

### 3.5.2 Socio-economy

For the categorization of the 64 food insecure Woredas, the following aspects were considered in this report, from the viewpoints of the socio-economic situations.

- Demographic data: Main indicators of human activities
- Road, electrification and rural water supply data: Main indicators of economic infrastructure
- Education and health data: Main indicators of basic human needs conditions
- Roof material and associations data: Main indicators of rural society

Due to the division and establishment of new Woredas (e.g. Aregoba Woreda was established in June 2006, divided from Kalu Woreda. Also the former Bugena Woreda was recently divided into two Woredas, namely Bugena and Lasta.), some Woreda data couldn't be chronologically compared. In such cases, the total and/or average of the former Woreda data were used for the comparison.

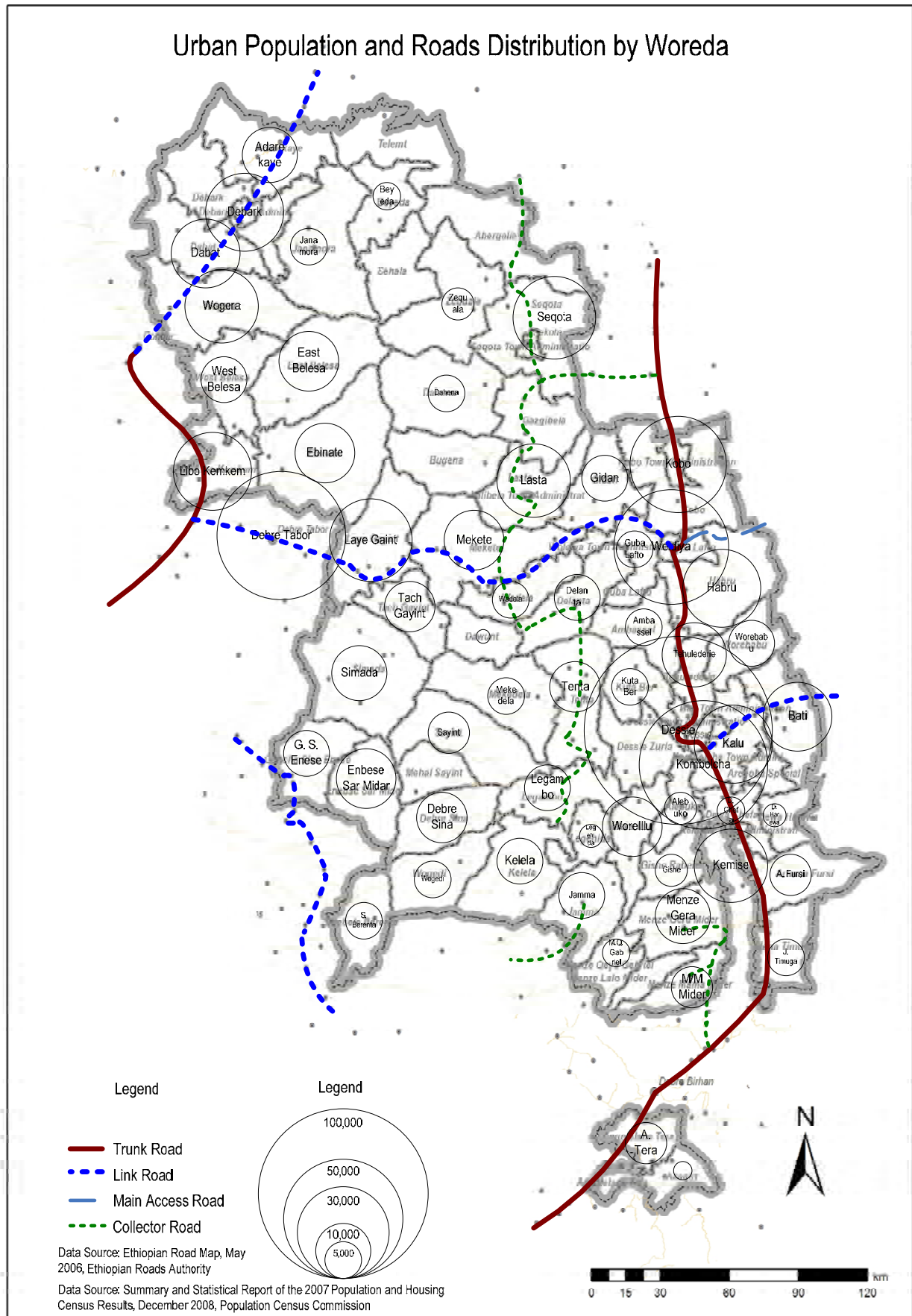
#### (1) Demography

##### 1) Urban and Rural Population

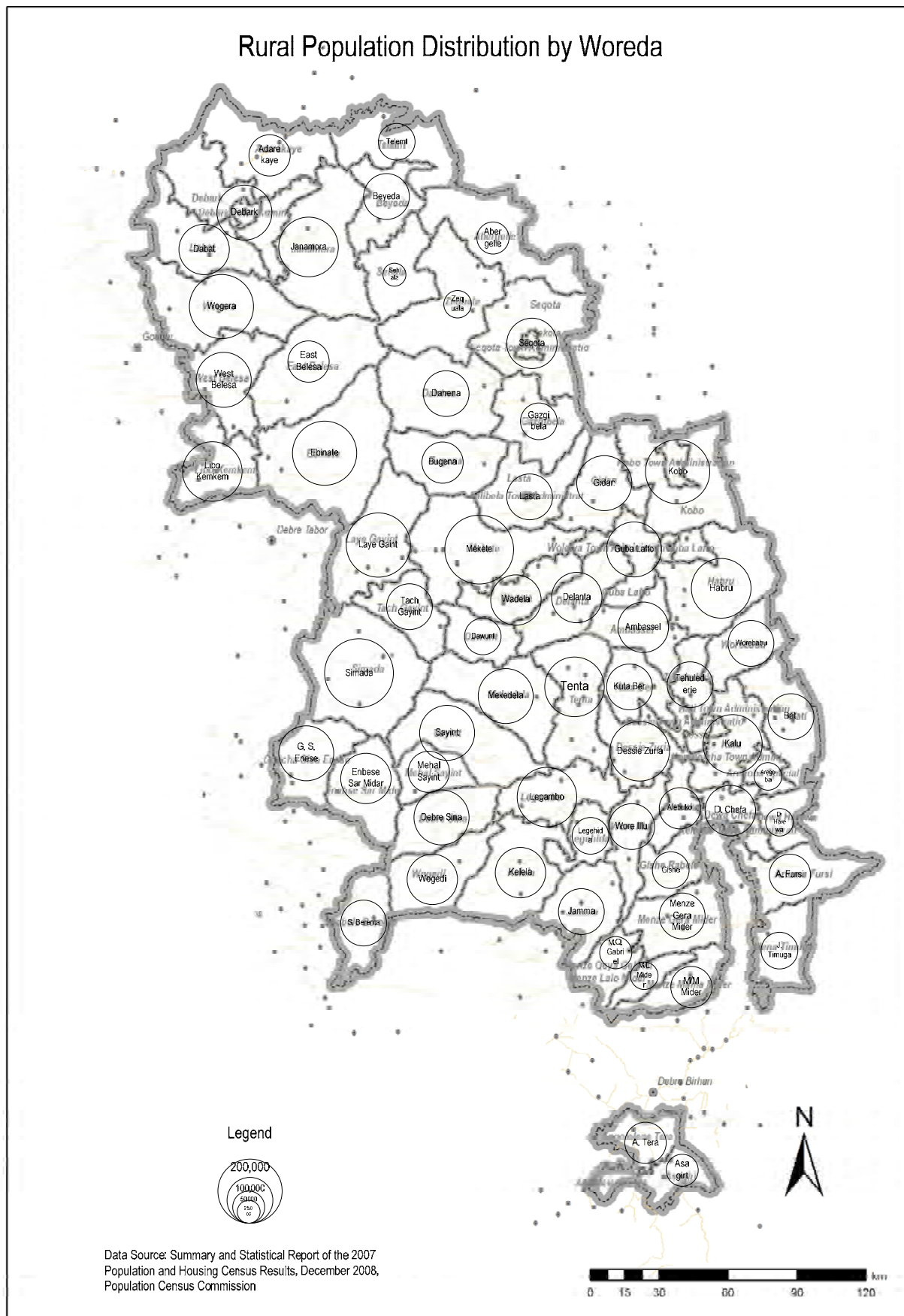
In 2007, population and housing census was conducted and its summary data were available by Woreda. Among the 64 food insecure Woredas, there were nine Woredas (Abergelie, Gazgibela, Sehalu, Telemt, Bugena, Aregoba Special, Dessie Zuria, Mehal Sayint, and Menze Lalo Mider) where there were no urban population. Because the urban population basically works in the non-agricultural sectors, which means that they are not self-sustenance, they can be considered as a market for agricultural produce. Therefore, the more urban population is there, the more possibilities of farm produce sales are there. In other words, those Woredas with and/or near large urban population have more possibilities of commercial oriented agriculture.

The distribution of urban population of the 55 Woredas is shown in the Figure 3.5.6, together with the main roads. The figure clearly indicated that urban population was unevenly distributed within the Study Area. There were more big towns/cities in the northwestern and eastern parts of the Study Area. Also more roads were there on the same Woredas as the figure shown. It is highly possible that the size of urban population closely relates to the presence of major roads.

As compared to the urban population, there were not so big size differences in rural population among the 64 Woredas. The top three Woredas with rural population were Simada, Mekete, and Ebinata where more than 200,000 rural residents lived there. There were some Woredas with relatively less rural population in the Wag Himera and North Shewa Zones. (See Figure 3.5.7.)



