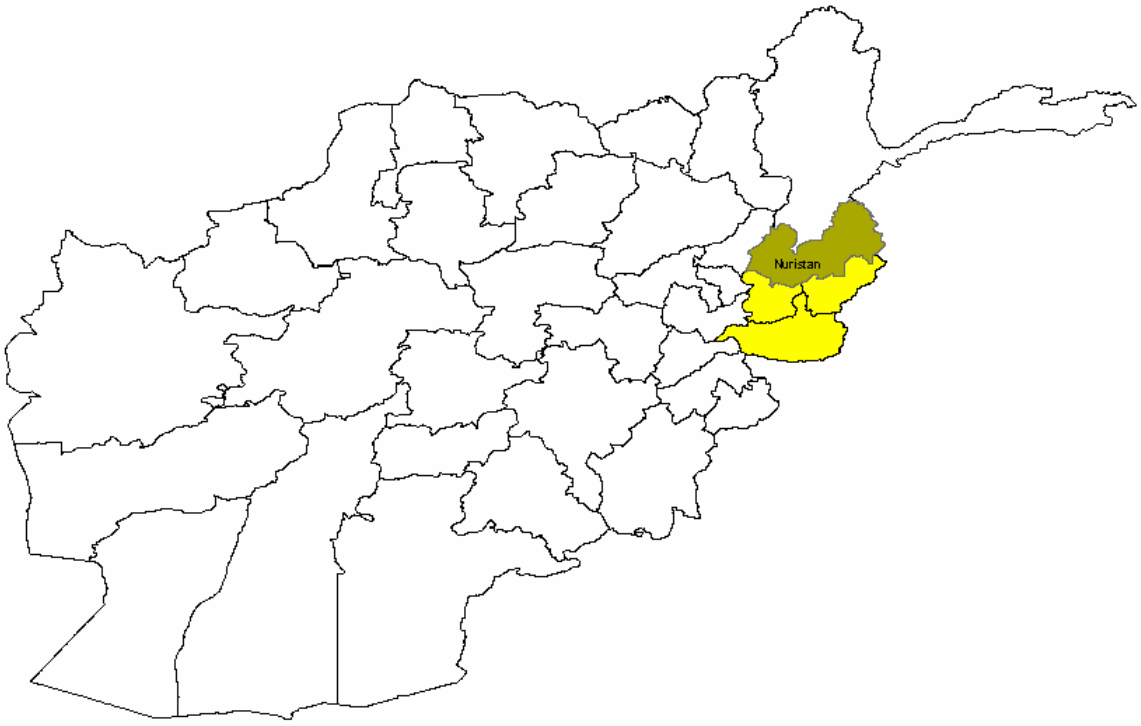
Nooristan



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

Nooristan

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 were responsible for editing the profiles and putting the last touches before printing.

UNFPA also wishes to extend its appreciation to Mr. Abdul Rashid Fakhri, head of CSO, and his colleagues in the CSO review team—Messrs Esmatuallah Ramzi, Mohamed Sami Nabi, Azizullah Faqiri, and Ghulam Mustapha, who read the drafts and made valuable comments and suggestions, in particular with regards to the information on economic activities.

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

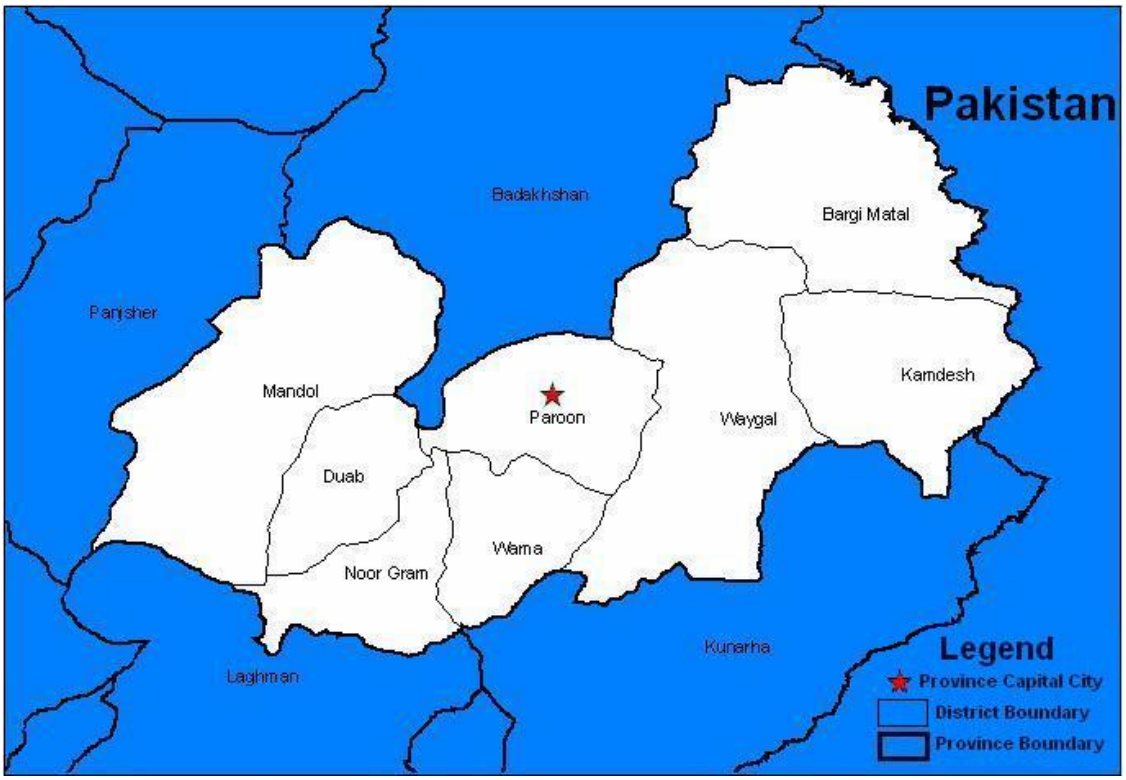
Under the Bonn Agreement, the United Nations agreed to assist the Government of Afghanistan in conducting a Population and Housing Census, the first Census in Afghanistan since 1979. As a leader in population and development issues, the United Nations Population Fund (UNFPA) has been entrusted with this 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

Nooristan


Pakistan
Badakhshan
Bargi Matal
Panjsher
Kamdesh
Mandol
Paroon
Waygal
Duab
Wama
Noor Gram
Kunarha
Laghman
Legend
Province Capital City
District Boundary
Province Boundary

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Settlement Patterns

Located in the Eastern region, Nooristan is bordered by the provinces of Kunarha in the South-East, Laghman in the South-West, Badakhshan in the North, and Panasher in the North-West. It covers a land area of 9,267 squared kilometers, representing 1.42 percent of the total Afghan territory. The province is divided into eight districts—Provincial center-Paroon, Noor Gram, Duab, Waygal, Wama, Mandol, Kamsdesh, and Bargi Matal.

Nooristan is home to 0.6 percent of the total population of Afghanistan. With its 130,964 inhabitants, it is the 3rd least most populous province in the country, before Panjsher and Nimroz (see Annex 1).

The population is distributed among the nine districts as shown in table 1 and figure 1[1]. The largest share of the population—one-quarter—lives in the district of Kamdesh, while the provincial capital, Paroon houses 8.8 percent. It is worth noting that the latter ranks only sixth in the province, leaving only Duab, and Wama behind.

The totality of the population lives in rural areas[2].

[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, as well as the capitals of some districts. Obviously, Nooristan is an exception; the only other province that is 100 percent rural is Panjsher.

Table 1—Population, sex, and sex ratio, by district, province of Nooristan, 2003[3]

District	Total		Males	Females	Sex ratio
	Number	Percent			
Provincial Center Of Nooristan (Paroon)	***11,508***	***8.79***	***5,939***	***5,569***	***106.64***
Noor Gram	13,023	9.94	6,652	6,371	104.41
Duab	6,973	5.32	3,333	3,640	91.57
Waygal	25,425	19.41	13,617	11,808	115.32
Wama	11,042	8.43	5,560	5,482	101.42
Mandol	11,875	9.07	6,254	5,621	111.26
Kamdesh	32,720	24.98	16,135	16,585	97.29
Bargi Matal	18,398	14.05	8,960	9,438	94.94
All province	***130,964***	***100.00***	***66,450***	***64,514***	***103.00***

Nooristan's 130,964 inhabitants are distributed over 263 settlements of extremely varying sizes. The smallest settlement counts as few as seven (4) people and the largest as many as 7,764[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).

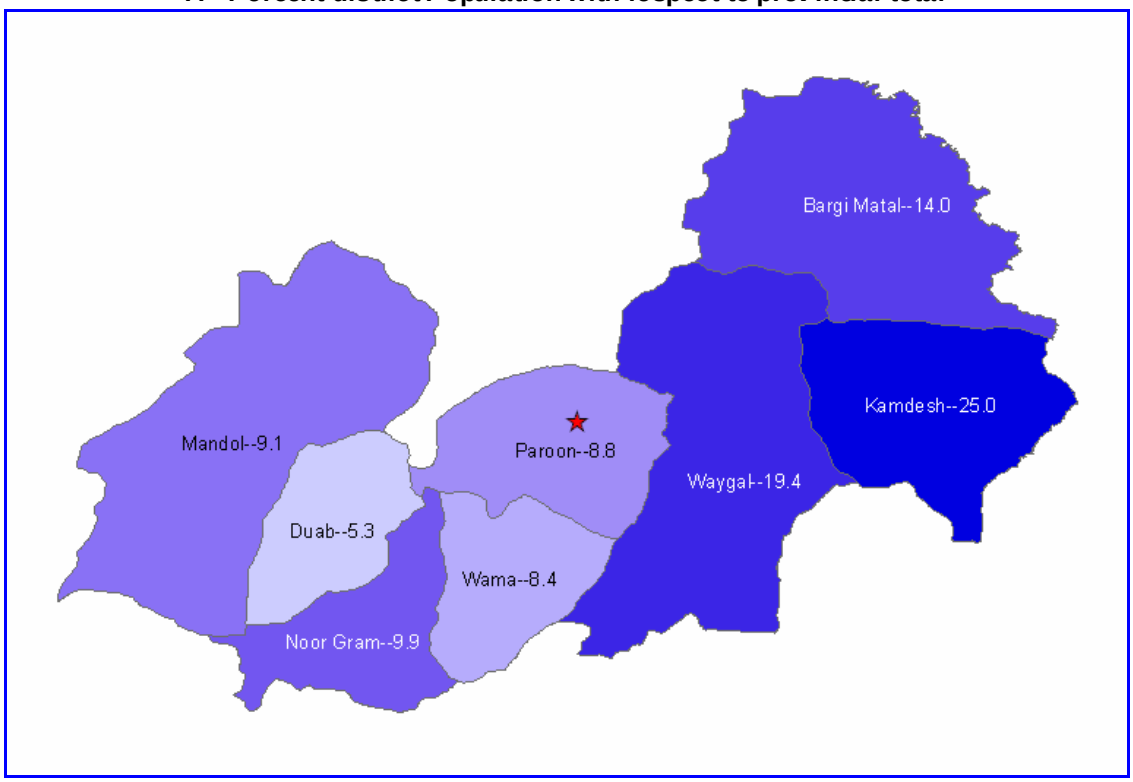
At province level, the distribution is heavily skewed towards villages of very small sizes. Out of the total 263 villages, 17.5 percent have less than 100 inhabitants, and about 23 percent, less than 200. Together, they account for two villages out of five.

The distribution by district also exhibits substantial variation (panel B and Map01). The most outstanding feature of such distribution is the large proportion of small-size villages (less than 200 inhabitants) in Noor Gram and Mandol—respectively 56 percent and 51 percent of the villages in these two districts are small-sized. At the other extreme, Kamdesh, Bargi Matalyid and, to a lesser extent, Waygal count respectively 30 percent, 38 percent, and 17 percent of villages with more than 1000 population. In-between these two clusters of villages, Paroon, Duab, and Wama exhibit distributions that are characterized by shapes that are akin to columns of bricks of slightly different sizes.

[3] Enumeration started on 7 October 2003 and ended on 5 November of the same year.
[4] Unlike the majority of the provinces, there are no villages with zero population in Nooristan.

Figure 1—Population Settlements, Nooristan, 2004

A—Percent district Population with respect to provincial total



B—Density: population per km²

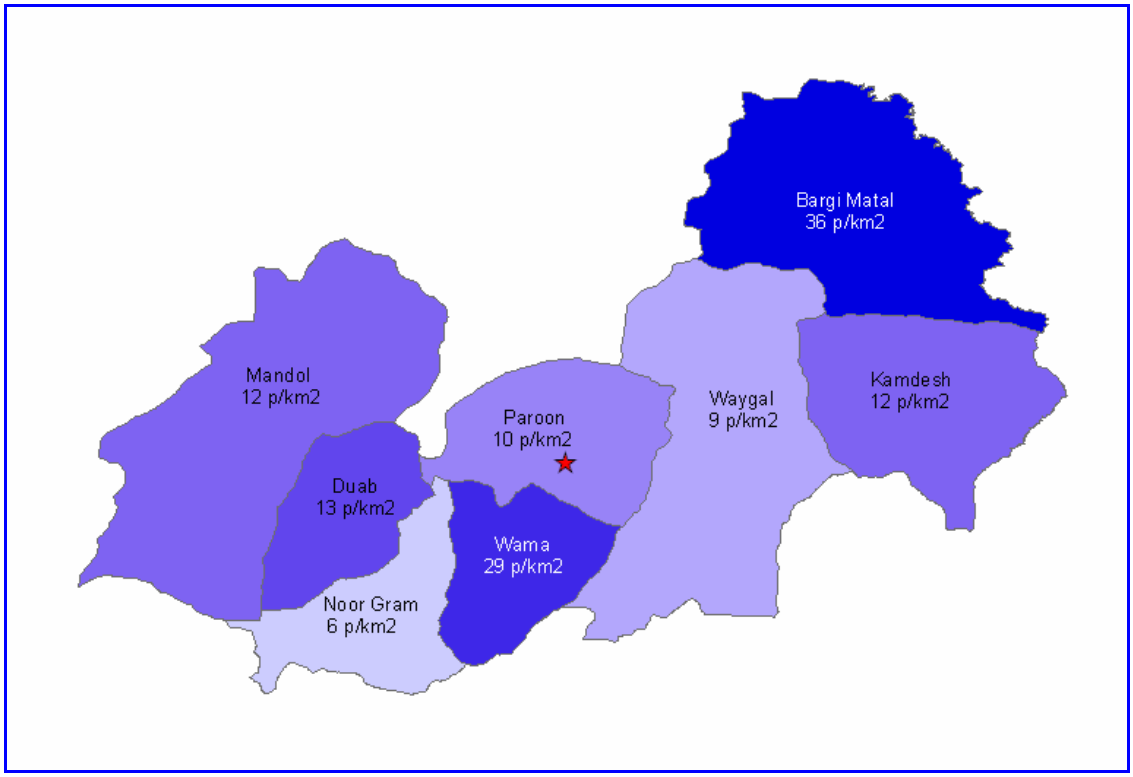
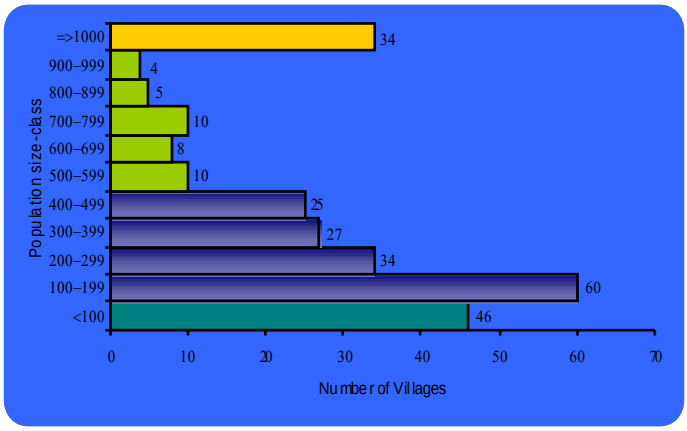


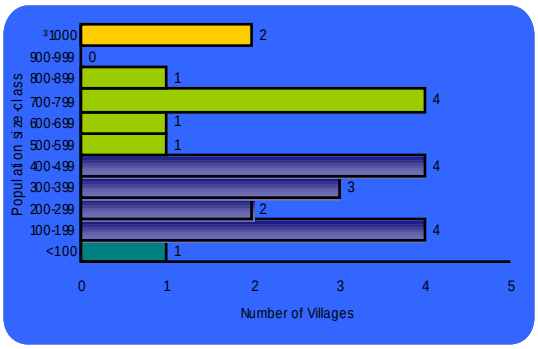
Figure 2—Distribution of the population settlements by size-class, Nooristan, 2003

A—Province

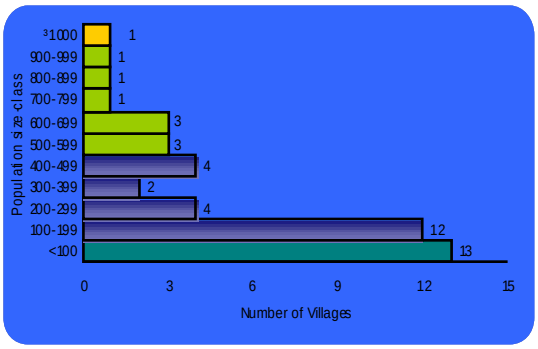


B—Districts

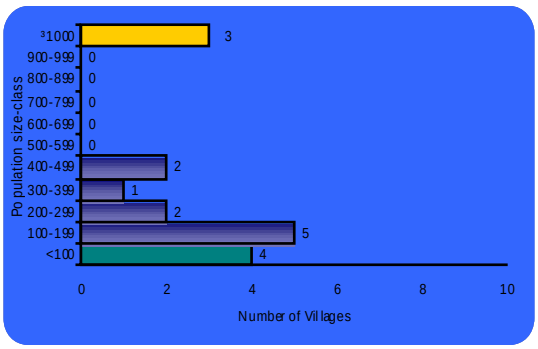
Provincial Center—Paroon



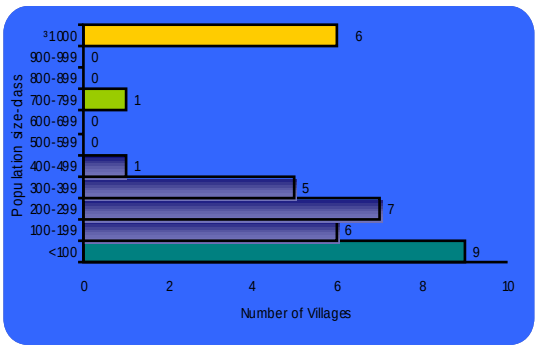
Noor Gram



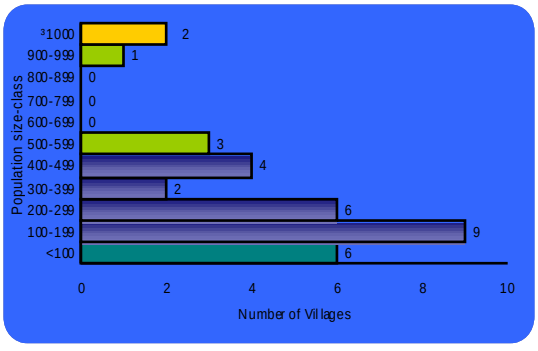
Duab



Waygal



Wama



Mandol

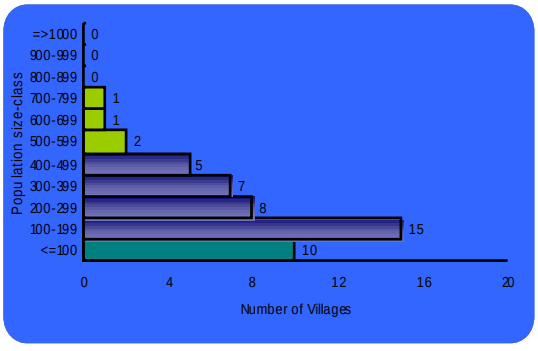
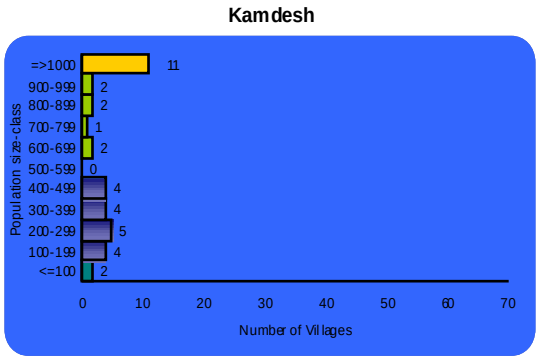
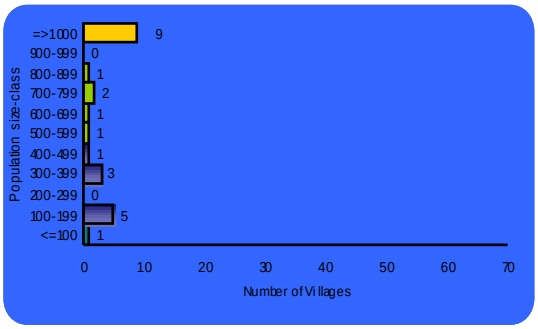
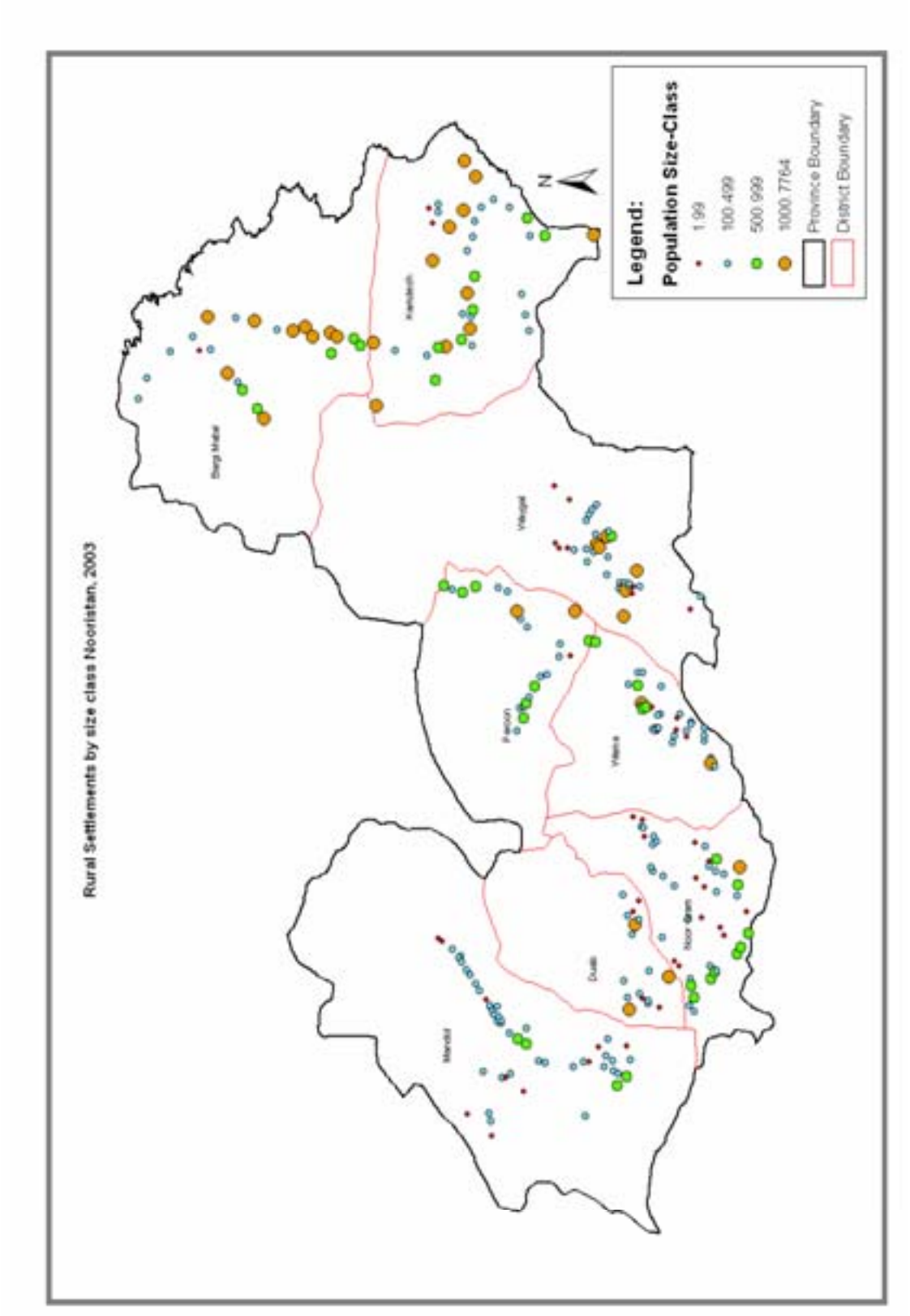


Figure 2 (Cont'd)—Distribution of the population settlements by size-class, Nooristan, 2003





Map1


Rural Settlements by size class Nooristan, 2003
N
Legend:
Population Size-Class
1-99
100-499
500-999
1000-7764
Province Boundary
District Boundary

Demographic Characteristics

Age distribution

The distribution by age and sex of the population of Nooristan is shown in table 2 and figure 3. As the latter clearly shows, the distribution is highly irregular. Of all 34 distributions, this is probably the most irregular; so much so, in fact, that one wonders what objective reasons underlie this. The overall shape of the age-pyramid is typical of a pre-transition society—characterized by stable high fertility, but most of the age groups for both males and female certain age groups are noticeably different from one would expect based on empirical observations (see figure 3 and annex 5-B). 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 11.5% 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.

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

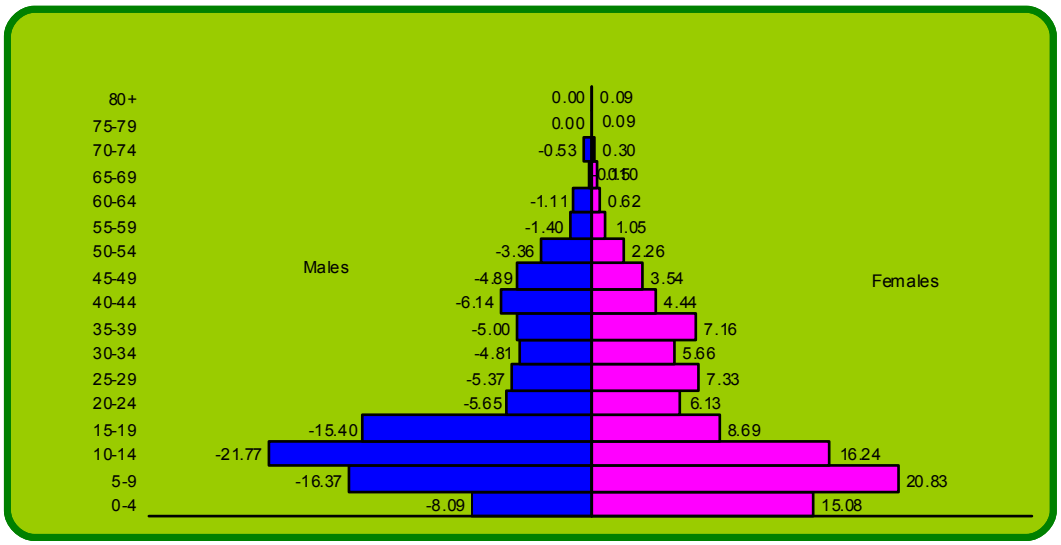
> *"Errors in the tabulated data on age may arise from three different sources:*
> - *inadequate coverage,*
> - *failure to record age, and*
> - *misreporting of age.*
>
> *Coverage errors are of two types. Individuals of a given age may have been missed by the census or erroneously included in it (e.g. 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, Nooristan, 2003[2]—Reported

	Male		Female		Both sexes	
Age Group	Number	Percent	Number	Percent	Number	Percent
0-4	5,379	8.09	9,729	15.08	15,108	11.54
9-May	10,877	16.37	13,439	20.83	24,316	18.57
10-14	14,465	21.77	10,479	16.24	24,944	19.05
15-19	10,231	15.40	5,604	8.69	15,835	12.09
20-24	3,754	5.65	3,952	6.13	7,706	5.88
25-29	3,570	5.37	4,728	7.33	8,298	6.34
30-34	3,199	4.81	3,651	5.66	6,850	5.23
35-39	3,324	5.00	4,618	7.16	7,942	6.06
40-44	4,078	6.14	2,862	4.44	6,940	5.30
45-49	3,251	4.89	2,283	3.54	5,534	4.23
50-54	2,232	3.36	1,460	2.26	3,692	2.82
55-59	927	1.40	679	1.05	1,606	1.23
60-64	739	1.11	402	0.62	1,141	0.87
65-69	73	0.11	322	0.50	395	0.30
70-74	351	0.53	196	0.30	547	0.42
75-79	0	0.00	55	0.09	55	0.04
80+	0	0.00	55	0.09	55	0.04
Total	***66,450***	***100.00***	***64,514***	***100.00***	***130,964***	***100.00***

Figure 3—Population pyramid, Nooristan, 2003—Reported



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.

