SOCIO-ECONOMIC AND ENVIRONMENTAL ATLAS OF SELECTED DISTRICTS IN KARAKALPAKSTAN

FORWARD

This atlas "maps" the socio-economic situation in Kegeily, Shumanai and Karauzyak districts of Karakalpakstan, where the EU-UNDP supported project "Enhancement of Living Standards" (ELS) has been working since 2005 [1]. The atlas uses maps of the districts and "plots" key socio-economic indicators on them. The result is a total of 48 maps showing how the districts perform on various dimensions of welfare such as education, health, and environment. The indicators plotted on the maps are thus not restricted to those normally used for a monetary-based definition of wellbeing (such as income), and as a result the atlas provides a comprehensive picture of local welfare and levels of human development in the districts.

The atlas also represents the first attempt to map indicators which are suitable for monitoring of the achievement of Uzbekistan's national Millennium Development Goals (MDG) at the regional, district and local levels. These "MDG maps" for three districts of Karakalpakstan are presented in the second part of this atlas. They show that there is still a lot of work to be done to improve the statistical base for monitoring progress towards achieving MDGs at the regional and district levels. This is both a challenge and an opportunity for greater cooperation and joint work by all those supporting the country to achieve the MDGs by the year 2015. The ELS project would be honoured if the maps shown in this atlas could be seen as a small contribution towards this effort.

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1   The ELS operates also in Namangan region where it has produced similar maps for the three districts of Kasansai, Chartak and Mingbulok.

CONTENT

This atlas provides a series of maps illustrating the socio-economic and environmental conditions of three districts of the autonomous Republic of Karakalpakstan where the ELS project operates. The selected districts are: Kegeily, Shumanay and Karauzyak. It includes several types of indicators which can be used to make an assessment of the districts communities welfare. These indicators are:

- Demographic
- Education
- Economic
- Health
- Social Protection
- Infrastructures
- Environment

Data has been derived from the survey of Rural Citizens Assemblies and from the Household Survey conducted by Tahlil, Centre for Social Research (CSR) from Mahalla Committees Data in 2005. In addition, some environmental data was obtained from remote sensing imagery processed and analysed by the Geographic Information System (GIS) Centre in Nukus. Data for the indicators at the national and regional level is derived from Uzbekistan's Goskomstat, unless otherwise stated.

ACKNOWLEDGEMENTS

UZBEKISTAN REGIONS
(SECOND ORDER ADMINISTRATIVE DIVISIONS)

KAZAKHSTAN

Karakalpakstan

KYRGYZSTAN

Navoi

Khorezm

Tashkent

Namangan

Andijan

Djizak

Ferghana

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

Scale: 1 : 10,000,000

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ADMINISTRATIVE STRUCTURE OF THE AUTONOMOUS REPUBLIC OF KARAKALPAKSTAN

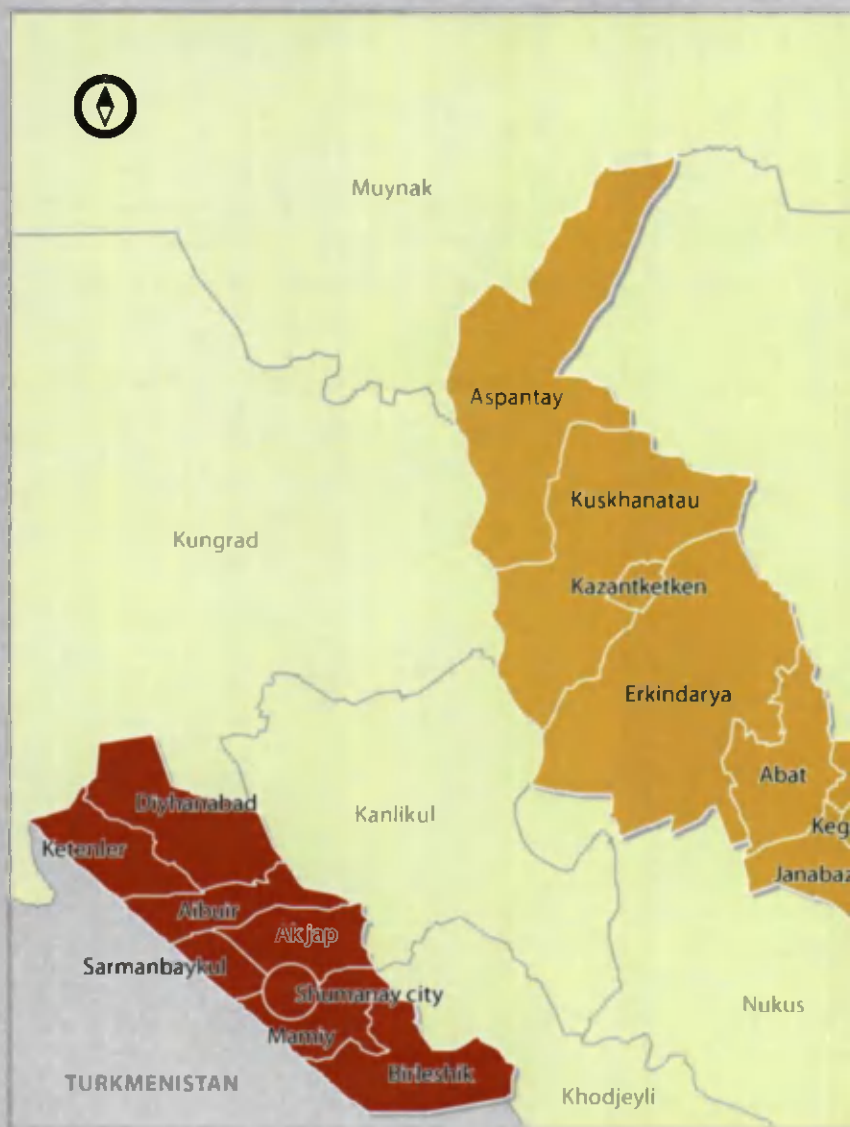The population of the Republic of Karakal-pakstan totals 1.565 mln. people, 760.6 ths. live in cities. The area is 166.6 ths. sq. km. Population density is 9.4 people/sq. km.

Nukus is the regional centre.

There are a total of 14 districts and 10 cities subordinated to the districts.

There are 14 rural towns, 124 Rural Assemblies of Citizens, 1183 villages and 172 mahallas.

ADMINISTRATIVE DIVISIONS

KEY TO RURAL ASSEMBLIES OF CITIZENS (RACS) IN ELS KARAKALPAKSTAN PROJECT'S DISTRICTS

Muynak

Aspantay

Kuskhanatau

Kazantketken

Kungrad

Erkindarya

Abat

Diyhanabad

Ketenler

Kanlikul

Keg

Janaba

Atbour

Akjap

Sarmanbaykul

Shumanay city

Nukus

Mamiy

Biylestik

TURKMENISTAN

Khodjeyli

Scale: 1 : 1,000,000

LEGEND

- ■ Karauzyak
- ■ Kegeyli
- ■ Shumanay
- — Karakalpakstan Rayons' Borders
- ○ Urban areas

Esimozek

Karauzyak

Takhtakupyr

Algabas

Chimbay

Berdah

Karauzyak city

Madaniyat

Karakol

Karabuga

Aktuba

Koybak

eli city

Kumshingul

Jalpay jap

zar

Halkabad

Kizil Uy

Karauzyak district
non populated area

ADMINISTRATIVE
DIVISIONS

CHILDREN LESS THAN 7 YEARS OLD (%)
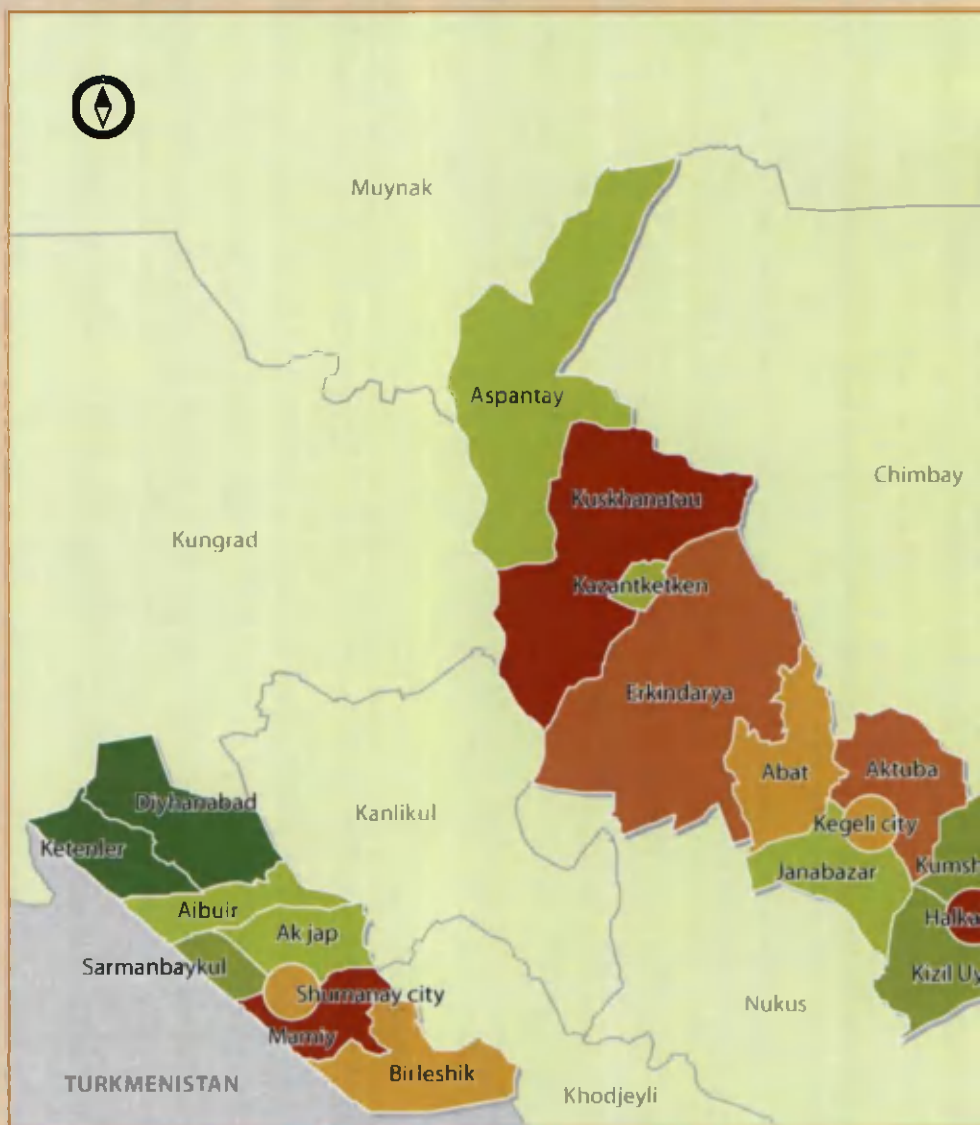
Muynak

Aspantay

Chimbay

Kungrad

Kuskhanatau

Kazantketken

Erkindarya

Abat

Aktuba

Kegeli city

Diyhanabad

Kanlikul

Janabazar

Kumsh

Ketenler

Halka

Aibuir

Ak jap

Sarmanbaykul

Shumanay city

Kizil Uy

Mamiy

Nukus

TURKMENISTAN

Birleshik

Khodjeyli

Not official. For internal use only.

- ▰ Below 7.50
- ▱ 7.51–10.00
- ▱ 10.01–12.50
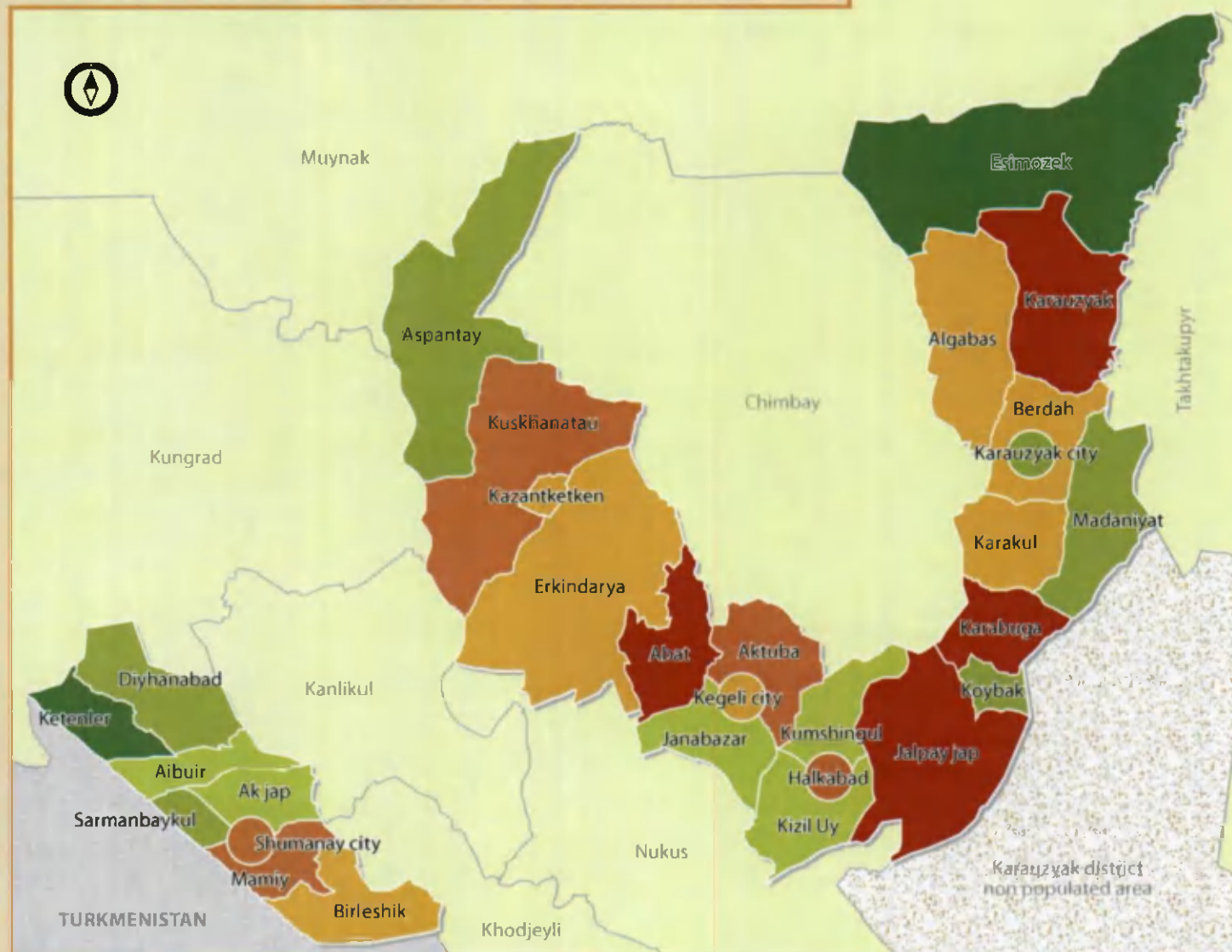- ▱ 12.51–15.00
- ▰ 15.01–17.50
- ▰ Above 17.50
- ━ Karakalpakstan rayons' borders
- ○ Urban areas

This map shows the percentage of children under 7 years old *, and areas with unusually high (red) or unusually low (green) shares of young population. This map highlights differences in fertility levels. In Karakalpakstan 14.9 per cent of the population is under 7 years old compared to 16.7 per cent for the whole country.

Map labels: Esimozek, Karauzyak, Algabas, Takhtakupyr, Berdah, Karauzyak city, Madaniyat, Karakul, Karabuga, Koybak, iningul, Jalpay jap, bad, Karauzyak district non populated area

---

* we consider 7 years old as the upper age limit for this indicator as it is usually collected within the statistical system of reporting at the RAC level

DEMOGRAPHIC

CHILDREN LESS THAN 15 YEARS OLD (%)

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Takhtakupyr

Kungrad

Chimbay

Berdah

Kuskhanatau

Karauzyak city

Kazantketken

Madaniyat

Karakul

Erkindarya

Karabuga

Diyhanabad

Kanlikul

Abat   Aktuba

Karabuga

Ketenler

Kegeli city

Koybak

Aibuir

Janabazar   Kumshingul

Ak jap

Halkabad   Jalpay jap

Sarmanbaykul

Nukus

Shumanay city

Kizil Uy

Mamiy

Karauzyak district
non populated area

TURKMENISTAN

Birleshik

Khodjeyli

The percentage of children less than 15 years old*, shows areas with unusually high (red) or unusually low (green) shares of young population. This map provides information on the number of people that will soon enter the labour market. In Karakalpakstan, 36.9 per cent of the population is under 15 years old compared to 36.7 per cent for the whole country.

* We consider 15 years old are the upper age limit of this indicators as it is usually collected within the statistical system of reporting at the RAC level.

