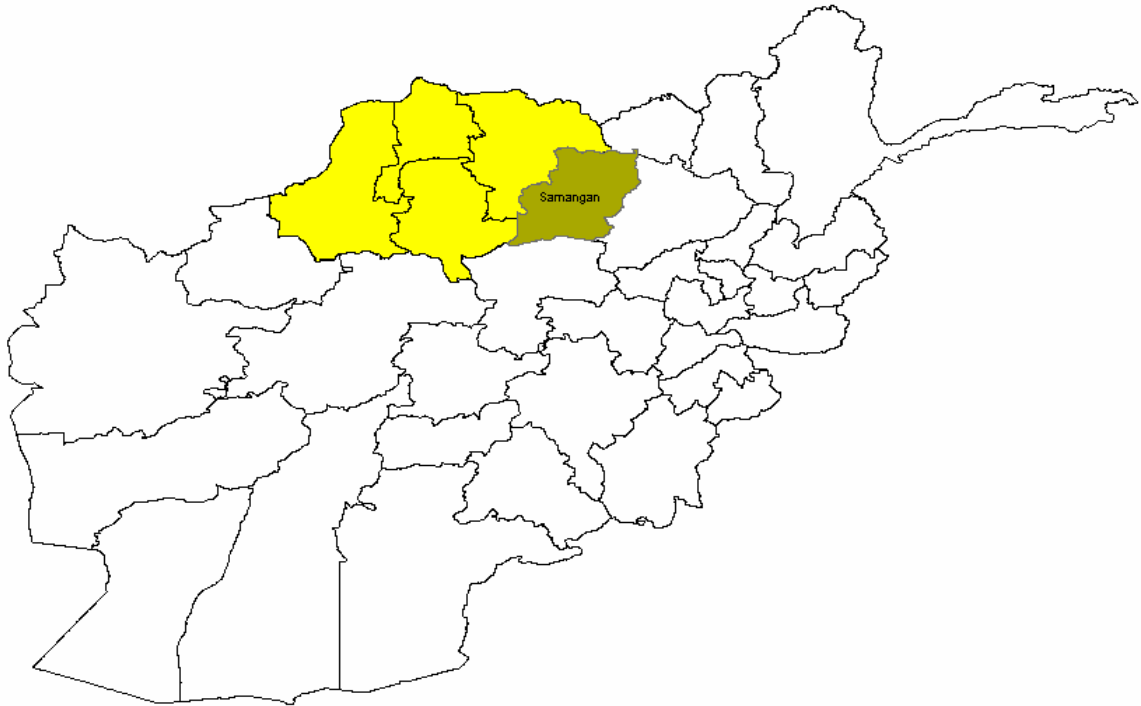




# Samangan



## 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*

# *Samangan*

*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 were responsible for editing and printing all the drafts.

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

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

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

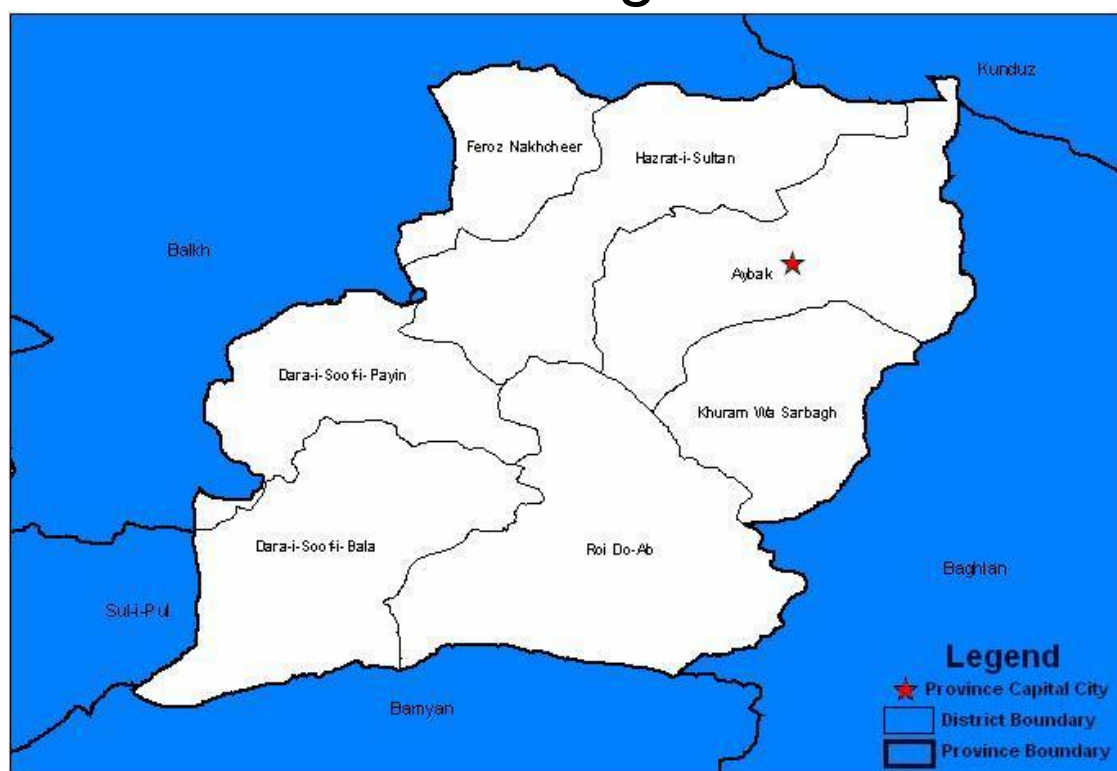
The present publication deals with Phase I of the Afghanistan census—the Household Listing, conducted and the results analyzed between 2002 and 2005. The data collected during this exercise provides a wealth of information on basic population variables in the country — size of the population, age structure 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 Sibener  
Representative a.i.  
UNFPA Kabul



# Samangan





## Contents

|  |     |
|--|-----|
| Acknowledgments.....   | iii |
| Introduction by the Acting General President of the Central Statistics Office .....  | iv  |
| Introduction by the Representative of UNFPA.....   | v   |
| Map of Samangan .....  | vi  |
| Settlement patterns.....   | 1   |
| Demographic characteristics.....   | 8   |
| <i>Age distribution</i> .....  | 8   |
| <i>Household size and sex ratio</i> .....  | 10  |
| <i>Special age groups</i> .....  | 11  |
| <i>Main languages spoken</i> .....   | 12  |
| Living conditions .....  | 14  |
| <i>Educational services</i> .....  | 15  |
| <i>Health services</i> .....   | 16  |
| <i>Post offices and public phones</i> .....  | 17  |
| <i>Mills</i> .....   | 17  |
| <i>Radio &amp; Television</i> .....  | 17  |
| Economic activities .....  | 28  |
| <i>Agriculture</i> .....   | 28  |
| <i>Industrial crops, small industries, and handicrafts</i> .....   | 30  |
| Physical & social infrastructure.....  | 33  |
| <i>Housing units</i> .....   | 33  |
| <i>Schools and educational institutions</i> .....  | 34  |
| <i>Health infrastructure</i> .....   | 34  |
| <i>Factories and workshops</i> .....   | 35  |
| <i>Bakeries and mills</i> .....  | 35  |
| <i>Hotels and restaurants</i> .....  | 36  |
| <i>Shopping places</i> ... ..  | 36  |
| <i>Mosques</i> .....   | 37  |
| <i>Other places</i> .....  | 37  |
| Annexes.....   | 41  |
| Annex 1— <i>Population Estimates as of 1 July 2004, by province</i> .....  | 42  |
| Annex 2— <i>Total and urban populations (as of mid-July 2004) by province, ranked according to their percent with respect to their shares of the total urban population of Afghanistan</i> ..... | 43  |
| Annex 3— <i>Total and urban populations (as of mid-July 2004) by province, ranked according to their percent with respect to their shares of the total urban population of Afghanistan</i> ..... | 44  |
| Annex 4— <i>Procedure for adjusting the reported age distribution</i> .....  | 45  |
| Annex 5— <i>Comparison of the reported and adjusted age distribution, Samangan, 2003</i> .....   | 46  |
| Annex 6— <i>Compositional analysis—economic activities, Samangan, 2003</i> .....   | 47  |
| Annex 7— <i>Villages producing wheat, Samangan, 2003</i> .....   | 57  |
| Annex 8— <i>Villages producing Corn, Samangan, 2003</i> .....  | 58  |
| Annex 9— <i>Villages producing Rice, Samangan, 2003</i> .....  | 59  |
| Annex 10— <i>Villages producing Potato, Samangan, 2003</i> .....   | 60  |
| Annex 11— <i>Villages producing Onion, Samangan, 2003</i> .....  | 61  |
| Annex 12— <i>Villages producing Tomatoes, Samangan, 2003</i> .....   | 62  |
| Annex 13— <i>Villages producing Carrots, Samangan, 2003</i> .....  | 63  |
| Annex 14— <i>Villages producing Grapes, Samangan, 2003</i> .....   | 64  |
| Annex 15— <i>Villages producing Melon-Water-Melon, Samangan, 2003</i> .....  | 65  |
| Annex 16— <i>Villages producing Walnut, Samangan, 2003</i> .....   | 66  |
| Annex 17— <i>Villages producing licorice, Samangan, 2003</i> .....   | 67  |

|  |           |
|--|-----------|
| <i>Annex 18— Villages producing Eggs Samangan, 2003.....</i>           | <i>68</i> |
| <i>Annex 19— Villages producing Dried- Yogurt, Samangan, 2003.....</i> | <i>69</i> |
| <i>Annex 20— Villages producing Cotton, Samangan, 2003.....</i>        | <i>70</i> |
| <i>Annex 21— Villages producing Sesame, Samangan, 2003.....</i>        | <i>71</i> |
| <i>Annex 22— Villages producing Olives, Samangan, 2003.....</i>        | <i>72</i> |
| <i>Annex 23— Villages producing Sharsham, Samangan, 2003.....</i>      | <i>73</i> |
| <i>Annex 24— Villages producing Honey, Samangan, 2003.....</i>         | <i>74</i> |
| <i>Annex 25— Villages producing Kara kul skin, Samangan, 2003.....</i> | <i>75</i> |
| <i>Annex 26— Villages producing Carpets, Samangan, 2003.....</i>       | <i>76</i> |
| <i>Annex 27— Villages producing Rugs Samangan, 2003.....</i>           | <i>77</i> |
| <i>Annex 28— Villages producing Pottery, Samangan, 2003.....</i>       | <i>78</i> |
| <i>Annex 29— Villages producing Wool, Samangan, 2003.....</i>          | <i>79</i> |

## **Tables**

|   |    |
|---|----|
| Table 1—Population, sex, sex ratios, by district, Samangan, 2003.....                               | 2  |
| Table 2—Reported population estimates by age in 5-year groups and sex, Samangan, 2003.....          | 9  |
| Table 3—Adjusted population estimates by age in 5-year groups and sex, Samangan, 2003.....          | 10 |
| Table 4—Special age groups by sex, in absolute numbers and percents, Samangan, 2003.....            | 12 |
| Table 5—Agricultural and industrial products, handicrafts and small industries, Samangan, 2003..... | 28 |
| Table 6—Number of buildings, and population per building, by type, Samangan, 2003.....              | 38 |

## Figures

|   |    |
|---|----|
| Figure 1—Population Spatial Distribution, <i>Samangan, 2003</i> .....                               | 4  |
| Figure 2—Distribution of the population settlements by size-class, <i>Samangan, 2003</i> .....      | 5  |
| Figure 3—Population pyramid, <i>Samangan, 2003</i> —reported .....                                  | 9  |
| Figure 4—Population pyramid, <i>Samangan, 2003</i> —Adjusted .....                                  | 10 |
| Figure 5—sex ratio, by district, <i>Samangan, 2003</i> .....  | 11 |
| Figure 6—Population by villages, by main languages spoken, <i>Samangan, 2003</i> .....              | 12 |
| Figure 7—Population and villages, by distance from the district center, <i>Samangan, 2003</i> ..... | 15 |
| Figure 8—Population and villages, by topography of the village, <i>Samangan, 2003</i> .....         | 16 |
| Figure 9—Population and villages, by type of road, <i>Samangan, 2003</i> .....                      | 17 |
| Figure 10—Population and villages by distance from certain facilities, <i>Samangan, 2003</i> .....  | 18 |
| Figure 11—Population living in villages where there are radios or TVs, <i>Samangan, 2003</i> .....  | 19 |
| Figure 12—Population by source of irrigation water, <i>Samangan, 2003</i> .....                     | 29 |
| Figure 13—Economic activities, <i>Samangan, 2003</i> .....  | 32 |
| Figure 14—Physical infrastructure, <i>Samangan, 2003</i> .....                                      | 38 |

## **Maps**

|   |    |
|---|----|
| Map 01—Rural settlements by size-class, Samangan, 2003 .....                                  | 7  |
| Map 02—Villages by Main Language Spoken Samangan 2003.....                                    | 13 |
| Map 03—Topography of Samangan, 2003.....  | 20 |
| Map 04—Villages Accessibility by Road Samangan 2003 .....                                     | 21 |
| Map 05—Villages with Primary Schools Samangan 2003.....                                       | 22 |
| Map 06—Villages with Secondary Schools Samangan 2003.....                                     | 23 |
| Map 07—Villages with High Schools Samangan 2003.....  | 24 |
| Map 08—Health Infrastructure—Health Centers, Dispensaries, and Drugstores Samangan 2003 ..... | 25 |
| Map 09—Villages with post offices and/or public phones Samangan 2003 .....                    | 26 |
| Map 10—Villages with mills Samangan 2003 .....  | 27 |

# Settlement Patterns

Located in the northern, Samangan is bordered by the provinces of Baghlan in the east, Kunduz in the northwest, Balkh in the north and northwest, Sar-i-Pul in the southwest, and Bamyan in the south. It covers a land area of 13,438 squared kilometers, representing 2.06 percent of the total Afghan territory. The province is divided into seven districts—the provincial center—Aybak, Hazrati Sultan, Feroz Nakhcheer, Dara-i-Sufi Ulya, Dara-i-Soof-i-Payin, Ruyi Du Ab, and Khuram Wa Sarbagh.

Samangan is home to 1.4 percent of the total population of Afghanistan. With its 313,211 inhabitants, it is the 5<sup>th</sup> least populous province in the country, after Panjsher, Nimroz, Nuristan, and Zabul (see Annex 1).

The population is distributed among the seven districts as shown in table 1 and figure 1<sup>1</sup>. The largest share of the population—27.3 percent—lives in the provincial center, Aybak, and the lowest—3.7 percent—in Feroz Nakhcheer.

The urban<sup>2</sup> population of Samangan represents 11.1 percent of the total population. With its 34,806 urban dwellers, Samangan is the fifteenth most urbanized province in Afghanistan. The urban population is concentrated in one center—Aybak<sup>3</sup>.

---

<sup>1</sup> 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.

**Table 1—Population, sex, and sex ratio, by district, province of Samangan, 2003<sup>4</sup>**

| <i>District</i>                | <i>Total</i>   |                | <i>Males</i>   | <i>Females</i> | <i>Sex ratio</i> |
|--------------------------------|----------------|----------------|----------------|----------------|------------------|
|                                | <i>Number</i>  | <i>Percent</i> |                |                |                  |
| <b>Provincial Center—Aybak</b> | <b>85,427</b>  | <b>27.27</b>   | <b>43,158</b>  | <b>42,269</b>  | <b>102.10</b>    |
| Hazrat-I-Sultan                | 36,690         | 11.71          | 19,054         | 17,636         | 108.04           |
| Feroz Nakhcheer                | 11,701         | 3.74           | 6,001          | 5,700          | 105.28           |
| Dara-I-Soof-I-Bala             | 52,473         | 16.75          | 26,174         | 26,299         | 99.52            |
| Dara-I-Soof-I-Payin            | 55,858         | 17.83          | 28,996         | 26,862         | 107.94           |
| Roi-Do-Ab                      | 40,358         | 12.89          | 21,226         | 19,132         | 110.95           |
| Khuram Wa Sarbagh              | 30,704         | 9.80           | 15,592         | 15,112         | 103.18           |
| <b>All province</b>            | <b>313,211</b> | <b>100.00</b>  | <b>160,201</b> | <b>153,010</b> | <b>104.70</b>    |

The rural population in Samangan is distributed over 653 settlements of varying sizes. The smallest settlement counts as few as nine (9) people and the largest as many as 22,146<sup>5</sup>.

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

At province level, the distribution is heavily skewed towards villages of very small sizes. Out of the total 653 villages, about 13 percent have less than 100 inhabitants, and another 21 percent have less than 200. Together, they account for more than one-third of the villages. Adding villages with 300 population to 500 population accounts for 68 percent of the villages, i.e., close to seven out of every 10. At the other extreme, however, villages with more than 1,000 population, which number 54, is much larger than the

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

<sup>3</sup> Aybak is divided into two *nahias*.

<sup>4</sup> Enumeration started on 12 May 2003 and ended on 17 June of the same year.

<sup>5</sup> There are three villages with zero population. Such villages appear to exist all over the country.

According to CSO, this is due to a variety of reasons:

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

number of villages in each of the categories just below, i.e., those numbering between 600 and 999. In sum, the median<sup>6</sup> is located at just above 600.

The distribution by district exhibits substantial variation in the overall shapes (Figure 2, panel B). Two different clusters of districts emerge. Cluster one, includes those districts with a shape that closely resembles that of the province as a whole, even though the proportion of large-sized villages in this cluster is noticeably lower than at the province as a whole. The cluster is comprised of Dara-i-Soof-i-Bala, Dara-i-Soof-i-Payin, and Roi-Do-AB. Cluster II is comprised of the remainder of the districts—Aybak, Hazrat-i-Sultan, Feroz Nakhcheer, Khuram Wa Sarbagh. In these districts, the distributions do not show any recognizable pattern, perhaps because of the small number of villages that comprise each of the size-classes, and which does not exceed 15. It is important to note nonetheless that two of the districts—Aybak, the provincial center, and Khuram wa Sarbagh the proportion of large-sized villages is rather large, compared to the rest of the size-classes. In the particular case of Aybak, it is the largest of all.

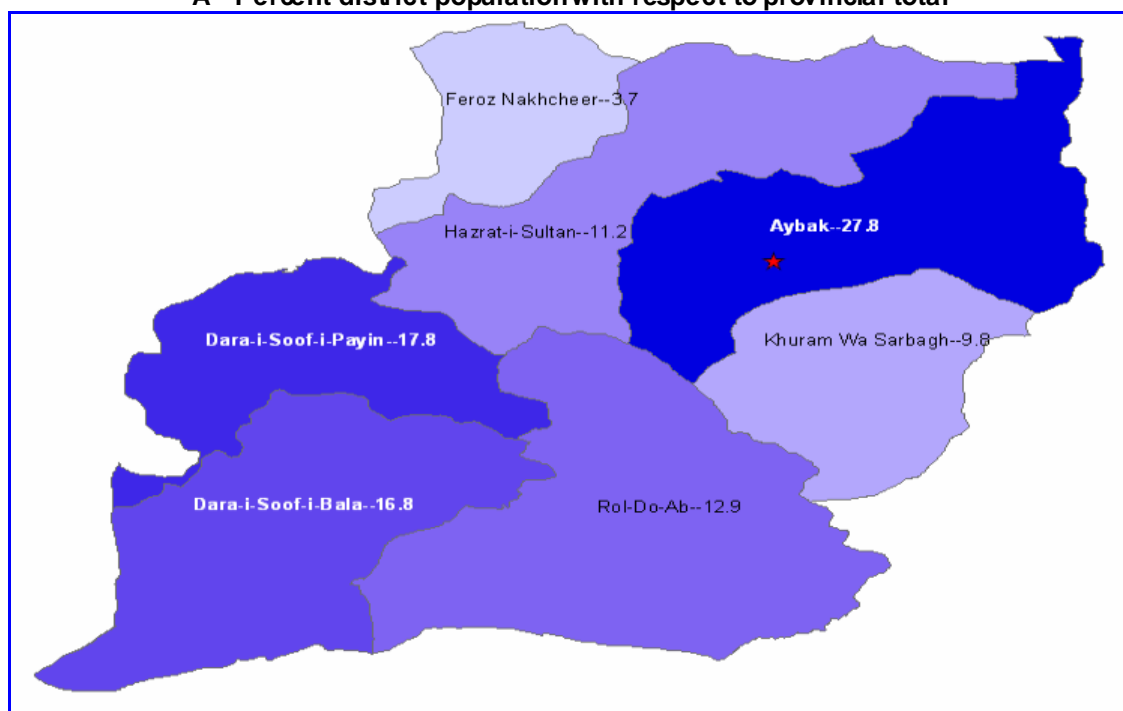
---

<sup>6</sup> The median is the value that divides the distribution into two equal parts, one below and one above.



**Figure 1—Population Settlements, Samangan, 2003**

**A—Percent district population with respect to provincial total**



**B—Density: population per km<sup>2</sup>**

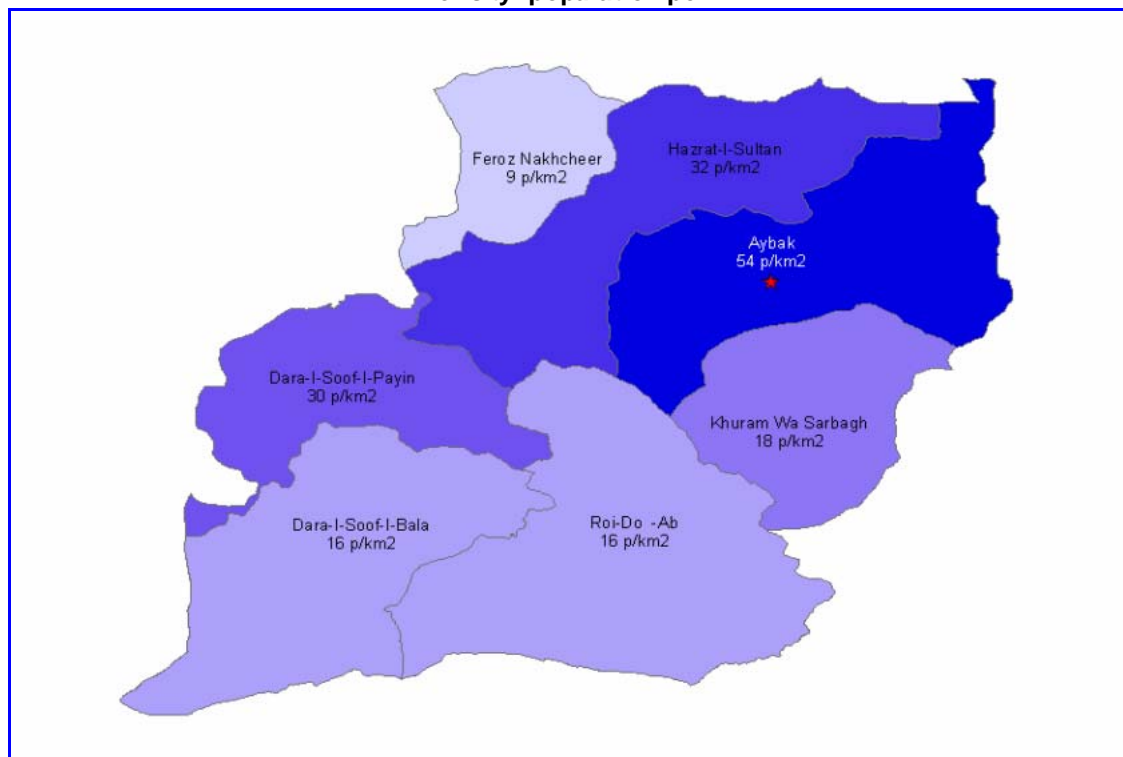
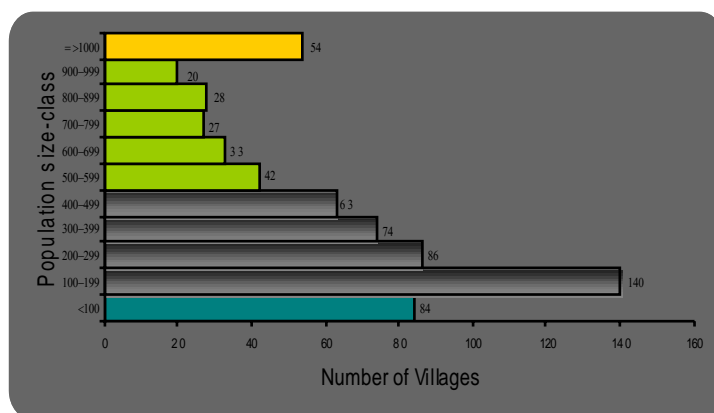
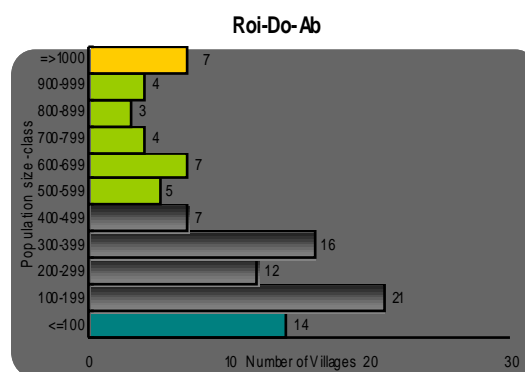
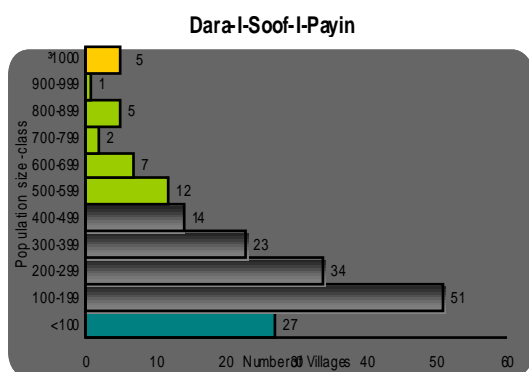
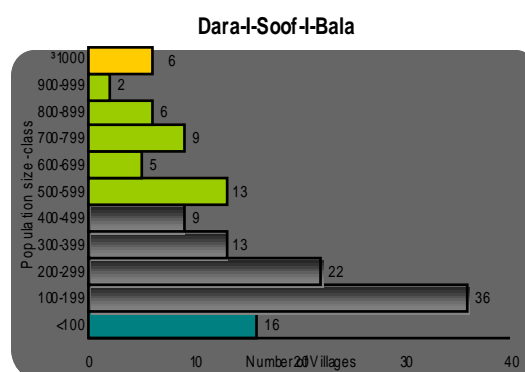
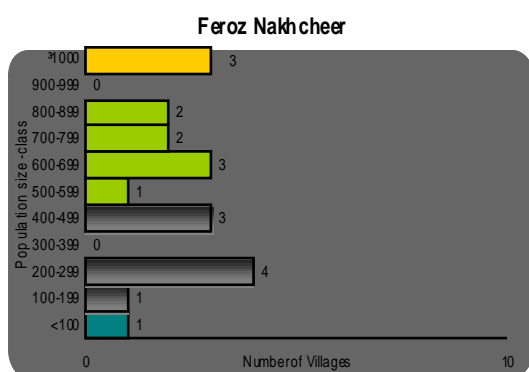
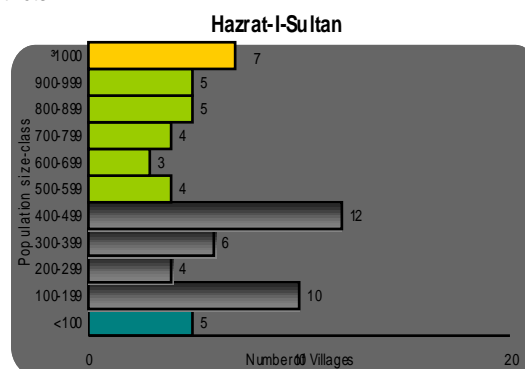
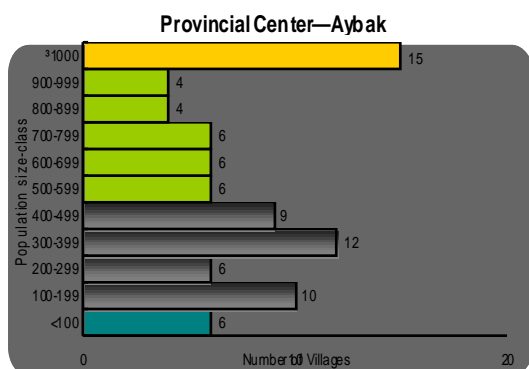


Figure 2—Distribution of the population settlements by size-class, Samangan, 2003

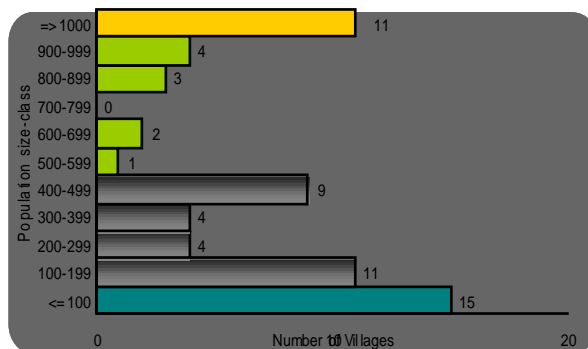
A—Province



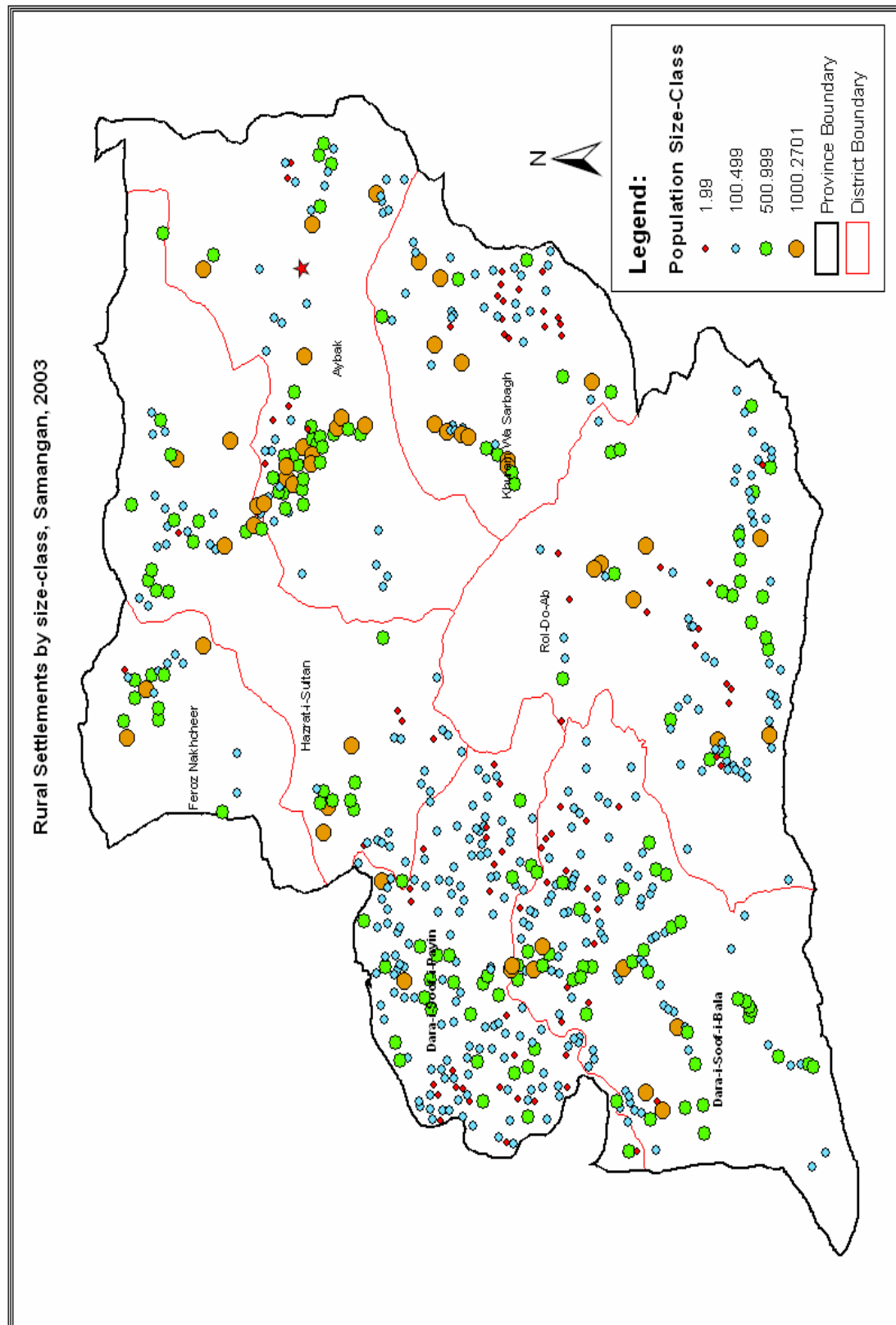
B—Districts



**Figure 2 Cont'd)—Distribution of the population settlements by size-class, Samangan, 2003**  
 Khuram Wa Sarbagh



Map1



## Demographic Characteristics

### Age distribution

The distribution by age and sex of the population of Samangan is shown in table 2 and figure 3. As the latter clearly shows, the distribution is irregular. The overall shape of the age-pyramid is typical of a pre-transition society—characterized by stable high fertility, but most of the age groups for both males and female certain age groups are noticeably different from what one would expect based on empirical observations (see figure 3 and annex 5-B). For instance, it is not readily understandable why the proportion of males of the 0-4 age group should be that much lower than the proportion of males of the 5-9 age group, or why it should be smaller than the corresponding one for females. In the same way, it is not clear why the 60-64 age groups for males are larger than the age groups immediately younger. Whereas a deficit in the proportion of children below 5 could be a direct result of war casualties—women married to soldiers having given birth to fewer children than in normal circumstances, it is difficult to account for the sex-selectiveness of such deficit.

