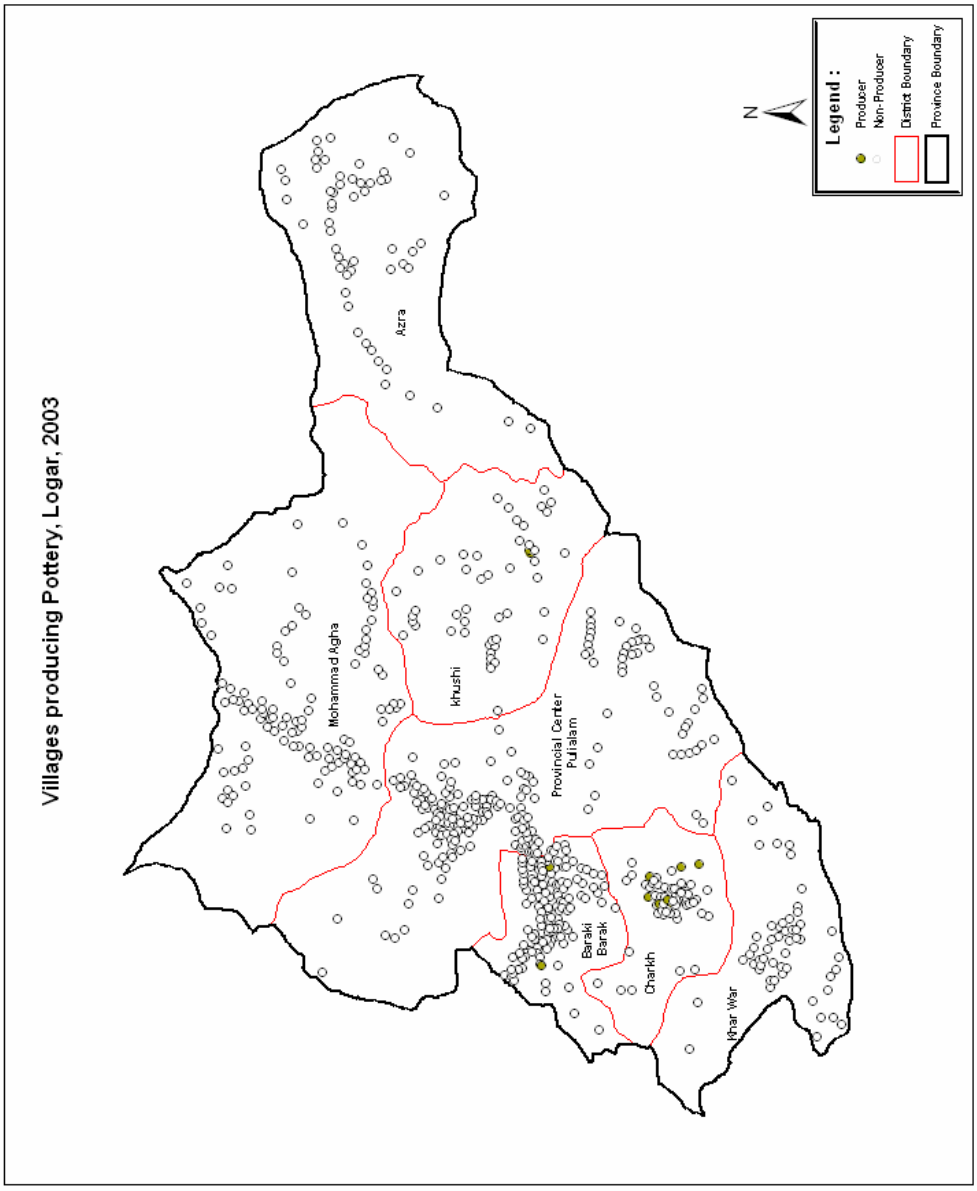
Annex 26


Villages producing Carpets, Loagr, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