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

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 to the 2001 war, and
2. the waves of war refugees that left for neighboring countries.

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, Nooristan, 2003

	Male		Female		Both sexes	
Age Group	Number	Percent	Number	Percent	Number	Percent
0-4	9,366	14.10	9,095	14.10	18,462	14.10
5-9	10,641	16.01	10,338	16.02	20,979	16.02
10-14	11,373	17.11	11,034	17.10	22,407	17.11
15-19	9,339	14.05	9,050	14.03	18,389	14.04
20-24	4,493	6.76	4,643	7.20	9,137	6.98
25-29	2,898	4.36	3,964	6.14	6,861	5.24
30-34	3,257	4.90	4,375	6.78	7,632	5.83
35-39	3,325	5.00	3,825	5.93	7,150	5.46
40-44	4,015	6.04	2,928	4.54	6,943	5.30
45-49	3,381	5.09	2,173	3.37	5,555	4.24
50-54	1,967	2.96	1,302	2.02	3,268	2.50
55-59	1,221	1.84	819	1.27	2,041	1.56
60-64	547	0.82	457	0.71	1,004	0.77
65-69	272	0.41	261	0.41	534	0.41
70+	354	0.53	249	0.39	603	0.46
Total	***66,450***	***100.00***	***64,514***	***100.00***	***130,964***	***100.00***

Household size and sex ratio

The sex ratio (number of males per 100 females) varies between 91.6 in Duab, to 111.3 in Mandol, the average for the province being 103 (figure 5 below and the last column of table 1). No information is available which could explain why the sex ratio is high in Mandol or so low in Duab. In fact this is another indication of the high irregularity of the age distrution discussed above.

[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 5.

Figure 4—Population pyramid, Nooristan, 2003—Adjusted

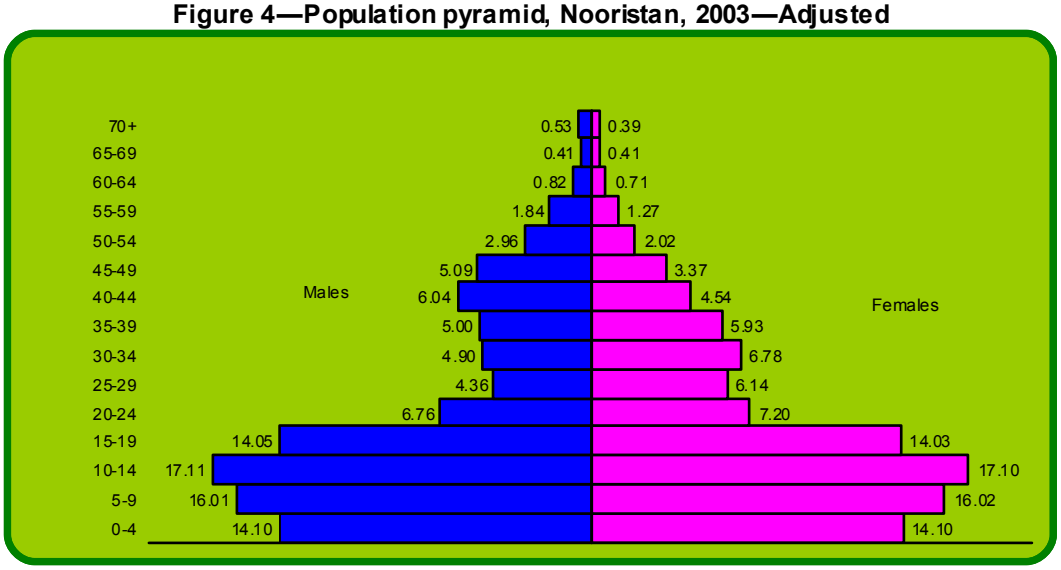
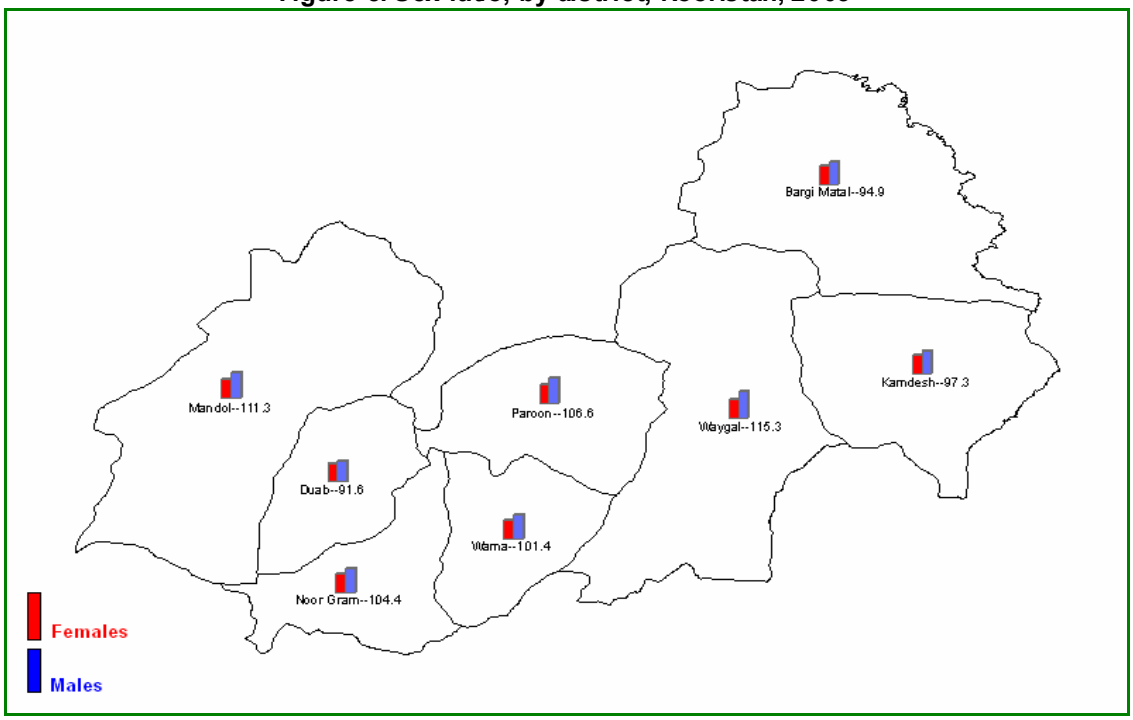


Figure 5. Sex ratio, by district, Nooristan, 2003



A typical household in Nooristan has 6.6 persons, which is slightly 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, Nooristan, 2003

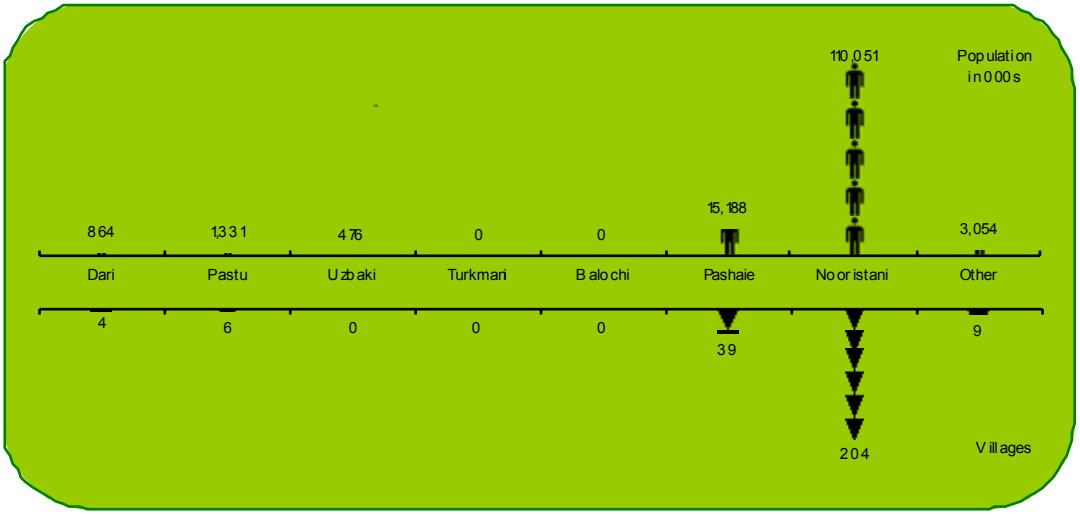
Age	Male		Female		Both sex	
	Number	Percent	Number	Percent	Number	Percent
School age Population						
Primary — 6-12	15,541	21.2	15,091	22.2	30,632	21.7
Secondary — 13-18	12,252	16.7	11,858	17.4	24,110	17.0
College — 20-24						
Population in the labor force	4,493	6.1	4,643	6.8	9,137	6.5
Children — 8-14	15,743	21.4	15,279	22.5	31,022	21.9
Earlier working ages — 15-44	27,327	37.2	28,785	42.3	56,112	39.7
Later working ages — 45-59	6,569	8.9	4,294	6.3	10,863	7.7
Retirement — 60+	8,133	11.1	4,507	6.6	12,640	8.9
Voters — 18+	35,979	49.0	31,744	46.6	67,723	47.9
Reproductive ages — 15-49	—	—	30,959	45.5	—	—

* = Women in the childbearing ages

Main languages spoken

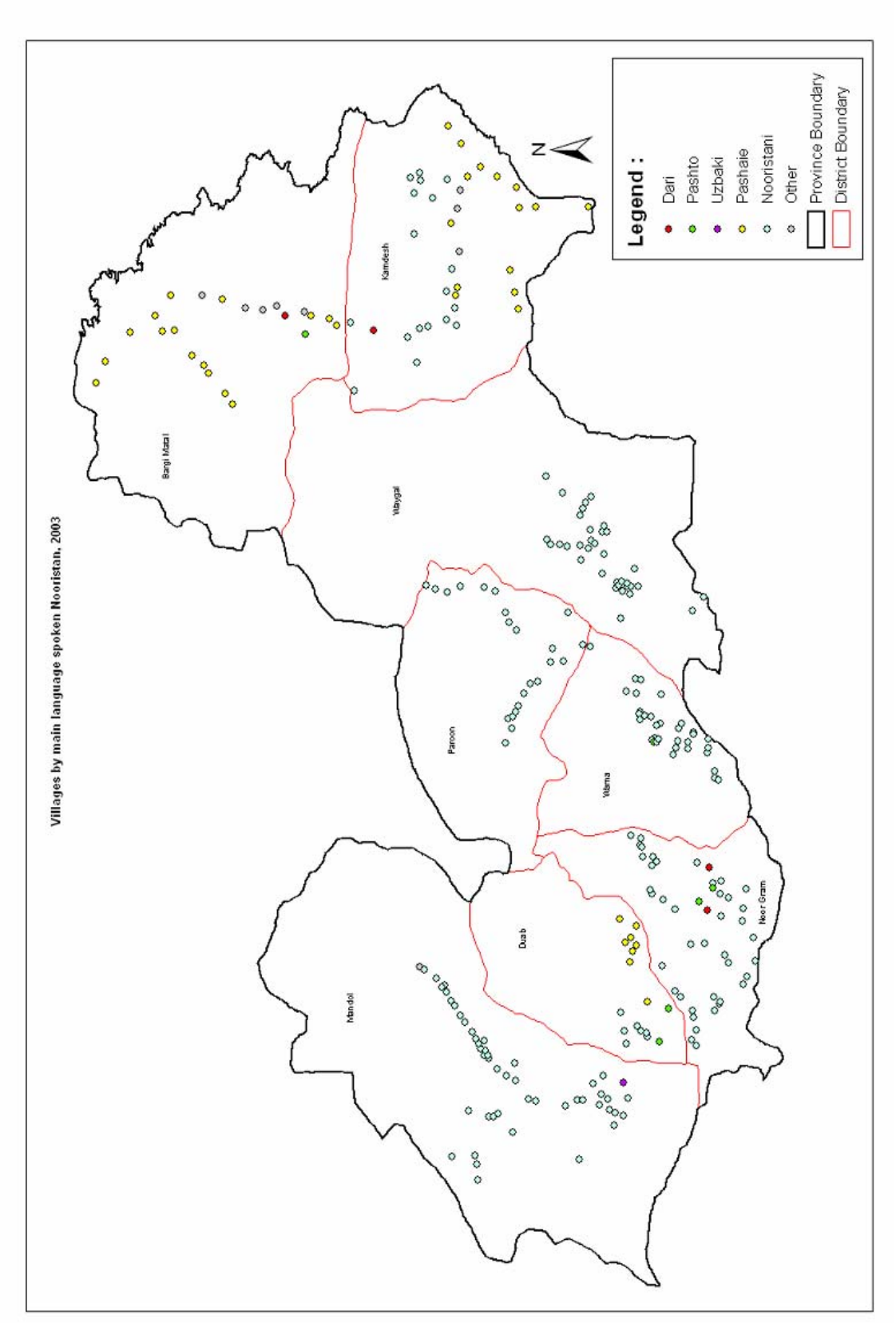
The household listing exercise did not collect any information on the ethnic background of the populations. However, it included a question on the languages spoken by the majority of the populations in individual villages. Of the eight languages listed (figure 6), two—Nooristani—is spoken by 78 percent of the population and 84 percent of the villages. The second most frequent language is Pashaie, spoken by the majorities in 39 villages, representing 15 percent of the population.

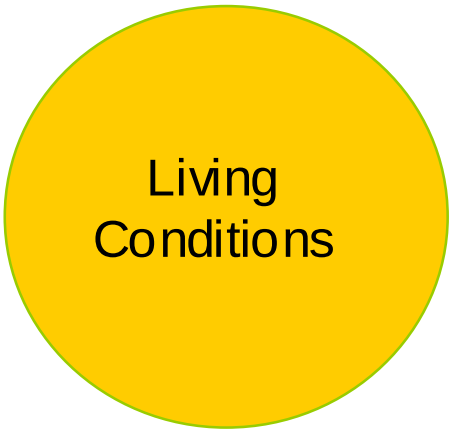
Figure 6—Population and villages, by main language spoken, Nooristan, 2003



[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 main language spoken Nooristan, 2003
N
Legend :
Dari
Pashto
Uzbaki
Pashaie
Nooristani
Other
Province Boundary
District Boundary
Kamdesh
Bargi Matal
Waygal
Parroon
Wama
Duab
Nor Gram
Mandol



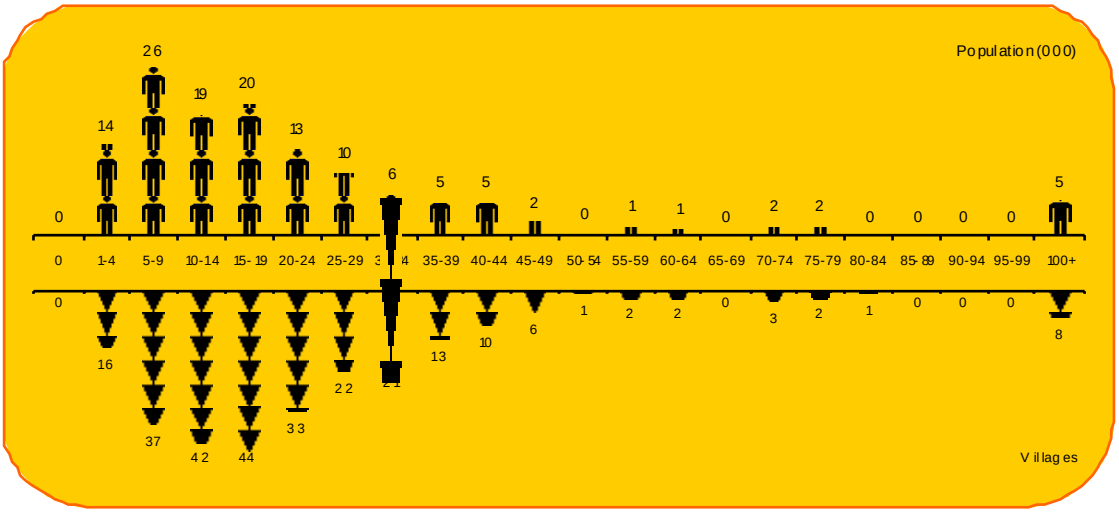
Other useful information collected during the Household Listing exercise concerned the locations of the villages with respect to the provincial center, the types of roads, and the topography.

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.

The distribution by distance from the provincial center clearly shows a rather high degree of inaccessibility with respect to those services that can only be provided by the district center. About three persons out of five live 15 to 19 kilometers away from their district centers. At the other end of the distribution, a good nine percent of the population live more than 50 kilometers away, including four percent situated at more than 100 kilometers. Even though those villages that are situated at excessively long distance from the district center may be closer to one or more urban centers outside the jurisdiction of Nooristan, there exists a real inaccessibility problem for a significant numbers. It goes

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



without saying that the nature of the terrain can only compound the problem, in particular for those who live in mountainous or semi-mountainous areas. Even though the majority of the villages—254 out of the 263—are located in semi-flat areas, there is no indication that such terrain allows for easy movement (see figure 8 and map 03).

This is further reflected in the types of roads available (figure 9). Of the 263 villages, only 26, housing about 10 percent of the population have roads that are accessible by car at all seasons. Another 45 percent are accessible by car in some seasons only, whereas 191, representing close to 73 percent of the population don't have any roads at all.

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

Educational services

With regard to educational services, accessibility appears to be most problematic for literacy courses, high schools, and secondary schools in that order. All three types of educational services are located more than 10 kilometers away for large majorities of the villages they are supposed to serve—96.4 percent for literacy courses, 90 percent for high schools, and 63.7 percent for secondary schools schools. Very few people don't have to

travel outside their villages to go to a literacy course, a high school or secondary school—respectively 1.9 percent, 3.6 percent, and 11.9 percent of the total population.

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

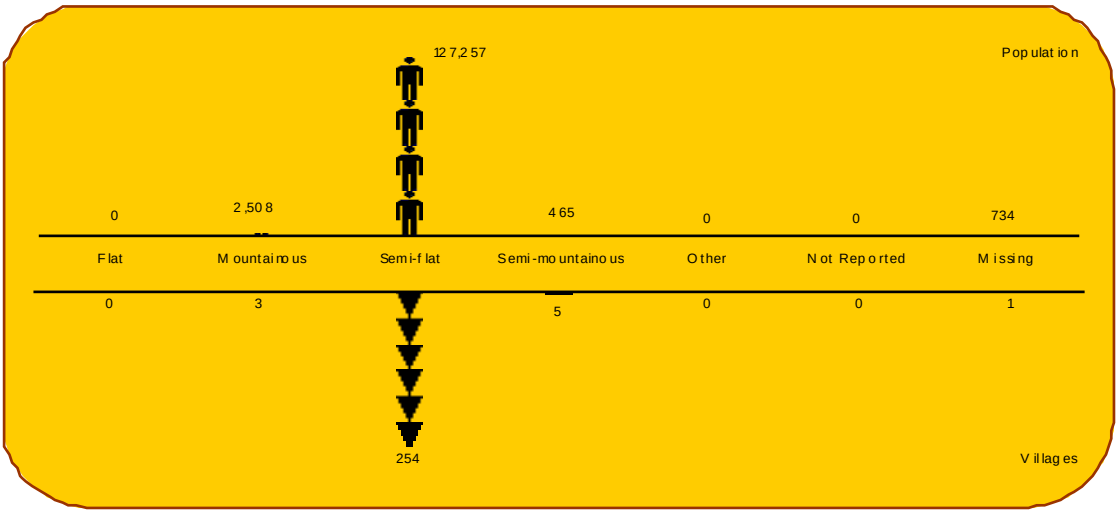
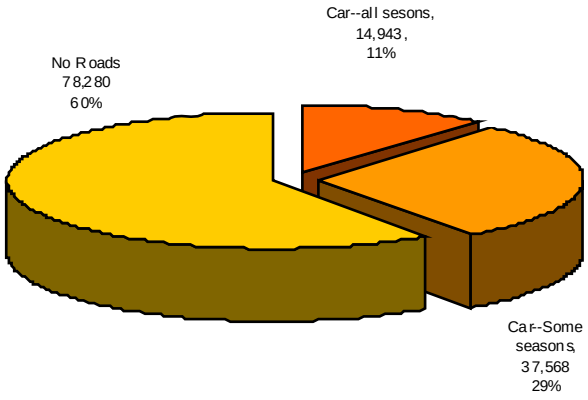


Figure 9—Population and villages, by type of road, Nooristan, 2003



The situation is slightly better for rural schools, but is substantially better for the primary. Close to one person out of four doesn't have to travel outside the villages to reach a rural school. The corresponding proportion for primary schools is 27.8.

Figure 10—Population and villages by distance from certain facilities. Nooristan. 2003

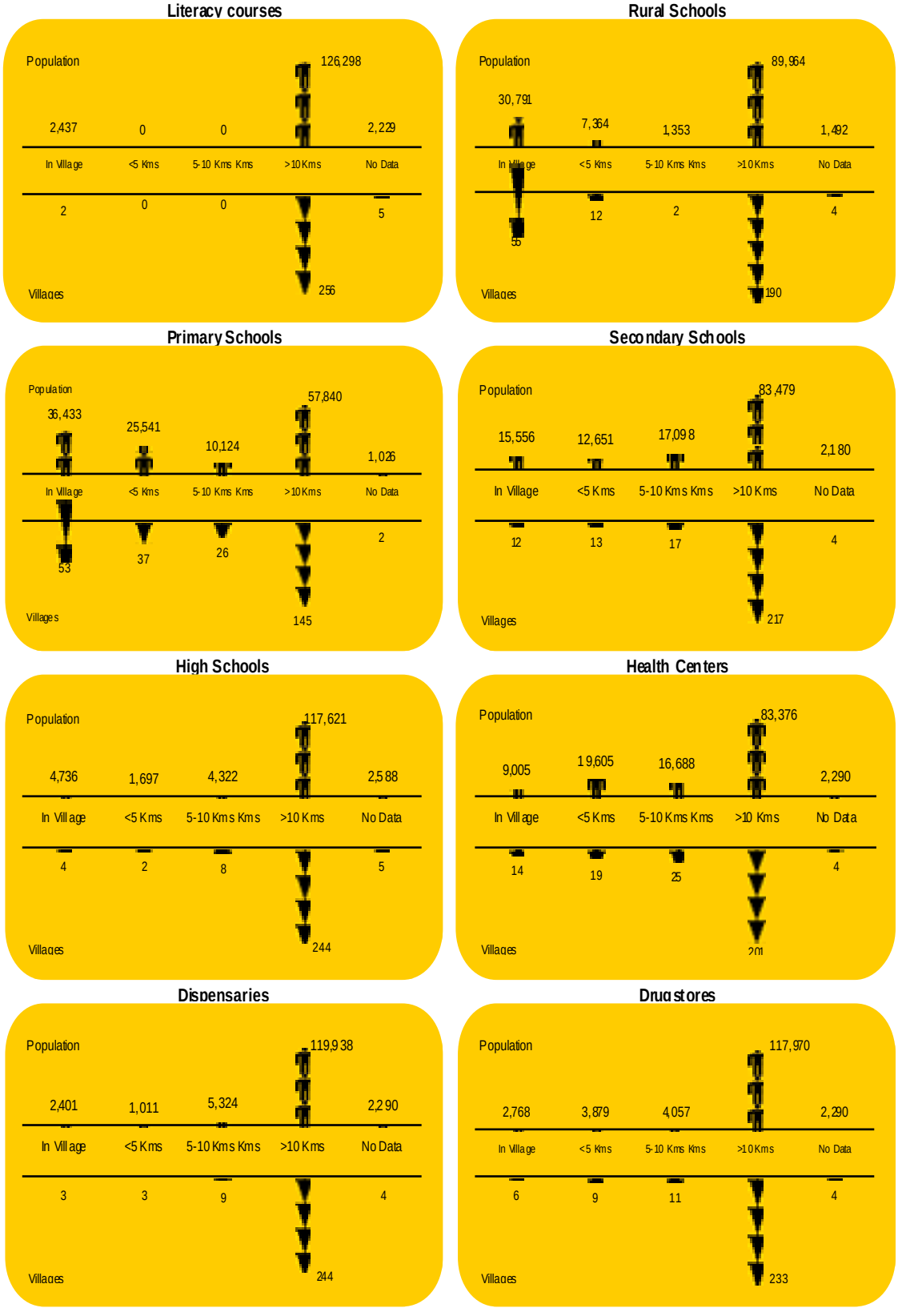
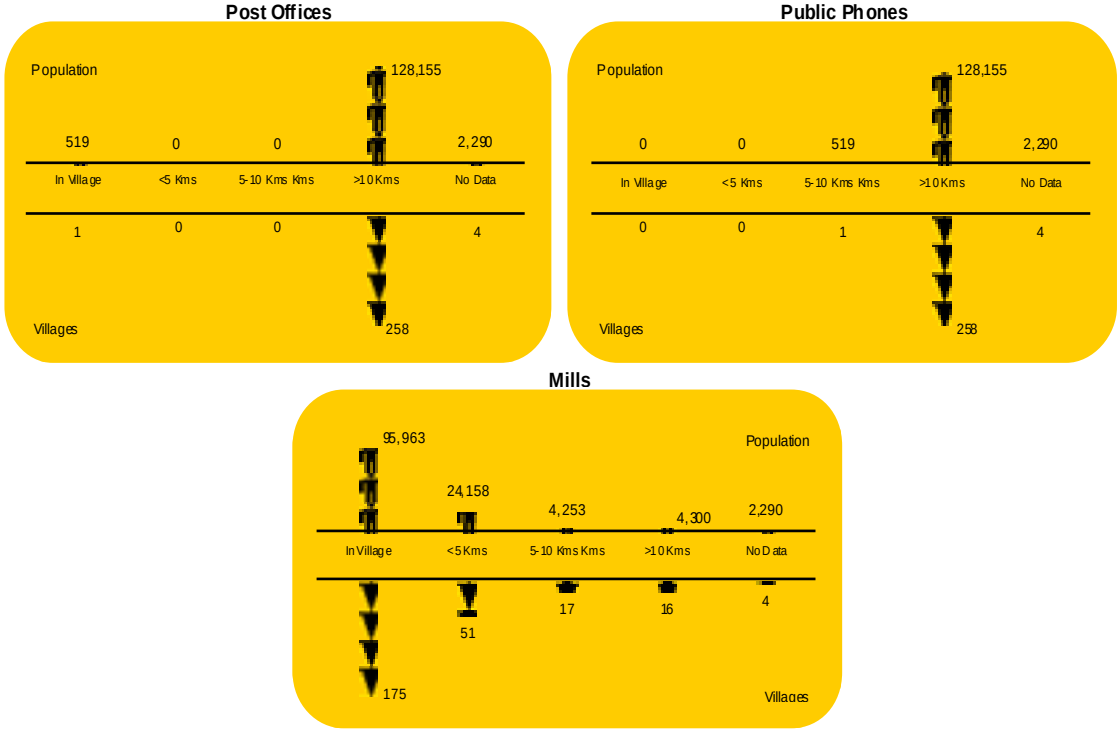


Figure 10 (Cont'd)—Population and villages by distance from certain facilities. Nooristan. 2003



Health services

The spatial distribution of the health infrastructure closely resembles that of; and is substantially the same for both health centers and dispensaries (panels F & G). More often than not, people seeking medical attention have to travel more than 10 kilometers to get it—63.7 percent for health centers, and 91.6 percent for dispensaries. Those that live between five and 10 kilometers from the closest health unit represent 12.7 percent for health centers, and 4.1 percent for dispensaries. In sum, access to health care is very difficult for the majority of the population, inasmuch as close to four persons out of five have to travel more than five kilometers to reach the closest health centers. The corresponding proportion for dispensaries is an overwhelming 98 percent. Out of the 263 villages, only 14 have a health center within their boundaries, and only 3 have a dispensary. The picture is about the same for drugstores as for dispensaries (panel H).