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

*“Errors in the tabulated data on age may arise from three different sources:*

- *inadequate coverage,*
- *failure to record age, and*
- *misreporting of age.*

*Coverage errors are of two types. Individuals of a given age may have been missed by the census or erroneously included in it (e.g. counted twice). The first type of coverage error represents gross under-enumeration at this age and the second gross-over-enumeration. The balance of the two types of coverage errors represents net under-enumeration at this age<sup>1</sup>.”*

---

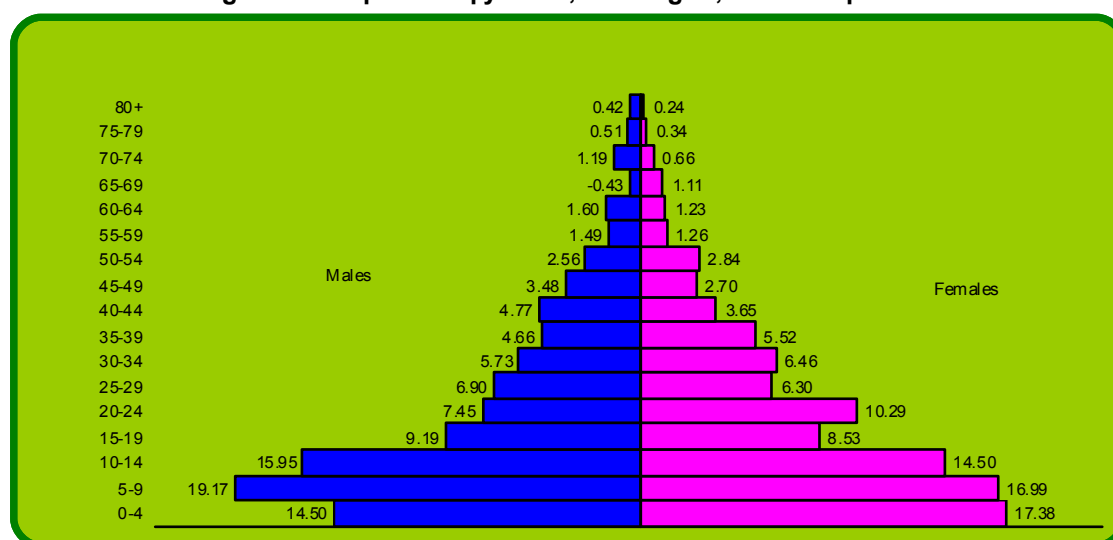
<sup>1</sup> Because under-enumeration commonly exceeds over-enumeration; the balance is typically designated as under-enumeration.

*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.*

**Table 2—Population estimate, by age in 5-year groups and sex, Samangan, 2003<sup>2</sup>—Reported**

| Age Group    | Male           |               | Female         |               | Both sexes     |               |
|--------------|----------------|---------------|----------------|---------------|----------------|---------------|
|              | Number         | Percent       | Number         | Percent       | Number         | Percent       |
| 0-4          | 23,222         | 14.50         | 26,593         | 17.38         | 49,815         | 15.90         |
| 5-9          | 30,715         | 19.17         | 25,997         | 16.99         | 56,712         | 18.11         |
| 10-14        | 25,557         | 15.95         | 22,179         | 14.50         | 47,736         | 15.24         |
| 15-19        | 14,726         | 9.19          | 13,053         | 8.53          | 27,779         | 8.87          |
| 20-24        | 11,936         | 7.45          | 15,741         | 10.29         | 27,677         | 8.84          |
| 25-29        | 11,055         | 6.90          | 9,634          | 6.30          | 20,689         | 6.61          |
| 30-34        | 9,172          | 5.73          | 9,886          | 6.46          | 19,058         | 6.08          |
| 35-39        | 7,465          | 4.66          | 8,446          | 5.52          | 15,911         | 5.08          |
| 40-44        | 7,643          | 4.77          | 5,591          | 3.65          | 13,234         | 4.23          |
| 45-49        | 5,580          | 3.48          | 4,130          | 2.70          | 9,710          | 3.10          |
| 50-54        | 4,096          | 2.56          | 4,343          | 2.84          | 8,439          | 2.69          |
| 55-59        | 2,391          | 1.49          | 1,929          | 1.26          | 4,320          | 1.38          |
| 60-64        | 2,570          | 1.60          | 1,882          | 1.23          | 4,452          | 1.42          |
| 65-69        | 686            | 0.43          | 1,695          | 1.11          | 2,381          | 0.76          |
| 70-74        | 1,899          | 1.19          | 1,012          | 0.66          | 2,911          | 0.93          |
| 75-79        | 814            | 0.51          | 527            | 0.34          | 1,341          | 0.43          |
| 80+          | 674            | 0.42          | 372            | 0.24          | 1,046          | 0.33          |
| <b>Total</b> | <b>160,201</b> | <b>100.00</b> | <b>153,010</b> | <b>100.00</b> | <b>313,211</b> | <b>100.00</b> |

**Figure 3—Population pyramid, Samangan, 2003—Reported**



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

<sup>2</sup> The age distribution is based on 1/200 sample of the total households.

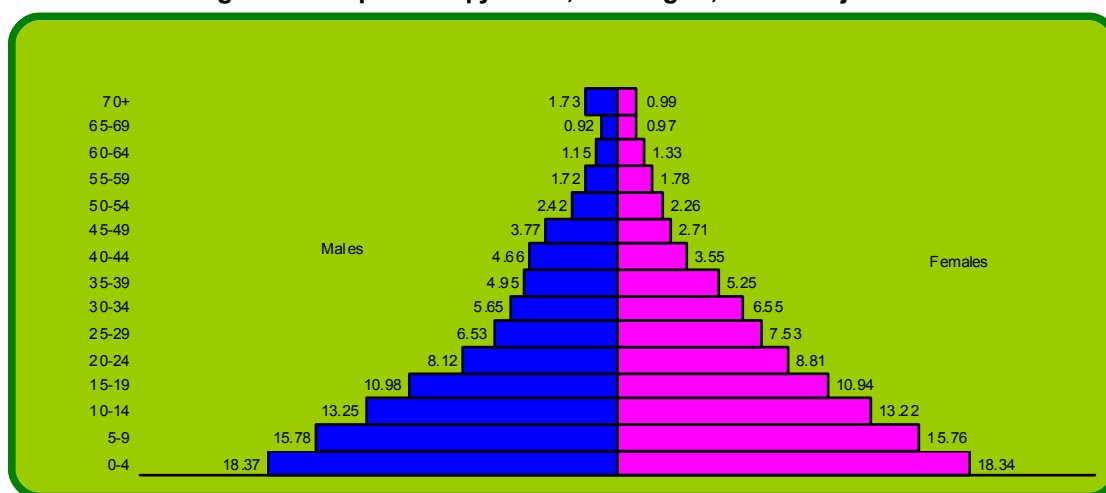
It follows that, in any attempt to correct for the anomalies, care must be taken not to remove the true fluctuations that resulted from such factors.

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

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

| Age Group    | Male           |               | Female         |               | Both sexes     |               |
|--------------|----------------|---------------|----------------|---------------|----------------|---------------|
|              | Number         | Percent       | Number         | Percent       | Number         | Percent       |
| 0-4          | 23,222         | 14.50         | 26,593         | 17.38         | 49,815         | 15.90         |
| 5-9          | 30,715         | 19.17         | 25,997         | 16.99         | 56,712         | 18.11         |
| 10-14        | 25,557         | 15.95         | 22,179         | 14.50         | 47,736         | 15.24         |
| 15-19        | 14,726         | 9.19          | 13,053         | 8.53          | 27,779         | 8.87          |
| 20-24        | 11,936         | 7.45          | 15,741         | 10.29         | 27,677         | 8.84          |
| 25-29        | 11,055         | 6.90          | 9,634          | 6.30          | 20,689         | 6.61          |
| 30-34        | 9,172          | 5.73          | 9,886          | 6.46          | 19,058         | 6.08          |
| 35-39        | 7,465          | 4.66          | 8,446          | 5.52          | 15,911         | 5.08          |
| 40-44        | 7,643          | 4.77          | 5,591          | 3.65          | 13,234         | 4.23          |
| 45-49        | 5,580          | 3.48          | 4,130          | 2.70          | 9,710          | 3.10          |
| 50-54        | 4,096          | 2.56          | 4,343          | 2.84          | 8,439          | 2.69          |
| 55-59        | 2,391          | 1.49          | 1,929          | 1.26          | 4,320          | 1.38          |
| 60-64        | 2,570          | 1.60          | 1,882          | 1.23          | 4,452          | 1.42          |
| 65-69        | 686            | 0.43          | 1,695          | 1.11          | 2,381          | 0.76          |
| 70+          | 3,387          | 2.12          | 1,911          | 1.24          | 5,298          | 1.69          |
| <b>Total</b> | <b>160,201</b> | <b>100.00</b> | <b>153,010</b> | <b>100.00</b> | <b>313,211</b> | <b>100.00</b> |

**Figure 4—Population pyramid, Samangan, 2003—Adjusted.**



### Household size and sex ratio

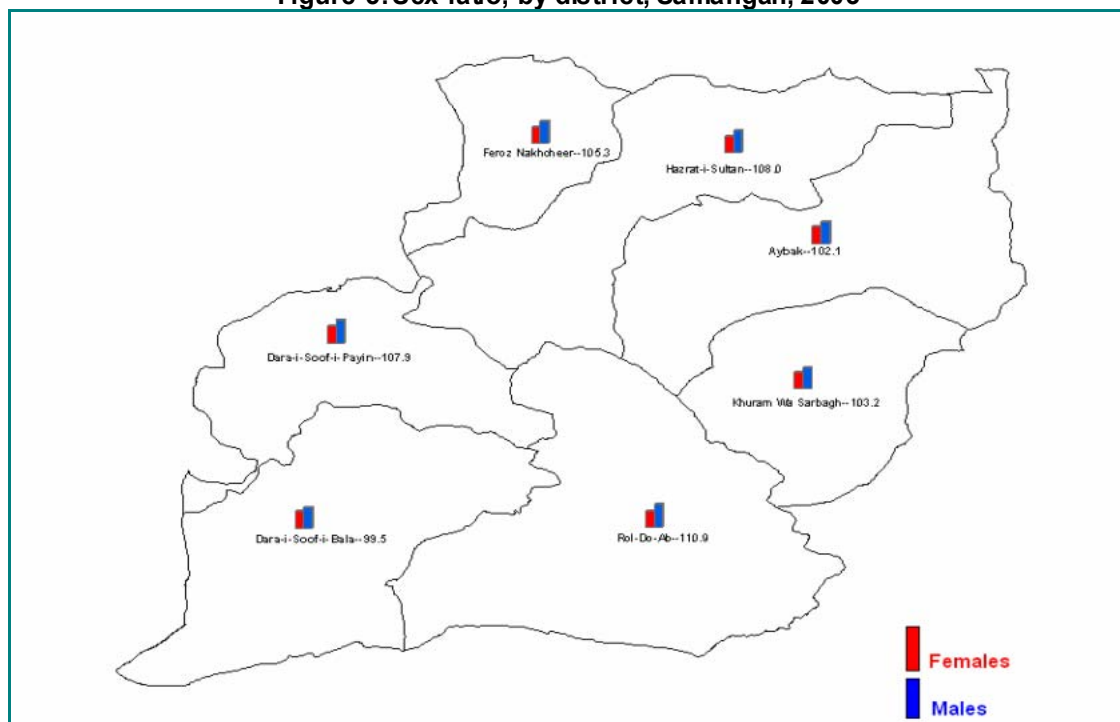
The sex ratio (number of males per 100 females) varies between 99.5 in Dara-i-Soof-i-Bala 110.9 in Roi-Do-Ab, the average for the province being 104.7 (figure 5 below and

<sup>3</sup> The complete account of the various stages is shown in Annex 2.

<sup>4</sup> For a comparison of the reported and adjusted age-distribution, see annex 5.

the last column of table 1). Such variation appears to be rather excessive. But there is no information that can explain why the ratio is so high in Roi-Do-Ab or in those other districts where it exceeds 105.

**Figure 5. Sex ratio, by district, Samangan, 2003**



A typical household in Samangan has 5.9 persons, which is lower 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 15-49 years of age—the childbearing ages—is more significant than others. The population 6-12—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<sup>5</sup>.

<sup>5</sup> The breakdown of the five-year age distribution into single years of age was obtained using the Karup-King Third-Difference formula.



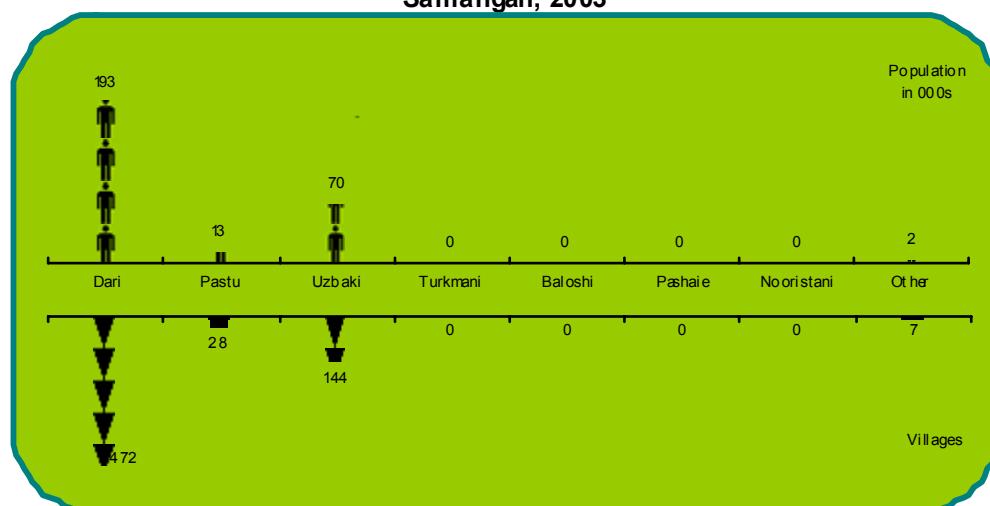
**Table 4—Special age groups by sex, in absolute numbers and percents, Samangan, 2003**

| Age                                  | Male   |         | Female |         | Both sex |         |
|--------------------------------------|--------|---------|--------|---------|----------|---------|
|                                      | Number | Percent | Number | Percent | Number   | Percent |
| <b>School age Population</b>         |        |         |        |         |          |         |
| Primary — 6-12                       | 33,083 | 20.4    | 31,551 | 20.7    | 64,633   | 20.5    |
| Secondary — 13-18                    | 22,451 | 13.8    | 21,304 | 14.0    | 43,755   | 13.9    |
| College — 20-24                      | 13,015 | 8.0     | 13,485 | 8.8     | 26,500   | 8.4     |
| <b>Population in the labor force</b> |        |         |        |         |          |         |
| Children — 8-14                      | 30,845 | 19.0    | 29,402 | 19.3    | 60,247   | 19.1    |
| Earlier working ages — 15-44         | 65,518 | 40.4    | 65,230 | 42.8    | 130,748  | 41.5    |
| Later working ages — 45-59           | 12,657 | 7.8     | 10,333 | 6.8     | 22,990   | 7.3     |
| Retirement — 60+                     | 8,133  | 5.0     | 4,507  | 3.0     | 12,640   | 4.0     |
| <b>Voters — 18+</b>                  | 75,254 | 46.4    | 69,628 | 45.7    | 144,881  | 46.0    |
| <b>Reproductive ages — 15-49</b>     | —      | —       | 69,383 | 45.5    | —        | —       |

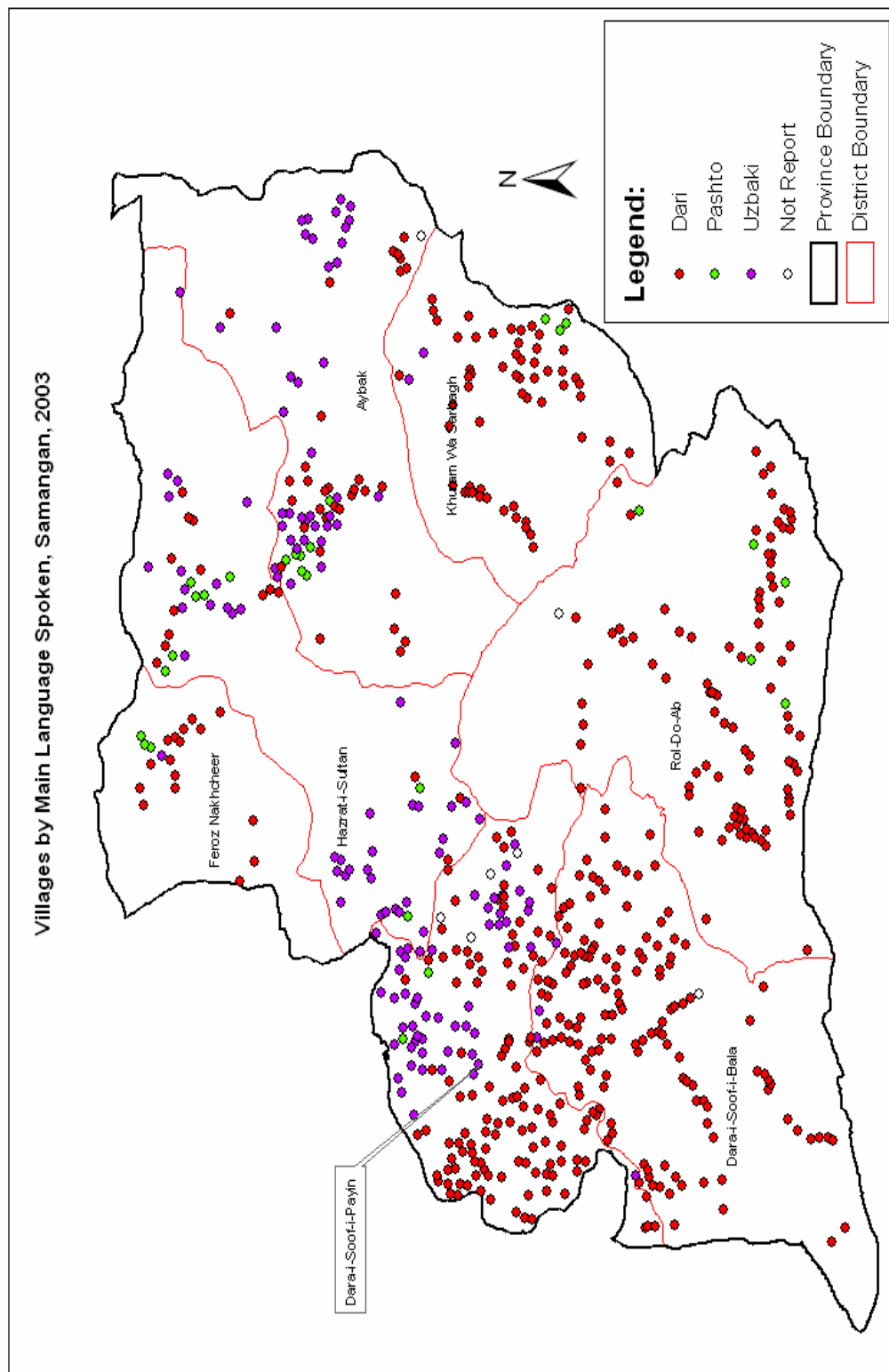
\* = Women in the childbearing ages

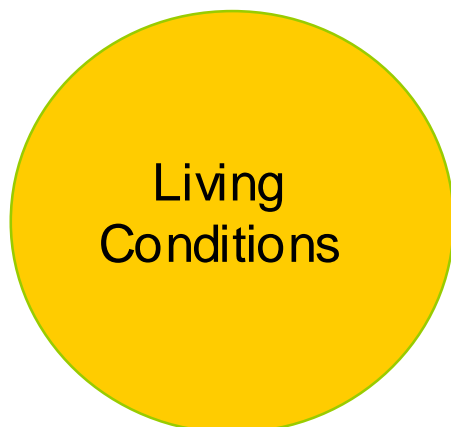
### Main languages spoken

The Household Listing exercise did not collect any information on the ethnic background of the populations. However, it included a question on the languages spoken by the majority of the populations in individual villages. Of the eight languages listed (figure 6), one—Dari—is spoken by more than 72.5 percent of the population and about 69.4 percent of the villages. Uzbaki, the language that comes second is Uzbaki, which is spoken by 144 villages and about 70,000 population, representing 22.1 percent of the population and 25.2 percent of the villages.

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

Map2





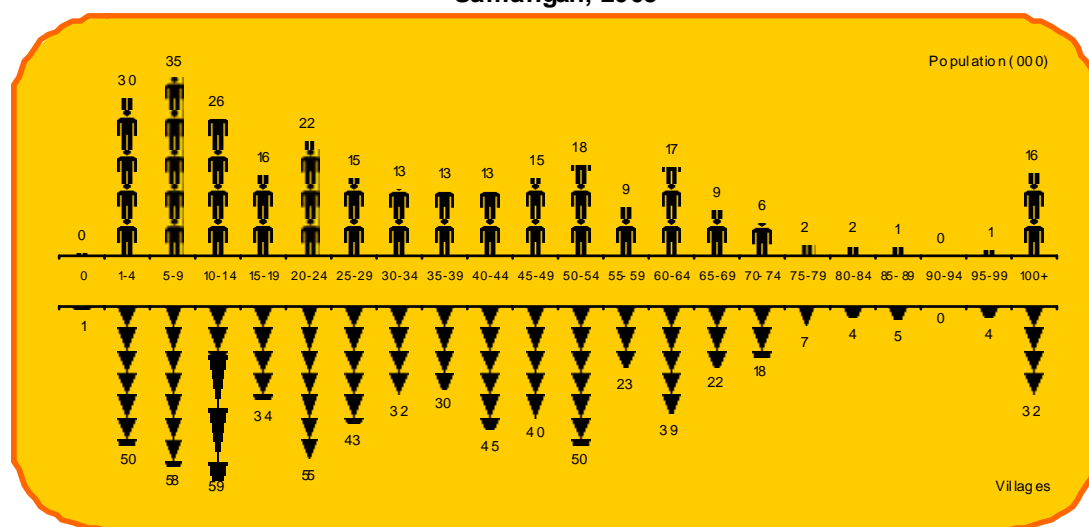
Other useful information collected during the Household Listing exercise concerned the locations of the villages with respect to their respective district centers, the types of roads, and the topography.

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

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

The distribution by distance from the provincial center clearly shows a rather low degree of accessibility with respect to those services that can only be provided by the district center. Close to two persons out of five is located at between 15 and 19 kilometers from the district center. At the other end of the distribution, close to a quarter of the population lives more than 50 kilometers away, including 5.8 percent situated at more than 100 kilometers. Even though those villages that are situated at excessively long distances from their district centers may be closer to one or more urban centers outside the jurisdiction of Samangan, there exists a real inaccessibility problem for significant numbers of the population.

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



Accessibility, however, is not a function of distance alone, but also of such other conditions as the nature of the terrain, the availability of transportation means, etc. As figure 8 shows, of the 653 villages, 18 percent of the population and more than 12 percent of the villages, are located in mountainous areas. Another 139 villages, totaling 58,053 population live in semi-autonomous areas. Only one village with 341 inhabitants is built on flat terrain. Accessibility to social services, therefore, may be more difficult than distances alone would suggest (see also map 1 at the end of this section).

This is further reflected in the types of roads available (figure 9). Of the 653 villages, just 184, housing 36 percent of the population have roads that are accessible by car at all seasons. Another 43 percent are accessible by road in some seasons only. However, 28 percent of the villages and as many as 28 percent of the population have no roads at all.

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

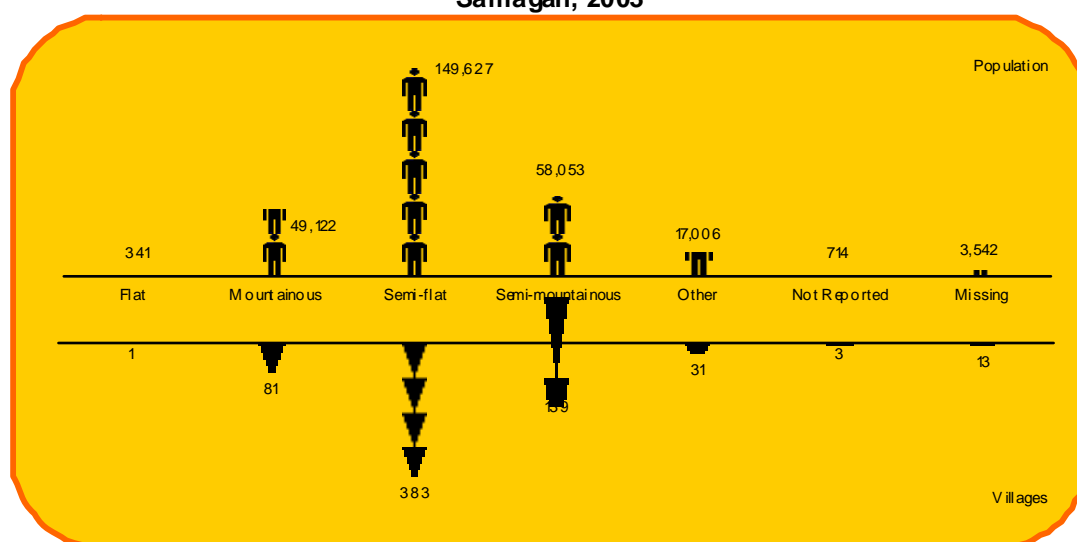
### **Educational services**

With regard to educational services, overall, accessibility is lowest for high schools, then for literacy courses, secondary schools, rural schools, and primary schools in that order<sup>1</sup>.

<sup>1</sup> In other provinces, literacy courses and rural schools were dropped from the analysis because of excessive rates of non-response, sometimes attaining 45 percent. In the case of Samangan, however,

High schools are located more than 10 kilometers away for more than seven students out of 10. Literacy courses and secondary schools are located at that distance for about the same proportions—56.3 percent for the former and 52.3 percent for the latter. Rural and primary schools are the most accessible, inasmuch as respectively one-third and 30.2 percent of them are located at more than 10 kilometers. Students that don't have to travel outside their villages to reach their schools represent 43.8 percent for rural schools, 27.9 percent for primary schools, 20.3 percent for literacy courses, 12.4 percent for secondary schools, and only 4.6 percent for high schools.

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



### Health services

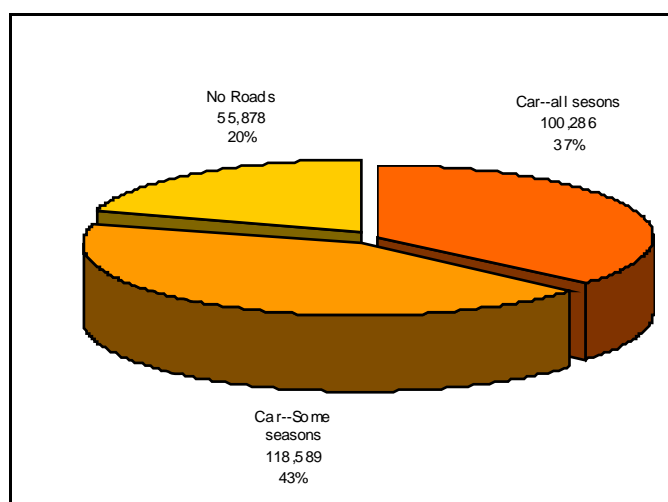
The spatial distribution of the health infrastructure closely resembles that of high schools and is substantially the same for both health centers and dispensaries (panels F & G). More often than not, people seeking medical attention have to travel more than 10 kilometers to get it—68.4 percent for health centers, and 68.6 percent for dispensaries. Those that live between five and 10 kilometers from the closest health unit represent 11.3 percent for health centers, and 13.1 percent for dispensaries. In sum, access to health care is very difficult for the majority of the population, inasmuch as only 3.1 have a health

---

such rate were comparatively low—9.6 for rural schools and 13.6 for literacy courses. For this reason, they have been included in the analysis.

center within their boundaries, and only 4.4 a dispensary. The picture is about the same for drugstores (panel H).

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



### **Post office & public phones**

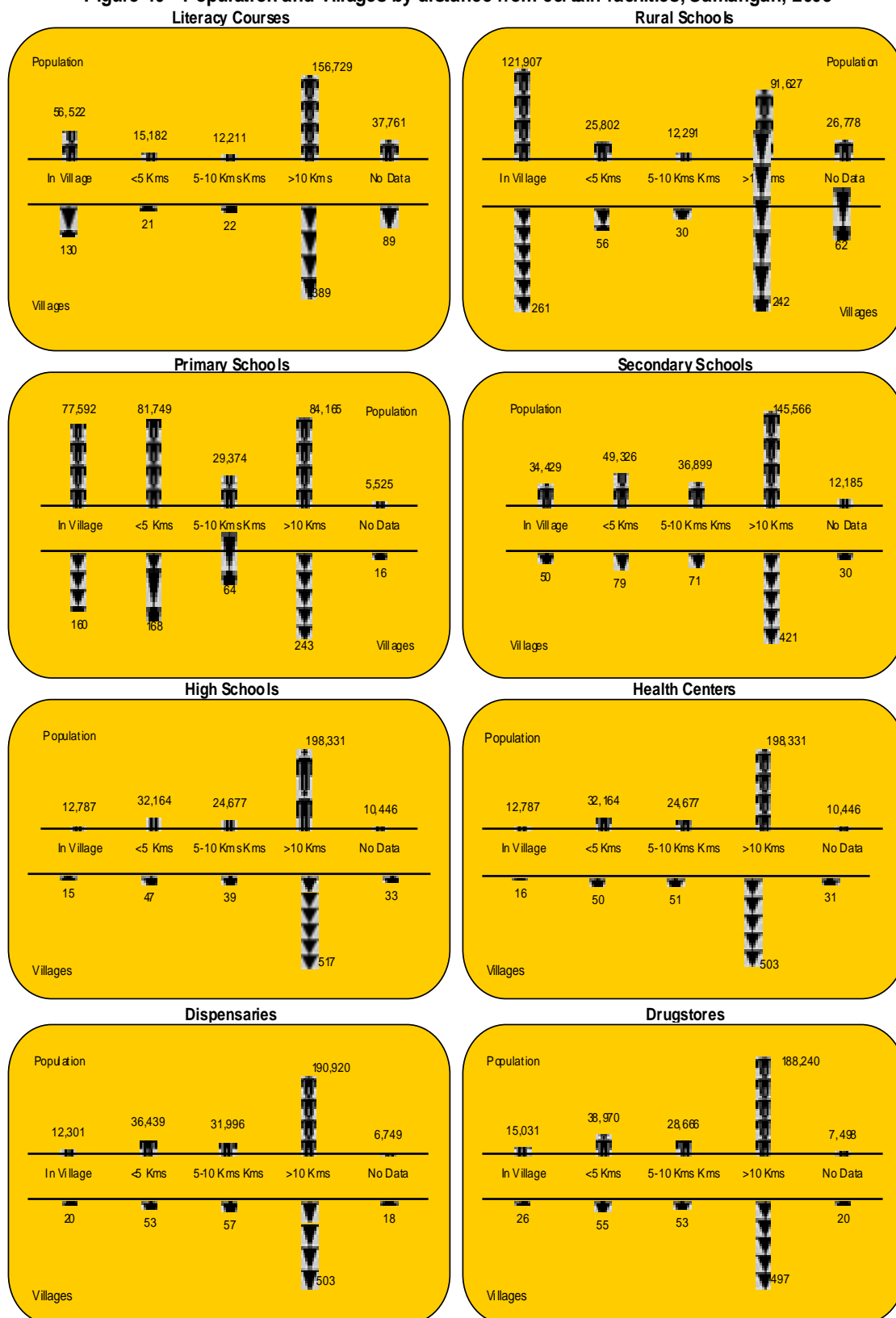
Post offices, as well as public phones exist in four villages only out of the 653. They are located at more than 10 kilometers for more than seven persons out of 10 (panels I & J).

### **Mills**

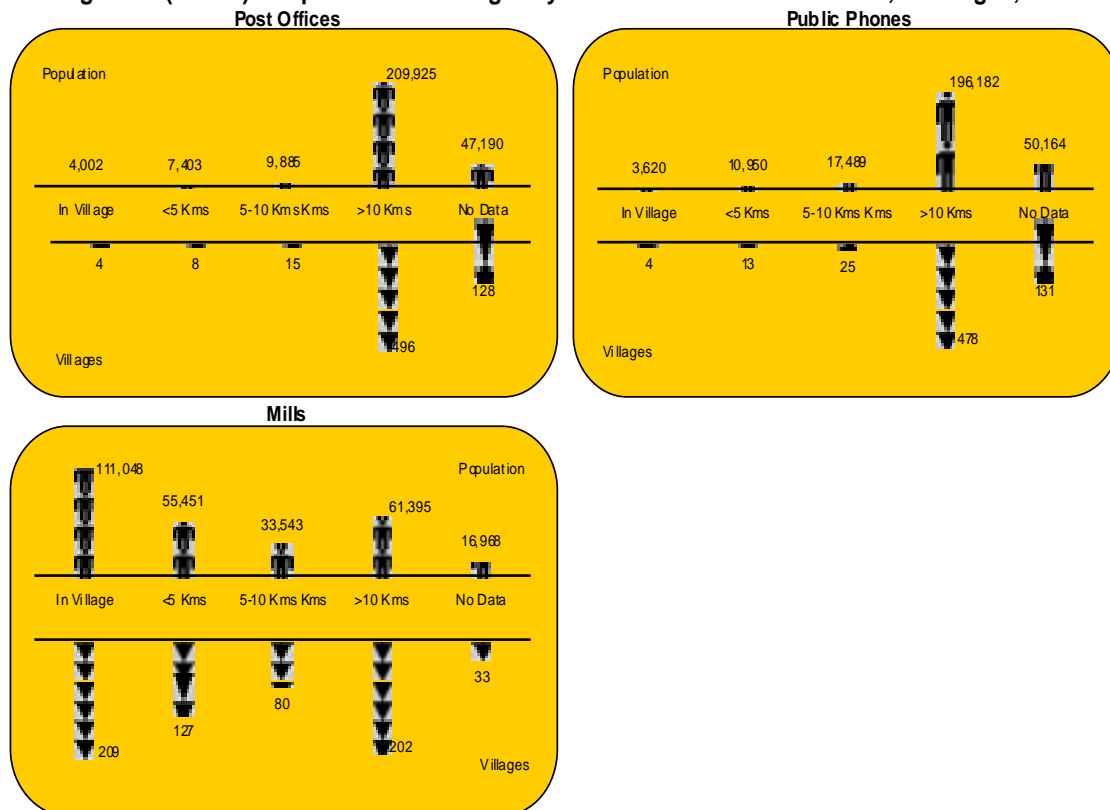
Mills are substantially more available. They exist in 209 villages out of the 653 and service about two persons out of five. Nonetheless, those who have to travel more than 10 kilometers to reach them represent more than one-fifth of the population (panel K).