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

DEMOGRAPHIC

PENSION AGE POPULATION (%)

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Takhtakupyr

Chimbay

Berdah

Kuskhanatau

Kungrad

Karauzyak city

Kazantketken

Madaniyat

Karakul

Erkindarya

Karabuga

Abat   Aktuba

Koybak

Diyhanabad

Kanlikul

Kegeli city

Kumshingul

Ketenler

Janabazar

Jalpay jap

Aibuir

Akjap

Halkabad

Sarmanbaykul

Kizil Uy

Shumanay city

Nukus

Mamiy

Karauzyak district
non populated area

TURKMENISTAN

Birleshik

Khodjeyli

LEGEND

- ◼ Below 5.00
- ◼ 5.00–7.50
- ◼ 7.51–10.00
- ◼ 10.01–12.50
- ◼ 12.51–15.00
- ◼ Above 15.00
- — Karakalpakstan rayons' borders
- ○ Urban areas

This map shows the percentage of pension-age population and highlights areas with unusually high (red) or unusually low (green) shares of pension-age population. In Karakalpakstan 6.2 per cent of population is of pension-age, compared to 7.1 for the whole country.
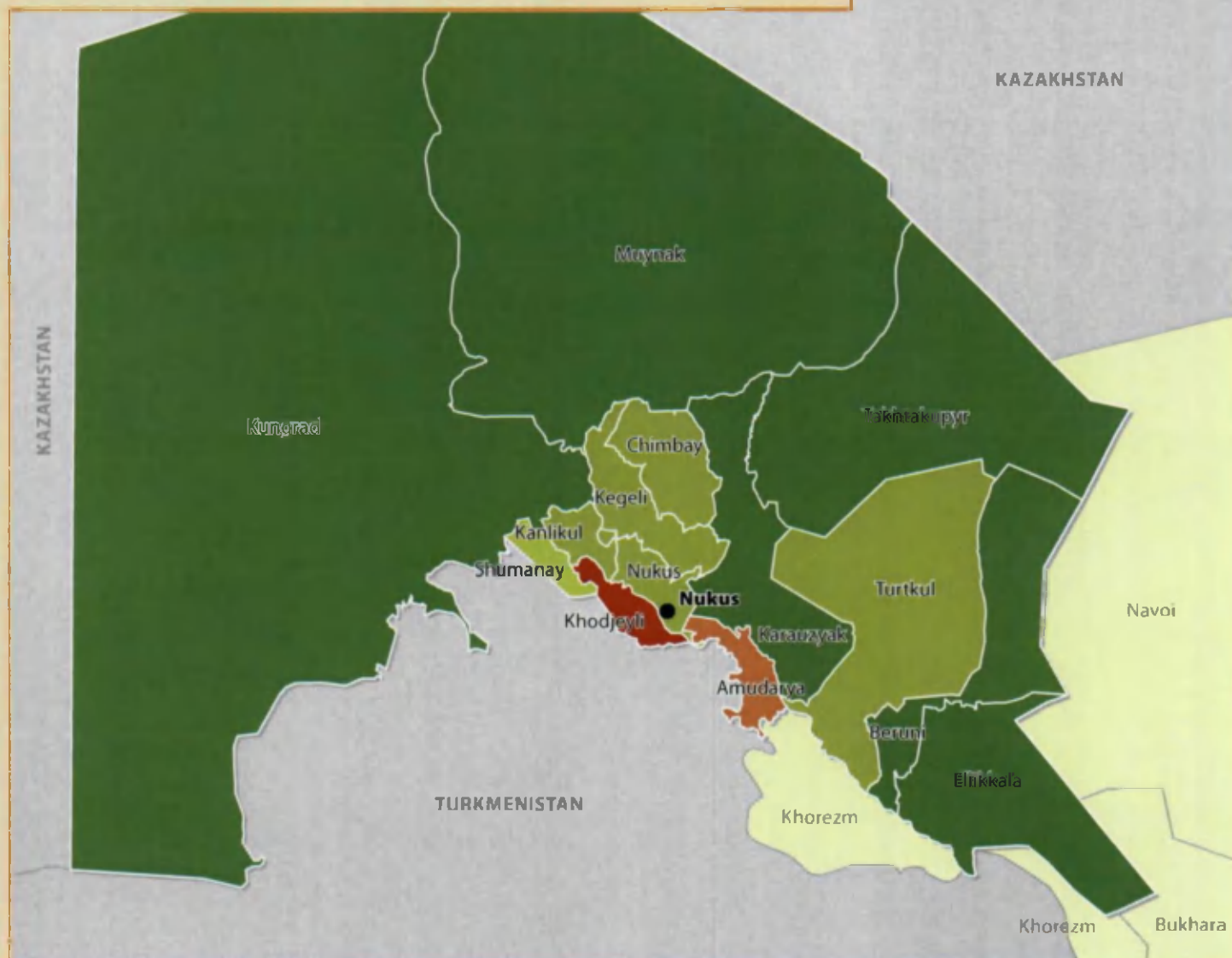
Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

DEMOGRAPHIC

POPULATION DENSITY

KAZAKHSTAN

KAZAKHSTAN

Muynak

Kungrad

Chimbay

Takhtakupyr

Kegeli

Kanlikul

Shumanay

Nukus

Nukus

Khodjeyli

Karauzyak

Turtkul

Navoi

Amudarya

Berum

Elikkala

TURKMENISTAN

Khorezm

Khorezm

Bukhara

LEGEND

- Below 30.00
- 30.01–60.00
- 60.01–90.00
- 90.01–120.00
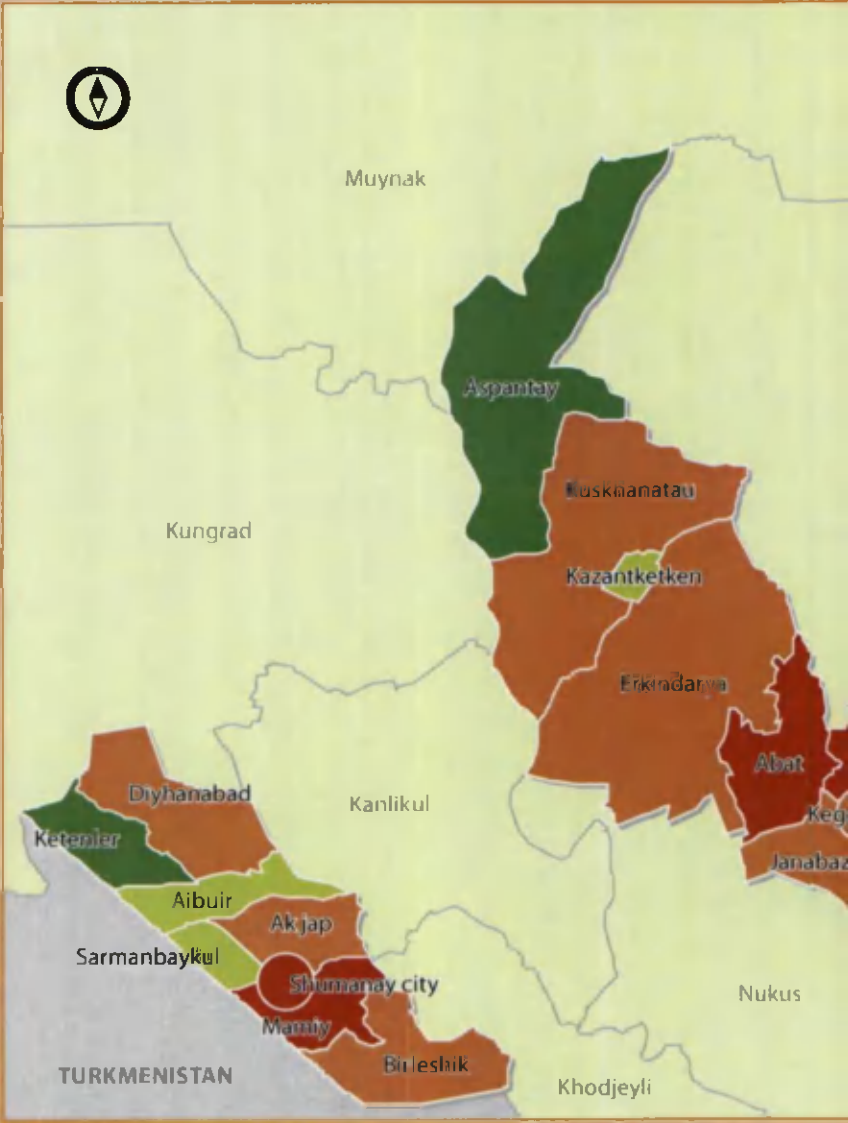- 120.01–150.00
- Above 150.00
- Karakalpakstan rayons' borders

This indicator shows the population distri-
bution by rayon in Karakalpakstan (den-
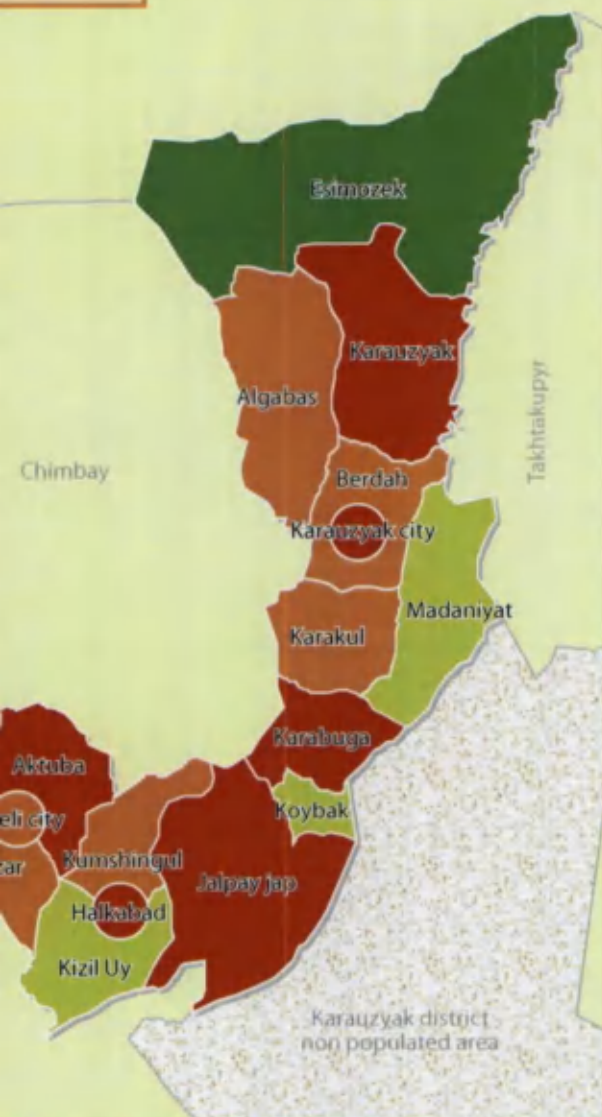sity is the number of persons per square
kilometre).

DEMOGRAPHIC

DEPENDENCY RATIO

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

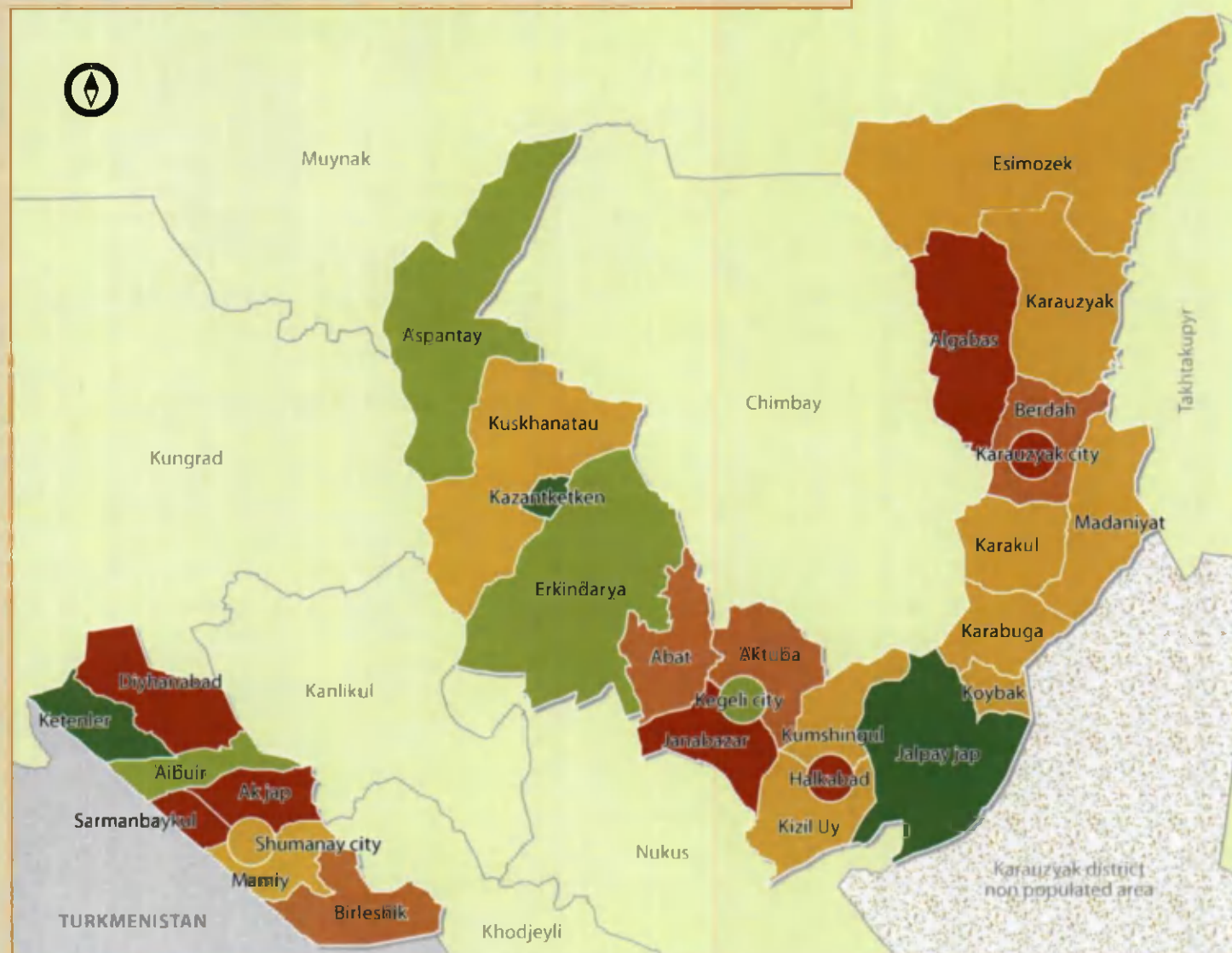**Not official. For internal use only.**

LEGEND
◼◼◼ Below 0.60
▭ 0.60–0.80
▨ 0.81–1.00
◼◼◼ Above 1.00
— Karakalpakstan rayons' borders
○ Urban areas

The dependency ratio represents the ratio of the non-working population to the working population. Areas with high dependency ratios have a higher number of people who are economically dependent relative to those who are likely to be earning a wage. The dependency ratio for Karakalpakstan is 0.75, compared to 0.78 for the whole country.

Map labels: Esimozek, Karauzyak, Algabas, Chimbay, Takhtakupyr, Berdah, Karauzyak city, Madaniyat, Karakul, Karabuga, Aktuba, eli city, Koybak, zar, Kumshingul, Jalpay jap, Halkabad, Kizil Uy, Karauzyak district non populated area

In order to calculate the dependency ratio it is necessary to know the number of individuals below the age of 15 and above the age of 64 (those being considered the non-working population), and the total number of individuals between the age of 15 to 64 (those being considered as the working population). At the RAC level, the information on population above the age of 64 was not collected, mainly because the age of 60 or 54 is considered the official pension age for men and women respectively. Hence, the indicator was calculated using the threshold of 60 years for men and 54 years for women instead of 64 years.

DEMOGRAPHIC
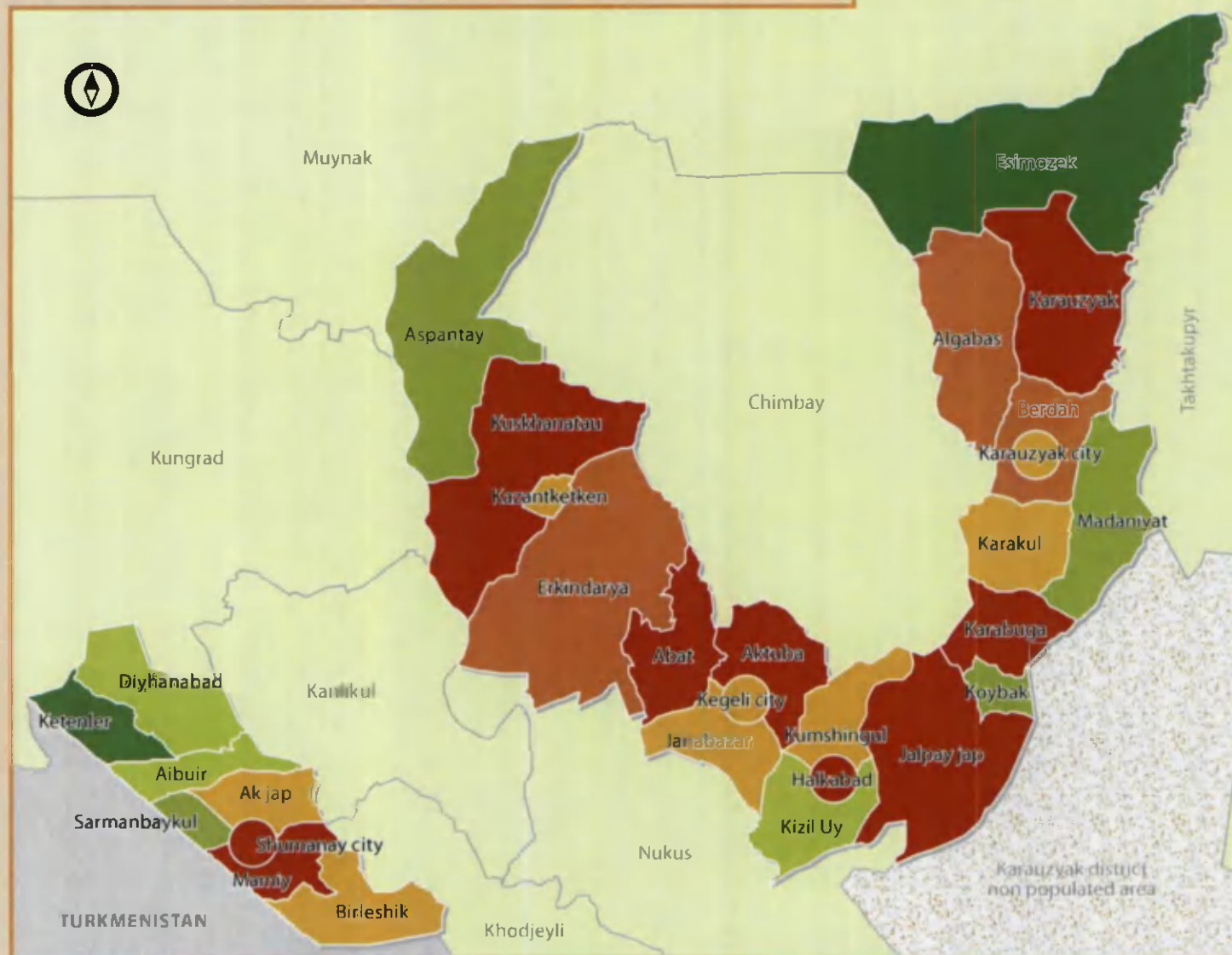
OLD AGE DEPENDENCY RATIO

The old age dependency ratio is the ratio of the pension age population to the working age population. It gives a measure of the rate at which the population is aging. The old age dependency ratio for Karakalpakstan is 0.109, compared to 0.127 for the whole country.