Post office & public phones

Post offices exist in only one village, and public phones in none (panels I & J).

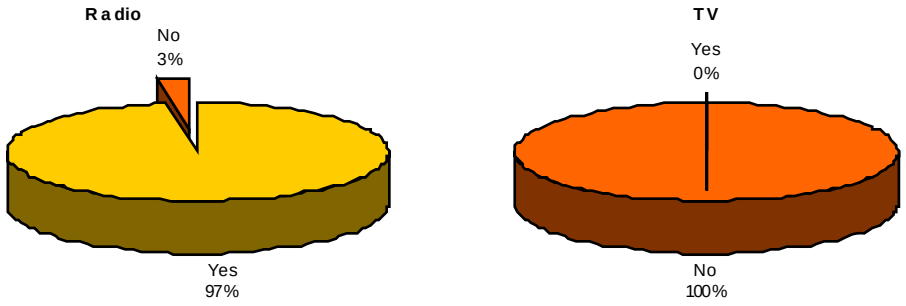
Mills

Mills tend to be relatively more available to the population than any of the facilities mentioned above (panel K). They exist in 175 villages and cater to the needs of 95,963 people, representing close to three-quarters.

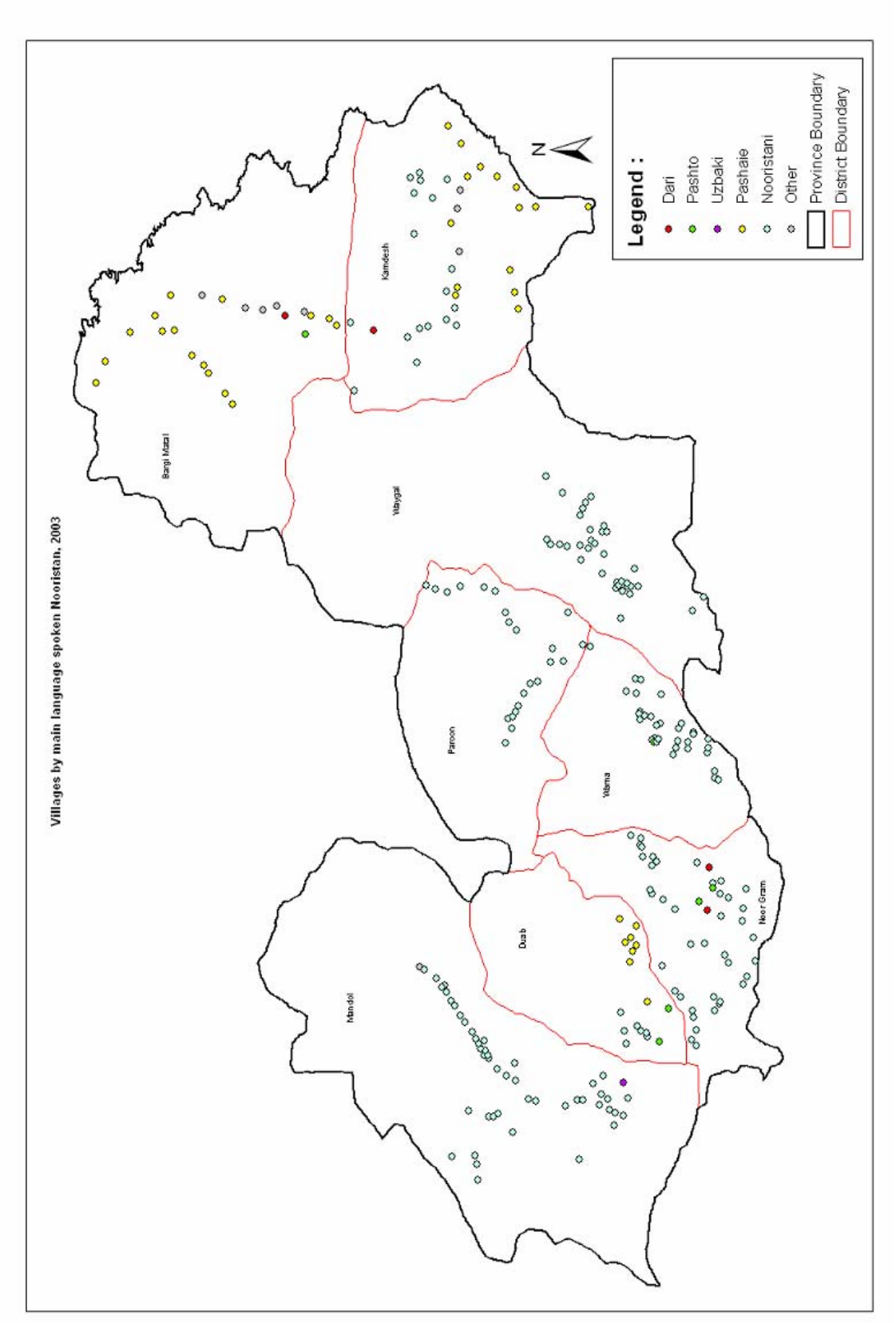
Radio & television

Whereas 97 of the population have access to radio, none have access to TV. It goes without saying that public information efforts and media campaigns are seriously hampered by this state of affairs.

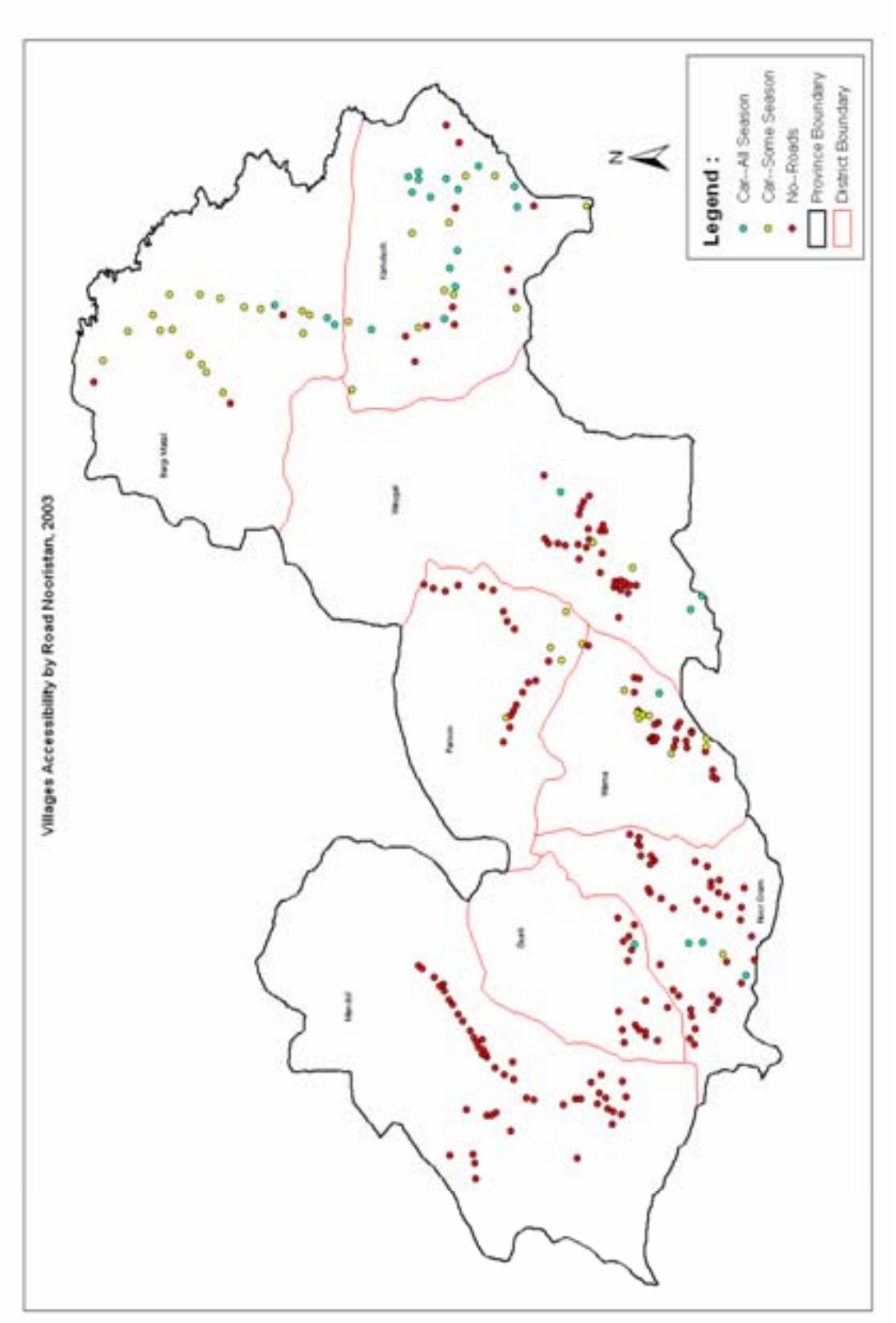
Figure 11—Proportion of the population living in villages where there are radios or TV, Nooristan, 2003



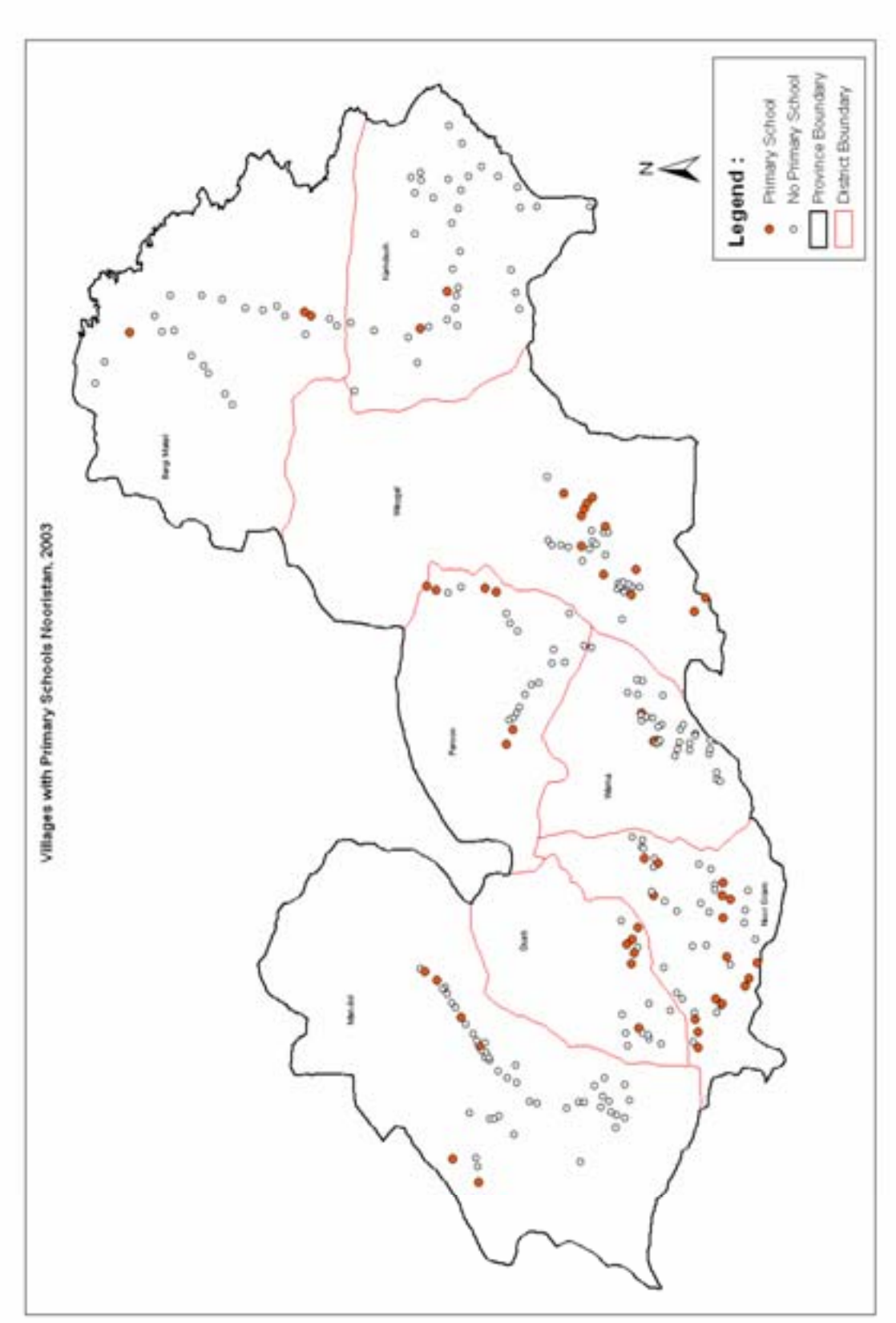
Map3


Villages by main language spoken Nooristan, 2003
N
Legend :
Dari
Pashto
Uzbaki
Pashaie
Nooristani
Other
Province Boundary
District Boundary
Kamdesh
Bargi Matal
Waygal
Parun
Wama
Nor Gram
Duab
Mandol

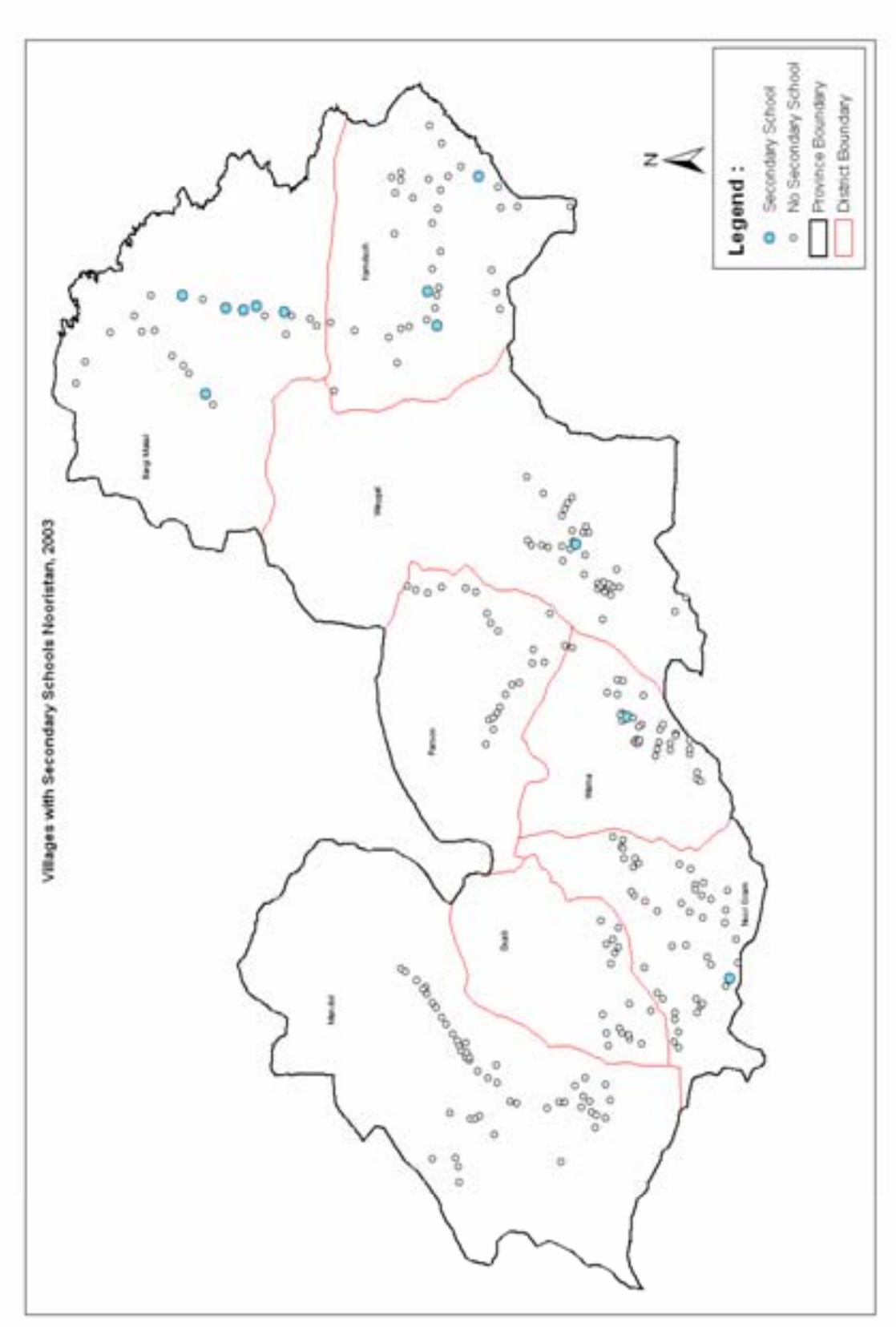
Map4


Villages Accessibility by Road Nooristan, 2003
N
Legend :
Car--All Season
Car--Some Season
No--Roads
Province Boundary
District Boundary

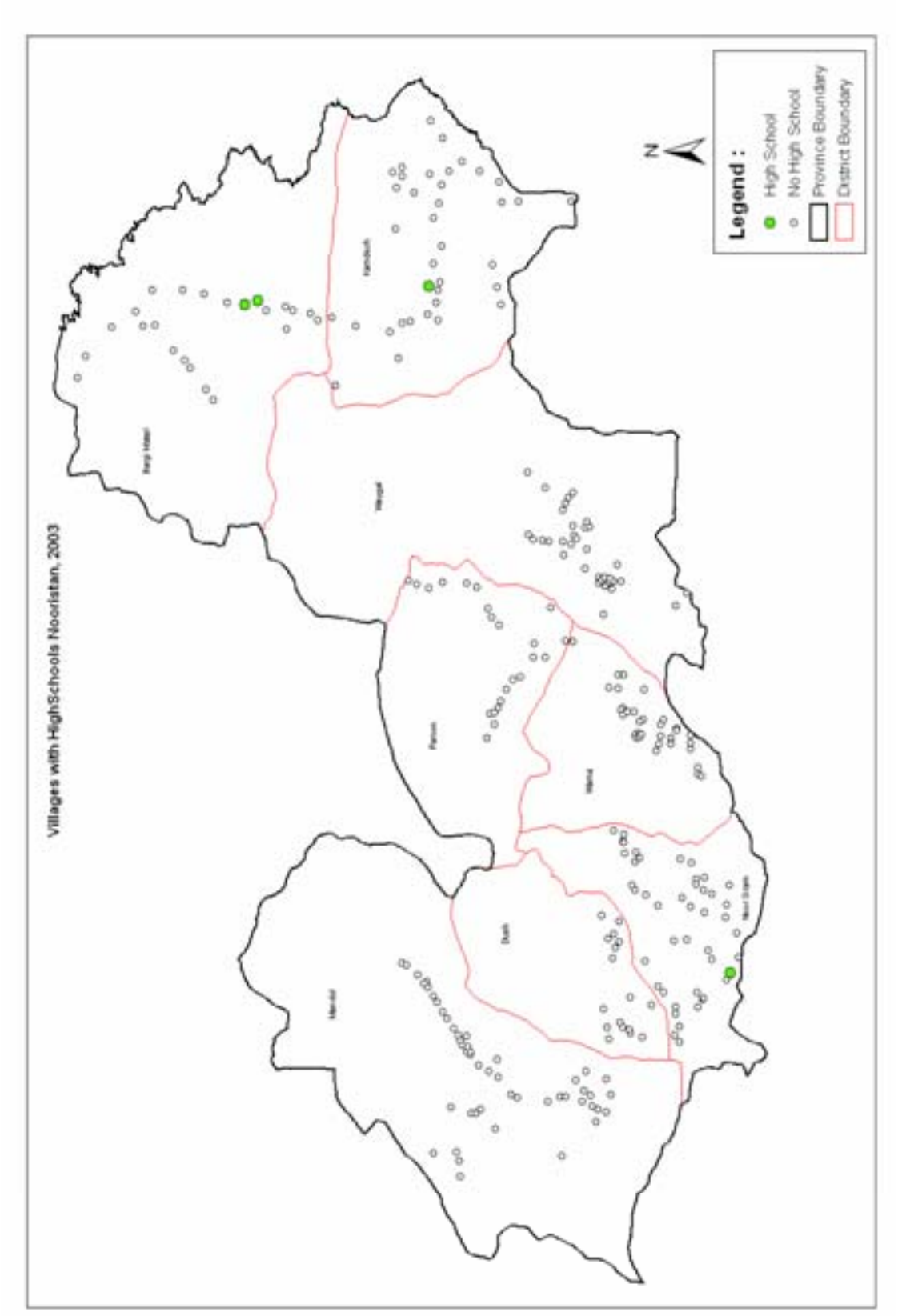
Map5


Villages with Primary Schools Nooristan, 2003
Legend :
Primary School
No Primary School
Province Boundary
District Boundary
N

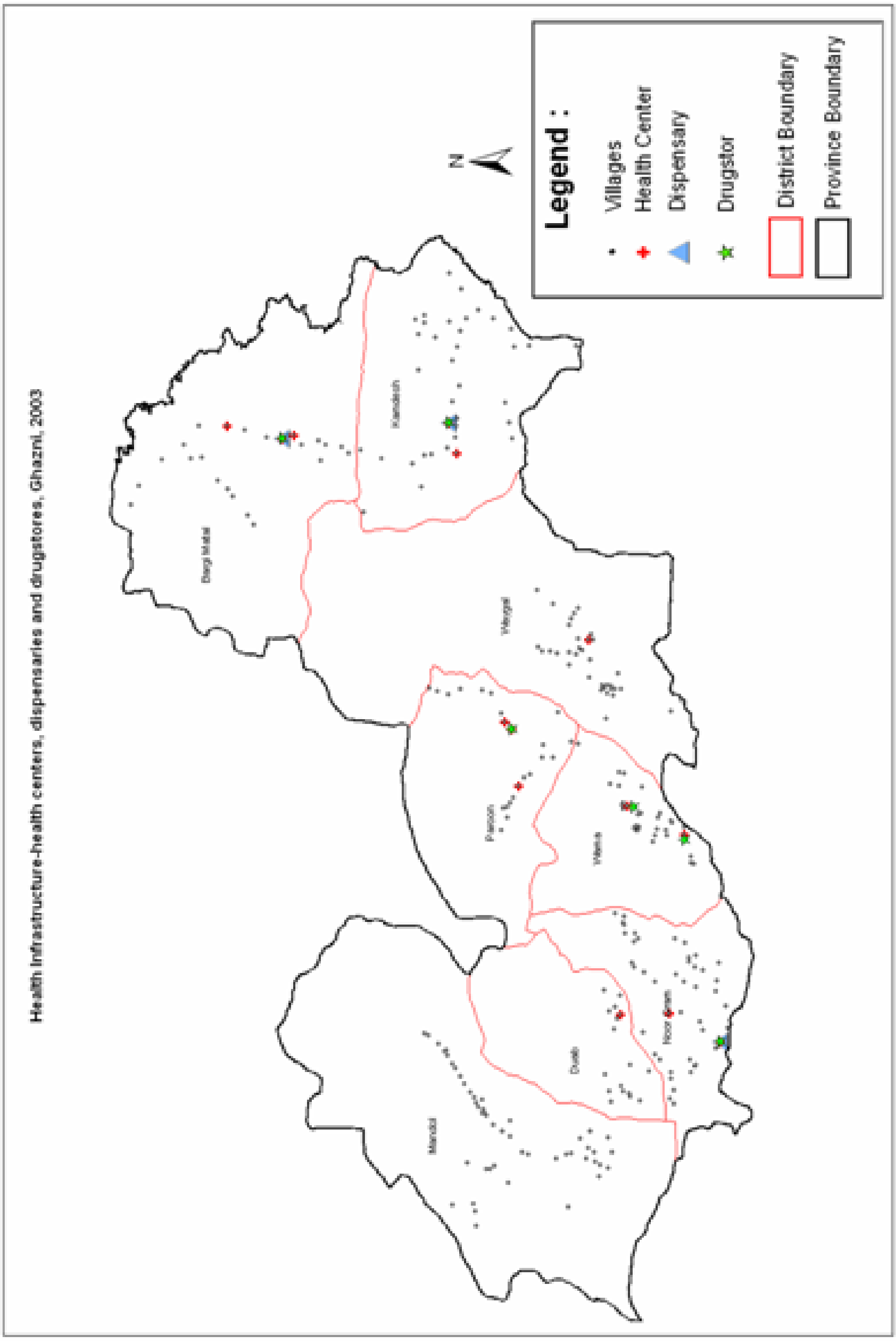
Map6


Villages with Secondary Schools Nooristan, 2003
Legend :
Secondary School
No Secondary School
Province Boundary
District Boundary
N

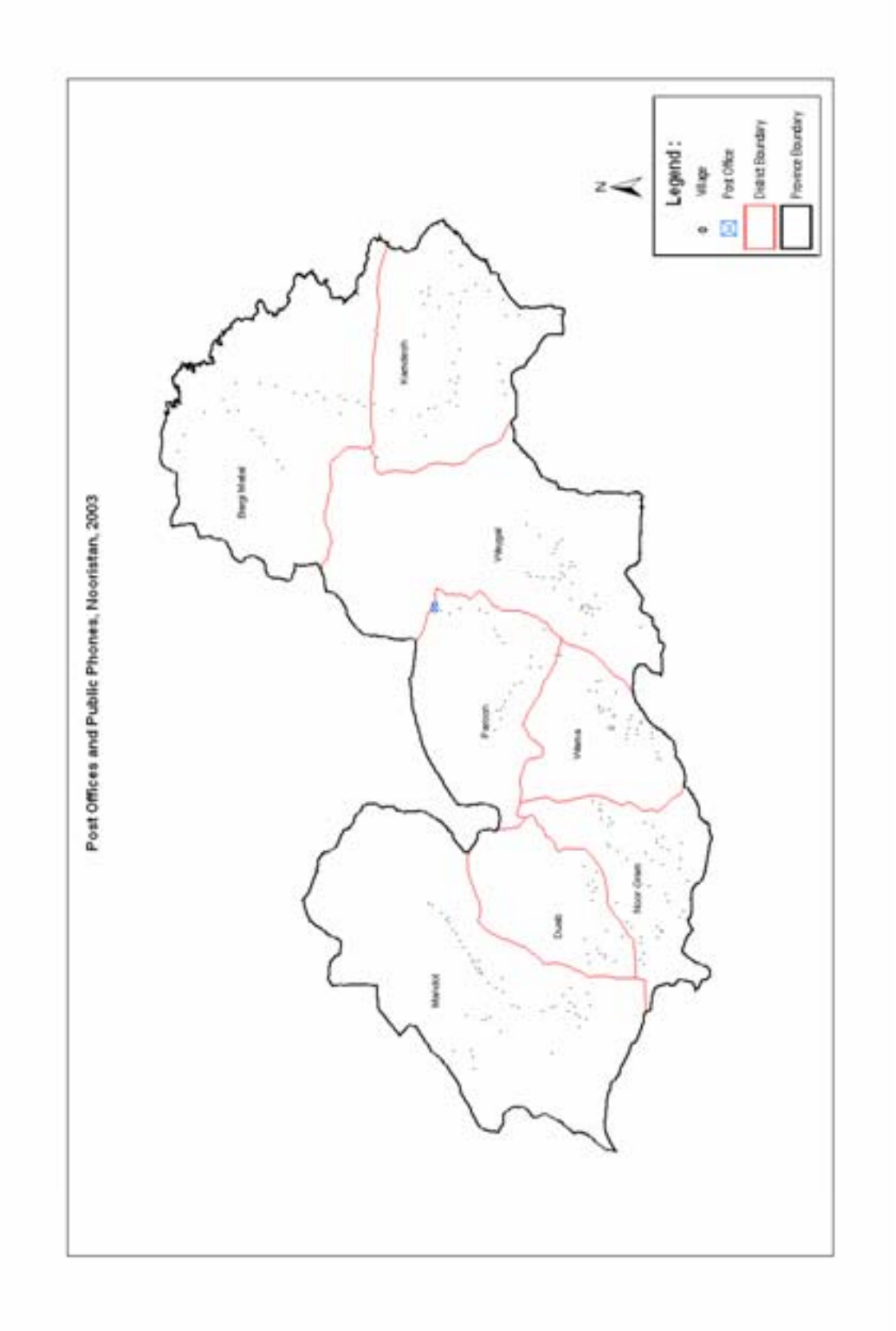
Map7


Villages with HighSchools Nooristan, 2003
Legend :
High School
No High School
Province Boundary
District Boundary
N

