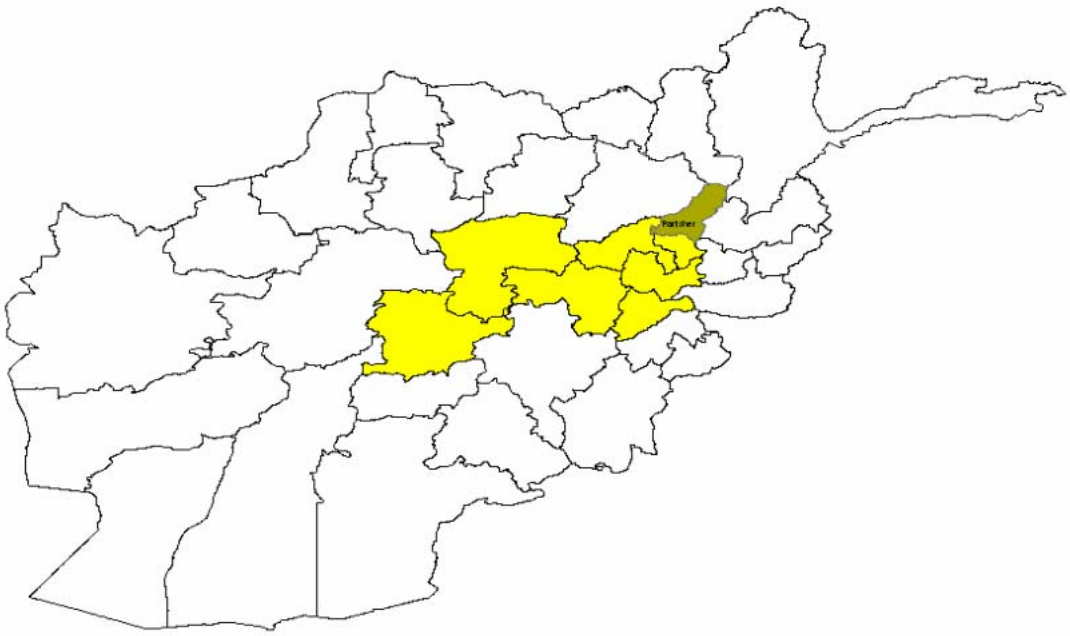
Panjsher



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

Panjsher

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.

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

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

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

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

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

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

Introduction by the Representative of UNFPA

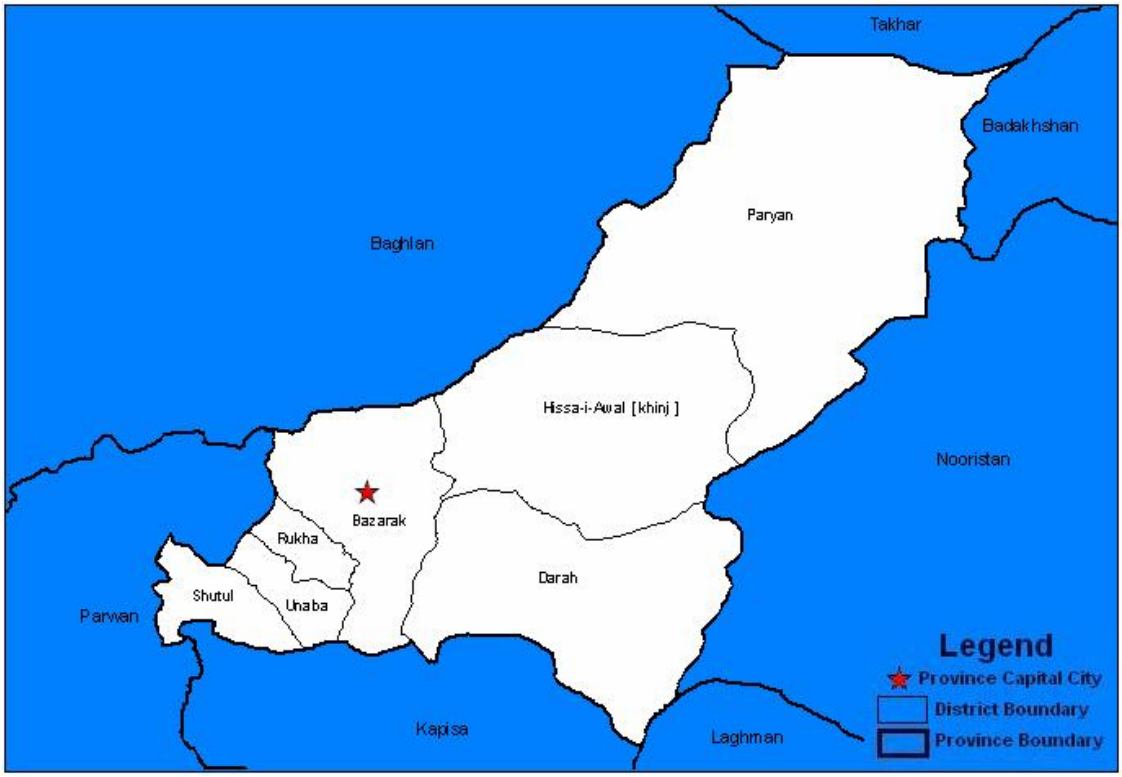
Under the Bonn Agreement, the United Nations agreed to assist the Government of Afghanistan in conducting a Population and Housing Census, the first Census in Afghanistan since 1979. As a leader in population and development issues, the United Nations Population Fund (UNFPA) has been entrusted with this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

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

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

Alain Sibenaler
Representative a.i.
UNFPA Kabul

Panjsher


Takhar
Badakhshan
Paryan
Baghlan
Hissa-i-Awal [khinj]
Nooristan
Bazarak
Rukha
Darah
Shutul
Unaba
Parwan
Kapisa
Laghman
Legend
Province Capital City
District Boundary
Province Boundary

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Settlement Patterns

Located in the Central Region, Panjsher is bordered by six provinces—Nooristan in the East, Kapisa in the South, Parwan in the West, Baghlan in the North-West, Takhar in the North, and Badakhshan in the North-East. With its 3,772 square kilometers, representing 0.58 of the total land area of Afghanistan, it is the third smallest province in the country. The province is divided into seven districts—(1) the provincial center, (2) Rukha, (3) Unaba, (4) Dara, (5) Khinj (Hissa-I-Awal), (6) Shutul, and (7) Paryan.

Panjsher is home to 0.5 percent of the total population of Afghanistan. With its 109,189 inhabitants, it is the least populous province in the country (see Annex 1).

The population is distributed among the seven districts as shown in table 1 and figure 1[1]. The largest share of the population—about a quarter—lives in the district of Hissa-I-Awal (Khinj), while the provincial center, Bazarak, houses only 14.3 percent and comes in third position after Darah. Together, the three most populous districts—Khinj, Darah, and Bazarak—account for 57.4 percent of the total population in the province.

The totality of the population of Panjsher lives in rural areas[2]. The 357,834 inhabitants are distributed over 343 settlements of varying sizes. The smallest counts as few as nine (9) people and the largest as many as 1,817[3].

---

[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

Table 1—Population, sex, and sex ratio, by district, province of Panjsher, 2003[4]

District	Total		Males	Females	Sex ratio
	Number	Percent			
Provincial Center—Bazarak	***15,593***	***14.28***	***7,947***	***7,646***	***103.94***
Rukha	10,102	9.25	5,127	4,975	103.06
Unaba	12,587	11.53	6,522	6,065	107.54
Darah	20,360	18.65	10,397	9,963	104.36
Hissa-I-Awal (Khinj)	26,722	24.47	13,587	13,135	103.44
Shutul	11,300	10.35	5,753	5,547	103.71
Paryan	12,525	11.47	6,363	6,162	103.26
All province	***109,189***	***100.00***	***55,696***	***53,493***	***104.12***

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 the province level, the most remarkable feature of the spatial distribution pattern is the predominance of villages of relatively small sizes. The median[5] is located at 470 population, meaning that a typical rural inhabitant of Panjsher lives in a village of 470 population. Out of the 434 villages in the province, only 10 have 1,000 population or more.

The shapes of the distributions of almost all the districts closely resemble that of the province as a whole; the only difference is that some of the districts, namely, Bazarak, the provincial center itself, Rukha, Unaba, and Shutul, have zero villages with 1,000 population or more. Out of the remaining three, Darah has one such village, Khinj six, and Paryan three (Figure 2, panel B).

---

their population sizes. In the case of Afghanistan all provincial capitals are urban, as well as the capitals of some districts. Obviously, Panjsher is an exception; the only other province that is 100 percent rural is Nooristan.

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

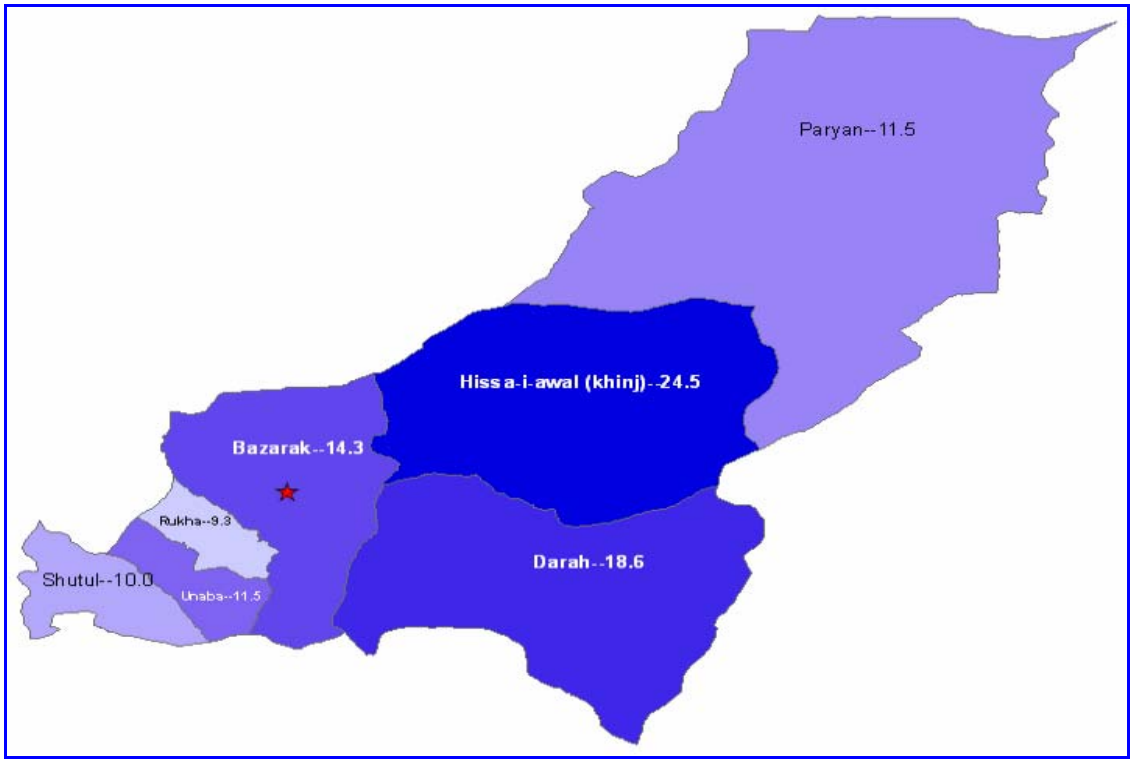
1. During the household operation, some villages were unoccupied because of the draught which caused the inhabitants to relocate in other places where more water was available;
2. Some of the villages were comprised solely of shops, serving the neighboring villages;
3. In some areas, remoteness as well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

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

[5] The size that cuts the distribution of villages into two halves, one half below that size and the other above it.

Figure 1—Population Settlements, Panjsher, 2003

A—Percent district population with respect to provincial total



B—Density: population per km^2

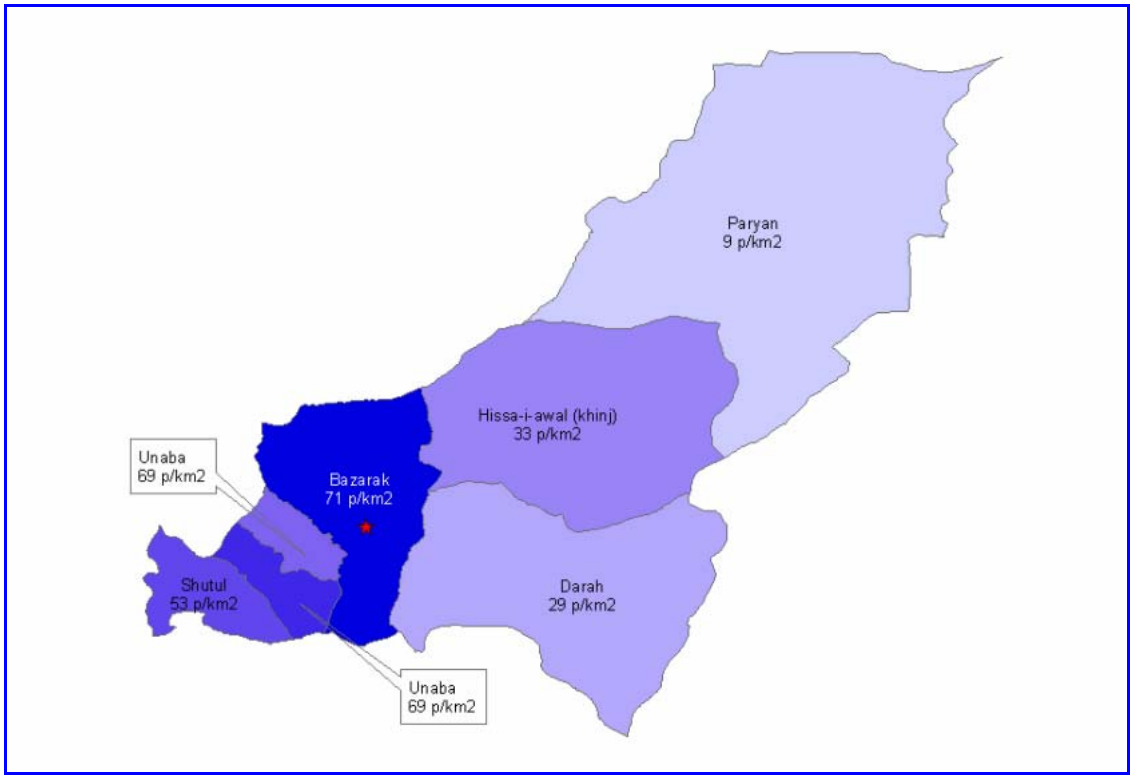
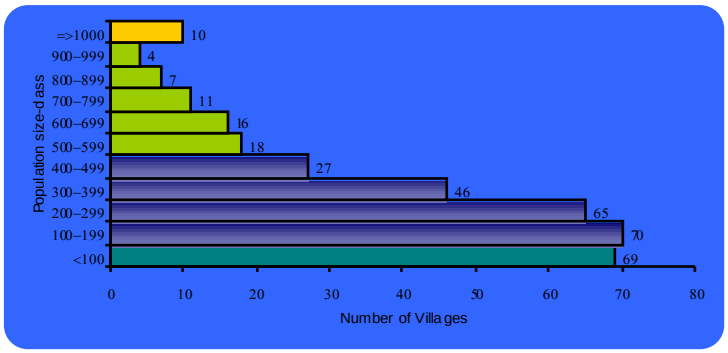


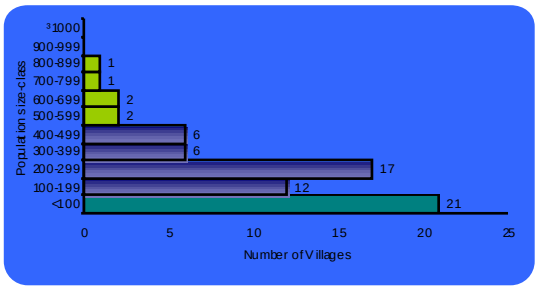
Figure 2—Distribution of the Rural population settlements by size-class, Panjsher, 2003

A—Province

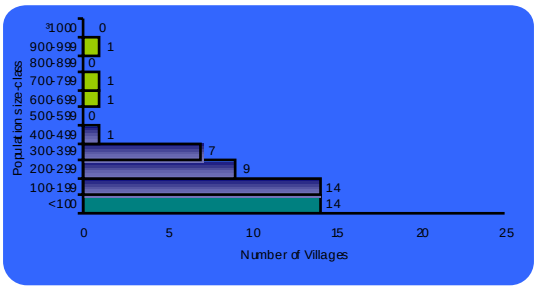


B—Districts

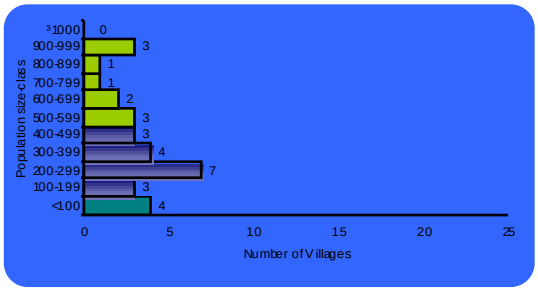
Provincial Center—Bazarak



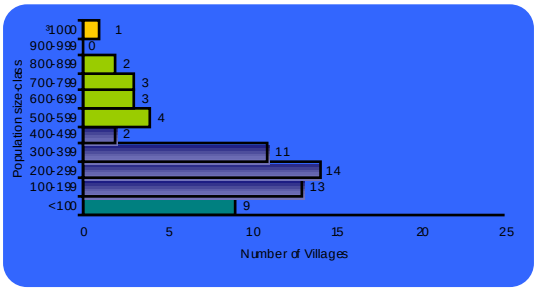
Rukha



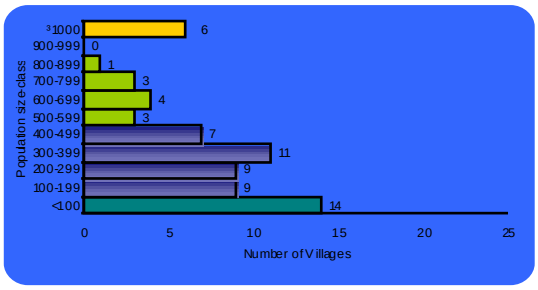
Unaba



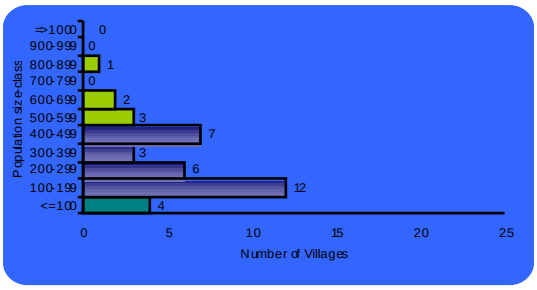
Darah



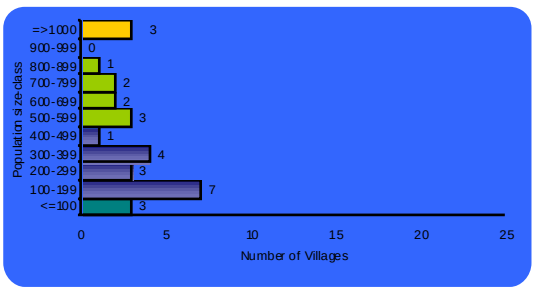
Hissa-I-Awal (Khinj)



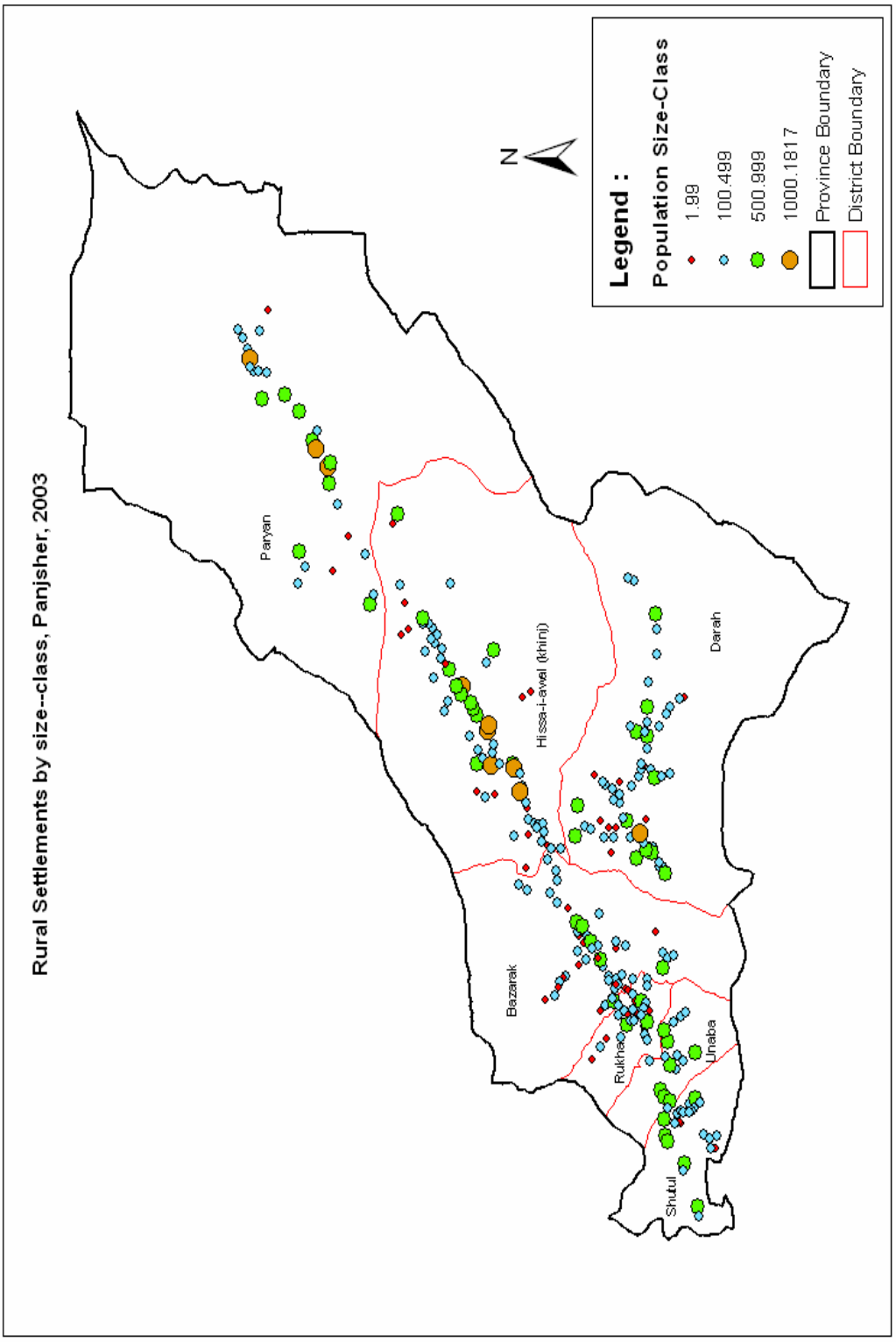
Shutul



Paryan



Map1


Rural Settlements by size--class, Panjsher, 2003
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Population Size-Class
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100.499
500.999
1000.1817
Province Boundary
District Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

Demographic Characteristics

Age distribution

The distribution by age and sex of the population of Panjsher is shown in table 2 and figure 3. As the latter clearly shows, the distribution is highly irregular. The overall shape of the age-pyramid is typical of a pre-transition society—characterized by stable high fertility, but certain age groups are noticeably below the expected size. For instance, it is not readily understandable why the proportion of males of the 0-4 age group should be that much lower than the proportion of males of the 5-9 age group, or smaller than the corresponding one for females. Whereas a deficit in the proportion of children below 5 could be a direct result of war casualties—women married to soldiers having given birth to fewer children than in normal circumstances, it is difficult to account for the sex-selectiveness of such deficit. In fact, most of the younger age groups are either substantially larger or substantially smaller than would be expected in a high fertility country. The upper half of the pyramid is not distortion free either; and this is true for both sexes.

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

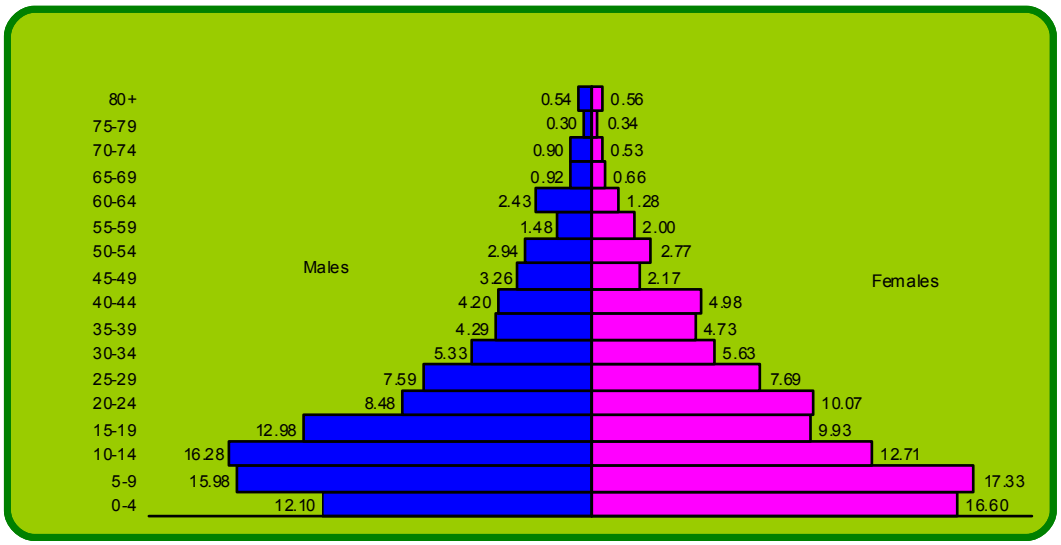
> *"Errors in the tabulated data on age may arise from three different sources:*
> - *inadequate coverage,*
> - *failure to record age, and*
> - *misreporting of age.*
>
> *Coverage errors are of two types. Individuals of a given age may have been missed by the census or erroneously included in it (e.g.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

	Male		Female		Both sexes	
Age Group	Number	Percent	Number	Percent	Number	Percent
0-4	6,738	12.10	8,881	16.60	15,619	14.30
9-May	8,901	15.98	9,271	17.33	18,172	16.64
10-14	9,070	16.28	6,801	12.71	15,871	14.54
15-19	7,231	12.98	5,313	9.93	12,544	11.49
20-24	4,725	8.48	5,385	10.07	10,110	9.26
25-29	4,227	7.59	4,116	7.69	8,343	7.64
30-34	2,966	5.33	3,012	5.63	5,978	5.47
35-39	2,388	4.29	2,531	4.73	4,919	4.51
40-44	2,339	4.20	2,665	4.98	5,004	4.58
45-49	1,816	3.26	1,162	2.17	2,978	2.73
50-54	1,635	2.94	1,480	2.77	3,115	2.85
55-59	823	1.48	1,071	2.00	1,894	1.73
60-64	1,353	2.43	686	1.28	2,039	1.87
65-69	515	0.92	353	0.66	868	0.79
70-74	500	0.90	283	0.53	783	0.72
75-79	168	0.30	181	0.34	349	0.32
80+	301	0.54	302	0.56	603	0.55
Total	***55,696***	***100.00***	***53,493***	***100.00***	***109,189***	***100.00***

Figure 3—Population pyramid, Panjsher, 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."

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.