Muynak

Esimozek

Takhtakupyr

A'spantay

Karauzyak

Kungrad

Chimbay

Algabas

Kuskhanatau

Berdah

Karauzyak city

Kazantketken

Madaniyat

Karakul

Erkindarya

Karabuga

Abat

Äktuba

Koybak

Kanlikul

Kegeli city

Kumshingul

Dighanabad

Janabazar

Jalpay jap

Ketenler

Halkabad

AiBuir

Akjap

Kizil Uy

Nukus

Sarmanbaykul

Shumanay city

Mamiy

Karauzyak district
non populated area

TURKMENISTAN

Birleshik

Khodjeyli

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DEMOGRAPHIC

CHILD DEPENDENCY RATIO

- Below 0.40
- 0.41–0.50
- 0.51–0.60
- 0.61–0.70
- 0.71–0.80
- Above 0.80
- Karakalpakstan rayons' borders
- ○ Urban areas

The child dependency ratio is the ratio of the young non-working population to the working age population. A figure over 1.0 indicates that there is more than one child to each working age person, while less than 1.0 indicates that there is less than one child to each person of working age. The child dependency ratio is 0.698 for Karakalpakstan, compared to 0.654 for the whole country.

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Chimbay

Takhtakupyr

Kungrad

Kuskhanatau

Berdah

Kazantketken

Karauzyak city

Madaniyat

Karakul

Erkindarya

Karabuga

Abat

Aktuba

Koybak

Diyhanabad

Kanlikul

Kegeli city

Ketenler

Kumshingul

Jalpay jap

Janabazar

Aibuir

Ak jap

Halkabad

Sarmanbaykul

Kizil Uy

Shumanay city

Nukus

Karauzyak district non populated area

Mamiy

Birleshik

Khodjeyli

TURKMENISTAN

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

DEMOGRAPHIC

AVERAGE HOUSEHOLD SIZE
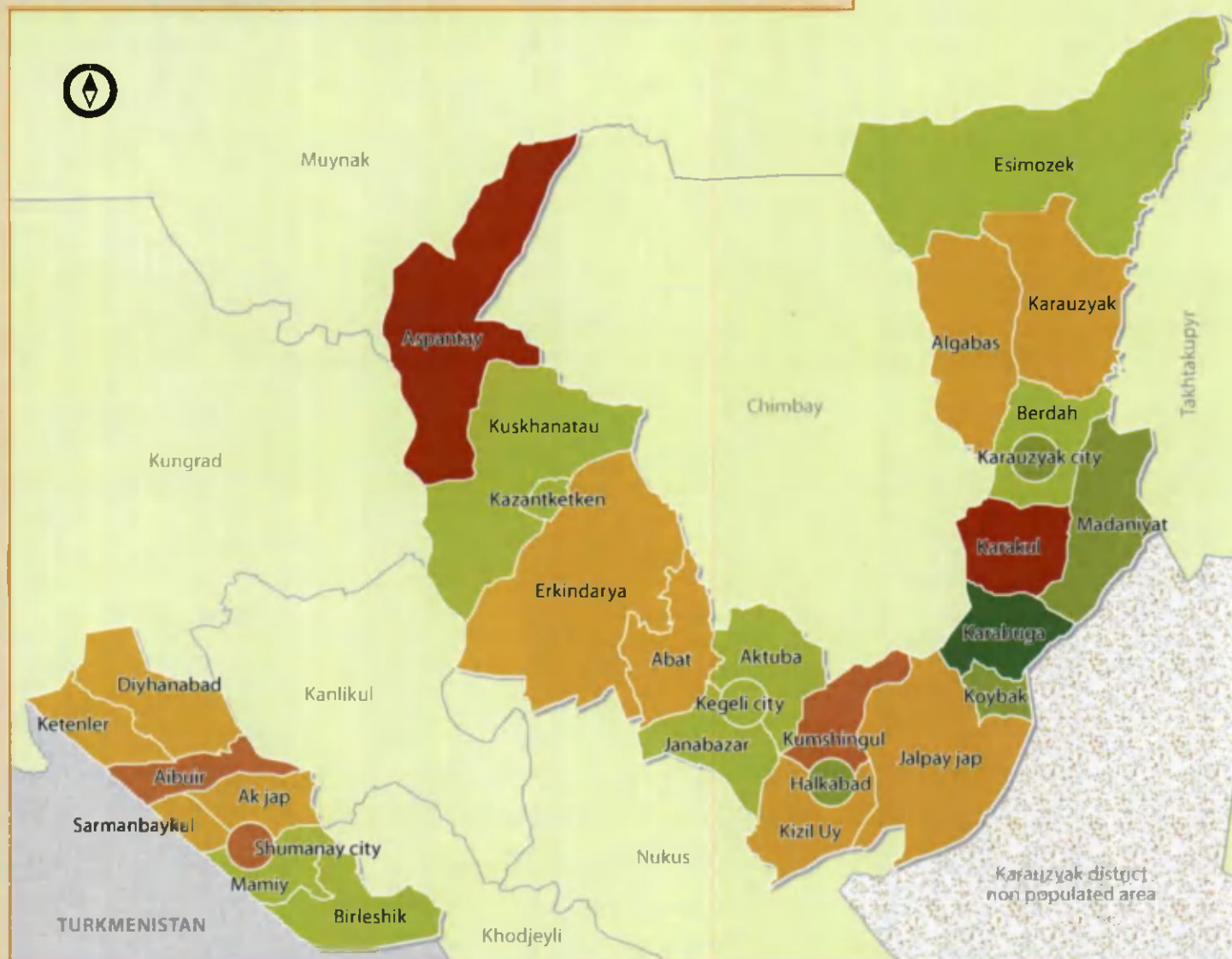
LEGEND

- Below 5.25
- 5.26–5.75
- 5.75–6.25
- 6.26–6.75
- 6.76–7.25
- Above 7.25
- Karakalpakstan rayons' borders
- ○ Urban areas

The average household size reflects both living arrangements and differences in fertility. In addition, studies have shown that larger households have a greater poverty risk. This indicator is considered a correlate of poverty. This map shows areas with high (red) and low (green) average household sizes.

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Takhtakupyr

Kuskhanatau

Chimbay

Berdah

Kungrad

Kazantketken

Karauzyak city

Madaniyat

Karakul

Erkindarya

Karabuga

Abat   Aktuba

Koybak

Kanlikul

Kegeli city

Diyhanabad

Janabazar   Kumshingul

Jalpay jap

Ketenler

Aibuir

Ak jap

Halkabad

Sarmanbaykul

Kizil Uy

Nukus

Shumanay city

Mamiy

Karauzyak district non populated area

Birleshik

Khodjeyli

TURKMENISTAN

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

PUPIL-TEACHER RATIO

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Kungrad

Chimbay

Kuskhanatau

Berdah

Karauzyak city

Kazantketken

Madaniyat

Karakul

Erkindarya

Hersduga

Abat

Aktuba

Diyhanabad

Kanlikul

Kegeli city

Koybak

Ketenler

Jarabanar

Kumshingul

Jalpay jap

Aibuir

Ak jap

Halkabad

Sarmanbaykul

Shumanay city

Kizil Uy

Nukus

Karauzyak district non populated area

Mamiy

Birleshik

Khodjeyli

TURKMENISTAN

Takhtakupyr

LEGEND

- Below 6.00
- 6.00–7.00
- 7.01–8.00
- 8.01–9.00
- Above 9.00
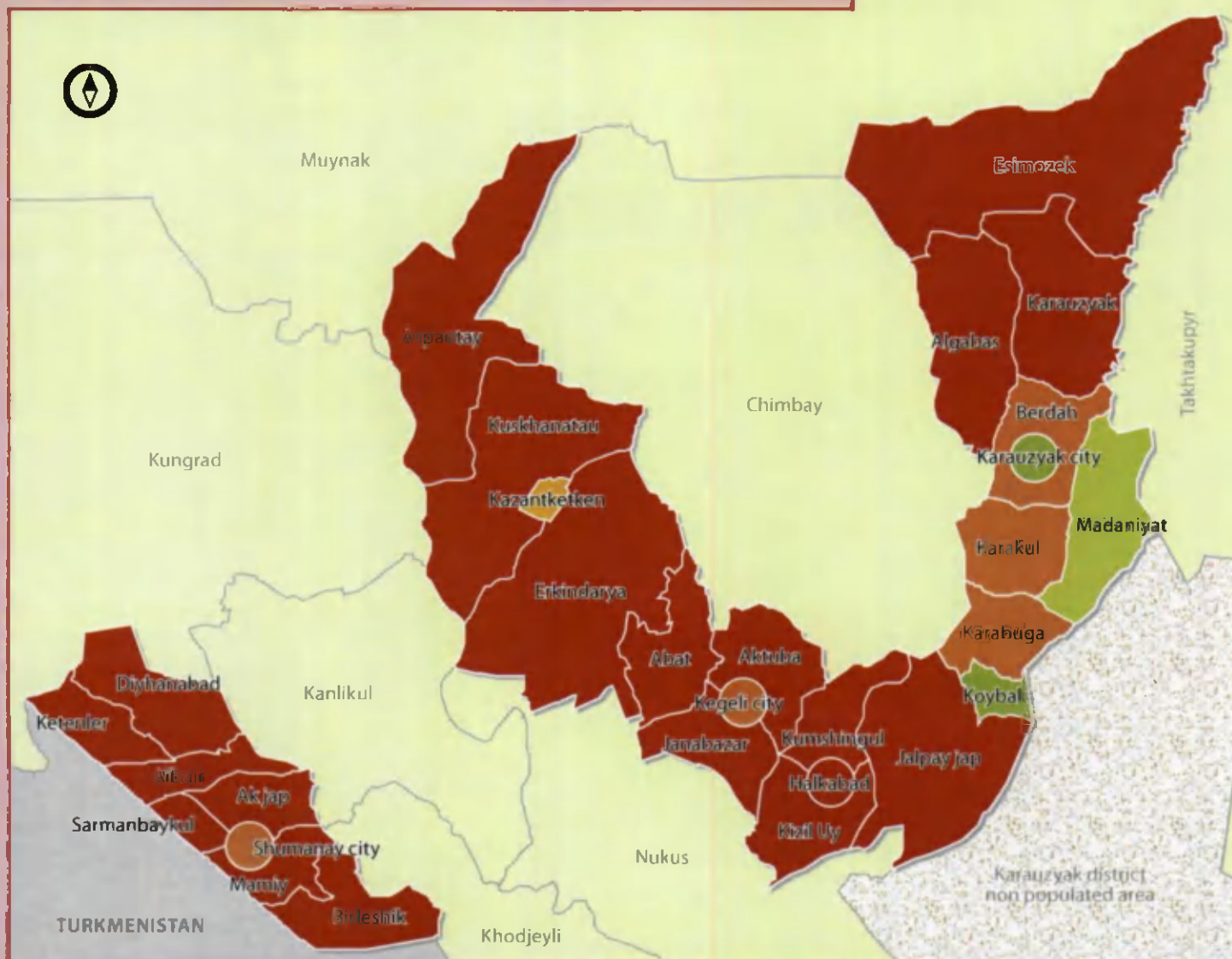- — Karakalpakstan rayons' borders
- O Urban areas

The pupil–teacher ratio is the number of students per teacher. The pupil-teacher ratio can be used as a measure of the quality of schooling, but it also reflects the density of population in rural and urban areas.

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

EDUCATION

PRE-SCHOOL ATTENDANCE

LEGEND

- ▇ Below 0.10
- ▇ 0.11–0.20
- ▇ 0.21–0.30
- ▇ 0.31–0.40
- ▇ Above 0.40
- — Karakalpakstan rayons' borders
- O Urban areas

Proportion of students under 7 years of age attending pre-school education.
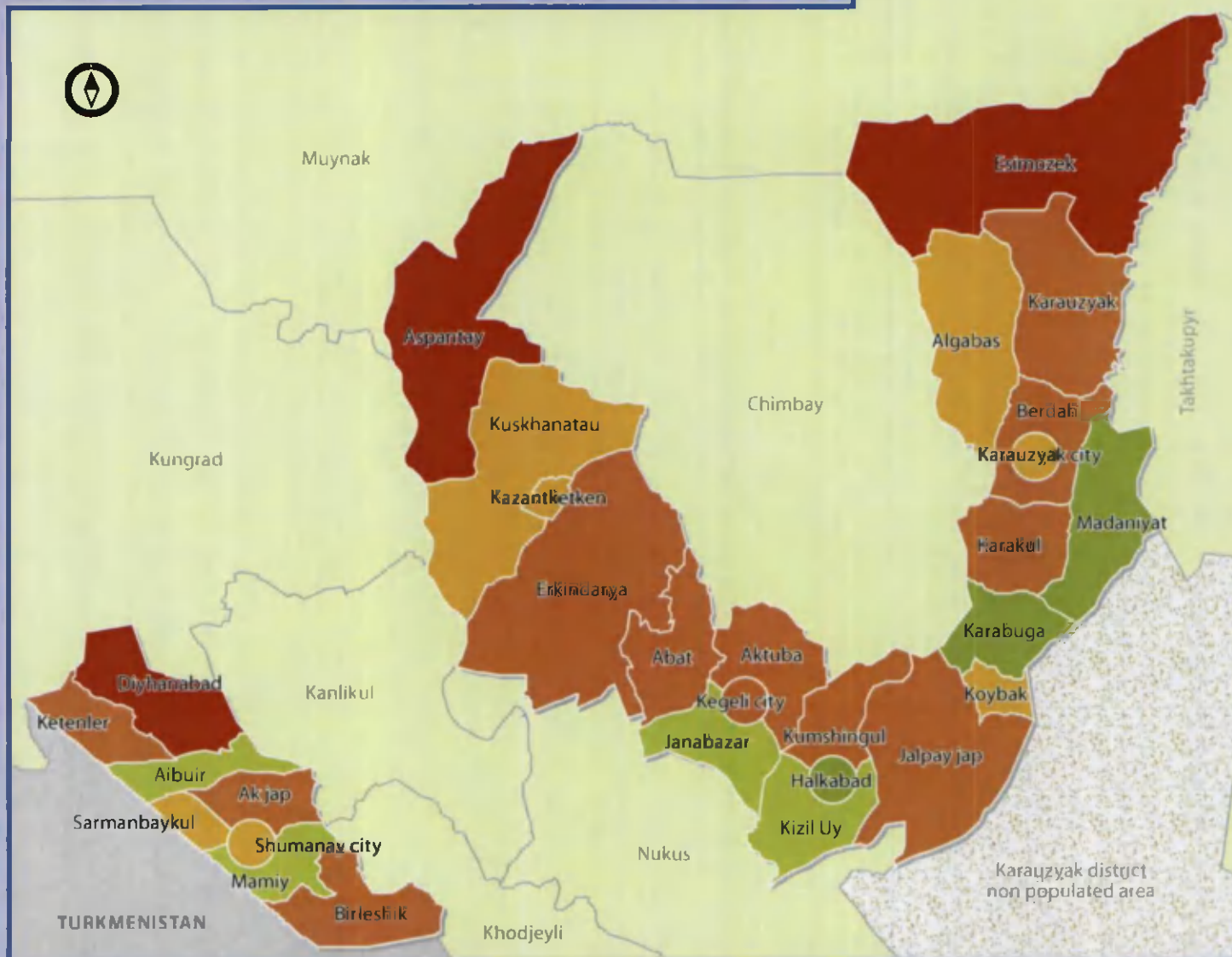
Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

EDUCATION

FAMILIES WITH MEMBERS WHO HAVE MIGRATED FOR WORK

Muynak

Estmezek

Aspantay

Karauzyak

Algabas

Chimbay

Kuskhanatau

Berdah

Kungrad

Karauzyak city

Kazantketken

Harakul

Madaniyat

Erkindarya

Karabuga

Abat

Aktuba

Koybak

Kegeli city

Diyharabad

Kanlikul

Janabazar

Kumshingul

Jalpay jap

Ketenler

Halkabad

Aibuir

Ak jap

Kizil Uy

Sarmanbaykul

Nukus

Shumanay city

Mamiy

Karauzyak distyct
non populated area

TURKMENISTAN

Birleshik

Khodjeyli

Takhtakupyr

LEGEND

- ▉ Below 0.10
- ▉ 0.11–0.20
- ▉ 0.21–0.30
- ▉ 0.31–0.40
- ▉ Above 0.40
- — Karakalpakstan rayons' borders
- ○ Urban areas

This map shows the percentage of families with at least one migrant-worker as a share of the total families at the beginning of 2005. This indicator helps to give an indication of the size of migrant population, as well as of the amount of remittances received by the communities. However, it should be noted that migration may have a negative impact on the social welfare of families.