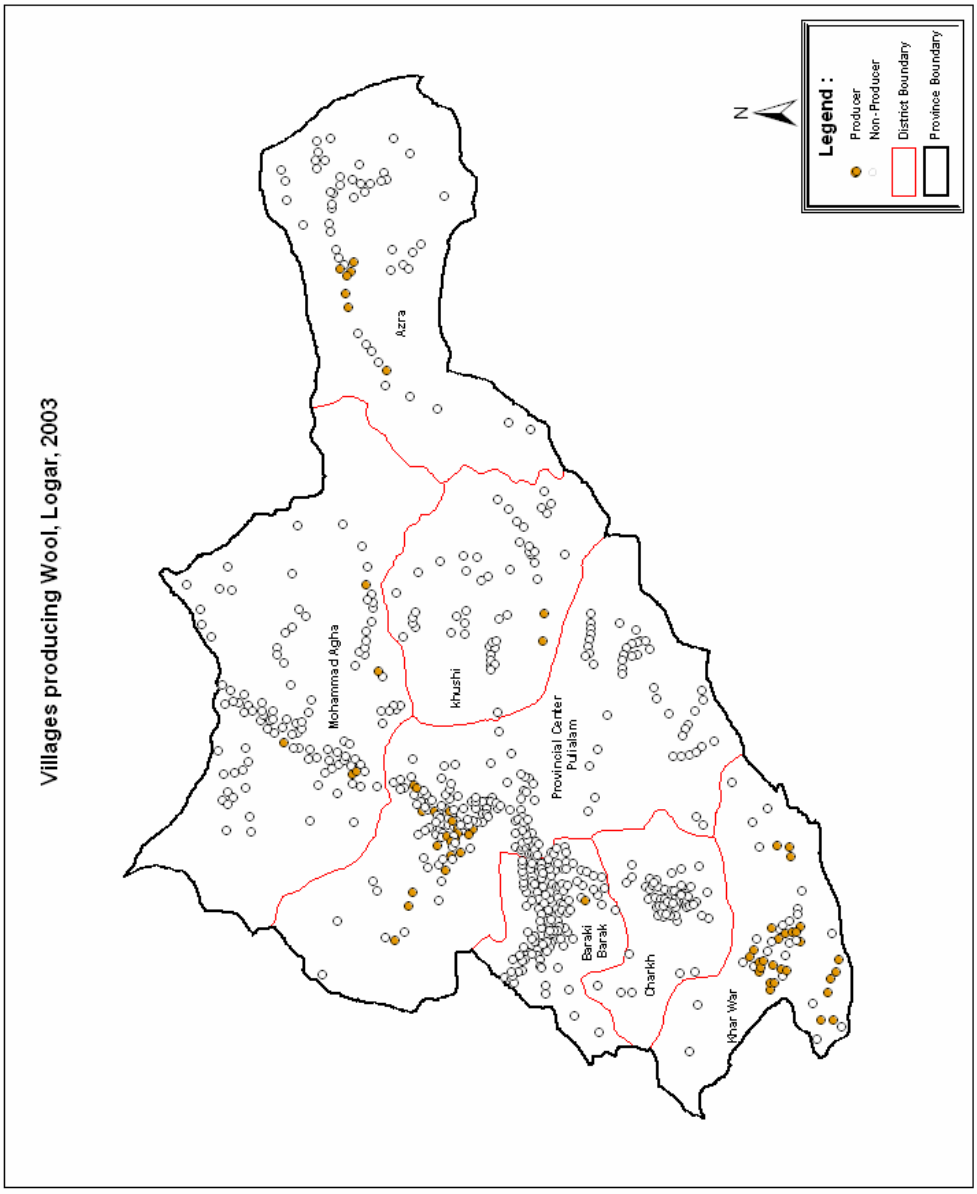
Annex 27


Villages producing Rugs, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki
Barak
Charkh
Khar War

Annex 28


Villages producing Pottery, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pulialam
Baraki Barak
Charkh
Khar War

Annex 29


Villages producing Wool, Logar, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Azra
Mohammad Agha
Khushi
Provincial Center
Pul-i-alam
Baraki Barak
Charkh
Khar War