**Figure 3.5.6 Urban Population and Roads Distribution by Woreda**



**Figure 3.5.7 Rural Population Distribution by Woreda**

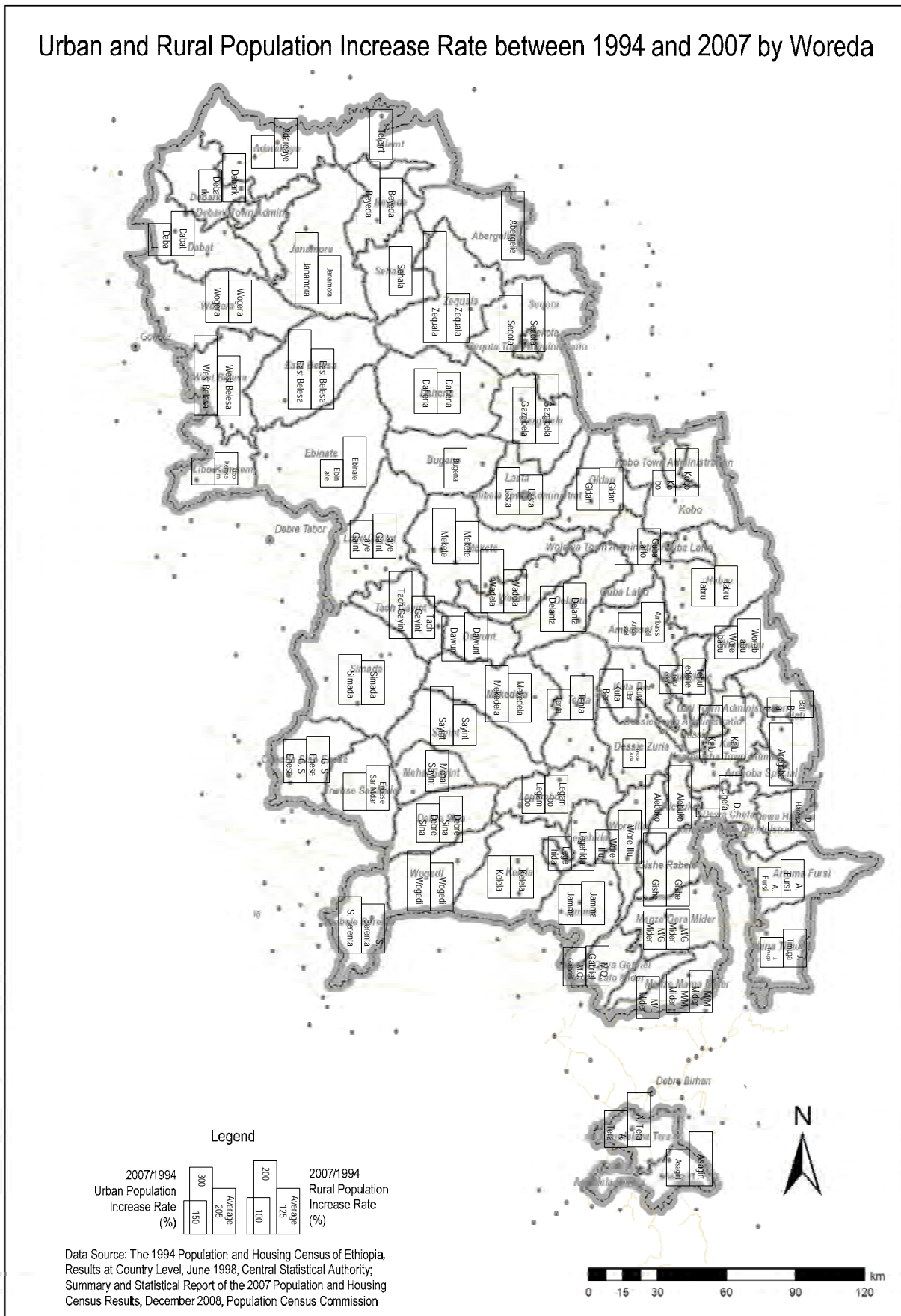
Population increase rates were calculated from the 1994 and 2007 census data. High increase rates of urban population were found in North Gonder and Wag Himera Zones, where urban population became more than three times bigger for this 13-year period. On the other hand, many Woredas in Oromiya, North Shewa Zones and the eastern part of South Wollo Zone had relatively low rates of both urban and rural population increase. Because rural population still dominates in many of the 64 Woredas, the Woredas with high rural population increase rate could be targeted for family planning in the future. (See Figure 3.5.8.)