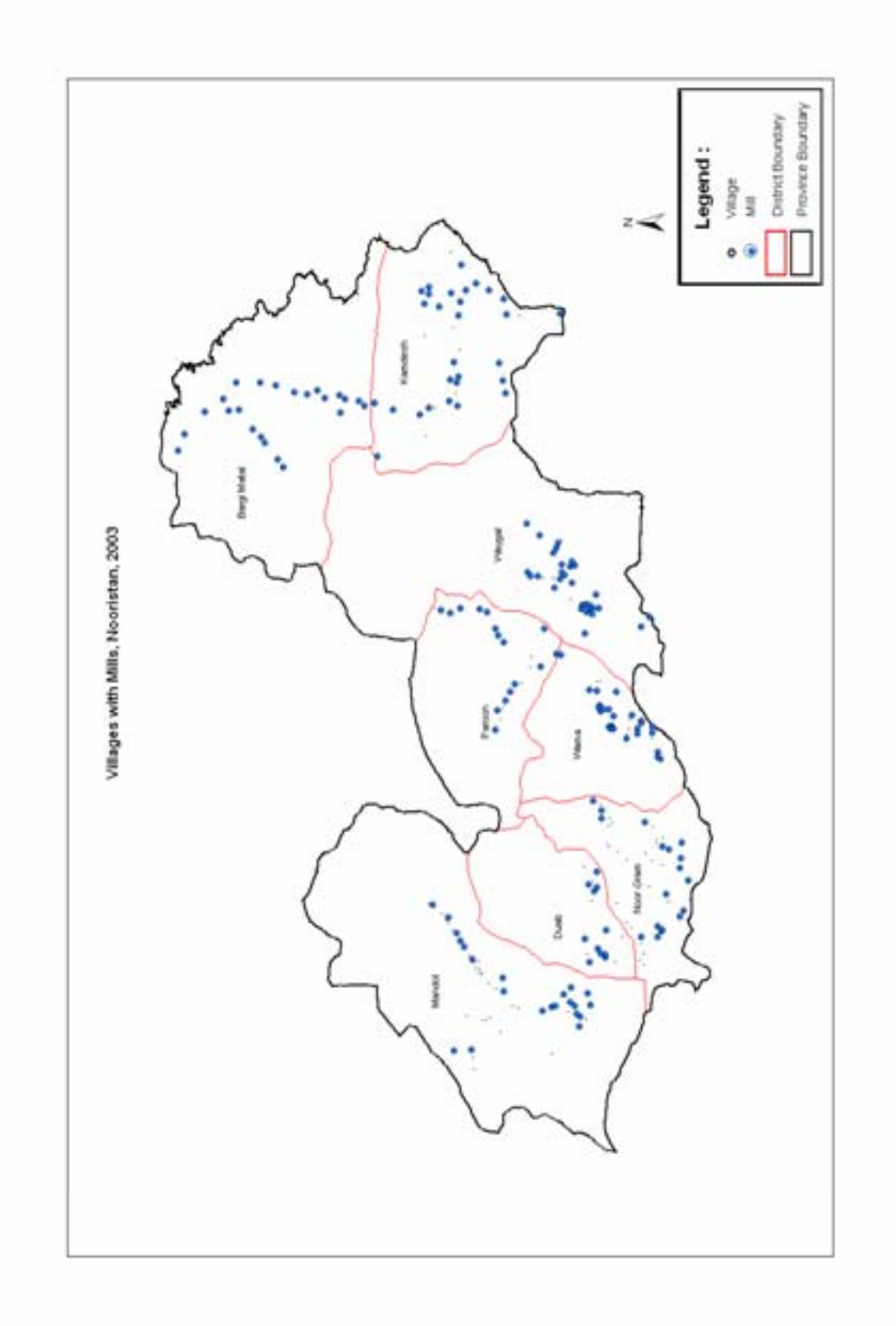
Map8


Health Infrastructure-health centers, dispensaries and drugstores, Ghazni, 2003
N
Legend :
Villages
Health Center
Dispensary
Drugstor
District Boundary
Province Boundary

Map9


Post Offices and Public Phones, Nooristan, 2003
Legend :
Village
Post Office
District Boundary
Province Boundary
N
Kamdesh
Dangam
Wigal
Parun
Waigal
Duab
Nurgram
Mandol

Map10


Villages with Mills, Nooristan, 2003
Legend :
Village
Mill
District Boundary
Province Boundary
N
Kamdesh
Dangam
Pigram
Duab
Nurgram
Mandol

In addition to the major sources of irrigation water, the household listing included information on agricultural products, 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. 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, Nooristan, 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 and panels A through F of figure 13 provide information on the sources of irrigation water and agricultural products—crops; fruit; vegetables; herbal, and animal products.

Figure 12 shows that the predominant source of irrigation water is that of conduits, which supply 69 percent of the villages with their irrigation water, followed by rivers; the latter

provide cater to the needs of another 29 percent. Together, these tow sources represent the major sources for more than 99 percent of the population.

A cursory look at figure 13 shows that in the aggregate, i.e., taking into account all the economic activities surveyed, Mandol and Kamdesh are the districts that figure more prominently than the other six, even though other districts stand out in one or more of the other products/activities (see also annex 6).

In the area of subsistence crops, Kamdesh is a major producer of six of the seven crops listed in the questionnaire; the only crop that Kamdesh does produce is peas. Regarding the other districts, only Duab does not appear to be a major producer of any of the crops. As for the rest, Bargi Matal stands out in maize, beans and vetch; Noor Gram in wheat and corn; Waygal in corn and beans; Wama in wheat and beans. It is worth mentioning that rice and peas are grown in only one village each—rice in Kamdesh and peas in Mandol.

The bulk of vegetables is produced in four districts—Mandol and Kamdesh in particular, but also Bargi Matal, Wama, and Waygal. Kamdesh and Mandol concentrate good proportions of the potatoes, onion, and tomatoes produced; Bargi Matal specializes to some extent in potatoes and tomatoes; Wama in onion, and Waygal in potatoes.

Fruit too are concentrated in Mandol and Kamdesh. The former stands out in all fruit except oranges, which, in fact, are produced by none of the villages in Nooristan; and latter in grapes, pomegrantes, walnuts, and mulberry. Concerning the other districts, Norr Gram specializes in almonds, Duab in walnuts, and Waygal in both almonds and walnust.

Animal products engages the largest number of villages. They are mentioned 1,024 times. Again Kamdesh and Mandol are the major producers. Their names are associated with all products except eggs, which Kamdesh produces but in a lesser quantity than other districts. Bargi Matal specializes to some degree in butter and wool, Noor Gram and Waygak in eggs and Yoghurt, and Wama in eggs.

Herbal are mentioned 67 times, 47 times in association with caray, eight times in association with zerk and another six times in association with aniseed. The most significant associations link Kamdesh, Bargi Matal, and Madol with caray; and Kamdesh with zerk and aniseed.

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 21 villages. The most notable association links Mandol to tobacco. Out of the 14 villages growing it, 14 are located in this particular district.

The sector of small industries is dominated by one commodity, honey, which is produced in a total of 8 villages, 5 of which are located in the district of Kamdesh.

Handicrafts are not omnipresent either. They are mentioned 54 times, 45 of which are related to rugs. Mandol apprears to be major producer of this handicraft—it houses 40 of the 45 villages producing it.

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

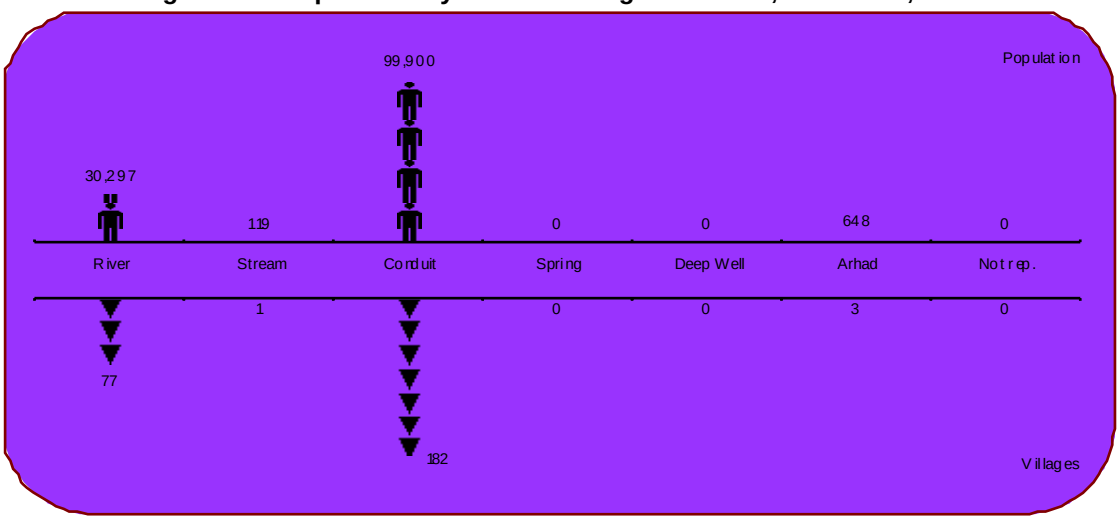
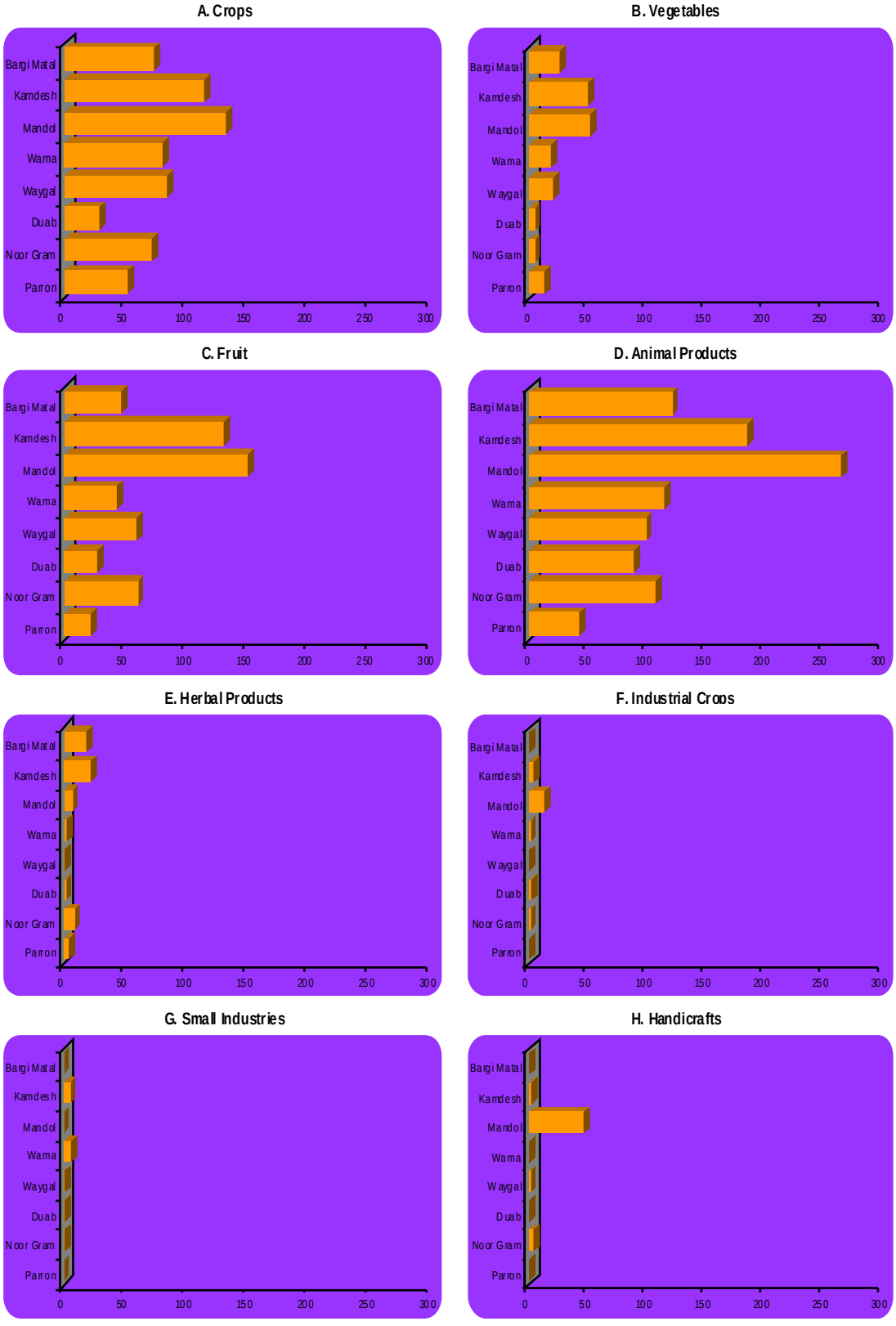


Figure 13—Number of villages engaged in certain economic activites, by disrict, Nooristan, 2003



* = 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 19.049 in the whole province, 95 percent of which (18,057 buildings) are housing units. The remaining five percent (992 buildings) 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 Kamdesh and Waygal. This is to be expected given that these two districts are the most populous among the eight. In terms of persons per housing unit, however, the most crowded districts, in relative terms, are Wama, Kamdesh, and Bargi Matal, with eight occupants in each housing unit. Living space appears to be more available to the residents of Parron, Noor Gram, and Mandol, with six occupants per housing unit. In-between, are Duab, and Waygal, with seven occupants to a house in each, which is also the provincial average.

Schools and educational institutions

With regard to schools and educational institutions, the distribution is more 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 in the districts into three distinct clusters with respect to their degree of crowdedness. Wama and argi Matal comprise the first cluster, with one school for about 1,600 to 2,000 population. The second cluster includes Paroon, Duab, and Waygal, with one school for 5,000-7,000 population. The third cluster includes Noor Gram and Kamdesh, where one schools caters to the needs of 13,000 or more population. At the province's level, the average population density per school hovers around 5,000. It is worth noting Mandol doesn't have any school within its boundaries

Health infrastructure

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

Curiously enough, there are no hospitals in Nooristan. There aren't many clinics either—only 13, each catering to the needs of 10,000 population or so. Wama, one of the least populated district has the largest number of clinics—3. The other districts have either one—Noor Gram and Duab—or two—Paroon, Waygal, Kamdesh and Bargi Matal, but Mandol has none. The potential clientele per clinic varies from about 3,700 in Wama to more than 16,000 in Kamdesh (see table 6 and figure 14).

Nor are there any Doctors' practices, even in the most populous districts. As for pharmacies, they number seven only distributed over three of the eight districts—Parron (2), Noor Gram (2), and Wama (3). In other words, at province level, the potential clientele per pharmacy is close to 19,000.

In the final analysis, Nooristan appears to be the province that is worst off in terms of medical services. From the district perspective, the least endowed is Mandol, which has neither hospital, nor clinic, nor Doctor's practice or even a pharmacy.

Factories & workshops

The province of Nooristan counts 14 factories/workshops[1], five of which are located in Bargi Matal. They are absent in three of the seven remaining districts, including Paroon, the provincial center. In those districts where they exist, inter-district variation in the population density per factory/workshop ranges from about 4,000 in Mandol and Bargi Matal to more than 16,000 in Kamdesh. In the absence of the sizes of such businesses, it is not possible to draw any inferences as to the numbers of people employed in them.

Bakeries and Mills

Bakeries do not appear to be as present in Nooristan either—a total of two, both located in Noor Gram.

Mills, on the other hand are omnipresent, and exist in all districts with no exception. There are 269 of them, including 50 in Bargi Matal, and 49 in Kamdesh. On average, there is one mill for every 500 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 12 hotels and restaurants in the whole province of Nooristan, half of which are concentrated in the fourth most populous district—Noor Gram. Neither Duab,

[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.

nor Wama, or Mandol have any hotels or restaurants. On average, every hotel/restaurant caters to the needs of approximately 11,000 population.

Shopping places

Food & grocery stores are the most prevalent businesses in Nooristan. There is a total of 208 of them, i.e., an average of one store per 630 population. Curiously enough, there is only one such store in Mandol, catering to the needs of the 11,877 population.

However, there is are only six textile and clothes stores—three in Noor Gram, one in Mandol, and two in Kamdesh.

Stores selling construction materials also tend to be scarce. There are four of them throughout the province—two in Kamdesh, one in Bargi Matal, and another one in Waygal. This averages to one store for about 33,000 population.

Mosques

The province of Nooristan counts a total of 337 mosques, i.e., an average of one mosque for every 389 population. Inter-district variation around this mean goes from 158 in Mandol to 779 in Kamdesh.

Other places

The whole province of Nooristan count zero and zero barbers/beauty salons. The latter 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 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, Nooristan, 2003

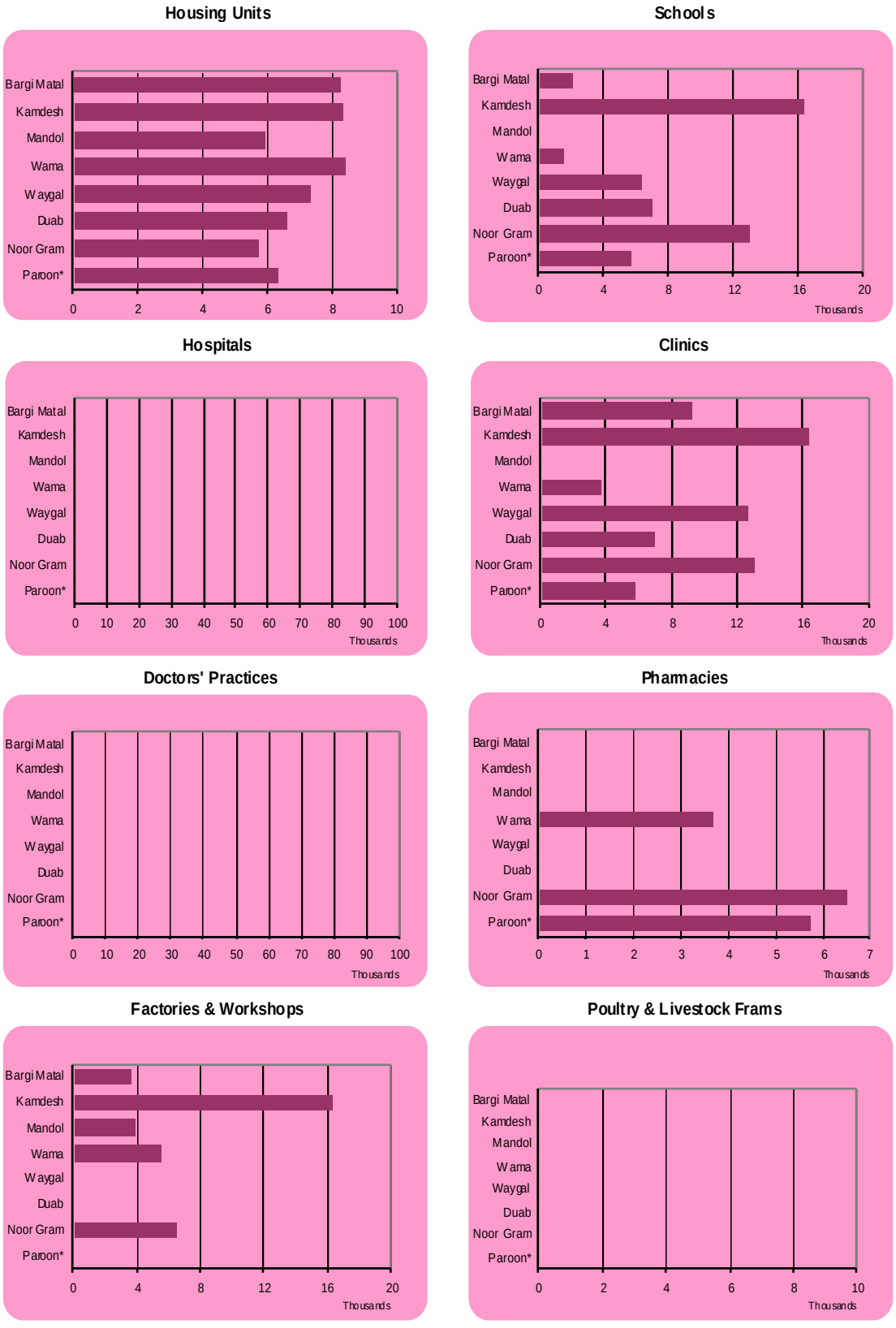
A—Absolute numbers

District	Resi-dential Places	Schools & Educational Institutions	Hos-pitals	Clinics	Doctors' Practices	Phar-macies	Factories/ Workshops	Food & Grocery Stores	Clothes & Textile Stores	Cons-truction Materials	Poultry/ Livestock Farms	Hotels & Res-taurants	Barbers & Beauty Salons	Bakeries	Mills	Mosques	Other	Total	Population
Provincial Center—Parcon	1,822	2	0	2	0	2	0	9	0	0	0	2	0	0	36	27	5	1,907	11,503
Noor Gram	2,260	1	0	1	0	2	2	29	3	0	0	6	0	2	26	51	57	2,440	13,023
Duab	1,056	1	0	1	0	0	0	31	0	0	0	0	0	0	11	15	2	1,117	6,974
Waygal	3,455	4	0	2	0	0	0	18	0	1	0	1	0	0	36	60	3	3,580	25,425
Wama	1,318	7	0	3	0	3	2	11	0	0	0	0	0	0	25	38	12	1,419	11,043
Mandol	2,001	0	0	0	0	0	3	1	1	0	0	0	0	0	36	75	1	2,118	11,877
Kamdesh	3,920	2	0	2	0	0	2	45	2	2	0	2	0	0	49	42	5	4,073	32,720
Bargi Matal	2,225	9	0	2	0	0	5	64	0	1	0	1	0	0	50	29	9	2,395	18,399
Total province	18,057	26	0	13	0	7	14	208	6	4	0	12	0	2	269	337	94	19,049	130,964

B—Ratio (Population per Building)

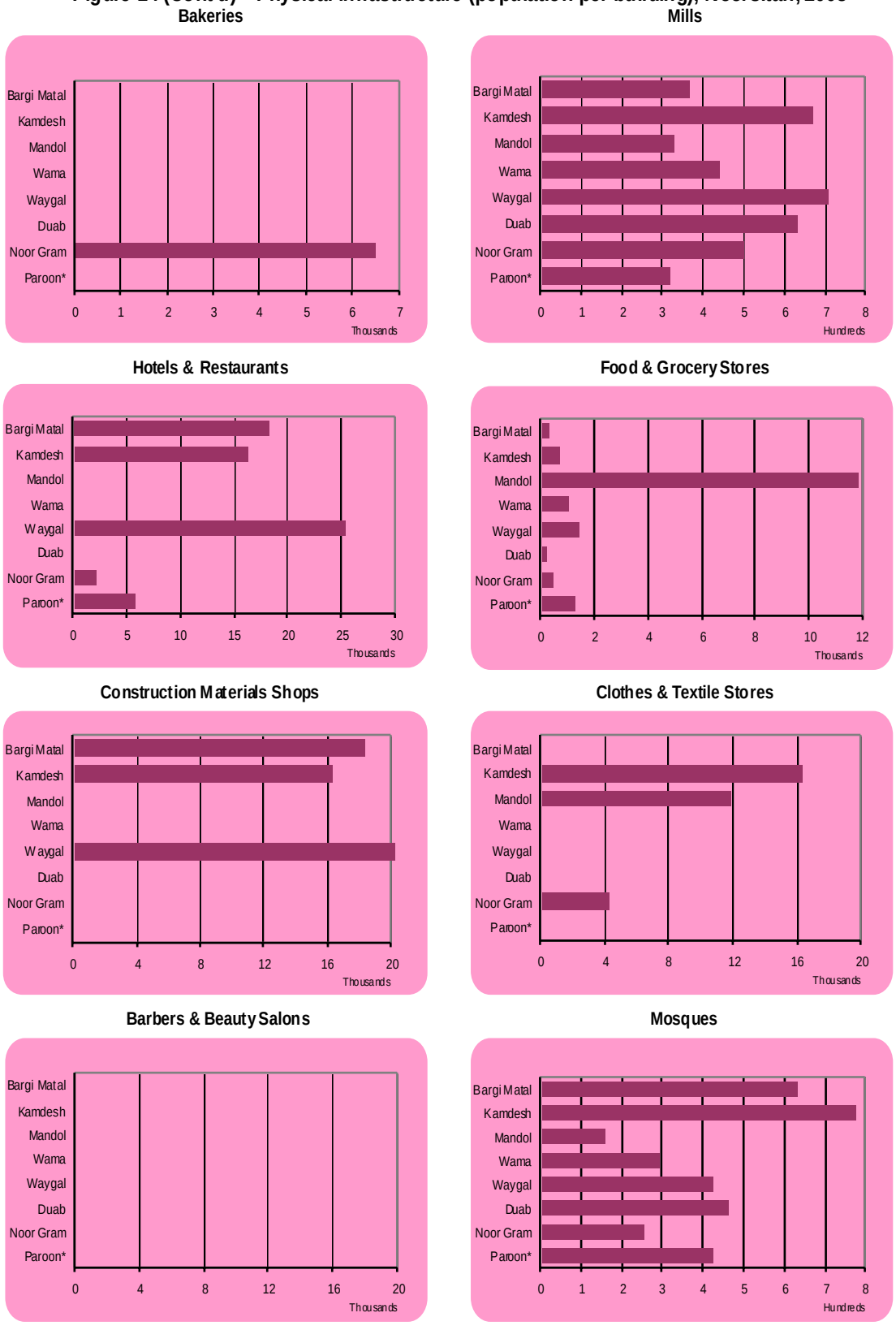
District	Resi-dential Places	Schools & Educa-tional Insti-tutions	Hos-pitals	Clinics	Doctor's Practice	Phar-macies	Factories/ Workshops	Food & Grocery Stores	Clothes & Textile Stores	Cons-truction Ma-terials	Poultry & Live-stock Farms	Hotels & Res-taurants	Barbers & Beauty Salons	Bakeries	Mills	Mosques	Other	Total	Population
Provincial Center—Parcon	6	5,752	—	5,752	—	5,752	—	1,278	—	—	—	5,752	—	—	320	426	2,301	—	—
Noor Gram	6	13,023	—	13,023	—	6,512	6,512	449	4,341	—	—	2,171	—	6,512	501	255	228	—	—
Duab	7	6,974	—	6,974	—	—	—	225	—	—	—	—	—	—	634	465	3,487	—	—
Waygal	7	6,356	—	12,713	—	—	—	1,413	—	25,425	—	25,425	—	—	706	424	8,475	—	—
Wama	8	1,578	—	3,681	—	3,681	5,522	1,004	—	—	—	—	—	—	442	291	920	—	—
Mandol	6	—	—	—	—	—	3,959	11,877	11,877	—	—	—	—	—	330	158	11,877	—	—
Kamdesh	8	16,360	—	16,360	—	—	16,360	727	16,360	16,360	—	16,360	—	—	668	779	6,544	—	—
Bargi Matal	8	2,044	—	9,200	—	—	3,680	287	—	18,399	—	18,399	—	—	368	634	2,044	—	—
Total province	7	5,037	—	10,074	—	18,709	9,355	630	21,927	32,741	—	10,914	—	65,482	487	389	1,393	—	—

Figure 14—Physical infrastructure, Nooristan, 2003



* = Provinial Center

Figure 14 (Cont'd)—Physical infrastructure (population per building), Noorsitan, 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 (as of mid-July 2004) by province, ranked according to their shares of the total urban population of Afghanistan

Province	Total Population	Urban Population		Share of the urban population of Afghanistan		
		Number	Percent	Percent	Cumulative Percent	Rank
Kabul	2,447,044	1,946,430	79.5	42.7	43	1
Hirat	1,812,997	474,083	26.1	10.4	53	2
Balkh	1,141,702	446,374	39.1	9.8	63	3
Kandahar	1,023,043	285,075	27.9	6.2	69	4
Nangarhar	1,356,494	213,415	15.7	4.7	74	5
Kunduz	790,069	195,569	24.8	4.3	78	6
Baghlan	759,057	166,612	21.9	3.7	82	7
Jawzjan	433,081	128,667	29.7	2.8	85	8
Takhar	852,574	127,653	15.0	2.8	87	9
Faryab	844,388	103,972	12.3	2.3	90	10
Hilmand	1,405,068	88,068	6.3	1.9	92	11
Parwan	498,602	54,241	10.9	1.2	93	12
Ghazni	1,102,162	44,964	4.1	1.0	94	13
Badakhshan	844,581	41,801	4.9	0.9	95	14
Samangan	320,495	38,285	11.9	0.8	95	15
Nimroz	118,199	30,723	26.0	0.7	96	16
Sar-i-Pul	443,970	30,069	6.8	0.7	97	17
Farah	493,791	27,858	5.6	0.6	97	18
Paktya	518,779	23,291	4.5	0.5	98	19
Kunarha	417,786	18,411	4.4	0.4	98	20
Khost	643,462	15,376	2.4	0.3	99	21
Badghis	514,872	14,445	2.8	0.3	99	22
Bamyan	346,884	8,353	2.4	0.2	99	23
Zabul	355,931	8,120	2.3	0.2	99	24
Urozgan	319,160	7,960	2.5	0.2	100	25
Logar	333,067	7,261	2.2	0.2	100	26
Ghor	651,782	6,339	1.0	0.1	100	27
Paktika	777,118	4,500	0.6	0.1	100	28
Daikundy	467,810	3,489	0.7	0.1	100	29
Wardak	538,634	1,581	0.3	0.0	100	30
Laghman	386,517	1,576	0.4	0.0	100	31
Kapisa	365,488	412	0.1	0.0	100	32
Nooristan	**134,558**	**0**	**0.0**	**0.0**	**100**	**33**
Panjsher	110,250	0	0.0	0.0	100	34
Total	*23,569,414*	*4,561,482*	*19.4*	*100.0*	—	—

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 Km²	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
Panisher	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.