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ECONOMIC

LAND USED FOR CULTIVATION UNDER GOVERNMENT ORDER (%)
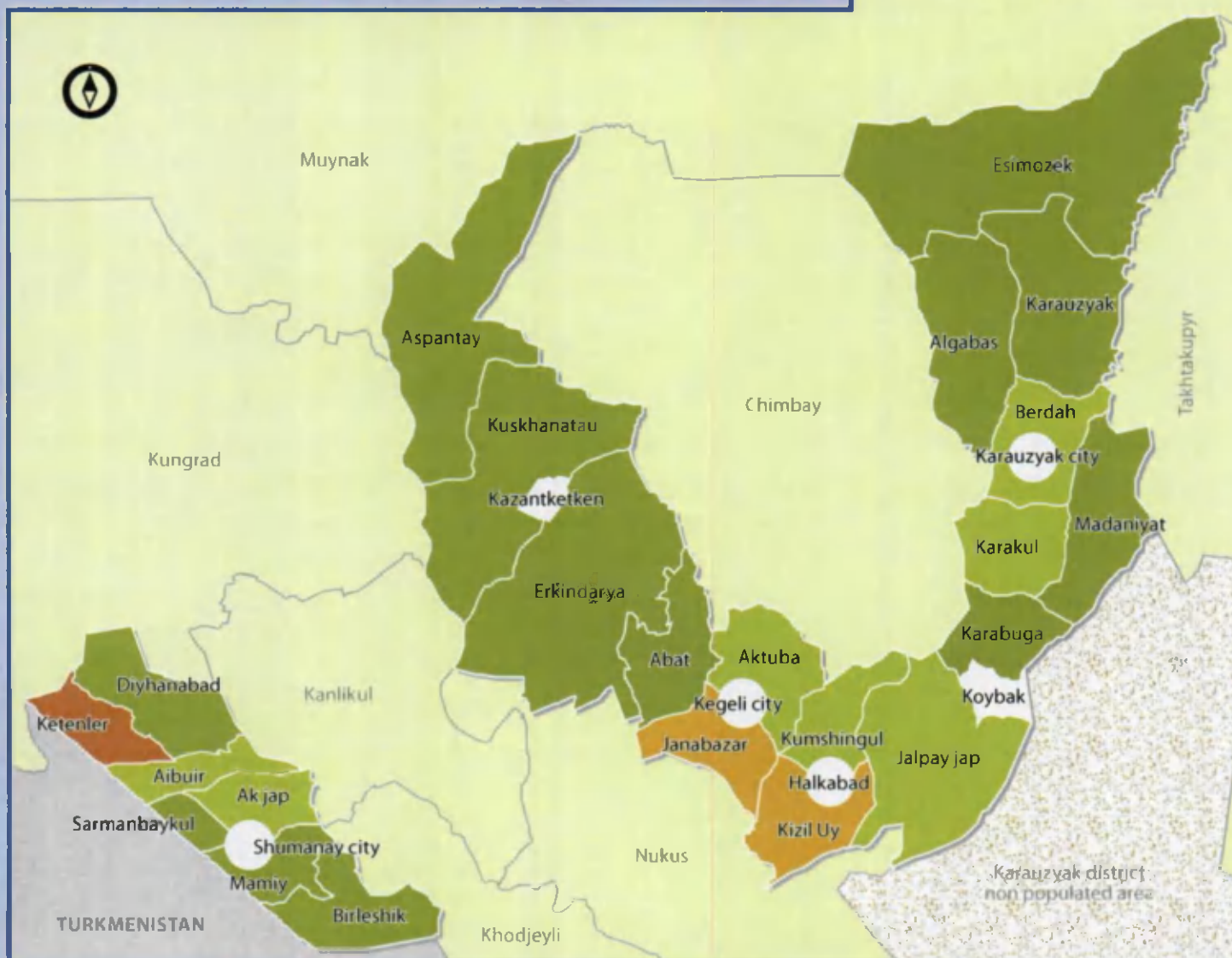
LEGEND

- Below 20.00
- 20.01–40.00
- 40.01–60.00
- Above 60.00
- Нет
- Karakalpakstan rayons' borders
- ○ Urban areas

This map shows the percentage of land used for crops under government order (cotton, wheat, rice, etc.) as a share of the total agricultural land area.

Map labels:
Muynak, Esimozek, Karauzyak, Algabas, Takhtakupyr, Aspantay, Chimbay, Berdah, Kuskhanatau, Karauzyak city, Kungrad, Kazantketken, Madaniyat, Karakul, Erkindarya, Karabuga, Abat, Aktuba, Diyhanabad, Kanlikul, Kegeli city, Koybak, Ketenler, Janabazar, Kumshingul, Jalpay jap, Aibuir, Ak jap, Halkabad, Sarmanbaykul, Shumanay city, Kizil Uy, Nukus, Karauzyak district non populated area, Mamiy, Birleshik, Khodjeyli, TURKMENISTAN

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

Not official. For internal use only.

ECONOMIC
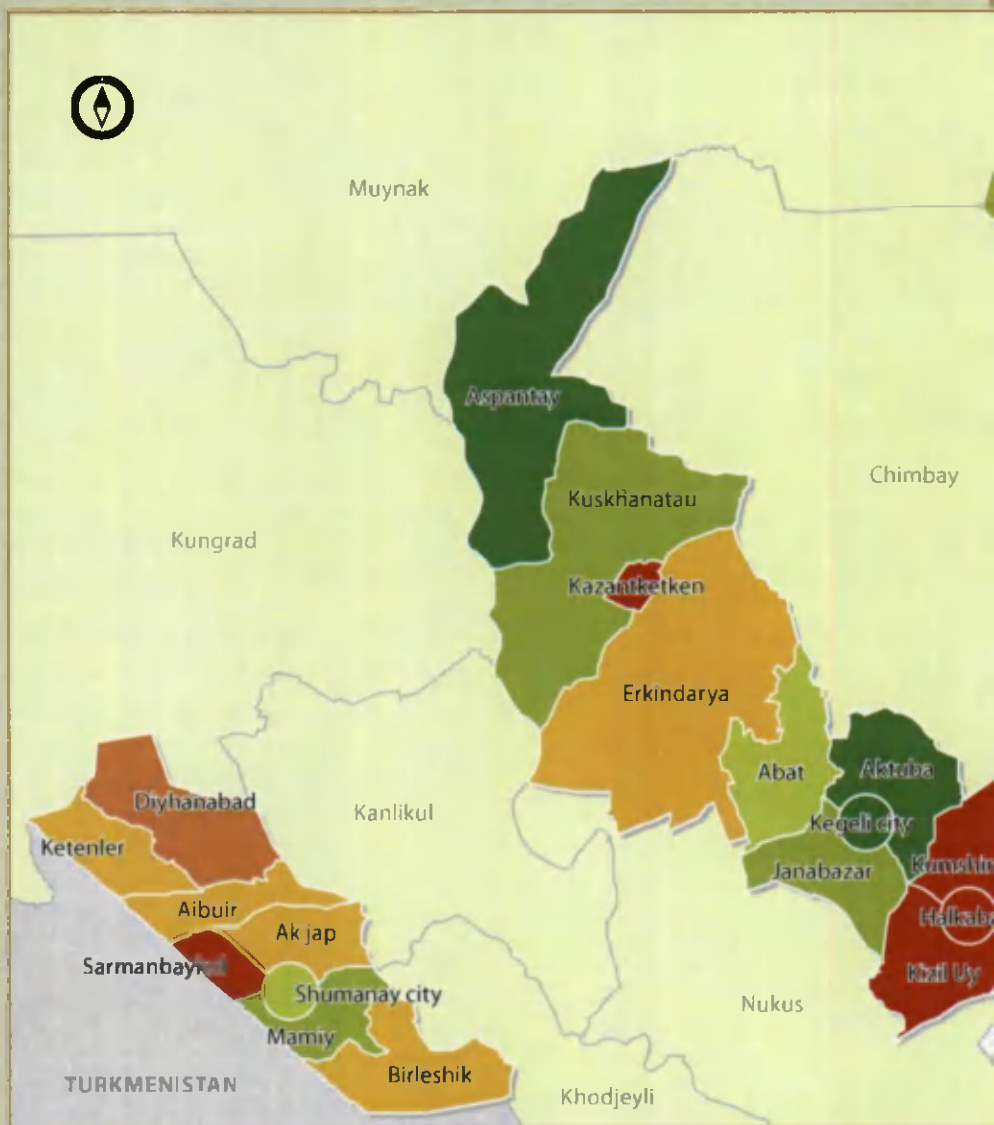
AVERAGE NUMBER OF HEADS OF CATTLE PER FAMILY

Muynak

Aspantay

Chimbay

Kuskhanatau

Kungrad

Kazantketken

Erkindarya

Abat   Aktuba

Diyhanabad   Kanlikul

Kegeli city

Ketenler

Janabazar   Kumshingul   Jalp

Aibuir

Ak jap   Halkabad

Sarmanbaykul

Kizil Uy

Shumanay city   Nukus

Mamiy

TURKMENISTAN   Birleshik

Khodjeyli

LEGEND

- Below 2.00
- 2.01–4.00
- 4.01–6.00
- Above 6.00
- Нет
- Karakalpakstan rayons' borders
- o Urban areas

This map shows the size of the farming sector and also provides an indicator of the earning potential for farmers in the communities.

Esimozek

Karauzyak

Algabas

Takhtakupyr

Berdah

Karauzyak city

Madaniyat

Karakul

Karabuga

Koybak

ay jap

Karauzyak district non populated area

ECONOMIC

DISABLED POPULATION (%)

Muynak

Aspantay

Kuskhanatau

Chimbay

Kungrad

Kazantketken

Erkindarya

Kanlikul

Abat

Aktoba

Diyhanabad

Kegeli city

Kumshin

Ketenler

Janabazar

Halkabi

Aibuir

Ak jap

Kizil Uy

Sarmanbay

Shumanay city

Nukus

Mamiy

Birleshik

TURKMENISTAN

Khodjeyli

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
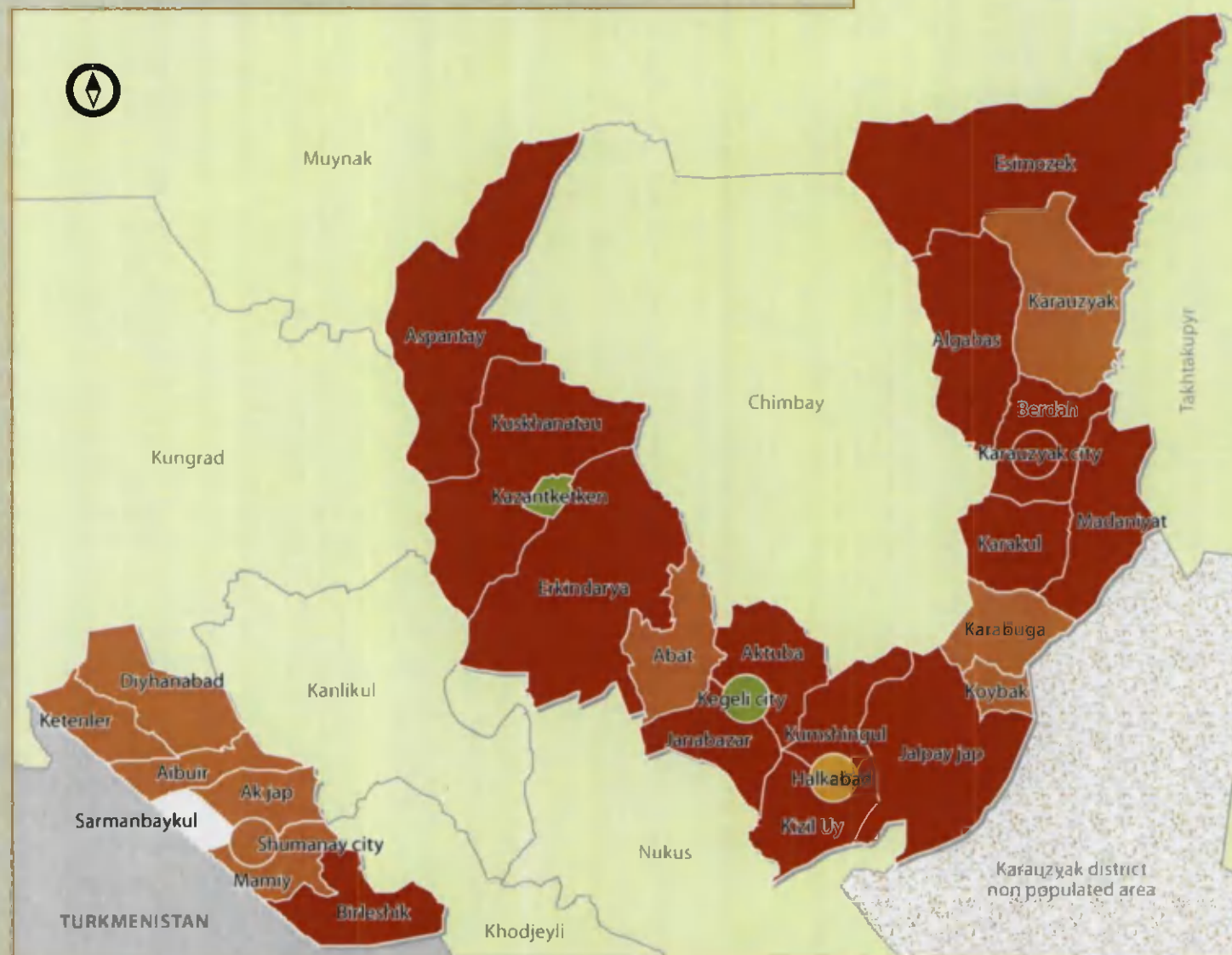Scale: 1 : 1,000,000

Not official. For internal use only.
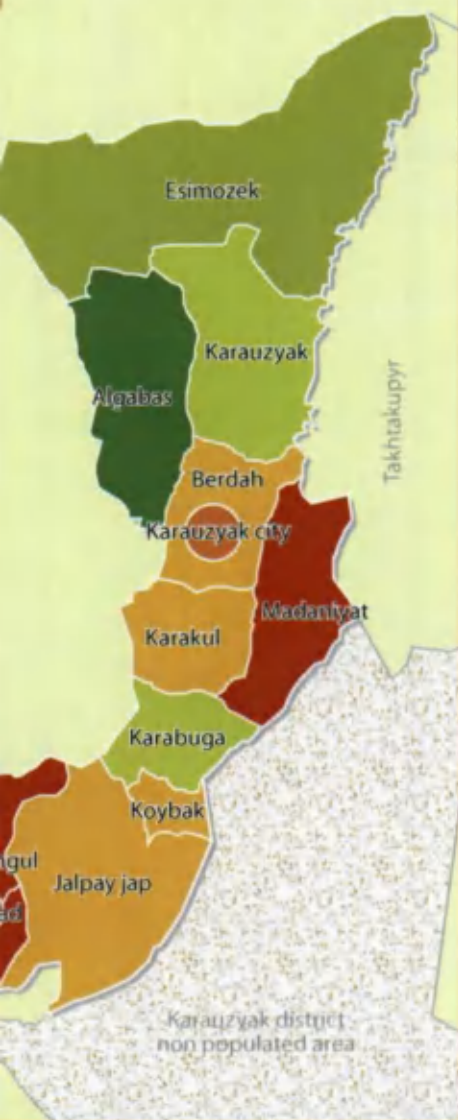
Below 1.50
1.51–2.00
2.01–2.50
2.51–3.00
3.01–3.50
Above 3.50
Karakalpakstan rayons' borders
o   Urban areas

This map shows the percentage of registered disabled population. This indicator not only gives a picture of the population health status in the communities, but it also reflects the access to registration offices. As we can see from the map, the percentage of registered disabled is usually higher (red) in urban area.
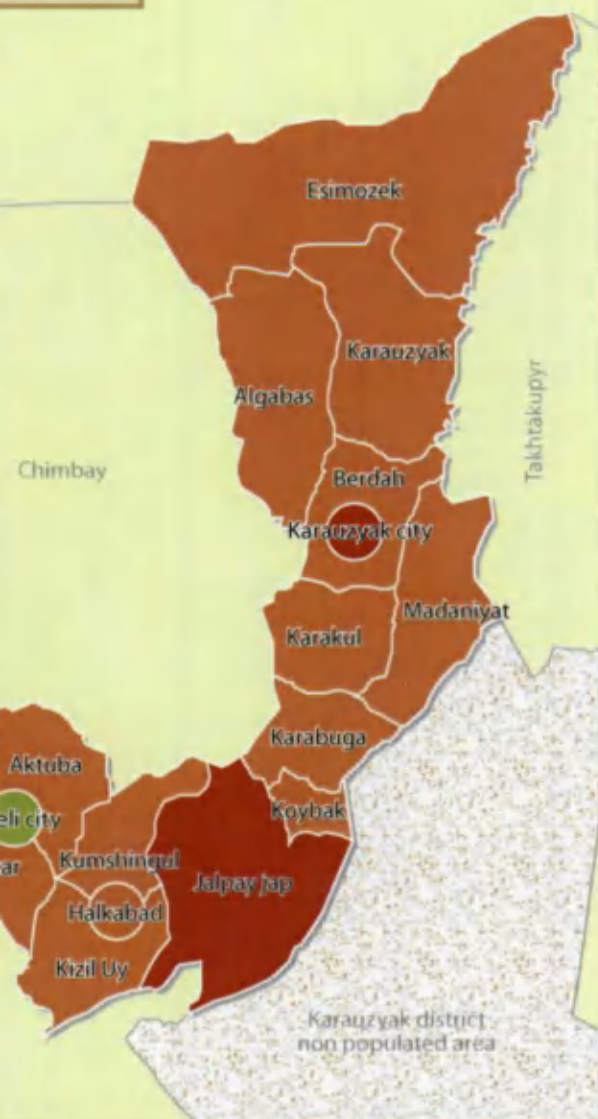
Esimozek

Karauzyak

Algabas

Takhtakupyr

Berdah

Karauzyak city

Madaniyat

Karakul

Karabuga

Koybak

gul

Jalpay jap

d

Karauzyak district
non populated area

HEALTH

NUMBER OF DOCTORS

LEGEND

- Below 0.50
- 0.51–1.50
- 1.51–2.50
- 2.51–3.50
- Above 3.50
- No hospitals
- Karakalpakstan rayons' borders
- O Urban areas

This map shows the average number of doctors per thousand residents which provides an indication of the quality of health care. The area with a higher (green) share of doctors have better-staffed health facilities.