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

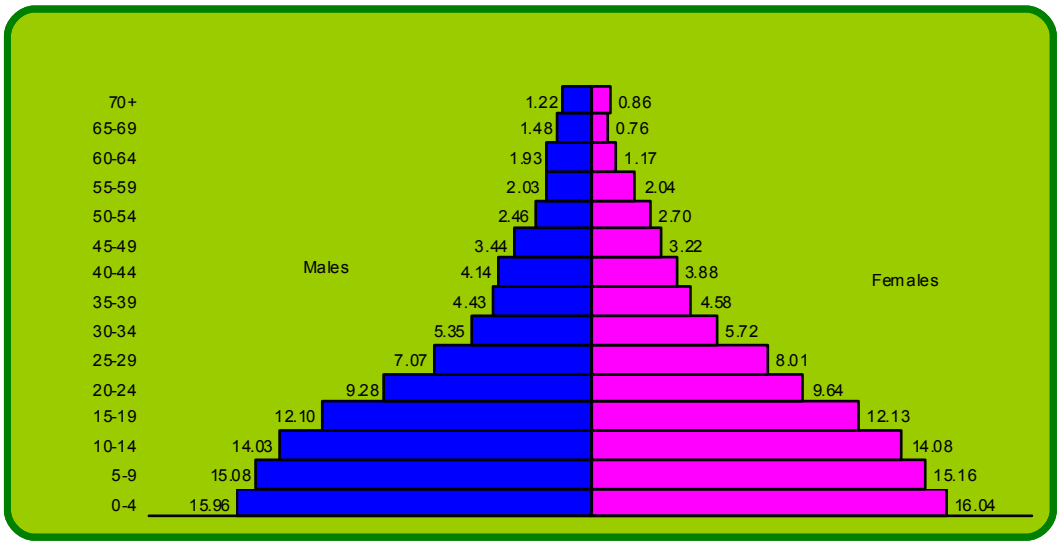
It follows that, in any attempt to correct for the anomalies, care must be taken not to remove the true fluctuations that resulted from such factors.

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

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

	Male		Female		Both sexes	
Age Group	Number	Percent	Number	Percent	Number	Percent
0-4	8,891	15.96	8,582	16.04	17,472	16.00
9-May	8,397	15.08	8,108	15.16	16,505	15.12
10-14	7,812	14.03	7,534	14.08	15,346	14.05
15-19	6,737	12.10	6,489	12.13	13,226	12.11
20-24	5,170	9.28	5,156	9.64	10,326	9.46
25-29	3,937	7.07	4,284	8.01	8,221	7.53
30-34	2,977	5.35	3,060	5.72	6,037	5.53
35-39	2,469	4.43	2,448	4.58	4,917	4.50
40-44	2,308	4.14	2,078	3.88	4,386	4.02
45-49	1,919	3.44	1,725	3.22	3,643	3.34
50-54	1,372	2.46	1,445	2.70	2,818	2.58
55-59	1,128	2.03	1,089	2.04	2,218	2.03
60-64	1,077	1.93	626	1.17	1,703	1.56
65-69	823	1.48	406	0.76	1,229	1.13
70+	680	1.22	461	0.86	1,141	1.04
Total	***55,696***	***100.00***	***53,493***	***100.00***	***109,189***	***100.00***

Figure 4—Population pyramid, Panjsher, 2003—Adjusted.

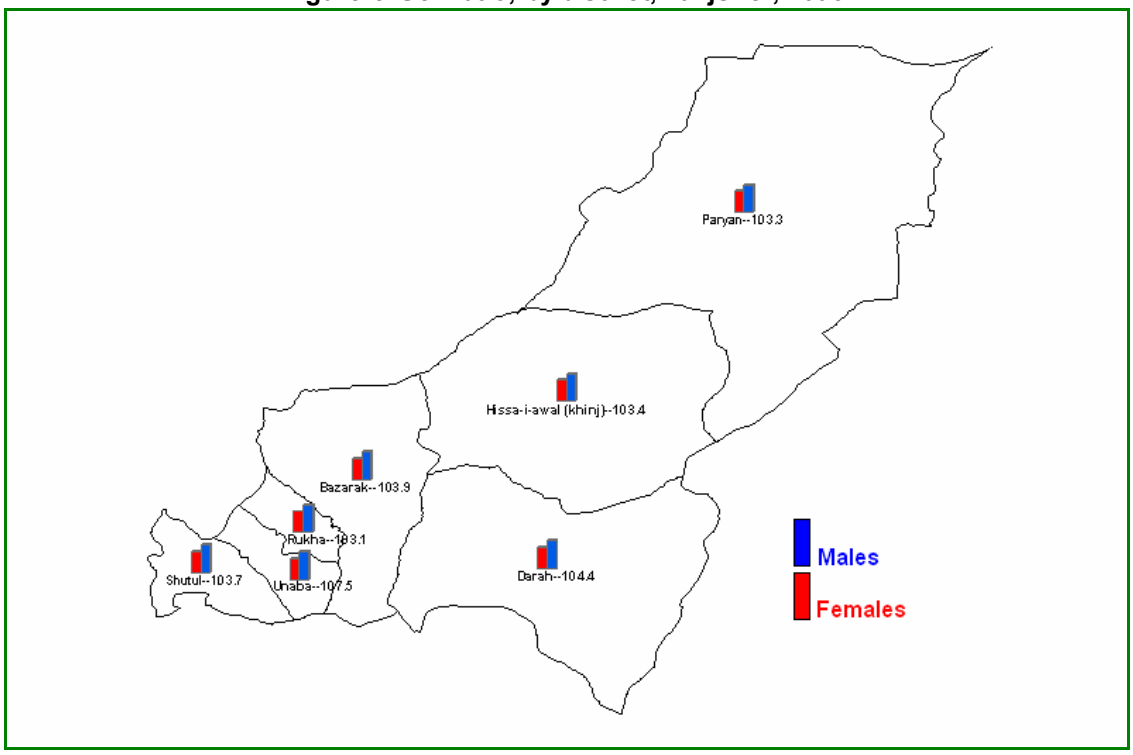


[3] The complete account of the various stages is shown in Annex 2.
[4] For a comparison of the reported and adjusted age-distribution, see annex 3.

Household size and sex ratio

The sex ratio (number of males per 100 females) varies between 103.1 in Rukha to 107.5 in Unaba (figure 5 below and the last column of table 1). No information is available which explain this variation.

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



A typical household in Panjsher 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].

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

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

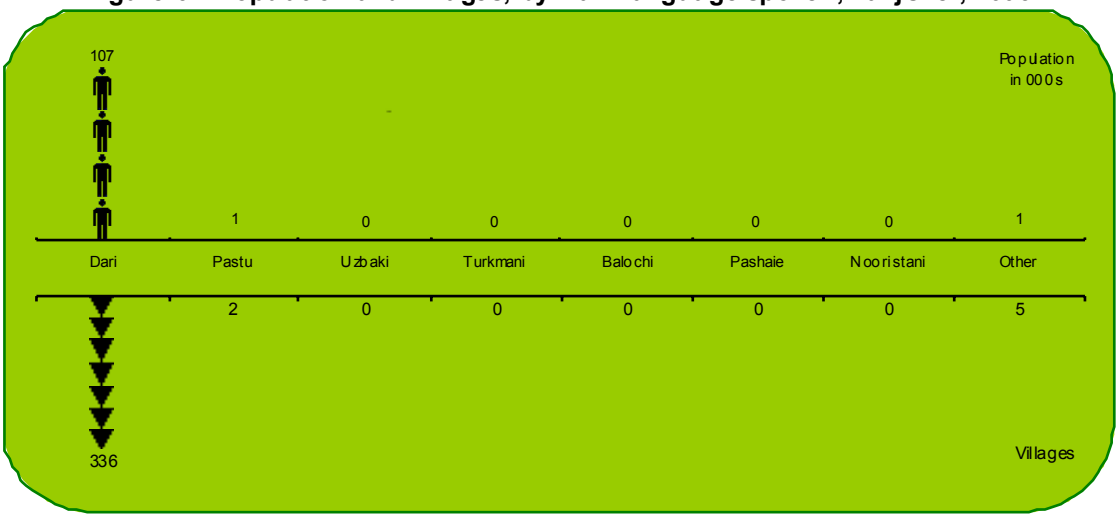
Age	Male		Female		Both sex	
	Number	Percent	Number	Percent	Number	Percent
School age Population						
Primary — 6-12	11,469	18.7	11,071	19.6	22,540	19.1
Secondary — 13-18	8,526	13.9	8,205	14.5	16,731	14.2
College — 20-24	5,170	8.4	5,156	9.1	10,326	8.8
Population in the labor force						
Children — 8-14	11,105	18.1	10,714	19.0	21,818	18.5
Earlier working ages — 15-44	23,598	38.5	23,516	41.6	47,114	40.0
Later working ages — 45-59	4,419	7.2	4,259	7.5	8,679	7.4
Retirement — 60+	8,133	13.3	4,507	8.0	12,640	10.7
Voters — 18+	31,943	52.2	28,242	50.0	60,185	51.1
Reproductive ages — 15-49	—	—	25,240	44.7	—	—

*= Women in the childbearing ages

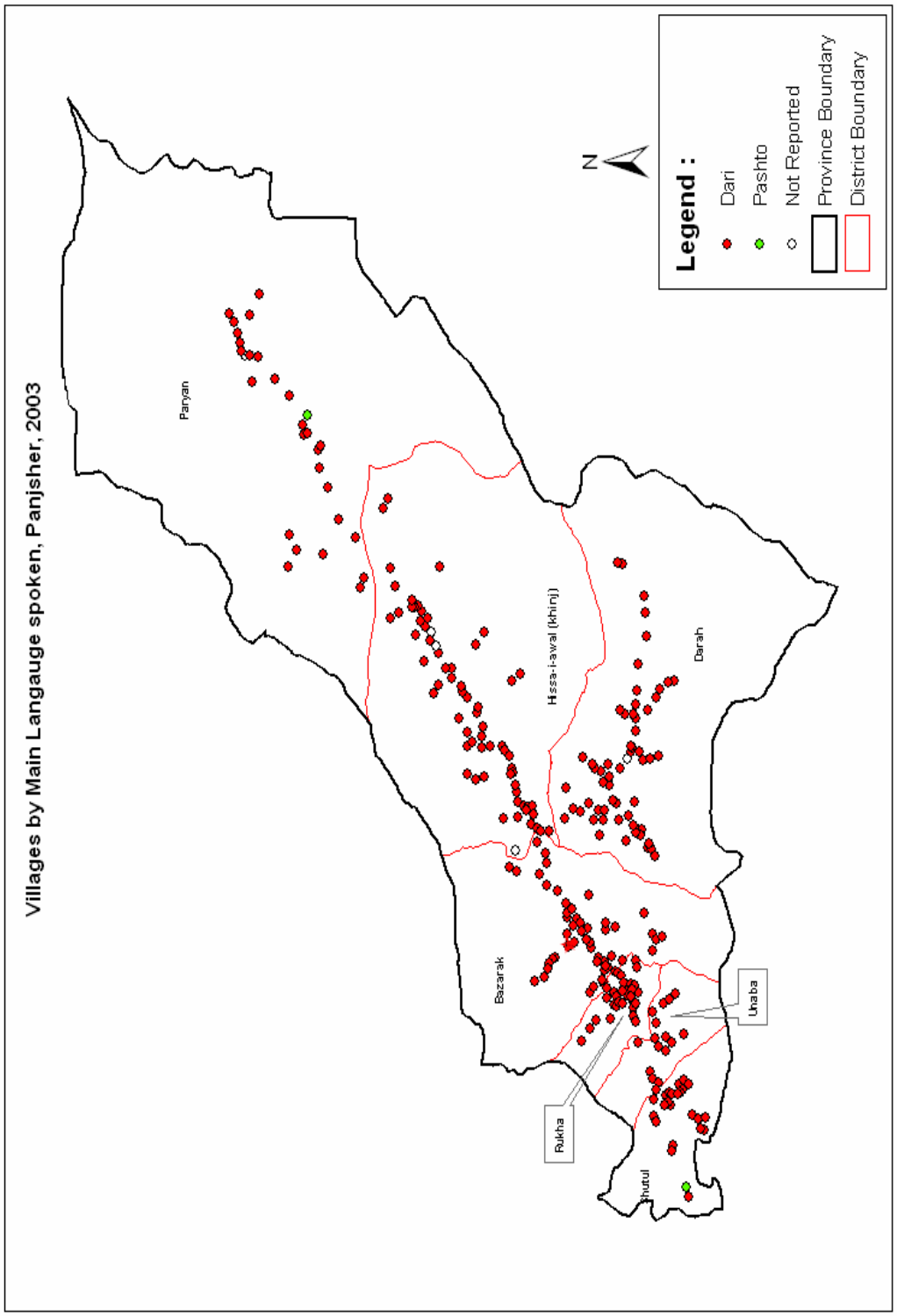
Main languages spoken

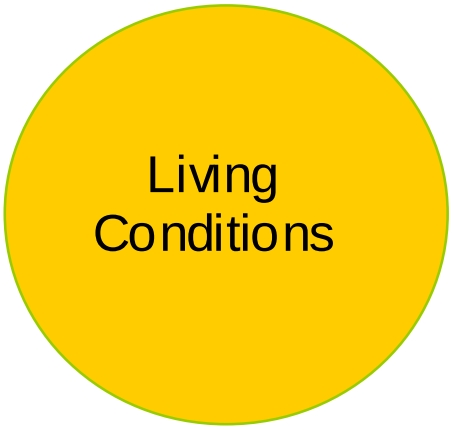
The household listing exercise did not collect any information on the ethnic background of the population. However, it included a question on the languages spoken by the majority of the population. Of the eight languages listed, Dari is the most dominant (figure 6); it is spoken by 336 villages and about 107,000 population. Two villages speal Pashtu, and five an unspecified language.

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



Map2


Villages by Main Langauge spoken, Panjsher, 2003
N
Legend :
Dari
Pashto
Not Reported
Province Boundary
District Boundary
Paryan
Hssa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Shutul



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

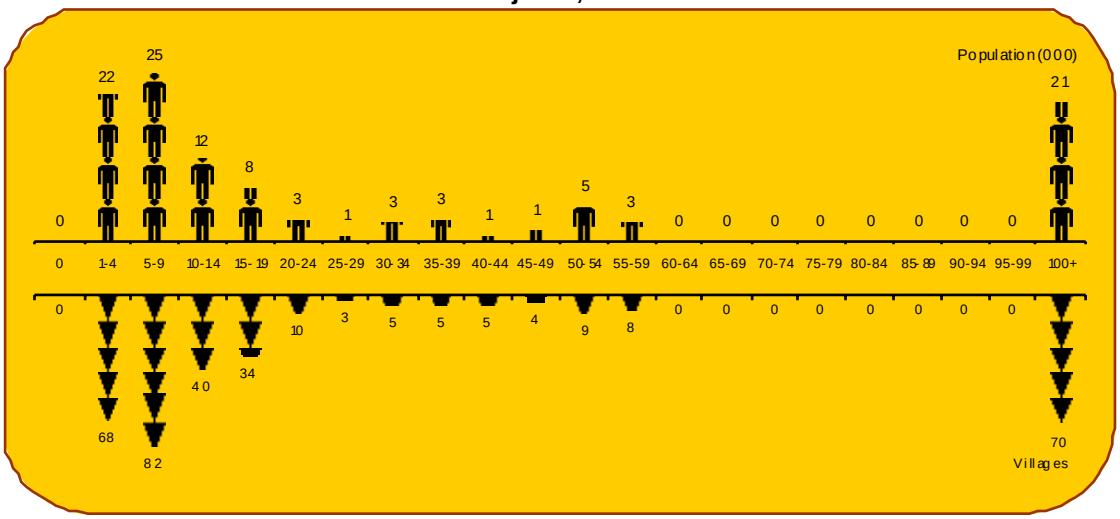
Even though no information was obtained on the social situation of the population, the data collected at village-level make it possible to draw inferences on the availability and/or accessibility of such essential social services as literacy courses; rural schools; primary, secondary, and high schools; 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 comparatively reasonable degree of inaccessibility with respect to those services that can only be provided by the district center. Of the 109,189 population, a little more than one-fifth live within 1-4 kilometers from the district center, and another 23 percent within 5-9 kilometers. Together, they represent 43.4 percent of the total population and 43.7 percent of the villages. It remains nonetheless true that 22 percent of the population live more than 50 kilometers away, the majority of whom—19.2 percent—live at more than 100 kilometers. Even though the terrain is not as difficult as in other province of Afghanistan, the fact still remains that for some villages—those located on mountainous or semi-

mountainous areas—the inaccessibility problem is only made worse. As figure 8 shows, of the 343, none is located in flat areas. For the remainder, the large majority is located situated on semi-flat mountainous terrain—about 84,000 population and 267 villages, representing more than 77 percent of the population and the villages.

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



This is further reflected in the types of roads available (figure 9). Less than two-fifths of the population live in villages with roads that are accessible by car at all seasons. Another 17 percent are accessible by car in some seasons, whereas 45 percent of the population live in villages that have no roads at all.

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

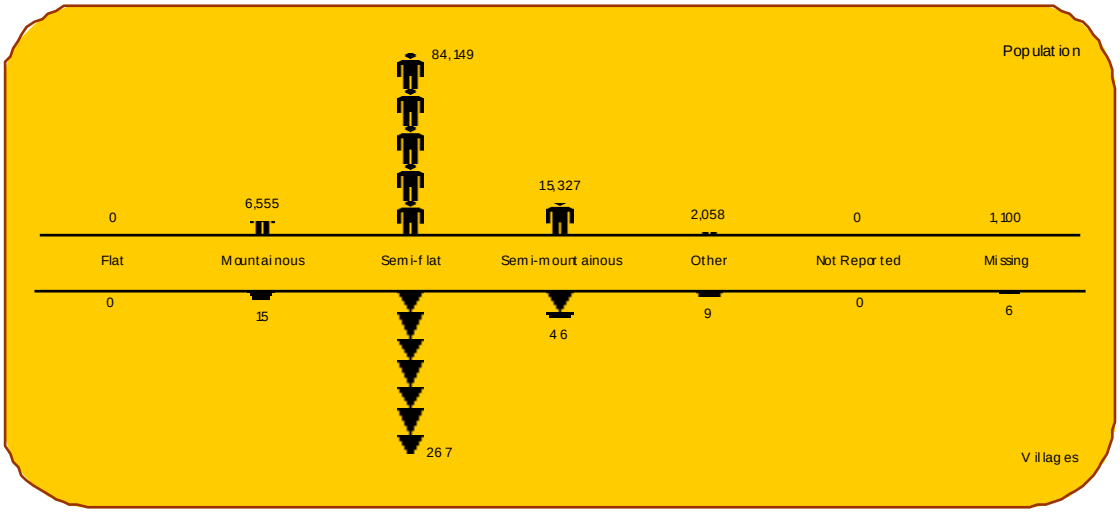


Figure 9—Population, by type of road, Panjsher, 2003

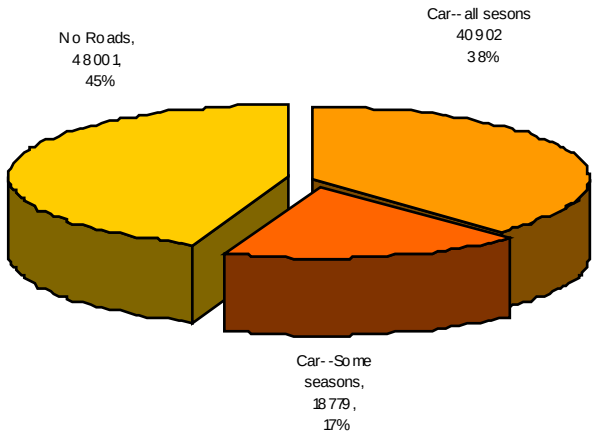


Figure 10 presents information on the distances separating villages from certain social services: schools, health centers, drugstores, post offices, public phones, and mills. The one characteristic distinguishing such data is the excessive proportions of non-response to all the questions, with no exception. In other provinces, such proportions concerned mostly literacy courses and rural schools. In Panjsher, on the other hand, all the facilities surveyed suffer from this drawback, which make any inferences concerning them very problematic. For this reason, the following analysis will exclude literacy courses and rural schools which appear to have outlived their usefulness anyway[1].

Educational services

With regard to educational services, accessibility appears to be problematic for large segments of the population. Primary schools are located in-village for less than 10 percent of the population. For another 27 percent, students have to travel about five kilometers to reach the closet primary school. Together, they represent less than 37

[1] The current taxonomy of schools as revised by the Ministry of Education does not include literacy courses or rural schools anymore.

percent of the total population. For the rest, the distances to travel are 5-10 kilometers for 14.4 percent of the population and more than 10 kilometers for 15.5 percent.

Secondary schools are located in-village for only four percent of the population. But like for primary schools, a sizeable proportion of the students—29 percent—don't have to travel more than five kilometers to reach the closet secondary school. Together, they represent about one-third 70 percent of the population. For the remaining two-thirds, the distances to travel are 5-10 kilometers for about 16 percent of the students and more than 10 kilometers for more than one student out of five.

As for high schools, surprisingly, they are located in-village more often than secondary schools—5.7 percent, as compared to 4 percent. Students who have to travel from 1-5 kilometers to reach the closest high school represent a little more one student out of five. Together, they make up about 28 percent of the total population. For the other half, the distances to travel are 5-10 kilometers for about 14 percent, and more than 10 kilometers for 23 percent. Overall, school-accessibility in Panjsher is much easier than in other provinces, including those located in the same region.

Health services

The spatial distribution of the health infrastructure is not particularly different from that of schools; it is slightly better for health centers than for dispensaries (panels F & G). The proportions of the population that don't have to travel out of their respective districts to seek medical attention are 10.2 percent for health centers and 6.1 for dispensaries. Those who live within five kilometers from a health unit represent 26 percent of the population for health centers and one-fifth for dispensaries. More often than not, people seeking medical attention have to travel more than 10 kilometers to get it—26.5 percent for health centers, and a 24 percent for dispensaries. Drugstores, on the other hand, appear to be slightly more available than health centers. They exist in-village for 10.5 percent of the population, at less than five kilometers for about 23 percent, and at more than 10 kilometers for another 30 percent (panel H).

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

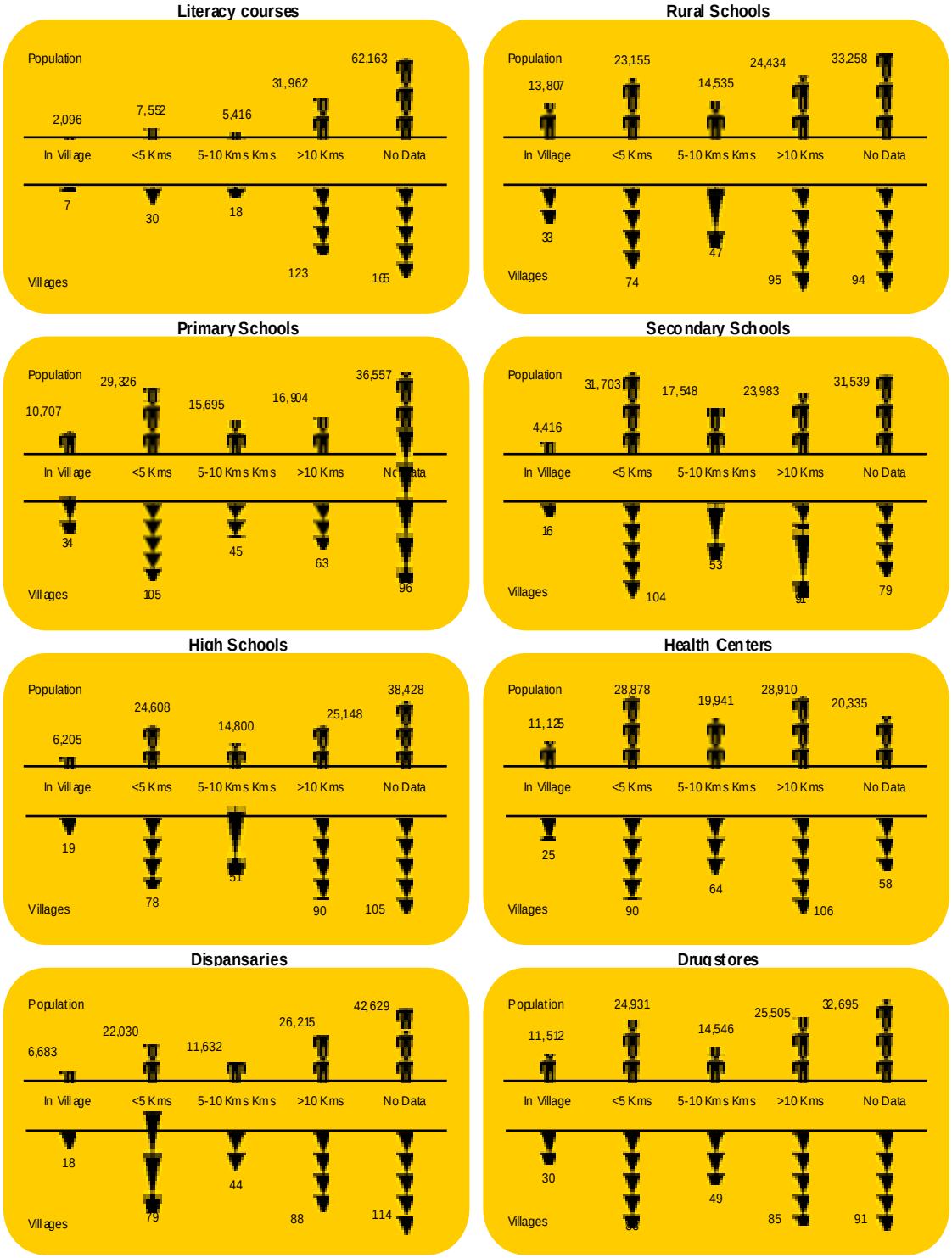
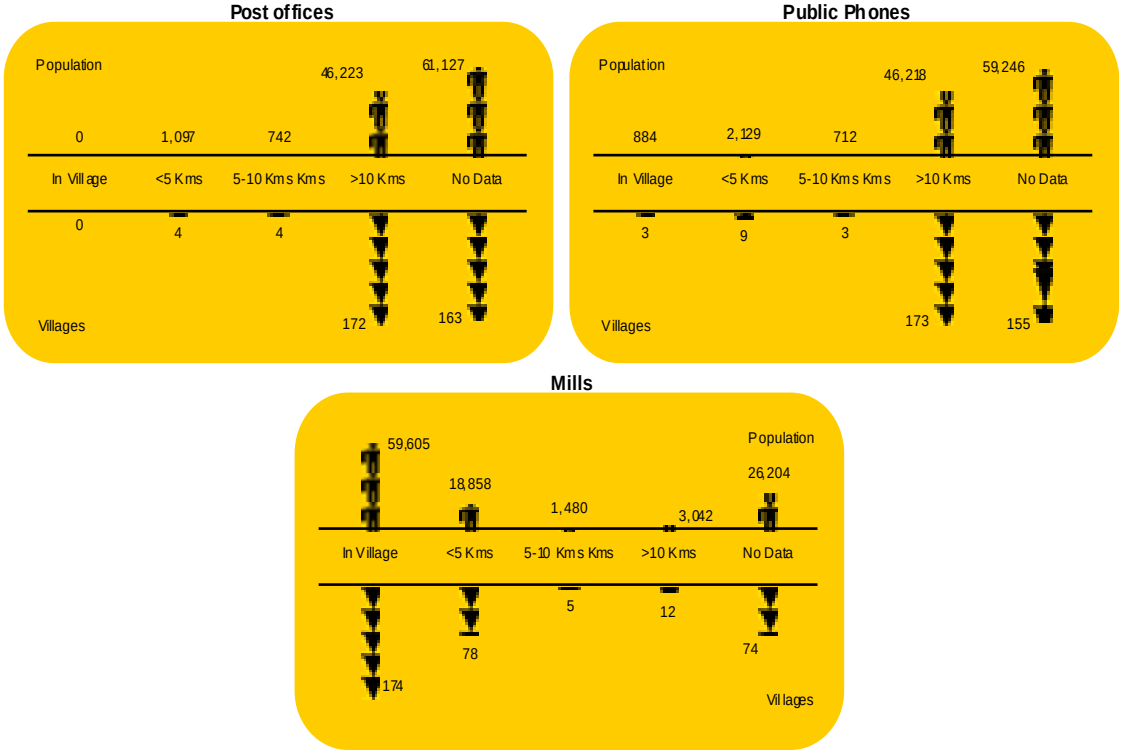


Figure 10 (Cont'd)—Population and villages by distance from certain facilities, Panjsher, 2003



Post office & public phones

None of the 343 villages has a post office within its boundaries, and public phones exist in only three villages (panels I & J). On average, therefore, accessibility of both facilities tends to be very difficult. The distance to travel to reach a post office is more than 10 kilometers for about 42 percent of the population. To use a public phone, 42.3 percent of the population must travel more than 10 kilometers. It is important to remember in this regard that in both cases, i.e., for public phones as well as for post offices, more than half of the villages did not respond to the question.