### **Radio & television**

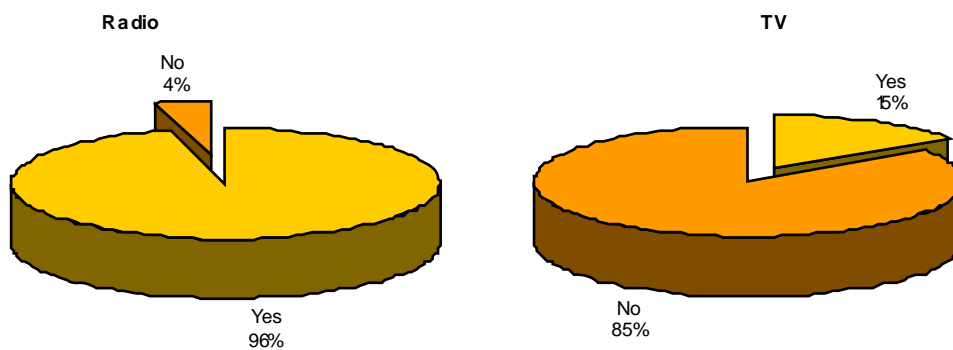
Whereas 96 of the population have access to radio, only 15 percent have access to TV. This latter proportion however is one of the highest in the country. It goes without saying that public information efforts and media campaigns are seriously hampered by this state of affairs.

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

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

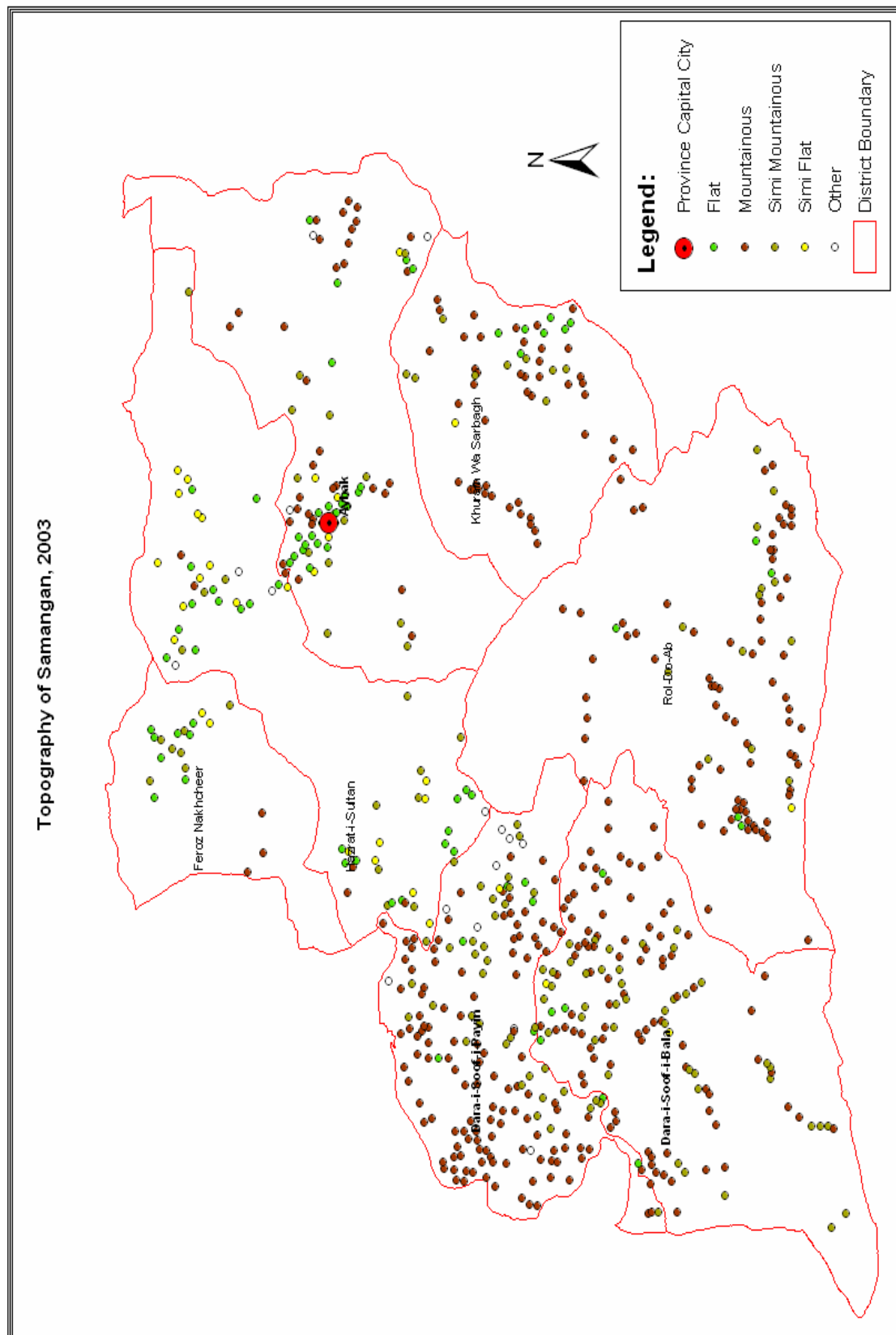


**Figure 11—Proportion of the population living in villages where there are radios or TVs, Samangan, 2003**

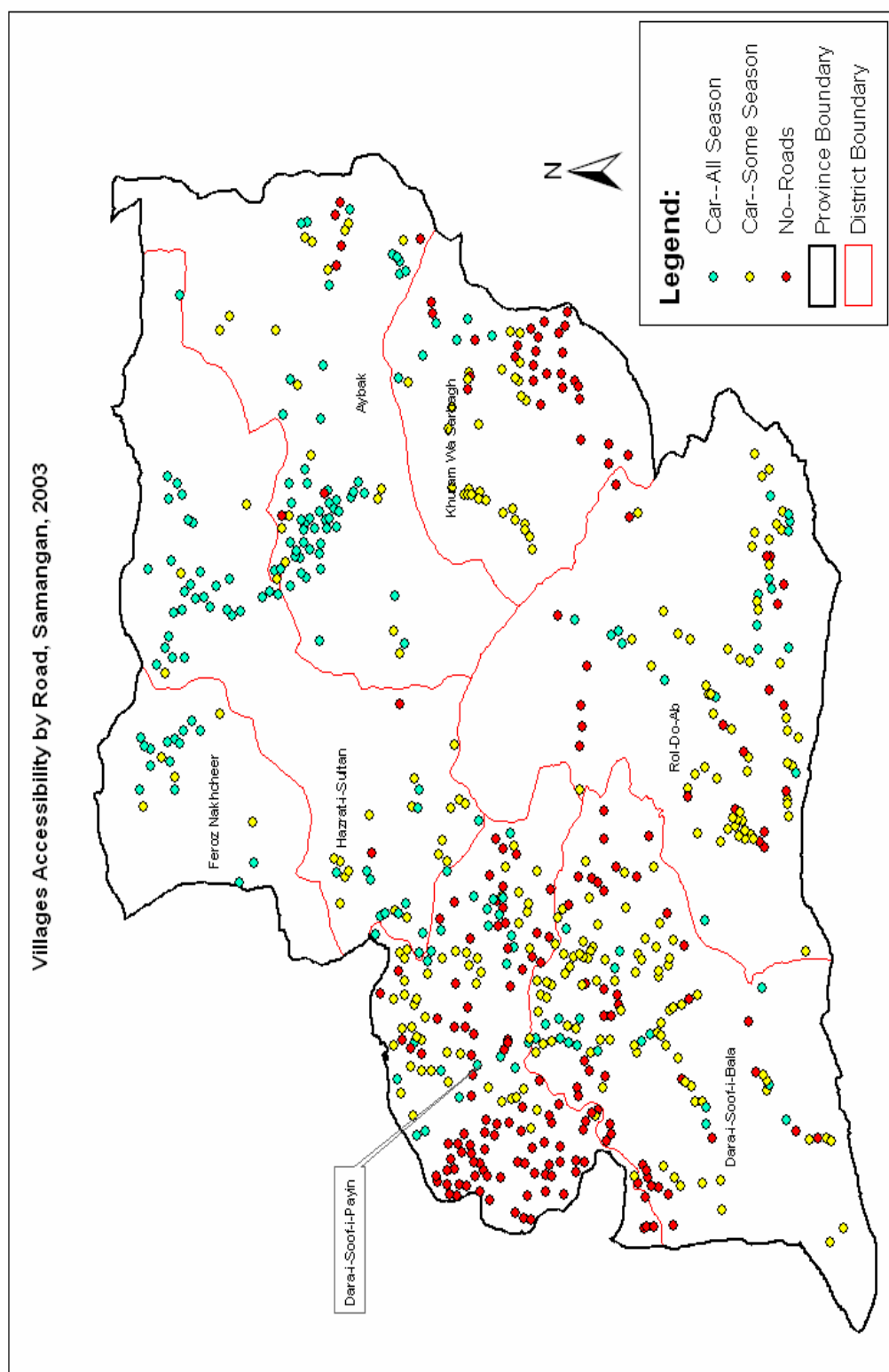




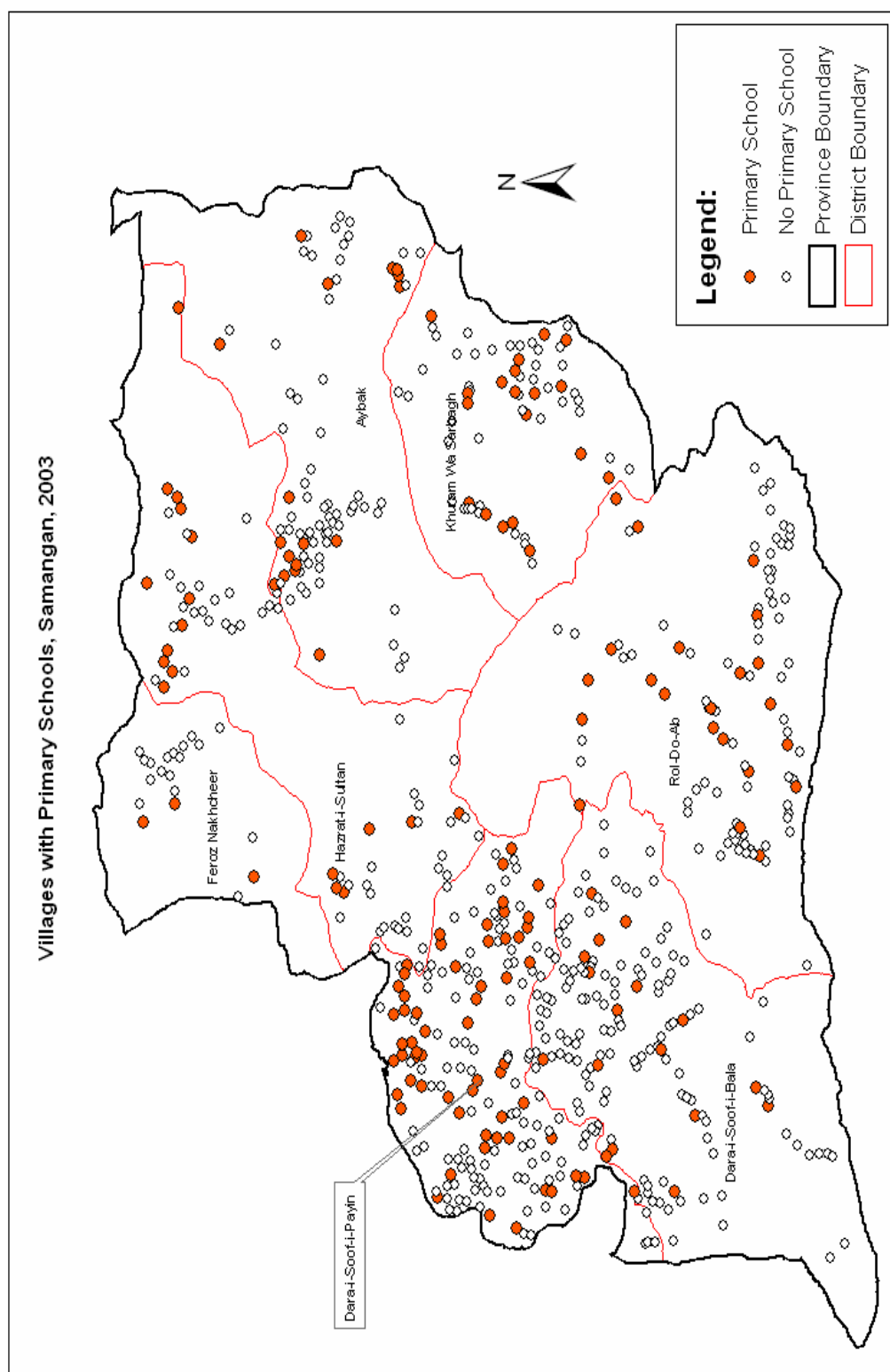
Map3



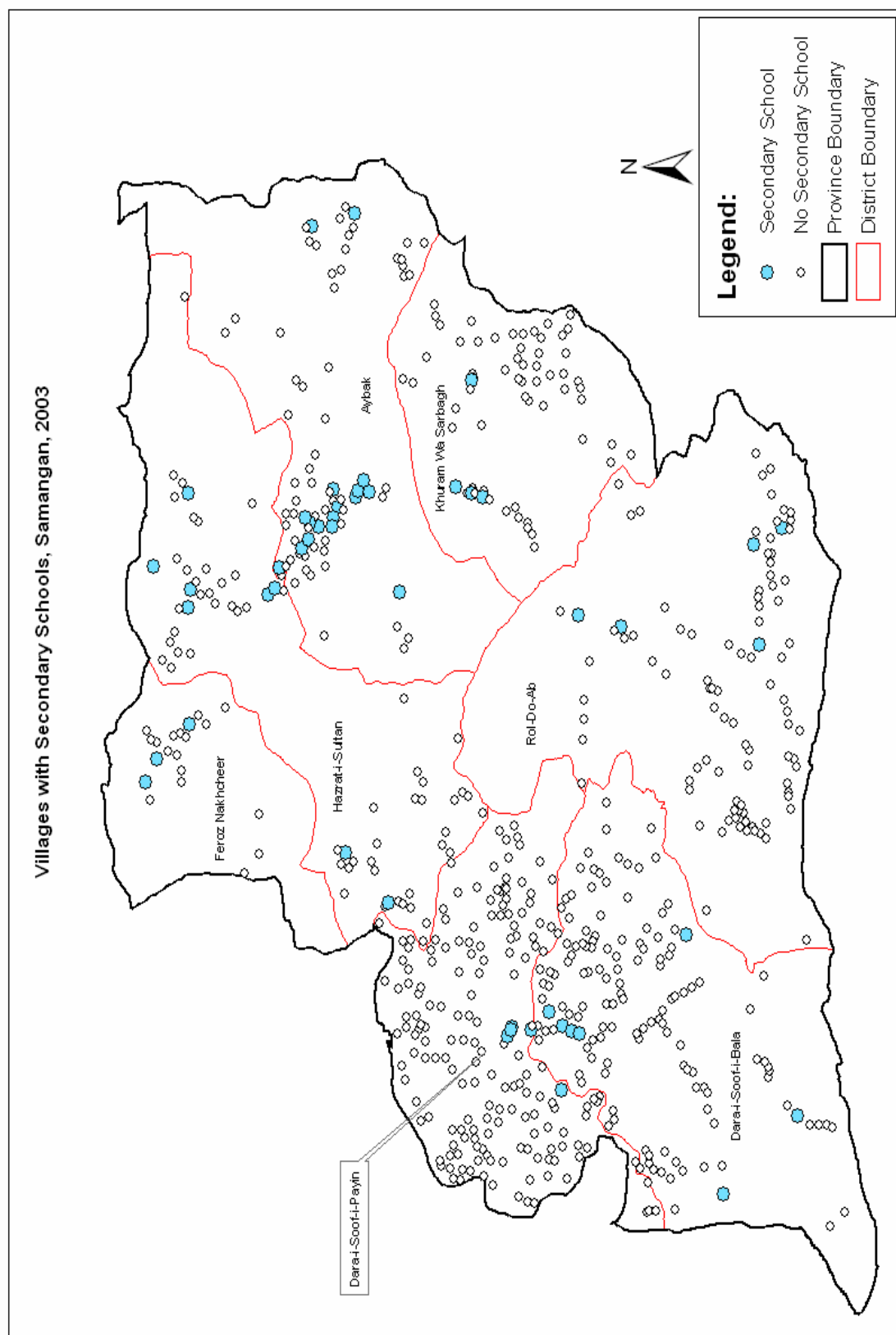
Map4



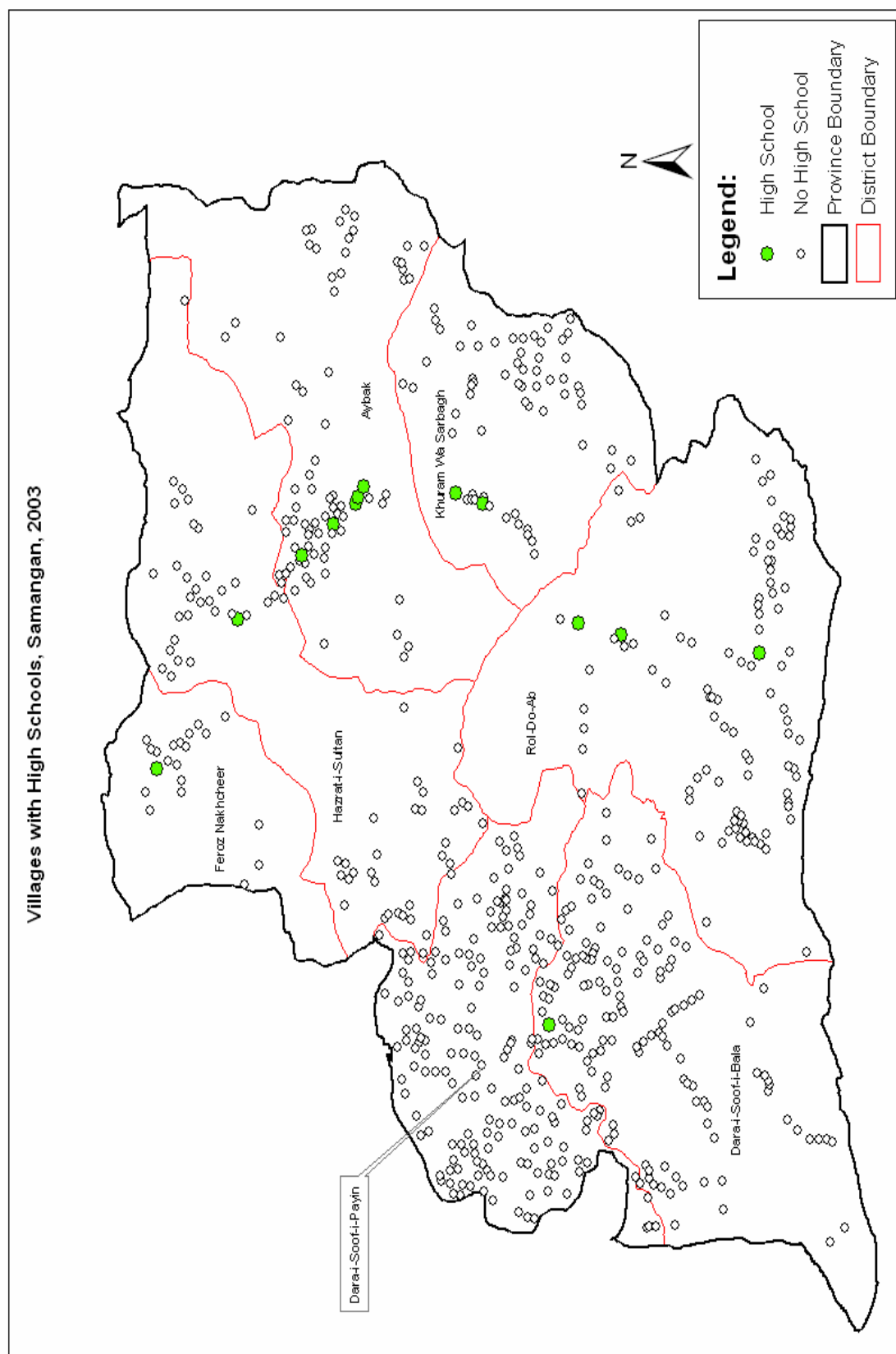
Map5



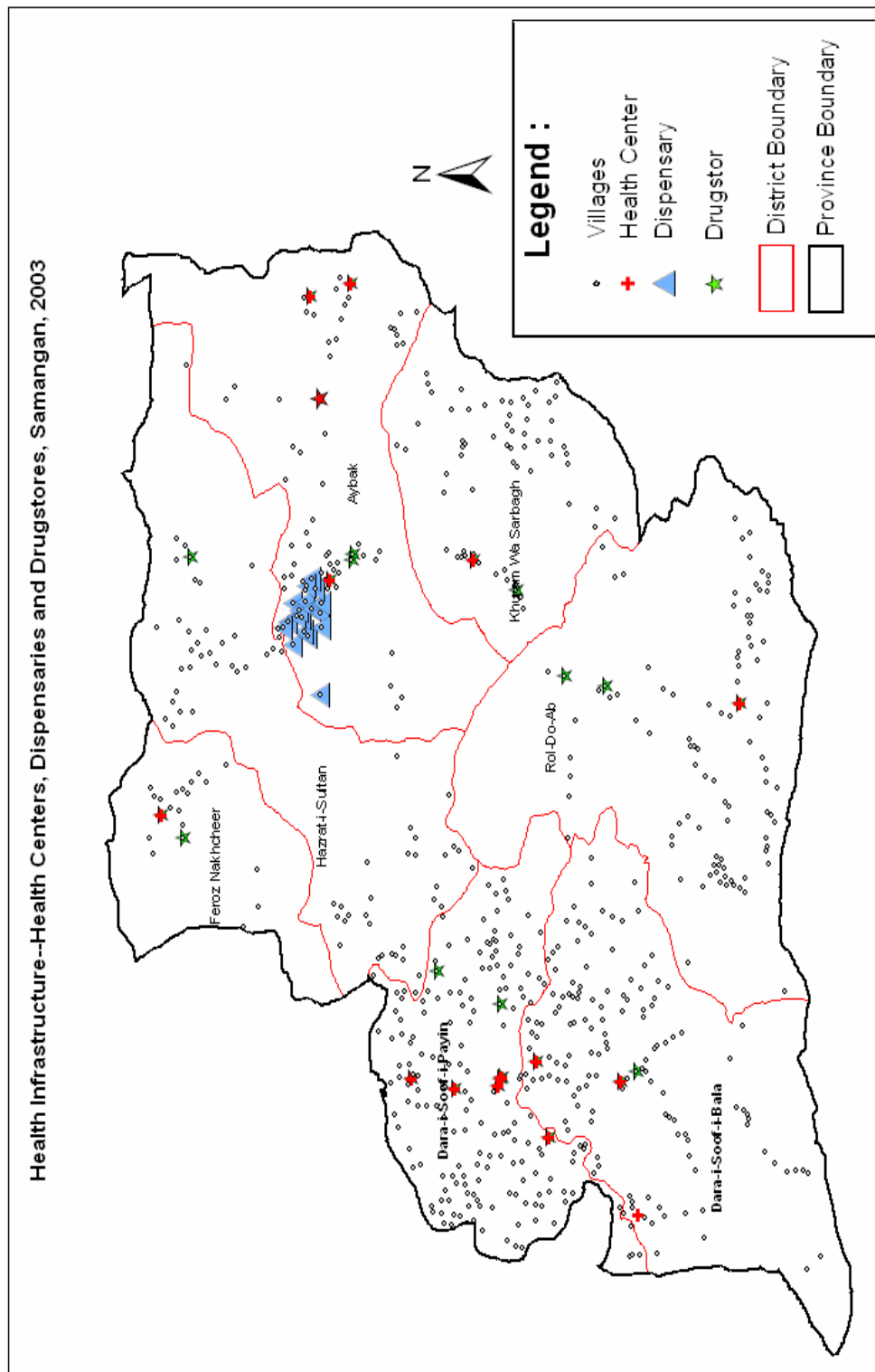
Map6



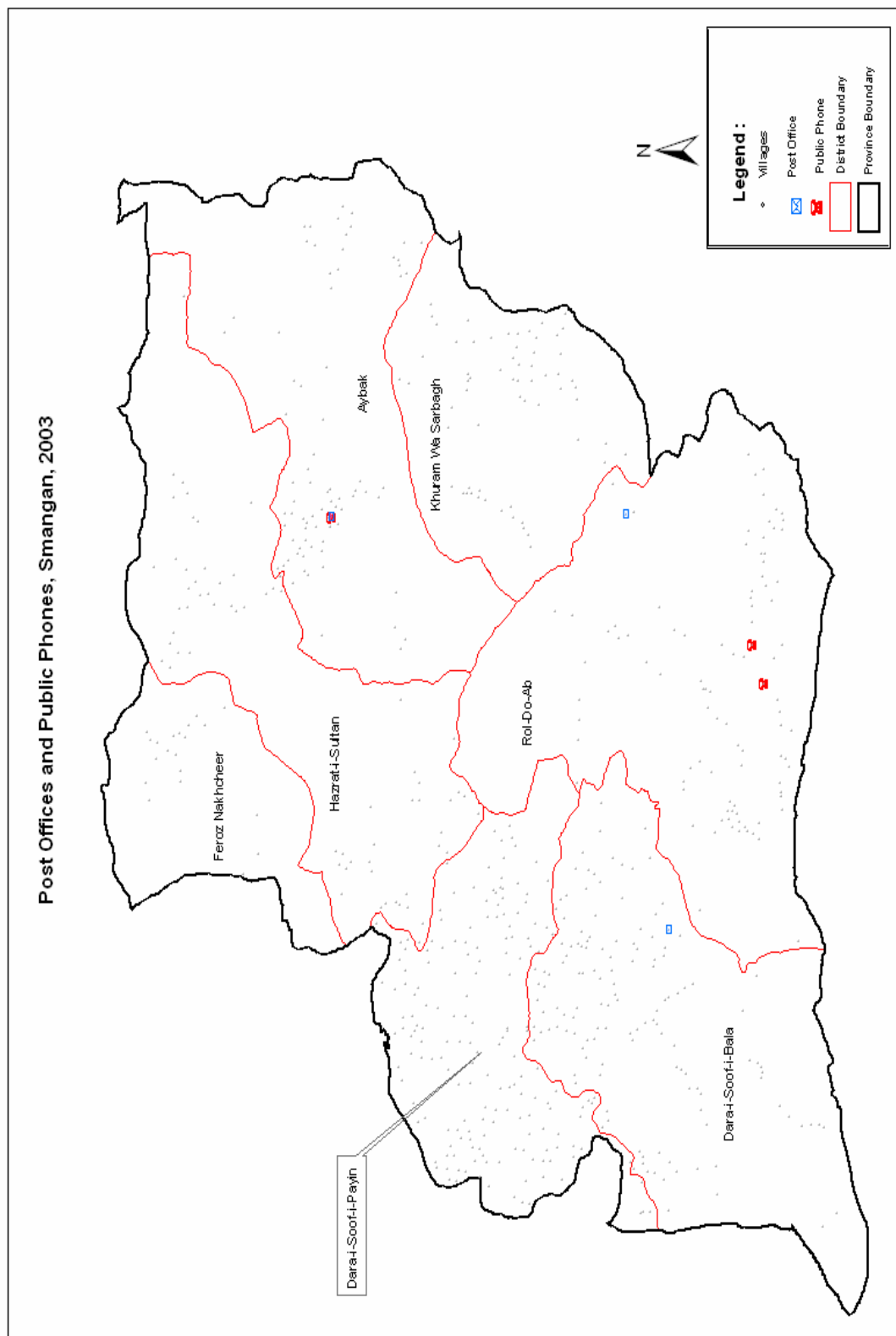
Map7



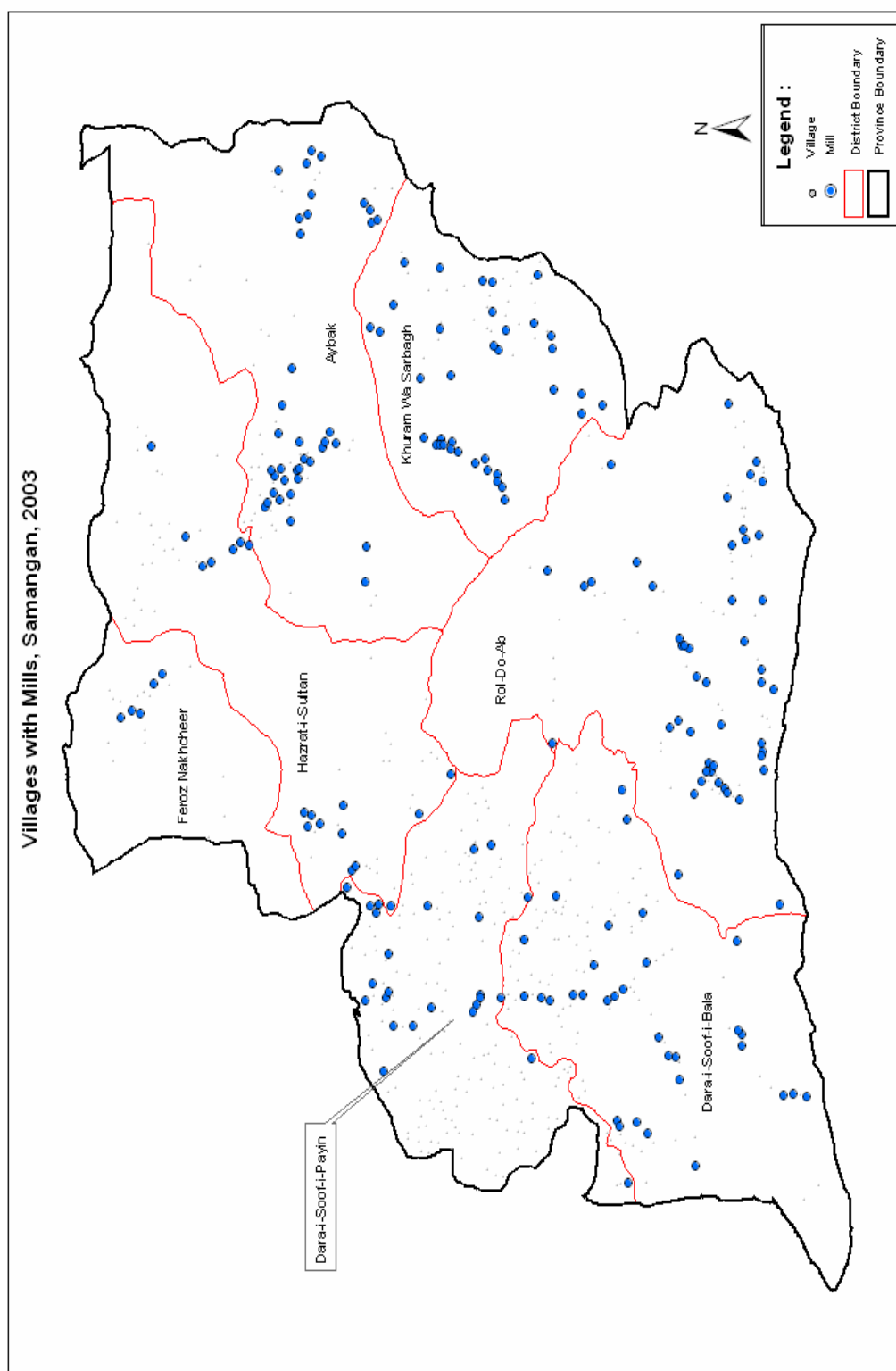
Map8



Map9



Map10





## Economic Activities

In addition to the major sources of irrigation water, the Household Listing operation 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 6, based on a technique called compositional analysis.