Muynak

Aspantay

Kuskhanatau

Kungrad

Kazantketken

Erkindarya

Chimbay

Esimozek

Karauzyak

Algabas

Berdak

Takhtakupyr

Karauzyak city

Madaniyat

Karakul

Abat

Aktuba

Kegeli city

Karabuga

Koybak

Diyhanabad

Kanlikul

Janabazar

Kumshingul

Jalpay jap

Ketenler

Aibuir

Ak jap

Halkabad

Sarmanbaykul

Kizil Uy

Shumanay city

Nukus

Mamiy

Birleshik

Khodjeyli

Karauzyak district non populated area

TURKMENISTAN

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

Not official. For internal use only.

HEALTH

NUMBER OF NURSES
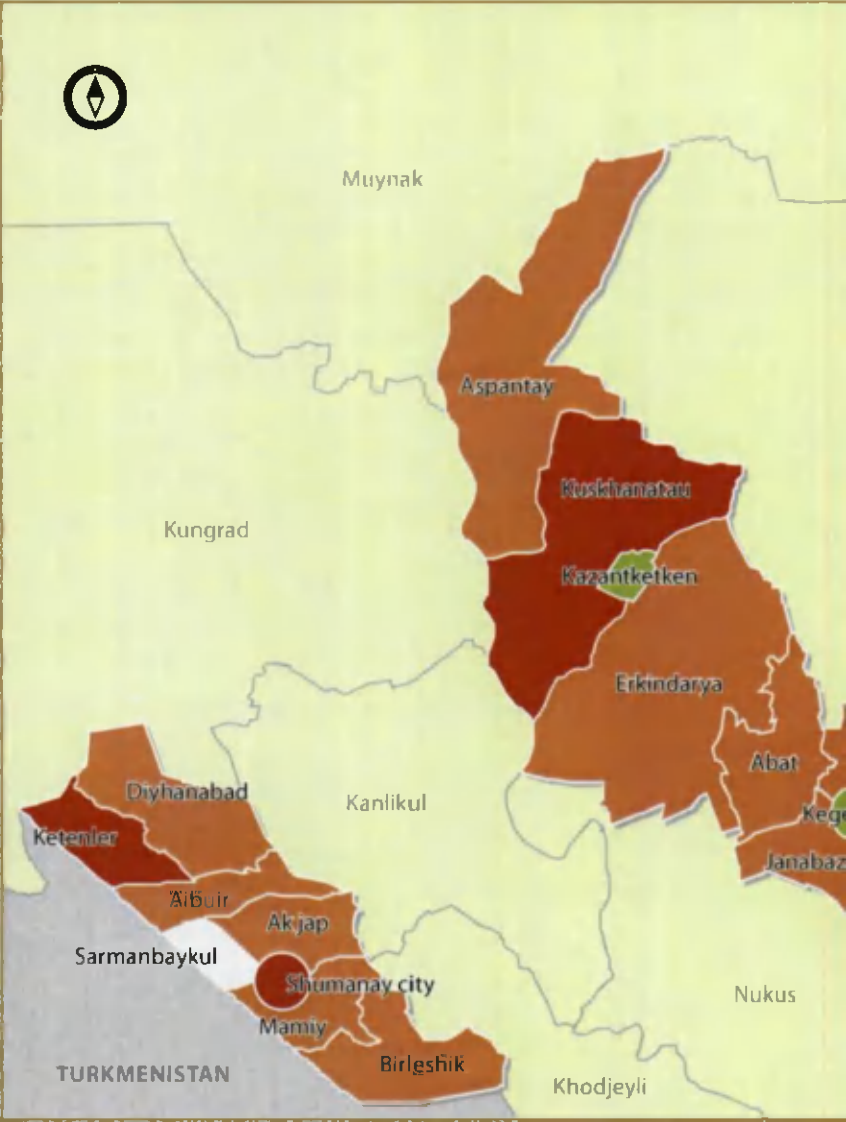
Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000
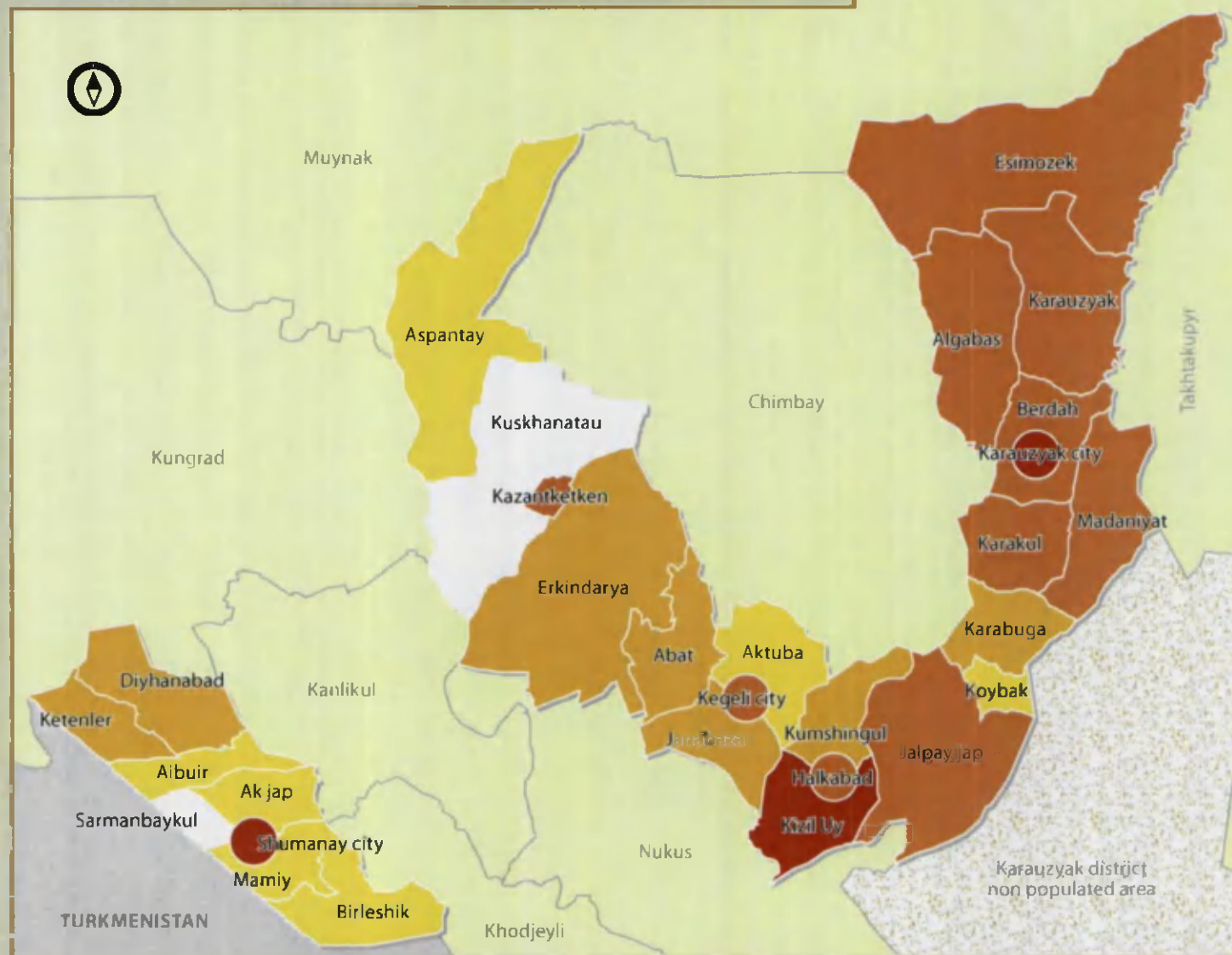
Not official. For internal use only.

Esimozek

Karauzyak

Algabas

Chimbay

Berdah

Karauzyak city

Madaniyat

Karakul

Karabuga

Aktuba

eli city

Koybak

ar

Kumshingul

Jalpay jap

Halkabad

Kizil Uy

Karauzyak district
non populated area

Takhtakupyr

LEGEND

�	Below 2.50
	2.51–7.50
	7.51–12.50
	12.51–17.50
	Above 17.50
	No hospitals
——	Karakalpakstan rayons' borders
o	Urban areas

This map shows the average number
of nurses per thousands of persons as
an additional indicator of the quality of
healthcare. The area with a higher (green)
percentage of nurses per 1000 population
are the communities which have better
health care quality.

NUMBER OF TUBERCULOSIS CASES

Muynak

Aspantay

Kuskhanatau

Kungrad

Chimbay

Esimozek

Karauzyak

Algabas

Berdah

Karauzyak city

Takhtakupyr

Kazantketken

Madaniyat

Karakul

Erkindarya

Karabuga

Kanlikul

Abat   Aktuba

Koybak

Diyhanabad

Kegeli city

Kumshingul

Jalpay jap

Ketenler

Aibuir

Ak jap

Halkabad

Sarmanbaykul

Shumanay city

Kizil Uy

Nukus

Mamiy

Karauzyak district non populated area

TURKMENISTAN

Birleshik

Khodjeyli

Not official. For internal use only.

HEALTH

FAMILIES RECEIVING SOCIAL BENEFITS (%)

Muynak

Aspantay

Kuskhanatau

Chimbay

Kungrad

Kazantketken

Erkindarya

Abat

Aktuba

Kegeli city

Diyhanabad

Kanlikul

Janabazar

Kumshingul

Ketenler

Halkabad

Aibuir

Akjap

Sarmanbaykul

Kizil Uy

Shumanay city

Mamiy

Nukus

TURKMENISTAN

Bulestik

Khodjeyli

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale 1 : 1,000,000

**Not official. For internal use only.**
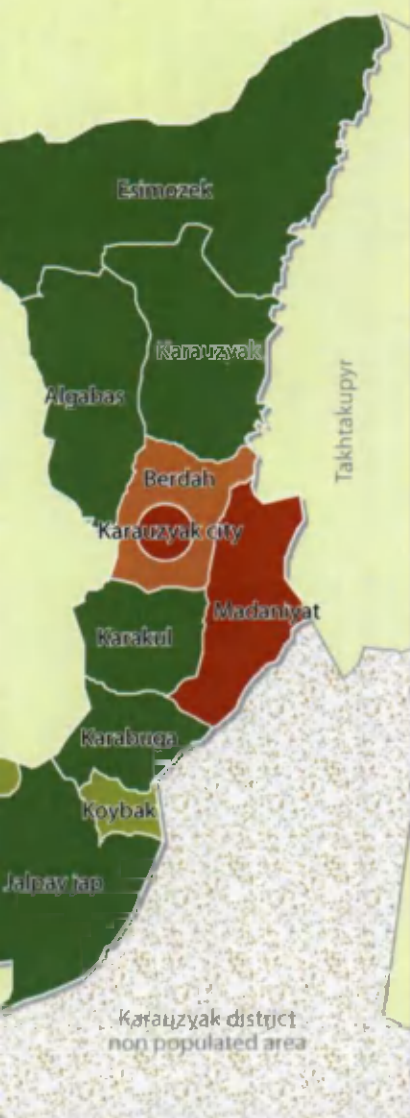
LEGEND

- ▰ Below 10.00
- ▱ 10.01–20.00
- ▱ 20.01–30.00
- ▰ 30.01–40.00
- ▰ Above 40.00
- — Karakalpakstan rayons' borders
- O Urban areas

The map shows communities with high (red) and low (green) shares of families receiving social benefits.

Esimozek

Karauzyak

Algabas

Takhtakupyr

Berdah

Karauzyak city

Madaniyat

Karakul

Karabuga

Koybak

Jalpay iap

Karauzyak district non populated area

SOCIAL PROTECTION

ACCESS TO GAS SUPPLY

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

Not official. For internal use only.

- Below 10.00
- 10.01–20.00
- 20.01–30.00
- 30.01–40.00
- Above 40.00
- Karakalpakstan rayons' borders
- ○ Urban areas

The map shows the share of households with access to functioning centralized gas supply and communities with low (red) or without (green) access to functioning centralized gas supply. It also shows that coverage of gas supply is not universal in Karakalpakstan.

It should be noted that this map reflects the availability of gas supply but not the quality of the service provided.

INFRASTRUCTURES
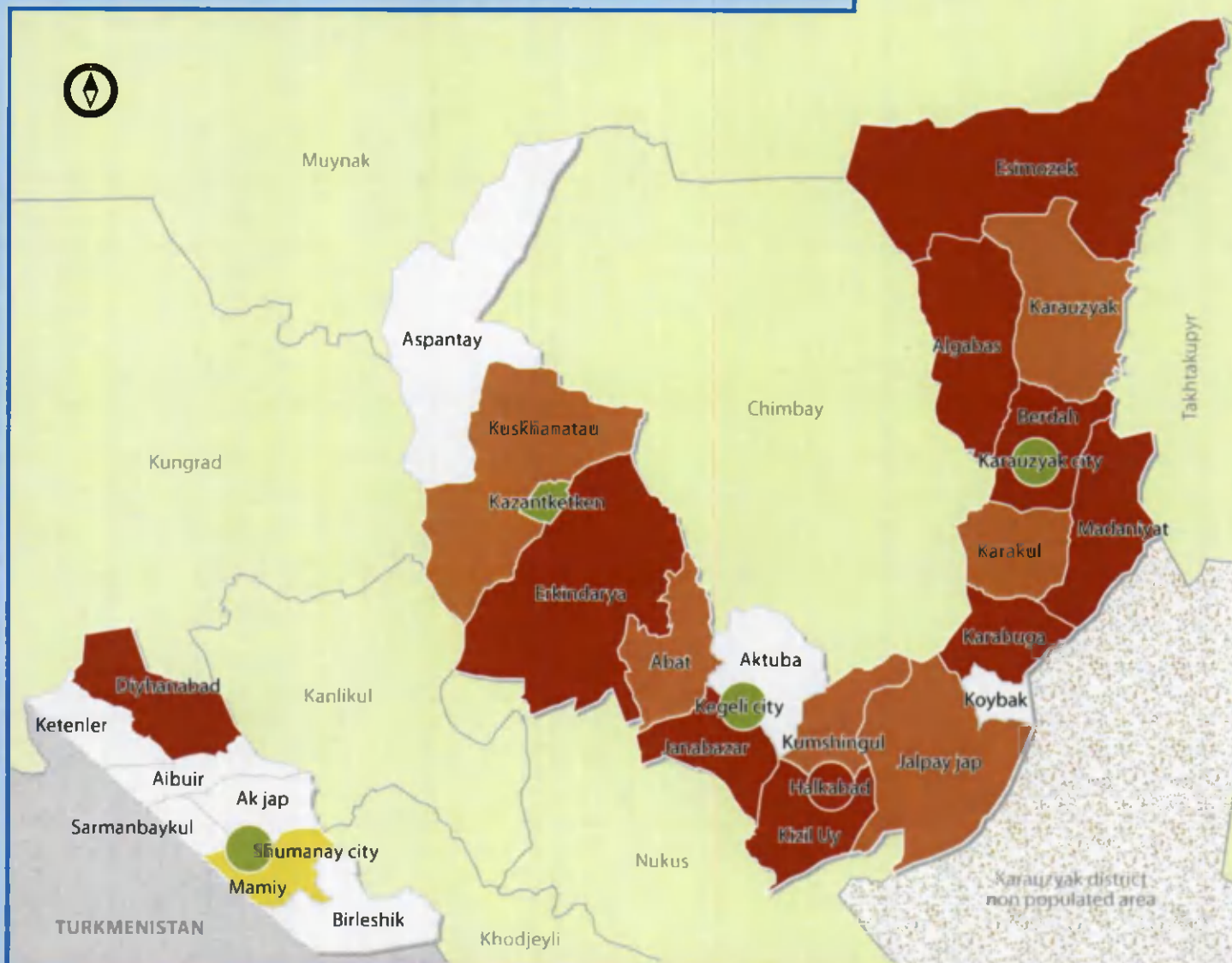
WATER ACCESS

This map shows the percentage of households with access to clean piped water and communities with low (red) or without (white) access to clean piped water. It also shows that the coverage of water supply is not universal in Karakalpakstan.