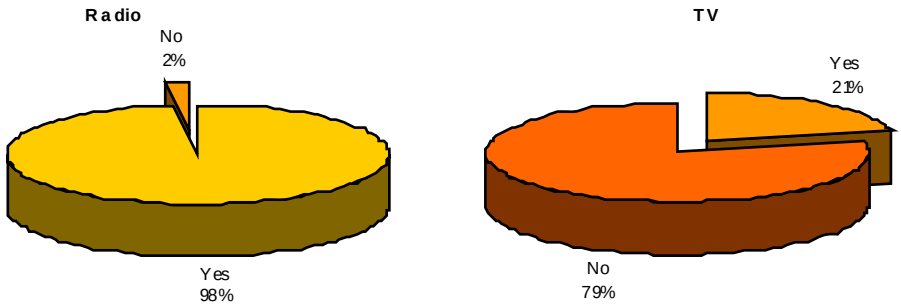
Mills

Mills tend to be substantially more available to the population than any of the facilities mentioned above (panel K). They exist in 174 villages out of the 343, and cater to the needs of 54.6 percent of the population. Furthermore, 17.3 percent of the population don't have to travel more five kilometers to reach one.

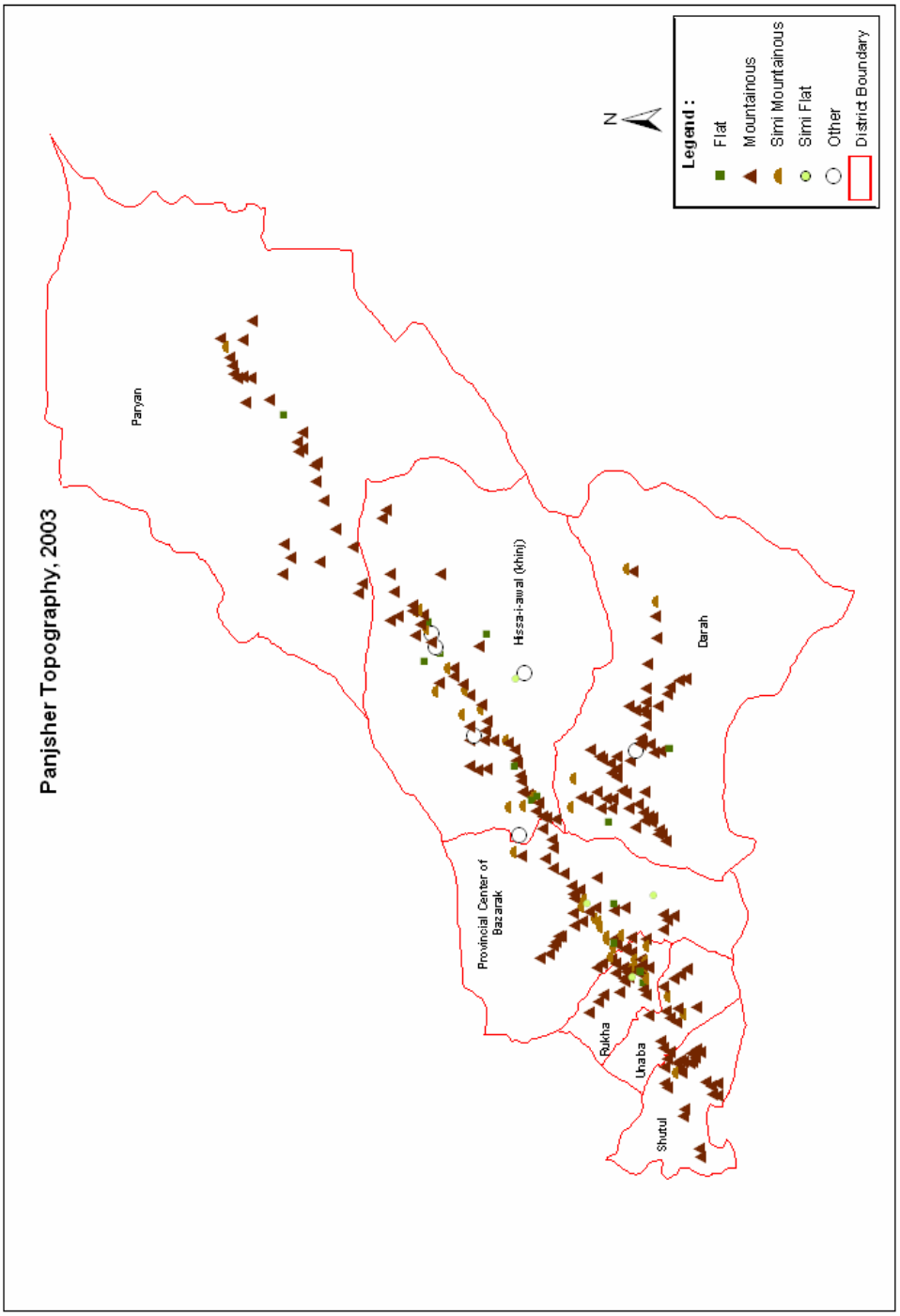
Radio & television

Whereas 98 percent of the populations have access to radio, those that have access to TV represent a comparatively high 21 percent. The proximity of Kabul must have a lot to di with such a state of fact. It goes without saying that public information efforts and media campaigns are seriously hampered by this state of affairs.

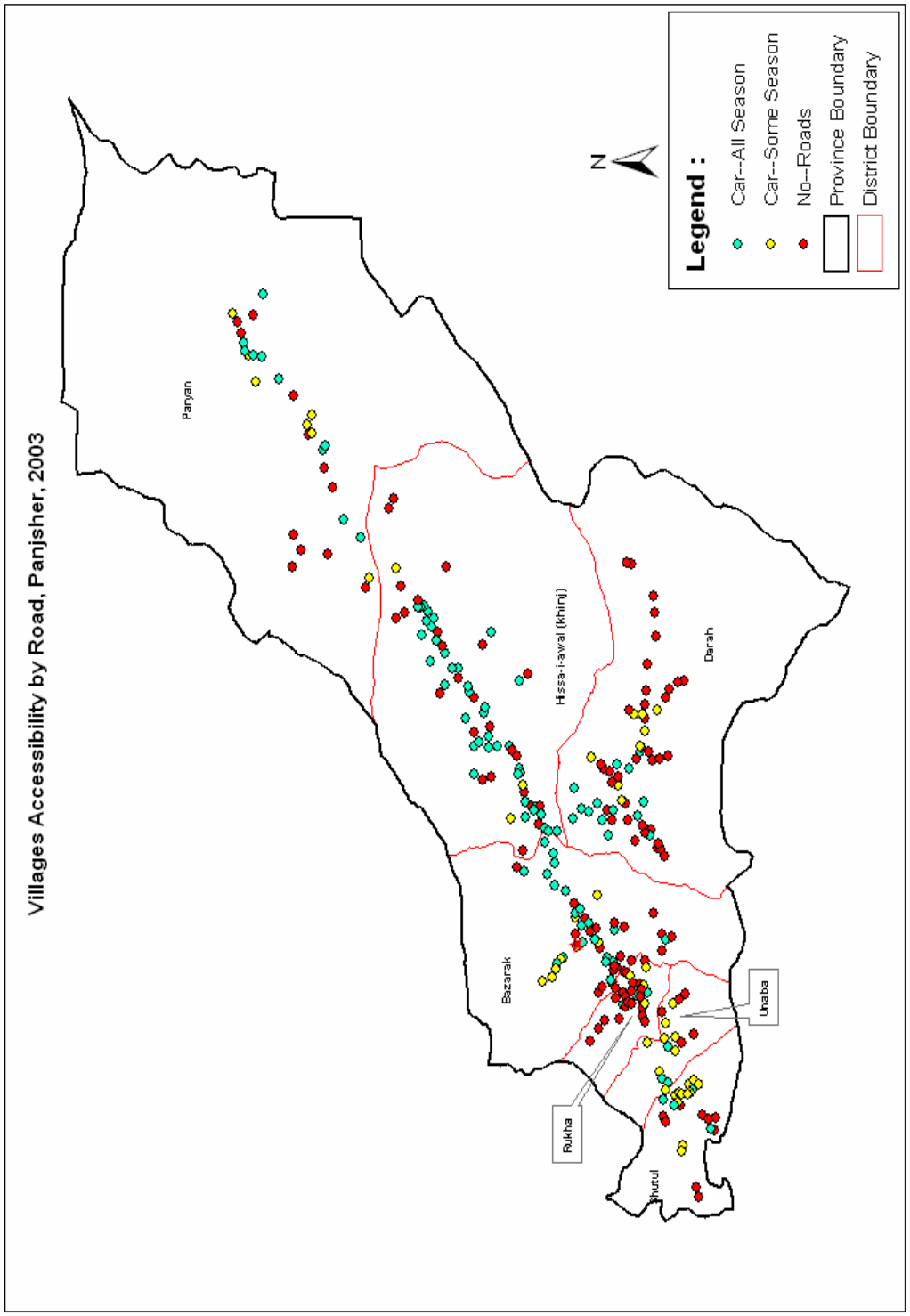
Figure 11—Proportion of the population living in villages where there are radios or TV, Panjsher, 2003



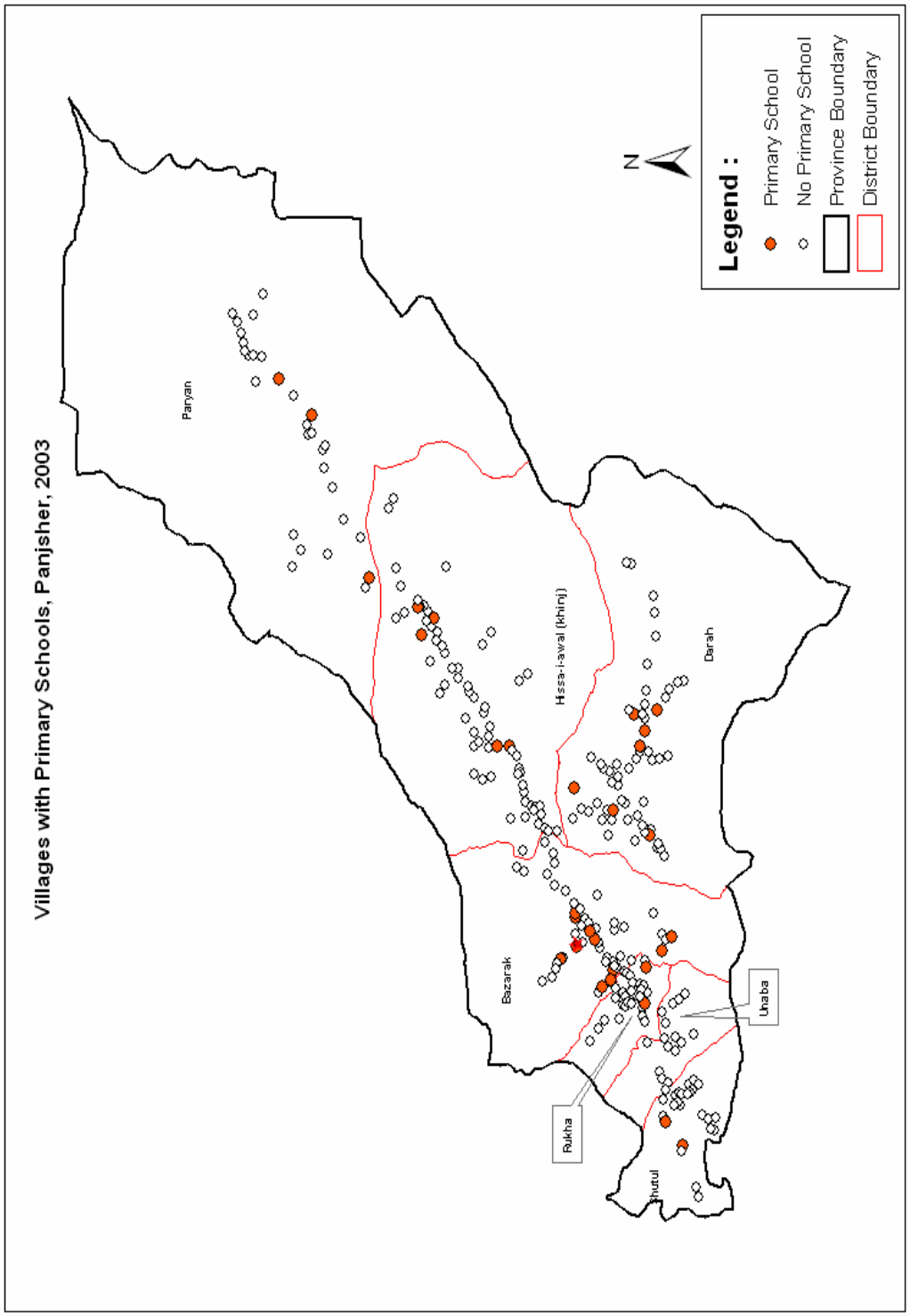
Map3


Panjsher Topography, 2003
N
Legend :
Flat
Mountainous
Simi Mountainous
Simi Flat
Other
District Boundary
Paryan
Hissa-i-awal (Khinj)
Darah
Provincial Center of Bazarak
Rukha
Unaba
Shutul

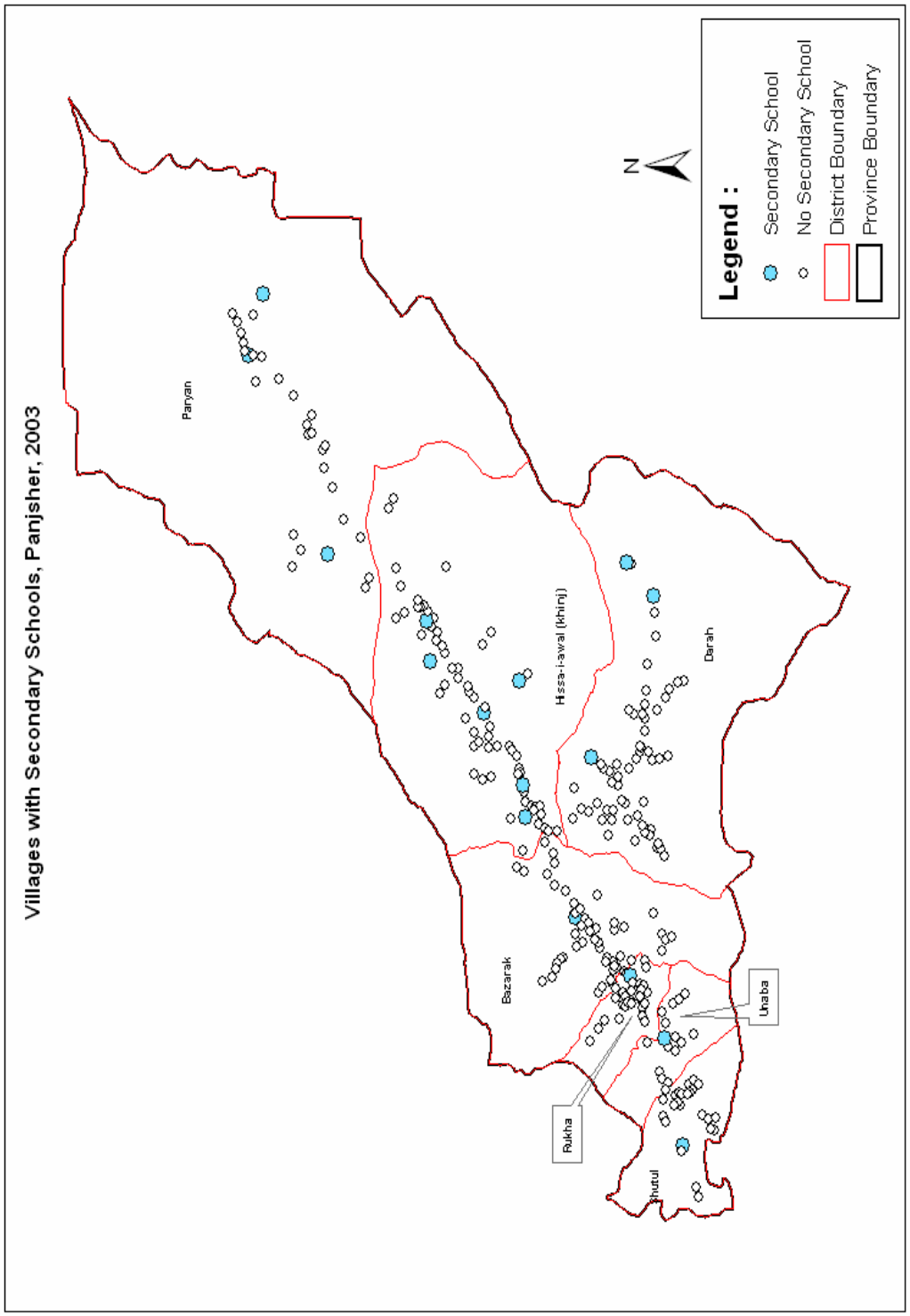
Map4


Villages Accessibility by Road, Panjsher, 2003
N
Legend :
Car--All Season
Car--Some Season
No--Roads
Province Boundary
District Boundary
Panyan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Shutul

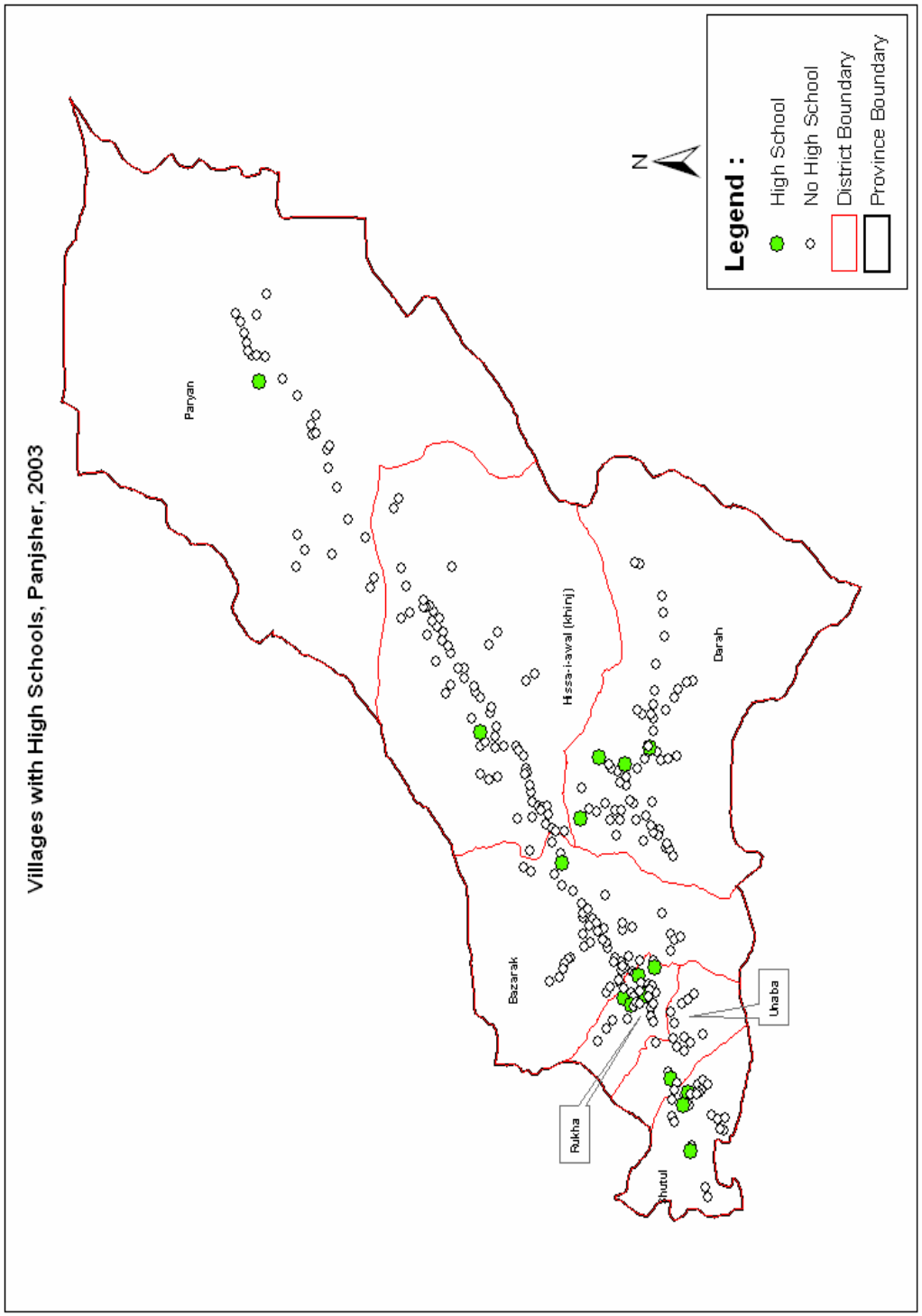
Map5


Villages with Primary Schools, Panjsher, 2003
N
Legend :
Primary School
No Primary School
Province Boundary
District Boundary
Panyan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Shutul

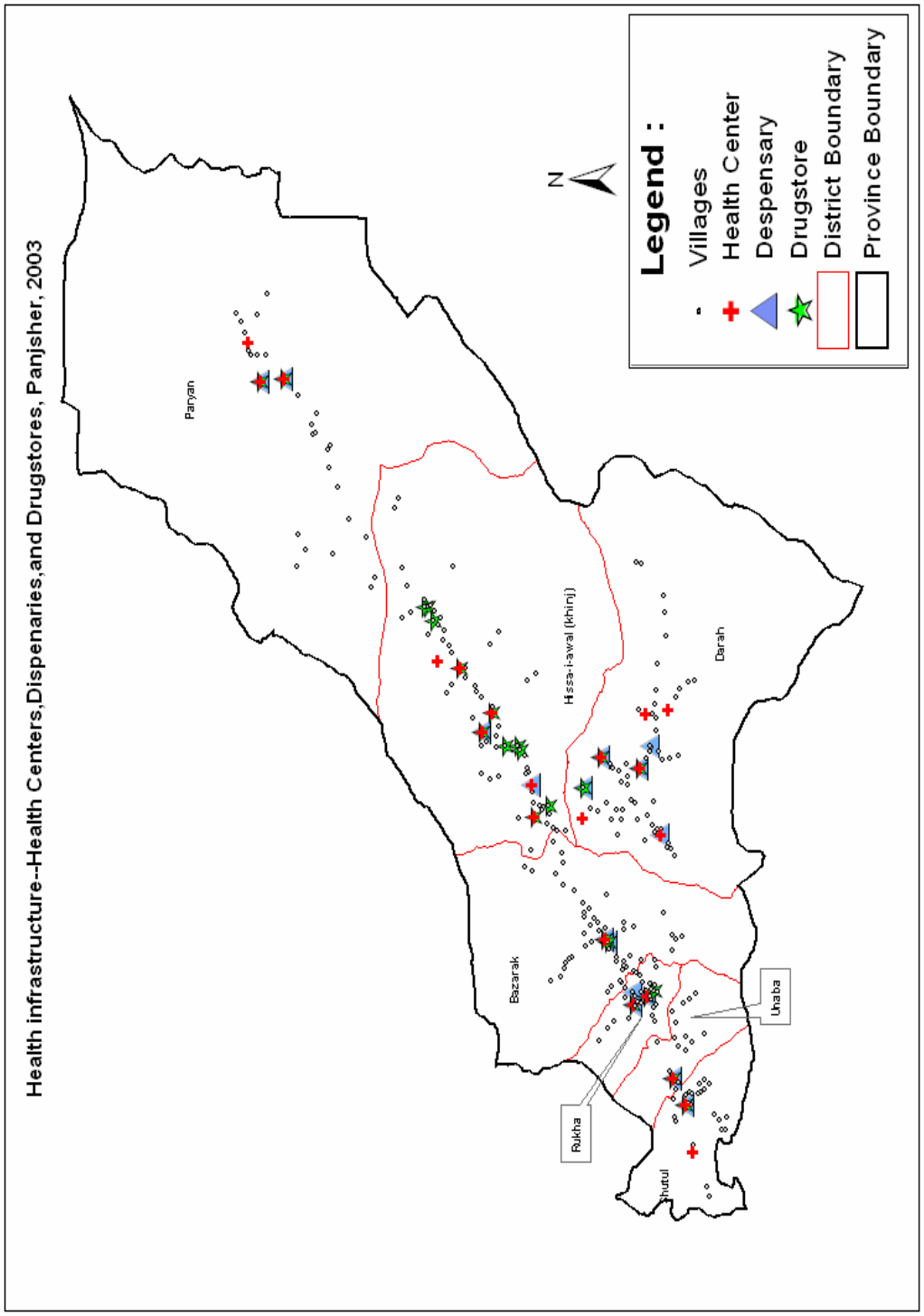
Map6


Villages with Secondary Schools, Panjsher, 2003
Legend :
Secondary School
No Secondary School
District Boundary
Province Boundary
N
Panyan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Shutul

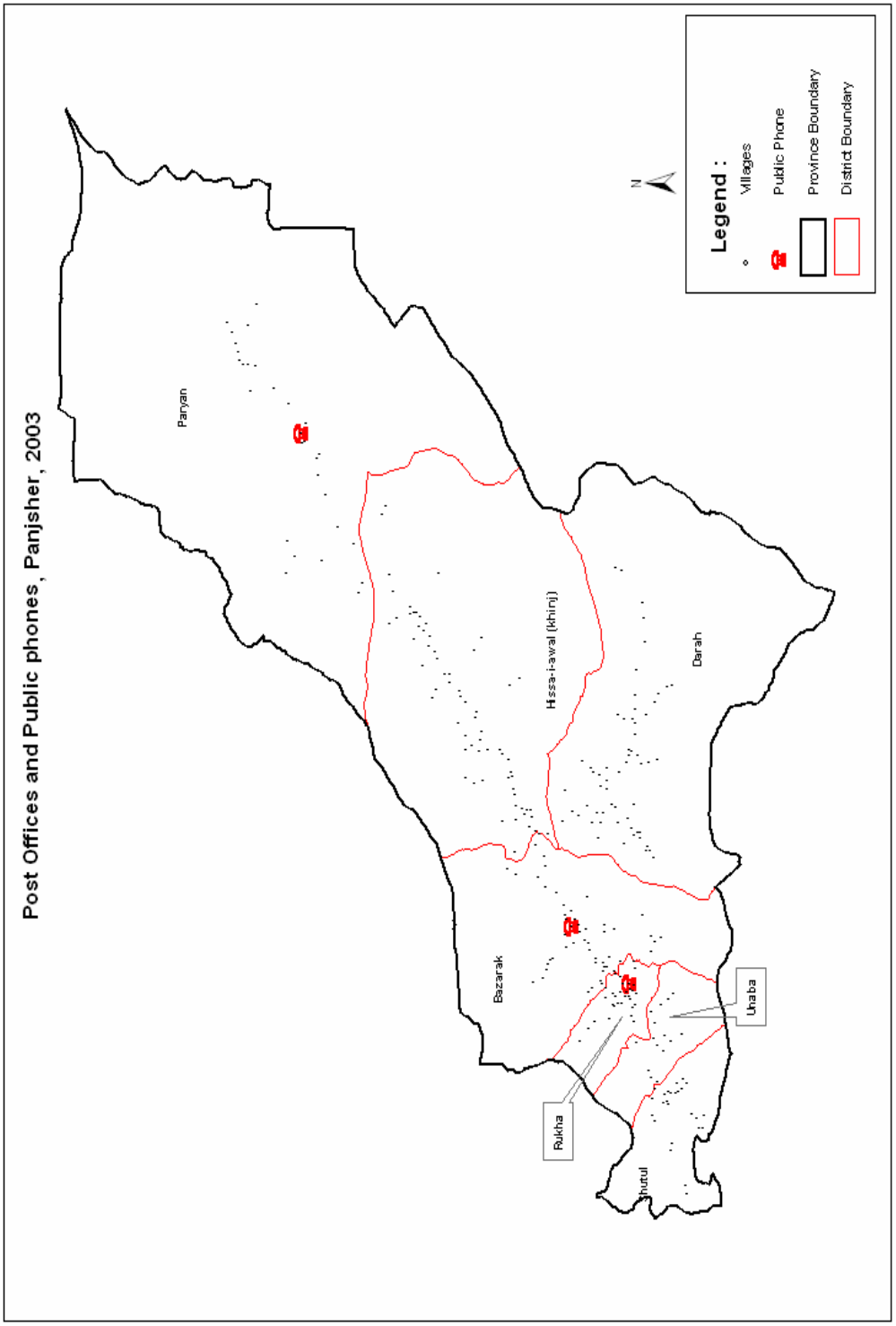
Map7


Villages with High Schools, Panjsher, 2003
Legend :
High School
No High School
District Boundary
Province Boundary
N
Panyan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Jhutul