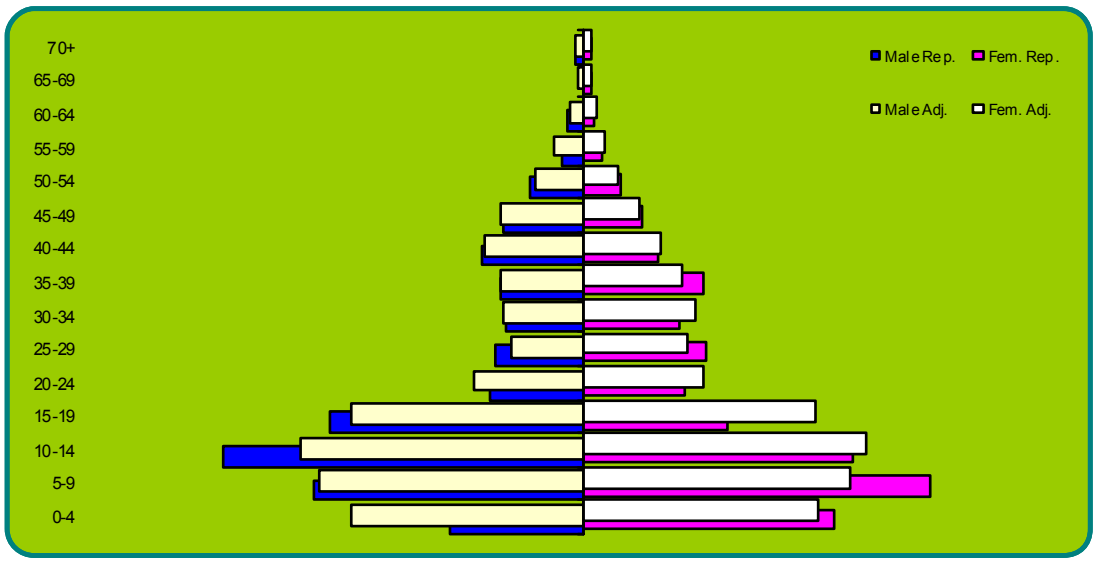
[1] The model used was from the Regional Model Life Tables and Stable Population; Ansley J. Coale and Paul Demeny; Princeton University Press; Princeton, New Jersey; 1966 ("West" model at level 13 for both males and females [e_0: 50 for females, and 47.114 for males] and a growth rate of 30).

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

A—Distribution

Age	Reported			Adjusted			Reported /Adjusted		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	5,379	9,729	15,108	9,366	9,095	18,462	-3,987	634	-3,354
5-9	10,877	13,439	24,316	10,641	10,338	20,979	236	3,101	3,337
10-14	14,465	10,479	24,944	11,373	11,034	22,407	3,092	-555	2,537
15-19	10,231	5,604	15,835	9,339	9,050	18,389	892	-3,446	-2,554
20-24	3,754	3,952	7,706	4,493	4,643	9,137	-739	-691	-1,431
25-29	3,570	4,728	8,298	2,898	3,964	6,861	672	764	1,437
30-34	3,199	3,651	6,850	3,257	4,375	7,632	-58	-724	-782
35-39	3,324	4,618	7,942	3,325	3,825	7,150	-1	793	792
40-44	4,078	2,862	6,940	4,015	2,928	6,943	63	-66	-3
45-49	3,251	2,283	5,534	3,381	2,173	5,555	-130	110	-21
50-54	2,232	1,460	3,692	1,967	1,302	3,268	265	158	424
55-59	927	679	1,606	1,221	819	2,041	-294	-140	-435
60-64	739	402	1,141	547	457	1,004	192	-55	137
65-69	73	322	395	272	261	534	-199	61	-139
70-74	351	196	547	156	144	300	195	52	247
75-79	-	55	55	198	105	303	-198	-50	-248
80+	-	55	55	-	-	-	0	55	55
Total	66,450	64,514	130,964	66,450	64,514	130,964	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 nine districts that specialize in one or more of the various products/activities in a remarkable way.

Because of the relatively small number of villages—263, and the almost non existence of any economic activity other than the agricultural, compositional analysis could be justified only for animal products, subsistence crops, and fruit, mentioned by respectively 1,024, 636, and 540 villages. Even among these, only a few products engage a number of villages that is large enough to warrant compositional analysis—potatoes in subsistence crops, and walnuts and mulberry in fruit. Animal products, on the other hand, even though they engage they engage the largest number of villages, are so evenly distributed over space that none stands out as engaging a number villages that is significantly higher for one than for another. But even for the above-mentioned crops and fruit, compositional analysis does not single out any product as being remarkably associated with any district in particular. As a result, panel A of annex 6, shown below, is enough to shed sufficient light on the spatial pattern of economic activities in the province.

[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.

Annex6

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

Subsistence Crops

Panel A—Raw Data

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1 Provincial Center—Paroon	20	22	0	0	10	0	0	0	52
2 Noor Gram	30	36	0	2	2	0	0	1	71
3 Duab	6	15	0	0	7	0	0	0	28
4 Waygal	17	35	0	1	30	1	0	0	84
5 Wama	24	31	0	2	23	0	0	0	80
6 Mandol	20	46	0	17	43	5	1	1	133
7 Kamdesh	33	36	1	8	24	10	0	3	115
8 Bargi Matal	18	19	0	9	22	4	0	1	73
Total	**168**	**240**	**1**	**39**	**161**	**20**	**1**	**6**	**636**

Panel B—Specialization

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1 Provincial Center—Paroon	38.5	42.3	0.0	0.0	19.2	0.0	0.0	0.0	100.0
2 Noor Gram	42.3	50.7	0.0	2.8	2.8	0.0	0.0	1.4	100.0
3 Duab	21.4	53.6	0.0	0.0	25.0	0.0	0.0	0.0	100.0
4 Waygal	20.2	41.7	0.0	1.2	35.7	1.2	0.0	0.0	100.0
5 Wama	30.0	38.8	0.0	2.5	28.8	0.0	0.0	0.0	100.0
6 Mandol	15.0	34.6	0.0	12.8	32.3	3.8	0.8	0.8	100.0
7 Kamdesh	28.7	31.3	0.9	7.0	20.9	8.7	0.0	2.6	100.0
8 Bargi Matal	24.7	26.0	0.0	12.3	30.1	5.5	0.0	1.4	100.0
Total	**26.4**	**37.7**	**0.2**	**6.1**	**25.3**	**3.1**	**0.2**	**0.9**	**100.0**

Panel C—Concentration

District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1 Provincial Center—Paroon	11.9	9.2	0.0	0.0	6.2	0.0	0.0	0.0	8.2
2 Noor Gram	17.9	15.0	0.0	5.1	1.2	0.0	0.0	16.7	11.2
3 Duab	3.6	6.3	0.0	0.0	4.3	0.0	0.0	0.0	4.4
4 Waygal	10.1	14.6	0.0	2.6	18.6	5.0	0.0	0.0	13.2
5 Wama	14.3	12.9	0.0	5.1	14.3	0.0	0.0	0.0	12.6
6 Mandol	11.9	19.2	0.0	43.6	26.7	25.0	100.0	16.7	20.9
7 Kamdesh	19.6	15.0	100.0	20.5	14.9	50.0	0.0	50.0	18.1
8 Bargi Matal	10.7	7.9	0.0	23.1	13.7	20.0	0.0	16.7	11.5
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
1 Provincial Center—Paroon	0.46	0.12	-1.00	-1.00	-0.24	-1.00	-1.00	-1.00	0.00
Noor Gram	0.60	0.34	-1.00	-0.54	-0.89	-1.00	-1.00	0.49	0.00
3 Duab	-0.19	0.42	-1.00	-1.00	-0.01	-1.00	-1.00	-1.00	0.00
4 Waygal	-0.23	0.10	-1.00	-0.81	0.41	-0.62	-1.00	-1.00	0.00
5 Wama	0.14	0.03	-1.00	-0.59	0.14	-1.00	-1.00	-1.00	0.00
6 Mandol	-0.43	-0.08	-1.00	1.08	0.28	0.20	3.78	-0.20	0.00
7 Kamdesh	0.09	-0.17	4.53	0.13	-0.18	1.77	-1.00	1.77	0.00
8 Bargi Matal	-0.07	-0.31	-1.00	1.01	0.19	0.74	-1.00	0.45	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, Nooristan, 2003

Industrial Crops

Panel A—Raw Data

District	Cotton	Sugar Extracts	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1 Provincial Center—Paroon	0	0	0	0	0	0	0	0	0
2 Noor Gram	0	1	0	0	0	0	0	0	1
3 Duab	0	0	0	0	2	0	0	0	2
4 Waygal	0	0	0	0	0	0	0	0	0
5 Wama	0	1	0	0	0	0	0	0	1
6 Mandol	0	1	0	0	12	0	0	0	13
7 Kamdesh	2	2	0	0	0	0	0	0	4
8 Bargi Matal	0	0	0	0	0	0	0	0	0
Total	**2**	**5**	**0**	**0**	**14**	**0**	**0**	**0**	**21**

Panel B—Specialization

District	Cotton	Sugar Extracts	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1 Provincial Center—Paroon	—	—	—	—	—	—	—	—	—
2 Noor Gram	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
3 Duab	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
4 Waygal	—	—	—	—	—	—	—	—	—
5 Wama	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
6 Mandol	0.0	7.7	0.0	0.0	92.3	0.0	0.0	0.0	100.0
7 Kamdesh	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
8 Bargi Matal	—	—	—	—	—	—	—	—	—
Total	**9.5**	**23.8**	**0.0**	**0.0**	**66.7**	**0.0**	**0.0**	**0.0**	**100.0**

Panel C—Concentration

District	Cotton	Sugar Extracts	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1 Provincial Center—Paroon	0.0	0.0	—	—	0.0	—	—	—	0.0
2 Noor Gram	0.0	20.0	—	—	0.0	—	—	—	4.8
3 Duab	0.0	0.0	—	—	14.3	—	—	—	9.5
4 Waygal	0.0	0.0	—	—	0.0	—	—	—	0.0
5 Wama	0.0	20.0	—	—	0.0	—	—	—	4.8
6 Mandol	0.0	20.0	—	—	85.7	—	—	—	61.9
7 Kamdesh	100.0	40.0	—	—	0.0	—	—	—	19.0
8 Bargi Matal	0.0	0.0	—	—	0.0	—	—	—	0.0
Total	**100.0**	**100.0**	**—**	**—**	**100.0**	**—**	**—**	**—**	**100.0**

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

District	Cotton	Sugar Extracts	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1 Provincial Center—Paroon	—	—	—	—	—	—	—	—	—
2 Noor Gram	-1.00	3.20	—	—	-1.00	—	—	—	0.00
3 Duab	-1.00	-1.00	—	—	0.50	—	—	—	0.00
4 Waygal	—	—	—	—	—	—	—	—	—
5 Wama	-1.00	3.20	—	—	-1.00	—	—	—	0.00
6 Mandol	-1.00	-0.68	—	—	0.38	—	—	—	0.00
7 Kamdesh	4.25	1.10	—	—	-1.00	—	—	—	0.00
8 Bargi Matal	—	—	—	—	—	—	—	—	—
Total	**0.0**	**0.0**	**—**	**—**	**0.0**	**—**	**—**	**—**	**0.0**

Annex 6 (Cont'd)
Agricultural and industrial products, and economic activities, Nooristan, 2003

Fruit

Panel A—Raw Data

District	Grapes	Pome-grenades	Melones/ W. Melones	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Paroon	0	0	0	0	2	15	2	3	22
2 Noor Gram	1	5	0	0	0	42	5	7	60
3 Duab	3	4	0	0	0	13	7	0	27
4 Waygal	8	5	0	0	1	31	13	1	59
5 Wama	7	7	0	0	0	25	3	1	43
6 Mandol	28	18	3	0	4	43	42	13	151
7 Kamdesh	29	29	0	0	0	35	32	6	131
8 Bargi Matal	10	0	0	0	0	15	15	7	47
Total	**86**	**68**	**3**	**0**	**7**	**219**	**119**	**38**	**540**

Panel B—Specialization

District	Grapes	Pome-grenades	Melones/ W. Melones	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Paroon	0.0	0.0	0.0	0.0	9.1	68.2	9.1	13.6	100.0
2 Noor Gram	1.7	8.3	0.0	0.0	0.0	70.0	8.3	11.7	100.0
3 Duab	11.1	14.8	0.0	0.0	0.0	48.1	25.9	0.0	100.0
4 Waygal	13.6	8.5	0.0	0.0	1.7	52.5	22.0	1.7	100.0
5 Wama	16.3	16.3	0.0	0.0	0.0	58.1	7.0	2.3	100.0
6 Mandol	18.5	11.9	2.0	0.0	2.6	28.5	27.8	8.6	100.0
7 Kamdesh	22.1	22.1	0.0	0.0	0.0	26.7	24.4	4.6	100.0
8 Bargi Matal	21.3	0.0	0.0	0.0	0.0	31.9	31.9	14.9	100.0
Total	**15.9**	**12.6**	**0.6**	**0.0**	**1.3**	**40.6**	**22.0**	**7.0**	**100.0**

Panel C—Concentration

District	Grapes	Pome-grenades	Melones/ W. Melones	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Paroon	0.0	0.0	0.0	—	28.6	6.8	1.7	7.9	4.1
2 Noor Gram	1.2	7.4	0.0	—	0.0	19.2	4.2	18.4	11.1
3 Duab	3.5	5.9	0.0	—	0.0	5.9	5.9	0.0	5.0
4 Waygal	9.3	7.4	0.0	—	14.3	14.2	10.9	2.6	10.9
5 Wama	8.1	10.3	0.0	—	0.0	11.4	2.5	2.6	8.0
6 Mandol	32.6	26.5	100.0	—	57.1	19.6	35.3	34.2	28.0
7 Kamdesh	33.7	42.6	0.0	—	0.0	16.0	26.9	15.8	24.3
8 Bargi Matal	11.6	0.0	0.0	—	0.0	6.8	12.6	18.4	8.7
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-grenades	Melones/ W. Melones	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Paroon	-1.00	-1.00	-1.00	—	6.01	0.68	-0.59	0.94	0.00
2 Noor Gram	-0.90	-0.34	-1.00	—	-1.00	0.73	-0.62	0.66	0.00
3 Duab	-0.30	0.18	-1.00	—	-1.00	0.19	0.18	-1.00	0.00
4 Waygal	-0.15	-0.33	-1.00	—	0.31	0.30	0.00	-0.76	0.00
5 Wama	0.02	0.29	-1.00	—	-1.00	0.43	-0.68	-0.67	0.00
6 Mandol	0.16	-0.05	2.58	—	1.04	-0.30	0.26	0.22	0.00
7 Kamdesh	0.39	0.76	-1.00	—	-1.00	-0.34	0.11	-0.35	0.00
8 Bargi Matal	0.34	-1.00	-1.00	—	-1.00	-0.21	0.45	1.12	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, Nooristan, 2003

Vegetables

Panel A—Raw Data

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Paroon	11	0	0	0	0	0	0	1	12
2 Noor Gram	2	2	0	0	0	0	0	0	4
3 Duab	1	2	1	0	0	0	0	0	4
4 Waygal	15	2	2	0	0	0	0	1	20
5 Wama	8	5	5	0	0	0	0	0	18
6 Mandol	27	13	10	0	0	0	0	2	52
7 Kamdesh	21	6	18	1	0	0	0	3	49
8 Bargi Matal	20	0	6	0	0	0	0	0	26
Total	**105**	**30**	**42**	**1**	**0**	**0**	**0**	**7**	**185**

Panel B—Specialization

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Paroon	91.7	0.0	0.0	0.0	0.0	0.0	0.0	8.3	100.0
2 Noor Gram	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
3 Duab	25.0	50.0	25.0	0.0	0.0	0.0	0.0	0.0	100.0
4 Waygal	75.0	10.0	10.0	0.0	0.0	0.0	0.0	5.0	100.0
5 Wama	44.4	27.8	27.8	0.0	0.0	0.0	0.0	0.0	100.0
6 Mandol	51.9	25.0	19.2	0.0	0.0	0.0	0.0	3.8	100.0
7 Kamdesh	42.9	12.2	36.7	2.0	0.0	0.0	0.0	6.1	100.0
8 Bargi Matal	76.9	0.0	23.1	0.0	0.0	0.0	0.0	0.0	100.0
Total	**56.8**	**16.2**	**22.7**	**0.5**	**0.0**	**0.0**	**0.0**	**3.8**	**100.0**

Panel C—Concentration

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Paroon	10.5	0.0	0.0	0.0	—	—	—	14.3	6.5
2 Noor Gram	1.9	6.7	0.0	0.0	—	—	—	0.0	2.2
3 Duab	1.0	6.7	2.4	0.0	—	—	—	0.0	2.2
4 Waygal	14.3	6.7	4.8	0.0	—	—	—	14.3	10.8
5 Wama	7.6	16.7	11.9	0.0	—	—	—	0.0	9.7
6 Mandol	25.7	43.3	23.8	0.0	—	—	—	28.6	28.1
7 Kamdesh	20.0	20.0	42.9	100.0	—	—	—	42.9	26.5
8 Bargi Matal	19.0	0.0	14.3	0.0	—	—	—	0.0	14.1
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	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Paroon	0.62	-1.00	-1.00	-1.00	—	—	—	1.20	0.00
2 Noor Gram	-0.12	2.08	-1.00	-1.00	—	—	—	-1.00	0.00
3 Duab	-0.56	2.08	0.10	-1.00	—	—	—	-1.00	0.00
4 Waygal	0.32	-0.38	-0.56	-1.00	—	—	—	0.32	0.00
5 Wama	-0.22	0.71	0.22	-1.00	—	—	—	-1.00	0.00
6 Mandol	-0.09	0.54	-0.15	-1.00	—	—	—	0.02	0.00
7 Kamdesh	-0.24	-0.24	0.62	2.78	—	—	—	0.62	0.00
8 Bargi Matal	0.36	-1.00	0.02	-1.00	—	—	—	-1.00	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, Nooristan, 2003

Herbal Products

Panel A—Raw Data

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Paroon	0	4	0	0	0	0	0	0	4
2 Noor Gram	0	4	0	3	1	0	0	1	9
3 Duab	0	2	0	0	0	0	0	0	2
4 Waygal	0	0	0	0	0	0	0	1	1
5 Wama	0	2	0	0	0	0	0	1	3
6 Mandol	0	7	0	0	0	0	0	0	7
7 Kamdesh	0	19	1	0	2	0	0	0	22
8 Bargi Matal	1	9	1	5	3	0	0	0	19
Total	**1**	**47**	**2**	**8**	**6**	**0**	**0**	**3**	**67**

Panel B—Specialization

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Paroon	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
2 Noor Gram	0.0	44.4	0.0	33.3	11.1	0.0	0.0	11.1	100.0
3 Duab	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
4 Waygal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
5 Wama	0.0	66.7	0.0	0.0	0.0	0.0	0.0	33.3	100.0
6 Mandol	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
7 Kamdesh	0.0	86.4	4.5	0.0	9.1	0.0	0.0	0.0	100.0
8 Bargi Matal	5.3	47.4	5.3	26.3	15.8	0.0	0.0	0.0	100.0
Total	**1.5**	**70.1**	**3.0**	**11.9**	**9.0**	**0.0**	**0.0**	**4.5**	**100.0**

Panel C—Concentration

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Paroon	0.0	8.5	0.0	0.0	0.0	—	—	0.0	6.0
2 Noor Gram	0.0	8.5	0.0	37.5	16.7	—	—	33.3	13.4
3 Duab	0.0	4.3	0.0	0.0	0.0	—	—	0.0	3.0
4 Waygal	0.0	0.0	0.0	0.0	0.0	—	—	33.3	1.5
5 Wama	0.0	4.3	0.0	0.0	0.0	—	—	33.3	4.5
6 Mandol	0.0	14.9	0.0	0.0	0.0	—	—	0.0	10.4
7 Kamdesh	0.0	40.4	50.0	0.0	33.3	—	—	0.0	32.8
8 Bargi Matal	100.0	19.1	50.0	62.5	50.0	—	—	0.0	28.4
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	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Paroon	-1.00	0.43	-1.00	-1.00	-1.00	—	—	-1.00	0.00
2 Noor Gram	-1.00	-0.37	-1.00	1.79	0.24	—	—	1.48	0.00
3 Duab	-1.00	0.43	-1.00	-1.00	-1.00	—	—	-1.00	0.00
4 Waygal	-1.00	-1.00	-1.00	-1.00	-1.00	—	—	21.33	0.00
5 Wama	-1.00	-0.05	-1.00	-1.00	-1.00	—	—	6.44	0.00
6 Mandol	-1.00	0.43	-1.00	-1.00	-1.00	—	—	-1.00	0.00
7 Kamdesh	-1.00	0.23	0.52	-1.00	0.02	—	—	-1.00	0.00
8 Bargi Matal	2.53	-0.32	0.76	1.20	0.76	—	—	-1.00	0.00
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, Nooristan, 2003

Handicrafts

Panel A—Raw Data

District	Carpet	Rug	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 Provincial Center—Paroon	0	0	0	0	0	0	0	0	0
2 Noor Gram	0	4	0	0	0	0	0	0	4
3 Duab	0	0	0	0	0	0	0	0	0
4 Waygal	0	0	0	0	0	0	0	1	1
5 Wama	0	0	0	0	0	0	0	0	0
6 Mandol	0	40	0	0	3	1	1	2	47
7 Kamdesh	0	1	0	0	0	1	0	0	2
8 Bargi Matal	0	0	0	0	0	0	0	0	0
Total	**0**	**45**	**0**	**0**	**3**	**2**	**1**	**3**	**54**

Panel B—Specialization

District	Carpet	Rug	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 District	—	—	—	—	—	—	—	—	—
2 Noor Gram	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
3 Duab	—	—	—	—	—	—	—	—	—
4 Waygal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
5 Wama	—	—	—	—	—	—	—	—	—
6 Mandol	0.0	85.1	0.0	0.0	6.4	2.1	2.1	4.3	100.0
7 Kamdesh	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	100.0
8 Bargi Matal	—	—	—	—	—	—	—	—	—
Total	**0.0**	**83.3**	**0.0**	**0.0**	**5.6**	**3.7**	**1.9**	**5.6**	**100.0**

Panel C—Concentration

District	Carpet	Rug	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 Provincial Center—Paroon	—	0.0	—	—	0.0	0.0	0.0	0.0	0.0
2 Noor Gram	—	8.9	—	—	0.0	0.0	0.0	0.0	7.4
3 Duab	—	0.0	—	—	0.0	0.0	0.0	0.0	0.0
4 Waygal	—	0.0	—	—	0.0	0.0	0.0	33.3	1.9
5 Wama	—	0.0	—	—	0.0	0.0	0.0	0.0	0.0
6 Mandol	—	88.9	—	—	100.0	50.0	100.0	66.7	87.0
7 Kamdesh	—	2.2	—	—	0.0	50.0	0.0	0.0	3.7
8 Bargi Matal	—	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**

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

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Paroon	11.22	0.24	5.61	1.40	1.87	—	—	3.74	—
2 Noor Gram	4.99	0.11	2.49	0.62	0.83	—	—	1.66	—
3 Duab	22.45	0.48	11.22	2.81	3.74	—	—	7.48	—
4 Waygal	44.89	0.96	22.45	5.61	7.48	—	—	14.96	—
5 Wama	14.96	0.32	7.48	1.87	2.49	—	—	4.99	—
6 Mandol	6.41	0.14	3.21	0.80	1.07	—	—	2.14	—
7 Kamdesh	2.04	0.04	1.02	0.26	0.34	—	—	0.68	—
8 Bargi Matal	2.36	0.05	1.18	0.30	0.39	—	—	0.79	—
Total	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**

Annex 6 (Cont'd)
Agricultural and industrial products, and economic activities, Nooristan, 2003

Small Industries

Panel A—Raw Data

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1 Provincial Center—Paroon	0	0	0	0	0	0	0	0	0
2 Noor Gram	1	0	0	0	0	0	0	0	1
3 Duab	1	0	0	0	0	0	0	0	1
4 Waygal	1	0	0	0	0	0	0	0	1
5 Wama	0	1	1	1	1	1	1	0	6
6 Mandol	0	0	0	0	0	0	0	0	0
7 Kamdesh	5	0	0	0	0	0	0	0	5
8 Bargi Matal	0	0	0	0	0	0	0	0	0
Total	**8**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**14**

Panel B—Specialization

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1 Provincial Center—Paroon	—	—	—	—	—	—	—	—	—
2 Noor Gram	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
3 Duab	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
4 Waygal	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
5 Wama	0.0	16.7	16.7	16.7	16.7	16.7	16.7	0.0	100.0
6 Mandol	—	—	—	—	—	—	—	—	—
7 Kamdesh	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
8 Bargi Matal	—	—	—	—	—	—	—	—	—
Total	**57.1**	**7.1**	**7.1**	**7.1**	**7.1**	**7.1**	**7.1**	**0.0**	**100.0**

Panel C—Concentration

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweet	Other	Total
1 Provincial Center—Paroon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0
2 Noor Gram	12.5	0.0	0.0	0.0	0.0	0.0	0.0	—	7.1
3 Duab	12.5	0.0	0.0	0.0	0.0	0.0	0.0	—	7.1
4 Waygal	12.5	0.0	0.0	0.0	0.0	0.0	0.0	—	7.1
5 Wama	0.0	100.0	100.0	100.0	100.0	100.0	100.0	—	42.9
6 Mandol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0
7 Kamdesh	62.5	0.0	0.0	0.0	0.0	0.0	0.0	—	35.7
8 Bargi Matal	0.0	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**	**—**	**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
1 Provincial Center—Paroon	—	—	—	—	—	—	—	—	—
2 Noor Gram	0.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	—	0.00
3 Duab	0.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	—	0.00
4 Waygal	0.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	—	0.00
5 Wama	-1.00	1.33	1.33	1.33	1.33	1.33	1.33	—	0.00
6 Mandol	—	—	—	—	—	—	—	—	—
7 Kamdesh	0.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	—	0.00
8 Bargi Matal	—	—	—	—	—	—	—	—	—
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**—**	**0.0**

Annex6(Cont'd)
Agricultural and industrial products, and economic activities, Nooristan, 2003

Animal Products

Panel A—Raw Data

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Paroon	10	11	11	8	2	0	0	0	42
2 Noor Gram	21	22	22	12	10	10	11	0	108
3 Duab	12	14	12	12	13	14	5	7	89
4 Waygal	20	24	22	8	8	6	7	4	99
5 Wama	19	23	18	13	14	9	13	5	114
6 Mandol	36	44	41	37	38	38	31	0	265
7 Kamdesh	14	37	23	23	31	33	20	5	186
8 Bargi Matal	12	23	15	13	18	21	19	0	121
Total	**144**	**198**	**164**	**126**	**134**	**131**	**106**	**21**	**1,024**