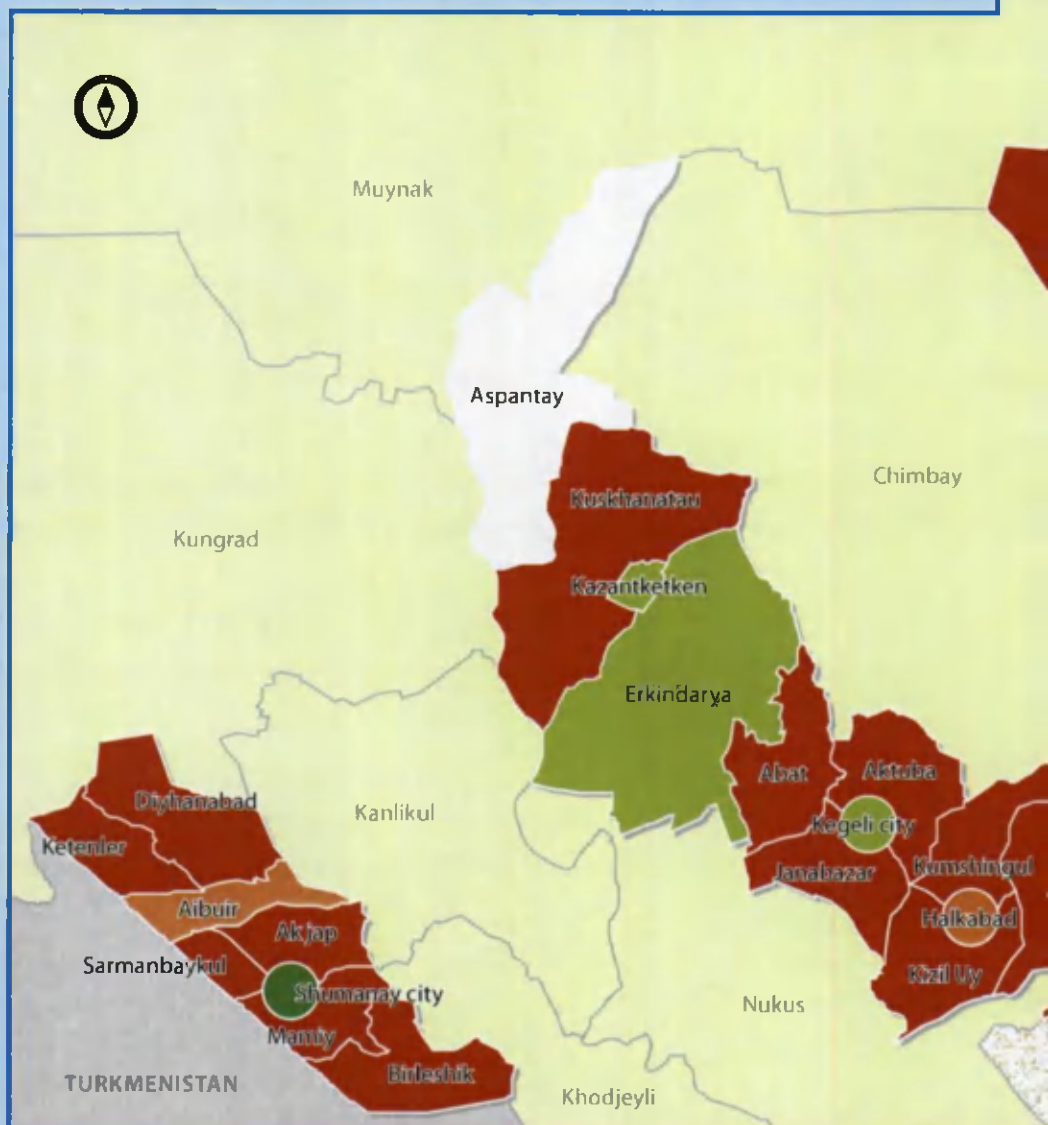It should be noted that this map reflects the availability of water pipe but not the quality of the service provided.

Map labels: Muynak, Aspantay, Kungrad, Kuskhamatau, Kazantketken, Erkindarya, Diyhanabad, Ketenler, Aibuir, Ak jap, Sarmanbaykul, Shumanay city, Mamiy, Birleshik, TURKMENISTAN, Kanlikul, Abat, Kegeli city, Janabazar, Kizil Uy, Halkabad, Kumshingul, Aktuba, Nukus, Khodjeyli, Chimbay, Esimezek, Karauzyak, Algabas, Berdah, Karauzyak city, Karauzyak district non populated area, Madaniyat, Karakul, Karabuga, Koybak, Jalpay jap, Takhtakupyr

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

ELECTRICITY

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Chimbay

Kuskhanatau

Berdah

Kungrad

Karauzyak city

Kazantketken

Madaniyat

Karakul

Erkindarya

Karabuga

Abat   Aktuba

Koybak

Diyhanabad   Kanlikul

Kegeli city

Ketenler

Kumshingul

Janabazar

Jalpay jap

Aibuir

Ak jap

Halkabad

Sarmanbaykul

Kızıl Uy

Shumanay city

Nukus

Mamiy

Karauzyak district
non populated area

Birleshik

Khodjeyli

TURKMENISTAN

Takhtakupyr

LEGEND

- ▮ Below 95.00
- ▭ 95.01–97.50
- ▮ Above 97.50
- ▬ Karakalpakstan rayons' borders
- ○ Urban areas

This map shows the share of households
with access to electricity. It also shows that
electricity supply is almost universal in
Karakalpakstan.

it should be noted that this map reflects the avail-
ability of electricity but not the quality of the service
provided.

INFRASTRUCTURES

TELEPHONE

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

Esimozek

Algabas

Karauzyak

Takhtakupyr

Berdah

Karauzyak city

Madaniyat

Karakul

Karabuga

Koybak

Jalpay jap

Karauzyak district non populated area

INFRASTRUCTURES

AGRICULTURAL LAND (%)

Muynak

Aspantay

Kuskhanatau

Kungrad

Kazantketken

Kanlikul

Erkindarya

Chimbay

Esimozek

Karauzyak

Algabas

Berdah

Karauzyak city

Madarniyat

Karakul

Takhtakupyr

Abat   Aktube

Kegeli city

Janabazar   Kumshingul

Halkabad

Kizil Uy

Karabuga

Koybak

Jalpay jap

Diyhanabad

Ketenler

Arbuir

Akjap

Sarmanbaykul

Shumanay city

Mamiy

Birlestik

TURKMENISTAN

Khodjeyli

Nukus

Karauzyak district
non populated area
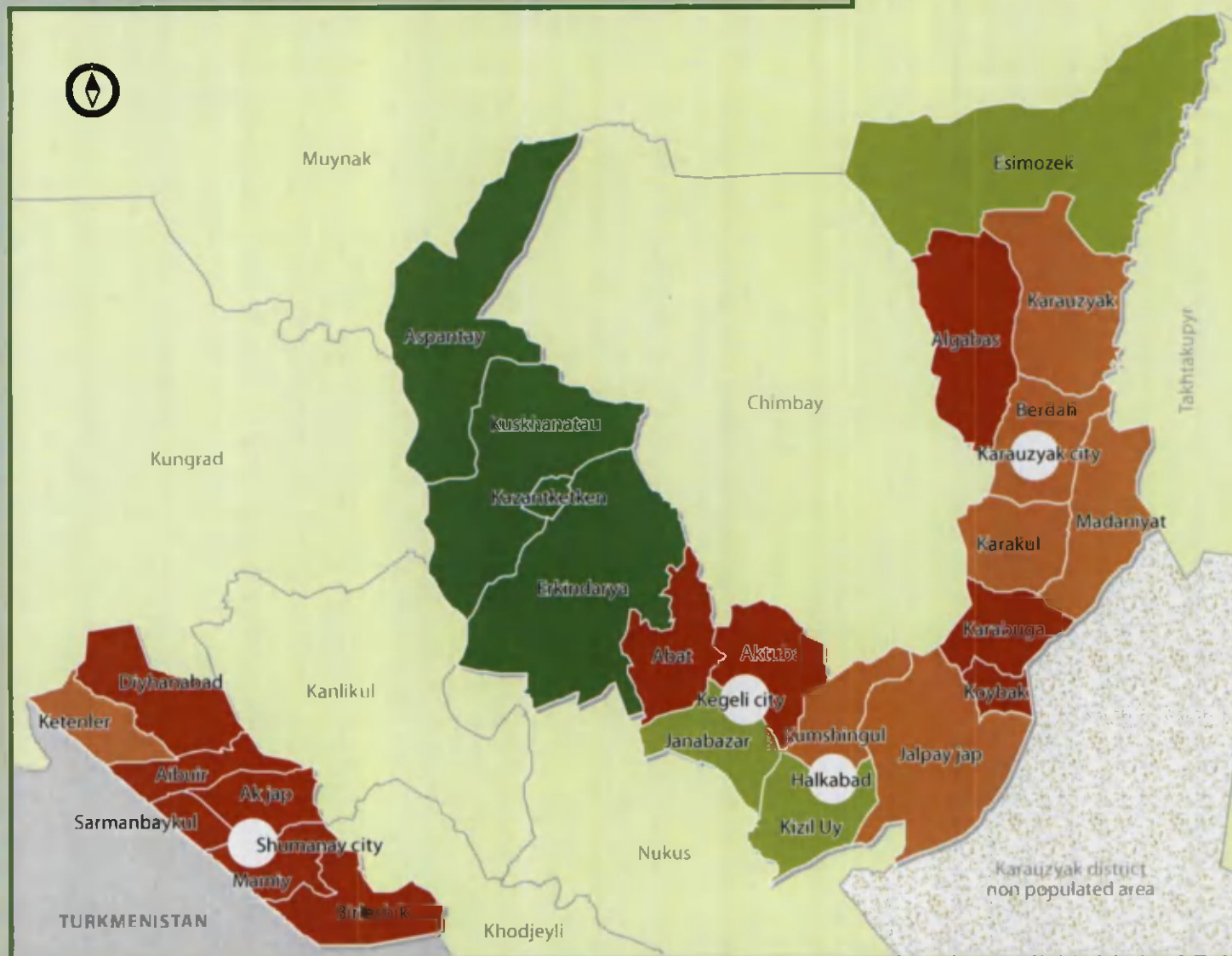
LEGEND

- Below 20.00
- 20.01–40.00
- 40.01–60.00
- Above 60.00
- N. a.
- Karakalpakstan rayons' borders
- O Urban areas

This map shows the share of agricultural land as percentage of total land area.

ENVIRONMENT

AGRICULTURAL LAND WITH HIGH WATER TABLE (%)
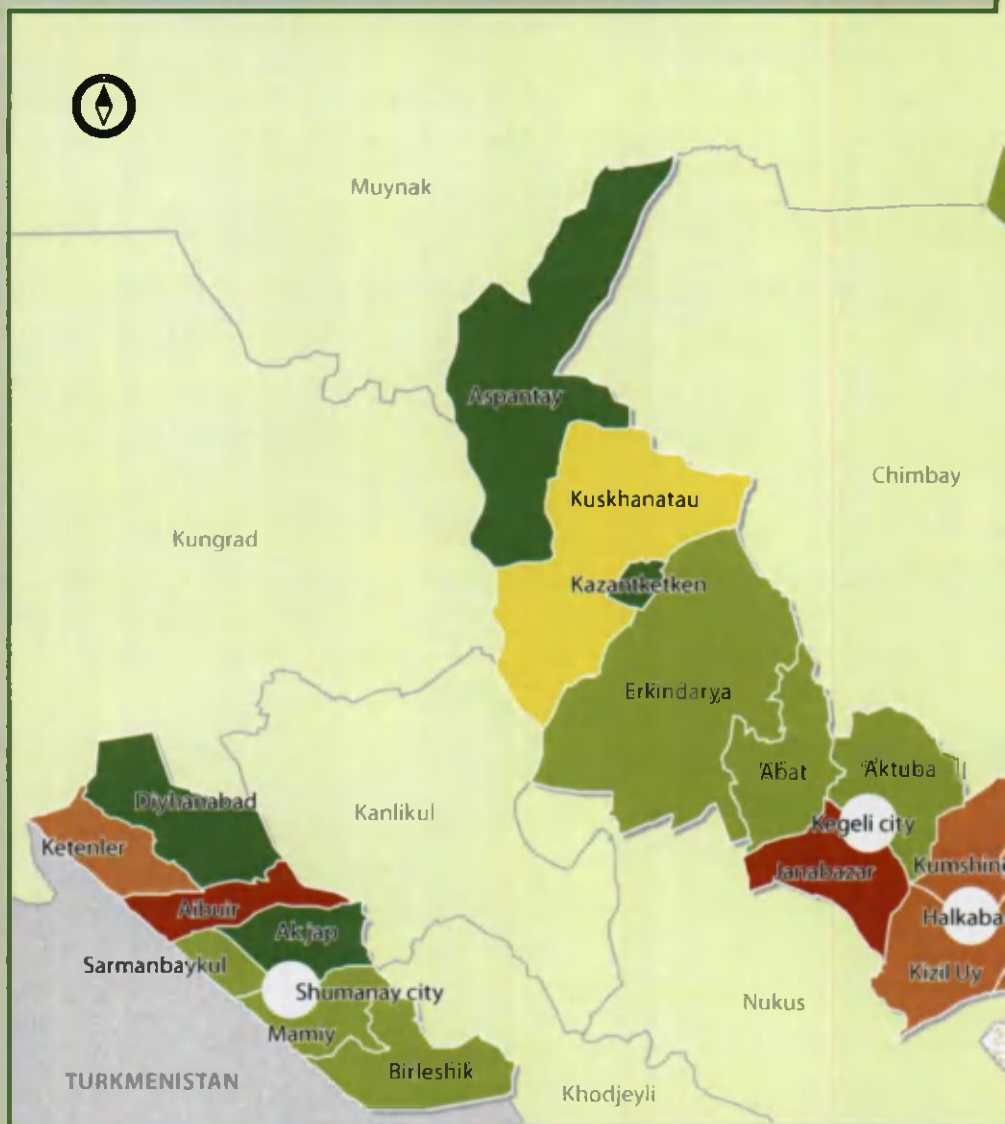
Muynak

Aspantay

Kuskhanatau

Chimbay

Kungrad

Kazantketken

Erkindarya

'Äbat

'Äktuba

Diyhanabad

Kanlikul

Kegeli city

Ketenler

Janabazar

Kumshine

Albuir

Halkaba

Akjap

Sarmanbaykul

Kizil Uy

Shumanay city

Mamiy

Nukus

Birleshik

Khodjeyli

TURKMENISTAN

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
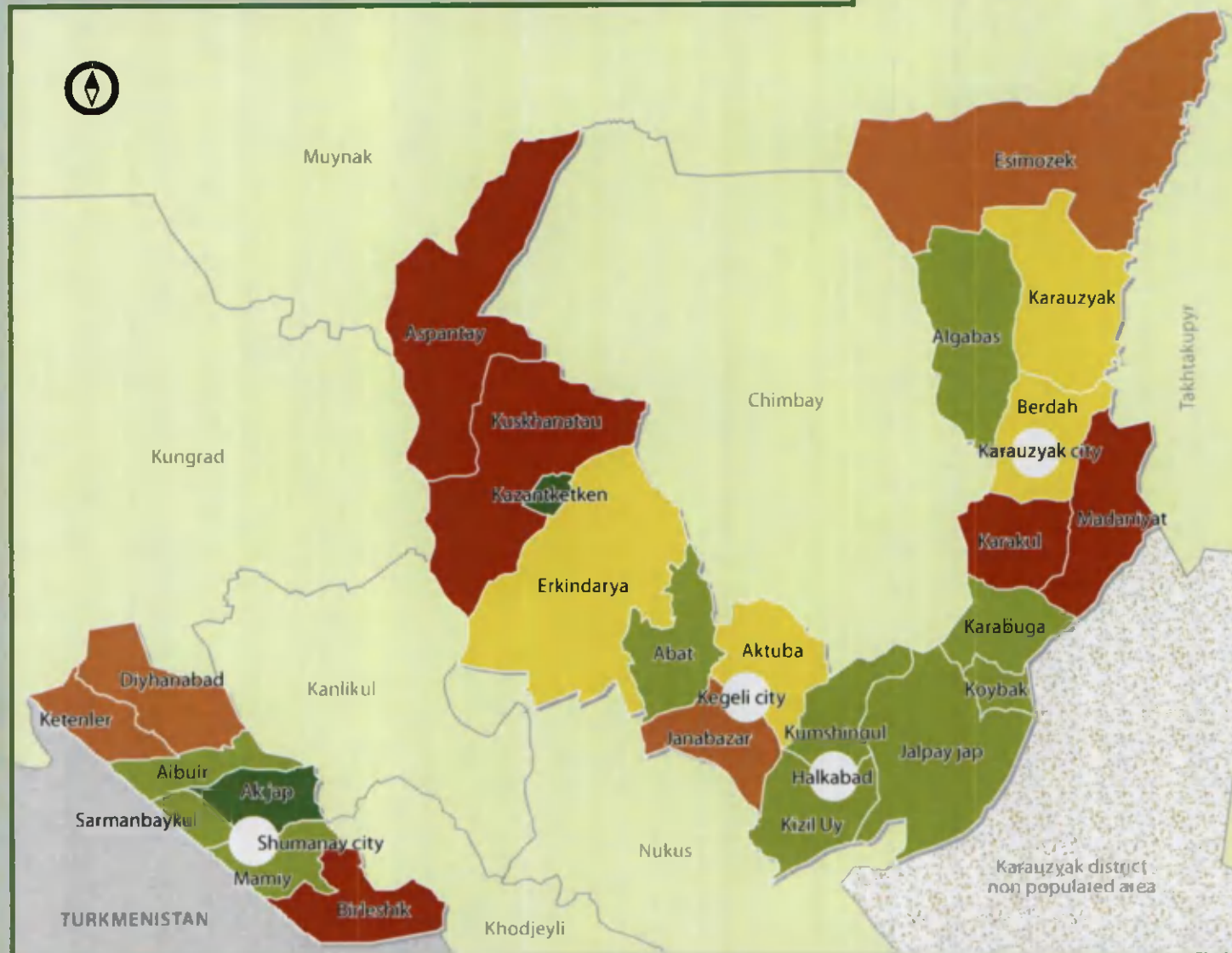Scale: 1 : 1,000,000

Not official. For internal use only.
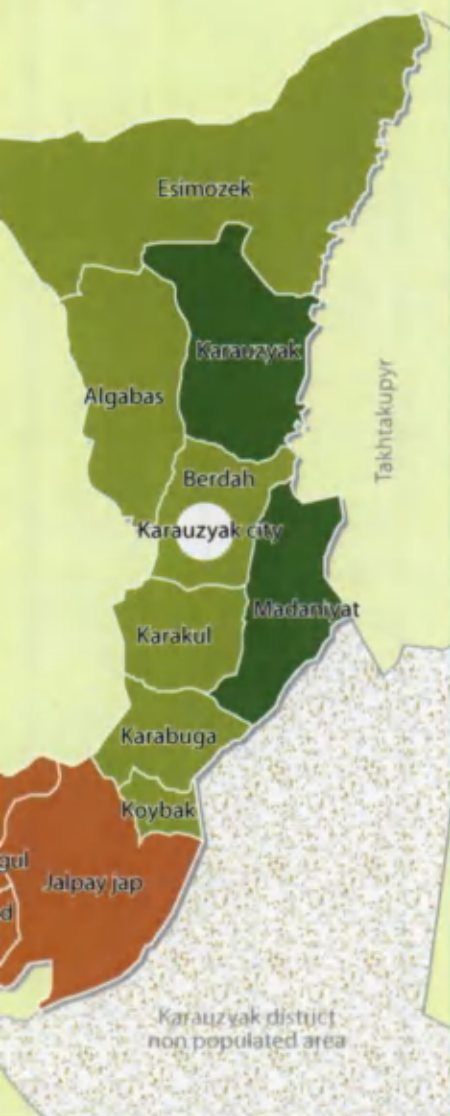
LEGEND

- No high water table level
- 0.01–10.00
- 10.01–15.00
- 15.01–20.00
- Above 20.00
- N. a.
- Karakalpakstan rayons' borders
- O Urban areas

This map shows communities with a high (red) percentage of agricultural land area with high water-table levels. Land with high water-table has a reduced potential output for agricultural production.