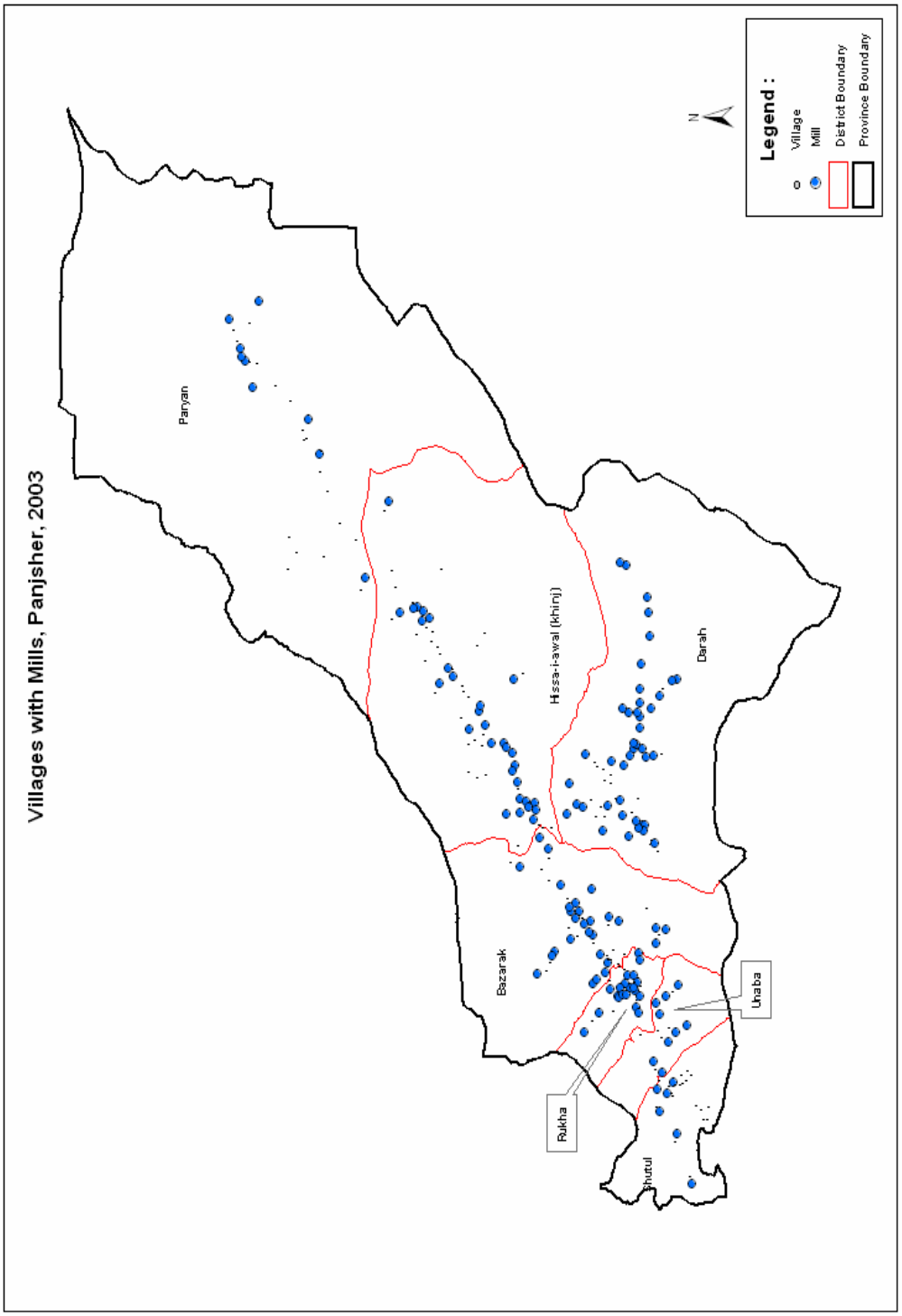
Map8


Health infrastructure--Health Centers,Dispenaries,and Drugstores, Panjsher, 2003
Legend :
Villages
Health Center
Despensary
Drugstore
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

Map9


Post Offices and Public phones, Panjsher, 2003
Legend :
Villages
Public Phone
Province Boundary
District Boundary
N
Panyan
Hssa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Jhutul

Map10


Villages with Mills, Panjsher, 2003
Legend :
Village
Mill
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khirij)
Darah
Bazarak
Rukha
Uhaba
Jhutul

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, Panjsher, 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 rivers, which supply 42 percent of the population with their irrigation water, followed by streams and

springs. Together, these three sources represent the major sources for 95 percent of the villages and more than four out of five villages.

A cursory look at figure 13 shows that in general, the province of Panjsher tends to be more agricultural than industrial. In addition, subsistence crops tend to be more evenly distributed over space, whereas industrial crops, handicrafts, industries and herbal crops tend to be concentrated.

In the area of subsistence crops, three products stand out as occupying the majority of the villages—wheat, corn, and maize. Out of the 603, 260 reported wheat, 175 reported corn, and 116 reported maize. No district stands out as in a given crop or another.

The number of villages engaged in the production of vegetables is only 156, i.e., one-fourth that of subsistence crops. More than half of those produce potatoes; Darah being the one district that concentrates the largest proportion of villages producing them—one third. Among the other 72, 27 produce onion, 18 produce carrots, and 16 produce tomatoes.

Fruit production is an agricultural activity that occupies a substantially larger number of villages than fruit—494. Among these, 202 produce mulberry, and 188 produce walnuts. Together, these two fruit occupy 79 percent of all the villages engaged in fruit production. Bazarak is the largest producer of both fruit—27.7 percent of all the villages producing mulberry, and 27.1 percent of those producing Walnuts. The second largest producer of both fruit is Rukha.

Herbal products are not particularly present in Panjsher—only 65 villages reported growing any of them. The most frequent are chicory (29 villages), and zerk (25 villages). Together, they represent 83 percent of all the villages in the entire province producing any herbs.

Animal products, on the other hand, occupy by far the largest number of villages—they were reported 1,287 times. All the products are present in relatively large numbers of

villages—the range is 176 to 240. The only exception is wool which is produced in 55 villages only. Overall, the largest producers are Bazarak, Darah, and Rukha, albeit only in relative terms. Stated differently, no district stands out in a particular was as concentrating one product or the other.

Industrial crops, small industries, and handicrafts

For all practical purposes, industrial commodities—cotton, sesame, tobacco, olives, and sharsham, etc.— are absent. Sesame is produced in one village in Khinj; tobacco is produced is produced in one village in, again in Khinj; and olives are produced in two villages, both located in Darah. No village in any other district produces any of the other industrial crops.

Small industries are just as scarce as industrial crops. They are produce in 12 villages. Silk is produced in four villages, honey in three, karakul skin in two, and dried sugar, confection, and sugar candy in one village each.

Handicrafts are produced in 42 villages, 33 of which are specialized in rugs. Out of these, about half are in Paryan. Jewelry, the next most frequent handicraft is produced in six villages, half of which are in Darah.

Figure 12—Population by source of irrigation water

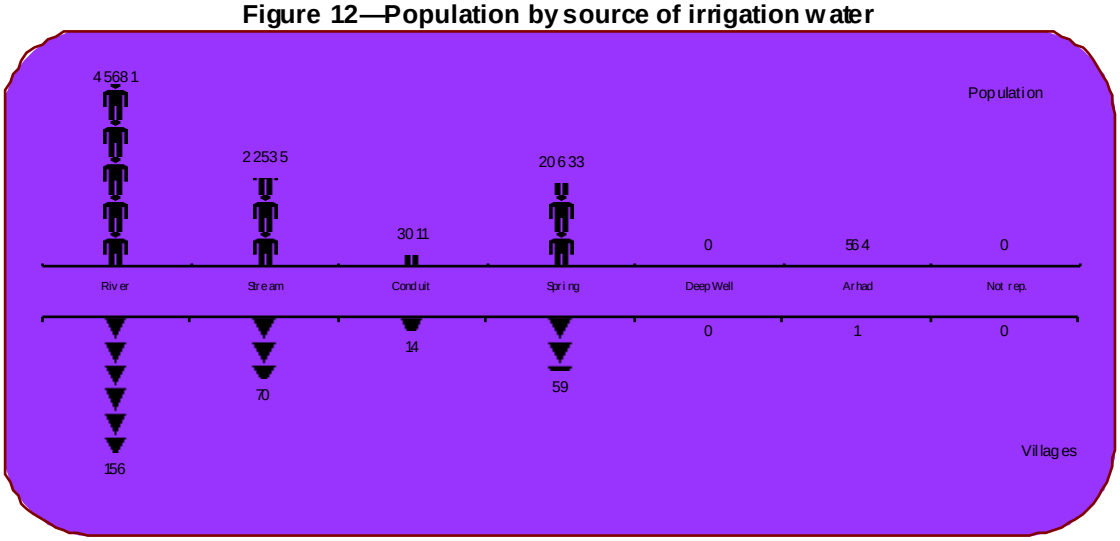
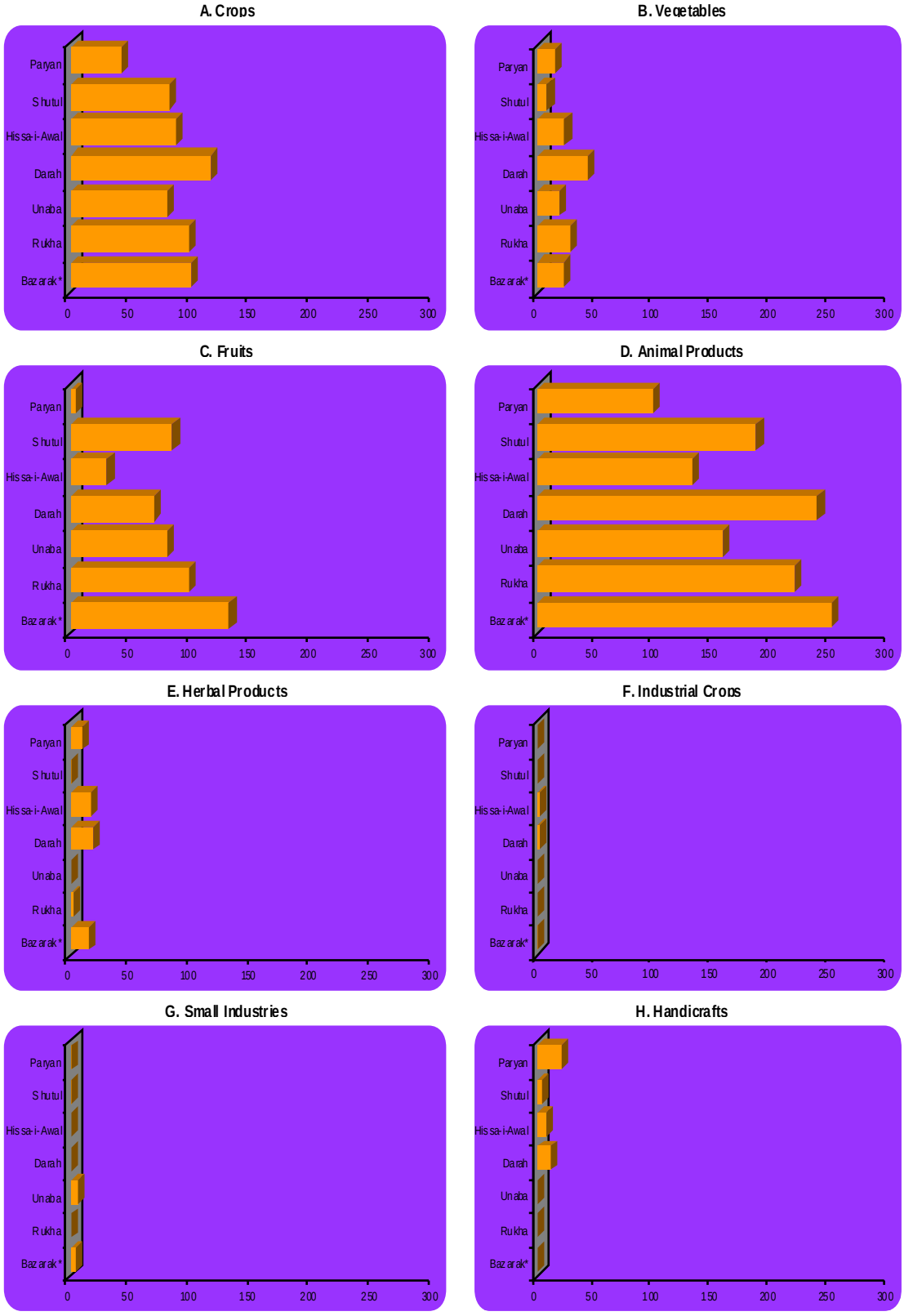


Figure 13—Economic activities, Panjsher, 2003



* = 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 17,158 in the whole province, of which 87 percent (14,944 buildings) are housing units. The remaining 13 percent represent the rest of the various types of buildings.

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

Housing units

The largest number of housing units is located in Hissa-I-Awal (Khinj). This is to be expected given that this district is the most populous among the seven. In terms of persons per housing unit, inter-distgrict variation is not minimal. The least crowded district is Bazarak, with six persons to a housing unit. Among the rest of the districts, density per housing unit is seven in Rukha and Darah, which is also the density at province level, and eight in the remaining four.

Schools and educational institutions

There are 46 schools in the whole province, half of which are in Bazarak and Hissa-I-Awal (Khinj). Unlike other provinces, Panjsher appears to be well endowed in schools. Paryan, the least well endowed district has three schools. 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, especially in the less populated districts. The highest population density per school is in Darah, where there is one school for every 5,000 population or so. The lowest density is in Bazarak—1,300 population per school. On average, i.e., at provincial level, there one school for every 2,400 population or so.

Health infrastructure

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

There is a total of three hospitals in all the province, distributed over three districts—Bazarak, Rukha, and Unaba. Curiously enough, Rukha is the least populated district, and Unaba is the fourth most populated—12,587, as compared to 26,722 in Khinj for example.

In terms of clinics, the situation is much better. There is a total of 15 units of them, distributed over the seven districts. Some districts are much better off than others—Khinj (four clinics), Bazarak and Unaba (three each), and Rukha (two). Controlling for population, the density per clinic shows substantial variation—from one clinic per 4,200 population or so in Unaba, to one per more than 20,000 in Khinj. The average in the province is one clinic per 7,300 population.

There is only one Doctor's practice in the entire province of Panjsher; it is in Darah with a potential clientele of more than 20,000.

Pharmacies, on the other hand, are much more present than clinics or doctors' practices—they number 26, distributed over six districts, Shutul being the district that has none. Population density per pharmacy is 4,200 at province level; it is lowest in Unaba with 1,300 population or so; and highest in Paryan, with approximately 12,500.

Factories & workshops

The province of Panjsher counts a total of 365 factories/workshops[1], distributed almost evenly over all the districts. The average population density per factory/workshop is 299, and inter-district variation is negligible. In the absence of information on the sizes of such businesses, it is not possible to draw any inferences on the numbers of people they employ.

Bakeries and Mills

Bakeries do not appear to be as present in Panjsher as one would expect—a total of 9. On average, there is one bakery for approximately 12,000 population; but the variation between districts is quite substantial. It goes from about 3,400 in Rukha to more than 13,400 in Khinj. In Darah, Paryan, and Shutul, bakeries are non-existent (see table 6).

Mills, on the other hand are omnipresent, even in those districts that have no bakeries. The average across the province is one mill for about 700 population; and inter-district variations is quite high. In Bazarak, there is one mill for every 354 population, and in Rukha it is 361; but in Paryan it goes up to more than 2,000.

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

[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.

There is a total of 15 hotels and restaurants in the whole province of Panjsher, spread out in all all the districts except Shutul. However, the largest number of them—six— is not in the provincial center, or even the most populous district, Khinj; it is in Rukha the smallest district in terms of population size. Controlling for total population, one finds that the highest availability of hotels and/or restaurants is in Rukha, with one such place for every 1,700 population or so; and the lowest are in Darah, and bazark, with one hotel/restaurant for respectively 20,000 and 15,600 population or so. The average for the province is one hotel/restaurant per 7,300 population or so.

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

Shopping places

Food & grocery, and clothes & textiles stores are the most prevalent businesses in any of the districts of Panjsher. On average, there is one grocery store for every 300 population, and one clothes & textile store for approximately 2,500 population; but inter-district variation can be considerable for both businesses. The lowest densities for grocery stores are 148 in Unaba, and 153 in Rukha, and the highest 565 in Shutul. In the remainder of the districts, the average hovers around 300-400. For Clothes and textile stores, the lowest is around 600 in Rukha, and the highest 12,500 in Paryan.

Construction materials shops also tend to be scarce in Panjsher. There are 11 of them—six in Rukha again, two each in Unaba and Khinj, and one in Bazarak.

Mosques

The province of Panjsher counts a total of 544 mosques, i.e., an average of one mosque for every 200 population. Variation around this mean is substantial, is negligible.

Other places

There is one poultry/livestock farm in Panjsher; it is located in Unaba. Given the predominantly rural nature of the province, it is justifiable to hypothesize that household tend to raise their own chicken or other farm animals.

There is a total of 7 barbers and beauty salons in Panjsher, three of which are in Unaba, and one each in Rukha, Darah, Khinj, and Shutul. Neither Bazarak, nor Paryan has any barber shop or beauty salon. It would appear that barbers tend to do move from one place to the next, following weekly markets, or from home to home on demand.

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

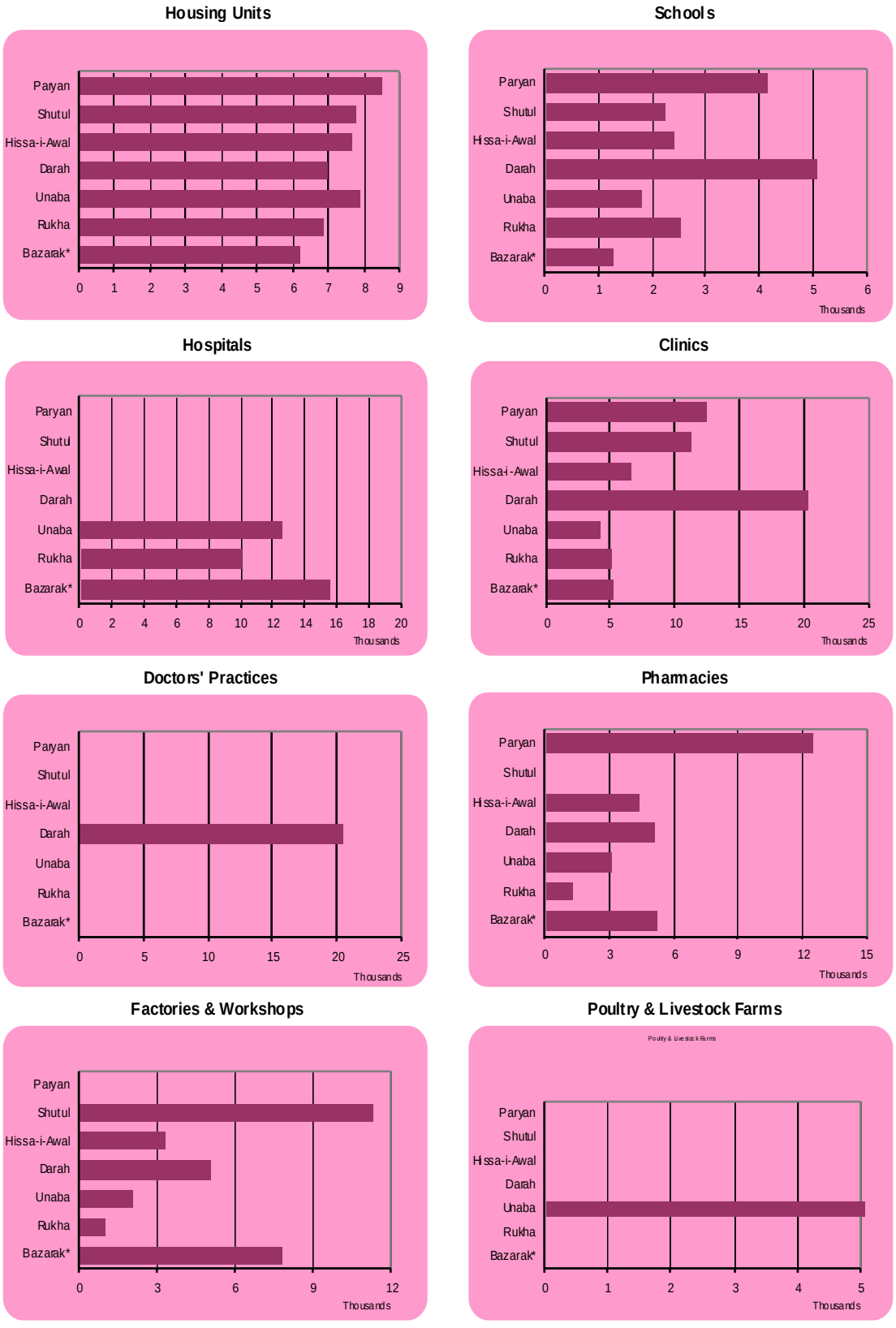
A—Absolute numbers

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 CenterB—Bazarak	2,520	12	1	3	0	3	2	37	4	1	0	1	0	3	44	116	164	2,911	15,593
Rukha	1,472	4	1	2	0	8	10	66	17	6	0	6	1	3	28	73	189	1,886	10,102
Unaba	1,592	7	1	3	0	4	6	85	13	2	1	1	3	1	19	49	117	1,904	12,587
Darrah	2,924	4	0	1	1	4	4	49	4	0	0	1	1	0	18	105	59	3,175	20,360
Hissa-I-Awwal (Khinj)	3,500	11	0	4	0	6	8	77	4	2	0	3	1	2	31	117	364	4,130	26,722
Shutul	1,458	5	0	1	0	0	1	20	0	0	0	0	1	0	9	49	37	1,581	11,300
Paryan	1,478	3	0	1	0	1	0	31	1	0	0	3	0	0	6	35	12	1,571	12,525
Total province	14,944	46	3	15	1	26	31	365	43	11	1	15	7	9	155	544	942	17,158	109,189

B—Ratio (Population per Building)

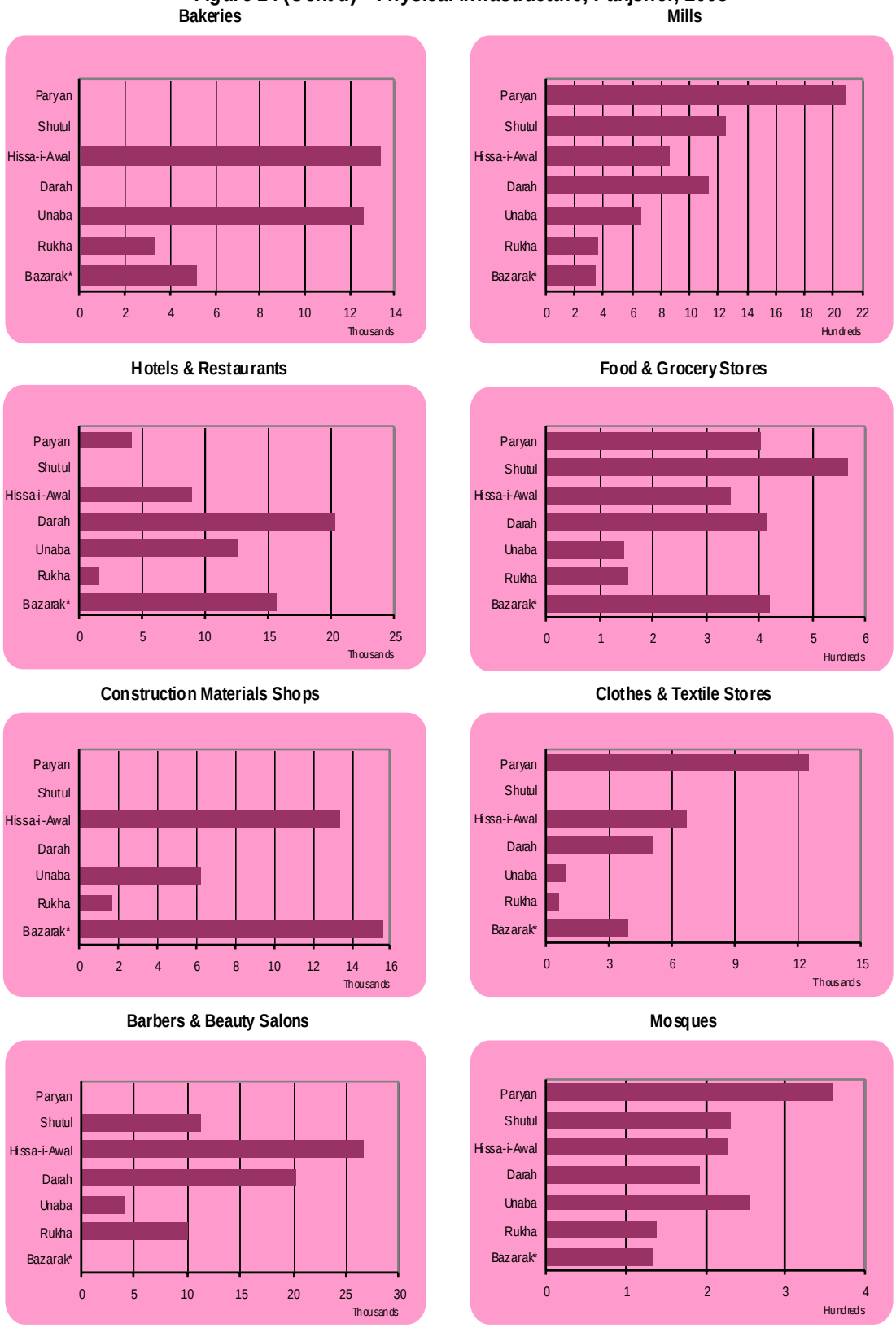
District	Resi-dential Places	Schools & Educa-tional Insti-tutions	Hos-pitals	Clinics	Doctor's Practice	Phar-macies	Factories/ Workshops	Food & Grocery Stores	Clothes & Textile Stores	Cons-truction Ma-terials	Poultry & Live-stock Farms	Hotels & Res-taurants	Barbers & Beauty Salons	Bakeries	Mills	Mosques	Other	Total	Population
Provincial CenterB—Bazarak	6	1,299	15,593	5,198	—	5,198	7,797	421	3,898	15,593	—	15,593	—	5,198	354	134	95	—	—
Rukha	7	2,526	10,102	5,051	—	1,263	1,010	153	594	1,684	—	1,684	10,102	3,367	361	138	53	—	—
Unaba	8	1,798	12,587	4,196	—	3,147	2,098	148	968	6,294	12,587	12,587	4,196	12,587	662	257	108	—	—
Darrah	7	5,090	—	20,360	20,360	5,090	5,090	416	5,090	—	—	20,360	20,360	—	1,131	194	345	—	—
Hissa-I-Awwal (Khinj)	8	2,429	—	6,681	—	4,454	3,340	347	6,681	13,361	—	8,907	26,722	13,361	862	228	73	—	—
Shutul	8	2,260	—	11,300	—	—	11,300	565	—	—	—	—	11,300	—	1,256	231	305	—	—
Paryan	8	4,175	—	12,525	—	12,525	—	404	12,525	—	—	4,175	—	—	2,088	358	1,044	—	—
Total province	7	2,374	36,396	7,279	109,189	4,200	3,522	299	2,539	9,926	109,189	7,279	15,598	12,132	704	201	116	—	—

Figure 14—Physical infrastructure, Panjsher, 2003



* = Provinial Center

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

Annex 4

Procedure for adjusting the reported age distribution

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

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

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

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

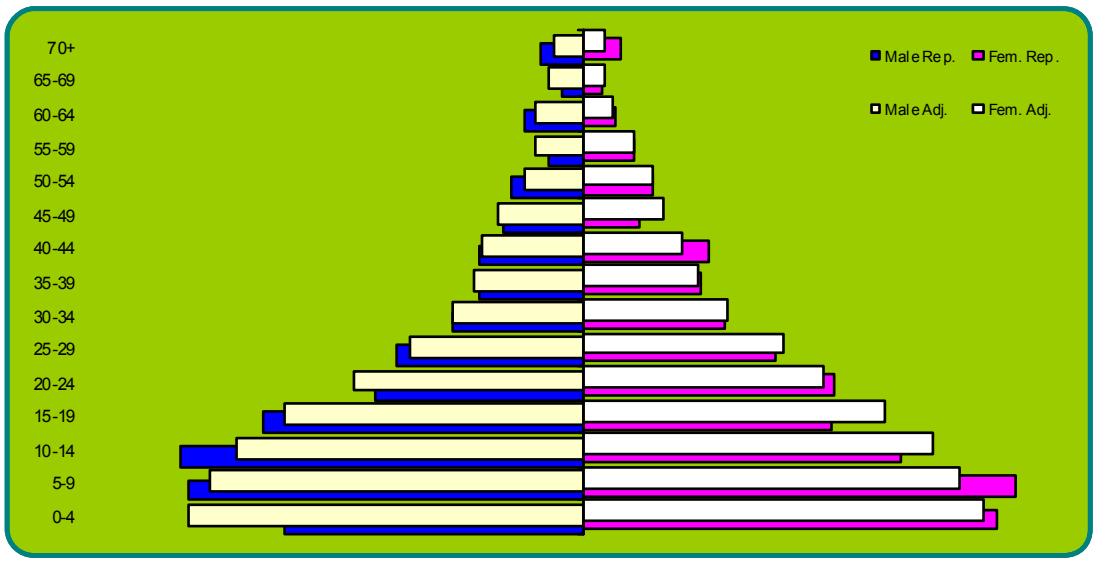
[1] The model used was from the Regional Model Life Tables and Stable Population; Ansley J. Coale and Paul Demeny; Princeton University Press; Princeton, New Jersey; 1966 ("West" model at level 13 for both males and females [e_0: 50 for females, and 47.114 for males] and a growth rate of 30).