## 2) Population Density and Urban Population Rate

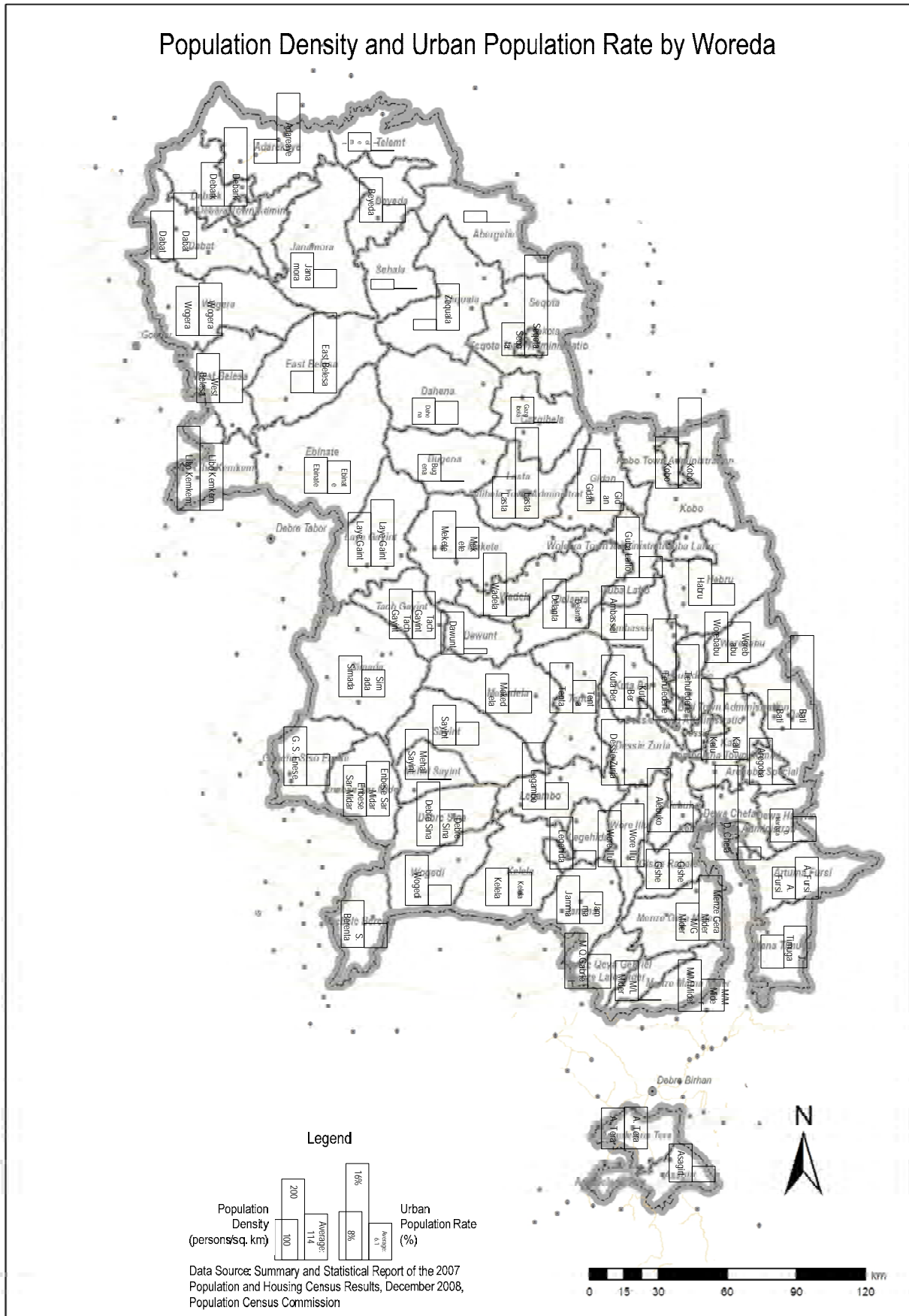
The average population density of the 64 Woredas is 118 (persons/sq. km), but it varies from 25 (persons/sq. km.) in Sehala to 251 (persons/sq. km.) in Tehulederie. In general, except for Libo Kemkem in South Gonder and Dewa Chefa in Oromiya Zones, many densely populated Woredas were distributed in South and North Wollo Zones. In these Woredas, land resources could be scarcer than other less densely populated Woredas.

As for the urban population rate, the Woredas located along the major roads tended to have high rates. In Seqota (inc. Seqota Town Admin.), Bati (inc. Bati Town Admin.), Lasta, Kobo (inc. Kobo Town Admin.), East Belesa, Debark (inc. Debark Town Admin.) and Tehulederie, more than 12% of the total population were urban dwellers, and all of them were along the major roads except for East Belesa. In most Woredas in the western part of South Wollo Zone, urban population rate was still at a low level. This might come from the fact that the area was far from the major roads and surrounded by rivers such as the Blue Nile and the Beshlo.

Several Woredas such as Kalu, Libo Kemkem and Tehulederie had high rates of both population density and urban population. This might imply that rural residents started to emigrate from the rural areas to cities/towns because of land scarcity. (See Figure 3.5.9.)



**Figure 3.5.8 Urban and Rural Population Increase Rate between 1994 and 2007 by Woreda**



**Figure 3.5.9 Population Density and Urban Population Rate by Woreda**

### 3) Categorization of the 64 Food Insecure Woredas by Demographical Data

Among the above demographical statistics, the data of population density and urban population rate were selected as the representative indicators for categorization of the 64 Woredas. The table below shows the result.

**Table 3.5.5 Categorization of the 64 Food Insecure Woredas by Demographic Data**

Indicator		High Urban Population Rate (Higher than the average: >6.8%)	Low Urban Population Rate (Lower than the average: <6.8%)
		More urbanized Woredas	Less urbanized Woredas
High Population Density (Higher than the average: >107.2 persons/sq. km)	Land resources are scarcer within the Woreda.	Dabat, Debark, Enebse Sar Mider, Habru, Kalu, Kobo, Laye Gayint, Libo Kemkem, Menze Mama Mider, Tach Gayint, Tehulederie, Wogera, Wore Illu (13 Woredas)	Alebuko, Ambassel, Aregoba Special, Beyeda, Debra Sina, Delanta, Dessie Zuria, Dewa Chefa, Gidan, Goncha Siso Enese, Guba Lafto, Jamma, Kuta Ber, Legambo, Legehida, Mehal Sayint, Mekete, Shebele Berenta, Tenta, Wadela, West Belesa, Wogedi, Worebabu (23 Woredas)
Low Population Density (Lower than the average: <107.2 persons/sq. km)	Land resources are less scarce within the Woreda.	Adarekaye, Angolelana Tera, Artuma Fursi, Bati, East Belesa, Jilena Timuga, Lasta, Menze Gera Mider, Seqota, Zequala (10 Woredas)	Abergelie, Asagirt, Bugena, Dahena, Dawunt, Dewa Harewa, Ebinat, Gazgibela, Gishe Rabele, Janamora, Kelela, Mekedela, Menze Lalo Mider, Menze Qeya Gebriel, Sayint, Sehala, Simada, Telemt (18 Woredas)