Esimozek

Karauzyak

Algabas

Takhtakupyr

Berdah

Karauzyak city

Madaniyat

Karakul

Karabuga

Koybak

gul

Jaipay jap

d

Karauzyak district
non populated area

LAND SALINITY LEVEL (%)

This map shows communities with large (red) shares of their total agricultural land area with high salinity levels. High salinity level reduces the potential output for agricultural production.
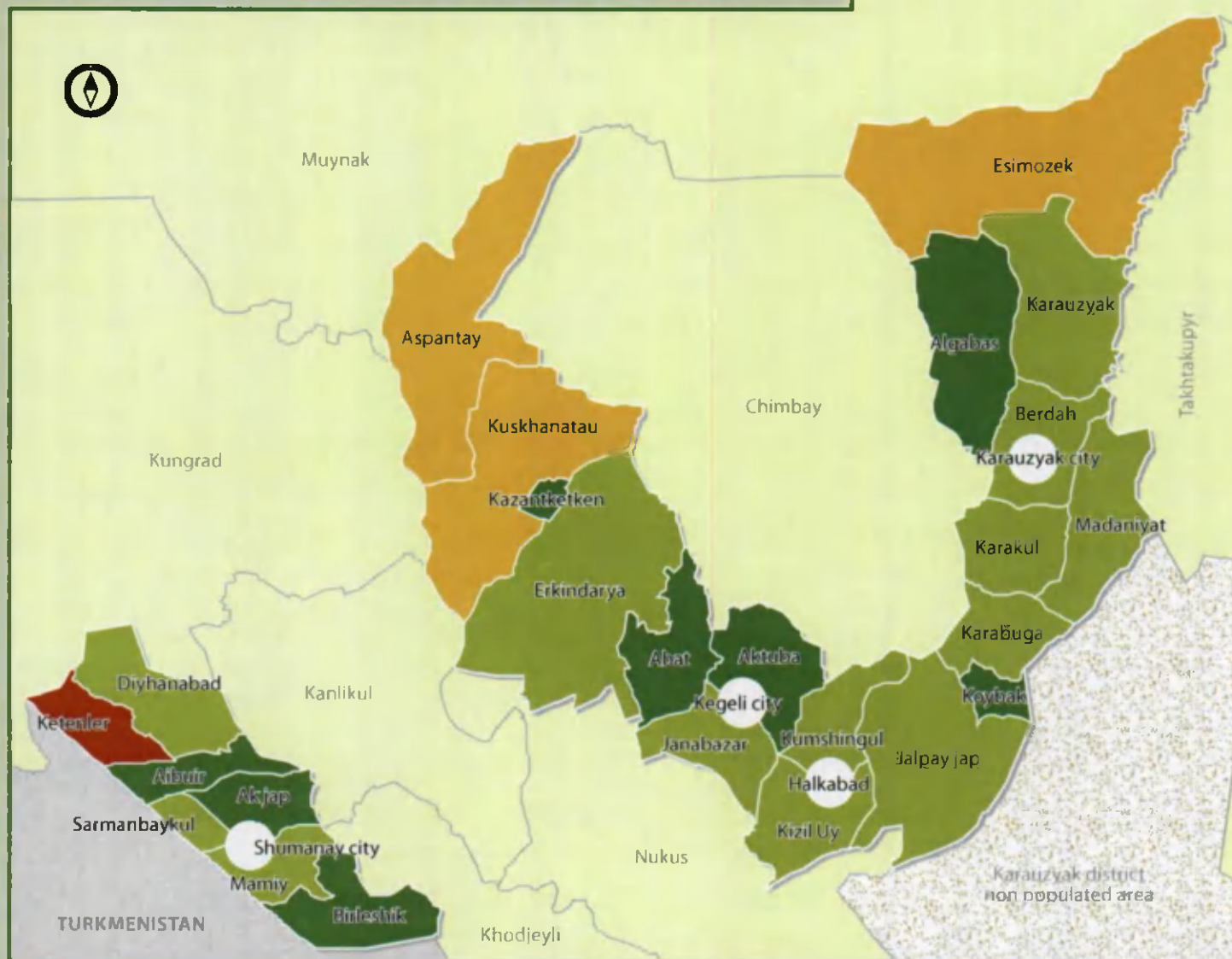
Muynak

Esimozek

Karauzyak

Aspantay

Algabas

Takhtakupyr

Kungrad

Chimbay

Kuskhanatau

Berdah

Kazantketken

Karauzyak city

Madaniyat

Erkindarya

Karakul

Karabuga

Abat

Aktuba

Koybak

Kegeli city

Kumshingul

Diyhanabad

Kanlikul

Janabazar

Jalpayjap

Ketenler

Halkabad

Aibuir

Akjap

Kizil Uy

Sarmanbaykul

Shumanay city

Nukus

Karauzyak district non populated area

Mamiy

Birleshik

Khodjeyli

TURKMENISTAN

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005.
Scale: 1 : 1,000,000

Not official. For internal use only.

ENVIRONMENT

AGRICULTURAL LAND UNUSED DUE TO POOR LAND CONDITION (%)

LEGEND

- Below 20.00
- 20.01–40.00
- 40.01–60.00
- Above 60.00
- N. a.
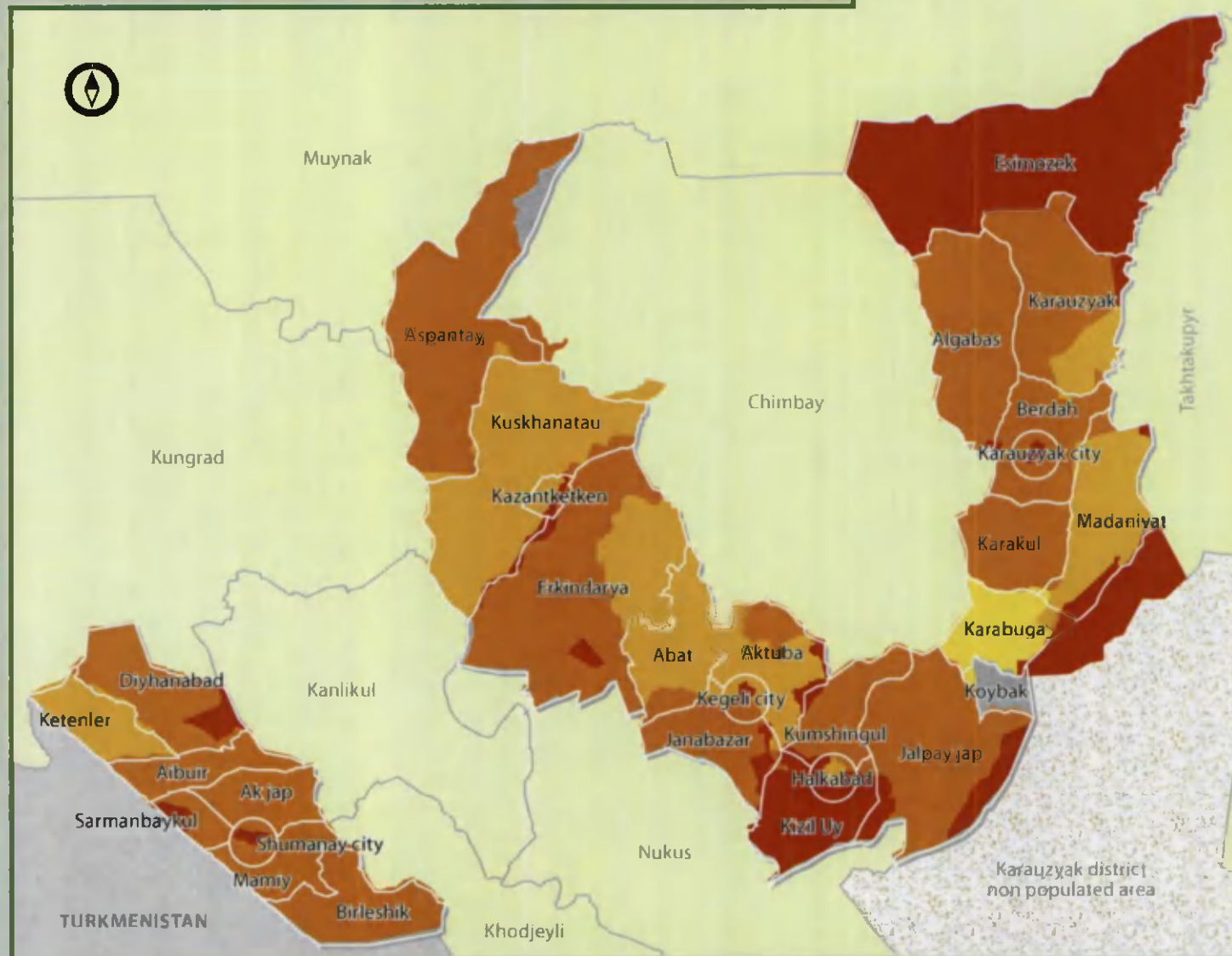- Karakalpakstan rayons' borders
- O Urban areas

This map shows communities with a high (red) percentage of land which cannot be used due to poor condition (high salinity, high water-table and other environmentally related factors).

Muynak

Esimozek

Aspantay

Karauzyak

Algabas

Takhtakupyr

Kungrad

Kuskhanatau

Chimbay

Berdah

Karauzyak city

Kazantketken

Madariyat

Kanlikul

Erkindarya

Karakul

Karabuga

Abat

Aktuba

Koybak

Diyhanabad

Kegeli city

Ketenler

Janabazar

Kumshingul

Jalpay jap

Aibuir

Akjap

Halkabad

Sarmanbaykul

Shumanay city

Kizil Uy

Nukus

Mamiy

Karauzyak district non populated area

TURKMENISTAN

Buleshik

Khodjeyli

Source: Study compiled by Tahlil CSR from Mahalla Committees Data, 2005
Scale: 1 : 1,000,000

Not official. For internal use only.

SOIL PRODUCTIVITY

Muynak

Esimezek

Karauzyak

Aspantay

Algabas

Kungrad

Chimbay

Berdah

Kuskhanatau

Karauzyak city

Kazantketken

Karakul

Madaniyat

Takhtakupyr

Erkindarya

Karabuga

Abat Aktuba

Diyhanabad

Kanlikul

Kegeli city

Koybak

Ketenler

Janabazar

Kumshingul

Jalpay jap

Arbuir

Ak jap

Halkabad

Sarmanbaykul

Shumanay city

Kizil Uy

Nukus

Mamiy

Karauzyak district non populated area

Birleshik

TURKMENISTAN

Khodjeyli

ENVIRONMENT

TOTAL INCOME AS % OF COUNTRY AVERAGE (2002)

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Ferghana

Djizak

Sirdarya

BukHara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND

- Below 80
- 81–100
- 101–120
- Above 120
- Uzbekistan oblast borders

The aggregate income per capita as percentage of the country's average (the whole country equals 100).

Source: Estimate of Ministry of Labour and Social Protection of the Population of the Republic of Uzbekistan, in Human Development Report 2005, page 38.
Scale: 1 : 10,000,000

Not official. For internal use only.

OTHER INDICATORS

SHARE OF REGIONS GDP (2004)

LEGEND
- Below 4
- 5–6
- 7–8
- Above 8
- Uzbekistan oblast borders

KAZAKHSTAN

Karakalpakstan

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Khorezm

Djizak

Ferghana

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

OTHER INDICATORS

NUMBER OF TB CASES (PER 100.000 PERSONS, 2002)

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Ferghana

Bukhara

Djizak

Sirdarya

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

Source: State Committee of the Republic of Uzbekistan on Statistics, Uzbekistan Human Development Report 2005, page 48.
Scale: 1 : 10,000,000

Not official. For internal use only.

OTHER INDICATORS

HUMAN DEVELOPMENT INDEX (2003)

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Djizak

Sirdarya

Ferghana

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

Not official. For Internal use only.

OTHER INDICATORS

POPULATION DENSITY (2004)

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan   Andijan

Ferghana

Bukhara

Djizak

Sirdarya

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND

- Below 50
- 51–100
- 101–150
- 151–200
- 201–250
- 251–300
- Above 300
- Uzbekistan oblast borders

This indicator shows the distribution of population by oblast, (number of persons per square kilometre). The population density for the whole country is 57 people per square kilometre.

OTHER INDICATORS

RURAL POPULATION [%, 2004]

KAZAKHSTAN

Karakalpakstan

Navoi

Khorezm

Tashkent

KYRGYZSTAN

Namangan

Andijan

Djizak

Ferghana

Sirdarya

Bukhara

Samarkand

Kashkadarya

TAJIKISTAN

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND
- Below 60
- 61–70
- 71–80
- Above 80
- Uzbekistan oblast borders

63 percent of the total population in the whole country lives in rural areas.

OTHER INDICATORS

LIFE EXPECTANCY (2003)

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

Kashkadarya

TAJIKISTAN

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND

- Below 70
- 71–72
- Above 72
- Uzbekistan oblast borders

Life expectancy at birth in the country is around 71 years.

OTHER INDICATORS

POPULATION LIVING IN POVERTY (%)

Muynak

Kungrad

Kanlikul

Shumanay

Chimbay

Kegeily

Nukus

Nukus

Khodjeyli

TURKMENISTAN

Karauzyak

Takhtakupyr

Turtkul

Amudarya
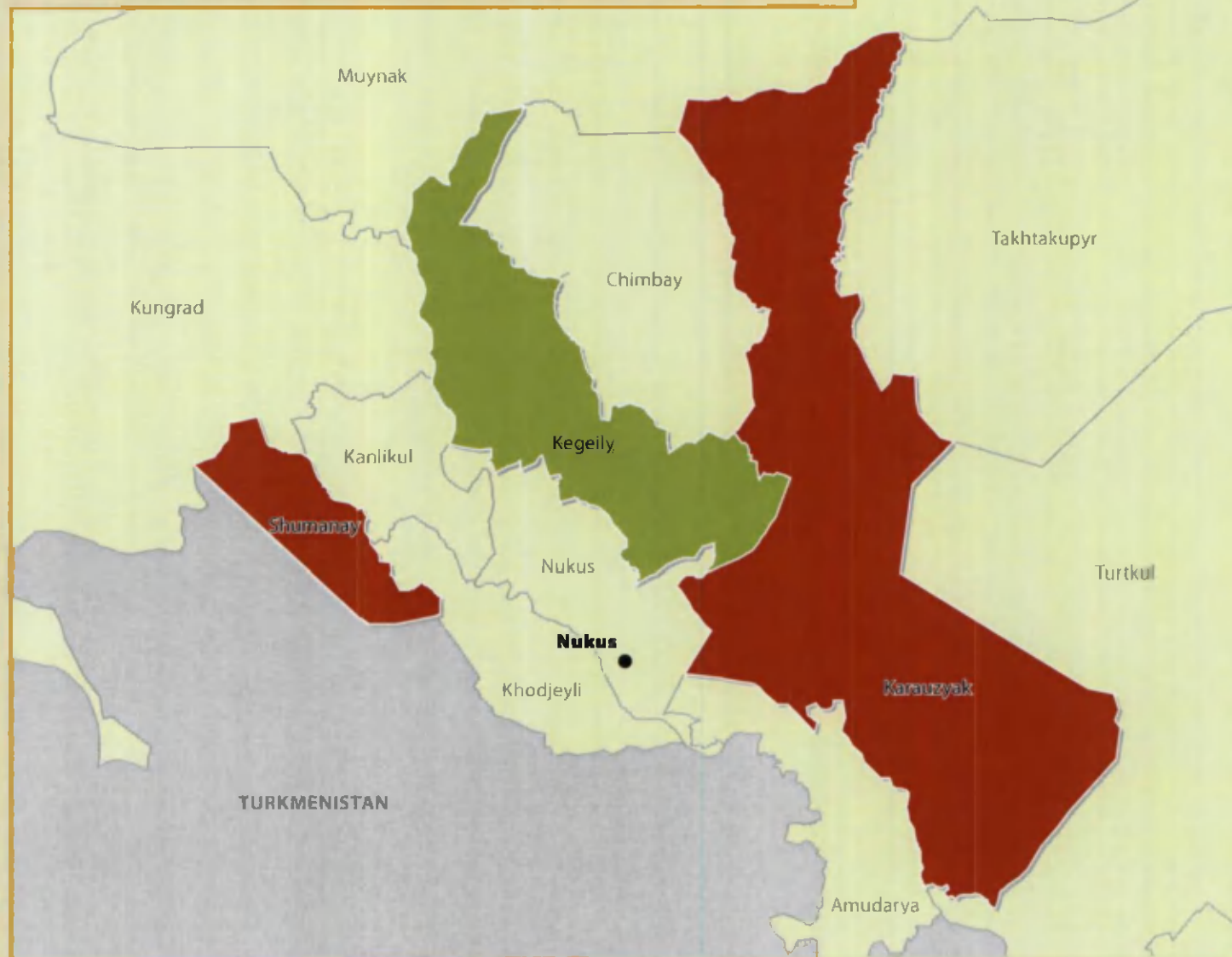
LEGEND

- Below 30
- Above 30
- Karakalpakstan Rayons' Borders

Halve the proportion of people living in poverty by 2015. Around 30 per cent of the population live in poverty and around 7 per cent live in extreme poverty.