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

A—Distribution

Age	Reported			Adjusted			Reported /Adjusted		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	6,738	8,881	15,619	8,891	8,582	17,472	-2,153	299	-1,853
5-9	8,901	9,271	18,172	8,397	8,108	16,505	504	1,163	1,667
10-14	9,070	6,801	15,871	7,812	7,534	15,346	1,258	-733	525
15-19	7,231	5,313	12,544	6,737	6,489	13,226	494	-1,176	-682
20-24	4,725	5,385	10,110	5,170	5,156	10,326	-445	229	-216
25-29	4,227	4,116	8,343	3,937	4,284	8,221	290	-168	122
30-34	2,966	3,012	5,978	2,977	3,060	6,037	-11	-48	-59
35-39	2,388	2,531	4,919	2,469	2,448	4,917	-81	83	2
40-44	2,339	2,665	5,004	2,308	2,078	4,386	31	587	618
45-49	1,816	1,162	2,978	1,919	1,725	3,643	-103	-563	-665
50-54	1,635	1,480	3,115	1,372	1,445	2,818	263	35	297
55-59	823	1,071	1,894	1,128	1,089	2,218	-305	-18	-324
60-64	1,353	686	2,039	1,077	626	1,703	276	60	336
65-69	515	353	868	823	406	1,229	-308	-53	-361
70-74	500	283	783	518	263	781	-18	20	2
75-79	168	181	349	161	198	359	7	-17	-10
80+	301	302	603	-	-	-	301	302	603
Total	55,696	53,493	109,189	55,696	53,493	109,189	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 commodity/activity is concentrated in a given district, controlling for the number of villages engaged in such activity/commodity[3].

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

[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

To summarize the wealth information contained in the various panels of annex 6, we decided to focus on the last one, Panel G, highlighting those among the seven districts that specialize in one or more of the various products/activities in a remarkable way. Because some of the products/activities are rather scarce, an excessive number of the cells in the corresponding tables will show either zeroes or very small values, thus making the indices produced by compositional analysis too high with respect to the reality they are supposed to portray. For instance, there are only two villages in Bazarak that produce silk, but because the total number of villages producing any industrial commodity is 12 in the whole district, the index calculated by compositional analysis for this district-commodity is 5.56, suggesting that a village in Bazarak is 5.79 more likely than any other village in the province to produce dried sugar. Even though this is statistical true, it is not a true refection of the reality it is supposed to analyze. For this reason, industrial crops, small industries, and handicrafts have been exclude from the analysis below.

With regards to subsistence crops, only three are produced in a sufficiently large number of villages to warrant compositional analysis—wheat, corn, and maize. However, none among the seven districts stands out in any way as specializing in one of them.

The situation is about the same for fruit: only four of them are produced by a number of villages that is sufficient to give meaning to compositional analysis results. However, as with subsistence crops, no district stands out in any way.

With regards to vegetables, three products stands out, that are associated with four districts. Onion is associated with Shutul, with an index of 1.89; tomatoes are associated with Rukha and Unaba, with respective indices of 1.53, and 1.17; and carrots are associated with Darah (an index of 1.22).

Only two herbal products are produced by a significant number of villages—zerk and Chicory. Only Rukha appears to specialize in chicory to some degree (an index of 1.24).

Animal products are so evenly distributed over space that no district appears to specialize in them.

usefulness in terms of describing the reality on the ground. Stated differently, this means that Panel G should be read jointly with Panel A.

Annex 6

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

Subsistence Crops

Panel A—Raw Data

	District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1	Provincial Center—Bazarak	44	42	0	10	0	0	0	4	100
2	Rukha	38	41	0	17	0	0	0	1	97
3	Unaba	30	29	1	18	0	0	0	1	79
4	Darah	51	23	1	25	4	0	0	12	116
5	Hissa-I-Awal (Khinj)	42	9	1	13	2	1	1	18	87
6	Shutul	30	29	0	22	0	0	0	1	82
7	Paryan	25	2	0	11	0	0	0	4	42
	Total	**260**	**175**	**3**	**116**	**6**	**1**	**1**	**41**	**603**

Panel B—Specialization

	District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1	Provincial Center—Bazarak	44.0	42.0	0.0	10.0	0.0	0.0	0.0	4.0	100.0
2	Rukha	39.2	42.3	0.0	17.5	0.0	0.0	0.0	1.0	100.0
3	Unaba	38.0	36.7	1.3	22.8	0.0	0.0	0.0	1.3	100.0
4	Darah	44.0	19.8	0.9	21.6	3.4	0.0	0.0	10.3	100.0
5	Hissa-I-Awal (Khinj)	48.3	10.3	1.1	14.9	2.3	1.1	1.1	20.7	100.0
6	Shutul	36.6	35.4	0.0	26.8	0.0	0.0	0.0	1.2	100.0
7	Paryan	59.5	4.8	0.0	26.2	0.0	0.0	0.0	9.5	100.0
	Total	**43.1**	**29.0**	**0.5**	**19.2**	**1.0**	**0.2**	**0.2**	**6.8**	**100.0**

Panel C—Concentration

	District	Wheat	Corn	Rice	Maize	Beans	Vetch	Peas	Other	Total
1	Provincial Center—Bazarak	16.9	24.0	0.0	8.6	0.0	0.0	0.0	9.8	16.6
2	Rukha	14.6	23.4	0.0	14.7	0.0	0.0	0.0	2.4	16.1
3	Unaba	11.5	16.6	33.3	15.5	0.0	0.0	0.0	2.4	13.1
4	Darah	19.6	13.1	33.3	21.6	66.7	0.0	0.0	29.3	19.2
5	Hissa-I-Awal (Khinj)	16.2	5.1	33.3	11.2	33.3	100.0	100.0	43.9	14.4
6	Shutul	11.5	16.6	0.0	19.0	0.0	0.0	0.0	2.4	13.6
7	Paryan	9.6	1.1	0.0	9.5	0.0	0.0	0.0	9.8	7.0
	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—Bazarak	0.02	0.45	-1.00	-0.48	-1.00	-1.00	-1.00	-0.41	0.00
2	Rukha	-0.09	0.46	-1.00	-0.09	-1.00	-1.00	-1.00	-0.85	0.00
3	Unaba	-0.12	0.26	1.54	0.18	-1.00	-1.00	-1.00	-0.81	0.00
4	Darah	0.02	-0.32	0.73	0.12	2.47	-1.00	-1.00	0.52	0.00
5	Hissa-I-Awal (Khinj)	0.12	-0.64	1.31	-0.22	1.31	5.93	5.93	2.04	0.00
6	Shutul	-0.15	0.22	-1.00	0.39	-1.00	-1.00	-1.00	-0.82	0.00
7	Paryan	0.38	-0.84	-1.00	0.36	-1.00	-1.00	-1.00	0.40	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, Panjsher, 2003

Industrial Crops

Panel A—Raw Data

	District	Cotton	Sugar Extracts	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1	Provincial Center—Bazarak	0	0	0	0	0	0	0	0	1
2	Rukha	0	0	0	0	0	0	0	0	0
3	Unaba	0	0	0	0	0	0	0	0	0
4	Darah	0	0	0	0	0	2	0	0	2
5	Hissa-I-Awal (Khinj)	0	0	0	1	1	0	0	0	2
6	Shutul	0	0	0	0	0	0	0	0	0
7	Paryan	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**1**	**1**	**3**	**0**	**0**	**5**

Panel B—Specialization

	District	Cotton	Sugar Extracts	Sugar Cane	Sesame	Tobacco	Olives	Shar-sham	Other	Total
1	Provincial Center—Bazarak	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	—
2	Rukha	—	—	—	—	—	—	—	—	—
3	Unaba	—	—	—	—	—	—	—	—	—
4	Darah	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0
5	Hissa-I-Awal (Khinj)	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	100.0
6	Shutul	—	—	—	—	—	—	—	—	—
7	Paryan	—	—	—	—	—	—	—	—	—
	Total	**0.0**	**0.0**	**0.0**	**20.0**	**20.0**	**60.0**	**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—Bazarak	—	—	—	0.0	0.0	100.0	—	—	—
2	Rukha	—	—	—	0.0	0.0	0.0	—	—	0.0
3	Unaba	—	—	—	0.0	0.0	0.0	—	—	0.0
4	Darah	—	—	—	0.0	0.0	66.7	—	—	50.0
5	Hissa-I-Awal (Khinj)	—	—	—	100.0	100.0	0.0	—	—	50.0
6	Shutul	—	—	—	0.0	0.0	0.0	—	—	0.0
7	Paryan	—	—	—	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—Bazarak	—	—	—	—	—	—	—	—	0.00
2	Rukha	—	—	—	—	—	—	—	—	—
3	Unaba	—	—	—	—	—	—	—	—	—
4	Darah	—	—	—	-1.00	-1.00	1.00	—	—	0.00
5	Hissa-I-Awal (Khinj)	—	—	—	1.00	1.00	-1.00	—	—	0.00
6	Shutul	—	—	—	—	—	—	—	—	—
7	Paryan	—	—	—	—	—	—	—	—	—
	Total	**—**	**—**	**—**	**0.0**	**0.0**	**0.0**	**—**	**—**	**0.0**

Annex 6 (Cont'd)

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

Fruit

Panel A—Raw Data

District	Grapes	Pome-grenades	Melons/ W. Melons	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Bazarak	14	1	0	0	5	51	56	4	131
2 Rukha	7	2	3	0	4	41	41	0	98
3 Unaba	8	3	0	0	9	30	29	0	79
4 Darah	0	0	0	0	10	27	32	0	69
5 Hissa-I-Awal (Khinj)	3	0	0	0	3	9	13	2	30
6 Shutul	8	7	0	0	9	30	29	1	84
7 Paryan	0	0	0	0	0	0	2	1	3
Total	**40**	**13**	**3**	**0**	**40**	**188**	**202**	**8**	**494**

Panel B—Specialization

District	Grapes	Pome-grenades	Melons/ W. Melons	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Bazarak	10.7	0.8	0.0	0.0	3.8	38.9	42.7	3.1	100.0
2 Rukha	7.1	2.0	3.1	0.0	4.1	41.8	41.8	0.0	100.0
3 Unaba	10.1	3.8	0.0	0.0	11.4	38.0	36.7	0.0	100.0
4 Darah	0.0	0.0	0.0	0.0	14.5	39.1	46.4	0.0	100.0
5 Hissa-I-Awal (Khinj)	10.0	0.0	0.0	0.0	10.0	30.0	43.3	6.7	100.0
6 Shutul	9.5	8.3	0.0	0.0	10.7	35.7	34.5	1.2	100.0
7 Paryan	0.0	0.0	0.0	0.0	0.0	0.0	66.7	33.3	100.0
Total	**8.1**	**2.6**	**0.6**	**0.0**	**8.1**	**38.1**	**40.9**	**1.6**	**100.0**

Panel C—Concentration

District	Grapes	Pome-grenades	Melons/ W. Melons	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Bazarak	35.0	7.7	0.0	—	12.5	27.1	27.7	50.0	26.5
2 Rukha	17.5	15.4	100.0	—	10.0	21.8	20.3	0.0	19.8
3 Unaba	20.0	23.1	0.0	—	22.5	16.0	14.4	0.0	16.0
4 Darah	0.0	0.0	0.0	—	25.0	14.4	15.8	0.0	14.0
5 Hissa-I-Awal (Khinj)	7.5	0.0	0.0	—	7.5	4.8	6.4	25.0	6.1
6 Shutul	20.0	53.8	0.0	—	22.5	16.0	14.4	12.5	17.0
7 Paryan	0.0	0.0	0.0	—	0.0	0.0	1.0	12.5	0.6
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	Melons/ W. Melons	Oranges	Almonds	Walnuts	Mul-berries	Other	Total
1 Provincial Center—Bazarak	0.32	-0.71	-1.00	—	-0.53	0.02	0.05	0.89	0.00
2 Rukha	-0.12	-0.22	4.04	—	-0.50	0.10	0.02	-1.00	0.00
3 Unaba	0.25	0.44	-1.00	—	0.41	0.00	-0.10	-1.00	0.00
4 Darah	-1.00	-1.00	-1.00	—	0.79	0.03	0.13	-1.00	0.00
5 Hissa-I-Awal (Khinj)	0.24	-1.00	-1.00	—	0.24	-0.21	0.06	3.12	0.00
6 Shutul	0.18	2.17	-1.00	—	0.32	-0.06	-0.16	-0.26	0.00
7 Paryan	-1.00	-1.00	-1.00	—	-1.00	-1.00	0.63	19.58	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, Panjsher, 2003

Vegetables

Panel A—Raw Data

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Bazarak	10	5	3	1	1	1	1	0	22
2 Rukha	7	7	7	2	0	1	3	0	27
3 Unaba	8	6	4	0	0	0	0	0	18
4 Darah	28	4	0	11	0	0	0	0	43
5 Hissa-I-Awal (Khinj)	13	1	2	3	0	1	3	0	23
6 Shutul	4	4	0	0	0	0	0	0	8
7 Paryan	14	0	0	1	0	0	0	0	15
Total	**84**	**27**	**16**	**18**	**1**	**3**	**7**	**0**	**156**

Panel B—Specialization

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Bazarak	45.5	22.7	13.6	4.5	4.5	4.5	4.5	0.0	100.0
2 Rukha	25.9	25.9	25.9	7.4	0.0	3.7	11.1	0.0	100.0
3 Unaba	44.4	33.3	22.2	0.0	0.0	0.0	0.0	0.0	100.0
4 Darah	65.1	9.3	0.0	25.6	0.0	0.0	0.0	0.0	100.0
5 Hissa-I-Awal (Khinj)	56.5	4.3	8.7	13.0	0.0	4.3	13.0	0.0	100.0
6 Shutul	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
7 Paryan	93.3	0.0	0.0	6.7	0.0	0.0	0.0	0.0	100.0
Total	**53.8**	**17.3**	**10.3**	**11.5**	**0.6**	**1.9**	**4.5**	**0.0**	**100.0**

Panel C—Concentration

District	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Bazarak	11.9	18.5	18.8	5.6	100.0	33.3	14.3	—	14.1
2 Rukha	8.3	25.9	43.8	11.1	0.0	33.3	42.9	—	17.3
3 Unaba	9.5	22.2	25.0	0.0	0.0	0.0	0.0	—	11.5
4 Darah	33.3	14.8	0.0	61.1	0.0	0.0	0.0	—	27.6
5 Hissa-I-Awal (Khinj)	15.5	3.7	12.5	16.7	0.0	33.3	42.9	—	14.7
6 Shutul	4.8	14.8	0.0	0.0	0.0	0.0	0.0	—	5.1
7 Paryan	16.7	0.0	0.0	5.6	0.0	0.0	0.0	—	9.6
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	Potatoes	Onion	Tomatoes	Carrots	Cauli-flower	Spinach	Leek	Other	Total
1 Provincial Center—Bazarak	-0.16	0.31	0.33	-0.61	6.09	1.36	0.01	—	0.00
2 Rukha	-0.52	0.50	1.53	-0.36	-1.00	0.93	1.48	—	0.00
3 Unaba	-0.17	0.93	1.17	-1.00	-1.00	-1.00	-1.00	—	0.00
4 Darah	0.21	-0.46	-1.00	1.22	-1.00	-1.00	-1.00	—	0.00
5 Hissa-I-Awal (Khinj)	0.05	-0.75	-0.15	0.13	-1.00	1.26	1.91	—	0.00
6 Shutul	-0.07	1.89	-1.00	-1.00	-1.00	-1.00	-1.00	—	0.00
7 Paryan	0.73	-1.00	-1.00	-0.42	-1.00	-1.00	-1.00	—	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**—**	**0.0**

Annex 6 (Cont'd)

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

Herbal Products

Panel A—Raw Data

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Bazarak	0	2	0	2	0	0	11	0	15
2 Rukha	0	0	0	0	0	0	3	0	3
3 Unaba	0	0	0	0	0	0	0	0	0
4 Darah	1	0	0	9	0	2	7	0	19
5 Hissa-I-Awal (Khinj)	0	2	0	6	1	2	6	0	17
6 Shutul	0	0	0	0	0	1	0	0	1
7 Paryan	0	0	0	8	0	0	2	0	10
Total	**1**	**4**	**0**	**25**	**1**	**5**	**29**	**0**	**65**

Panel B—Specialization

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Bazarak	0.0	13.3	0.0	13.3	0.0	0.0	73.3	0.0	100.0
2 Rukha	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0
3 Unaba	—	—	—	—	—	—	—	—	—
4 Darah	5.3	0.0	0.0	47.4	0.0	10.5	36.8	0.0	100.0
5 Hissa-I-Awal (Khinj)	0.0	11.8	0.0	35.3	5.9	11.8	35.3	0.0	100.0
6 Shutul	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0
7 Paryan	0.0	0.0	0.0	80.0	0.0	0.0	20.0	0.0	100.0
Total	**1.5**	**6.2**	**0.0**	**38.5**	**1.5**	**7.7**	**44.6**	**0.0**	**100.0**

Panel C—Concentration

District	Licorice	Caray	Asfitida	Zerk	Aniseed	Hyssop	Chicory	Other	Total
1 Provincial Center—Bazarak	0.0	50.0	—	8.0	0.0	0.0	37.9	—	23.1
2 Rukha	0.0	0.0	—	0.0	0.0	0.0	10.3	—	4.6
3 Unaba	0.0	0.0	—	0.0	0.0	0.0	0.0	—	0.0
4 Darah	100.0	0.0	—	36.0	0.0	40.0	24.1	—	29.2
5 Hissa-I-Awal (Khinj)	0.0	50.0	—	24.0	100.0	40.0	20.7	—	26.2
6 Shutul	0.0	0.0	—	0.0	0.0	20.0	0.0	—	1.5
7 Paryan	0.0	0.0	—	32.0	0.0	0.0	6.9	—	15.4
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—Bazarak	-1.00	1.17	—	-0.65	-1.00	-1.00	0.64	—	0.00
2 Rukha	-1.00	-1.00	—	-1.00	-1.00	-1.00	1.24	—	0.00
3 Unaba	—	—	—	—	—	—	—	—	—
4 Darah	2.42	-1.00	—	0.23	-1.00	0.37	-0.17	—	0.00
5 Hissa-I-Awal (Khinj)	-1.00	0.91	—	-0.08	2.82	0.53	-0.21	—	0.00
6 Shutul	-1.00	-1.00	—	-1.00	-1.00	12.00	-1.00	—	0.00
7 Paryan	-1.00	-1.00	—	1.08	-1.00	-1.00	-0.55	—	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, Panjsher, 2003

Handicrafts

Panel A—Raw Data

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 Provincial Center—Bazarak	0	0	0	0	0	0	0	0	0
2 Rukha	0	0	0	0	0	0	0	0	0
3 Unaba	0	0	0	0	0	0	0	0	0
4 Darah	1	7	0	0	0	3	0	0	11
5 Hissa-I-Awal (Khinj)	0	6	0	0	0	1	0	0	7
6 Shutul	0	4	0	0	0	0	0	0	4
7 Paryan	0	16	0	0	0	2	2	0	20
Total	**1**	**33**	**0**	**0**	**0**	**6**	**2**	**0**	**42**

Panel B—Specialization

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 District	—	—	—	—	—	—	—	—	—
2 Rukha	—	—	—	—	—	—	—	—	—
3 Unaba	—	—	—	—	—	—	—	—	—
4 Darah	9.1	63.6	0.0	0.0	0.0	27.3	0.0	0.0	100.0
5 Hissa-I-Awal (Khinj)	0.0	85.7	0.0	0.0	0.0	14.3	0.0	0.0	100.0
6 Shutul	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
7 Paryan	0.0	80.0	0.0	0.0	0.0	10.0	10.0	0.0	100.0
Total	**2.4**	**78.6**	**0.0**	**0.0**	**0.0**	**14.3**	**4.8**	**0.0**	**100.0**

Panel C—Concentration

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 Provincial Center—Bazarak	0.0	0.0	—	—	—	0.0	0.0	—	0.0
2 Rukha	0.0	0.0	—	—	—	0.0	0.0	—	0.0
3 Unaba	0.0	0.0	—	—	—	0.0	0.0	—	0.0
4 Darah	100.0	21.2	—	—	—	50.0	0.0	—	26.2
5 Hissa-I-Awal (Khinj)	0.0	18.2	—	—	—	16.7	0.0	—	16.7
6 Shutul	0.0	12.1	—	—	—	0.0	0.0	—	9.5
7 Paryan	0.0	48.5	—	—	—	33.3	100.0	—	47.6
Total	**100.0**	**100.0**	**—**	**—**	**—**	**100.0**	**100.0**	**—**	**100.0**

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

District	Carpets	Rugs	Em-broidery	Pottery	Pelisse	Jewelry	Shawl making	Other	Total
1 Provincial Center—Bazarak	2.82	0.70	—	0.11	2.82	0.56	0.10	—	—
2 Rukha	14.08	3.52	—	0.56	14.08	2.82	0.49	—	—
3 Unaba	—	—	—	—	—	—	—	—	—
4 Darah	2.22	0.56	—	0.09	2.22	0.44	0.08	—	—
5 Hissa-I-Awal (Khinj)	2.49	0.62	—	0.10	2.49	0.50	0.09	—	—
6 Shutul	42.25	10.56	—	1.69	42.25	8.45	1.46	—	—
7 Paryan	4.23	1.06	—	0.17	4.23	0.85	0.15	—	—
Total	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**

Annex 6 (Cont'd)

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

Small Industries

Panel A—Raw Data

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweets	Other	Total
1 Provincial Center—Bazarak	1	2	1	0	0	0	0	0	4
2 Rukha	0	0	0	0	0	0	0	0	0
3 Unaba	1	1	1	1	1	1	0	0	6
4 Darah	0	0	0	0	0	0	0	0	0
5 Hissa-I-Awal (Khinj)	0	0	0	0	0	0	0	0	0
6 Shutul	1	0	0	0	0	0	0	0	1
7 Paryan	0	1	0	0	0	0	0	0	1
Total	**3**	**4**	**2**	**1**	**1**	**1**	**0**	**0**	**12**

Panel B—Specialization

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweets	Other	Total
1 Provincial Center—Bazarak	25.0	50.0	25.0	0.0	0.0	0.0	0.0	0.0	100.0
2 Rukha	—	—	—	—	—	—	—	—	—
3 Unaba	16.7	16.7	16.7	16.7	16.7	16.7	0.0	0.0	100.0
4 Darah	—	—	—	—	—	—	—	—	—
5 Hissa-I-Awal (Khinj)	—	—	—	—	—	—	—	—	—
6 Shutul	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
7 Paryan	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Total	**25.0**	**33.3**	**16.7**	**8.3**	**8.3**	**8.3**	**0.0**	**0.0**	**100.0**

Panel C—Concentration

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweets	Other	Total
1 Provincial Center—Bazarak	33.3	50.0	50.0	0.0	0.0	0.0	—	—	33.3
2 Rukha	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0
3 Unaba	33.3	25.0	50.0	100.0	100.0	100.0	—	—	50.0
4 Darah	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0
5 Hissa-I-Awal (Khinj)	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0
6 Shutul	33.3	0.0	0.0	0.0	0.0	0.0	—	—	8.3
7 Paryan	0.0	25.0	0.0	0.0	0.0	0.0	—	—	8.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**—**	**—**	**100.0**

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

District	Honey	Silk	Karakul skin	Dried sugar	Con-fection	Sugar candy	Sugar sweets	Other	Total
1 Provincial Center—Bazarak	0.00	0.50	0.50	-1.00	-1.00	-1.00	—	—	0.00
2 Rukha	—	—	—	—	—	—	—	—	—
3 Unaba	-0.33	-0.50	0.00	1.00	1.00	1.00	—	—	0.00
4 Darah	—	—	—	—	—	—	—	—	—
5 Hissa-I-Awal (Khinj)	—	—	—	—	—	—	—	—	—
6 Shutul	3.00	-1.00	-1.00	-1.00	-1.00	-1.00	—	—	0.00
7 Paryan	-1.00	2.00	-1.00	-1.00	-1.00	-1.00	—	—	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**—**	**—**	**0.0**

Annex 6 (Cont'd)

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

Animal Products

Panel A—Raw Data

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Bazarak	47	52	49	40	19	43	1	1	252
2 Rukha	42	45	46	29	14	43	1	0	220
3 Unaba	24	27	28	22	18	28	11	0	158
4 Darah	47	38	32	31	44	31	16	0	239
5 Hissa-I-Awal (Khinj)	30	17	12	15	38	12	8	0	132
6 Shutul	31	32	29	28	27	30	10	0	187
7 Paryan	19	16	12	11	20	13	8	0	99
Total	**240**	**227**	**208**	**176**	**180**	**200**	**55**	**1**	**1,287**

Panel B—Specialization

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Bazarak	18.7	20.6	19.4	15.9	7.5	17.1	0.4	0.4	100.0
2 Rukha	19.1	20.5	20.9	13.2	6.4	19.5	0.5	0.0	100.0
3 Unaba	15.2	17.1	17.7	13.9	11.4	17.7	7.0	0.0	100.0
4 Darah	19.7	15.9	13.4	13.0	18.4	13.0	6.7	0.0	100.0
5 Hissa-I-Awal (Khinj)	22.7	12.9	9.1	11.4	28.8	9.1	6.1	0.0	100.0
6 Shutul	16.6	17.1	15.5	15.0	14.4	16.0	5.3	0.0	100.0
7 Paryan	19.2	16.2	12.1	11.1	20.2	13.1	8.1	0.0	100.0
Total	**18.6**	**17.6**	**16.2**	**13.7**	**14.0**	**15.5**	**4.3**	**0.1**	**100.0**