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

| Subsistence Crops | Industrial Crops | Fruits          | Vegetables  | Herbal Products | Handicrafts  | Small Industries | Animal Products |
|-------------------|------------------|-----------------|-------------|-----------------|--------------|------------------|-----------------|
| Wheat             | Cotton           | Grapes          | Potato      | Lico rice root  | Carpets      | Honey            | Eggs            |
| Corn              | Sugar Extract    | Pomegranates    | Onion       | Carav           | 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-fec-tion     | 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           |

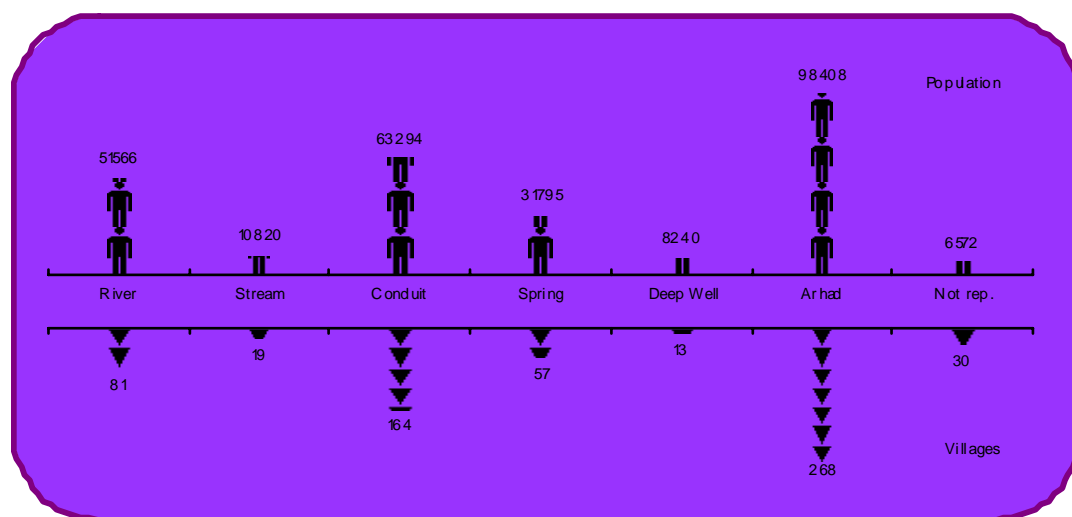
### Agriculture

Panels A through F of figure 13 provide information on agricultural products—crops; fruit; vegetables; herbal, and animal products.

Figure 12 shows that the predominant source of irrigation *arhads*, which supply 42 percent of the villages with their irrigation water, followed by conduits; the latter cater to the needs of another 26 percent. Together, these two sources represent the major sources

for about seven households out of 10. A third major source is rivers, which supply 13 percent of the villages and close to one-fifth of the population.

**Figure 12—Population by source of irrigation water, Samangan, 2003**



A cursory look at figure 13 shows that in the aggregate, i.e., taking into account all the economic activities surveyed, Dara-i-Soof-i-Payin, Aybak, and Roi-Do-Ab are the districts that figure more prominently than the other four, even though other districts stand out in one or more of the other products/activities (see also annex 6).

In the area of subsistence crops, wheat and maize are the two products that are mentioned substantially more often than the other five—629 times for wheat and 551 times for maize, out of a total of 1,371. Together, they represent more than 86 percent of all the subsistence crops produced in the province. Aybak is a major producer of six of the seven crops listed in the questionnaire; rice is the only crop that it produces in fewer villages than the other six, even though the number of such villages is still larger than in other districts. Roi-Do-Ab ranks second; it is a major producer of five crops—wheat, corn, rice, maize, and beans. Dara-i-Soof-i-Payin stands out in the production of wheat, maize, and peas. Other districts stand out in one or two crops (see annex table 6).

Vegetables are produced by remarkably fewer villages than subsistence crops—a total of 399, as compared to 1,371. The most popular produce are potatoes, onion, and, to a smaller extent, tomatoes, mentioned by respectively 124 times, 115 times, and 73 times. All three are concentrated mostly in three districts—Aybak, Dara-i-Soof-i-Payin, and

Roi-Do-Ab. The latter concentrates 54 percent of the villages producing potatoes, and 47.8 percent of those producing onion.

Villages producing fruit are about one and a half times more than those producing vegetables. The major fruit produced are melons and water melons; they are mentioned 334 times out of the total 614, which represents 54 percent. Other fruit are mulberry, almonds, walnuts, and grapes. Melons and water melons are grown in Dara-i-Soof-i-Payin and Dara-i-Soof-i-Bala. Together, these two districts house more than seven out of 10 villages producing such fruit. Mulberry and Walnuts are concentrated in Aybak; the latter houses more than half the villages producing these two fruit. Aybak is also a major producer of grapes, along with Feroz Nakhcheer.

Samangan is a relatively large producer of caray and asfitida; these two herbs are mentioned respectively 280 and 278 times out of a total of 825. Roughly, one-third of the villages in Samangan produce caray, and another third asfitida. Dara-i-Soof-i-Bala is the major producer of both—it concentrates 38.6 percent of the villages producing caray, and 43.5 percent of the villages producing asfitida. As regards the remainder of the herbs, Doi-Do-Ab specialize in licorice and chicory, Dara-i-Soof-i-Payin in aniseed and hyssop, and Dara-i-Soof-i-Payin in zerk.

The bulk of the agricultural activity in Samangan is in animal products. They are mentioned 2,753 times, which implies that they engage more than twice the number of villages producing subsistence crops, the second major area of agricultural activity. All the commodities are produced by more or less equal numbers of villages—the two extremes are dried yoghurt, produced in 522 villages and butter, produced in 353. Three districts concentrate almost each and every one of the three commodities, in particular Dara-i-Soof-i-Payin, but also Roi-Do-Ab, and Aybak. But Dara-i-Soof-i-Bala produces a major quantity of dried yoghurt—about a quarter of it.

#### **Industrial crops, small industries, and handicrafts**

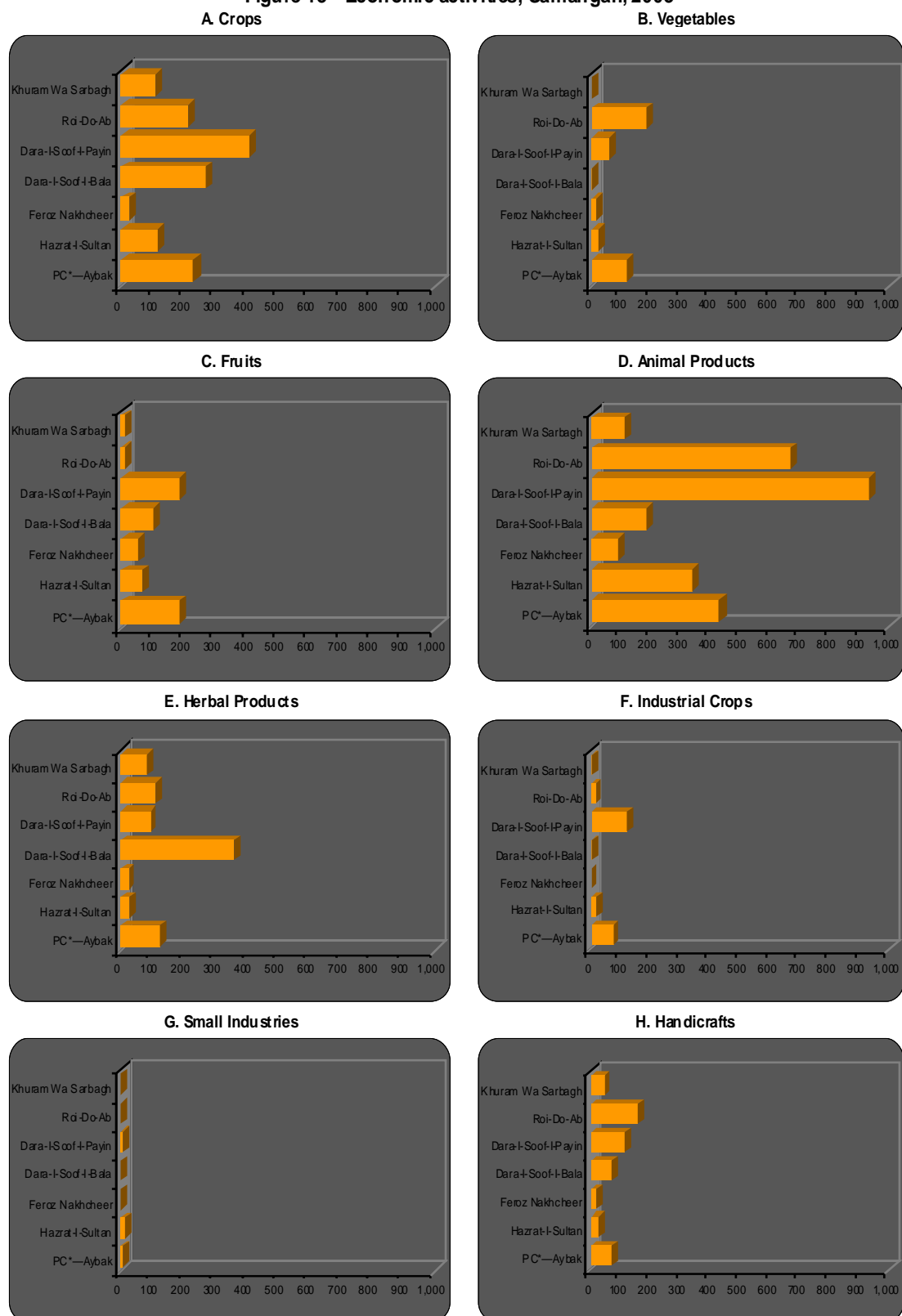
Industrial crops are grown in a comparatively fewer villages. They are mentioned 235 times—37 times in relation to cotton, 84 times in relation to sesame, and 42 times in

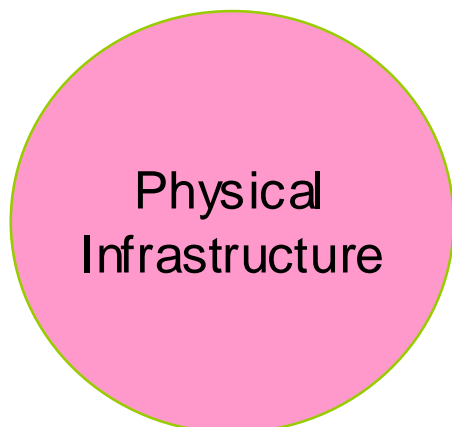
relation to tobacco. Together, the villages producing such commodities represent about seven out of 10. Again, Dara-i-Soof-i-Payin and Aybak figure prominently, but in particular the former. Hazrat-i-Sultan is a major producer of cotton, and Roi-Do-Ab a major producer of tobacco.

For all practical purposes, the sector of small industries is inexistent in Samangan. It is mentioned 23 times, seven of which in association with karakul skin, and five in relation to silk.

Handicrafts, on the other hand are much more present. They are mentioned 498 times, 256 of which, i.e., more than half, are related to rugs, another 91 in relation to shawls, 61 in relation to jewelry, and 51 in relation to carpets. Once again, Aybak, Dara-i-Soof-i-Payin, and Dara-i-Soof-i-Bala are the major producers, even though Aybak produces rugs in much fewer villages. Khuram wa Sarbagh and Roi-Do-Ab are also major producers of rugs.

Figure 13—Economic activities, Samangan, 2003





The Household Listing operation 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 total number of buildings counted was 45,834 in the whole province, 86 percent of which (39,349 buildings) were housing units. The remaining 14 percent (6,485 buildings) represented the rest of the various types of buildings.

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

### ***Housing units***

The largest numbers of housing units are located in Aybak, Dara-i-Soof-i-Payin, and Dara-i-Soof-i-Bala. Together, these three districts concentrate respectively 24 percent, 19 percent, and 16 percent of all the housing units, i.e., close to three units out of every five. This is to be expected given that these three districts are the most populous among the seven. In terms of persons per housing unit, the average at province level is eight, but inter-district variation is minimal—it ranges from seven to nine, the most crowded districts being Aybak and Feroz Nakhcheer.

**Schools and educational institutions**

With regard to schools and educational institutions, Samangan appears to be better off than many of the other provinces in the country. There is a total of 143 such places, the majority of which—71, representing close to half—are in Aybak (36 schools) and Dara-i-Soof-i-Bala (35 schools). In the remaining districts, the number varies between four in Feroz Nakhcheer and 21 in Roi-Do-Ab. 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. But on average, there is one school for every 2,190 population or so, with some inter-district variation: 1,499 in Dara-i-Soof-i-Bala and 3,491 in Dara-i-Soof-i-Payin.

**Health infrastructure**

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

There is only one hospital in the entire province, located in the provincial center, Aybak, and catering to the needs of 9,511 population.

Clinics are more present, but their number is still limited; there is a total of 63 of them spread out in all districts except Hazrat-i-Sultan. Out of the 14, five, i.e., more than a third are in the provincial center and another three are in Roi-Do-Ab. The potential clientele per clinic varies from about 13,500 in Roi-Do-Ab to about 30,700 in Khuram wa Sarbagh. At the provincial level, the average per clinic is close 22,400 (see table 6 and figure 14).

Doctors' practices number 21, i.e., 50 percent more than clinics. The overwhelming majority of them are in Aybak—18. The other three are in Dara-i-Soof-i-Payin (two) and Feroz Nakhcheer (one). In other words, four out of the seven districts don't have any doctors' practices. In terms of population density per doctor, it varies from about 4,700 in Aybak to about 28,000 in Dara-i-Soof-i-Payin. Overall, i.e., at province level, it is situated at just over 15,000.

As for pharmacies, they number 61, which averages out to about one for every 5,000 or so. As expected, Aybak concentrates the largest share: 31, representing more than half. But another 10 are Dara-i-Soof-i-Payin. Inter-district variation with respect to potential clientele per pharmacy goes from about 2,800 in Aybak to about 36,700 in Hazrat-i-Sultan.

In the final analysis, Samangan appears to be more adequately endowed in terms of medical services than many other provinces.

### **Factories & workshops**

The province of Samangan houses 373 factories/workshops<sup>1</sup>, about two-thirds of which (228) are located in Aybak, the provincial center. The other third is concentrated mainly in Dara-i-Soof-i-Payin and Dara-i-Soof-i-Bala, with respectively 43, and 40 units.

At province level, the population density per factory/workshop is 840, but inter-district variation is quite large—375 in Aybak, 650 in Feroz Nakhcheer, and about 3,700 in Hazrat-i-Sultan.

### **Bakeries and Mills**

Bakeries also appear to be rather scarce and spatially concentrated—a total of 27, 17 of which are located in Aybak (one for each 5,000 population or so), seven in Dara-i-Soof-i-Payin (one for each 7,500 or so), and the remainder in Dara-i-Soof-i-Bala (one for each 18,600 or so).

Mills, on the other hand are omnipresent; they exist in all districts with no exception. There are 248 of them, including 46 in Aybak, and 70 in Roi-Do-Ab. But population density per mill is lowest in Roi-Do-Ab, Khuram wa Sarbagh, and Feroz Nakhcheer—

---

<sup>1</sup> 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.



respectively 577, 877, and 900. In the remainder of the provinces, density runs from about 1,700 in Dara-i-Soof-i-Payin to more than 3,000 in Hazrat-i-Sultan.

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

### **Hotels & Restaurants**

There is a total of 176 hotels and restaurants in the province of Samangan, 84 of which, representing 47 percent are located in the provincial center. Another 42 are in Dara-i-Soof-i-Bala. On average, every hotel/restaurant caters to the needs of approximately 1,800 population. Inter-district variation is not excessive; it ranges from 1,017 in Aybak to about 3,400 in Khuram Wa Sarbagh; but there are two exceptions—Feroz Nakhcheer and Hazrat-i-Sultan, where population density per hotel/restaurant is respectively 11,700 and 18,300 or so.

The information available does not give any indication as to the nature of such establishments. It would appear that in predominantly rural settings, 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 with relatively more such places tend to have more visitors than the others.

### **Shopping places**

Food & grocery stores are the most prevalent businesses in Samangan. There is a total of 2,017 of them, i.e., an average of one store per 155 population. This is a much lower density than in many other provinces in the country. Inter-district variation exists, but is negligible, except in the two extremes—Hazrat-i-Sultan, where it is as high as 390, and Feroz Nakhcheer, where it is as low as 89.

Textile and clothes stores are not as present as one might expect. There is a total of 290 of them, one for every 1,080 population. Their spatial distribution is more variable than for grocery stores. Hazrat-i-Sultan has only one of them, and Khuram wa Sarbagh none.

In the remainder of the districts, potential clientele per store varies from 467 in Aybak, to 2,400 or so in Roi-Do-Ab.

Stores selling construction materials also appear to be in good supply, at least relatively to clothes & textile stores. There are 144 of them throughout the province, one for every 2,200 population or so. The majority is located in Aybak—95, representing two-thirds.

### **Mosques**

The province of Samangan counts a total of 876 mosques, i.e., an average of one mosque for every 321 population. Inter-district variation around this mean goes from 182 in Roi-Do-Ab to 494 in Aybak.

### **Other places**

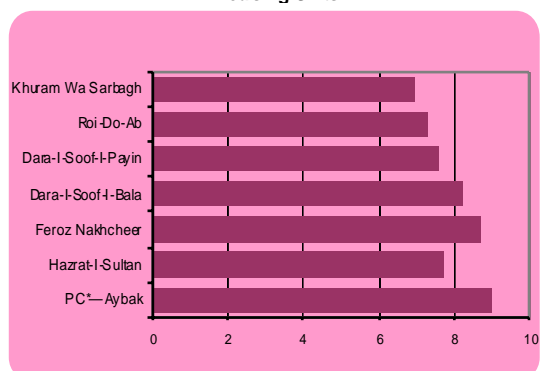
The whole province of Samangan counts 20 barbers/beauty salons, including 14 in Aybak—one per 6,000 population, three in Dara-i-Soof-i-Bala—one per 5,900, two in Feroz Nakhcheer—one per 17,500, and one Khruam wa Sarbagh for 30,700. It would appear that in rural settings, barbers/beauty salons tend to do move from one place to the next, following weekly markets, or from home to home on demand.

There is only one poultry/livestock farm in the province of Samangan, located in the provincial center. Given the rural nature of the province, it is justifiable to hypothesize that household tend to raise their own chicken or other farm animals.

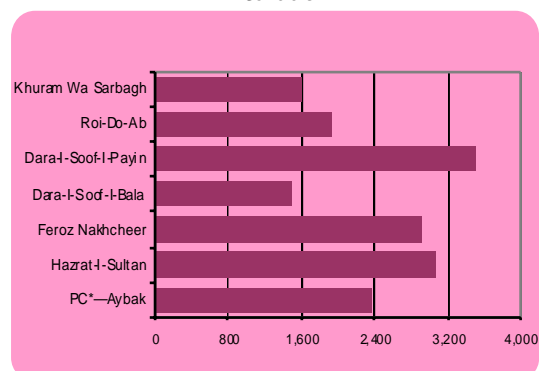
Table 6—Number of buildings, and population per building, by type, Samangan, 2003

| A—Absolute numbers                |                    |                                    |           |         |                    |            |                      |                       |                          |                        |                |                            |                        |                         |          |       |         |        |         |            |
|-----------------------------------|--------------------|------------------------------------|-----------|---------|--------------------|------------|----------------------|-----------------------|--------------------------|------------------------|----------------|----------------------------|------------------------|-------------------------|----------|-------|---------|--------|---------|------------|
| District                          | Residential Places | Schools & Educational Institutions | Hospitals | Clinics | Doctors' Practices | Pharmacies | Factories/ Workshops | Food & Grocery Stores | Clothes & Textile Stores | Construction Materials | Cons- truction | Poultry/ Live-stock Farms  | Hotels & Res- taurants | Barbers & Beauty Salons | Bakeries | Mills | Mosques | Other  | Total   | Population |
| Provincial Center—Aybak           | 9,511              | 36                                 | 1         | 5       | 18                 | 31         | 228                  | 728                   | 183                      | 95                     | 84             | 14                         | 84                     | 14                      | 17       | 46    | 173     | 1,139  | 12,310  | 85,426     |
| Hazrat-i-Sultan                   | 4,772              | 12                                 | 0         | 0       | 0                  | 1          | 10                   | 94                    | 1                        | 2                      | 2              | 0                          | 2                      | 0                       | 0        | 12    | 86      | 55     | 5,047   | 36,690     |
| Feroz Nakhcheer                   | 1,347              | 4                                  | 0         | 1       | 1                  | 1          | 18                   | 131                   | 12                       | 6                      | 0              | 0                          | 1                      | 2                       | 0        | 13    | 22      | 50     | 1,809   | 11,701     |
| Dara-i-Soorf-i-Bala               | 6,370              | 35                                 | 0         | 2       | 0                  | 7          | 40                   | 343                   | 32                       | 15                     | 0              | 42                         | 3                      | 3                       | 7        | 39    | 137     | 268    | 7,340   | 52,473     |
| Dara-i-Soorf-i-Payin              | 7,394              | 16                                 | 0         | 2       | 2                  | 10         | 43                   | 228                   | 45                       | 14                     | 0              | 24                         | 0                      | 0                       | 3        | 33    | 307     | 166    | 8,267   | 55,858     |
| Roi-Do-Ab                         | 5,520              | 21                                 | 0         | 3       | 0                  | 7          | 15                   | 324                   | 17                       | 9                      | 0              | 14                         | 0                      | 0                       | 0        | 70    | 141     | 94     | 6,235   | 40,358     |
| Khuram Wa Sarbagh                 | 4,435              | 19                                 | 0         | 1       | 0                  | 4          | 19                   | 168                   | 0                        | 3                      | 0              | 9                          | 1                      | 0                       | 0        | 35    | 110     | 201    | 5,006   | 30,705     |
| Total province                    | 39,349             | 143                                | 1         | 14      | 21                 | 61         | 373                  | 2,017                 | 290                      | 144                    | 1              | 176                        | 20                     | 27                      | 248      | 976   | 1,373   | 45,834 | 313,211 |            |
| B—Ratio (Population per Building) |                    |                                    |           |         |                    |            |                      |                       |                          |                        |                |                            |                        |                         |          |       |         |        |         |            |
| District                          | Residential Places | Schools & Educational Institutions | Hospitals | Clinics | Doctors' Practice  | Pharmacies | Factories/ Workshops | Food & Grocery Stores | Clothes & Textile Stores | Construction Materials | Cons- truction | Poultry & Live-stock Farms | Hotels & Res- taurants | Barbers & Beauty Salons | Bakeries | Mills | Mosques | Other  | Total   | Population |
| Provincial Center—Aybak           | 9                  | 2,373                              | 85,426    | 17,085  | 4,746              | 2,756      | 375                  | 117                   | 467                      | 889                    | 85,426         | 1,017                      | 18,345                 | —                       | 5,025    | 1,857 | 494     | 75     | —       | —          |
| Hazrat-i-Sultan                   | 8                  | 3,058                              | —         | —       | —                  | 36,690     | 3,689                | 390                   | 36,690                   | 18,345                 | —              | —                          | 18,345                 | —                       | —        | 3,058 | 427     | 667    | —       | —          |
| Feroz Nakhcheer                   | 9                  | 2,925                              | —         | 11,701  | 11,701             | 11,701     | 650                  | 89                    | 975                      | 1,850                  | —              | —                          | 11,701                 | 5,851                   | —        | 900   | 532     | 234    | —       | —          |
| Dara-i-Soorf-i-Bala               | 8                  | 1,499                              | —         | 26,237  | —                  | 7,496      | 1,312                | 153                   | 1,640                    | 3,498                  | —              | —                          | 1,249                  | 17,491                  | 7,496    | 1,345 | 383     | 196    | —       | —          |
| Dara-i-Soorf-i-Payin              | 8                  | 3,491                              | —         | 27,929  | 27,929             | 5,586      | 1,299                | 245                   | 1,241                    | 3,990                  | —              | —                          | 2,327                  | —                       | 18,619   | 1,893 | 182     | 336    | —       | —          |
| Roi-Do-Ab                         | 7                  | 1,922                              | —         | 13,453  | —                  | 5,765      | 2,691                | 125                   | 2,374                    | 4,484                  | —              | —                          | 2,883                  | —                       | —        | 577   | 286     | 429    | —       | —          |
| Khuram Wa Sarbagh                 | 7                  | 1,616                              | —         | 30,705  | —                  | 7,676      | 1,616                | 182                   | —                        | 10,235                 | —              | —                          | 3,412                  | 30,705                  | —        | 877   | 279     | 153    | —       | —          |
| Total province                    | 8                  | 2,190                              | 313,211   | 22,372  | 14,915             | 5,135      | 840                  | 155                   | 1,080                    | 2,175                  | 313,211        | 1,780                      | 15,681                 | 11,800                  | 1,263    | 321   | 159     | —      | —       | —          |

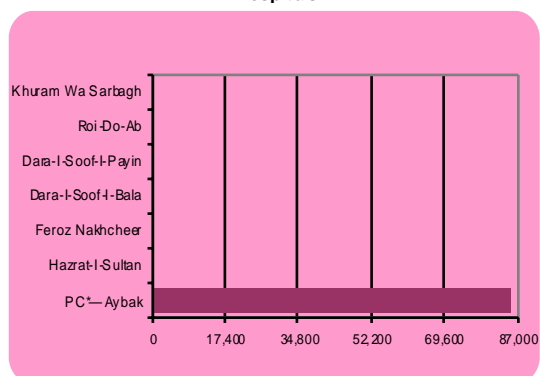
**Figure 14—Physical infrastructure, Samangan, 2003**  
**Housing Units**



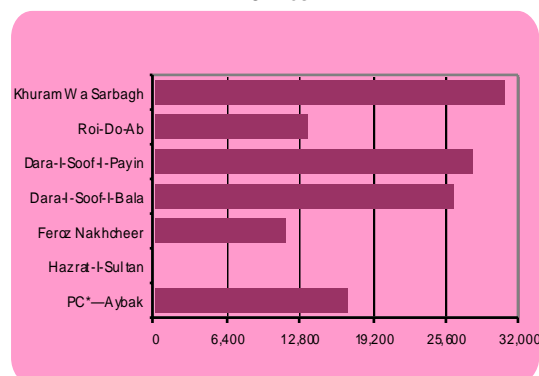
**Schools**



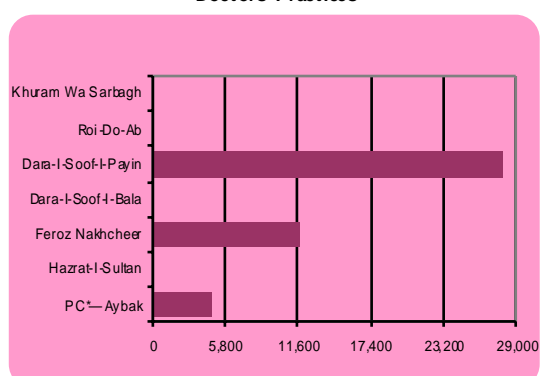
**Hospitals**



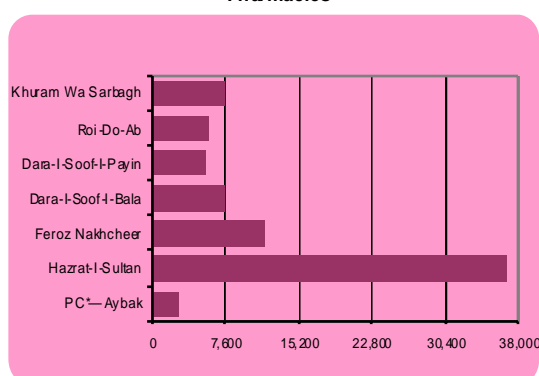
**Clinics**



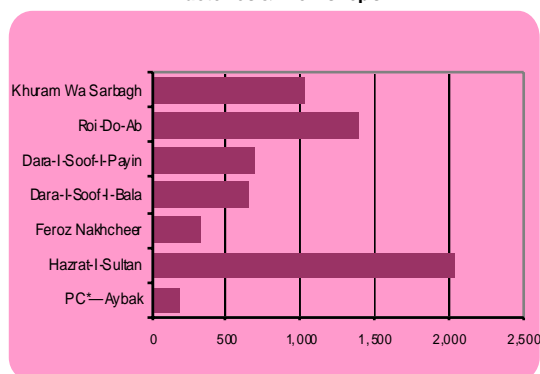
**Doctors' Practices**



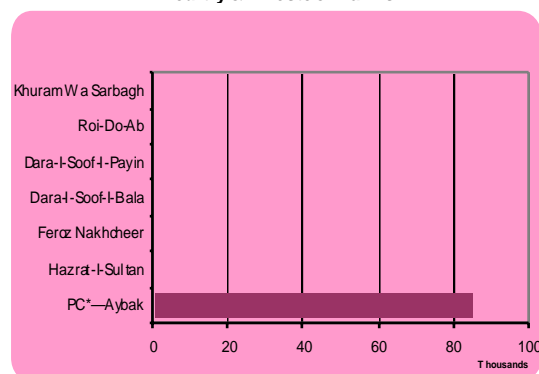
**Pharmacies**



**Factories & Workshops**



**Poultry & Livestock Farms**



PC = Provincial Center

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



## *Annexes*

| <b>Annex 1</b>   |                  |                  |                   |                  |                  |                   |                   |                   |                   |
|--|------------------|------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Population Estimates as of 1 July 2004, by province</b> |                  |                  |                   |                  |                  |                   |                   |                   |                   |
| <b>Province</b>  | <b>Rural</b>     |                  |                   | <b>Urban</b>     |                  |                   | <b>Total</b>      |                   |                   |
|  | <b>Male</b>      | <b>Female</b>    | <b>Both sexes</b> | <b>Male</b>      | <b>Female</b>    | <b>Both sexes</b> | <b>Male</b>       | <b>Female</b>     | <b>Both sexes</b> |
| <b>Kabul</b>   | 254,048          | 246,567          | 500,615           | 989,851          | 956,578          | 1,946,430         | 1,243,899         | 1,203,145         | 2,447,044         |
| <b>Hirat</b>   | 671,187          | 667,727          | 1,338,914         | 237,260          | 236,824          | 474,083           | 908,446           | 904,551           | 1,812,997         |
| <b>Hilmand</b>   | 668,703          | 648,297          | 1,317,000         | 44,870           | 43,198           | 88,068            | 713,572           | 691,495           | 1,405,068         |
| <b>Nangarhar</b>   | 583,572          | 559,507          | 1,143,079         | 108,538          | 104,877          | 213,415           | 692,110           | 664,384           | 1,356,494         |
| <b>Balkh</b>   | 353,285          | 342,044          | 695,329           | 226,793          | 219,580          | 446,374           | 580,079           | 561,624           | 1,141,702         |
| <b>Ghazni</b>  | 538,665          | 518,533          | 1,057,198         | 22,651           | 22,313           | 44,964            | 561,316           | 540,846           | 1,102,162         |
| <b>Kandahar</b>  | 377,284          | 360,683          | 737,968           | 144,060          | 141,015          | 285,075           | 521,344           | 501,699           | 1,023,043         |
| <b>Takhar</b>  | 368,110          | 356,810          | 724,921           | 64,104           | 63,549           | 127,653           | 432,215           | 420,359           | 852,574           |
| <b>Badakhshan</b>  | 406,595          | 396,185          | 802,779           | 21,113           | 20,688           | 41,801            | 427,708           | 416,873           | 844,581           |
| <b>Faryab</b>  | 376,406          | 364,010          | 740,416           | 52,238           | 51,734           | 103,972           | 428,644           | 415,744           | 844,388           |
| <b>Kunduz</b>  | 297,724          | 296,776          | 594,500           | 97,677           | 97,892           | 195,569           | 395,401           | 394,668           | 790,069           |
| <b>Paktika</b>   | 393,641          | 378,978          | 772,619           | 2,256            | 2,244            | 4,500             | 395,897           | 381,222           | 777,118           |
| <b>Baqhlan</b>   | 304,391          | 288,055          | 592,445           | 84,485           | 82,127           | 166,612           | 388,876           | 370,181           | 759,057           |
| <b>Ghor</b>  | 328,739          | 316,703          | 645,442           | 3,176            | 3,164            | 6,339             | 331,915           | 319,867           | 651,782           |
| <b>Khost</b>   | 321,315          | 306,771          | 628,086           | 7,900            | 7,476            | 15,376            | 329,215           | 314,247           | 643,462           |
| <b>Wardak</b>  | 273,003          | 264,051          | 537,054           | 768              | 813              | 1,581             | 273,771           | 264,864           | 538,634           |
| <b>Paktya</b>  | 252,815          | 242,673          | 495,487           | 11,888           | 11,403           | 23,291            | 264,702           | 254,076           | 518,779           |
| <b>Badghis</b>   | 255,280          | 245,147          | 500,427           | 7,433            | 7,012            | 14,445            | 262,713           | 252,159           | 514,872           |
| <b>Parwan</b>  | 220,954          | 223,407          | 444,361           | 26,843           | 27,398           | 54,241            | 247,797           | 250,805           | 498,602           |
| <b>Farah</b>   | 238,743          | 227,190          | 465,933           | 14,271           | 13,588           | 27,858            | 253,014           | 240,778           | 493,791           |
| <b>Daikundy</b>  | 235,515          | 228,805          | 464,320           | 1,799            | 1,690            | 3,489             | 237,314           | 230,495           | 467,810           |
| <b>Sar-i-Pul</b>   | 211,286          | 202,615          | 413,901           | 15,324           | 14,745           | 30,069            | 226,610           | 217,360           | 443,970           |
| <b>Jawzjan</b>   | 153,554          | 150,860          | 304,415           | 64,827           | 63,839           | 128,667           | 218,382           | 214,699           | 433,081           |
| <b>Kunarha</b>   | 204,000          | 195,375          | 399,375           | 9,491            | 8,920            | 18,411            | 213,491           | 204,295           | 417,786           |
| <b>Laghman</b>   | 197,220          | 187,721          | 384,941           | 831              | 745              | 1,576             | 198,050           | 188,466           | 386,517           |
| <b>Kapisa</b>  | 181,021          | 184,056          | 365,077           | 216              | 195              | 412               | 181,237           | 184,251           | 365,488           |
| <b>Zabul</b>   | 176,365          | 171,446          | 347,811           | 4,131            | 3,989            | 8,120             | 180,496           | 175,434           | 355,931           |
| <b>Bamyan</b>  | 169,482          | 169,049          | 338,531           | 3,969            | 4,384            | 8,353             | 173,451           | 173,433           | 346,884           |
| <b>Logar</b>   | 164,468          | 161,338          | 325,806           | 3,579            | 3,682            | 7,261             | 168,047           | 165,020           | 333,067           |
| <b>Samangan</b>  | 144,756          | 137,454          | 282,209           | 19,122           | 19,163           | 38,285            | 163,878           | 156,617           | 320,495           |
| <b>Urozgan</b>   | 160,761          | 150,438          | 311,200           | 4,073            | 3,887            | 7,960             | 164,834           | 154,325           | 319,160           |
| <b>Nooristan</b>   | 68,252           | 66,306           | 134,558           | —                | —                | —                 | 68,252            | 66,306            | 134,558           |
| <b>Nimroz</b>  | 44,565           | 42,910           | 87,475            | 15,699           | 15,025           | 30,723            | 60,264            | 57,934            | 118,199           |
| <b>Panjsher</b>  | 56,221           | 54,028           | 110,250           | —                | —                | —                 | 56,221            | 54,028            | 110,250           |
| <b>Total</b>   | <b>9,653,727</b> | <b>9,354,205</b> | <b>19,007,932</b> | <b>2,309,436</b> | <b>2,252,046</b> | <b>4,561,482</b>  | <b>11,963,163</b> | <b>11,606,251</b> | <b>23,569,414</b> |