Panel B—Specialization

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Paroon	23.8	26.2	26.2	19.0	4.8	0.0	0.0	0.0	100.0
2 Noor Gram	19.4	20.4	20.4	11.1	9.3	9.3	10.2	0.0	100.0
3 Duab	13.5	15.7	13.5	13.5	14.6	15.7	5.6	7.9	100.0
4 Waygal	20.2	24.2	22.2	8.1	8.1	6.1	7.1	4.0	100.0
5 Wama	16.7	20.2	15.8	11.4	12.3	7.9	11.4	4.4	100.0
6 Mandol	13.6	16.6	15.5	14.0	14.3	14.3	11.7	0.0	100.0
7 Kamdesh	7.5	19.9	12.4	12.4	16.7	17.7	10.8	2.7	100.0
8 Bargi Matal	9.9	19.0	12.4	10.7	14.9	17.4	15.7	0.0	100.0
Total	**14.1**	**19.3**	**16.0**	**12.3**	**13.1**	**12.8**	**10.4**	**2.1**	**100.0**

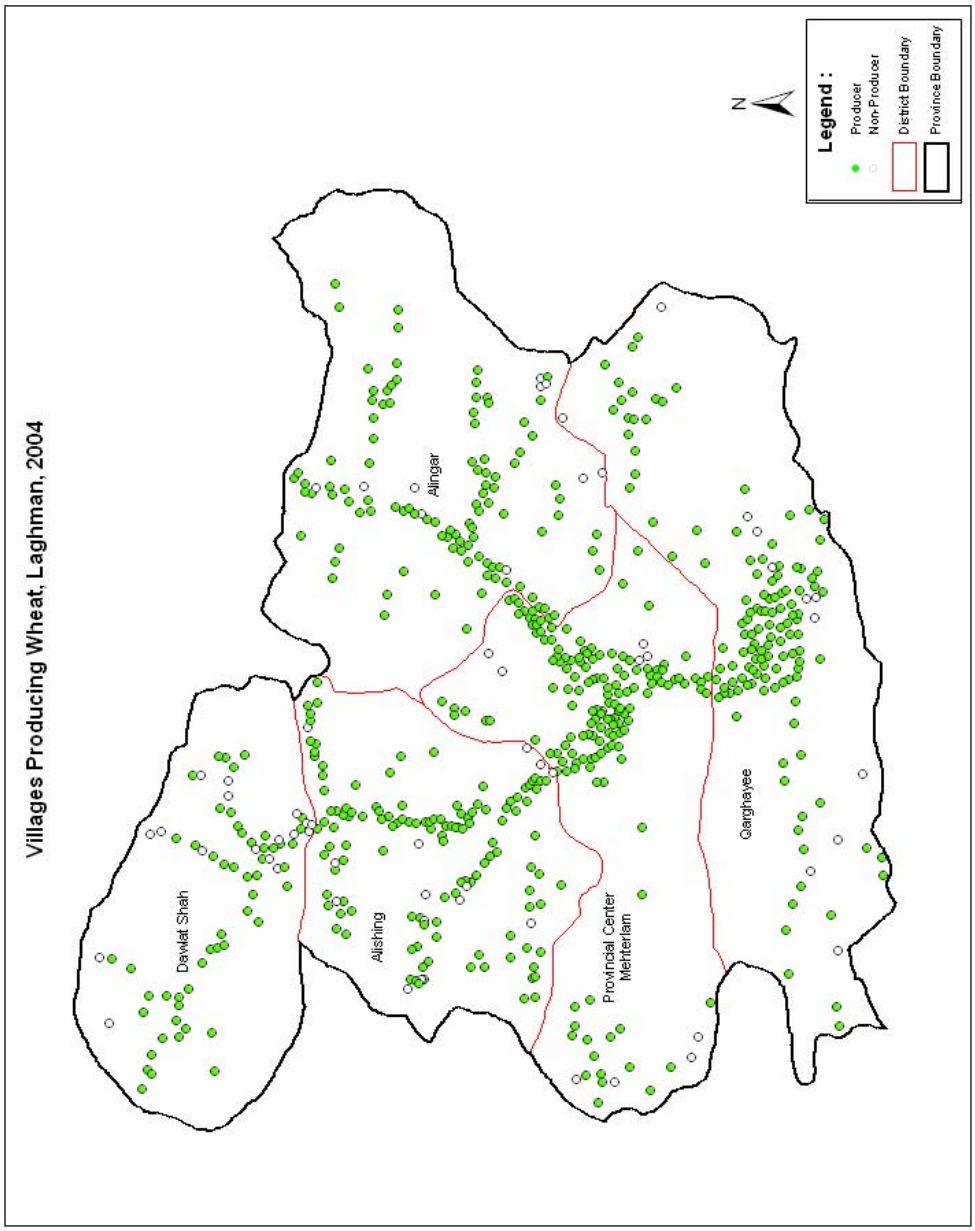
Panel C—Concentration

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Paroon	6.9	5.6	6.7	6.3	1.5	0.0	0.0	0.0	4.1
2 Noor Gram	14.6	11.1	13.4	9.5	7.5	7.6	10.4	0.0	10.5
3 Duab	8.3	7.1	7.3	9.5	9.7	10.7	4.7	33.3	8.7
4 Waygal	13.9	12.1	13.4	6.3	6.0	4.6	6.6	19.0	9.7
5 Wama	13.2	11.6	11.0	10.3	10.4	6.9	12.3	23.8	11.1
6 Mandol	25.0	22.2	25.0	29.4	28.4	29.0	29.2	0.0	25.9
7 Kamdesh	9.7	18.7	14.0	18.3	23.1	25.2	18.9	23.8	18.2
8 Bargi Matal	8.3	11.6	9.1	10.3	13.4	16.0	17.9	0.0	11.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

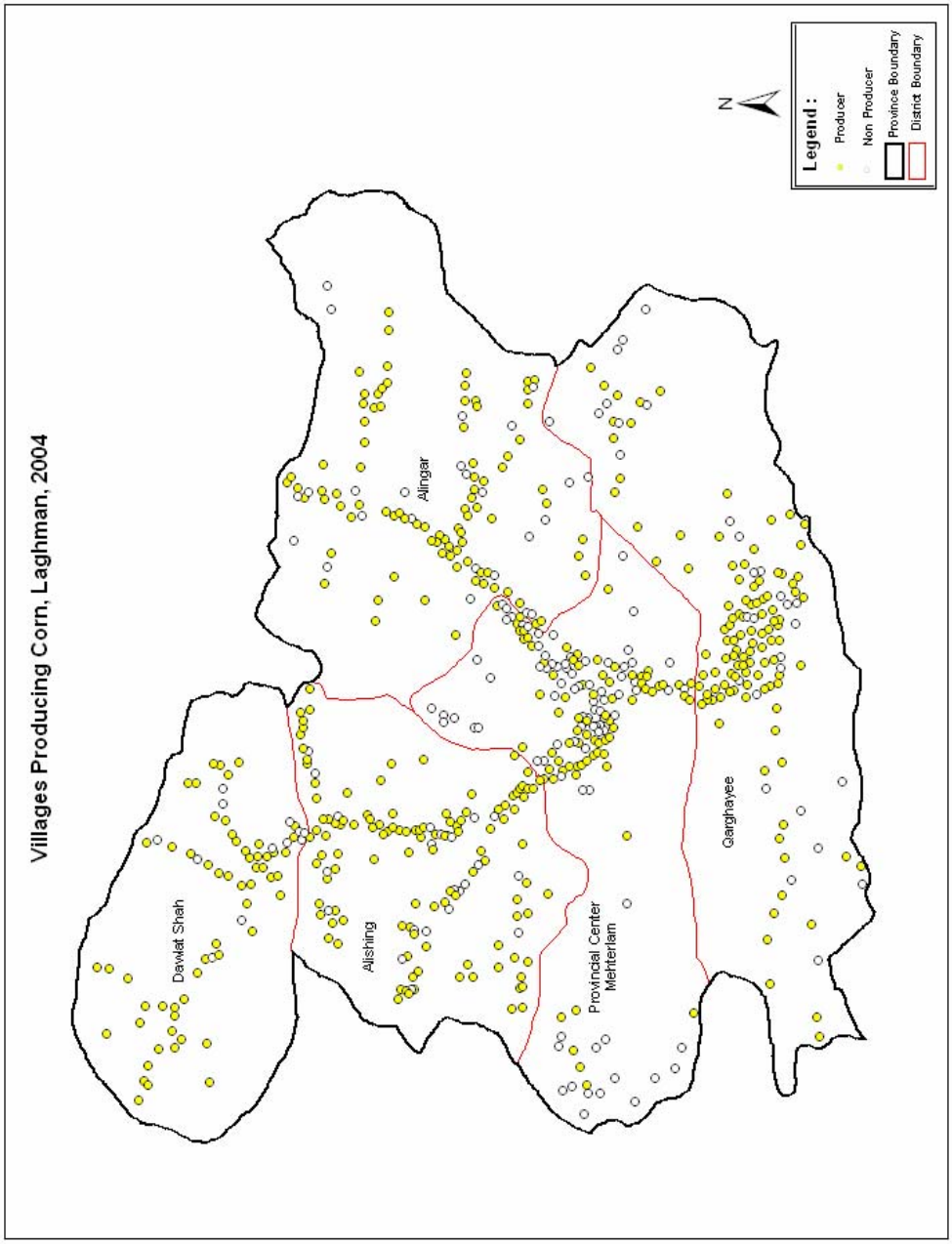
Panel G—Deviation of actual from expected as a ratio to expected

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Paroon	0.69	0.35	0.64	0.55	-0.64	-1.00	-1.00	-1.00	0.00
2 Noor Gram	0.38	0.05	0.27	-0.10	-0.29	-0.28	-0.02	-1.00	0.00
3 Duab	-0.04	-0.19	-0.16	0.10	0.12	0.23	-0.46	2.84	0.00
4 Waygal	0.44	0.25	0.39	-0.34	-0.38	-0.53	-0.32	0.97	0.00
5 Wama	0.19	0.04	-0.01	-0.07	-0.06	-0.38	0.10	1.14	0.00
6 Mandol	-0.03	-0.14	-0.03	0.13	0.10	0.12	0.13	-1.00	0.00
7 Kamdesh	-0.46	0.03	-0.23	0.00	0.27	0.39	0.04	0.31	0.00
8 Bargi Matal	-0.29	-0.02	-0.23	-0.13	0.14	0.36	0.52	-1.00	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

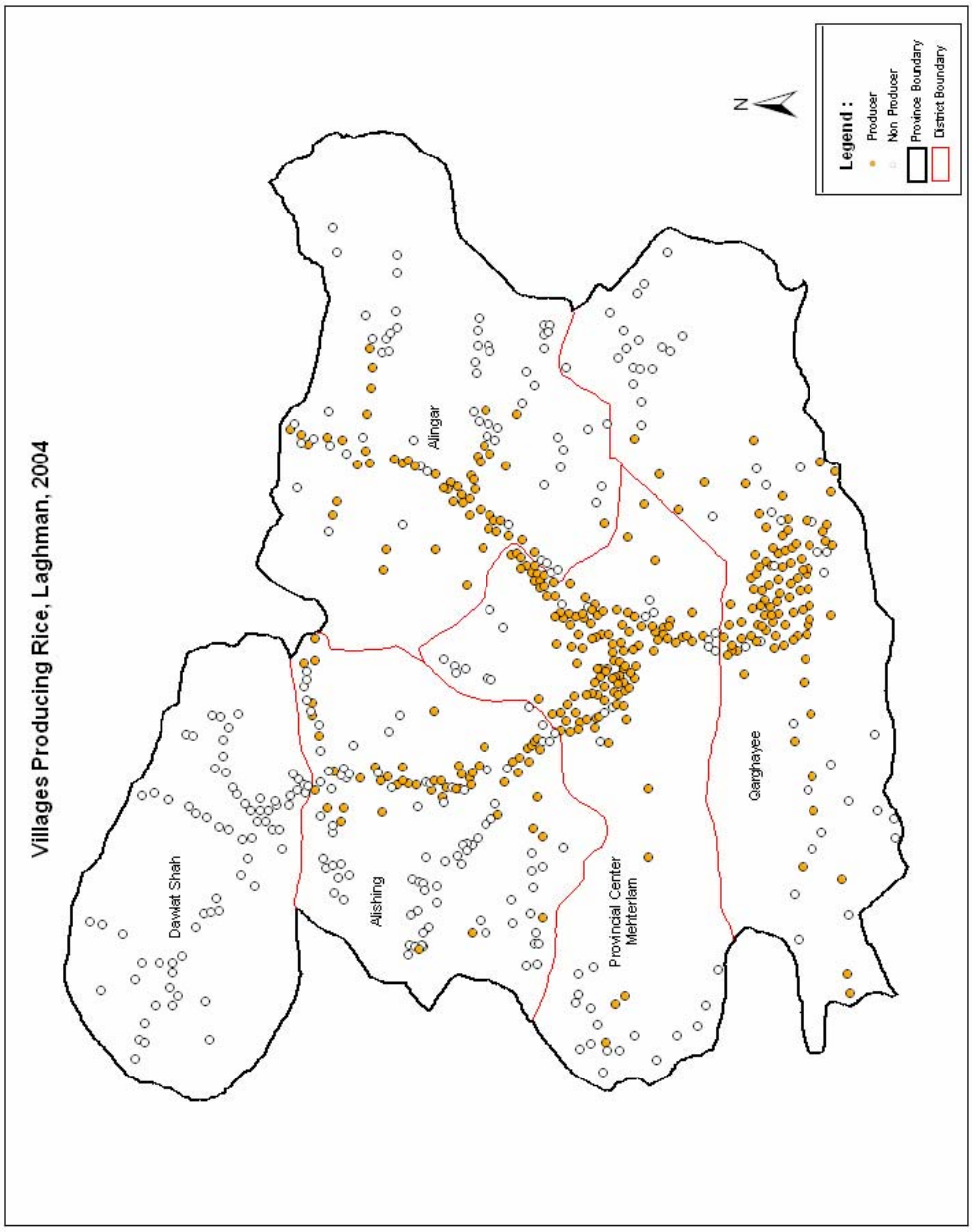
Annex 7


Villages Producing Wheat, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

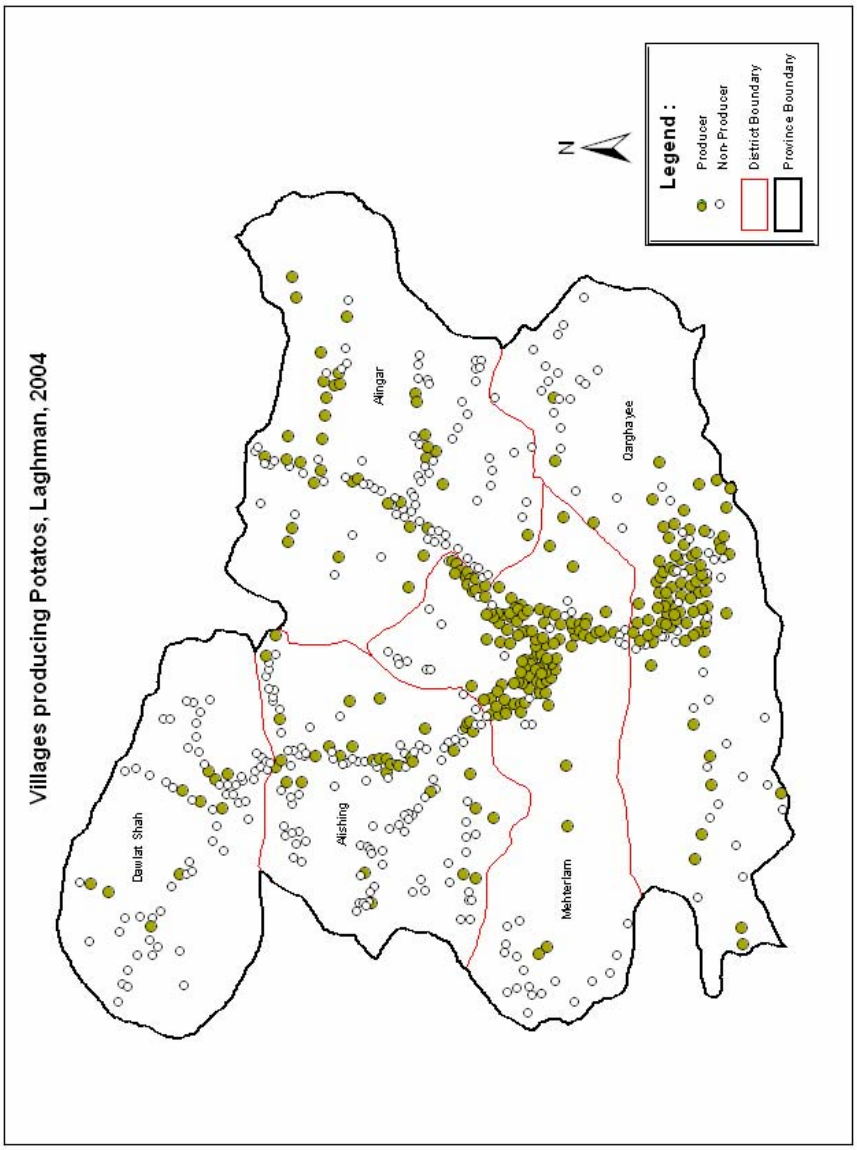
Annex 8


Villages Producing Corn, Laghman, 2004
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

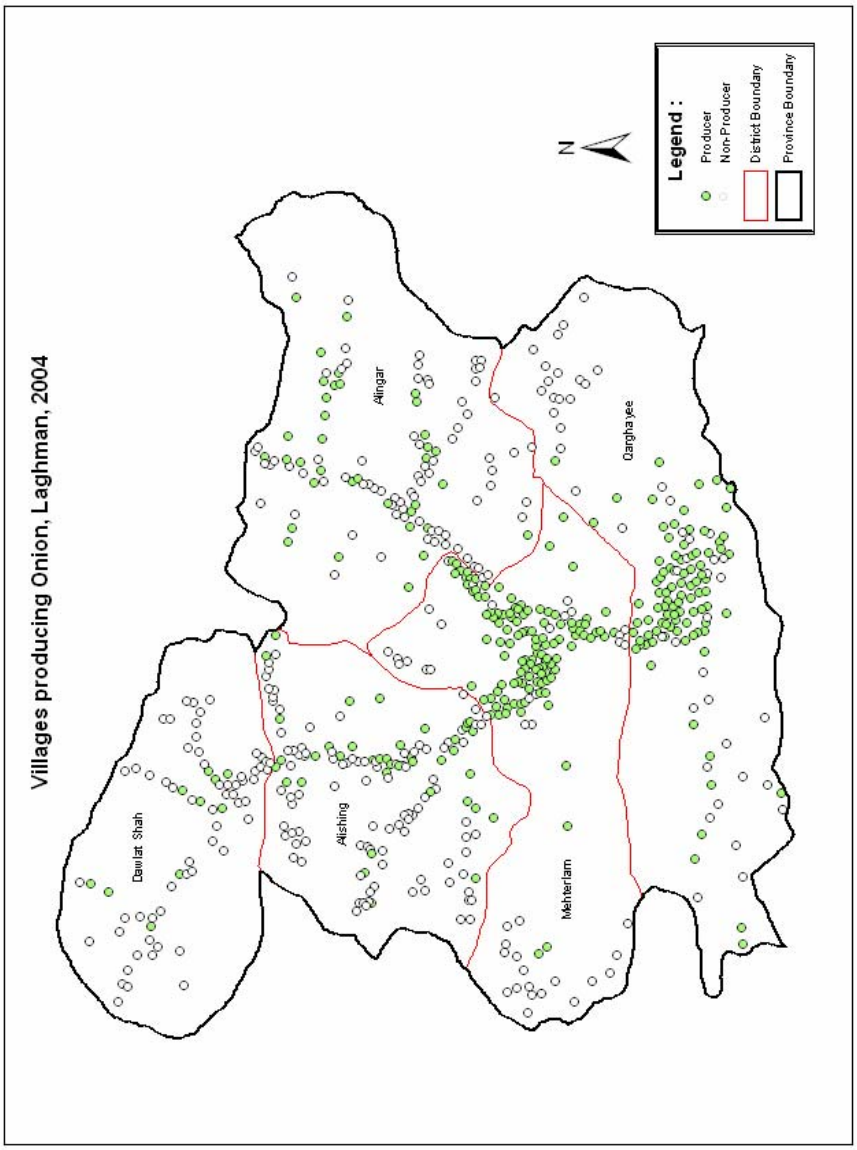
Annex 9


Villages Producing Rice, Laghman, 2004
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

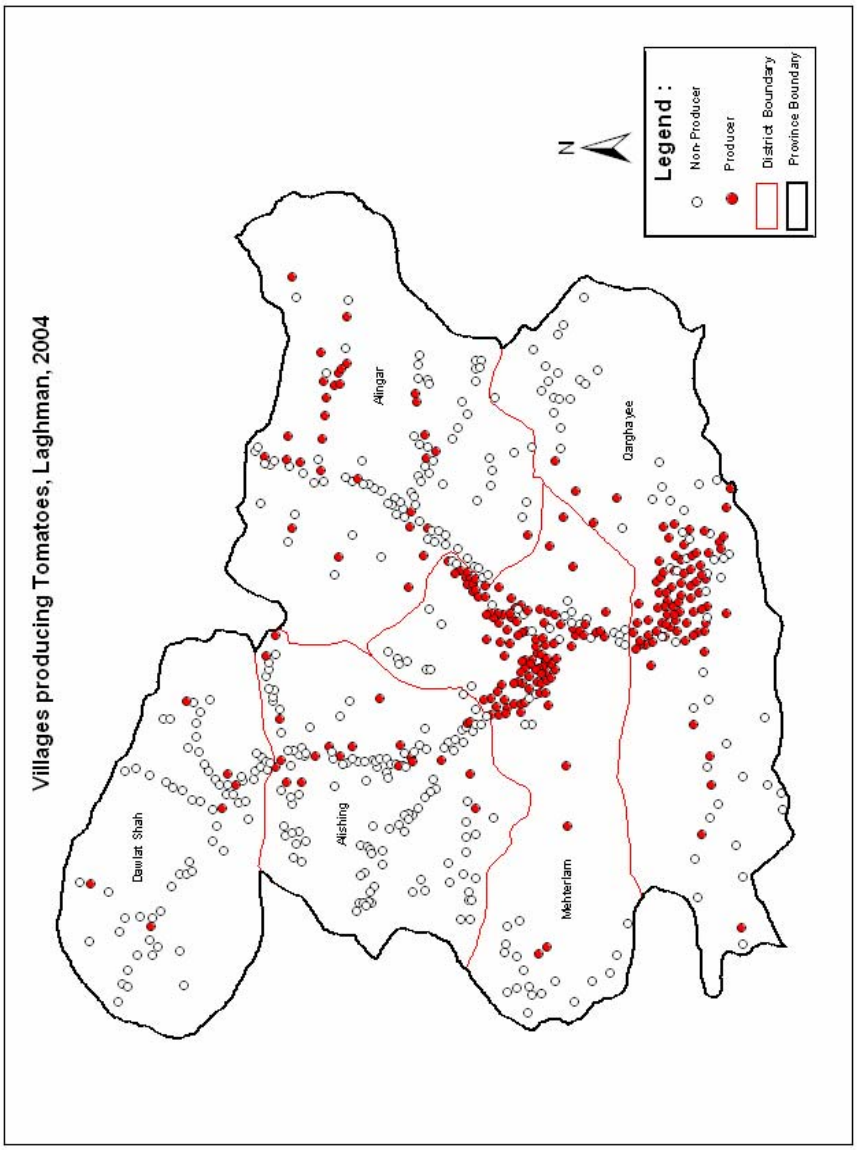
Annex 10


Villages producing Potatos, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Dawlat Shah
Mehterlam

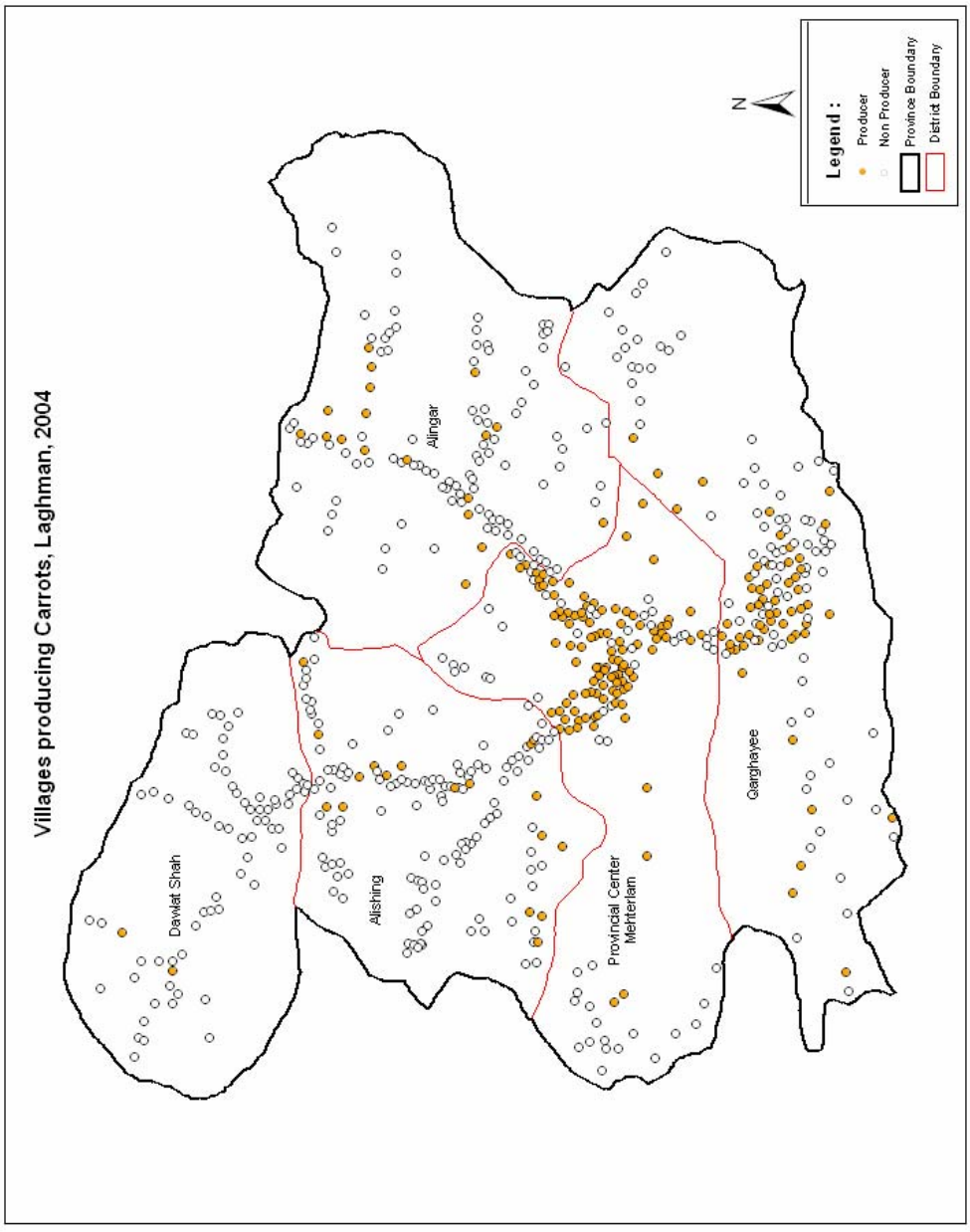
Annex 11


Villages producing Onion, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Dawlat Shah
Mehterlam