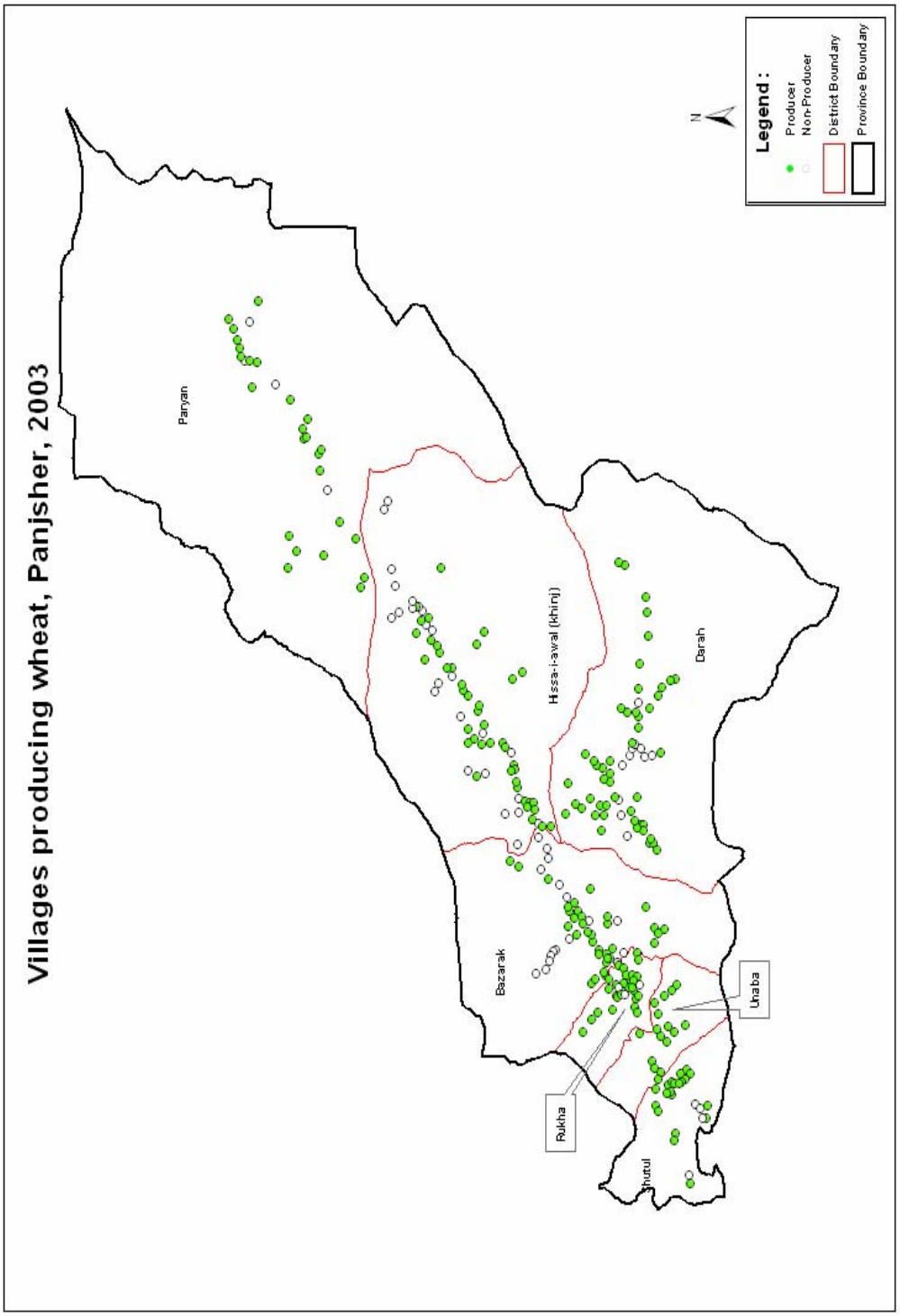
Panel C—Concentration

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Bazarak	19.6	22.9	23.6	22.7	10.6	21.5	1.8	100.0	19.6
2 Rukha	17.5	19.8	22.1	16.5	7.8	21.5	1.8	0.0	17.1
3 Unaba	10.0	11.9	13.5	12.5	10.0	14.0	20.0	0.0	12.3
4 Darah	19.6	16.7	15.4	17.6	24.4	15.5	29.1	0.0	18.6
5 Hissa-I-Awal (Khinj)	12.5	7.5	5.8	8.5	21.1	6.0	14.5	0.0	10.3
6 Shutul	12.9	14.1	13.9	15.9	15.0	15.0	18.2	0.0	14.5
7 Paryan	7.9	7.0	5.8	6.3	11.1	6.5	14.5	0.0	7.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

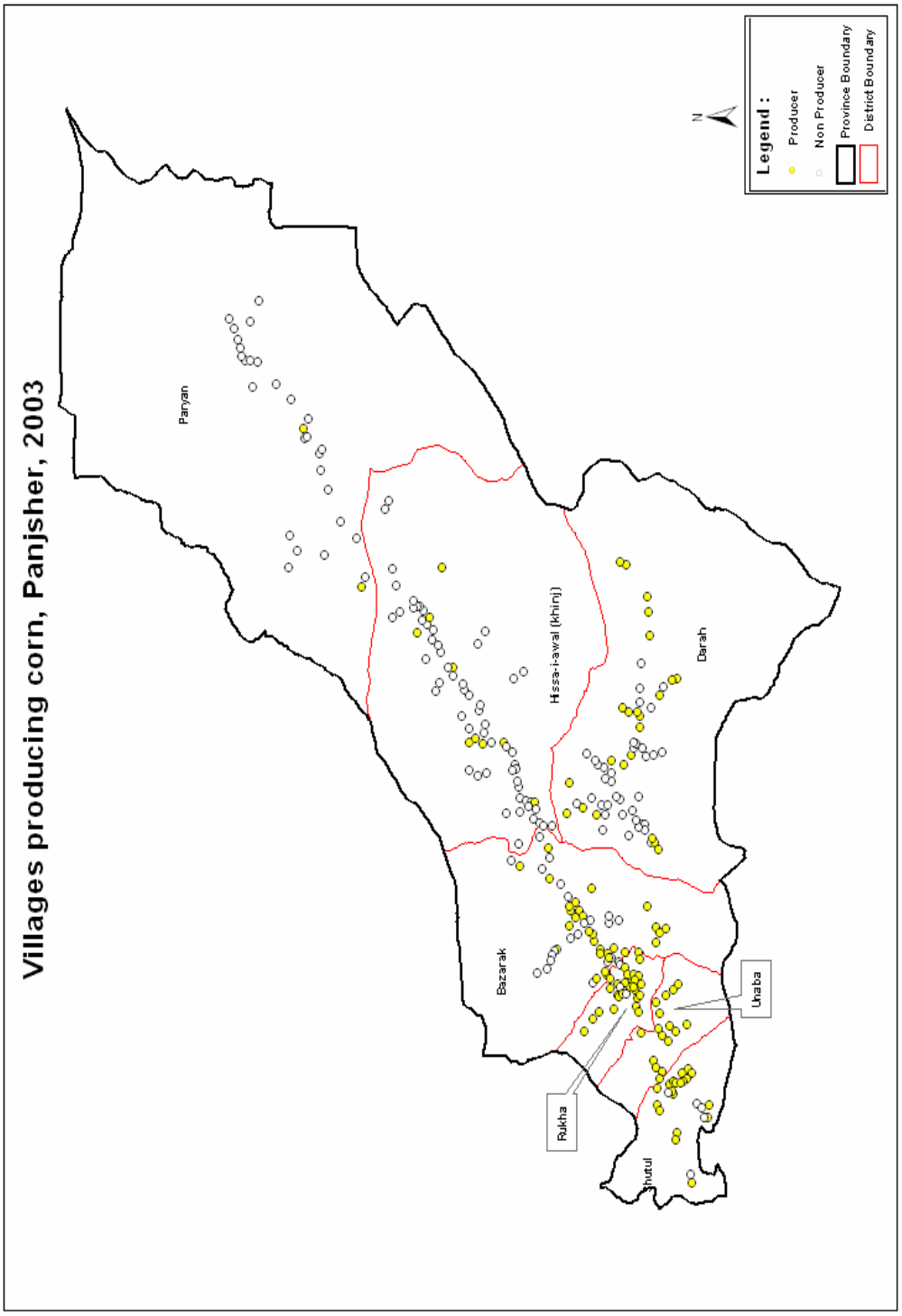
Panel G—Deviation of actual from expected as a ratio to expected

District	Eggs	Milk	Yogurt	Whey	Dried Yogurt	Butter	Wool	Other	Total
1 Provincial Center—Bazarak	0.00	0.17	0.20	0.16	-0.46	0.10	-0.91	4.11	0.00
2 Rukha	0.02	0.16	0.29	-0.04	-0.55	0.26	-0.89	-1.00	0.00
3 Unaba	-0.19	-0.03	0.10	0.02	-0.19	0.14	0.63	-1.00	0.00
4 Darah	0.05	-0.10	-0.17	-0.05	0.32	-0.17	0.57	-1.00	0.00
5 Hissa-I-Awal (Khinj)	0.22	-0.27	-0.44	-0.17	1.06	-0.42	0.42	-1.00	0.00
6 Shutul	-0.11	-0.03	-0.04	0.09	0.03	0.03	0.25	-1.00	0.00
7 Paryan	0.03	-0.08	-0.25	-0.19	0.44	-0.16	0.89	-1.00	0.00
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

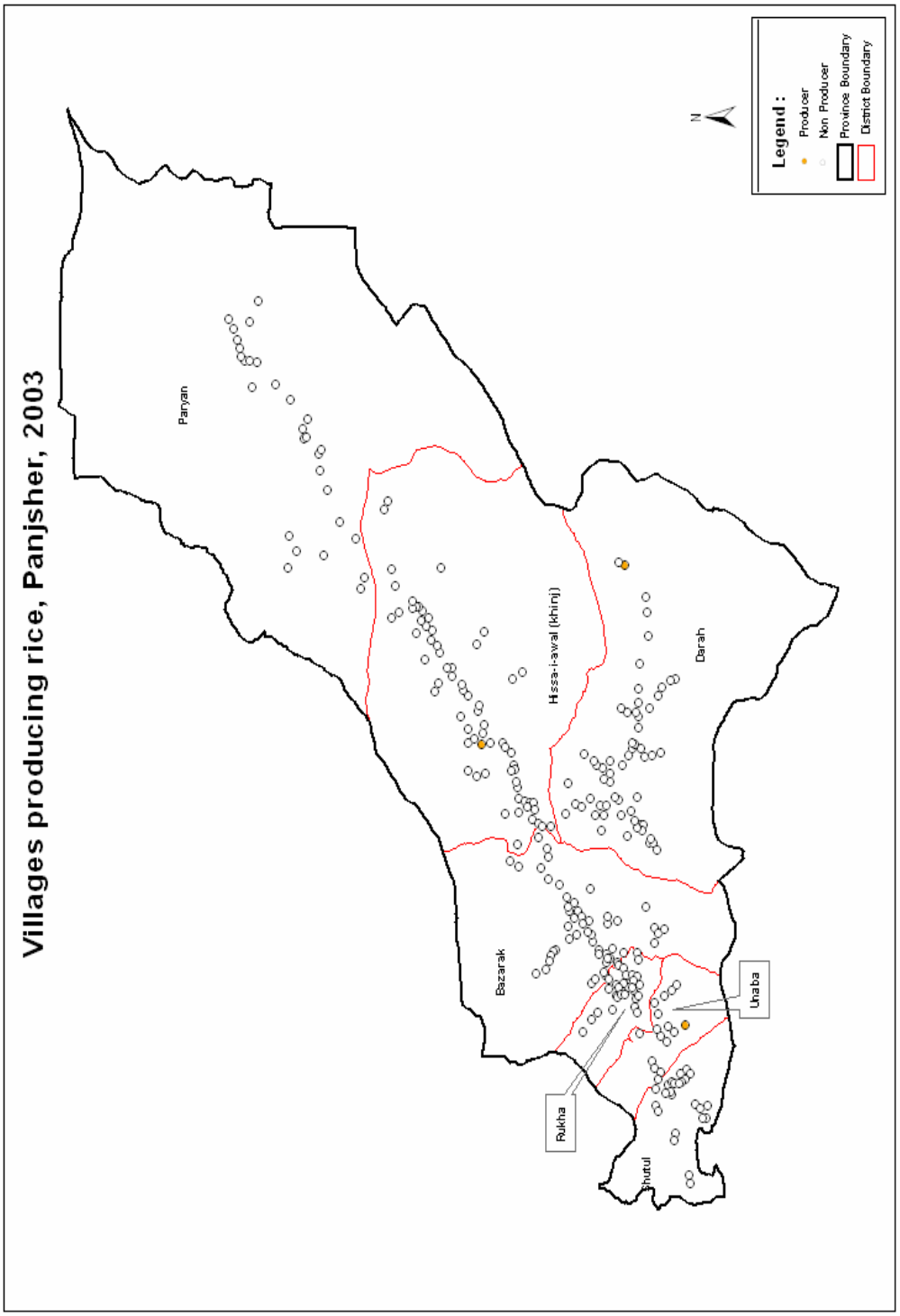
Annex 7


Villages producing wheat, Panjsher, 2003
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Shutul

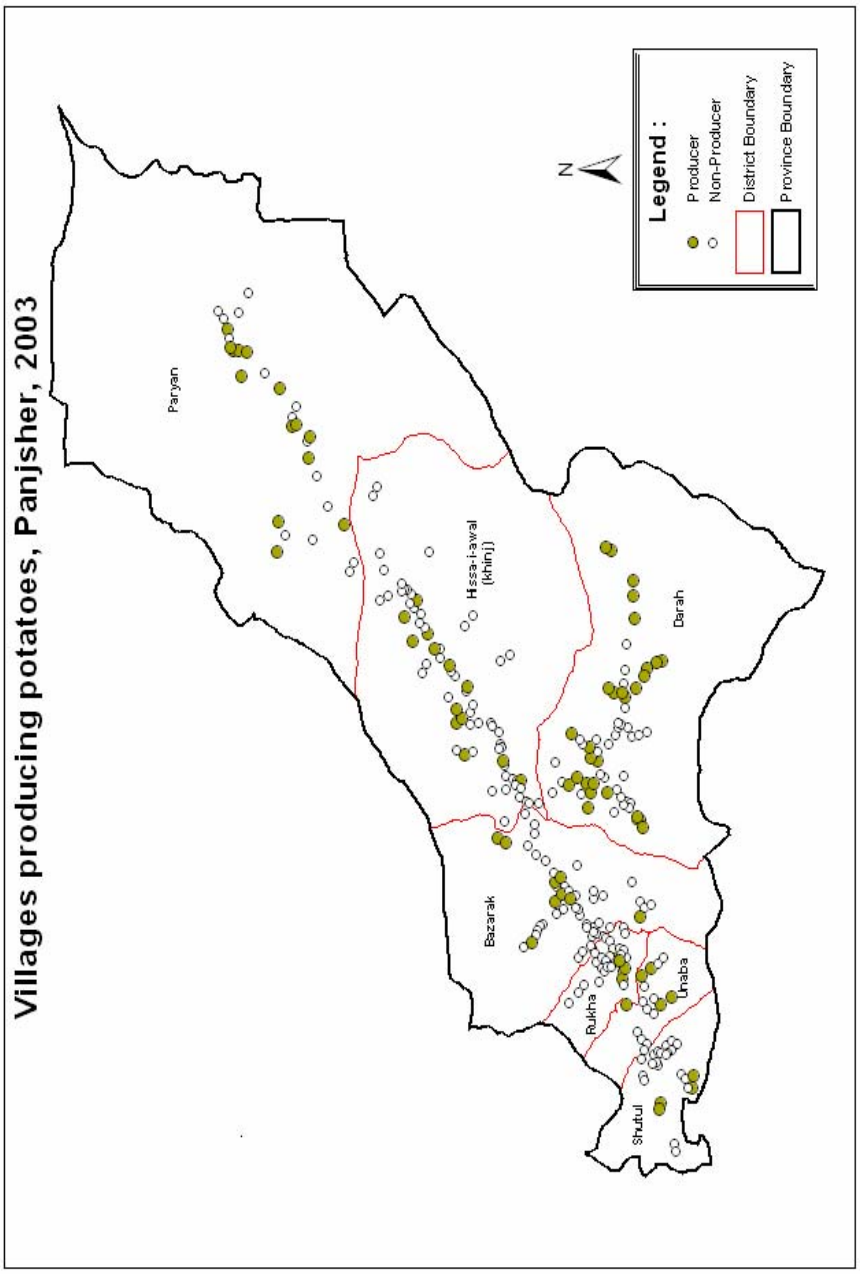
Annex 8


Villages producing corn, Panjsher, 2003
Legend :
Producer
Non Producer
Province Boundary
District Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Jhutul

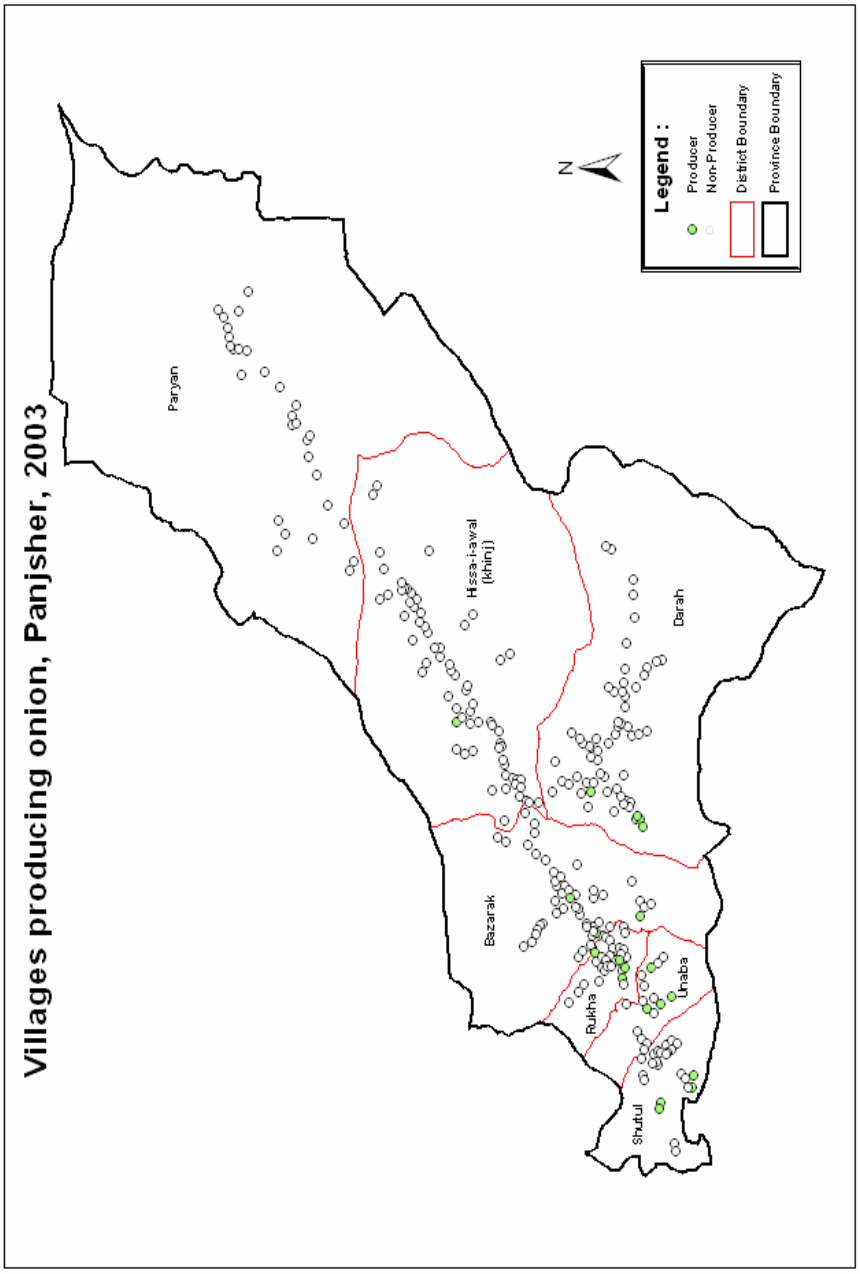
Annex 9


Villages producing rice, Panjsher, 2003
Legend :
Producer
Non Producer
Province Boundary
District Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Unaba
Rukha
Shutul

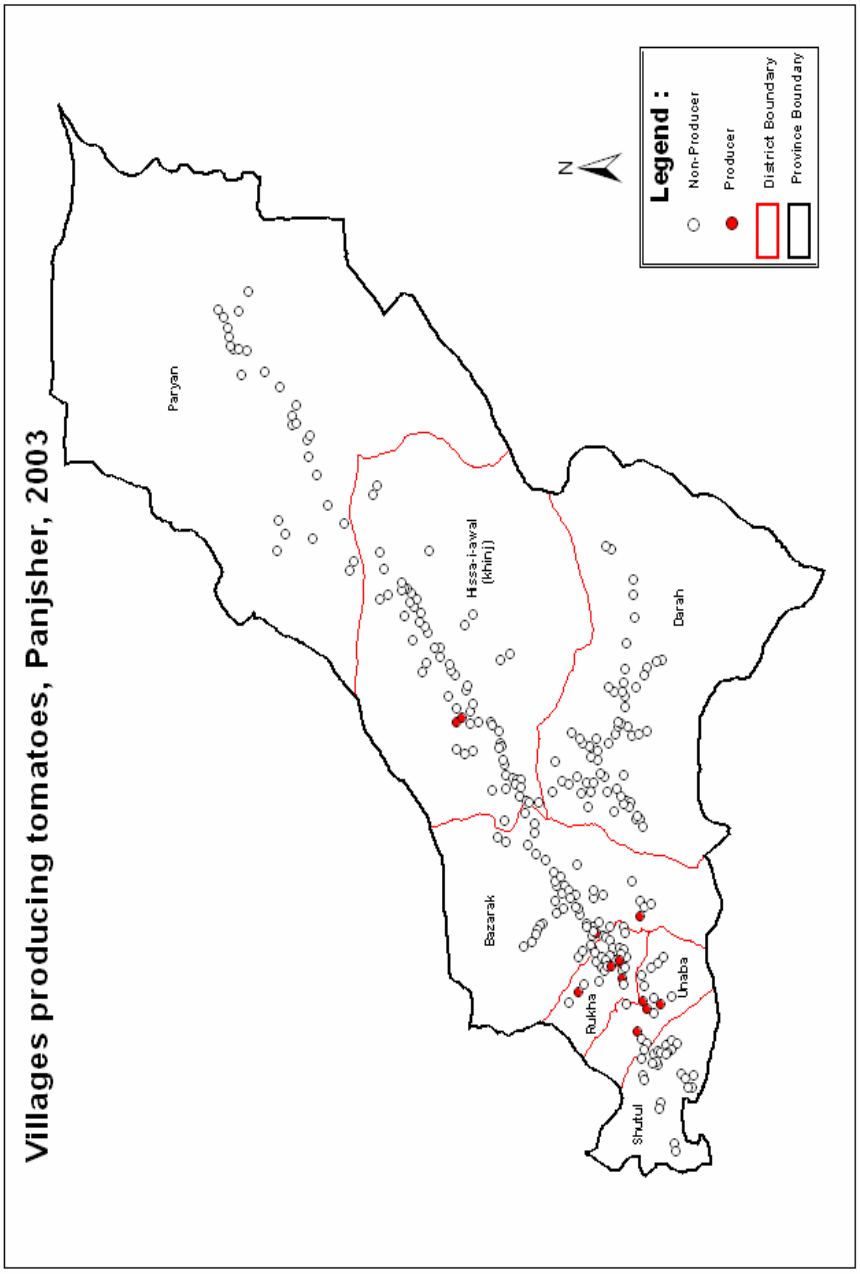
Annex 10


Villages producing potatoes, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (Khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

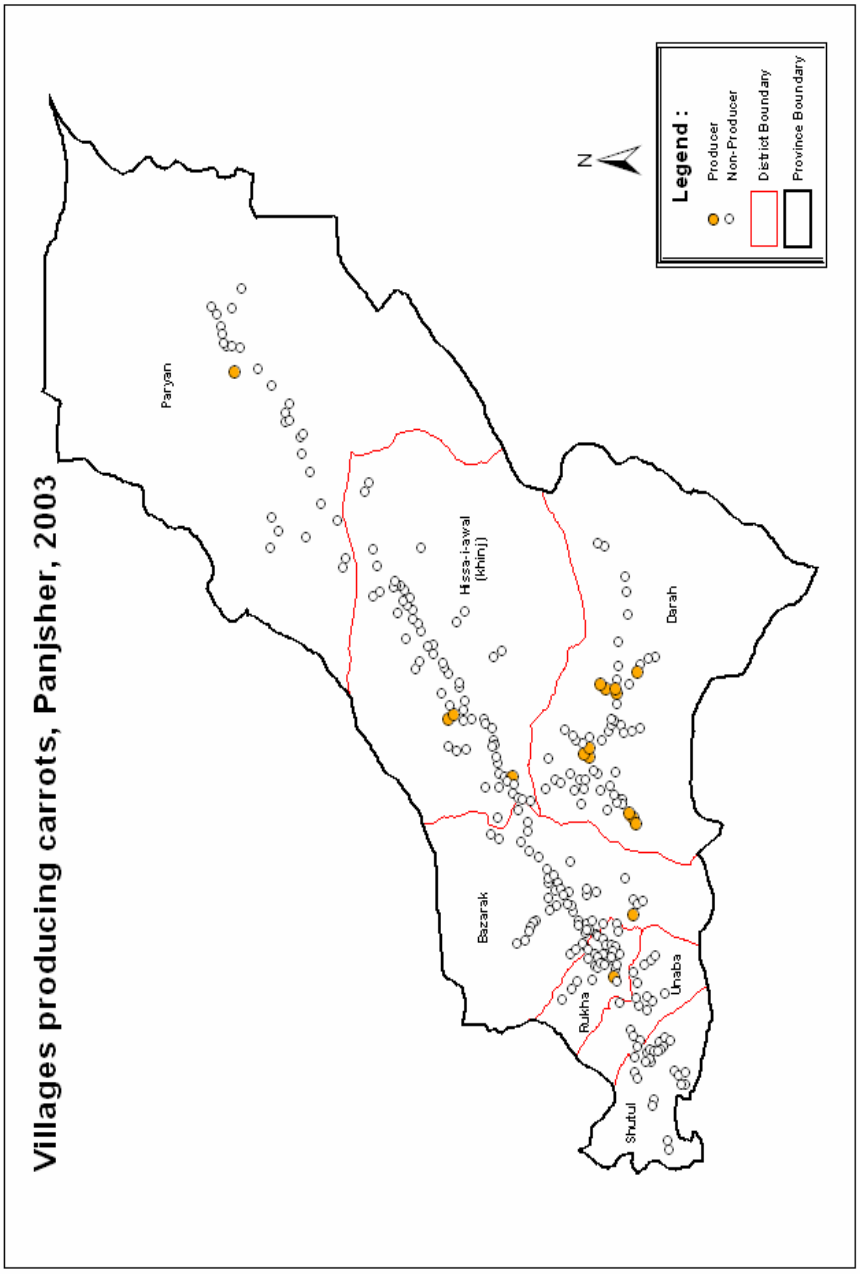
Annex 11


Villages producing onion, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (Khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