| <b>Annex 2</b>  |                         |                         |                |   |                           |             |
|---|-------------------------|-------------------------|----------------|---|---------------------------|-------------|
| <b>Total and urban populations (as of mid-July 2004) by province, ranked according to their shares of the total urban population of Afghanistan</b> |                         |                         |                |   |                           |             |
| <b>Province</b>   | <b>Total Population</b> | <b>Urban Population</b> |                | <b>Share of the urban population of Afghanistan</b> |                           |             |
|   |                         | <b>Number</b>           | <b>Percent</b> | <b>Percent</b>                                      | <b>Cumulative Percent</b> | <b>Rank</b> |
| <i>Kabul</i>  | 2,447,044               | 1,946,430               | 79.5           | 42.7  | 43                        | 1           |
| <i>Hirat</i>  | 1,812,997               | 474,083                 | 26.1           | 10.4  | 53                        | 2           |
| <i>Balkh</i>  | 1,141,702               | 446,374                 | 39.1           | 9.8   | 63                        | 3           |
| <i>Kandahar</i>   | 1,023,043               | 285,075                 | 27.9           | 6.2   | 69                        | 4           |
| <i>Nangarhar</i>  | 1,356,494               | 213,415                 | 15.7           | 4.7   | 74                        | 5           |
| <i>Kunduz</i>   | 790,069                 | 195,569                 | 24.8           | 4.3   | 78                        | 6           |
| <i>Baqhlān</i>  | 759,057                 | 166,612                 | 21.9           | 3.7   | 82                        | 7           |
| <i>Jawzian</i>  | 433,081                 | 128,667                 | 29.7           | 2.8   | 85                        | 8           |
| <i>Takhar</i>   | 852,574                 | 127,653                 | 15.0           | 2.8   | 87                        | 9           |
| <i>Farvab</i>   | 844,388                 | 103,972                 | 12.3           | 2.3   | 90                        | 10          |
| <i>Hilmand</i>  | 1,405,068               | 88,068                  | 6.3            | 1.9   | 92                        | 11          |
| <i>Parwan</i>   | 498,602                 | 54,241                  | 10.9           | 1.2   | 93                        | 12          |
| <i>Ghazni</i>   | 1,102,162               | 44,964                  | 4.1            | 1.0   | 94                        | 13          |
| <i>Badakhshan</i>   | 844,581                 | 41,801                  | 4.9            | 0.9   | 95                        | 14          |
| <b>Samangan</b>   | <b>320,495</b>          | <b>38,285</b>           | <b>11.9</b>    | <b>0.8</b>  | <b>95</b>                 | <b>15</b>   |
| <i>Nimroz</i>   | 118,199                 | 30,723                  | 26.0           | 0.7   | 96                        | 16          |
| <i>Sar-i-Pul</i>  | 443,970                 | 30,069                  | 6.8            | 0.7   | 97                        | 17          |
| <i>Farah</i>  | 493,791                 | 27,858                  | 5.6            | 0.6   | 97                        | 18          |
| <i>Paktva</i>   | 518,779                 | 23,291                  | 4.5            | 0.5   | 98                        | 19          |
| <i>Kunarha</i>  | 417,786                 | 18,411                  | 4.4            | 0.4   | 98                        | 20          |
| <i>Khost</i>  | 643,462                 | 15,376                  | 2.4            | 0.3   | 99                        | 21          |
| <i>Badghis</i>  | 514,872                 | 14,445                  | 2.8            | 0.3   | 99                        | 22          |
| <i>Bamyan</i>   | 346,884                 | 8,353                   | 2.4            | 0.2   | 99                        | 23          |
| <i>Zabul</i>  | 355,931                 | 8,120                   | 2.3            | 0.2   | 99                        | 24          |
| <i>Urozgan</i>  | 319,160                 | 7,960                   | 2.5            | 0.2   | 100                       | 25          |
| <i>Logar</i>  | 333,067                 | 7,261                   | 2.2            | 0.2   | 100                       | 26          |
| <i>Ghor</i>   | 651,782                 | 6,339                   | 1.0            | 0.1   | 100                       | 27          |
| <i>Paktika</i>  | 777,118                 | 4,500                   | 0.6            | 0.1   | 100                       | 28          |
| <i>Daikundy</i>   | 467,810                 | 3,489                   | 0.7            | 0.1   | 100                       | 29          |
| <i>Wardak</i>   | 538,634                 | 1,581                   | 0.3            | 0.0   | 100                       | 30          |
| <i>Laghman</i>  | 386,517                 | 1,576                   | 0.4            | 0.0   | 100                       | 31          |
| <i>Kapisa</i>   | 365,488                 | 412                     | 0.1            | 0.0   | 100                       | 32          |
| <i>Nooristan</i>  | 134,558                 | 0                       | 0.0            | 0.0   | 100                       | 33          |
| <i>Parjsher</i>   | 110,250                 | 0                       | 0.0            | 0.0   | 100                       | 34          |
| <b>Total</b>  | <b>23,569,414</b>       | <b>4,561,482</b>        | <b>19.4</b>    | <b>100.0</b>  | <b>—</b>                  | <b>—</b>    |



| <b>Annex 3</b>  |                   |                |                                   |             |
|---|-------------------|----------------|-----------------------------------|-------------|
| <b>Total populations (as of mid-July 2004), land area, and density per km<sup>2</sup>, by province, ranked according to land area</b> |                   |                |                                   |             |
| <b>Province</b>   | <b>Population</b> | <b>Area</b>    | <b>Density per Km<sup>2</sup></b> | <b>Rank</b> |
| <i>Kabul</i>  | 2,447,044         | 4,524          | 540.9                             | 1           |
| <i>Kapisa</i>   | 365,488           | 1,908          | 191.6                             | 2           |
| <i>Nangarhar</i>  | 1,356,494         | 7,641          | 177.5                             | 3           |
| <i>Khost</i>  | 643,462           | 4,235          | 151.9                             | 4           |
| <i>Kunduz</i>   | 790,069           | 8,081          | 97.8                              | 5           |
| <i>Laghman</i>  | 386,517           | 3,978          | 97.2                              | 6           |
| <i>Paktia</i>   | 518,779           | 5,583          | 92.9                              | 7           |
| <i>Parwan</i>   | 498,602           | 5,715          | 87.2                              | 8           |
| <i>Kunarha</i>  | 417,786           | 4,926          | 84.8                              | 9           |
| <i>Logar</i>  | 333,067           | 4,568          | 72.9                              | 10          |
| <i>Balkh</i>  | 1,141,702         | 16,186         | 70.5                              | 11          |
| <i>Takhar</i>   | 852,574           | 12,458         | 68.4                              | 12          |
| <i>Wardak</i>   | 538,634           | 10,348         | 52.1                              | 13          |
| <i>Ghazni</i>   | 1,102,162         | 22,461         | 49.1                              | 14          |
| <i>Baqhlān</i>  | 759,057           | 18,255         | 41.6                              | 15          |
| <i>Faryab</i>   | 844,388           | 20,798         | 40.6                              | 16          |
| <i>Paktika</i>  | 777,118           | 19,516         | 39.8                              | 17          |
| <i>Jawzjan</i>  | 433,081           | 11,292         | 38.4                              | 18          |
| <i>Hirat</i>  | 1,812,997         | 55,869         | 32.5                              | 19          |
| <i>Panishēr</i>   | 110,250           | 3,772          | 29.2                              | 20          |
| <i>Urozgan</i>  | 319,160           | 11,474         | 27.8                              | 21          |
| <i>Sar-i-Pul</i>  | 443,970           | 16,386         | 27.1                              | 22          |
| <i>Daikundy</i>   | 467,810           | 17,501         | 26.7                              | 23          |
| <i>Badghis</i>  | 514,872           | 20,794         | 24.8                              | 24          |
| <i>Hilmand</i>  | 1,405,068         | 58,305         | 24.1                              | 25          |
| <b>Samangan</b>   | <b>320,495</b>    | <b>13,438</b>  | <b>23.8</b>                       | <b>26</b>   |
| <i>Zabul</i>  | 355,931           | 17,472         | 20.4                              | 27          |
| <i>Bamyan</i>   | 346,884           | 18,029         | 19.2                              | 28          |
| <i>Badakhshan</i>   | 844,581           | 44,836         | 18.8                              | 29          |
| <i>Kandahar</i>   | 1,023,043         | 54,845         | 18.7                              | 30          |
| <i>Ghor</i>   | 651,782           | 36,657         | 17.8                              | 31          |
| <i>Nooristan</i>  | 134,558           | 9,267          | 14.5                              | 32          |
| <i>Farah</i>  | 493,791           | 49,339         | 10.0                              | 33          |
| <i>Nimroz</i>   | 118,199           | 42,410         | 2.8                               | 34          |
| <b>Total</b>  | <b>23,569,414</b> | <b>652,864</b> | <b>36.1</b>                       | <b>—</b>    |

## **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<sup>1</sup>, 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.

---

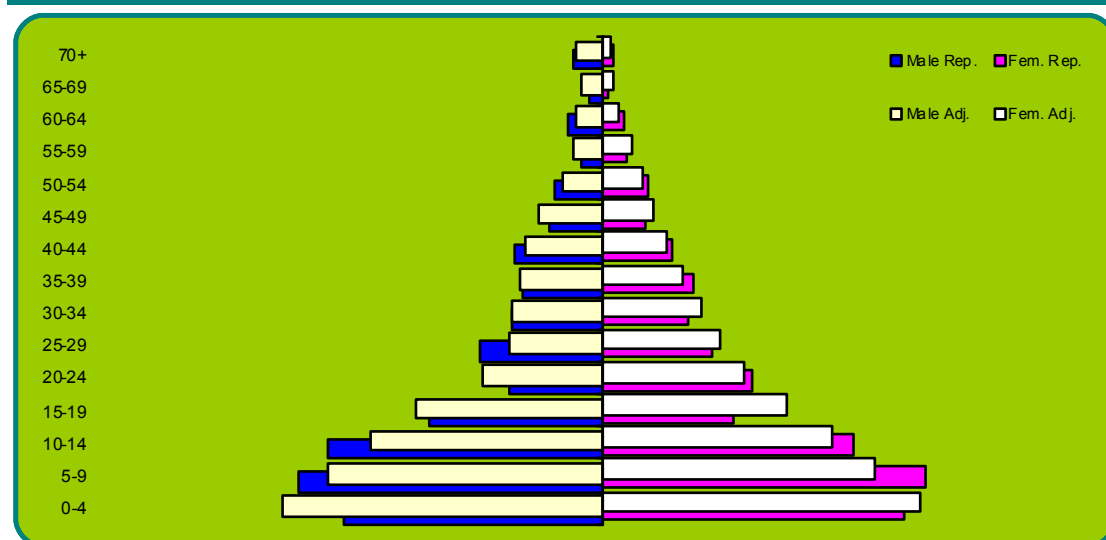
<sup>1</sup> The model used was from the Regional Model Life Tables and Stable Population; Ansley J. Coale and Paul Demeny; Princeton University Press; Princeton, New Jersey; 1966 ("West" model at level 13 for both males and females [ $e_0$ : 50 for females, and 47.114 for males] and a growth rate of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

**Annex 4**  
**Comparison of the Reported and adjusted age distributions, Samangan, 2003**

**A—Distribution**

| Age   | Reported |         |         | Adjusted |         |         | Reported /Adjusted |        |        |
|-------|----------|---------|---------|----------|---------|---------|--------------------|--------|--------|
|       | Male     | Female  | Total   | Male     | Female  | Total   | Male               | Female | Total  |
| 0-4   | 23.222   | 26.593  | 49.815  | 29.429   | 28.065  | 57.494  | -6.207             | -1.472 | -7.679 |
| 5-9   | 30.715   | 25.997  | 56.712  | 25.276   | 24.115  | 49.391  | 5.439              | 1.882  | 7.321  |
| 10-14 | 25.557   | 22.179  | 47.736  | 21.226   | 20.226  | 41.451  | 4.331              | 1.953  | 6.285  |
| 15-19 | 14.726   | 13.053  | 27.779  | 17.584   | 16.735  | 34.319  | -2.858             | -3.682 | -6.540 |
| 20-24 | 11.936   | 15.741  | 27.677  | 13.015   | 13.485  | 26.500  | -1.079             | 2.256  | 1.177  |
| 25-29 | 11.055   | 9.634   | 20.689  | 10.462   | 11.519  | 21.981  | 593                | -1.885 | -1.292 |
| 30-34 | 9.172    | 9.886   | 19.058  | 9.055    | 10.028  | 19.083  | 117                | -142   | -25    |
| 35-39 | 7.465    | 8.446   | 15.911  | 7.933    | 8.036   | 15.969  | -468               | 410    | -58    |
| 40-44 | 7.643    | 5.591   | 13.234  | 7.470    | 5.426   | 12.896  | 173                | 165    | 338    |
| 45-49 | 5.580    | 4.130   | 9.710   | 6.033    | 4.153   | 10.185  | -453               | -23    | -475   |
| 50-54 | 4.096    | 4.343   | 8.439   | 3.874    | 3.453   | 7.327   | 222                | 890    | 1.112  |
| 55-59 | 2.391    | 1.929   | 4.320   | 2.750    | 2.727   | 5.478   | -359               | -798   | -1.158 |
| 60-64 | 2.570    | 1.882   | 4.452   | 1.846    | 2.040   | 3.886   | 724                | -158   | 566    |
| 65-69 | 686      | 1.695   | 2.381   | 1.479    | 1.484   | 2.963   | -793               | 211    | -582   |
| 70-74 | 1.899    | 1.012   | 2.911   | 1.340    | 982     | 2.322   | 559                | 30     | 589    |
| 75-79 | 814      | 527     | 1.341   | 1.430    | 534     | 1.964   | -616               | -7     | -623   |
| 80+   | 674      | 372     | 1.046   | -        | -       | -       | 674                | 372    | 1.046  |
| Total | 160,201  | 153,010 | 313,211 | 160,201  | 153,010 | 313,211 | 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 consists 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, a 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<sup>2</sup>.
- 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

---

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

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

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

With regards to subsistence crops, the only products that warrant compositional analysis are wheat and maize. None of the seven districts specializes in any significant way in either crop.

Concerning vegetables, three are produced by enough villages to warrant compositional analysis. However, only one—potatoes is spatially concentrated in a notable way in Dara-i-Soof-i-Bala. It shows an index of 2.22, meaning that a village this district is 2.22 times more likely to produce potatoes than any other village in any of the other districts.

In the area of fruit, Feroz Nakhcheer stands out in relation to grapes (an index of 3.11). Dara-i-Soof-i-Payin and Khuram wa Sarbagh stand out in relation to walnuts (respective indices of 1.12 and 1.35).

With regards to herbal products, there is more specialization among the districts. Roi-Do-Ab specializes in a remarkable way in the production of licorice and chicory (respective indices of 4.84 and 5.33). Dara-i-Soof-i-Payin specializes in zerk and aniseed at moderate levels (respective indices of 2.74 and 1.58). Aybak is linked to zerk (an index of 1.39).

In the area of animal products, only dried yoghurt is associated in a significant way with two districts—Dara-i-Soof-i-Bala and Khuram Wa Sarbagh (respective indices of 2.62 and 1.45). In sum, animal products engage villages in such away that none stands out in any particular way in relation to any product in particular, with the exception of the one product mentioned above.

Industrial crops, as well as small industries are both so scarce that it is sufficient to look at the raw data to identify those district that stand out in relation to a particular crop or industry.

Regarding handicrafts, contrary to expectations, production of rugs, the activity that engages the largest number of villages in the province is not associated in any particular way with any district. As for carpets, jewelry, and shawls, the handicrafts that are produced in enough villages to warrant compositional analysis, paradoxically, they engage the villages in such a way that all districts specialize in them to one degree or another; the only exception being Dara-i-Soof-i-Bala. The only plausible explanation for

---

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

this paradox is that specialization in these three handicrafts is at the expense of the other three—embroidery, pottery, and pelisse.

**Annex 6**  
**Agricultural and industrial products, and economic activities, Samangan, 2003**

**Subsistence Crops**

**Panel A—Raw Data**

| District                 | Wheat      | Com       | Rice      | Maize      | Beans     | Vetch     | Peas      | Other     | Total        |
|--------------------------|------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|--------------|
| Provincial Center--Aybak | 85         | 32        | 2         | 66         | 8         | 16        | 17        | 4         | 230          |
| Hazrat-I-Sultan          | 58         | 13        | 3         | 39         | 0         | 3         | 1         | 1         | 118          |
| Feroz Nakhcheer          | 17         | 2         | 2         | 3          | 1         | 0         | 0         | 0         | 25           |
| Dara-I-Sodf-I-Bala       | 133        | 0         | 0         | 132        | 0         | 0         | 1         | 0         | 266          |
| Dara-I-Sodf-I-Payin      | 178        | 9         | 1         | 174        | 2         | 3         | 38        | 4         | 409          |
| Roi-Do-Ab                | 100        | 16        | 2         | 87         | 4         | 1         | 2         | 1         | 213          |
| Khuram Wa Sarbagh        | 58         | 0         | 0         | 50         | 0         | 0         | 1         | 1         | 110          |
| <b>Total</b>             | <b>629</b> | <b>72</b> | <b>10</b> | <b>551</b> | <b>15</b> | <b>23</b> | <b>60</b> | <b>11</b> | <b>1,371</b> |

**Panel B—Specialization**

| District                 | Wheat       | Com       | Rice       | Maize       | Beans      | Vetch      | Peas       | Other      | Total        |
|--------------------------|-------------|-----------|------------|-------------|------------|------------|------------|------------|--------------|
| Provincial Center--Aybak | 37.0        | 13.9      | 0.9        | 28.7        | 3.5        | 7.0        | 7.4        | 1.7        | 100.0        |
| Hazrat-I-Sultan          | 49.2        | 11.0      | 2.5        | 33.1        | 0.0        | 2.5        | 0.8        | 0.8        | 100.0        |
| Feroz Nakhcheer          | 68.0        | 8.0       | 8.0        | 12.0        | 4.0        | 0.0        | 0.0        | 0.0        | 100.0        |
| Dara-I-Sodf-I-Bala       | 50.0        | 0.0       | 0.0        | 49.6        | 0.0        | 0.0        | 0.4        | 0.0        | 100.0        |
| Dara-I-Sodf-I-Payin      | 43.5        | 2.2       | 0.2        | 42.5        | 0.5        | 0.7        | 9.3        | 1.0        | 100.0        |
| Roi-Do-Ab                | 46.9        | 7.5       | 0.9        | 40.8        | 1.9        | 0.5        | 0.9        | 0.5        | 100.0        |
| Khuram Wa Sarbagh        | 52.7        | 0.0       | 0.0        | 45.5        | 0.0        | 0.0        | 0.9        | 0.9        | 100.0        |
| <b>Total</b>             | <b>45.9</b> | <b>53</b> | <b>0.7</b> | <b>40.2</b> | <b>1.1</b> | <b>1.7</b> | <b>4.4</b> | <b>0.8</b> | <b>100.0</b> |

**Panel C—Concentration**

| District                 | Wheat        | Com          | Rice         | Maize        | Beans        | Vetch        | Peas         | Other        | Total        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Provincial Center--Aybak | 13.5         | 44.4         | 20.0         | 12.0         | 53.3         | 69.6         | 28.3         | 36.4         | 16.8         |
| Hazrat-I-Sultan          | 9.2          | 18.1         | 30.0         | 7.1          | 0.0          | 13.0         | 1.7          | 9.1          | 8.6          |
| Feroz Nakhcheer          | 2.7          | 28           | 20.0         | 0.5          | 6.7          | 0.0          | 0.0          | 0.0          | 1.8          |
| Dara-I-Sodf-I-Bala       | 21.1         | 0.0          | 0.0          | 24.0         | 0.0          | 0.0          | 1.7          | 0.0          | 19.4         |
| Dara-I-Sodf-I-Payin      | 28.3         | 12.5         | 10.0         | 31.6         | 13.3         | 13.0         | 63.3         | 36.4         | 29.8         |
| Roi-Do-Ab                | 15.9         | 22.2         | 20.0         | 15.8         | 26.7         | 4.3          | 3.1          | 9.1          | 15.5         |
| Khuram Wa Sarbagh        | 9.2          | 0.0          | 0.0          | 9.1          | 0.0          | 0.0          | 1.7          | 9.1          | 8.0          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

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

| District                 | Wheat      | Com        | Rice       | Maize      | Beans      | Vetch      | Peas       | Other      | Total      |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Provincial Center--Aybak | -0.19      | 1.65       | 0.19       | -0.29      | 2.18       | 3.15       | 0.69       | 1.17       | 0.00       |
| Hazrat-I-Sultan          | 0.07       | 1.10       | 2.49       | -0.18      | -1.00      | 0.52       | -0.81      | 0.06       | 0.00       |
| Feroz Nakhcheer          | 0.48       | 0.52       | 9.97       | -0.70      | 2.66       | -1.00      | -1.00      | -1.00      | 0.00       |
| Dara-I-Sodf-I-Bala       | 0.09       | -1.00      | -1.00      | 0.23       | -1.00      | -1.00      | -0.91      | -1.00      | 0.00       |
| Dara-I-Sodf-I-Payin      | -0.05      | -0.58      | -0.66      | 0.06       | -0.55      | -0.56      | 1.12       | 0.22       | 0.00       |
| Roi-Do-Ab                | 0.02       | 0.43       | 0.29       | 0.02       | 0.72       | -0.72      | -0.79      | -0.41      | 0.00       |
| Khuram Wa Sarbagh        | 0.15       | -1.00      | -1.00      | 0.13       | -1.00      | -1.00      | -0.79      | 0.13       | 0.00       |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |

## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Industrial Crops

## Panel A—Raw Data

| District                 | Cotton    | Sugar Extract | Sugar Cane | Sesame    | Tobacco   | Olive    | Shar-sham | Othe      | Total      |
|--------------------------|-----------|---------------|------------|-----------|-----------|----------|-----------|-----------|------------|
| Provincial Center--Aybak | 21        | 7             | 0          | 28        | 11        | 1        | 0         | 6         | 74         |
| Hazrat-I-Sultan          | 9         | 0             | 0          | 8         | 2         | 0        | 0         | 2         | 21         |
| Feroz Nakhcheer          | 0         | 0             | 0          | 0         | 0         | 0        | 0         | 0         | 0          |
| Dara-I-Sodf-I-Bala       | 0         | 0             | 0          | 0         | 1         | 0        | 0         | 2         | 3          |
| Dara-I-Sodf-I-Payin      | 6         | 5             | 0          | 46        | 20        | 0        | 0         | 4         | 120        |
| Roi-Do-Ab                | 0         | 5             | 0          | 1         | 8         | 0        | 0         | 0         | 15         |
| Khuram Wa Sarbagh        | 1         | 0             | 0          | 1         | 0         | 0        | 0         | 0         | 2          |
| <b>Total</b>             | <b>37</b> | <b>17</b>     | <b>0</b>   | <b>84</b> | <b>42</b> | <b>1</b> | <b>0</b>  | <b>50</b> | <b>235</b> |

## Panel B—Specialization

| District                 | Cotton      | Sugar Extract | Sugar Cane | Sesame      | Tobacco     | Olive      | Shar-sham  | Othe        | Total        |
|--------------------------|-------------|---------------|------------|-------------|-------------|------------|------------|-------------|--------------|
| Provincial Center--Aybak | 28.4        | 9.5           | 0.0        | 37.8        | 14.9        | 1.4        | 0.0        | 8.1         | 100.0        |
| Hazrat-I-Sultan          | 42.9        | 0.0           | 0.0        | 38.1        | 9.5         | 0.0        | 0.0        | 9.5         | 100.0        |
| Feroz Nakhcheer          | —           | —             | —          | —           | —           | —          | —          | —           | —            |
| Dara-I-Sodf-I-Bala       | 0.0         | 0.0           | 0.0        | 0.0         | 33.3        | 0.0        | 0.0        | 66.7        | 100.0        |
| Dara-I-Sodf-I-Payin      | 5.0         | 4.2           | 0.0        | 38.3        | 16.7        | 0.0        | 0.0        | 35.8        | 100.0        |
| Roi-Do-Ab                | 0.0         | 33.3          | 0.0        | 6.7         | 53.3        | 0.0        | 0.0        | 6.7         | 100.0        |
| Khuram Wa Sarbagh        | 50.0        | 0.0           | 0.0        | 50.0        | 0.0         | 0.0        | 0.0        | 0.0         | 100.0        |
| <b>Total</b>             | <b>15.7</b> | <b>7.2</b>    | <b>0.0</b> | <b>35.7</b> | <b>17.9</b> | <b>0.4</b> | <b>0.0</b> | <b>23.1</b> | <b>100.0</b> |

## Panel C—Concentration

| District                 | Cotton       | Sugar Extract | Sugar Cane | Sesame       | Tobacco      | Olive        | Shar-sham | Othe         | Total        |
|--------------------------|--------------|---------------|------------|--------------|--------------|--------------|-----------|--------------|--------------|
| Provincial Center--Aybak | 56.8         | 41.2          | —          | 33.3         | 26.2         | 100.0        | —         | 11.1         | 31.5         |
| Hazrat-I-Sultan          | 24.3         | 0.0           | —          | 9.5          | 4.8          | 0.0          | —         | 3.1          | 8.9          |
| Feroz Nakhcheer          | 0.0          | 0.0           | —          | 0.0          | 0.0          | 0.0          | —         | 0.0          | 0.0          |
| Dara-I-Sodf-I-Bala       | 0.0          | 0.0           | —          | 0.0          | 24           | 0.0          | —         | 3.1          | 1.3          |
| Dara-I-Sodf-I-Payin      | 16.2         | 29.4          | —          | 54.8         | 47.6         | 0.0          | —         | 79.6         | 51.1         |
| Roi-Do-Ab                | 0.0          | 29.4          | —          | 12           | 19.0         | 0.0          | —         | 1.1          | 6.4          |
| Khuram Wa Sarbagh        | 2.7          | 0.0           | —          | 12           | 0.0          | 0.0          | —         | 0.0          | 0.9          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b>  | <b>—</b>   | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>—</b>  | <b>100.0</b> | <b>100.0</b> |

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

| District                 | Cotton     | Sugar Extract | Sugar Cane | Sesame     | Tobacco    | Olive      | Shar-sham | Othe       | Total      |
|--------------------------|------------|---------------|------------|------------|------------|------------|-----------|------------|------------|
| Provincial Center--Aybak | 0.80       | 0.31          | —          | 0.06       | -0.17      | 2.18       | —         | -0.68      | 0.00       |
| Hazrat-I-Sultan          | 1.72       | -1.00         | —          | 0.07       | -0.47      | -1.00      | —         | -0.58      | 0.00       |
| Feroz Nakhcheer          | —          | —             | —          | —          | —          | —          | —         | —          | —          |
| Dara-I-Sodf-I-Bala       | -1.00      | -1.00         | —          | -1.00      | 0.87       | -1.00      | —         | 1.90       | 0.00       |
| Dara-I-Sodf-I-Payin      | -0.68      | -0.42         | —          | 0.07       | -0.07      | -1.00      | —         | 0.58       | 0.00       |
| Roi-Do-Ab                | -1.00      | 3.61          | —          | -0.81      | 1.98       | -1.00      | —         | -0.72      | 0.00       |
| Khuram Wa Sarbagh        | 2.18       | -1.00         | —          | 0.40       | -1.00      | -1.00      | —         | -1.00      | 0.00       |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b>    | <b>—</b>   | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>—</b>  | <b>0.0</b> | <b>0.0</b> |



## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Fruit

## Panel A—Raw Data

| District                 | Grapes    | Pome-<br>grenades | Melon/W.<br>M. | Orange   | Almond    | Walnut    | Mulberry  | Other     | Total      |
|--------------------------|-----------|-------------------|----------------|----------|-----------|-----------|-----------|-----------|------------|
| Provincial Center--Aybak | 18        | 4                 | 48             | 0        | 40        | 32        | 41        | 5         | 188        |
| Hazrat-I-Sultan          | 3         | 0                 | 41             | 0        | 9         | 1         | 8         | 1         | 63         |
| Feroz Nakhcheer          | 17        | 6                 | 1              | 0        | 8         | 9         | 13        | 0         | 54         |
| Dara-I-Sodf-I-Bala       | 0         | 0                 | 102            | 0        | 0         | 0         | 0         | 0         | 102        |
| Dara-I-Sodf-I-Payin      | 8         | 2                 | 135            | 1        | 16        | 12        | 13        | 1         | 188        |
| Roi-Do-Ab                | 1         | 0                 | 0              | 0        | 2         | 2         | 1         | 4         | 10         |
| Khuram Wa Sarbagh        | 0         | 0                 | 7              | 0        | 0         | 2         | 0         | 0         | 9          |
| <b>Total</b>             | <b>47</b> | <b>12</b>         | <b>334</b>     | <b>1</b> | <b>75</b> | <b>58</b> | <b>76</b> | <b>11</b> | <b>614</b> |

## Panel B—Specialization

| District                 | Grapes     | Pome-<br>grenades | Melon/<br>W. melon | Orange     | Almond      | Walnut     | Mulberry    | Other      | Total        |
|--------------------------|------------|-------------------|--------------------|------------|-------------|------------|-------------|------------|--------------|
| Provincial Center--Aybak | 9.6        | 2.1               | 25.5               | 0.0        | 21.3        | 17.0       | 21.8        | 2.7        | 100.0        |
| Hazrat-I-Sultan          | 4.8        | 0.0               | 65.1               | 0.0        | 14.3        | 1.6        | 12.7        | 1.6        | 100.0        |
| Feroz Nakhcheer          | 31.5       | 11.1              | 1.9                | 0.0        | 14.8        | 16.7       | 24.1        | 0.0        | 100.0        |
| Dara-I-Sodf-I-Bala       | 0.0        | 0.0               | 100.0              | 0.0        | 0.0         | 0.0        | 0.0         | 0.0        | 100.0        |
| Dara-I-Sodf-I-Payin      | 4.3        | 1.1               | 71.8               | 0.5        | 8.5         | 6.4        | 6.9         | 0.5        | 100.0        |
| Roi-Do-Ab                | 10.0       | 0.0               | 0.0                | 0.0        | 20.0        | 20.0       | 10.0        | 40.0       | 100.0        |
| Khuram Wa Sarbagh        | 0.0        | 0.0               | 77.8               | 0.0        | 0.0         | 22.2       | 0.0         | 0.0        | 100.0        |
| <b>Total</b>             | <b>7.7</b> | <b>2.0</b>        | <b>54.4</b>        | <b>0.2</b> | <b>12.2</b> | <b>9.4</b> | <b>12.4</b> | <b>1.8</b> | <b>100.0</b> |

## Panel C—Concentration

| District                 | Grapes       | Pome-<br>grenades | Melon/<br>W. melon | Orange       | Almond       | Walnut       | Mulberry     | Other        | Total        |
|--------------------------|--------------|-------------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Provincial Center--Aybak | 38.3         | 33.3              | 14.4               | 0.0          | 53.3         | 55.2         | 53.9         | 45.5         | 30.6         |
| Hazrat-I-Sultan          | 6.4          | 0.0               | 12.3               | 0.0          | 12.0         | 1.7          | 10.5         | 9.1          | 10.3         |
| Feroz Nakhcheer          | 36.2         | 50.0              | 0.3                | 0.0          | 10.7         | 15.5         | 17.1         | 0.0          | 8.8          |
| Dara-I-Sodf-I-Bala       | 0.0          | 0.0               | 30.5               | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 16.6         |
| Dara-I-Sodf-I-Payin      | 17.0         | 16.7              | 40.4               | 100.0        | 21.3         | 20.7         | 17.1         | 9.1          | 30.6         |
| Roi-Do-Ab                | 2.1          | 0.0               | 0.0                | 0.0          | 2.7          | 3.4          | 1.3          | 36.4         | 1.6          |
| Khuram Wa Sarbagh        | 0.0          | 0.0               | 2.1                | 0.0          | 0.0          | 3.4          | 0.0          | 0.0          | 1.5          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b>      | <b>100.0</b>       | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