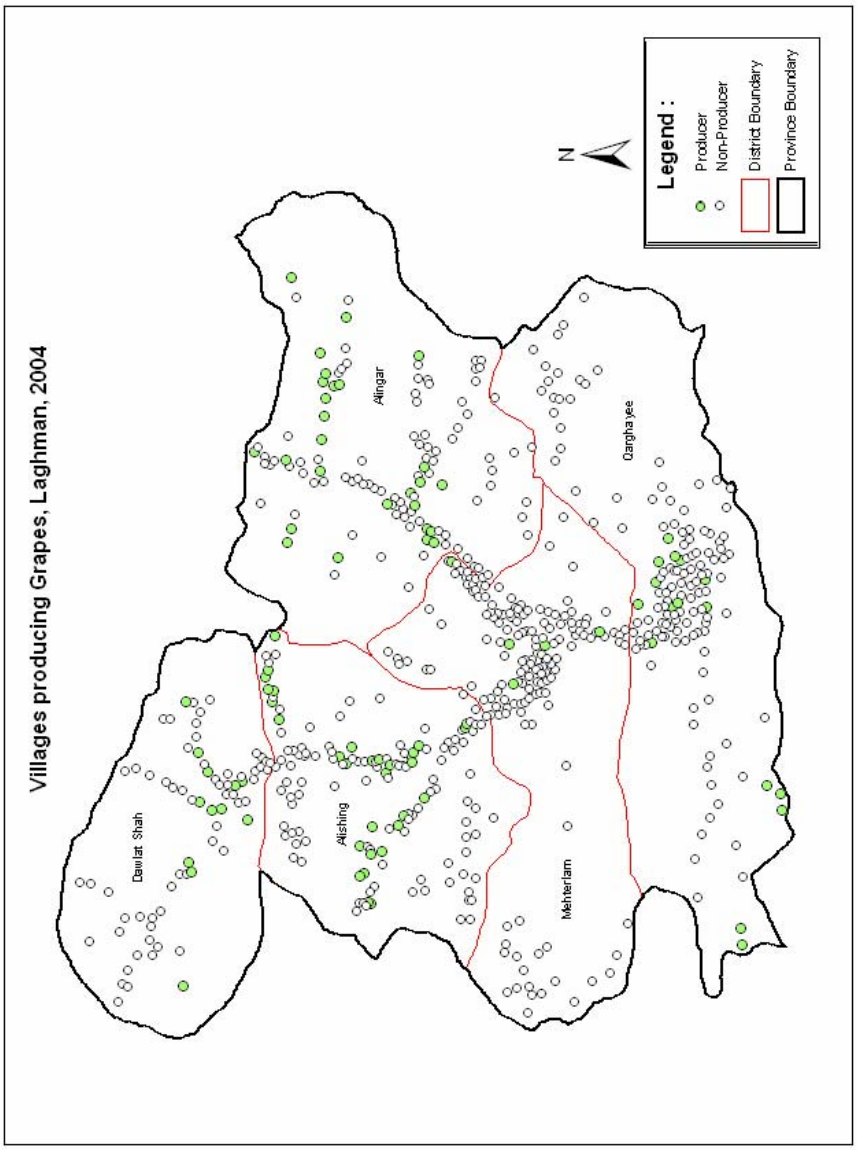
Annex 12


Villages producing Tomatoes, Laghman, 2004
N
Legend :
Non-Producer
Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Dawlat Shah
Mehterlam

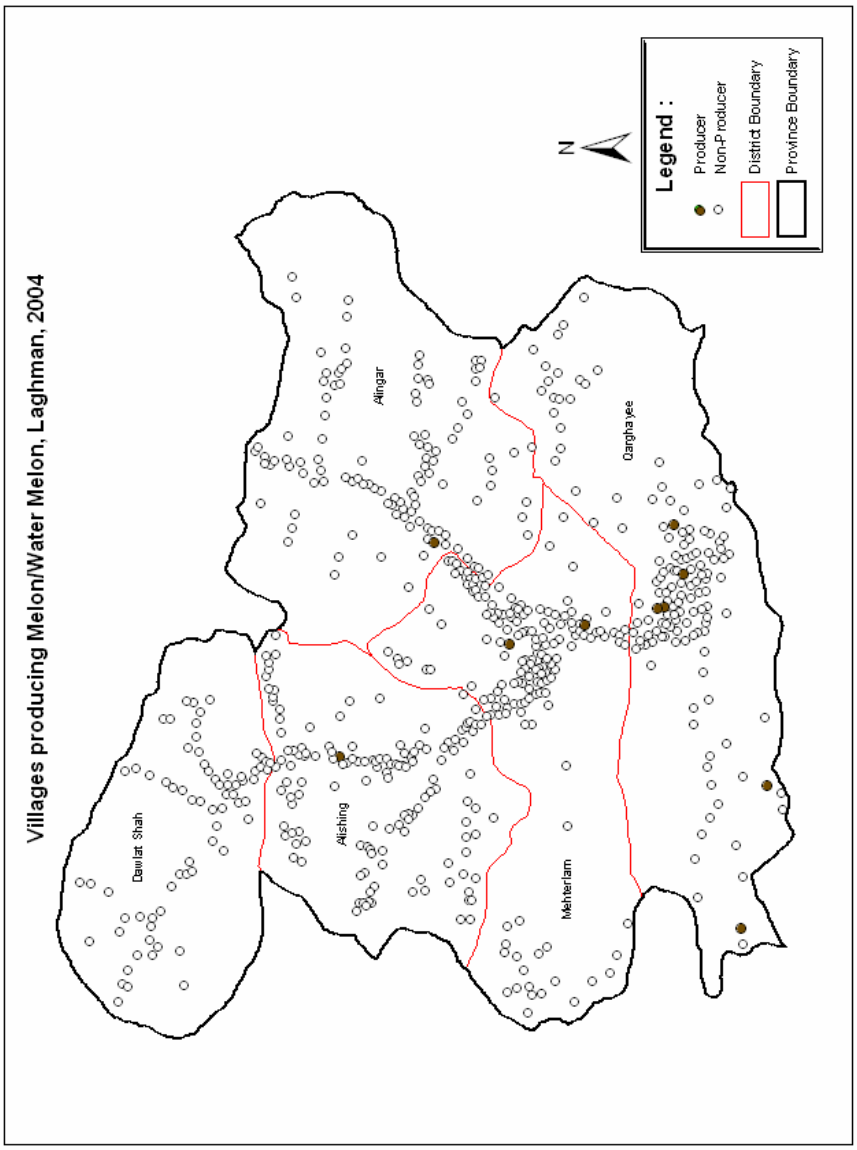
Annex 13


Villages producing Carrots, Laghman, 2004
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

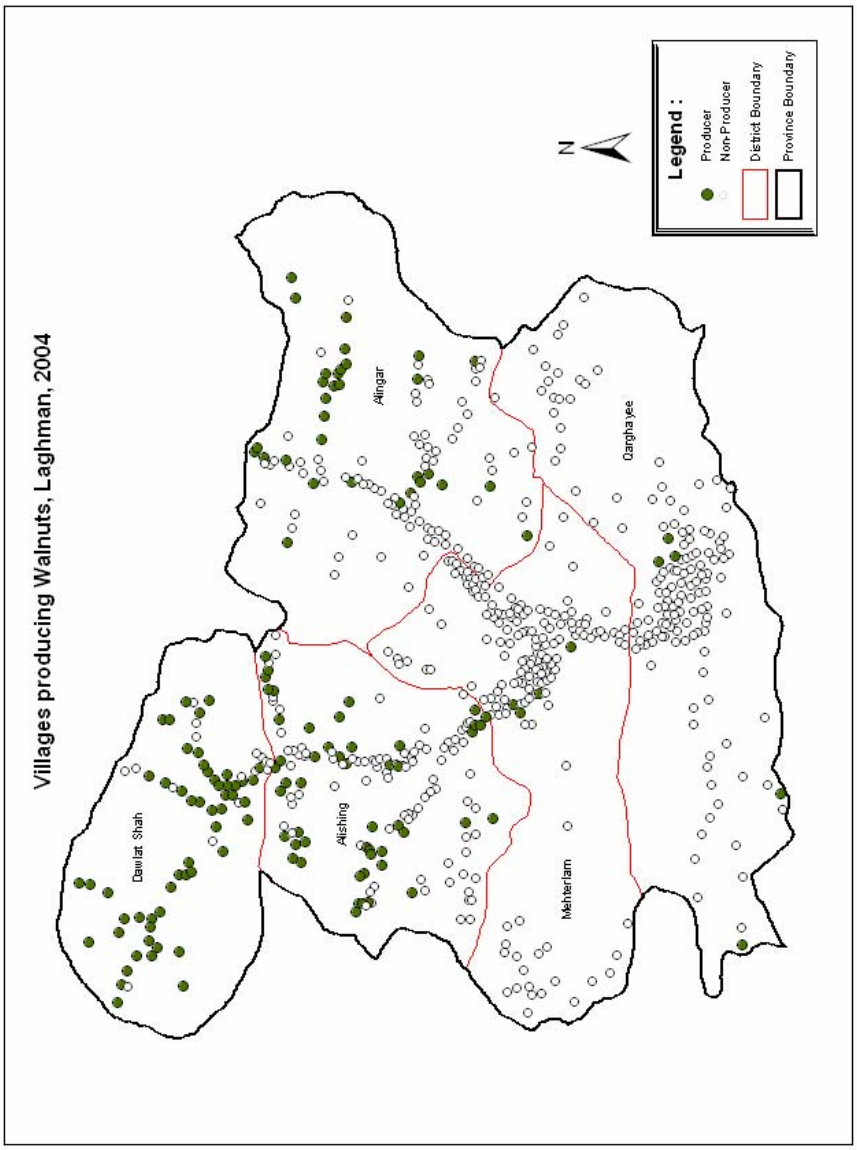
Annex 14


Villages producing Grapes, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Dawlat Shah
Mehterlam

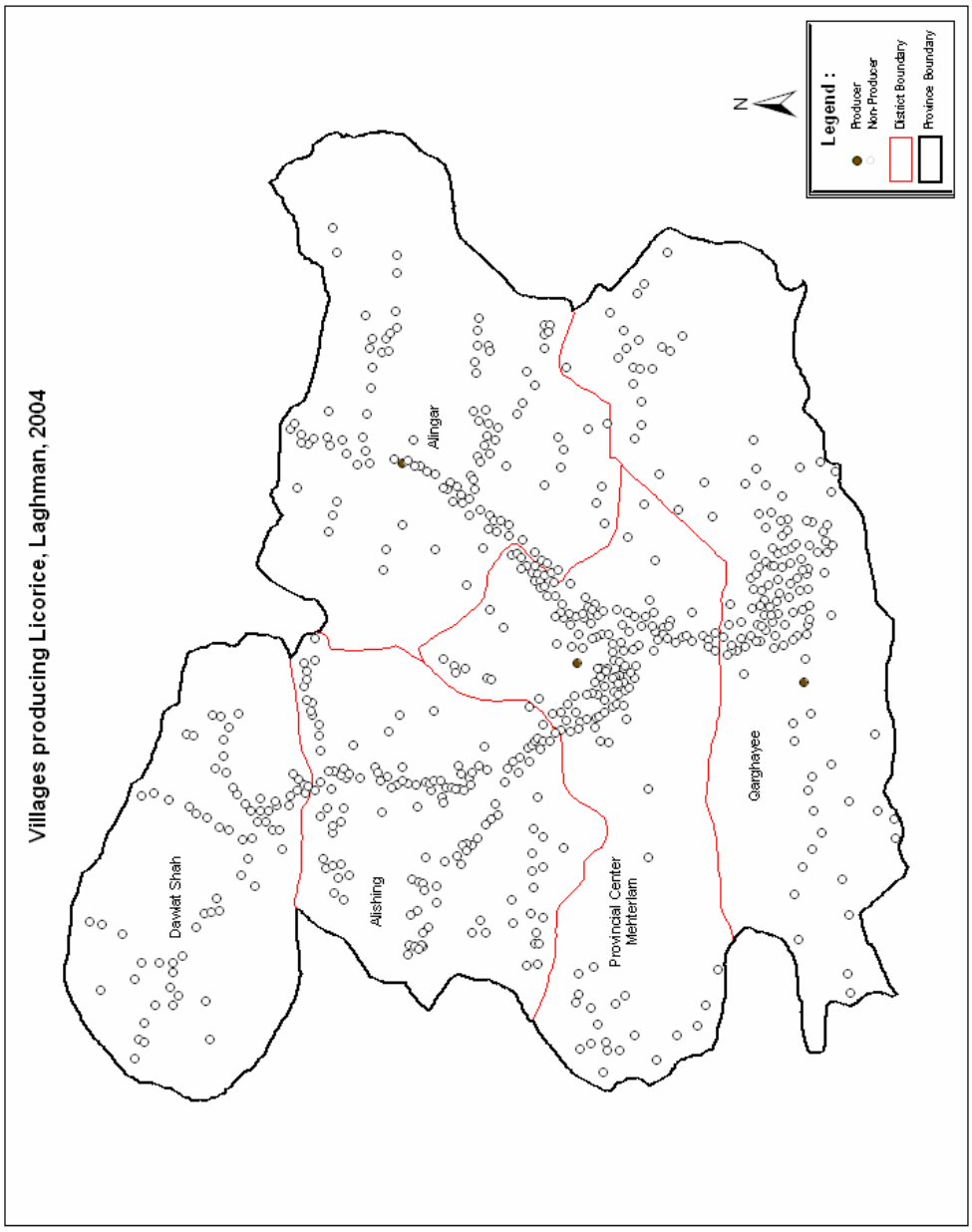
Annex 15


Villages producing Melon/Water Melon, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Mehterlam
Dawlat Shah

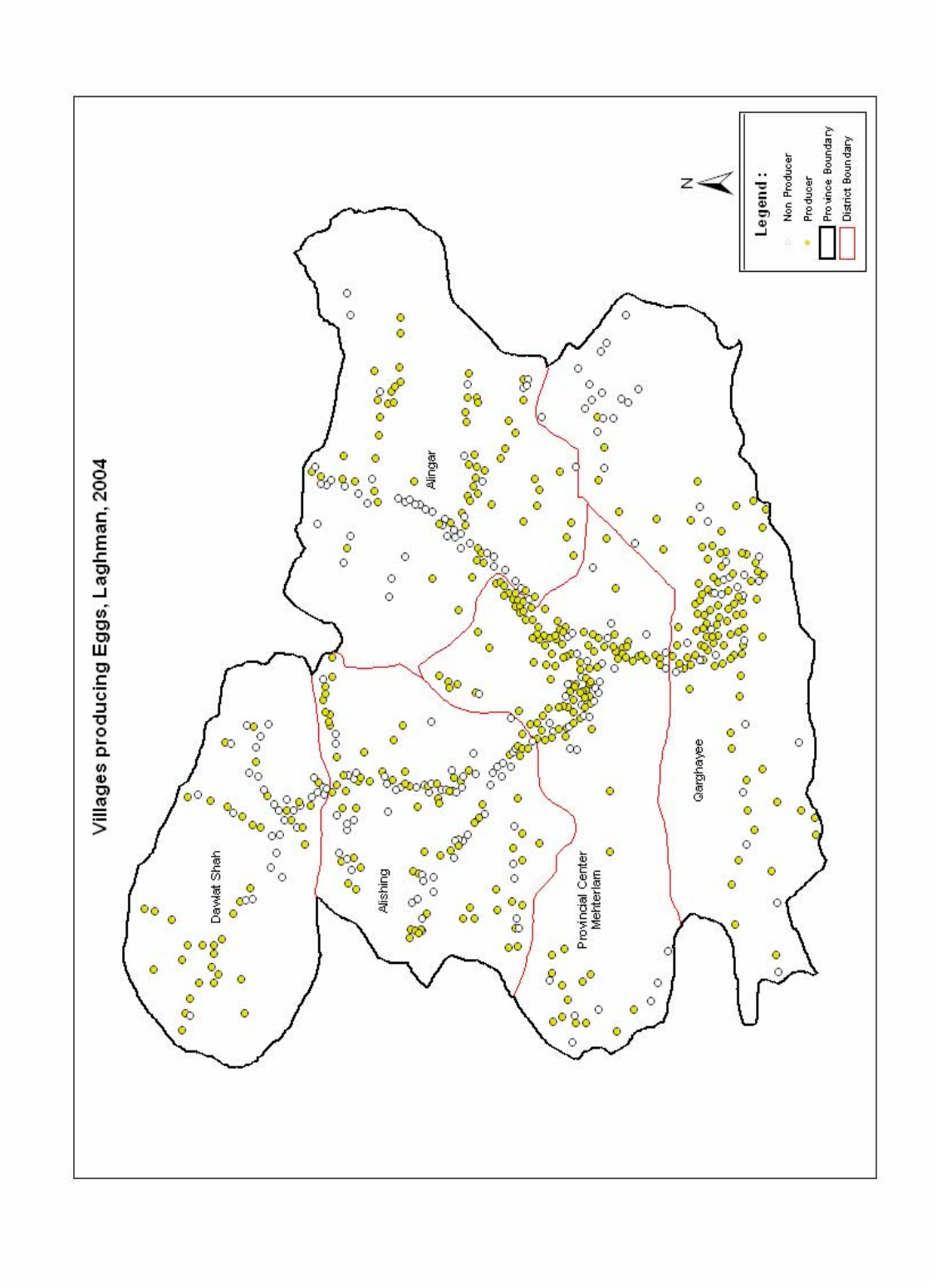
Annex 16


Villages producing Walnuts, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Mehterlam
Dawlat Shah

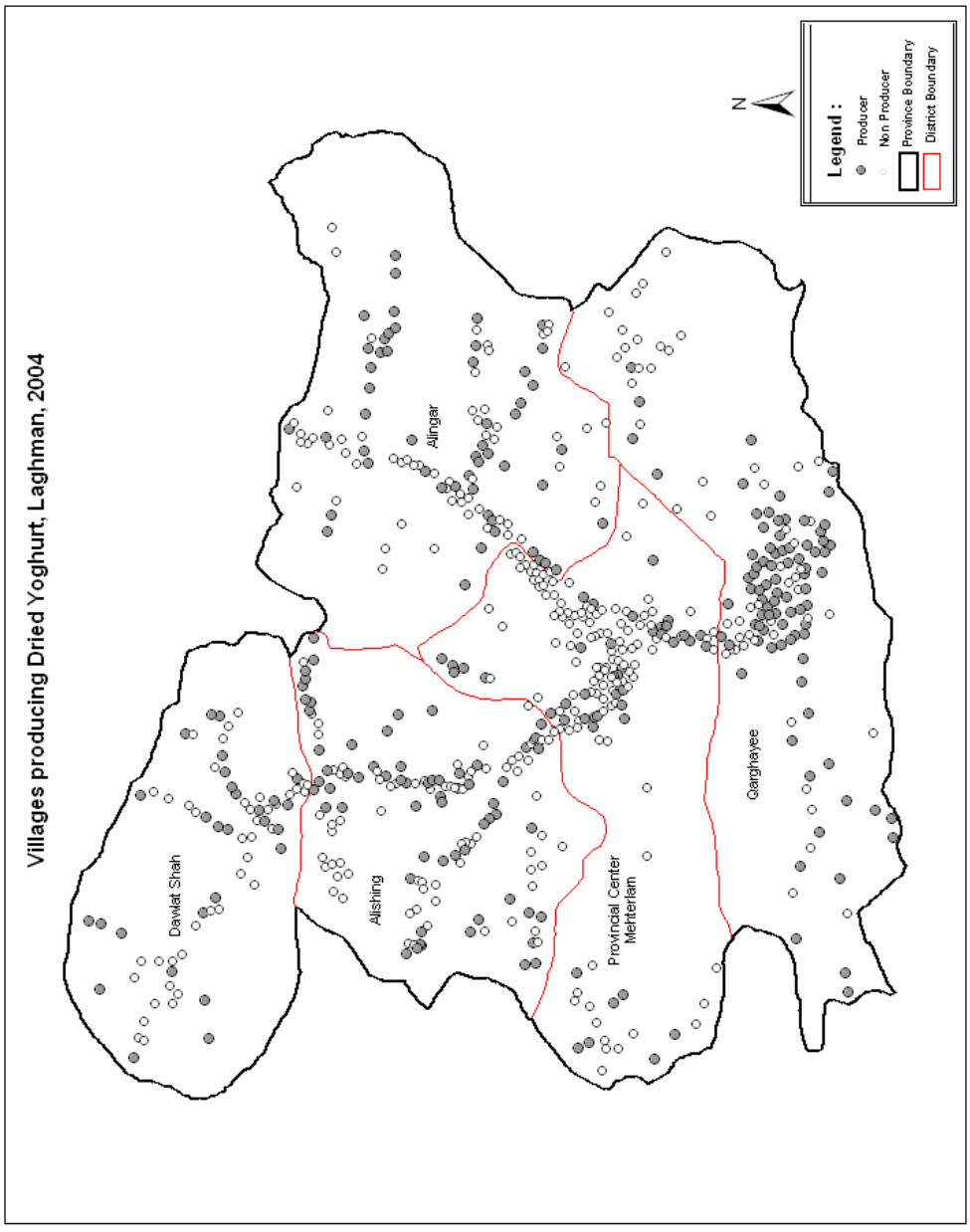
Annex 17


Villages producing Licorice, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

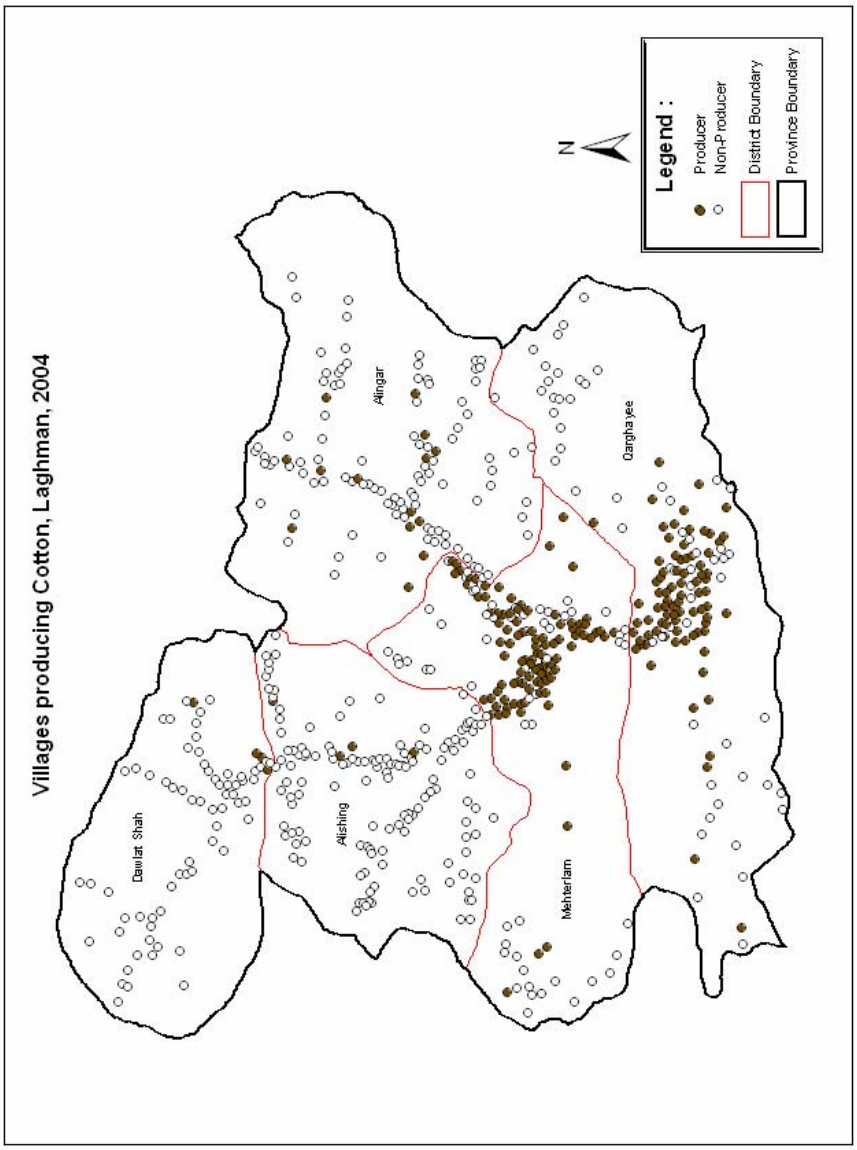
Annex 18


Villages producing Eggs, Laghman, 2004
N
Legend :
Non Producer
Producer
Province Boundary
District Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

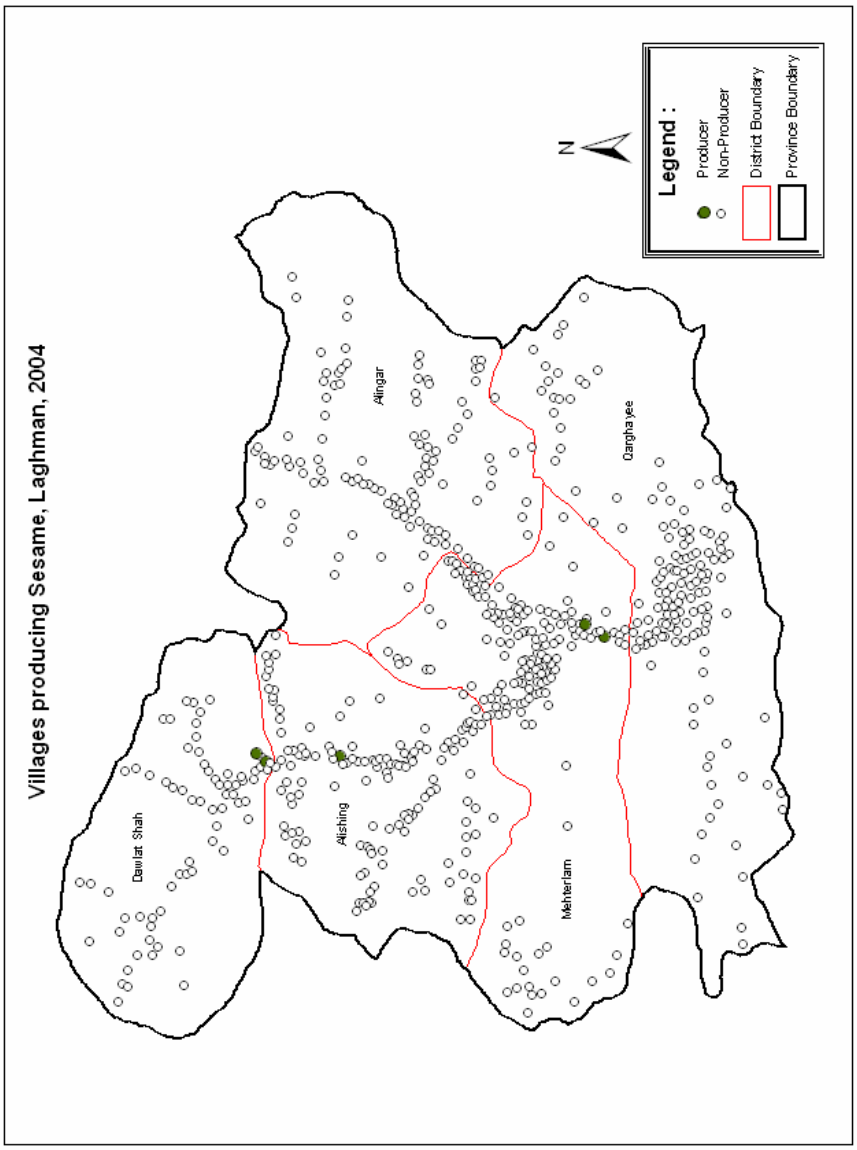
Annex 19


Villages producing Dried Yoghurt, Laghman, 2004
N
Legend :
Producer
Non Producer
Province Boundary
District Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