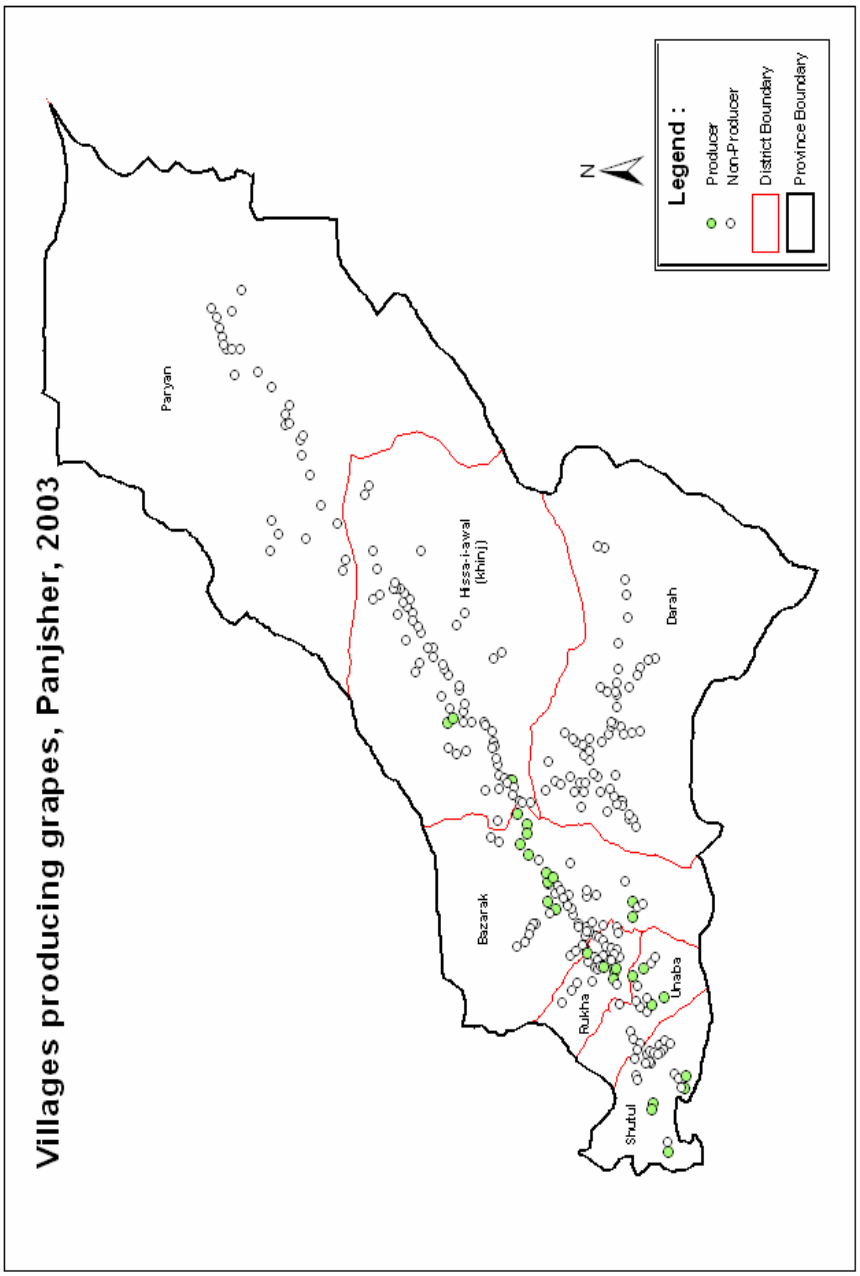
Annex 12


Villages producing tomatoes, Panjsher, 2003
Legend :
Non-Producer
Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (Khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

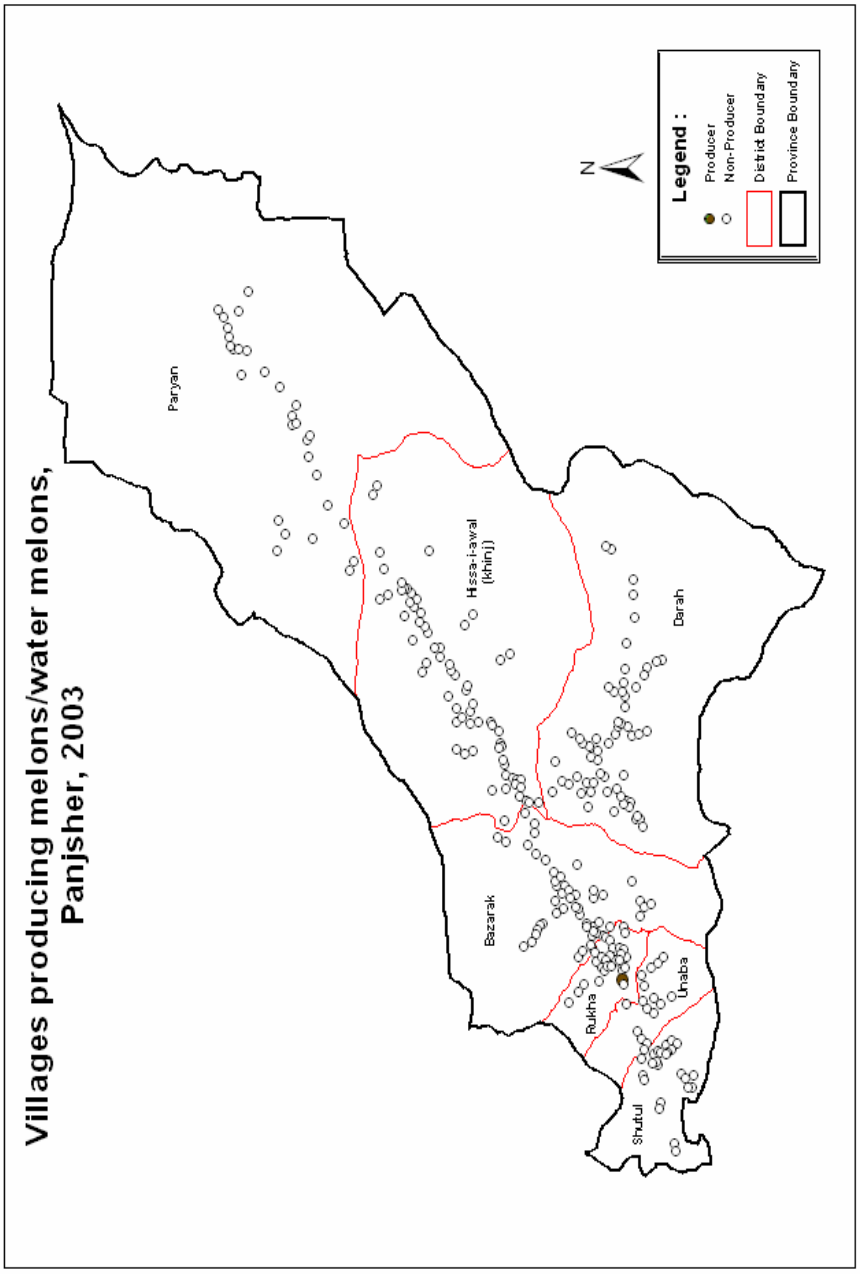
Annex 13


Villages producing carrots, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

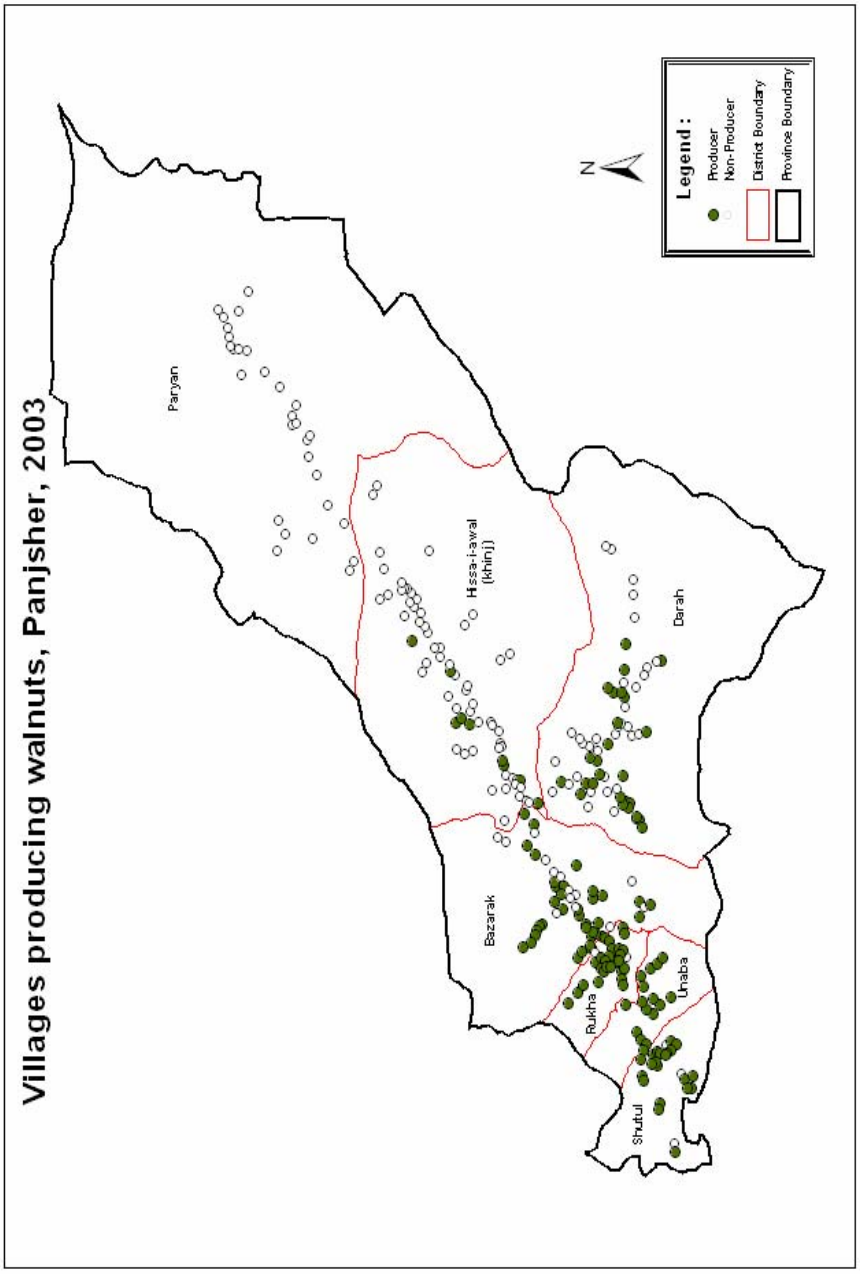
Annex 14


Villages producing grapes, Panjsher, 2003
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

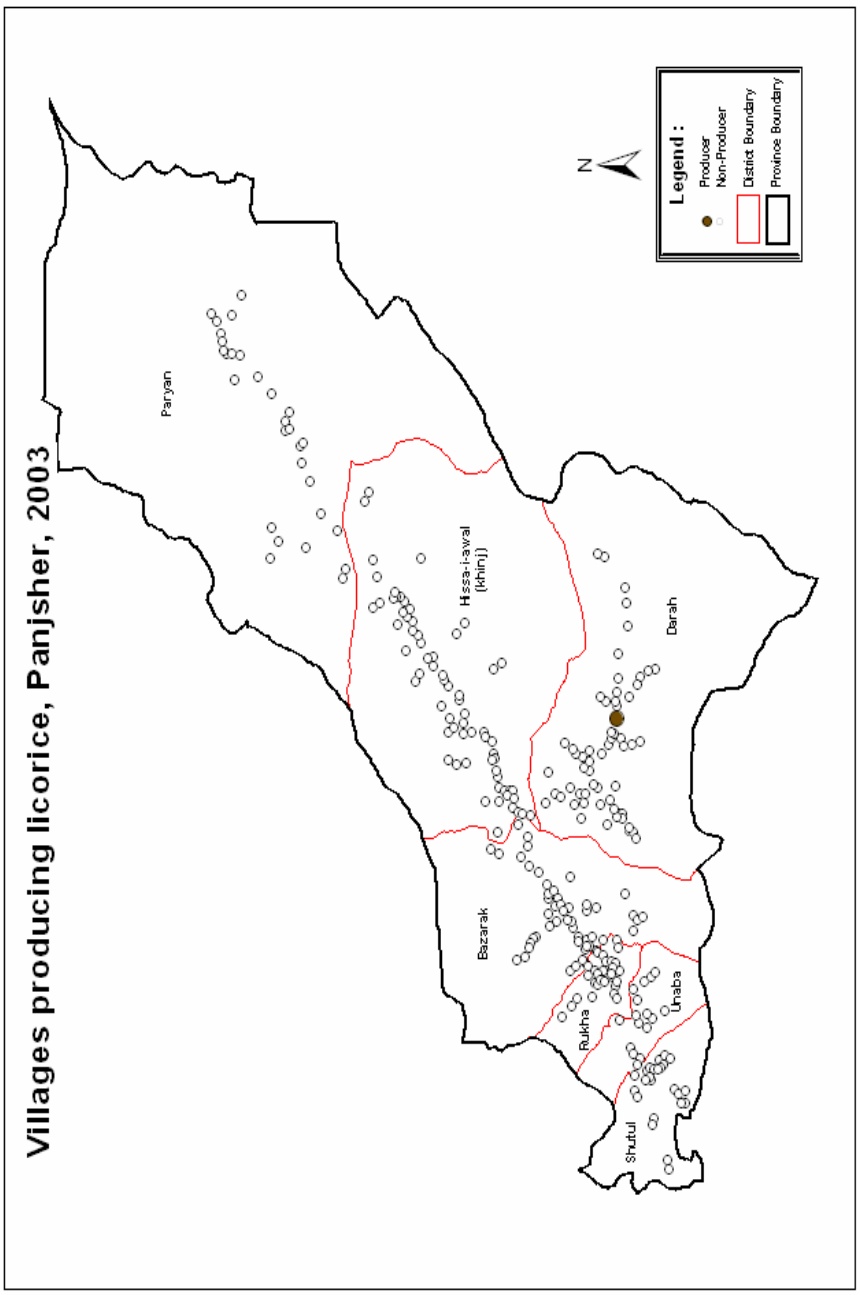
Annex 15


Villages producing melons/water melons, Panjsher, 2003
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (Khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

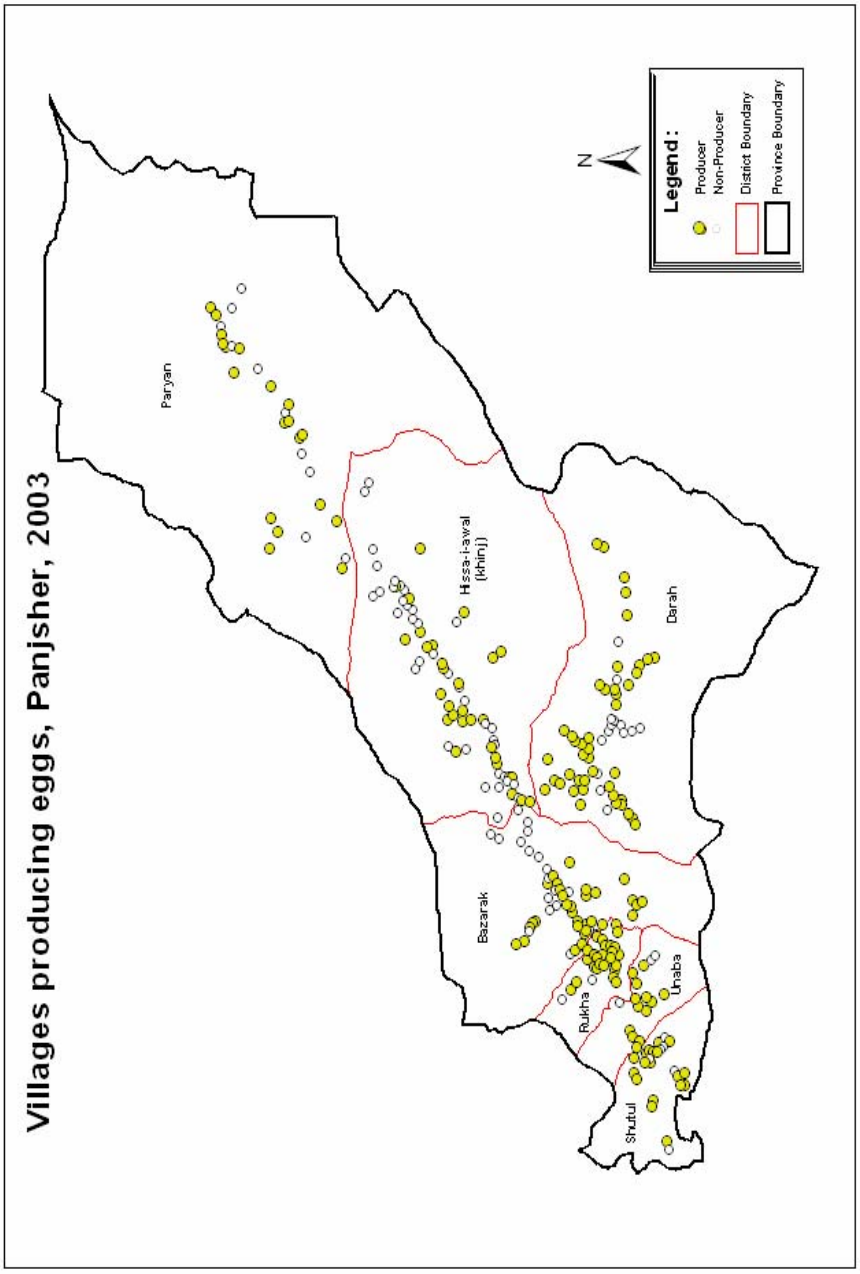
Annex 16


Villages producing walnuts, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (Khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

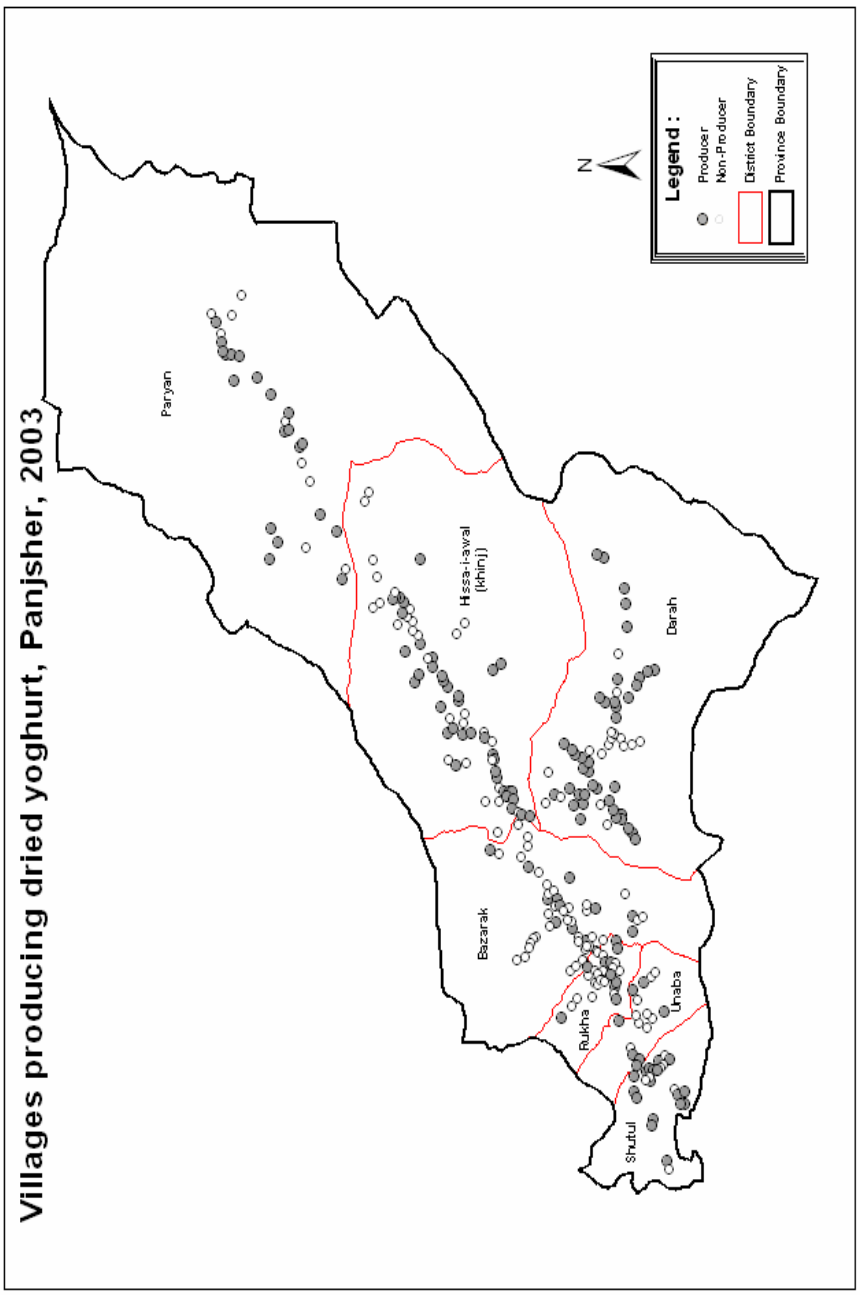
Annex 17


Villages producing licorice, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

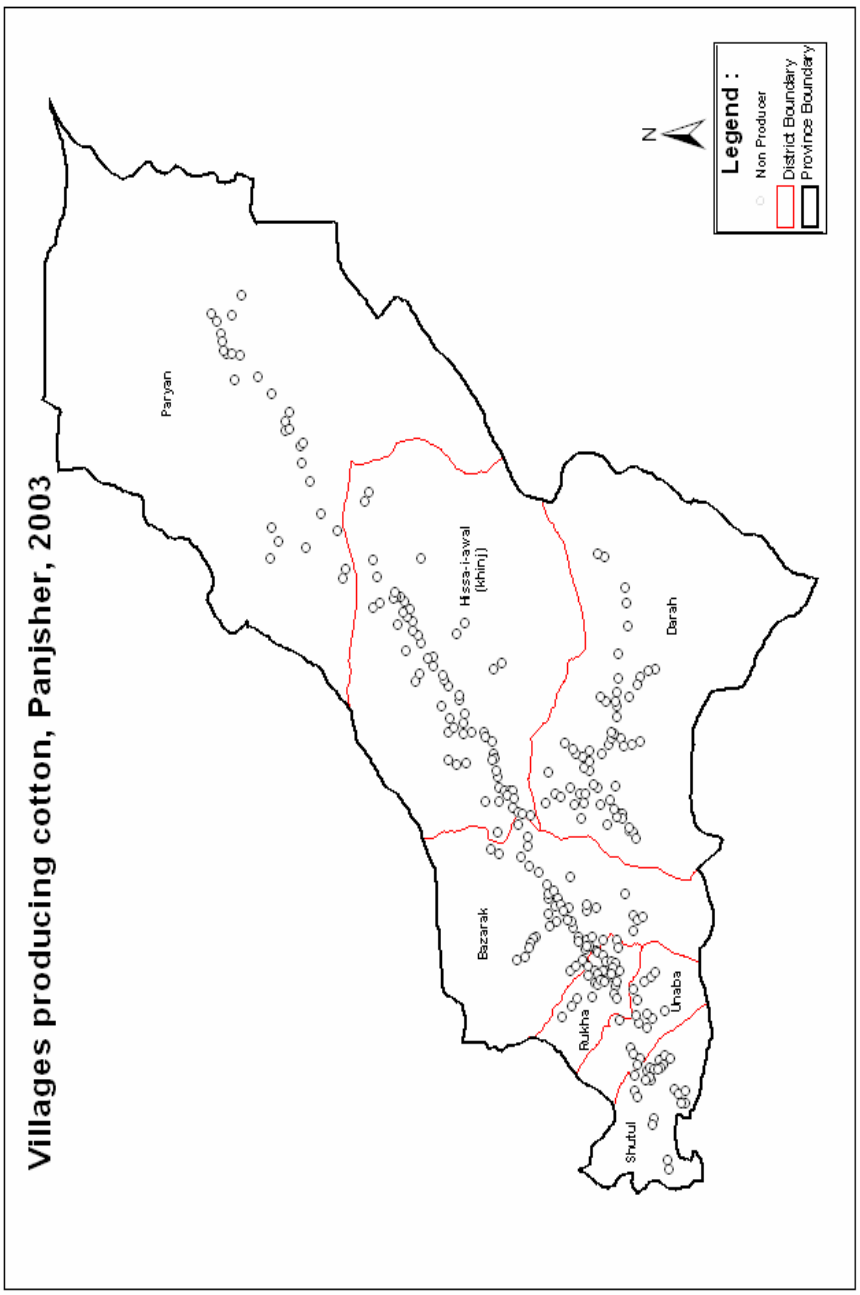
Annex 18


Villages producing eggs, Panjsher, 2003
N
Legend:
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

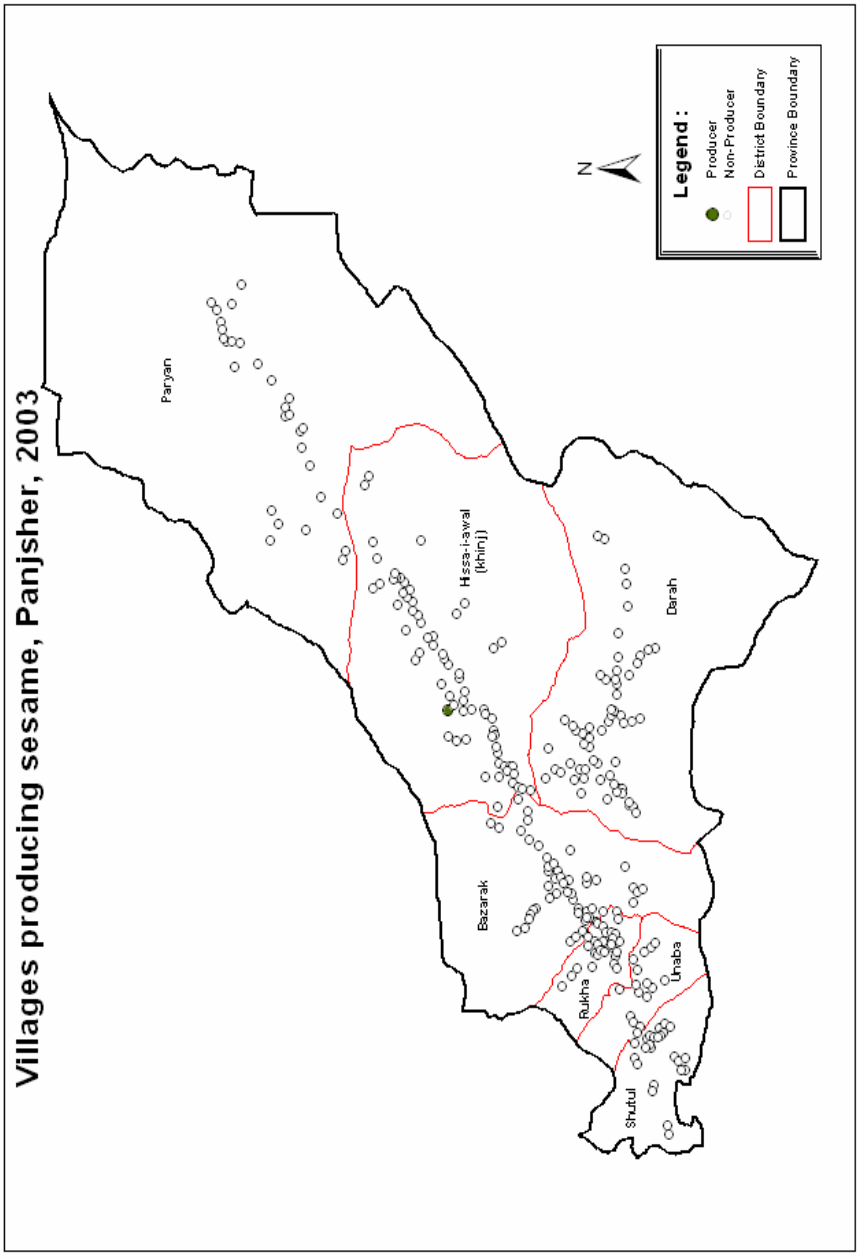
Annex 19


Villages producing dried yoghurt, Panjsher, 2003
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