## (2) Infrastructure

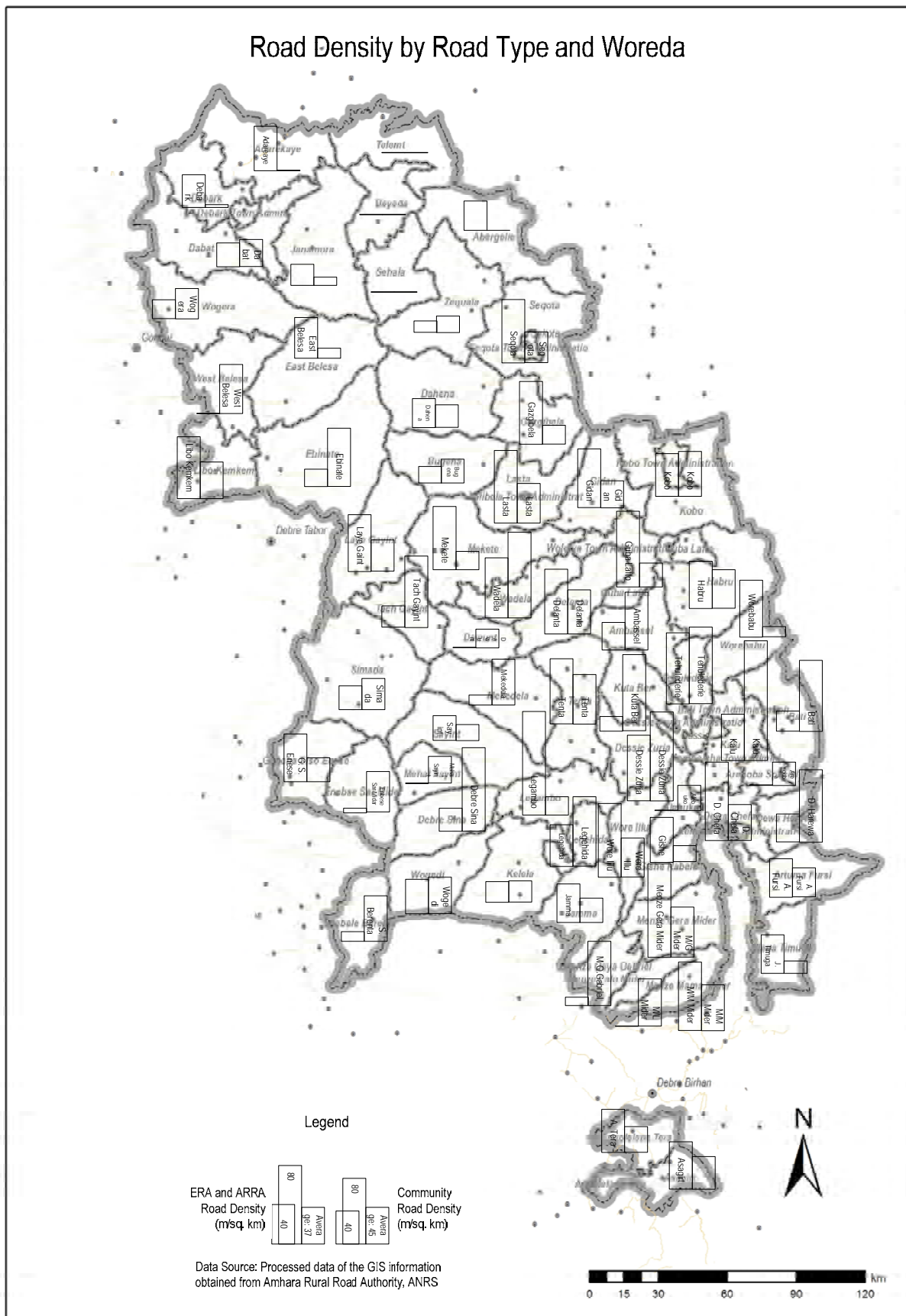
### 1) Road Density

As the figure indicates in the previous section, there is a trunk road running from south to north in the eastern part of the Study Area. Another trunk road is in the western part, but it crosses only Libo Kemkem Woreda. There are four link roads in the Study Area, and the most important one runs in the center of the Study Area from Woreta to Weldia because it is the only route connecting the central and eastern parts of the ANRS. The road is almost rehabilitated with the finance from International Development Association. There is also one main access road (from Weldia to east connecting to Djibouti) and four collector roads in the Study Area. Furthermore, there are many gravel community roads which mainly connect nearby Woredas.