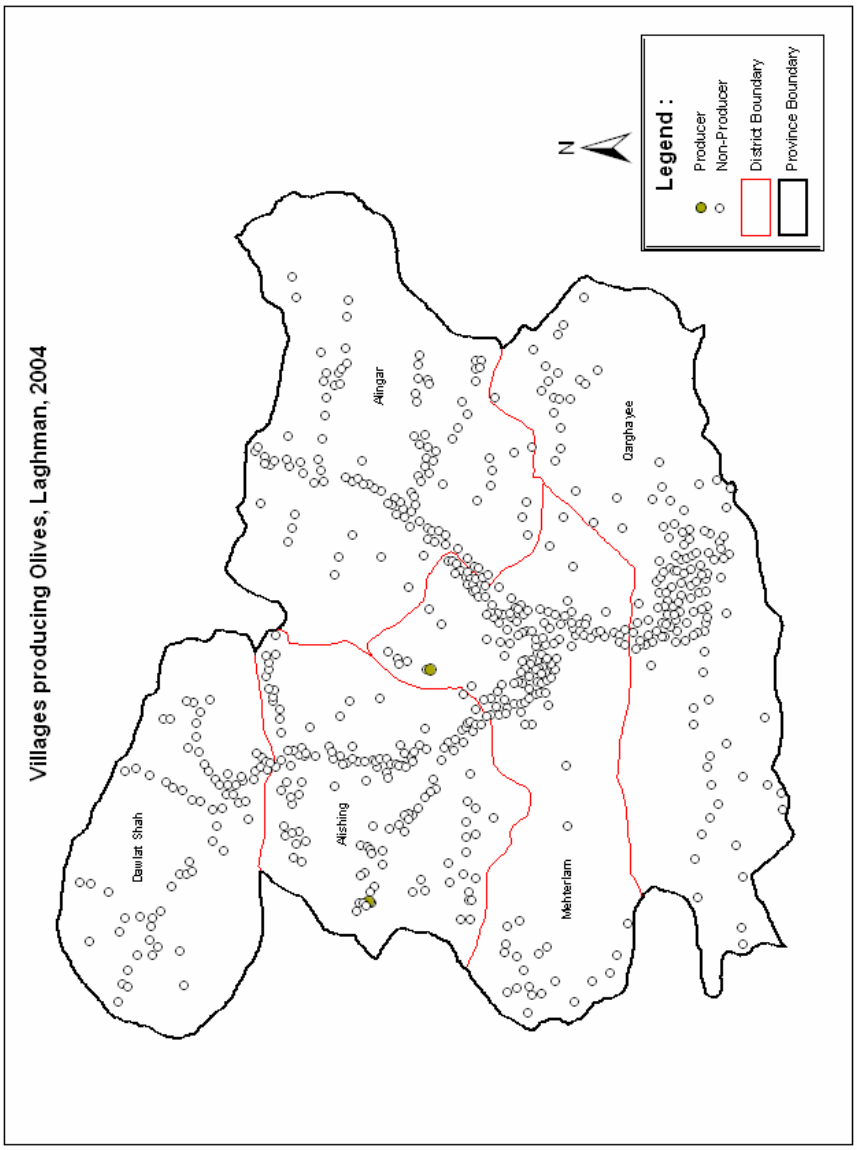
Annex 20


Villages producing Cotton, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Mehterlam
Dawlat Shah

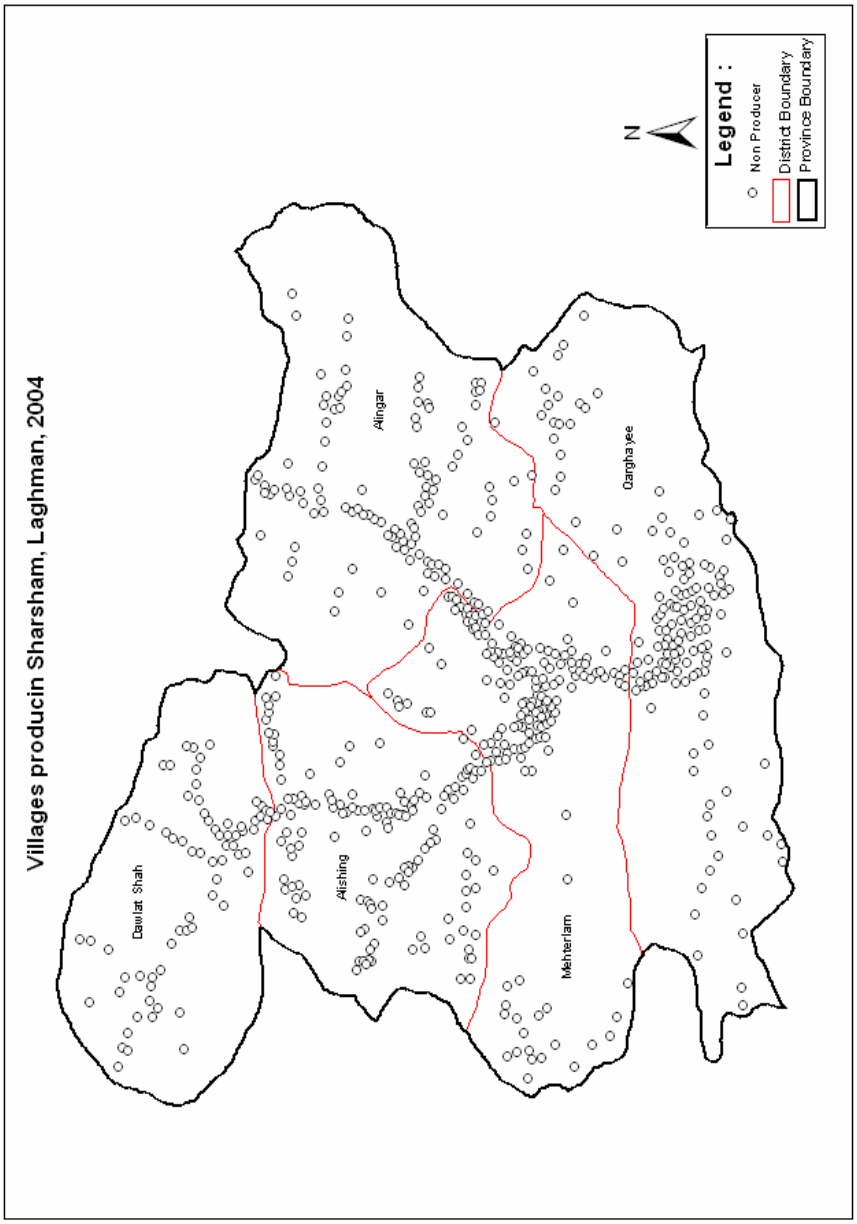
Annex 21


Villages producing Sesame, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Mehterlam
Dawlat Shah

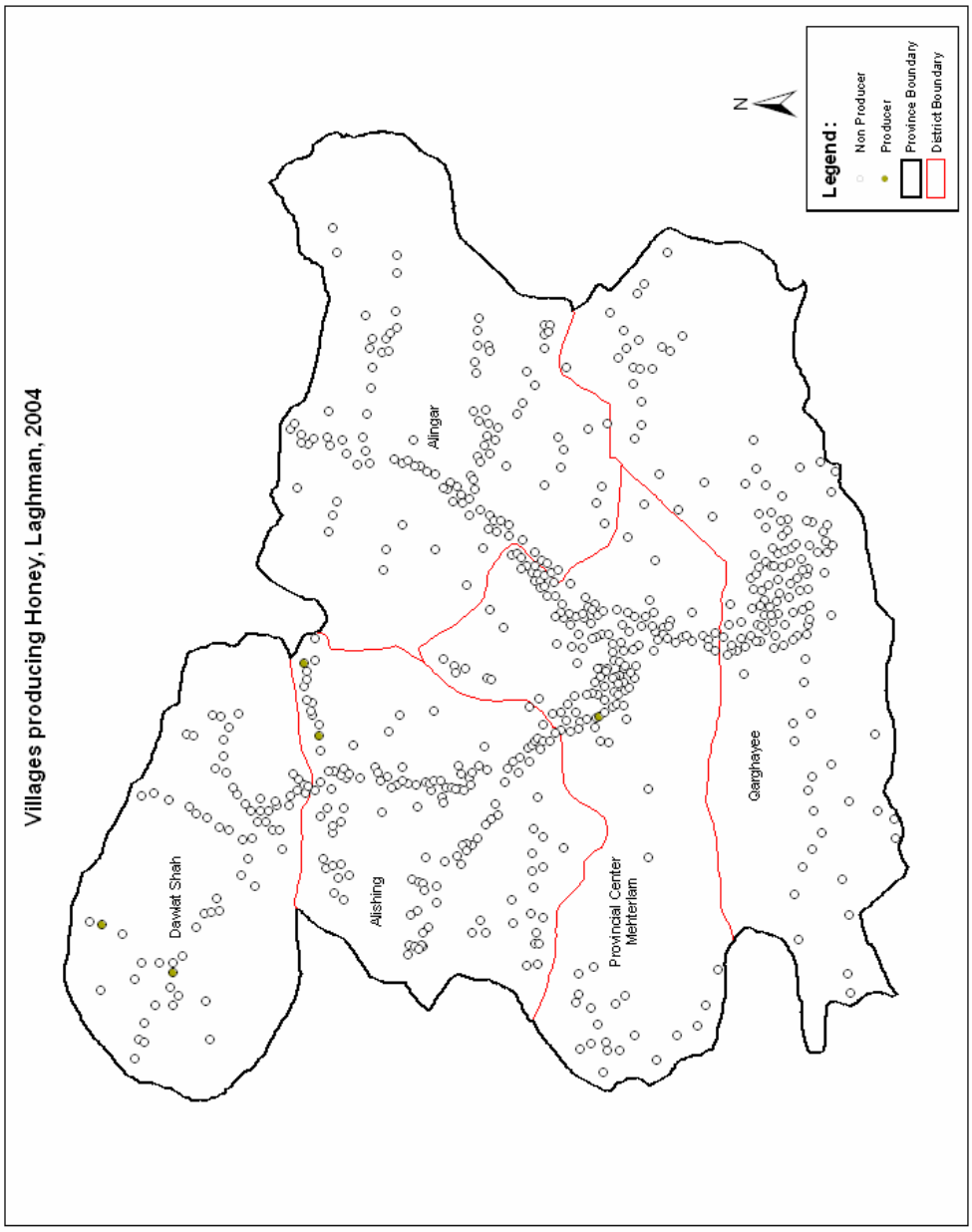
Annex 22


Villages producing Olives, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Dawlat Shah
Mehterlam

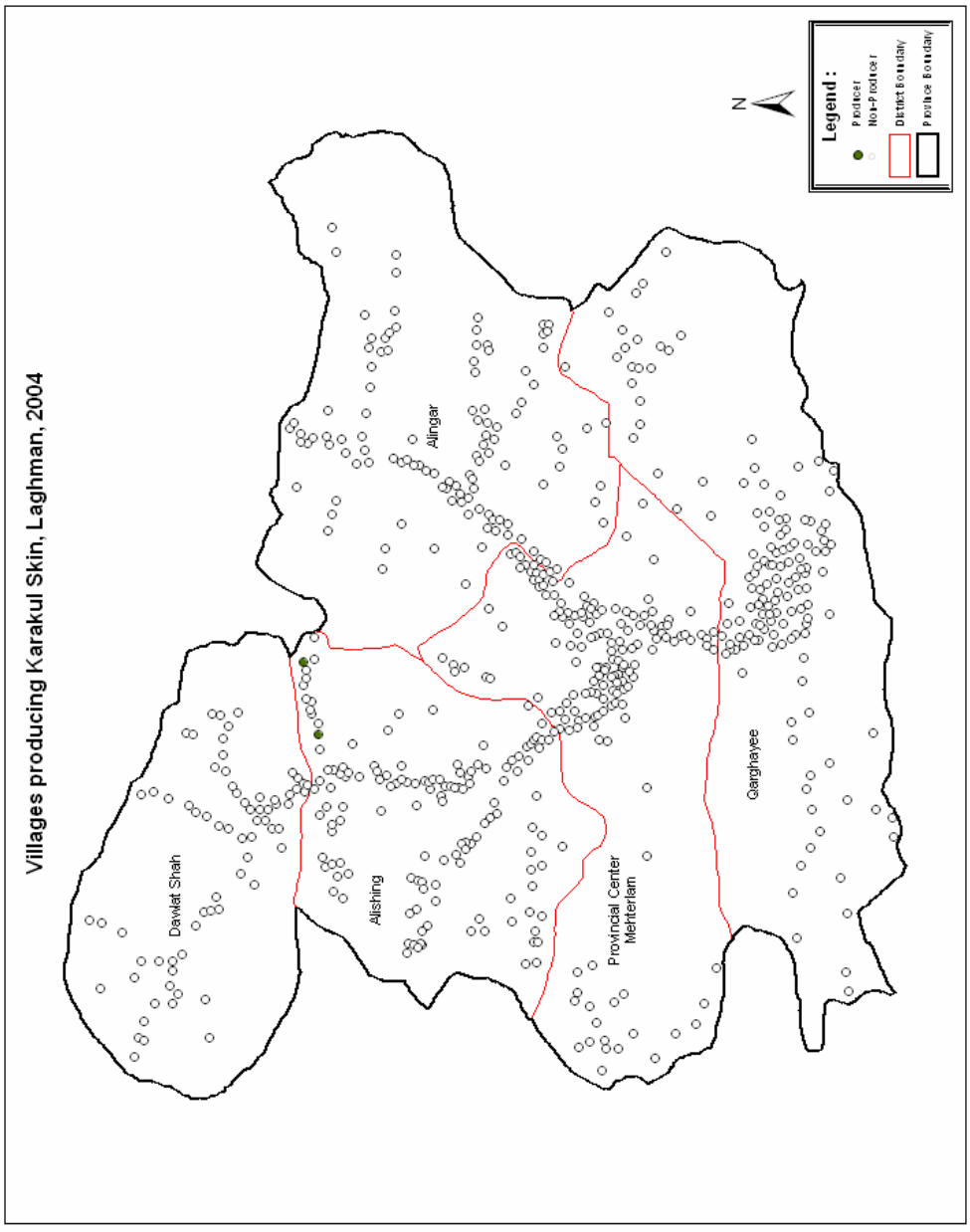
Annex 23


Villages producin Sharsham, Laghman, 2004
N
Legend :
Non Producer
District Boundary
Province Boundary
Alingar
Qarghayee
Alishing
Dawlat Shah
Mehterlam

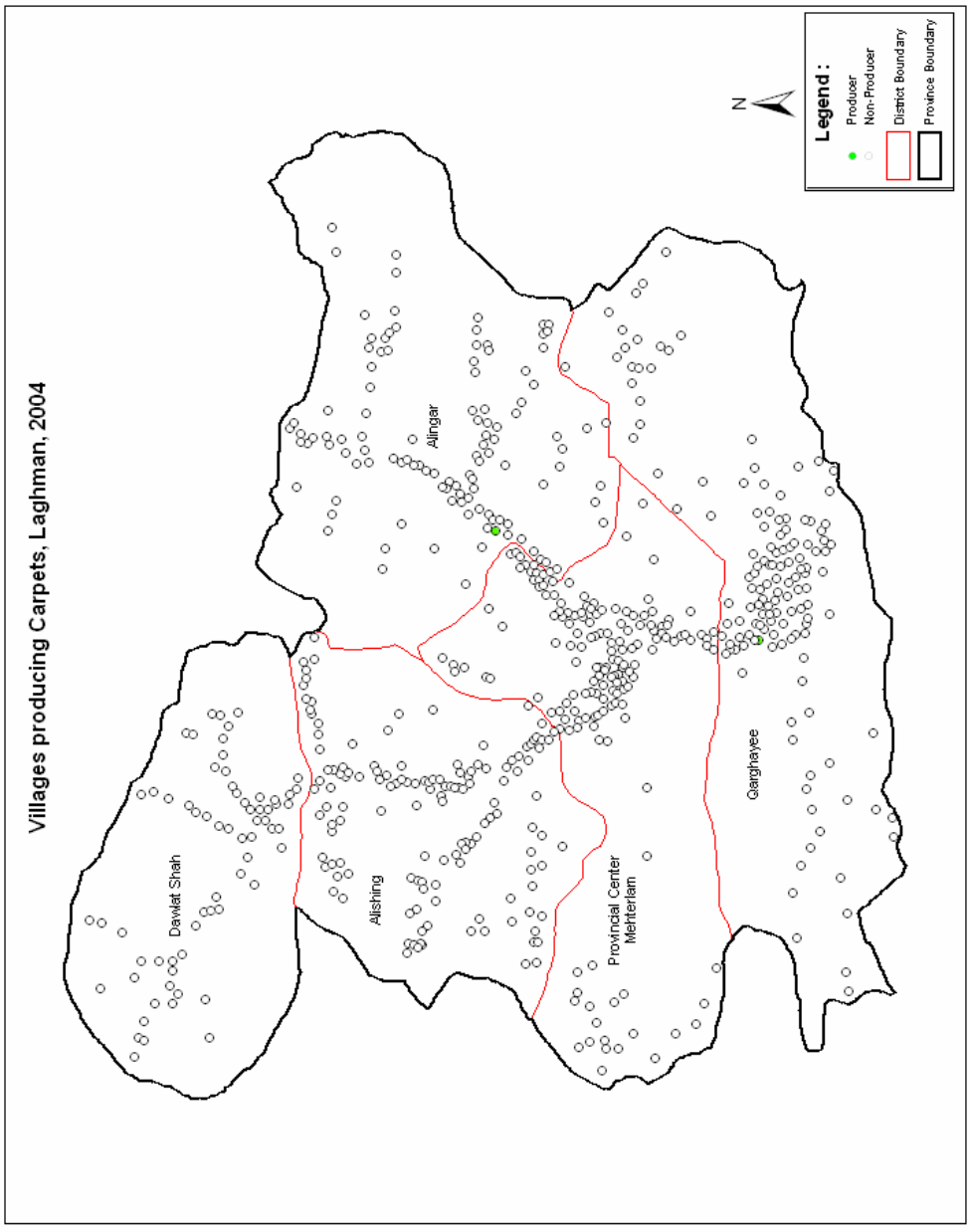
Annex 24


Villages producing Honey, Laghman, 2004
N
Legend:
Non Producer
Producer
Province Boundary
District Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

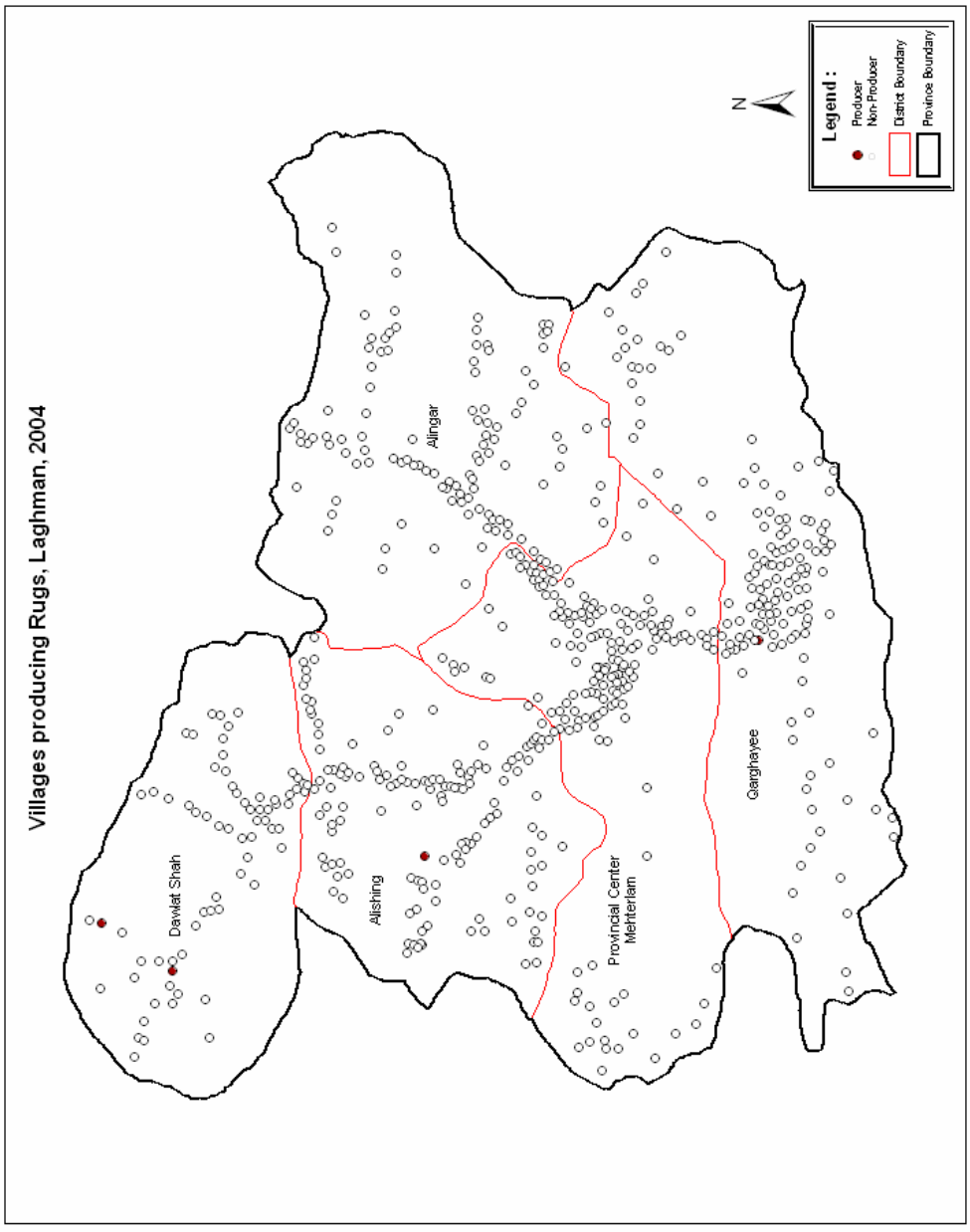
Annex 25


Villages producing Karakul Skin, Laghman, 2004
N
Legend :
Province
Non-Province
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

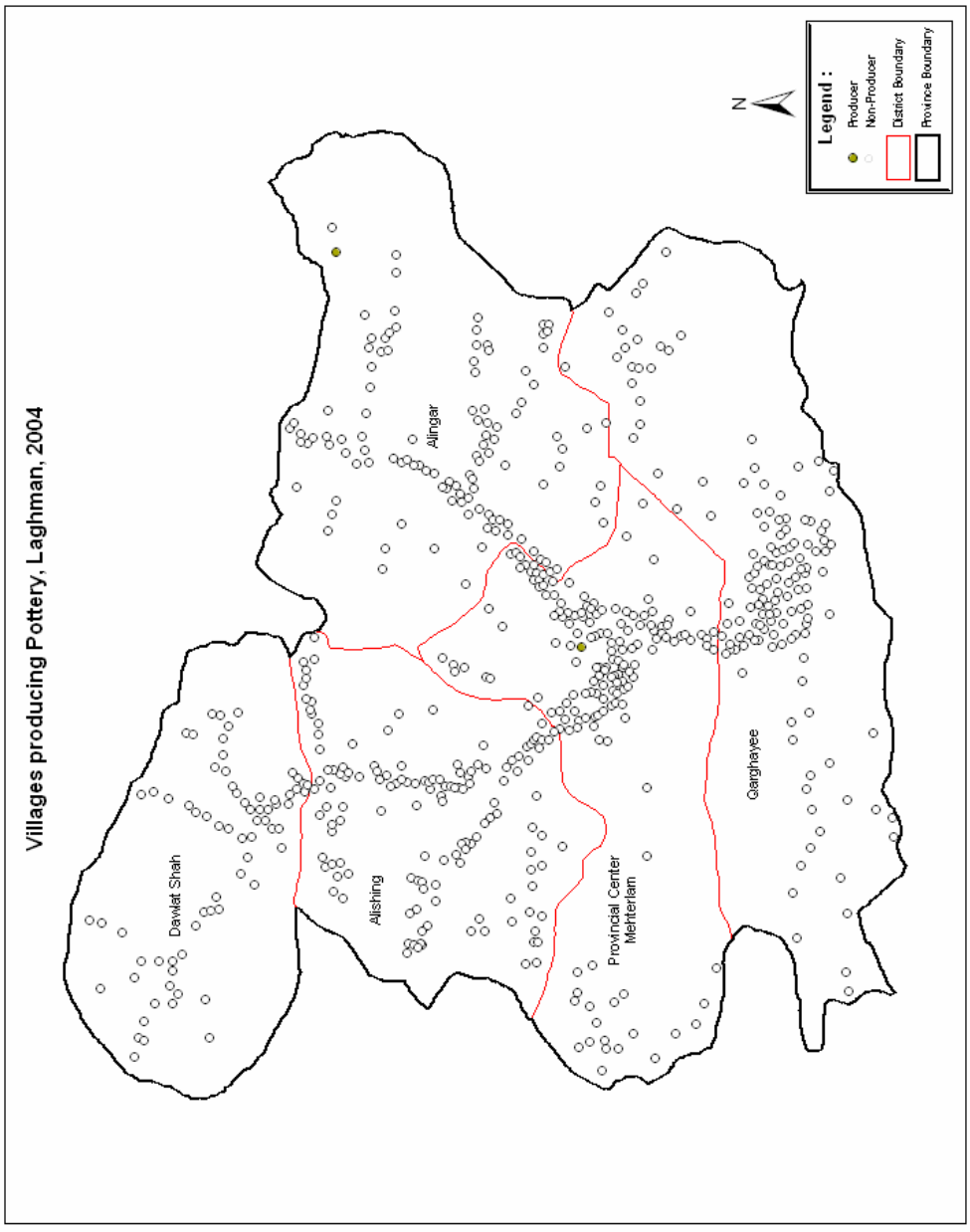
Annex 26


Villages producing Carpets, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

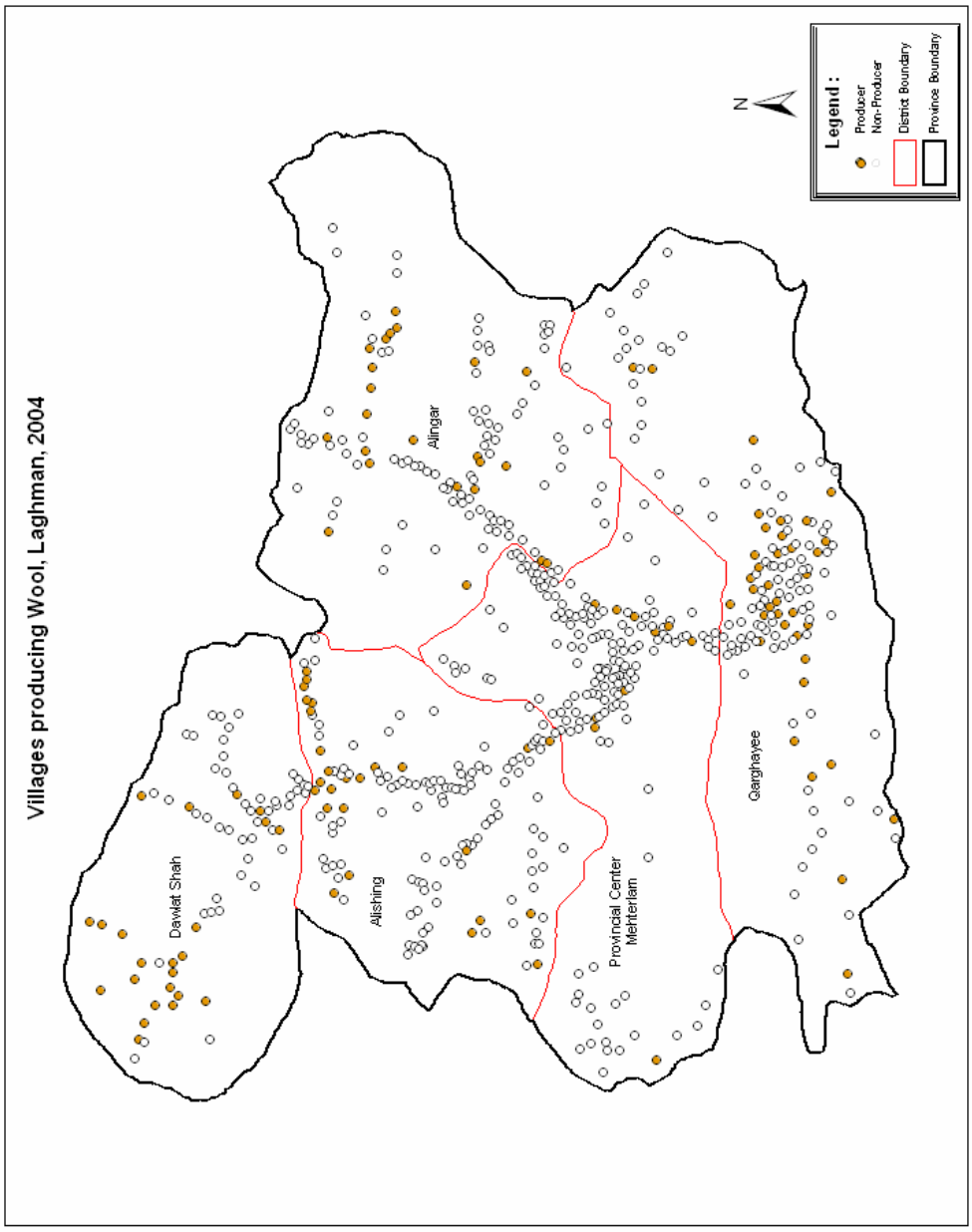
Annex 27


Villages producing Rugs, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

Annex 28


Villages producing Pottery, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Provincial Center
Mehterlam
Qarghayee

Annex 29


Villages producing Wool, Laghman, 2004
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Alingar
Dawlat Shah
Alishing
Qarghayee
Provincial Center
Mehterlam