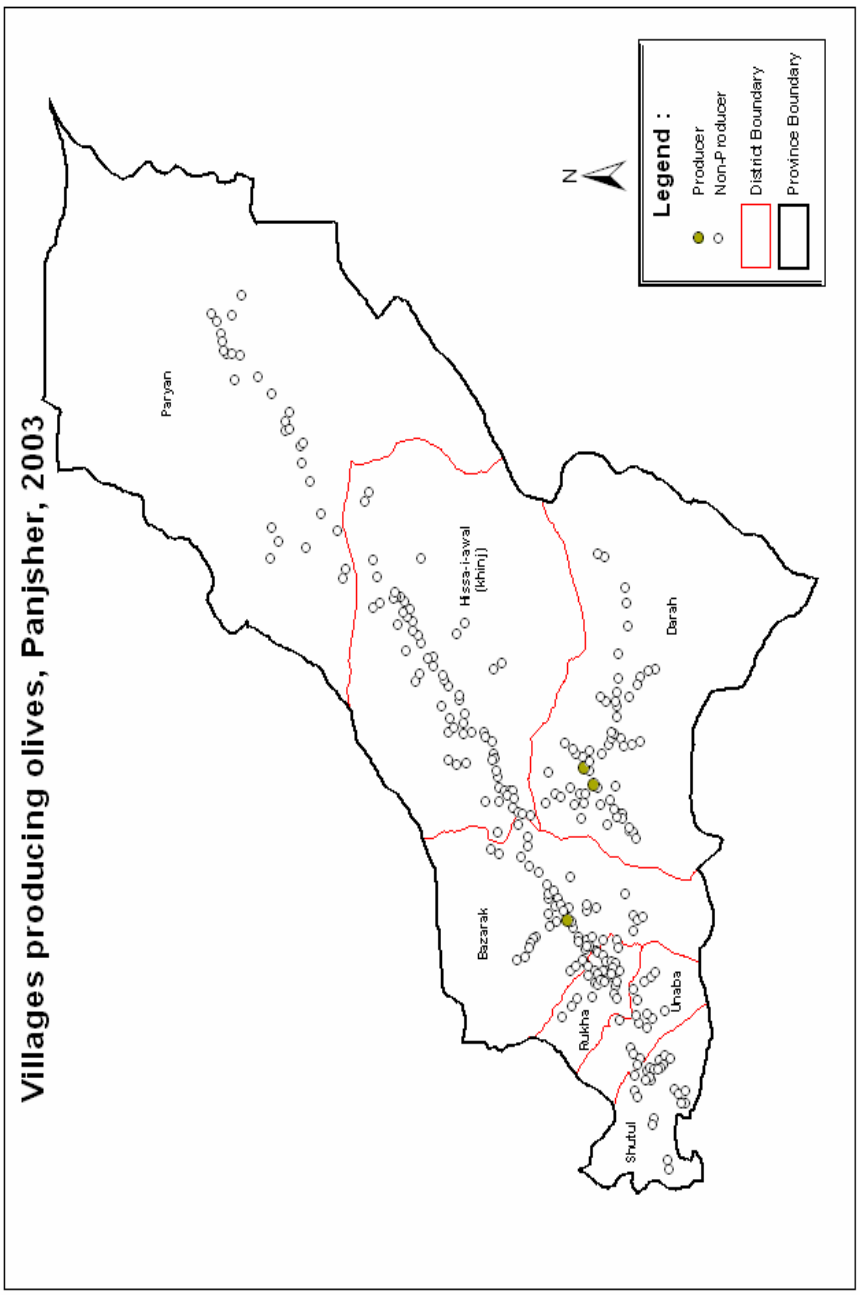
Annex 20


Villages producing cotton, Panjsher, 2003
Legend :
Non Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

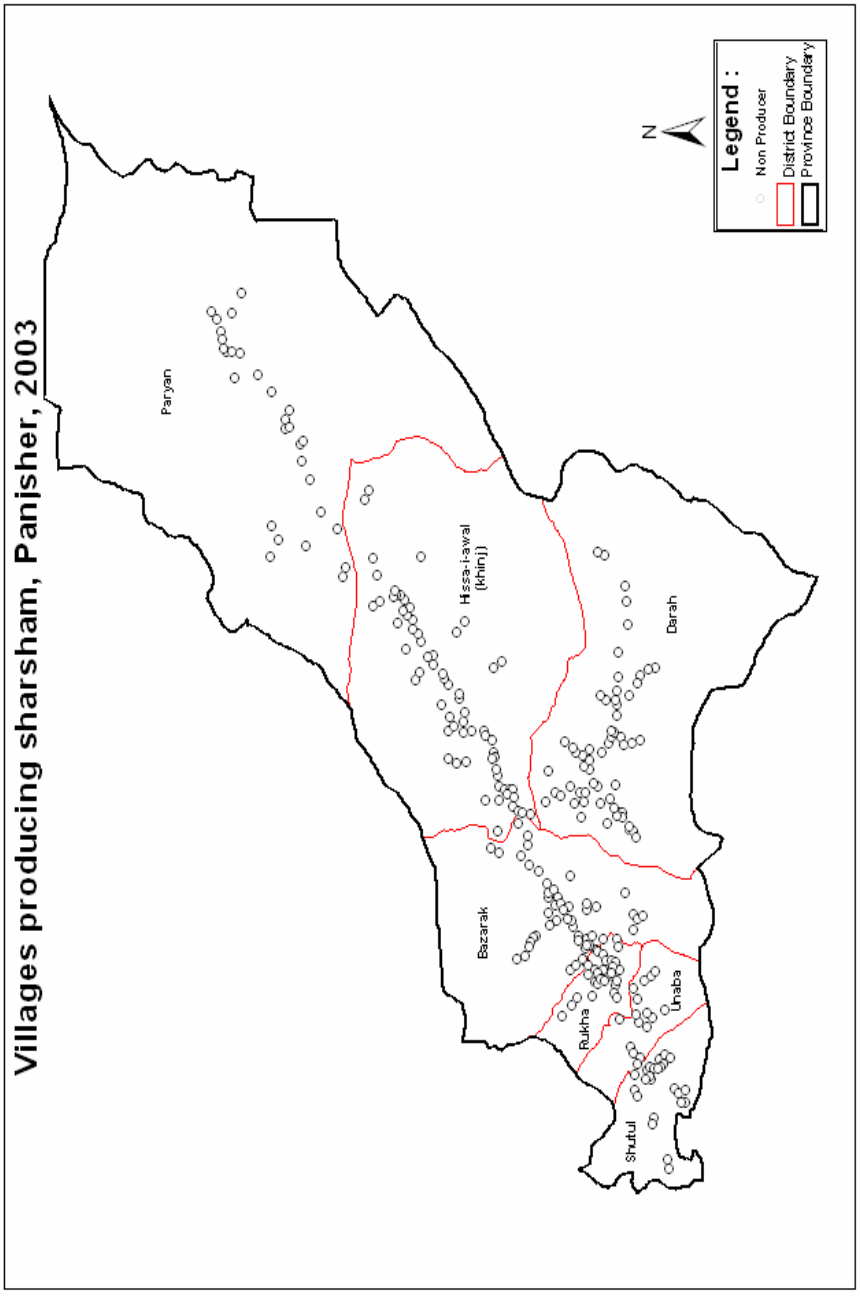
Annex 21


Villages producing sesame, Panjsher, 2003
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

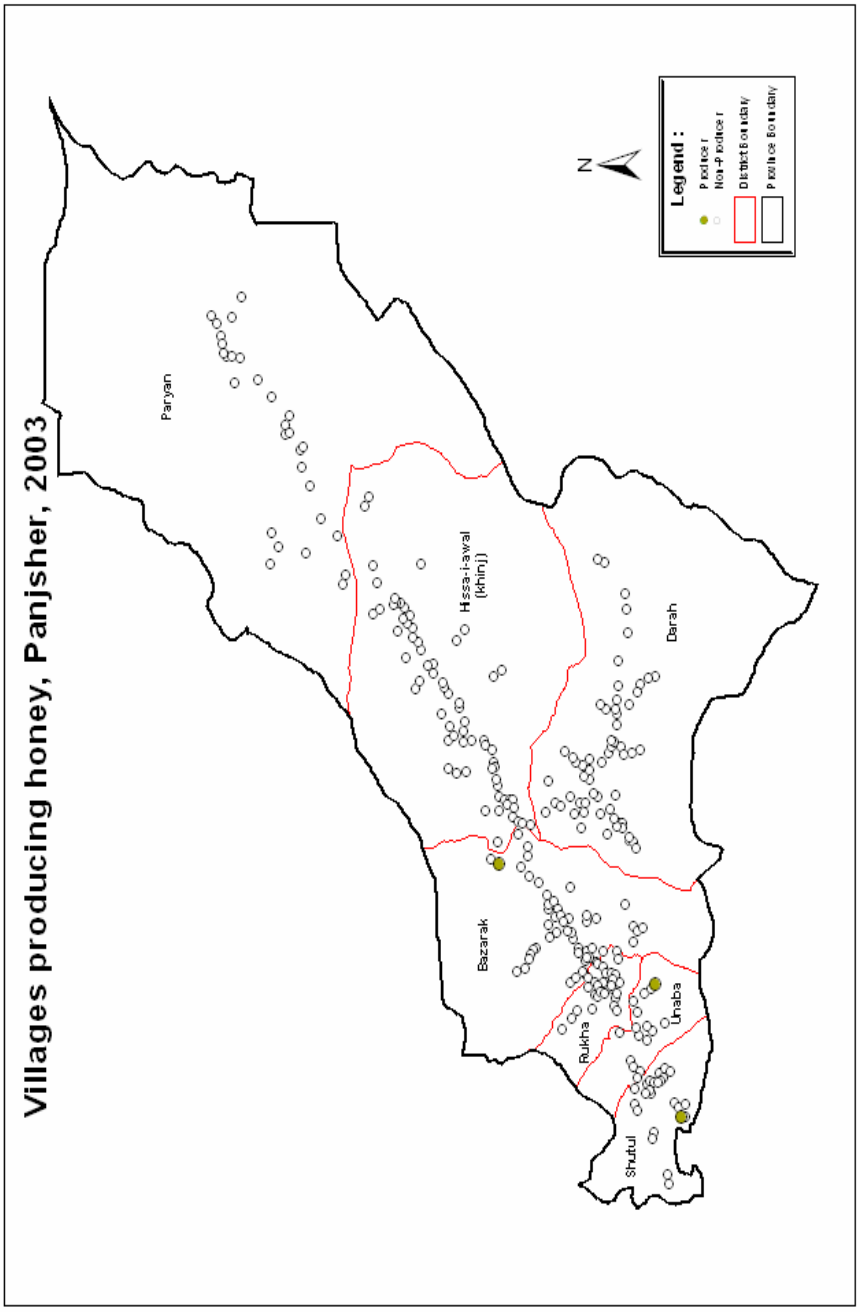
Annex 22


Villages producing olives, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

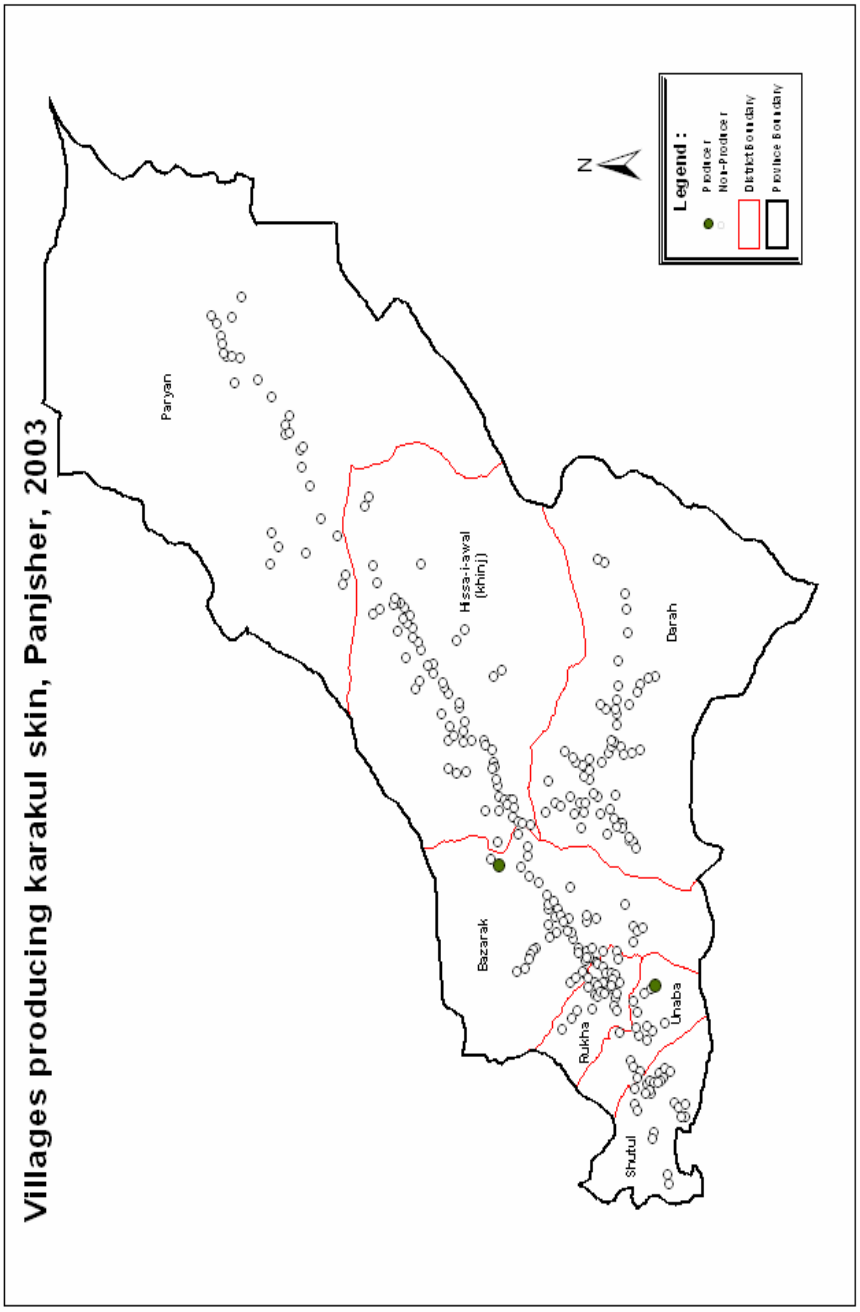
Annex 23


Villages producing sharsham, Panjsher, 2003
N
Legend :
Non Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

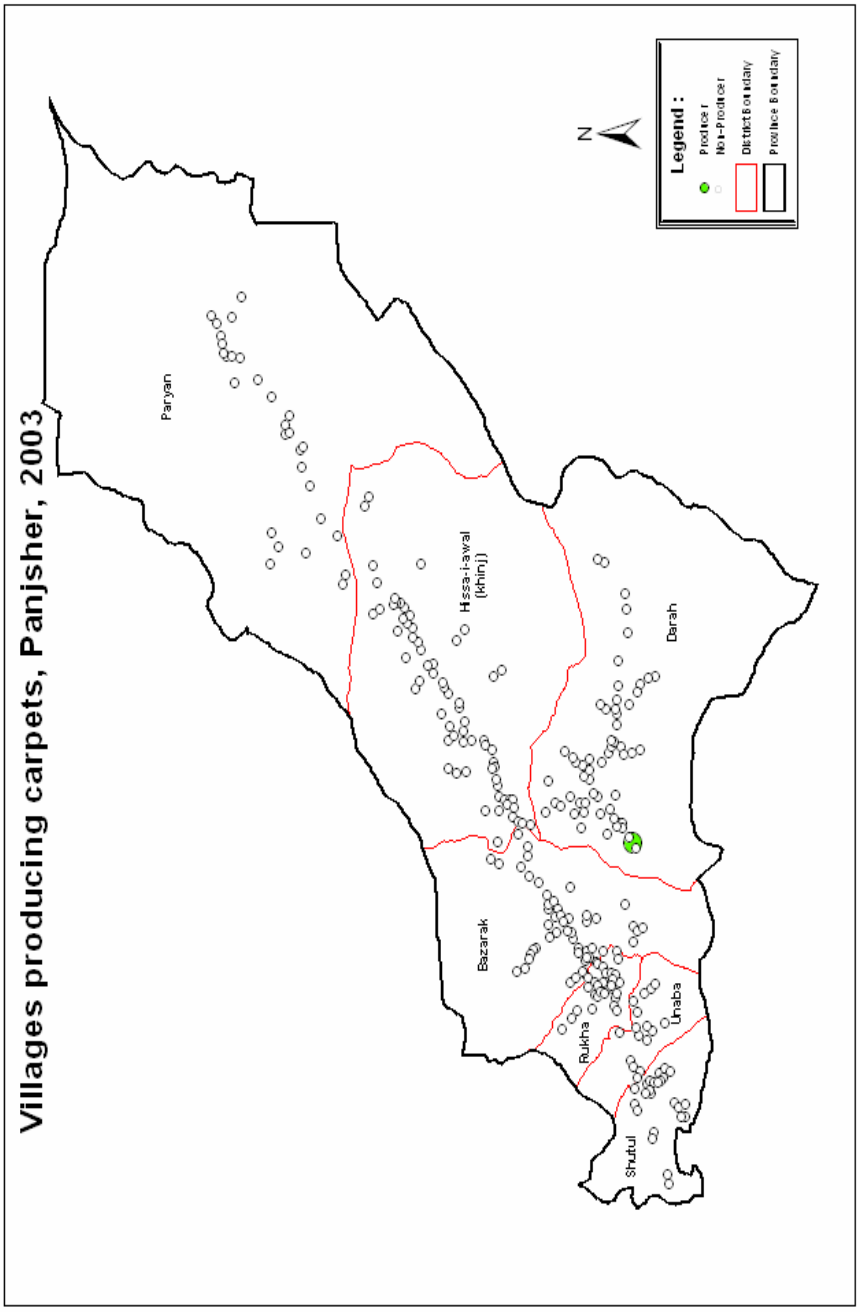
Annex 24


Villages producing honey, Panjsher, 2003
N
Legend :
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

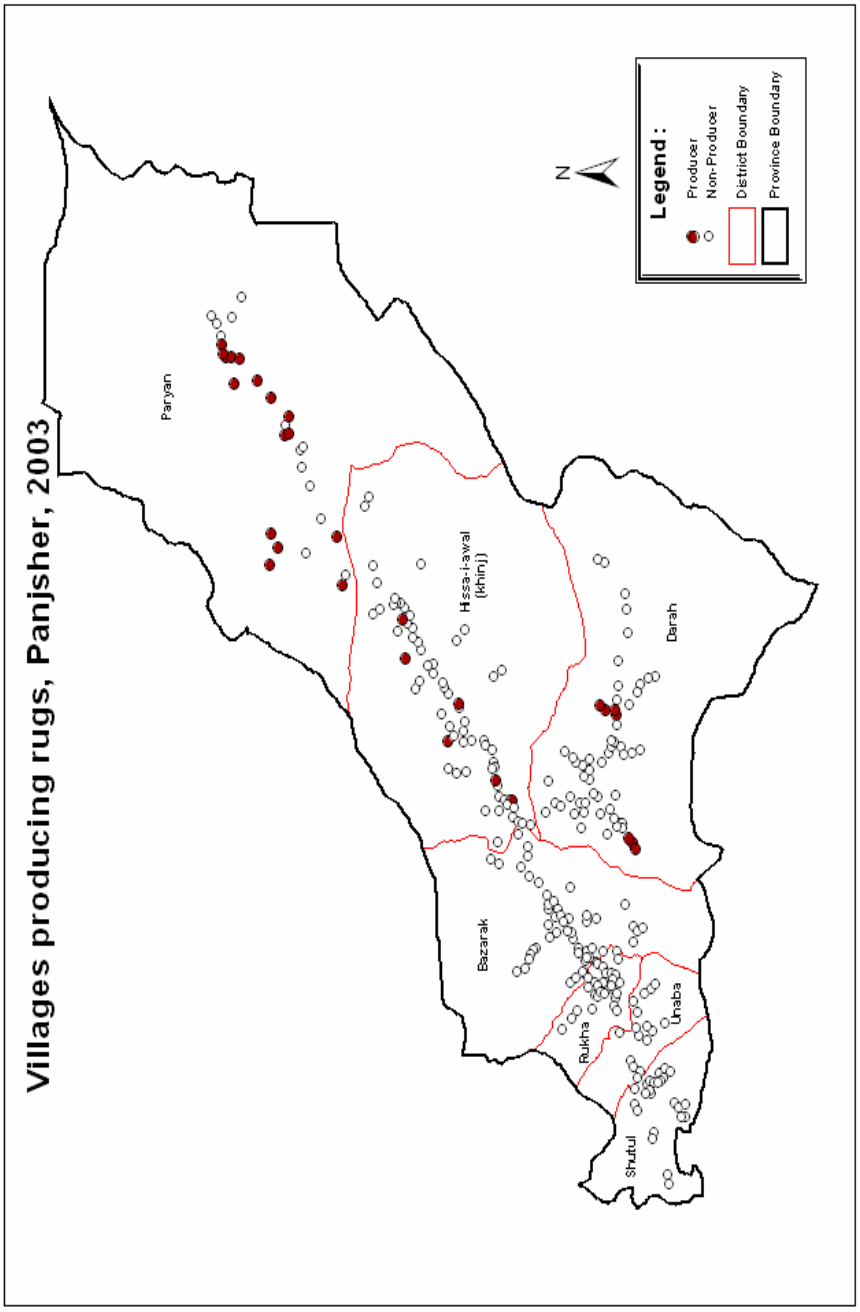
Annex 25


Villages producing karakul skin, Panjsher, 2003
N
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

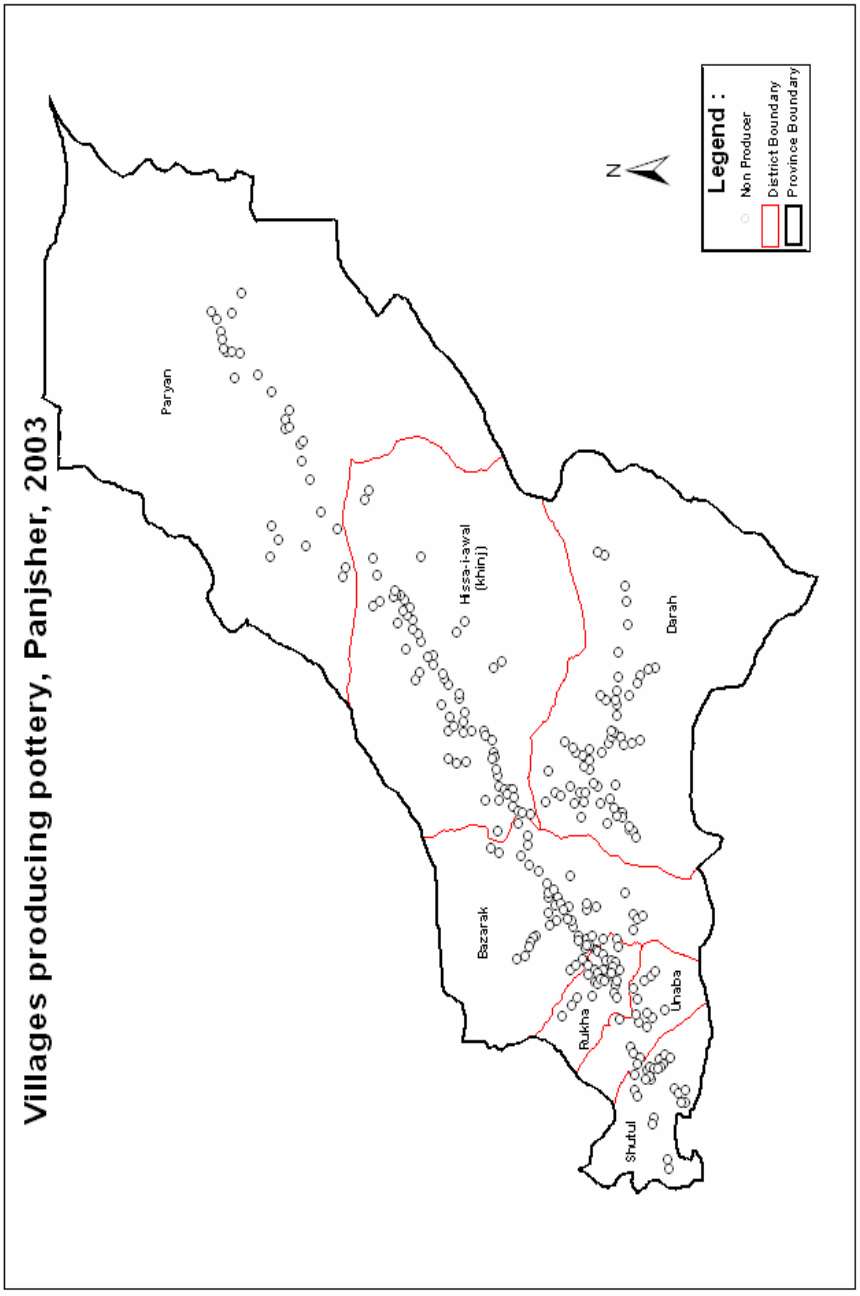
Annex 26


Villages producing carpets, Panjsher, 2003
N
Legend :
Produce r
Non-Producer
District Boundary
Province Boundary
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shuful

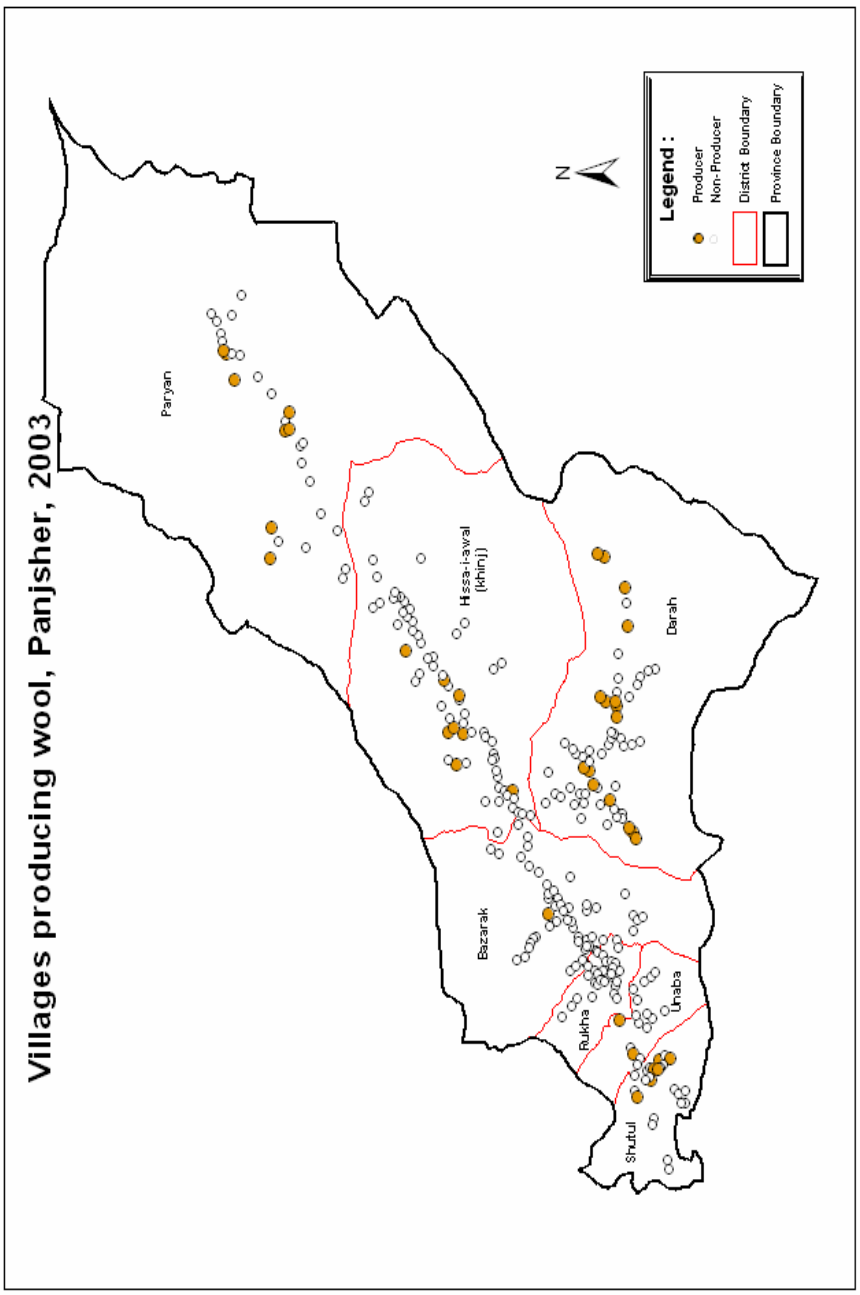
Annex 27


Villages producing rugs, Panjsher, 2003
Legend:
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

Annex 28


Villages producing pottery, Panjsher, 2003
Legend :
Non Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul

Annex 29


Villages producing wool, Panjsher, 2003
Legend :
Producer
Non-Producer
District Boundary
Province Boundary
N
Paryan
Hissa-i-awal (khinj)
Darah
Bazarak
Rukha
Unaba
Shutul