Together with the community road data obtained from Amhara Rural Road Authority (ARRA), the road density was calculated by Woreda. The result is shown in Figure 3.5.10. In general, road density figures were still at a low level for all the 64 Woredas, but it could be said that there were more ERA and ARRA roads in the south-eastern part of the Study Area as compared to other parts. Community road densities were also high in the same area. On the contrary, road density in the north was very low, particularly in the Woredas bordering North Gonder and Wag Himera Zones.

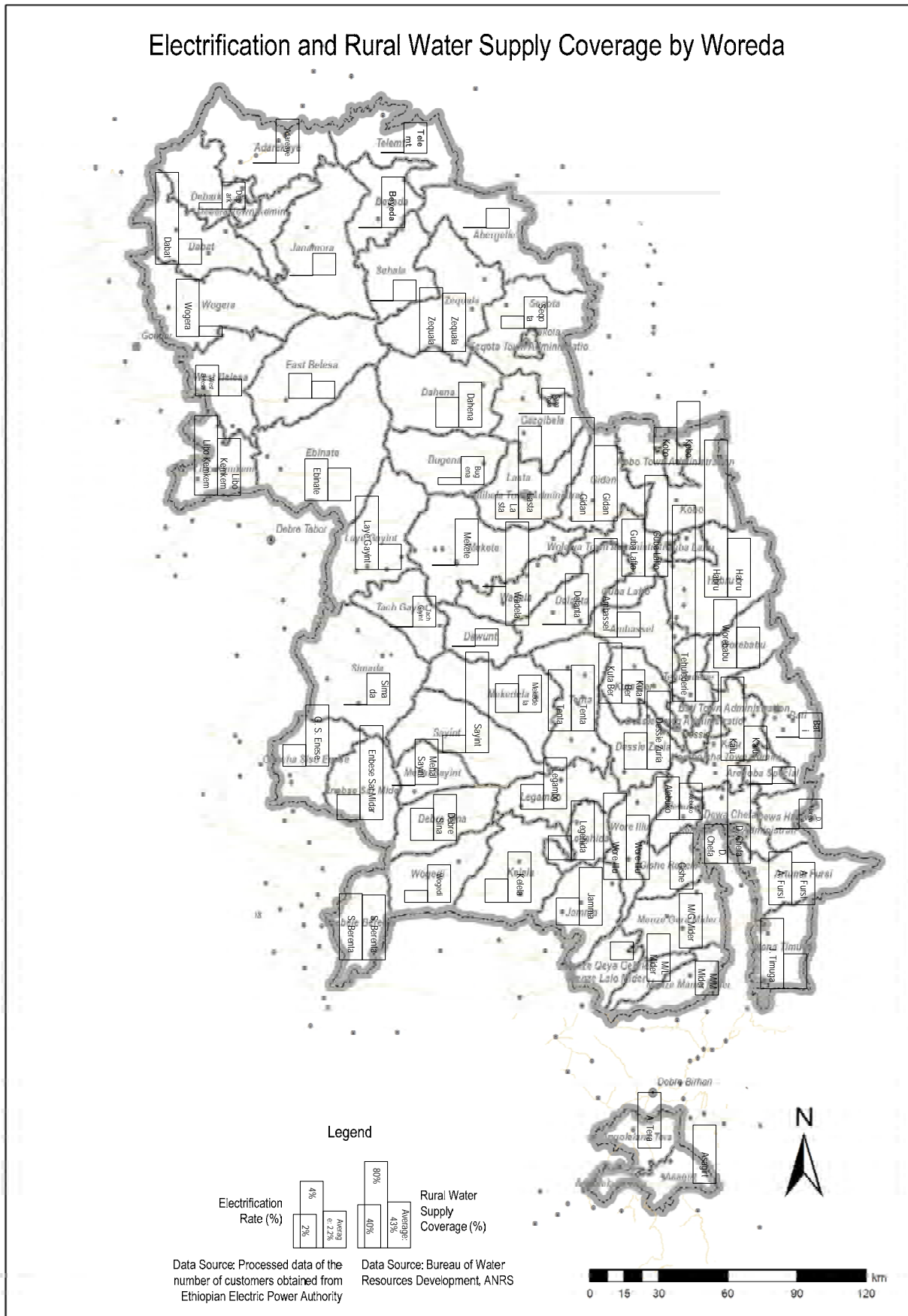
### 2) Electrification and Rural Water Supply

Electrification was not well extended into the rural areas. On average, only 2.2% of rural population received electricity. Among the 64 Woredas, there were more Woredas with relatively high electrification rates in the eastern part of the Study Area. Also there were several high electrification Woredas in the western area such as Dabat, Libo Kemkem and Laye Gayint. (See Figure 3.5.11.)



**Figure 3.5.10 Road Density by Road Type and Woreda**





**Figure 3.5.11 Electrification and Rural Water Supply Coverage by Woreda**

As for the rural water supply, the coverage rates were much higher than the electrification rates. On average, 43% of the rural population was covered by rural water supply system according to the BoWRD data. There were four Woredas (Dewa Chefa, Guba Lafto, Sayint and Wadela) with more than 90% of coverage, while Wogera Woreda was the lowest rate with only 9%.

### 3) Categorization of the 64 Food Insecure Woredas by Infrastructure Data

Because the electrification data of the North Shewa Zone were not unavailable, the two kinds of data, the total road density and rural water supply coverage, were used for categorization of the 64 Woredas. The table below shows the result.