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

| District                 | Grapes     | Pome-<br>grenades | Melon/<br>W. melon | Orange     | Almond     | Walnut     | Mulberry   | Other      | Total      |
|--------------------------|------------|-------------------|--------------------|------------|------------|------------|------------|------------|------------|
| Provincial Center--Aybak | 0.25       | 0.09              | -0.53              | -1.00      | 0.74       | 0.80       | 0.76       | 0.48       | 0.00       |
| Hazrat-I-Sultan          | -0.38      | -1.00             | 0.20               | -1.00      | 0.17       | -0.83      | 0.03       | -0.11      | 0.00       |
| Feroz Nakhcheer          | 3.11       | 4.69              | -0.97              | -1.00      | 0.21       | 0.76       | 0.94       | -1.00      | 0.00       |
| Dara-I-Sodf-I-Bala       | -1.00      | -1.00             | 0.84               | -1.00      | -1.00      | -1.00      | -1.00      | -1.00      | 0.00       |
| Dara-I-Sodf-I-Payin      | -0.44      | -0.46             | 0.32               | 2.27       | -0.30      | -0.32      | -0.44      | -0.70      | 0.00       |
| Roi-Do-Ab                | 0.31       | -1.00             | -1.00              | -1.00      | 0.64       | 1.12       | -0.19      | 21.33      | 0.00       |
| Khuram Wa Sarbagh        | -1.00      | -1.00             | 0.43               | -1.00      | -1.00      | 1.35       | -1.00      | -1.00      | 0.00       |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b>        | <b>0.0</b>         | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |

## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Vegetables

## Panel A—Raw Data

| District                 | Potato     | Onion      | Tomato    | Carrots   | Cauli-flower | Spinach   | Leek      | Other    | Total      |
|--------------------------|------------|------------|-----------|-----------|--------------|-----------|-----------|----------|------------|
| Provincial Center--Aybak | 25         | 28         | 29        | 18        | 0            | 8         | 10        | (        | 118        |
| Hazrat-I-Sultan          | 4          | 9          | 3         | 2         | 0            | 2         | 3         | (        | 23         |
| Feroz Nakhcheer          | 7          | 6          | 1         | 0         | 0            | 0         | 0         | (        | 14         |
| Dara-I-Sodf-I-Bala       | 1          | 0          | 0         | 0         | 0            | 0         | 0         | (        | 1          |
| Dara-I-Sodf-I-Payin      | 20         | 17         | 14        | 7         | 0            | 1         | 3         | (        | 62         |
| Roi-Do-Ab                | 67         | 58         | 26        | 12        | 1            | 7         | 11        | 2        | 181        |
| Khuram Wa Sarbagh        | 0          | 0          | 0         | 0         | 0            | 0         | 0         | (        | 0          |
| <b>Total</b>             | <b>124</b> | <b>115</b> | <b>73</b> | <b>39</b> | <b>1</b>     | <b>18</b> | <b>27</b> | <b>2</b> | <b>399</b> |

## Panel B—Specialization

| District                 | Potato      | Onion       | Tomato      | Carrots    | Cauli-flower | Spinach    | Leek       | Other      | Total        |
|--------------------------|-------------|-------------|-------------|------------|--------------|------------|------------|------------|--------------|
| Provincial Center--Aybak | 21.2        | 23.7        | 24.6        | 15.3       | 0.0          | 6.8        | 8.5        | 0.0        | 100.0        |
| Hazrat-I-Sultan          | 17.4        | 39.1        | 13.0        | 8.7        | 0.0          | 8.7        | 13.0       | 0.0        | 100.0        |
| Feroz Nakhcheer          | 50.0        | 42.9        | 7.1         | 0.0        | 0.0          | 0.0        | 0.0        | 0.0        | 100.0        |
| Dara-I-Sodf-I-Bala       | 100.0       | 0.0         | 0.0         | 0.0        | 0.0          | 0.0        | 0.0        | 0.0        | 100.0        |
| Dara-I-Sodf-I-Payin      | 32.3        | 27.4        | 22.6        | 11.3       | 0.0          | 1.6        | 4.8        | 0.0        | 100.0        |
| Roi-Do-Ab                | 37.0        | 30.4        | 14.4        | 6.6        | 0.6          | 3.9        | 6.1        | 1.1        | 100.0        |
| Khuram Wa Sarbagh        | —!          | —!          | —!          | —!         | —!           | —!         | —!         | —!         | —!           |
| <b>Total</b>             | <b>31.1</b> | <b>28.8</b> | <b>18.3</b> | <b>9.8</b> | <b>0.3</b>   | <b>4.2</b> | <b>6.8</b> | <b>0.2</b> | <b>100.0</b> |

## Panel C—Concentration

| District                 | Potato       | Onion        | Tomato       | Carrots      | Cauli-flower | Spinach      | Leek         | Other        | Total        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Provincial Center--Aybak | 20.2         | 24.3         | 39.7         | 46.2         | 0.0          | 44.4         | 37.0         | 0.0          | 29.6         |
| Hazrat-I-Sultan          | 3.2          | 7.8          | 4.1          | 5.1          | 0.0          | 11.1         | 11.1         | 0.0          | 5.8          |
| Feroz Nakhcheer          | 5.6          | 5.2          | 1.4          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 3.5          |
| Dara-I-Sodf-I-Bala       | 0.8          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.3          |
| Dara-I-Sodf-I-Payin      | 16.1         | 14.8         | 19.2         | 17.9         | 0.0          | 5.6          | 11.1         | 0.0          | 15.5         |
| Roi-Do-Ab                | 54.0         | 47.8         | 35.6         | 30.8         | 100.0        | 38.9         | 40.7         | 100.0        | 45.4         |
| Khuram Wa Sarbagh        | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

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

| District                 | Potato     | Onion      | Tomato     | Carrots    | Cauli-flower | Spinach    | Leek       | Other      | Total      |
|--------------------------|------------|------------|------------|------------|--------------|------------|------------|------------|------------|
| Provincial Center--Aybak | -0.32      | -0.18      | 0.34       | 0.56       | -1.00        | 0.50       | 0.25       | -1.00      | 0.00       |
| Hazrat-I-Sultan          | -0.44      | 0.36       | -0.29      | -0.11      | -1.00        | 0.93       | 0.93       | -1.00      | 0.00       |
| Feroz Nakhcheer          | 0.61       | 0.49       | -0.61      | -1.00      | -1.00        | -1.00      | -1.00      | -1.00      | 0.00       |
| Dara-I-Sodf-I-Bala       | 2.22       | -1.00      | -1.00      | -1.00      | -1.00        | -1.00      | -1.00      | -1.00      | 0.00       |
| Dara-I-Sodf-I-Payin      | 0.04       | -0.05      | 0.23       | 0.16       | -1.00        | -0.64      | -0.28      | -1.00      | 0.00       |
| Roi-Do-Ab                | 0.19       | 0.05       | -0.21      | -0.32      | 1.20         | -0.14      | -0.10      | 1.20       | 0.00       |
| Khuram Wa Sarbagh        | —!         | —!         | —!         | —!         | —!           | —!         | —!         | —!         | —!         |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b>   | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |

## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Herbal Products

## Panel A—Raw Data

| District                 | Licorice  | Caray      | Asfitida   | Zerk      | Aniseed   | Hyssop    | Chicory   | Other     | Total      |
|--------------------------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|
| Provincial Center--Aybak | 2         | 52         | 41         | 14        | 8         | 6         | 3         | 1         | 127        |
| Hazrat-I-Sultan          | 0         | 15         | 9          | 1         | 1         | 0         | 0         | 1         | 27         |
| Feroz Nakhcheer          | 1         | 5          | 11         | 1         | 2         | 2         | 1         | 0         | 23         |
| Dara-I-Sodf-I-Bala       | 0         | 108        | 121        | 5         | 26        | 19        | 0         | 79        | 358        |
| Dara-I-Sodf-I-Payin      | 1         | 34         | 16         | 16        | 16        | 3         | 0         | 7         | 93         |
| Roi-Do-Ab                | 16        | 35         | 27         | 1         | 2         | 5         | 26        | 1         | 113        |
| Khuram Wa Sarbagh        | 0         | 31         | 53         | 0         | 0         | 0         | 0         | 0         | 84         |
| <b>Total</b>             | <b>20</b> | <b>280</b> | <b>278</b> | <b>38</b> | <b>55</b> | <b>35</b> | <b>30</b> | <b>89</b> | <b>825</b> |

## Panel B—Specialization

| District                 | Licorice   | Caray       | Asfitida    | Zerk      | Aniseed    | Hyssop     | Chicory    | Other       | Total        |
|--------------------------|------------|-------------|-------------|-----------|------------|------------|------------|-------------|--------------|
| Provincial Center--Aybak | 1.6        | 40.9        | 32.3        | 11.0      | 6.3        | 4.7        | 2.4        | 0.8         | 100.0        |
| Hazrat-I-Sultan          | 0.0        | 55.6        | 33.3        | 3.7       | 3.7        | 0.0        | 0.0        | 3.7         | 100.0        |
| Feroz Nakhcheer          | 4.3        | 21.7        | 47.8        | 4.3       | 8.7        | 8.7        | 4.3        | 0.0         | 100.0        |
| Dara-I-Sodf-I-Bala       | 0.0        | 30.2        | 33.8        | 1.4       | 7.3        | 5.3        | 0.0        | 22.1        | 100.0        |
| Dara-I-Sodf-I-Payin      | 1.1        | 36.6        | 17.2        | 17.2      | 17.2       | 3.2        | 0.0        | 7.5         | 100.0        |
| Roi-Do-Ab                | 14.2       | 31.0        | 23.9        | 0.9       | 1.8        | 4.4        | 23.0       | 0.9         | 100.0        |
| Khuram Wa Sarbagh        | 0.0        | 36.9        | 63.1        | 0.0       | 0.0        | 0.0        | 0.0        | 0.0         | 100.0        |
| <b>Total</b>             | <b>2.4</b> | <b>33.9</b> | <b>33.7</b> | <b>46</b> | <b>6.7</b> | <b>4.2</b> | <b>3.6</b> | <b>10.8</b> | <b>100.0</b> |

## Panel C—Concentration

| District                 | Licorice     | Caray        | Asfitida     | Zerk         | Aniseed      | Hyssop       | Chicory      | Other        | Total        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Provincial Center--Aybak | 10.0         | 18.6         | 14.7         | 36.8         | 14.5         | 17.1         | 10.0         | 1.1          | 15.4         |
| Hazrat-I-Sultan          | 0.0          | 5.4          | 3.2          | 2.6          | 1.8          | 0.0          | 0.0          | 1.1          | 3.3          |
| Feroz Nakhcheer          | 5.0          | 1.8          | 4.0          | 2.6          | 3.6          | 5.7          | 3.3          | 0.0          | 2.8          |
| Dara-I-Sodf-I-Bala       | 0.0          | 38.6         | 43.5         | 13.2         | 47.3         | 54.3         | 0.0          | 88.8         | 43.4         |
| Dara-I-Sodf-I-Payin      | 5.0          | 12.1         | 5.8          | 42.1         | 29.1         | 8.6          | 0.0          | 7.9          | 11.3         |
| Roi-Do-Ab                | 80.0         | 12.5         | 9.7          | 2.6          | 3.6          | 14.3         | 86.7         | 1.1          | 13.7         |
| Khuram Wa Sarbagh        | 0.0          | 11.1         | 19.1         | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 10.2         |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

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

| District                 | Licorice   | Caray      | Asfitida   | Zerk       | Aniseed    | Hyssop     | Chicory    | Other      | Total      |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Provincial Center--Aybak | -0.35      | 0.21       | -0.04      | 1.39       | -0.06      | 0.11       | -0.35      | -0.93      | 0.00       |
| Hazrat-I-Sultan          | -1.00      | 0.64       | -0.01      | -0.20      | -0.44      | -1.00      | -1.00      | -0.66      | 0.00       |
| Feroz Nakhcheer          | 0.79       | -0.36      | 0.42       | -0.06      | 0.30       | 1.05       | 0.20       | -1.00      | 0.00       |
| Dara-I-Sodf-I-Bala       | -1.00      | -0.11      | 0.00       | -0.70      | 0.09       | 0.25       | -1.00      | 1.05       | 0.00       |
| Dara-I-Sodf-I-Payin      | -0.56      | 0.08       | -0.49      | 2.74       | 1.58       | -0.24      | -1.00      | -0.30      | 0.00       |
| Roi-Do-Ab                | 4.84       | -0.09      | -0.29      | -0.81      | -0.73      | 0.04       | 5.33       | -0.92      | 0.00       |
| Khuram Wa Sarbagh        | -1.00      | 0.09       | 0.87       | -1.00      | -1.00      | -1.00      | -1.00      | -1.00      | 0.00       |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |

## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Handicrafts

## Panel A—Raw Data

| District                 | Carpet    | Rug        | Em-<br>broider y | Potter y  | Pelisse   | Jewelr y  | Shaw<br>making | Other    | Total      |
|--------------------------|-----------|------------|------------------|-----------|-----------|-----------|----------------|----------|------------|
| Provincial Center--Aybak | 8         | 19         | 0                | 1         | 2         | 14        | 23             | 0        | 67         |
| Hazrat-I-Sultan          | 3         | 8          | 0                | 1         | 1         | 4         | 11             | 0        | 28         |
| Feroz Nakhcheer          | 6         | 8          | 0                | 0         | 0         | 2         | 2              | 0        | 18         |
| Dara-I-Sodf-I-Bala       | 0         | 67         | 0                | 0         | 0         | 0         | 0              | 2        | 69         |
| Dara-I-Sodf-I-Payin      | 13        | 35         | 0                | 7         | 8         | 19        | 29             | 1        | 112        |
| Roi-Do-Ab                | 16        | 80         | 0                | 3         | 12        | 22        | 25             | 1        | 159        |
| Khuram Wa Sarbagh        | 5         | 39         | 0                | 0         | 0         | 0         | 1              | 0        | 45         |
| <b>Total</b>             | <b>51</b> | <b>256</b> | <b>0</b>         | <b>12</b> | <b>23</b> | <b>61</b> | <b>91</b>      | <b>4</b> | <b>498</b> |

## Panel B—Specialization

| District                 | Carpet      | Rug         | Em-<br>broider y | Potter y   | Pelisse    | Jewelr y    | Shaw<br>making | Other      | Total        |
|--------------------------|-------------|-------------|------------------|------------|------------|-------------|----------------|------------|--------------|
| Provincial Center--Aybak | 11.9        | 28.4        | 0.0              | 1.5        | 3.0        | 20.9        | 34.3           | 0.0        | 100.0        |
| Hazrat-I-Sultan          | 10.7        | 28.6        | 0.0              | 3.6        | 3.6        | 14.3        | 39.3           | 0.0        | 100.0        |
| Feroz Nakhcheer          | 33.3        | 44.4        | 0.0              | 0.0        | 0.0        | 11.1        | 11.1           | 0.0        | 100.0        |
| Dara-I-Sodf-I-Bala       | 0.0         | 97.1        | 0.0              | 0.0        | 0.0        | 0.0         | 0.0            | 2.9        | 100.0        |
| Dara-I-Sodf-I-Payin      | 11.6        | 31.3        | 0.0              | 6.3        | 7.1        | 17.0        | 25.9           | 0.9        | 100.0        |
| Roi-Do-Ab                | 10.1        | 50.3        | 0.0              | 1.9        | 7.5        | 13.8        | 15.7           | 0.6        | 100.0        |
| Khuram Wa Sarbagh        | 11.1        | 86.7        | 0.0              | 0.0        | 0.0        | 0.0         | 2.2            | 0.0        | 100.0        |
| <b>Total</b>             | <b>10.2</b> | <b>51.4</b> | <b>0.0</b>       | <b>2.4</b> | <b>4.6</b> | <b>12.2</b> | <b>18.3</b>    | <b>0.8</b> | <b>100.0</b> |

## Panel C—Concentration

| District                 | Carpet       | Rug          | Em-<br>broider y | Potter y     | Pelisse      | Jewelr y     | Shaw<br>making | Other        | Total        |
|--------------------------|--------------|--------------|------------------|--------------|--------------|--------------|----------------|--------------|--------------|
| Provincial Center--Aybak | 15.7         | 7.4          | —                | 8.3          | 8.7          | 23.0         | 25.3           | 0.0          | 13.5         |
| Hazrat-I-Sultan          | 5.9          | 3.1          | —                | 8.3          | 4.3          | 6.6          | 12.1           | 0.0          | 5.6          |
| Feroz Nakhcheer          | 11.8         | 3.1          | —                | 0.0          | 0.0          | 3.3          | 2.2            | 0.0          | 3.6          |
| Dara-I-Sodf-I-Bala       | 0.0          | 26.2         | —                | 0.0          | 0.0          | 0.0          | 0.0            | 50.0         | 13.9         |
| Dara-I-Sodf-I-Payin      | 25.5         | 13.7         | —                | 58.3         | 34.8         | 31.1         | 31.9           | 25.0         | 22.5         |
| Roi-Do-Ab                | 31.4         | 31.3         | —                | 25.0         | 52.2         | 36.1         | 27.5           | 25.0         | 31.9         |
| Khuram Wa Sarbagh        | 9.8          | 15.2         | —                | 0.0          | 0.0          | 0.0          | 1.1            | 0.0          | 9.0          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b> | <b>—</b>         | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b>   | <b>100.0</b> | <b>100.0</b> |

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

| District                 | Carpet   | Rug      | Em-<br>broider y | Potter y | Pelisse  | Jewelr y | Shaw<br>making | Other    | Total    |
|--------------------------|----------|----------|------------------|----------|----------|----------|----------------|----------|----------|
| Provincial Center--Aybak | 2.68     | 0.19     | 0.19             | 1.41     | 0.97     | 1.53     | 1.79           | 0.60     | —        |
| Hazrat-I-Sultan          | 12.60    | 0.90     | 0.91             | 6.63     | 4.58     | 7.20     | 8.40           | 2.83     | —        |
| Feroz Nakhcheer          | 14.80    | 1.06     | 1.06             | 7.79     | 5.38     | 8.45     | 9.86           | 3.32     | —        |
| Dara-I-Sodf-I-Bala       | 0.95     | 0.07     | 0.07             | 0.50     | 0.35     | 0.54     | 0.63           | 0.21     | —        |
| Dara-I-Sodf-I-Payin      | 3.66     | 0.26     | 0.26             | 1.93     | 1.33     | 2.09     | 2.44           | 0.82     | —        |
| Roi-Do-Ab                | 3.01     | 0.22     | 0.22             | 1.56     | 1.10     | 1.72     | 2.01           | 0.68     | —        |
| Khuram Wa Sarbagh        | 4.05     | 0.29     | 0.29             | 2.13     | 1.47     | 2.32     | 2.70           | 0.91     | —        |
| <b>Total</b>             | <b>—</b> | <b>—</b> | <b>—</b>         | <b>—</b> | <b>—</b> | <b>—</b> | <b>—</b>       | <b>—</b> | <b>—</b> |

## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Small Industries

## Panel A—Raw Data

| District                 | Honey    | Silk     | Karakul skin | Dried sugar | Confection | Sugar candy | Sugar sweet | Other    | Total     |
|--------------------------|----------|----------|--------------|-------------|------------|-------------|-------------|----------|-----------|
| Provincial Center--Aybak | 0        | 0        | 2            | 0           | 0          | 1           | 0           | 0        | 3         |
| Hazrat-I-Sultan          | 1        | 3        | 3            | 1           | 1          | 1           | 1           | 0        | 11        |
| Feroz Nakhcheer          | 0        | 0        | 0            | 0           | 0          | 0           | 0           | 0        | 0         |
| Dara-I-Sodf-I-Bala       | 0        | 0        | 0            | 0           | 0          | 0           | 0           | 0        | 0         |
| Dara-I-Sodf-I-Payin      | 1        | 2        | 2            | 1           | 1          | 1           | 1           | 0        | 9         |
| Roi-Do-Ab                | 0        | 0        | 0            | 0           | 0          | 0           | 0           | 0        | 0         |
| Khuram Wa Sarbagh        | 0        | 0        | 0            | 0           | 0          | 0           | 0           | 0        | 0         |
| <b>Total</b>             | <b>2</b> | <b>5</b> | <b>7</b>     | <b>1</b>    | <b>2</b>   | <b>3</b>    | <b>2</b>    | <b>0</b> | <b>23</b> |

## Panel B—Specialization

| District                 | Honey      | Silk        | Karakul skin | Dried sugar | Confection | Sugar candy | Sugar sweet | Other      | Total        |
|--------------------------|------------|-------------|--------------|-------------|------------|-------------|-------------|------------|--------------|
| Provincial Center--Aybak | 0.0        | 0.0         | 66.7         | 0.0         | 0.0        | 33.3        | 0.0         | 0.0        | 100.0        |
| Hazrat-I-Sultan          | 9.1        | 27.3        | 27.3         | 9.1         | 9.1        | 9.1         | 9.1         | 0.0        | 100.0        |
| Feroz Nakhcheer          | —!         | —!          | —!           | —!          | —!         | —!          | —!          | —!         | —!           |
| Dara-I-Sodf-I-Bala       | —!         | —!          | —!           | —!          | —!         | —!          | —!          | —!         | —!           |
| Dara-I-Sodf-I-Payin      | 11.1       | 22.2        | 22.2         | 11.1        | 11.1       | 11.1        | 11.1        | 0.0        | 100.0        |
| Roi-Do-Ab                | —!         | —!          | —!           | —!          | —!         | —!          | —!          | —!         | —!           |
| Khuram Wa Sarbagh        | —!         | —!          | —!           | —!          | —!         | —!          | —!          | —!         | —!           |
| <b>Total</b>             | <b>8.7</b> | <b>21.7</b> | <b>30.4</b>  | <b>8.7</b>  | <b>8.7</b> | <b>13.0</b> | <b>8.7</b>  | <b>0.0</b> | <b>100.0</b> |

## Panel C—Concentration

| District                 | Honey        | Silk         | Karakul skin | Dried sugar  | Confection   | Sugar candy  | Sugar sweet  | Other     | Total        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|--------------|
| Provincial Center--Aybak | 0.0          | 0.0          | 28.6         | 0.0          | 0.0          | 33.3         | 0.0          | —!        | 13.0         |
| Hazrat-I-Sultan          | 50.0         | 60.0         | 42.9         | 50.0         | 50.0         | 33.3         | 50.0         | —!        | 47.8         |
| Feroz Nakhcheer          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | —!        | 0.0          |
| Dara-I-Sodf-I-Bala       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | —!        | 0.0          |
| Dara-I-Sodf-I-Payin      | 50.0         | 40.0         | 28.6         | 50.0         | 50.0         | 33.3         | 50.0         | —!        | 39.1         |
| Roi-Do-Ab                | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | —!        | 0.0          |
| Khuram Wa Sarbagh        | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | —!        | 0.0          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>—!</b> | <b>100.0</b> |

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

| District                 | Honey      | Silk       | Karakul skin | Dried sugar | Confection | Sugar candy | Sugar sweet | Other     | Total      |
|--------------------------|------------|------------|--------------|-------------|------------|-------------|-------------|-----------|------------|
| Provincial Center--Aybak | -1.00      | -1.00      | 1.19         | -1.00       | -1.00      | 1.56        | -1.00       | —!        | 0.00       |
| Hazrat-I-Sultan          | 0.05       | 0.25       | -0.10        | 0.05        | 0.05       | -0.30       | 0.05        | —!        | 0.00       |
| Feroz Nakhcheer          | —!         | —!         | —!           | —!          | —!         | —!          | —!          | —!        | —!         |
| Dara-I-Sodf-I-Bala       | —!         | —!         | —!           | —!          | —!         | —!          | —!          | —!        | —!         |
| Dara-I-Sodf-I-Payin      | 0.28       | 0.02       | -0.27        | 0.28        | 0.28       | -0.15       | 0.28        | —!        | 0.00       |
| Roi-Do-Ab                | —!         | —!         | —!           | —!          | —!         | —!          | —!          | —!        | —!         |
| Khuram Wa Sarbagh        | —!         | —!         | —!           | —!          | —!         | —!          | —!          | —!        | —!         |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b> | <b>0.0</b>   | <b>0.0</b>  | <b>0.0</b> | <b>0.0</b>  | <b>0.0</b>  | <b>—!</b> | <b>0.0</b> |

## Annex 6 (Cont'd)

## Agricultural and industrial products, and economic activities, Samangan, 2003

## Animal Products

## Panel A—Raw Data

| District                 | Eggs       | Milk       | Yogurt     | Whey       | Dried Yogurt | Butter     | Wool       | Other    | Total        |
|--------------------------|------------|------------|------------|------------|--------------|------------|------------|----------|--------------|
| Provincial Center--Aybak | 71         | 70         | 70         | 64         | 56           | 55         | 43         | 0        | 429          |
| Hazrat-I-Sultan          | 52         | 50         | 49         | 45         | 45           | 47         | 46         | 1        | 335          |
| Feroz Nakhcheer          | 14         | 17         | 17         | 15         | 13           | 7          | 5          | 0        | 88           |
| Dara-I-Sodf-I-Bala       | 1          | 3          | 19         | 19         | 127          | 13         | 2          | 1        | 185          |
| Dara-I-Sodf-I-Payin      | 131        | 143        | 144        | 136        | 129          | 128        | 118        | 3        | 932          |
| Roi-Do-Ab                | 83         | 99         | 99         | 99         | 99           | 97         | 91         | 3        | 670          |
| Khuram Wa Sarbagh        | 4          | 0          | 30         | 21         | 53           | 6          | 0          | 0        | 114          |
| <b>Total</b>             | <b>356</b> | <b>382</b> | <b>428</b> | <b>399</b> | <b>522</b>   | <b>353</b> | <b>305</b> | <b>8</b> | <b>2,753</b> |

## Panel B—Specialization

| District                 | Eggs        | Milk        | Yogurt      | Whey        | Dried Yogurt | Butter      | Wool        | Other      | Total        |
|--------------------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|------------|--------------|
| Provincial Center--Aybak | 16.6        | 16.3        | 16.3        | 14.9        | 13.1         | 12.8        | 10.0        | 0.0        | 100.0        |
| Hazrat-I-Sultan          | 15.5        | 14.9        | 14.6        | 13.4        | 13.4         | 14.0        | 13.7        | 0.3        | 100.0        |
| Feroz Nakhcheer          | 15.9        | 19.3        | 19.3        | 17.0        | 14.8         | 8.0         | 5.7         | 0.0        | 100.0        |
| Dara-I-Sodf-I-Bala       | 0.5         | 1.6         | 10.3        | 10.3        | 68.6         | 7.0         | 1.1         | 0.5        | 100.0        |
| Dara-I-Sodf-I-Payin      | 14.1        | 15.3        | 15.5        | 14.6        | 13.8         | 13.7        | 12.7        | 0.3        | 100.0        |
| Roi-Do-Ab                | 12.4        | 14.8        | 14.8        | 14.8        | 14.8         | 14.5        | 13.6        | 0.4        | 100.0        |
| Khuram Wa Sarbagh        | 3.5         | 0.0         | 26.3        | 18.4        | 46.5         | 5.3         | 0.0         | 0.0        | 100.0        |
| <b>Total</b>             | <b>12.9</b> | <b>13.9</b> | <b>15.5</b> | <b>14.5</b> | <b>19.0</b>  | <b>12.8</b> | <b>11.1</b> | <b>0.3</b> | <b>100.0</b> |

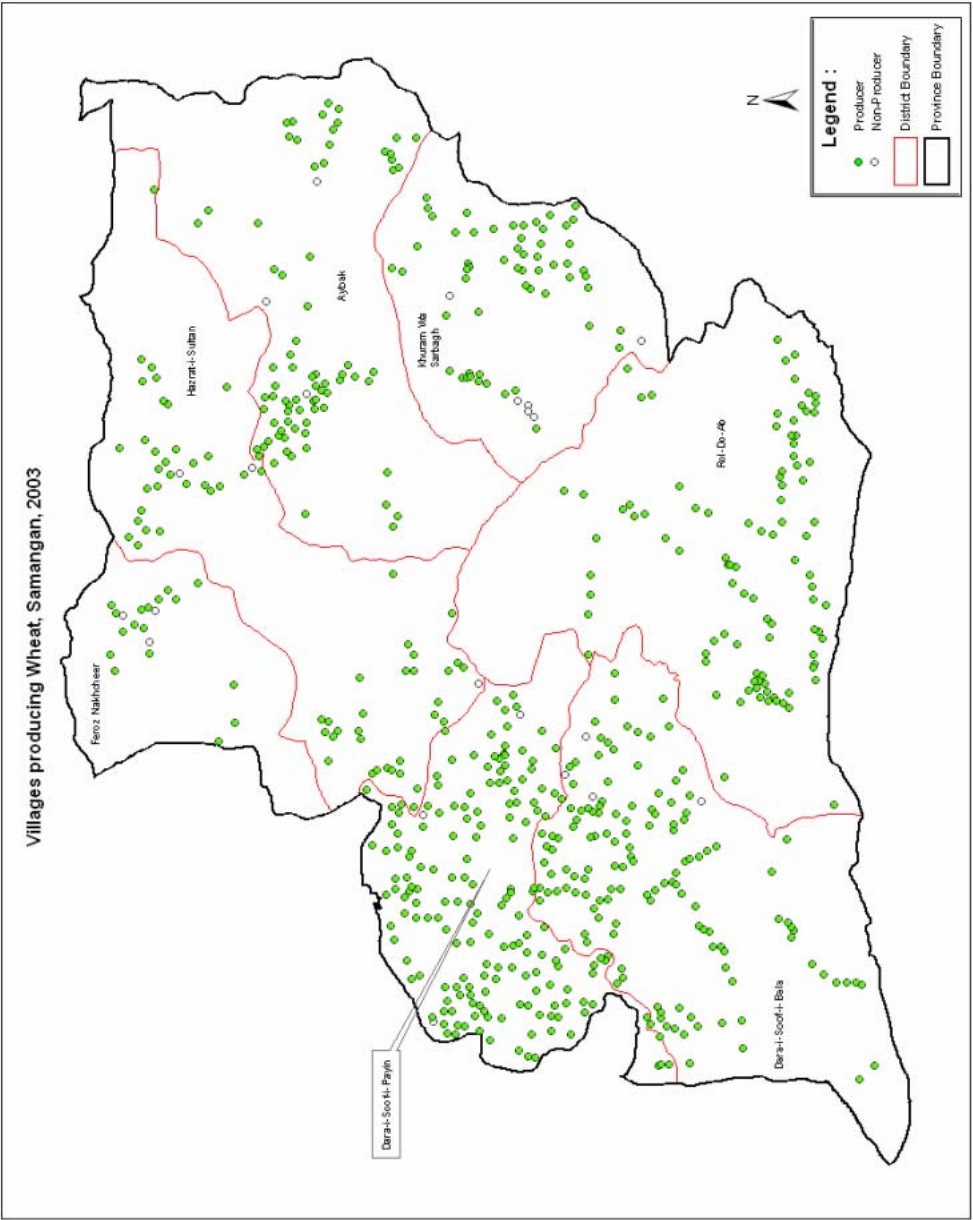
## Panel C—Concentration

| District                 | Eggs         | Milk         | Yogurt       | Whey         | Dried Yogurt | Butter       | Wool         | Other        | Total        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Provincial Center--Aybak | 19.9         | 18.3         | 16.4         | 16.0         | 10.7         | 15.6         | 14.1         | 0.0          | 15.6         |
| Hazrat-I-Sultan          | 14.6         | 13.1         | 11.4         | 11.3         | 8.6          | 13.3         | 15.1         | 12.5         | 12.2         |
| Feroz Nakhcheer          | 3.9          | 4.5          | 4.0          | 3.8          | 2.5          | 2.0          | 1.6          | 0.0          | 3.2          |
| Dara-I-Sodf-I-Bala       | 0.3          | 0.8          | 4.4          | 4.8          | 24.3         | 3.7          | 0.7          | 12.5         | 6.7          |
| Dara-I-Sodf-I-Payin      | 36.8         | 37.4         | 33.6         | 34.1         | 24.7         | 36.3         | 38.7         | 37.5         | 33.9         |
| Roi-Do-Ab                | 23.3         | 25.9         | 23.1         | 24.8         | 19.0         | 27.5         | 29.8         | 37.5         | 24.3         |
| Khuram Wa Sarbagh        | 1.1          | 0.0          | 7.0          | 5.3          | 10.2         | 1.7          | 0.0          | 0.0          | 4.1          |
| <b>Total</b>             | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