Poverty is defined as the proportion of the population with per capita monthly consumption expenditure levels below the absolute poverty line (2100 calories per day).

MDG 1

IMPROVE LIVING STANDARDS AND REDUCE MALNUTRITION

PROPORTION OF THE POPULATION WITH PER CAPITA MONTHLY CONSUMPTION EXPENDITURE LEVELS BELOW THE POVERTY LINE

Muynak

Kungrad

Kanlikul

Shumanay

Chimbay

Kegeily

Nukus

Nukus ●

Khodjeyli

Takhtakupyr

Turtkul

Karauzyak

TURKMENISTAN

Amudarya
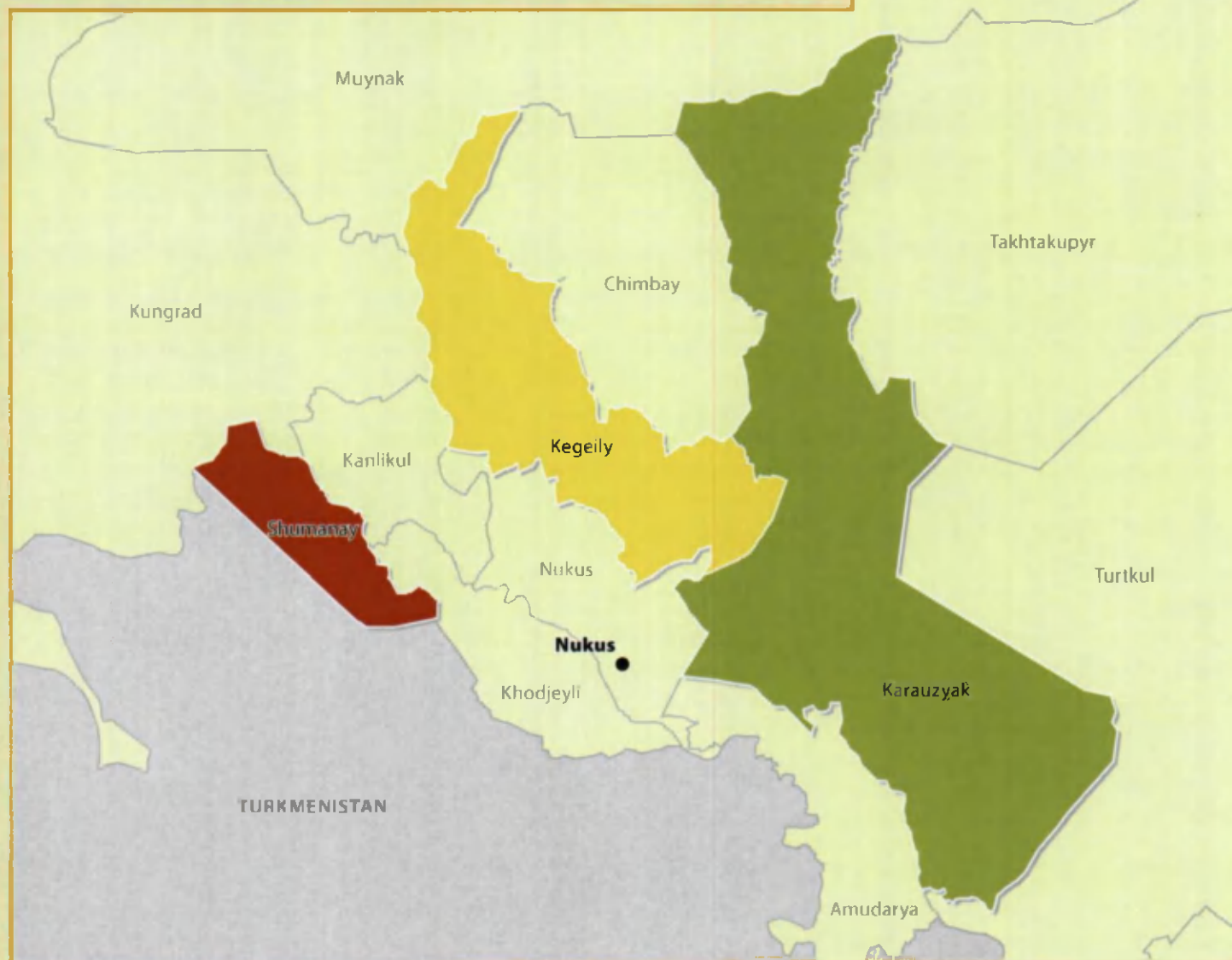
LEGEND
- ▬ Below 5
- ▭ 5–10
- ▬ Above 10
- ▬ Karakalpakstan Rayons' Borders

Halve the proportion of people living in poverty by 2015. There appear to be significant regions differences in poverty levels, with Shumanay rayon having the highest rate of poverty and Kegeyli the lowest.

Proportion of the population with per capita monthly consumption expenditure levels below the extreme absolute poverty line (1500 calories per day).

MDG 1

IMPROVE LIVING STANDARDS AND REDUCE MALNUTRITION

SCHOOL ENROLMENT AND LITERACY RATES

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND

- Below 65
- 66–70
- 71–75
- Above 75
- Uzbekistan oblast borders

Enrolment and literacy rates are almost universal in Uzbekistan. However, the quality of education has declined since the collapse of the Soviet Union. In order to monitor the quality of education, one would need data on learning achievements, which can be collected by ad hoc surveys. However, a good proxy for this indicator is the proportion of teachers in regular general education schools with higher education.
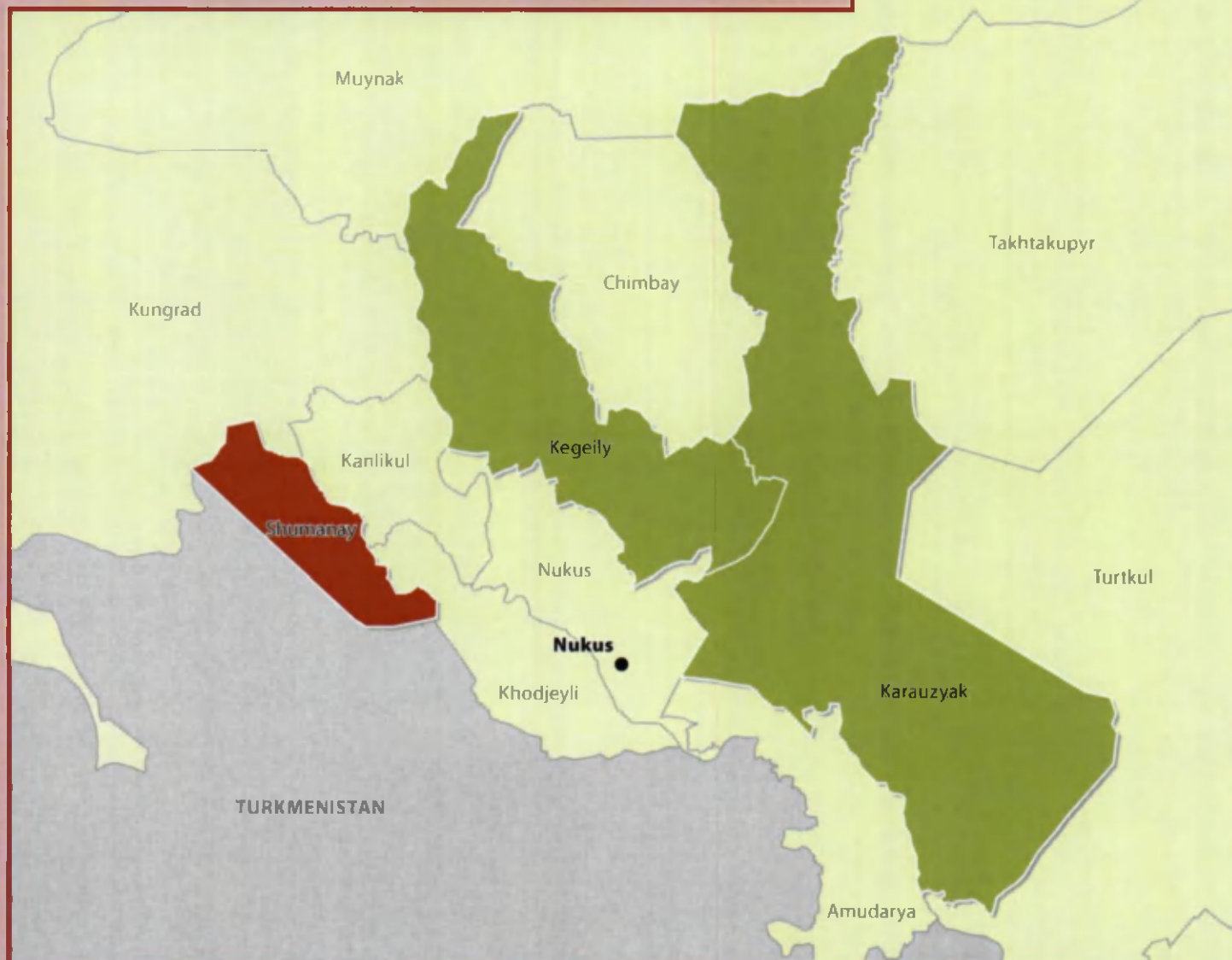
MDG 2

IMPROVE THE QUALITY
OF EDUCATION IN PRIMARY
AND SECONDARY SCHOOL

RATIO OF WOMEN TO MEN IN THE NON-AGRICULTURAL SECTOR

Muynak

Takhtakupyr

Kungrad

Chimbay

Kanlikul

Kegeily

Shumanay

Nukus

Turtkul

Nukus

Khodjeyli

Karauzyak

TURKMENISTAN

Amudarya

Source: Study compiled by Tahlil CSR from Household Survey Data, 2005.
Scale: 1 : 4.000.000.

Not official. For internal use only.

MDG 2

PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

SHARE OF WOMEN POSTGRADUATE STUDENTS, 2000

LEGEND
- Below 20
- 21–30
- 31–40
- 41–50
- Above 50
- N. a.
- Uzbekistan oblast borders

KAZAKHSTAN

Karakalpakstan

KYRGYZSTAN

Navoi

Tashkent

Khorezm

Namangan

Andijan

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

MDG 3

PROMOTE GENDER EQUALITY AND EMPOWER WOMEN

SHARE OF WOMEN IN THE EMPLOYED POPULATION, 2004

LEGEND
- Below 35
- 36–40
- 41–45
- Above 45
- Uzbekistan oblast borders

KAZAKHSTAN

Karakalpakstan

KYRGYZSTAN

Navoi

Tashkent

Namangan

Andijan

Khorezm

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

Source: Annual Population Data, 2004.
Scale: 1 : 10,000,000

Not official. For internal use only.

INFANT MORTALITY RATE IN RURAL AREAS

KAZAKHSTAN

Karakalpakstan

Khorezm

Navoi

Tashkent

KYRGYZSTAN

Namangan

Andijan

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND

- Below 16
- 17–18
- Above 18
- Uzbekistan oblast borders

Infant Mortality Rate in urban areas is considerably higher than in rural areas. This is due to the fact that births are more likely to be registered in urban areas. There is a need to improve the system of birth registration in order to obtain more reliable estimates.

MDG 4

REDUCE CHILD MORTALITY

INFANT MORTALITY RATE IN URBAN AREAS

KAZAKHSTAN

Karakalpakstan

KYRGYZSTAN

Navoi

Tashkent

Namangan   Andijan

Khorezm

Djizak

Ferghana

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

LEGEND
- Below 16
- 17–18
- 19–20
- 21–22
- 23–24
- Above 24
- Uzbekistan oblast borders

Infant Mortality Rate in urban areas is considerably higher than in rural areas. This is due to the fact that births are more likely to be registered in urban areas. There is a need to improve the system of birth registration in order to obtain more reliable estimates.

MDG 4

REDUCE CHILD MORTALITY

PERCENTAGE OF ABORTIONS PER 100 DELIVERIES, 2000
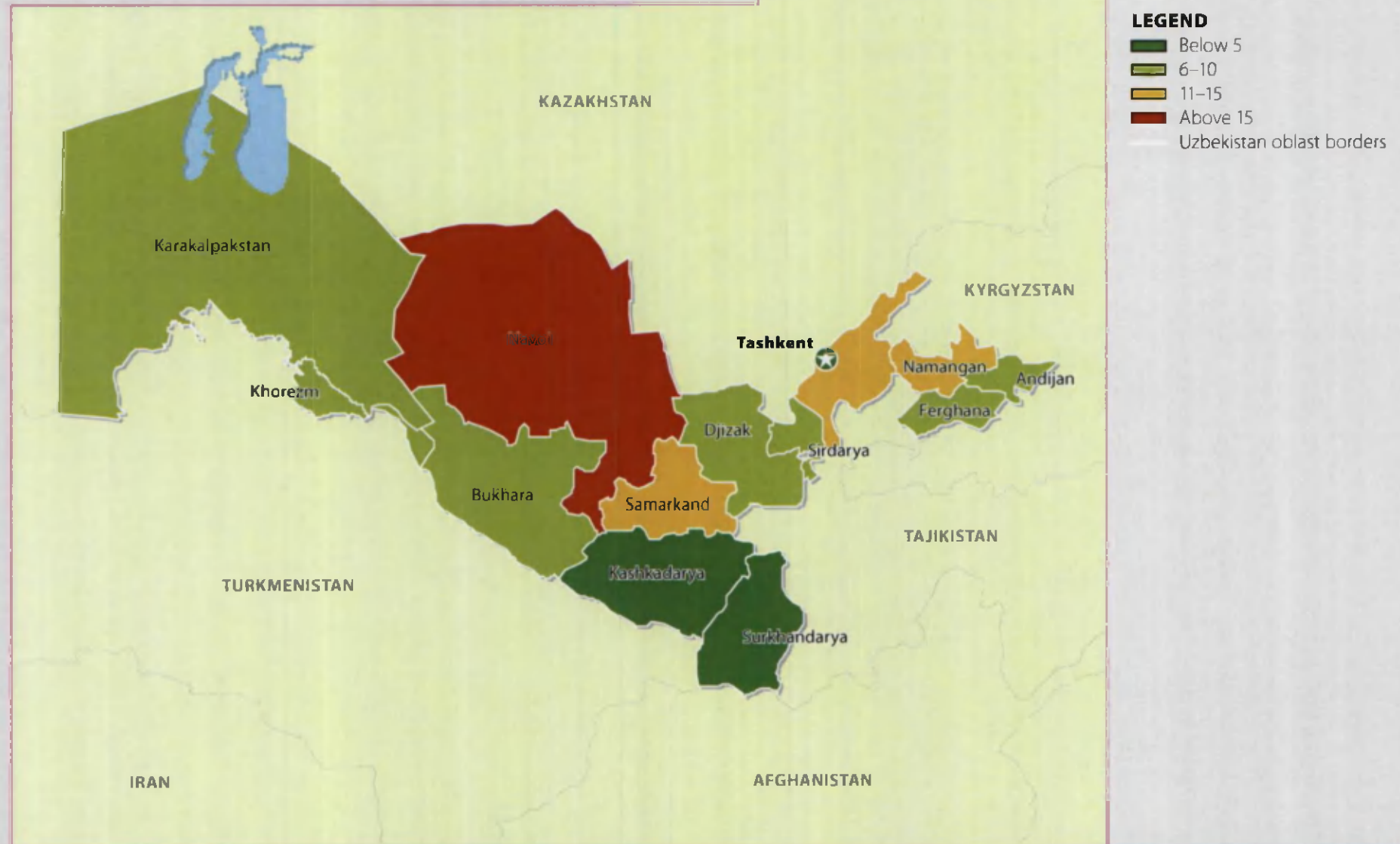
LEGEND
- Below 5
- 6–10
- 11–15
- Above 15
- Uzbekistan oblast borders

KAZAKHSTAN

Karakalpakstan

KYRGYZSTAN

Khorezm

Tashkent

Namangan

Andijan

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

MDG 5

IMPROVE MATERNAL HEALTH

PROPORTION OF WOMEN 15–49
USING ANY MODERN METHOD OF CONTRACEPTION

KAZAKHSTAN

Karakalpakstan

KYRGYZSTAN

Navoi

Khorezm

Tashkent

Namangan

Andijan

Ferghana

Djizak

Sirdarya

Bukhara

Samarkand

TAJIKISTAN

Kashkadarya

TURKMENISTAN

Surkhandarya

IRAN

AFGHANISTAN

Source: Health Examination Survey, 2002.
Scale: 1 : 10,000,000

Not official. For internal use only.

MDG 6

**COMBAT HIV/AIDS,
TUBERCULOSIS AND MALARIA**

SALINIZATION OF ALL KARAKALPAKSTAN DISTRICTS (%)

KAZAKHSTAN

KAZAKHSTAN

Muynak

Kungrad

Chimbay

Takatakupyr

Kegeily

Kanlikul

Shumanay

Nukus

Nukus

Turtkul

Navoi

Khodjeyli

Karauzyak

Amudarya

Beruni

Ellikkala

TURKMENISTAN

Khorezm

Khorezm

Bukhara

MDG 7

ENSURE ENVIRONMENTAL SUSTAINABILITY

500 c

SALINIZATION OF ELS KARAKALPAKSTAN DISTRICTS (%)

Muynak

Kungrad

Takhtakupyr

Chimbay

Kanlikul

Kegeily

Shumanay

Nukus

Turtkul

Nukus
●

Khodjeyli

Karauzyak

TURKMENISTAN

Amudarya

LEGEND

- Below 30
- 31–45
- 46–60
- 61–80
- Above 80
- ——— Karakalpakstan Rayons' Borders

Percent of salinized land as of irrigated area to decrease to 45% by 2015. Salinized land as a share of the total irrigated area.

Not official. For internal use only.

MDG 7

ENSURE ENVIRONMENTAL SUSTAINABILITY