**Table 3.5.6 Categorization of the 64 Food Insecure Woredas by Infrastructure Data**

Indicator		High Road Density (Higher than the average: >82 m/sq. km)	Low Road Density (Lower than the average: <82 m/sq. km)
		Better access by car	Worse access by car
High Water Supply Coverage (Higher than the average: >43%)	Less urgently need water supply development	Asagirt, Delanta, Dessie Zuria, Dewa Chefa, Gidan, Guba Lafto, Habru, Kobo, Lasta, Legambo, Legehida, Libo Kemkem, Mekete, Menze Gera Mider, Tenta, Wadela, Wore Illu (17 Woredas)	Angolelana Tera, Beyeda, Enebse Sar Mider, Gishe Rabele, Goncha Siso Enese, Jamma, Kelela, Menze Lalo Mider, Sayint, Shebele Berenta, Zequala (11 Woredas)
Low Water Supply Coverage (Lower than the average: <43%)	Urgently need water supply development	Ambassel, Bati, Debre Sina, Dewa Harewa, Ebinate, Gazgibela, Kalu, Kuta Ber, Laye Gayint, Menze Mama Mider, Menze Qeya Gebriel, Seqota, Tach Gayint, Tehulederie (14 Woredas)	Abergelie, Adarekaye, Alebuko, Aregoba Special, Artuma Fursi, Bugena, Dabat, Dahena, Dawunt, Debark, East Belesa, Janamora, Jilena Timuga, Mehal Sayint, Mekedela, Sehala, Simada, Telemt, West Belesa, Wogedi, Wogera, Worebabu (22 Woredas)