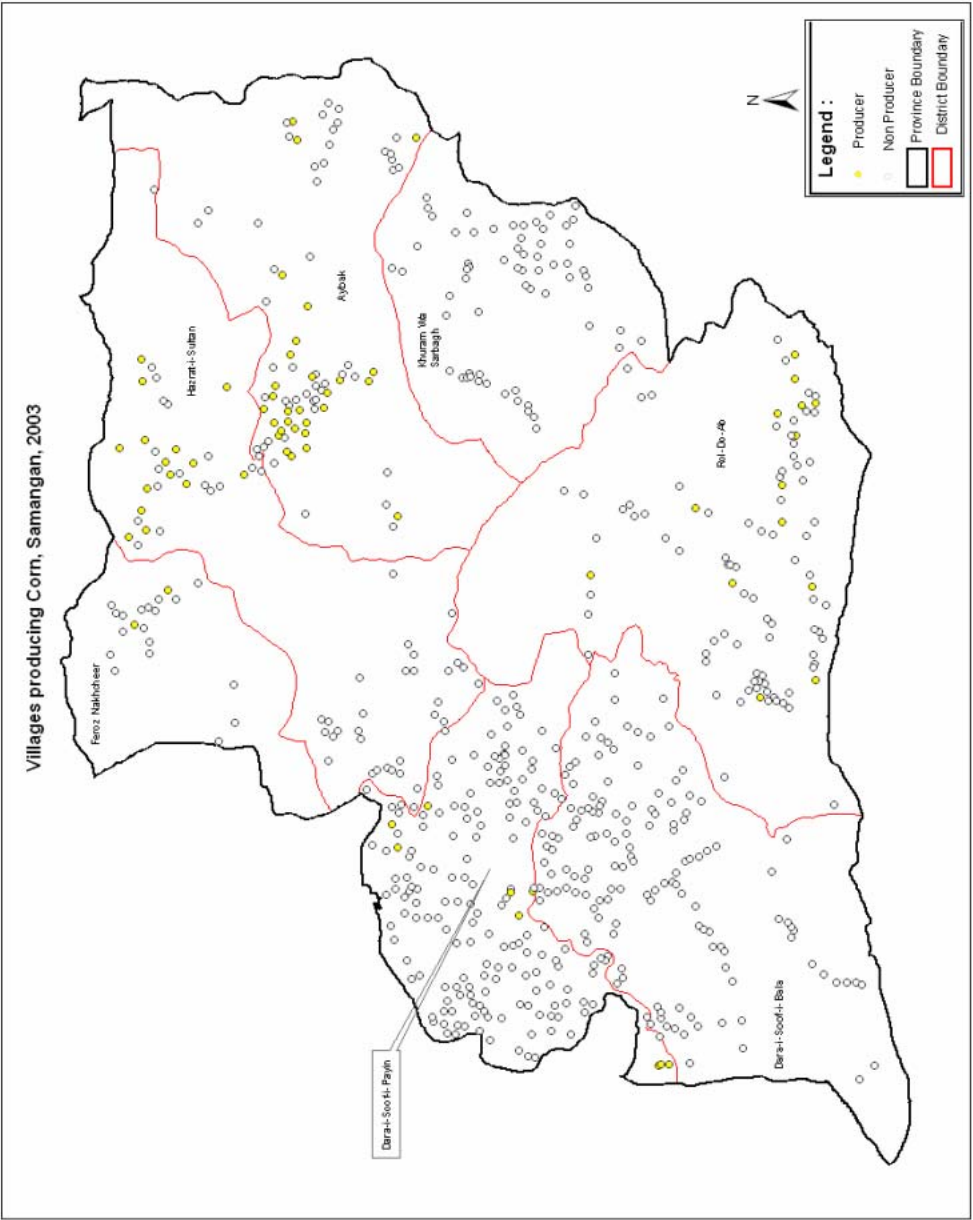
## Panel G—Deviation of actual from expected as a ratio to expected

| District                 | Eggs       | Milk       | Yogurt     | Whey       | Dried Yogurt | Butter     | Wool       | Other      | Total      |
|--------------------------|------------|------------|------------|------------|--------------|------------|------------|------------|------------|
| Provincial Center--Aybak | 0.28       | 0.18       | 0.05       | 0.03       | -0.31        | 0.00       | -0.10      | -1.00      | 0.00       |
| Hazrat-I-Sultan          | 0.20       | 0.08       | -0.06      | -0.07      | -0.29        | 0.09       | 0.24       | 0.03       | 0.00       |
| Feroz Nakhcheer          | 0.23       | 0.39       | 0.24       | 0.18       | -0.22        | -0.38      | -0.49      | -1.00      | 0.00       |
| Dara-I-Sodf-I-Bala       | -0.96      | -0.88      | -0.34      | -0.29      | 2.62         | -0.45      | -0.90      | 0.86       | 0.00       |
| Dara-I-Sodf-I-Payin      | 0.09       | 0.11       | -0.01      | 0.01       | -0.27        | 0.07       | 0.14       | 0.11       | 0.00       |
| Roi-Do-Ab                | -0.04      | 0.06       | -0.05      | 0.02       | -0.22        | 0.13       | 0.23       | 0.54       | 0.00       |
| Khuram Wa Sarbagh        | -0.73      | -1.00      | 0.69       | 0.27       | 1.45         | -0.59      | -1.00      | -1.00      | 0.00       |
| <b>Total</b>             | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b>   | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |

Annex 7

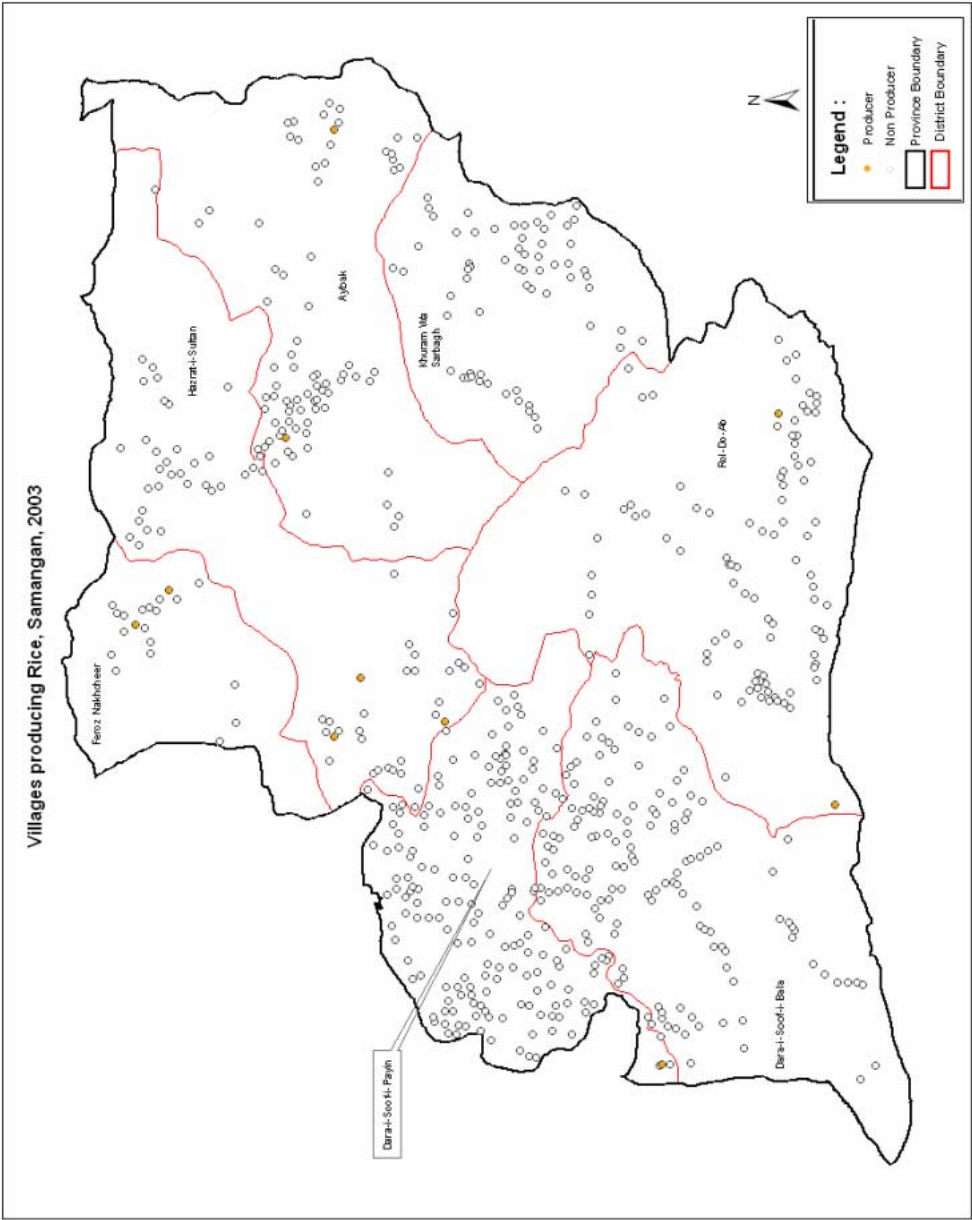


Annex 8

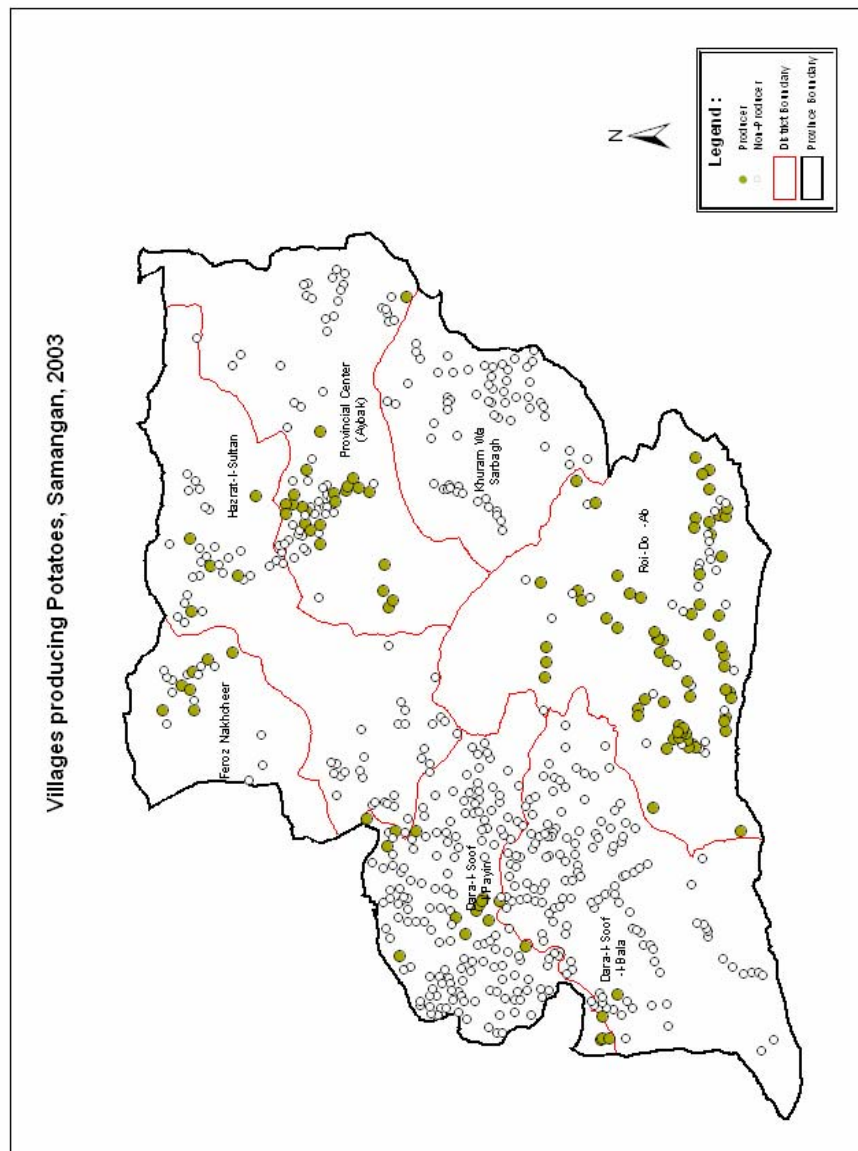




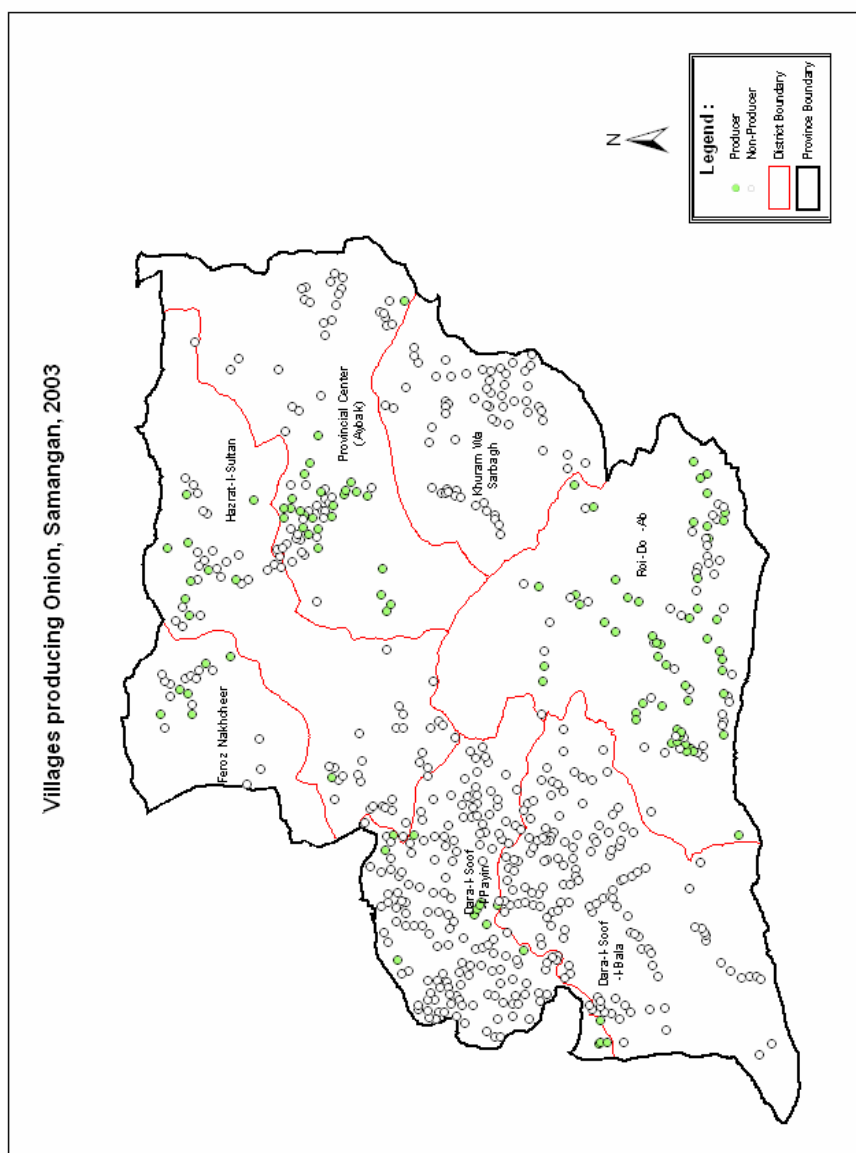
Annex 9



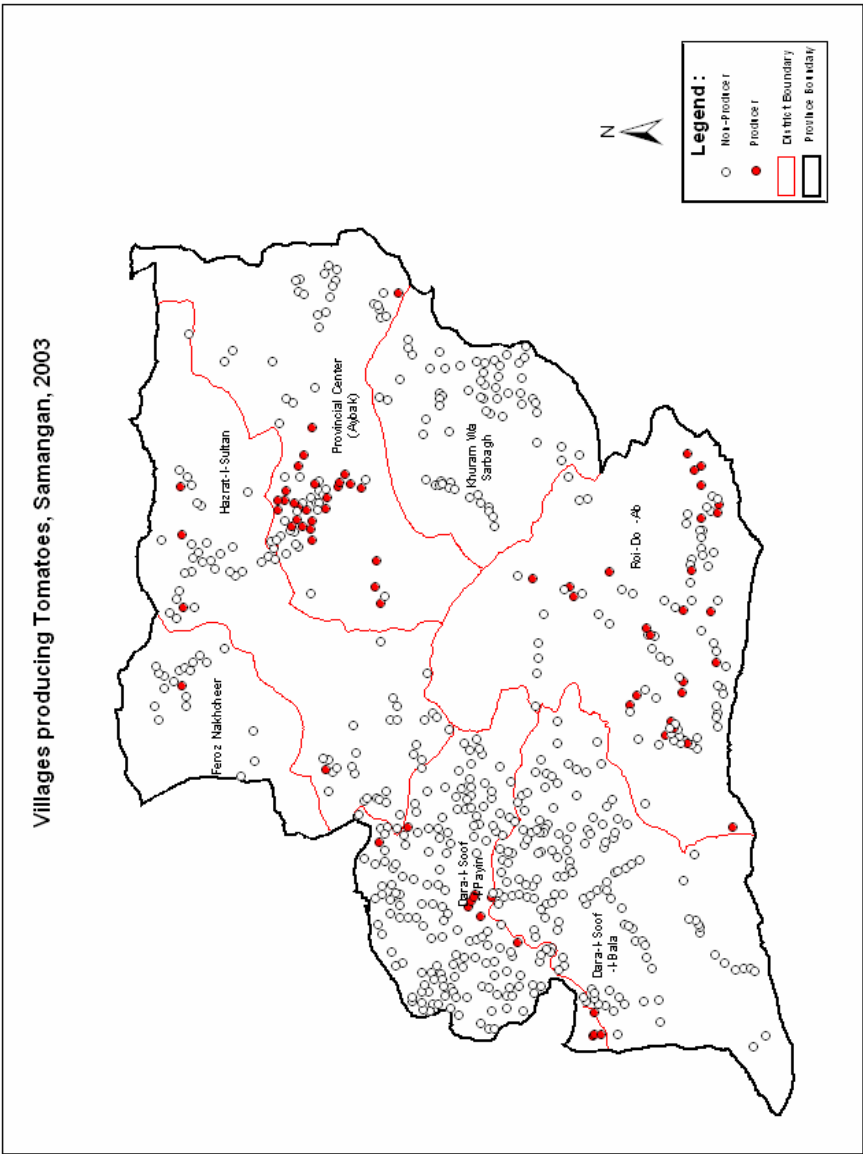
Annex 10



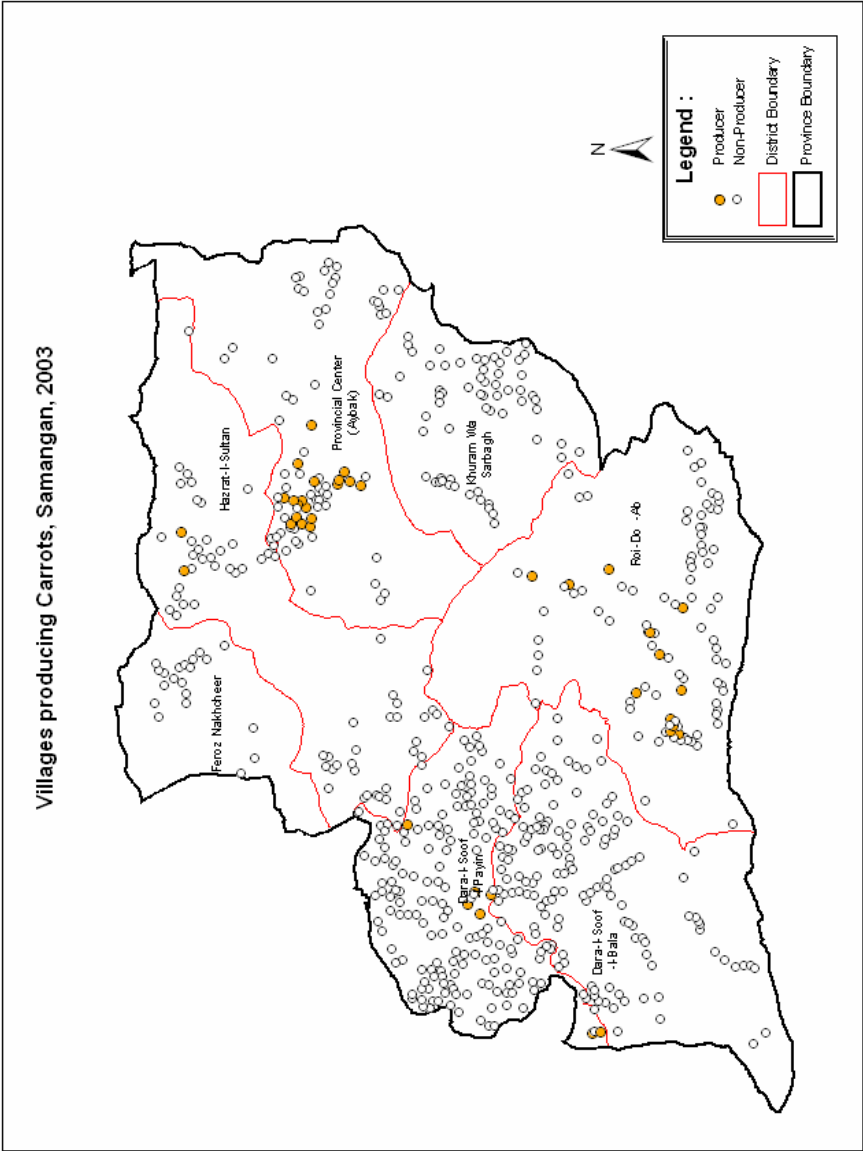
Annex 11



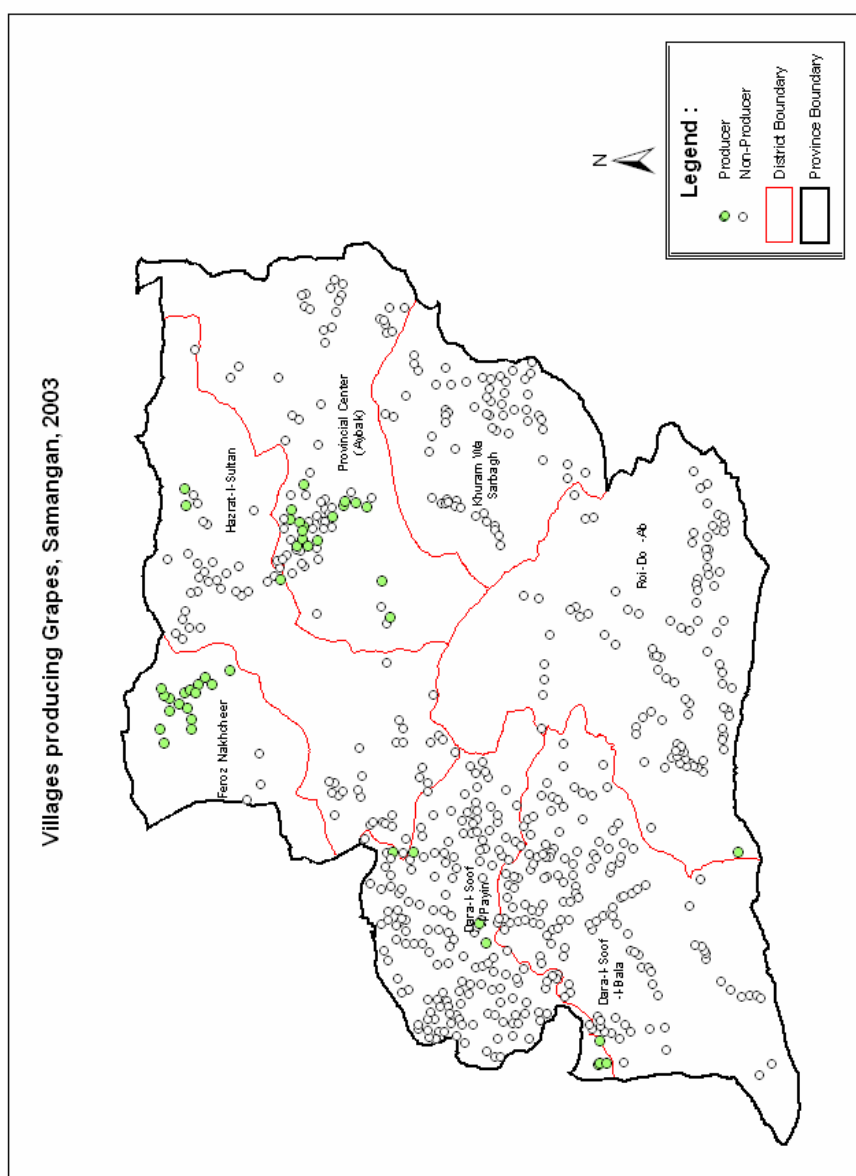
Annex 12



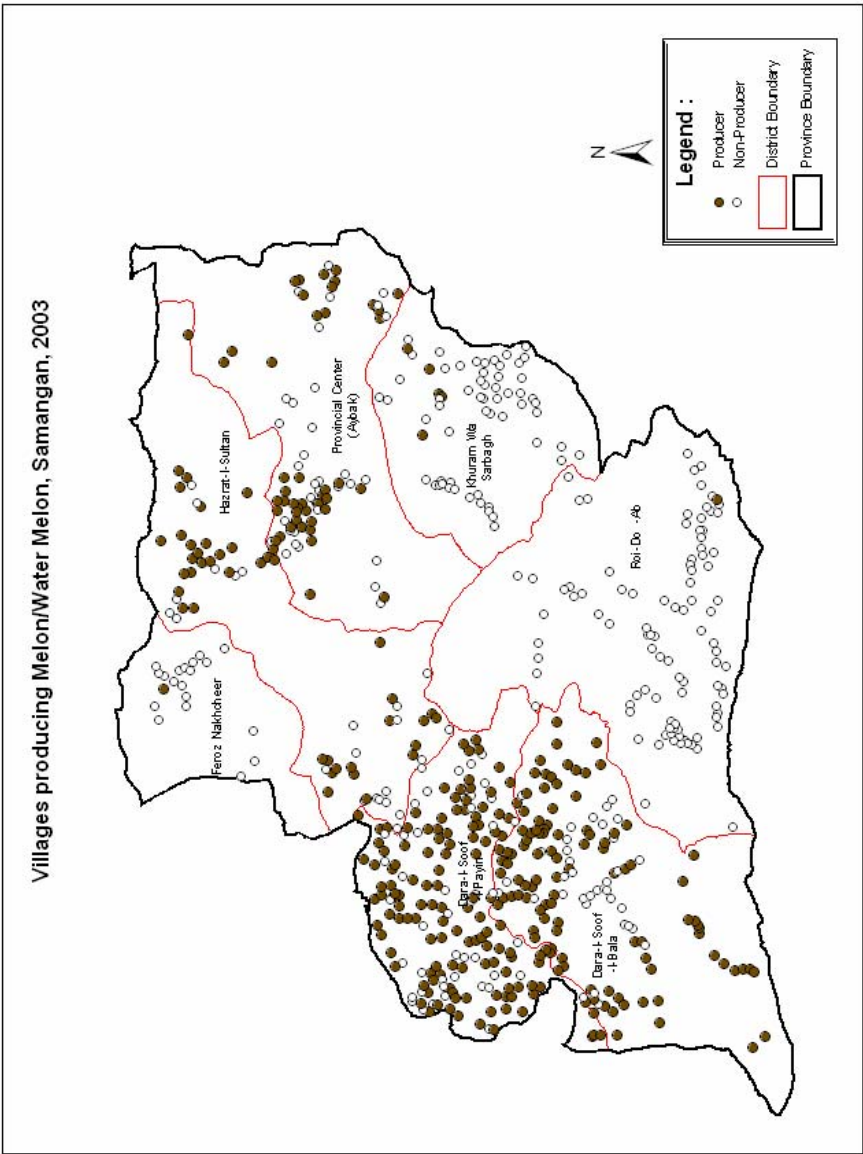
Annex 13



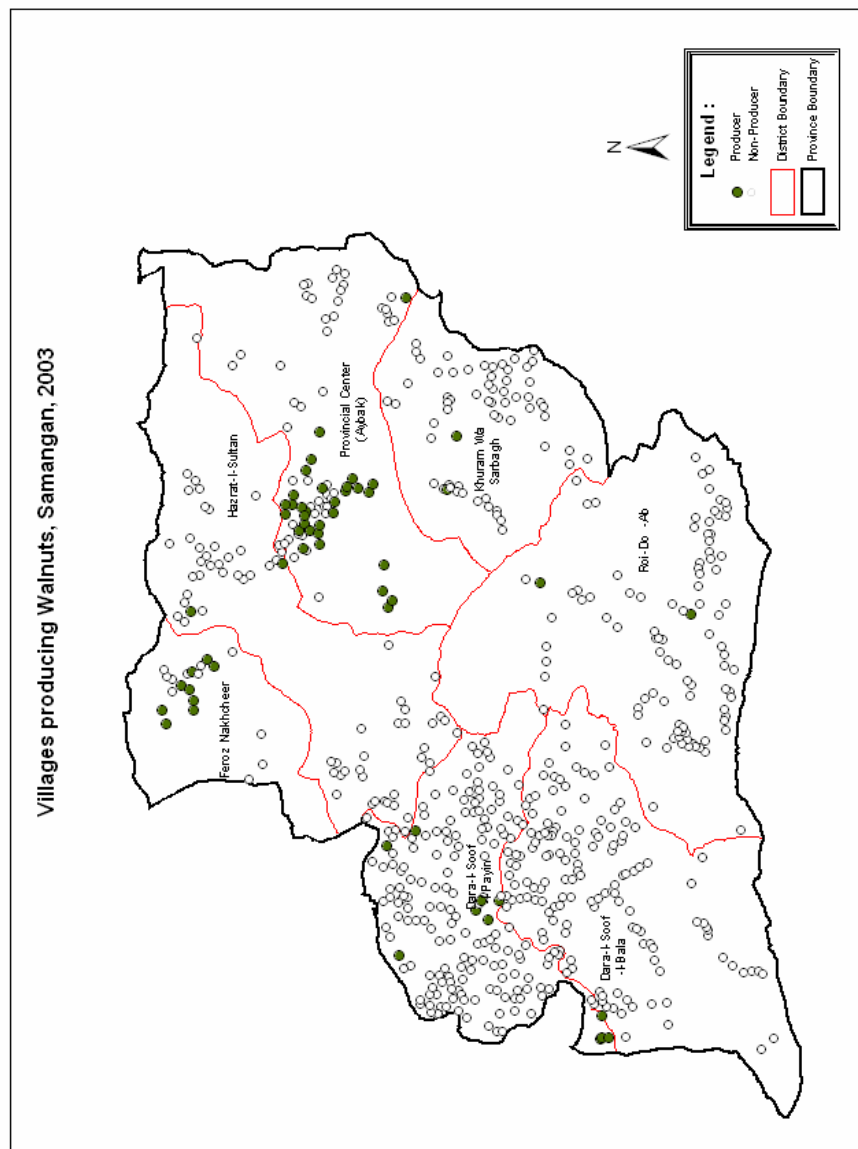
Annex 14



Annex 15

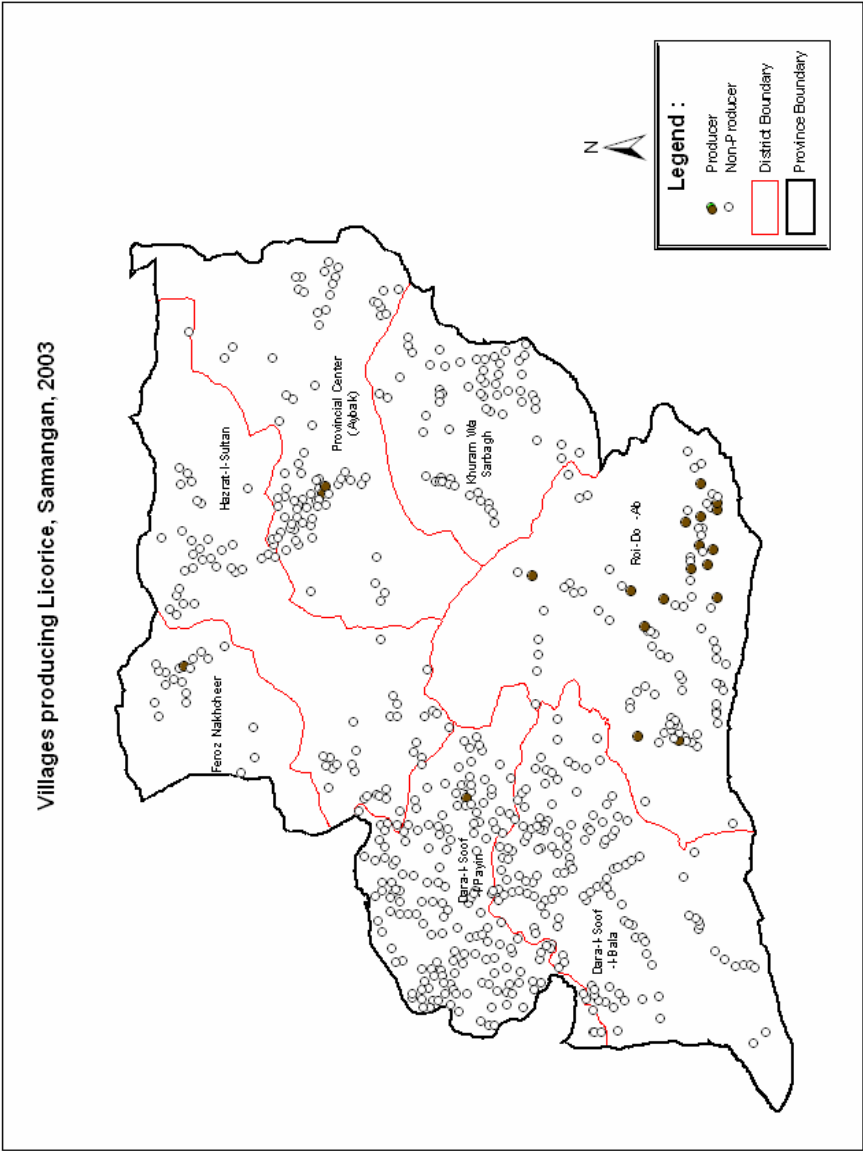


Annex 16

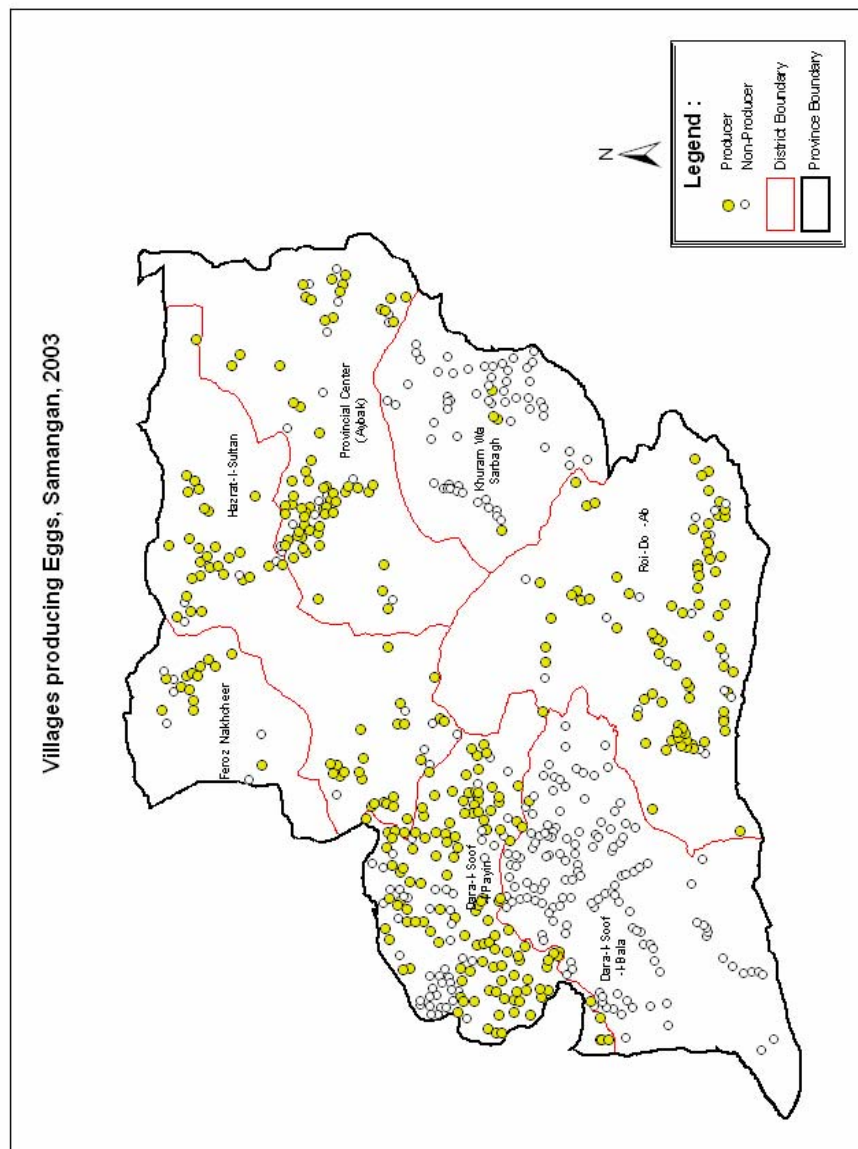




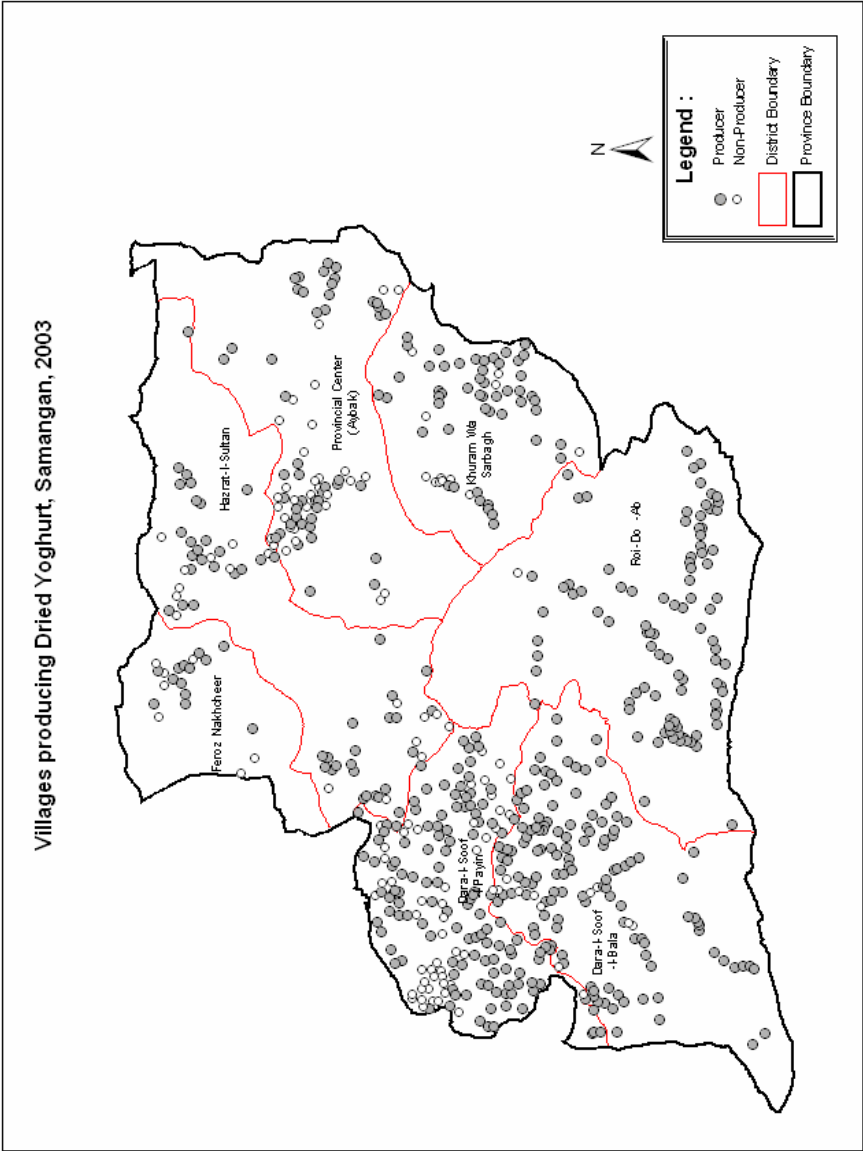
Annex 17



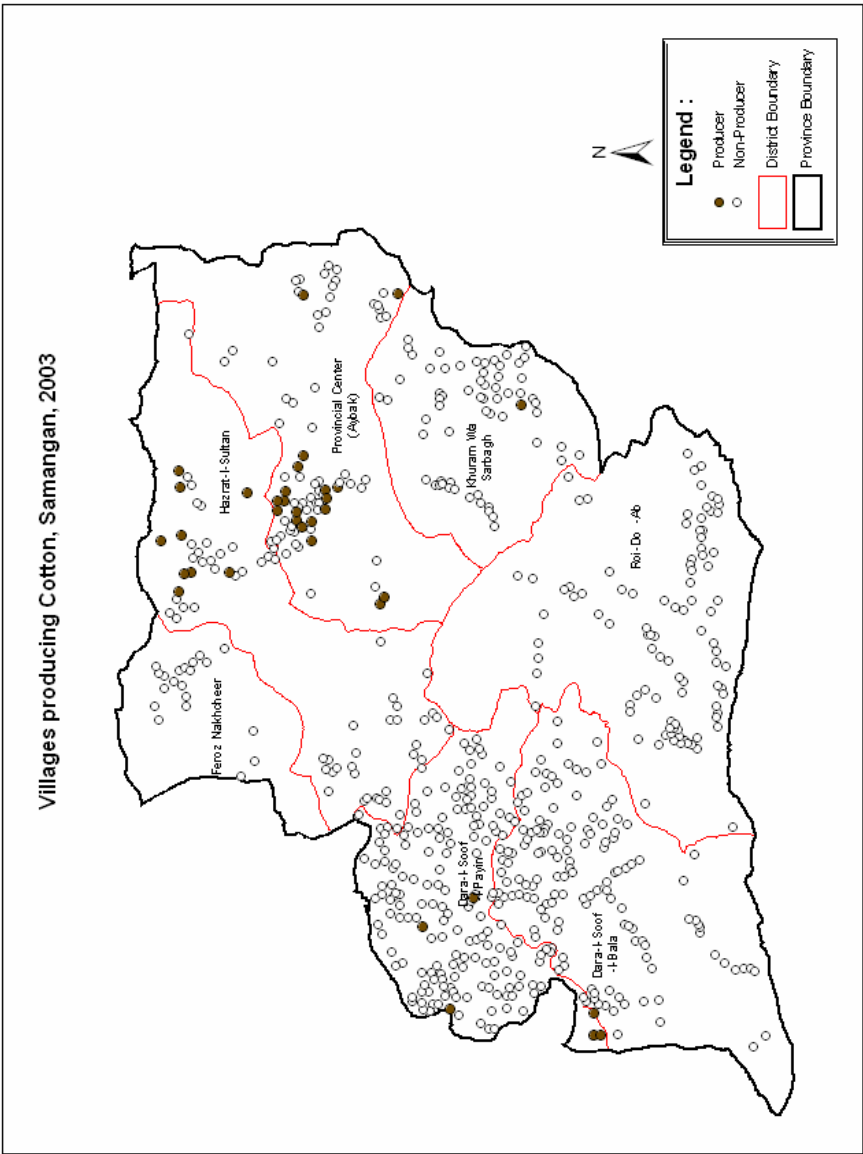
Annex 18



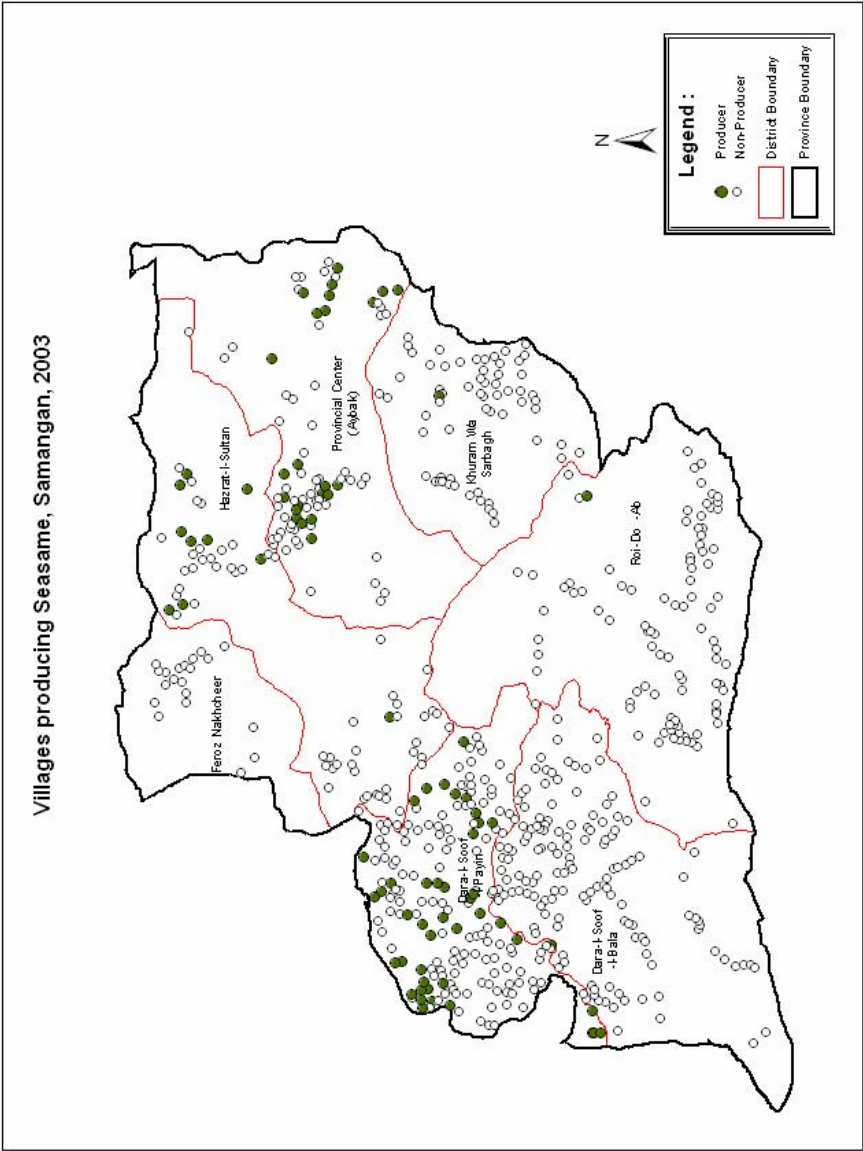
Annex 19



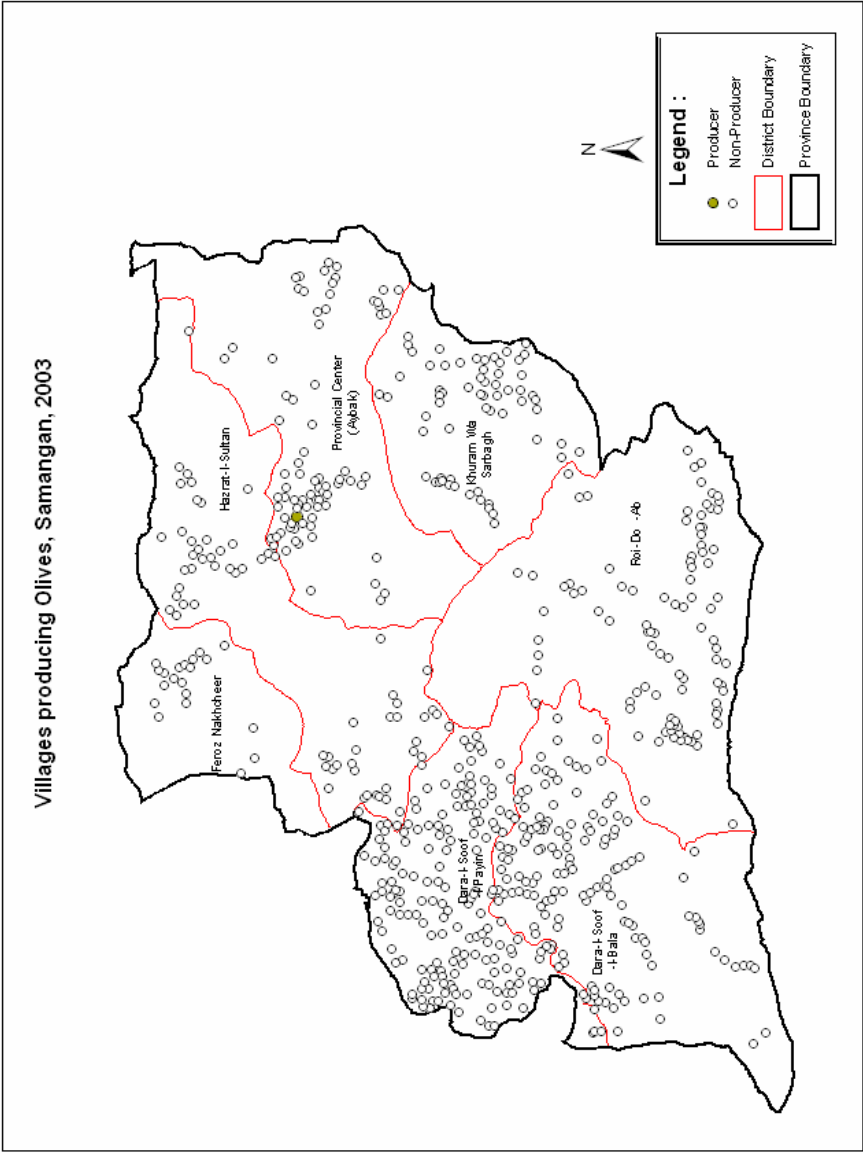
Annex 20



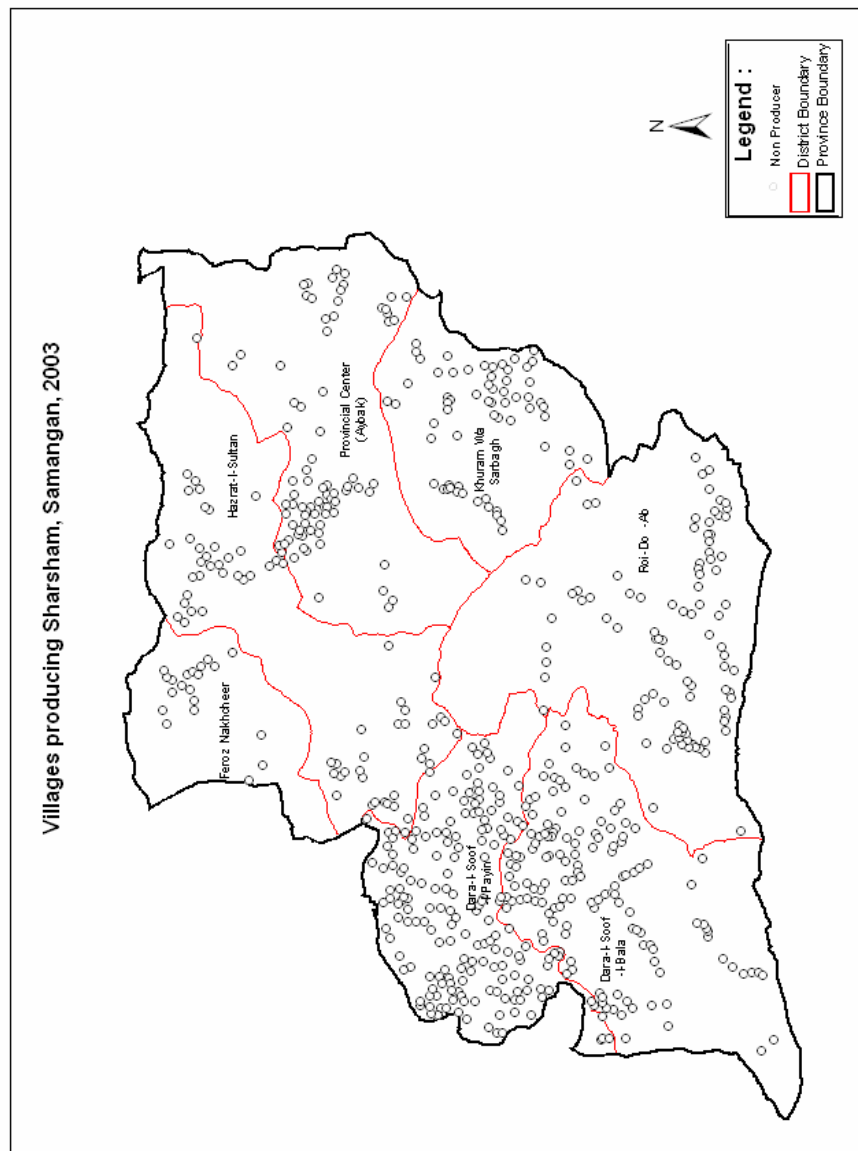
Annex 21



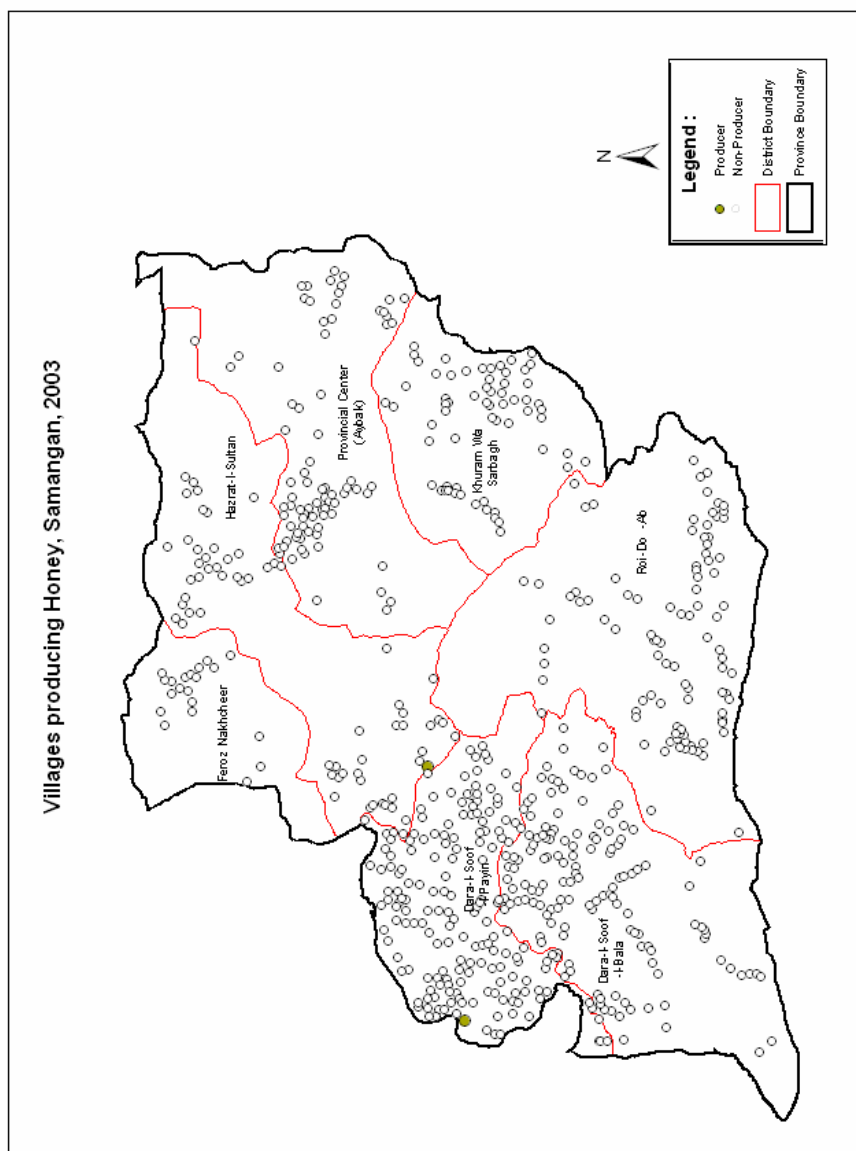
Annex 22



Annex 23

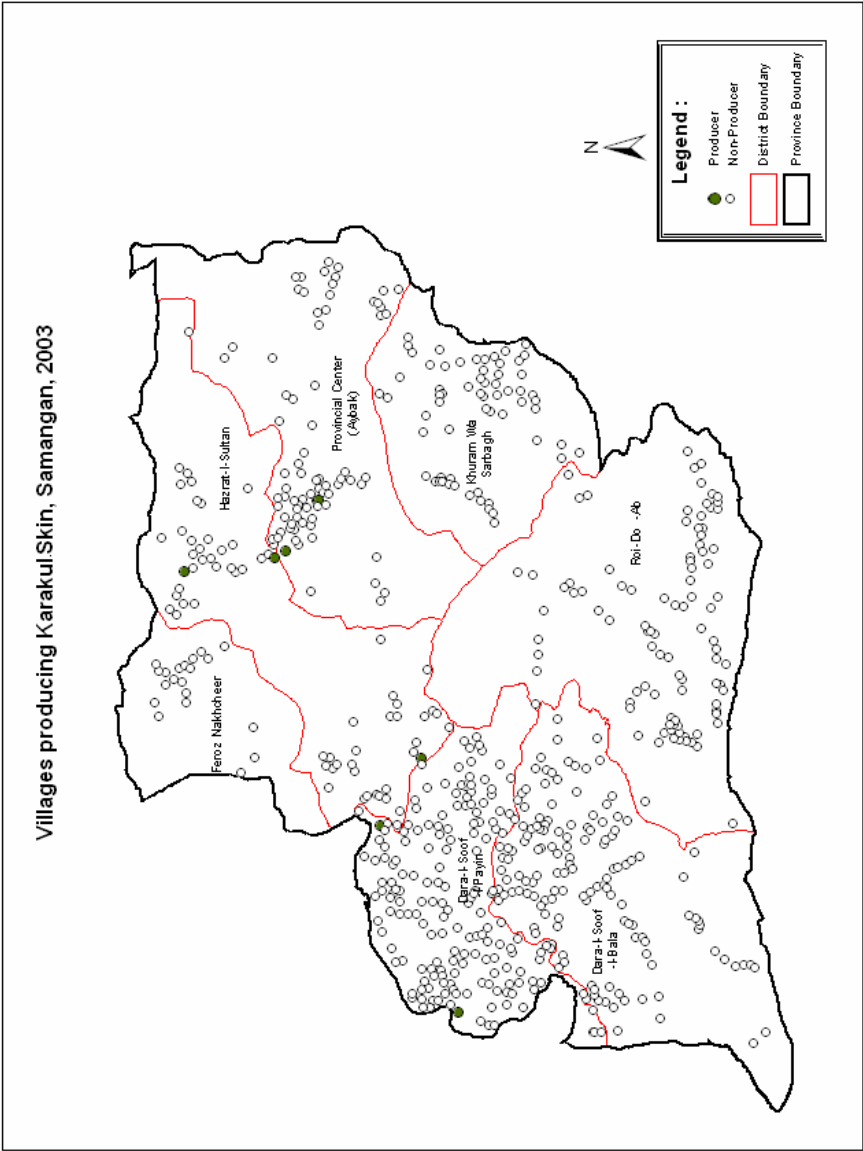


Annex 24

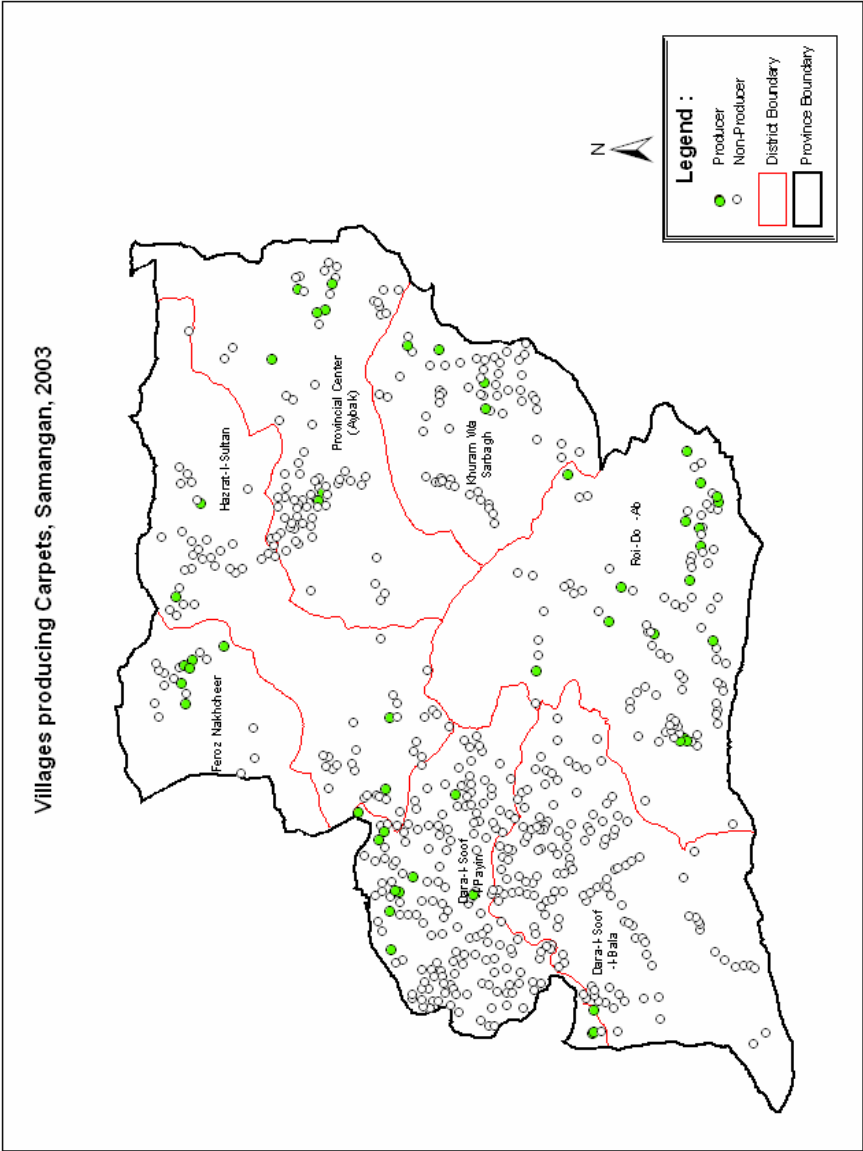




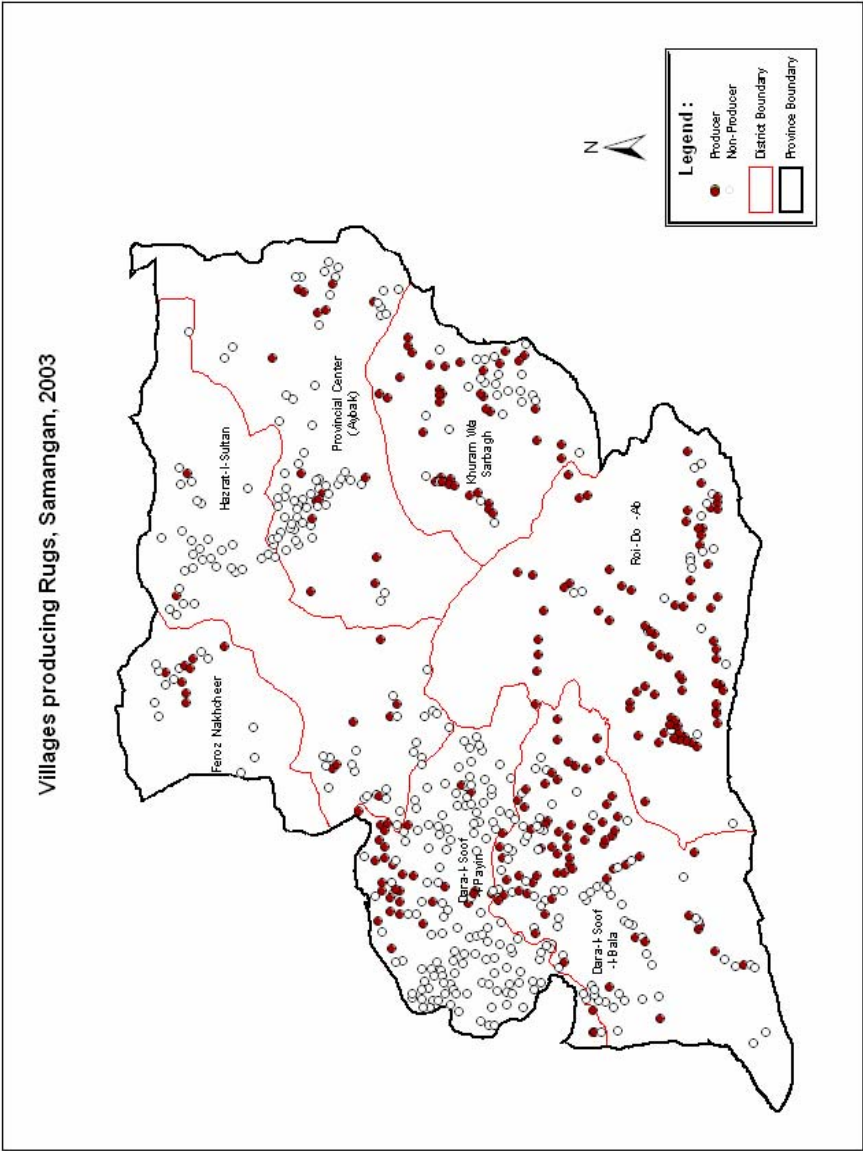
Annex 25



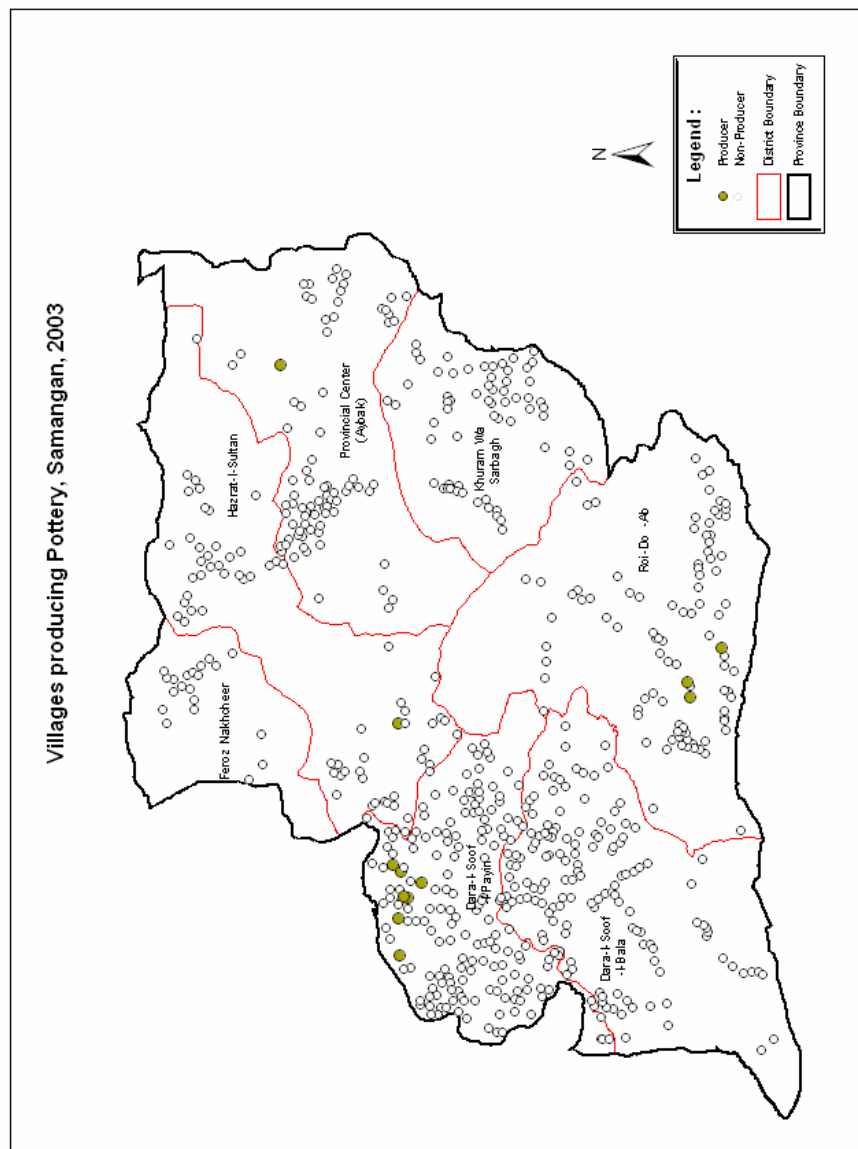
Annex 26



Annex 27



Annex 28



Annex 29