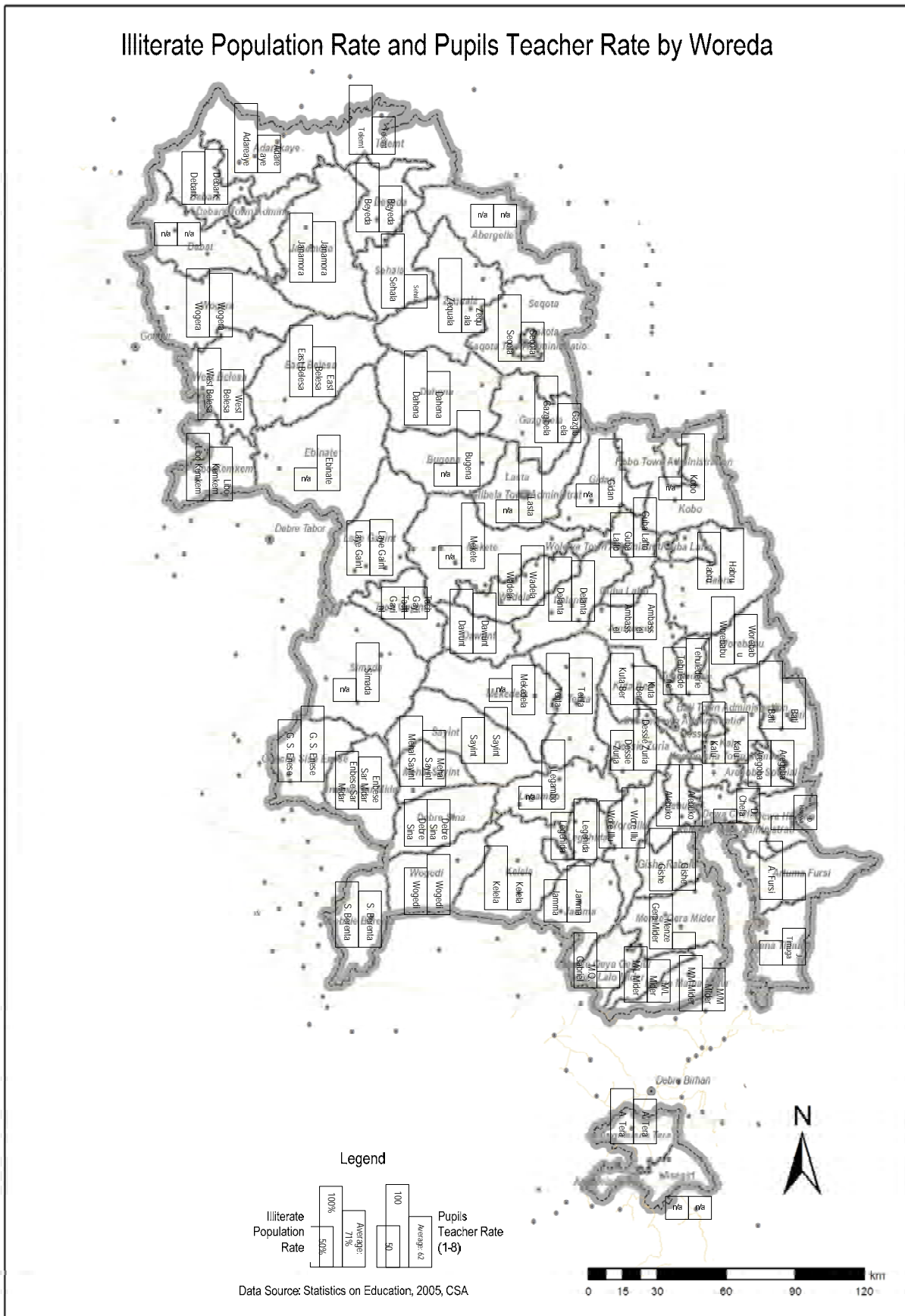
### (3) Education and Health

#### 1) Education

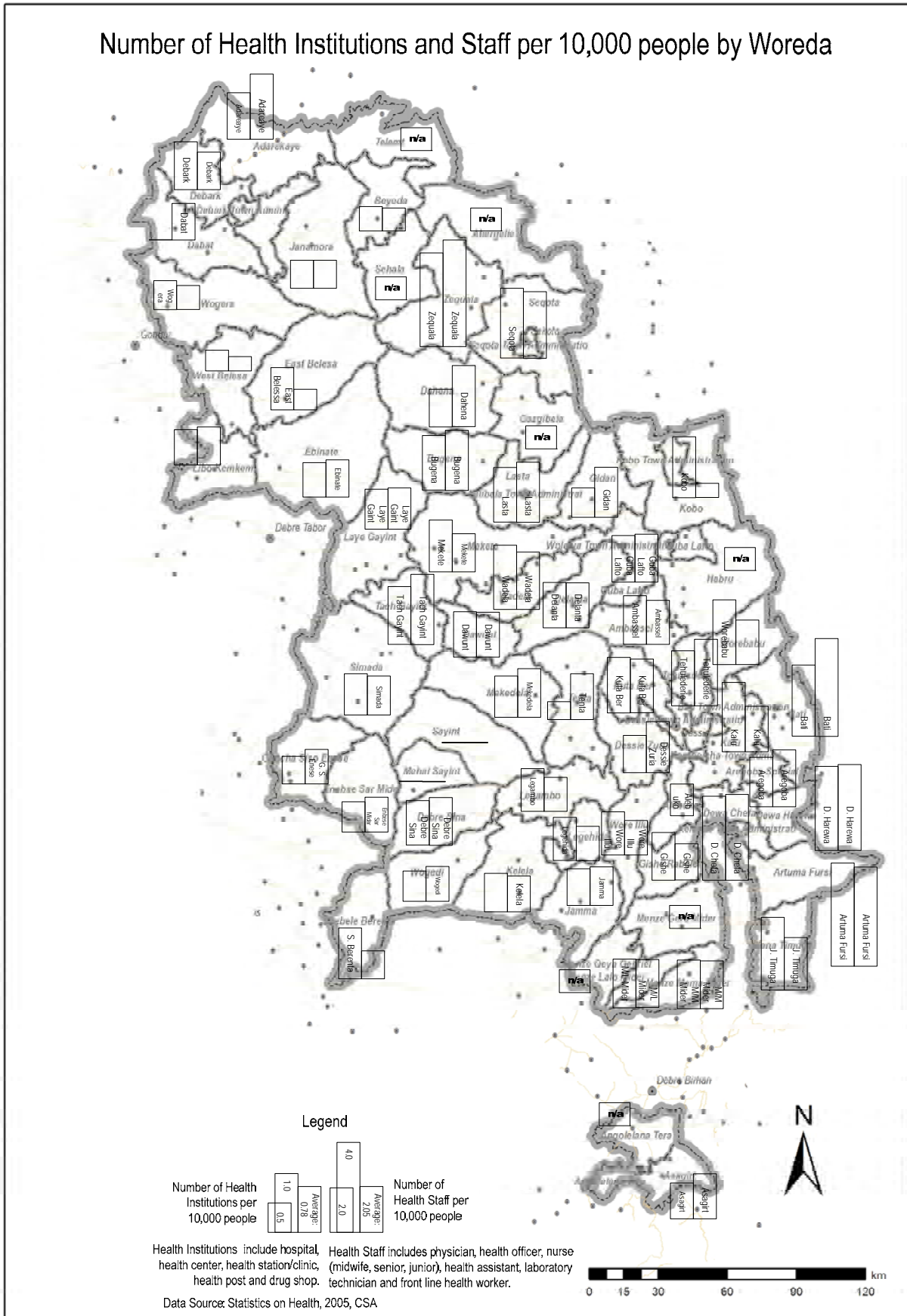
Collection of the 64 Woredas' education data was difficult since many available statistics were still based on the former Woreda administration system. Although some Woredas' data were incomplete, the data of illiterate population rate (with the data of 52 Woredas) and pupils teacher ratio (PTR, year 1-8, with the data of 61 Woredas) were used here to compare the 64 food insecure Woredas. (See Figure 3.5.12.)

The average illiterate population rate was 71%. The rates were higher in the north, the North Gonder and Wag Himera Zones, while the rates in the South Wollo and Oromiya Zones were lower. More precisely, Dewa Chefa and Dewa Harewa had the lowest illiterate rate, 17%, but Sehala and Zequala had the highest one, 92%.

The average PTR was 62 (pupils/teacher). In the North Wollo Zone, many Woredas' PTRs were higher than other Woredas (79-91 for Bugena, Lasta, Gidan, Kobo and Mekete). The PTR was also high in Goncha Siso Enese (91) and Legambo (83). On the other hand, the PTRs in Menze Gera Mider, Menze Qeya Gebriel (both of them are 19.8) and Artuma Fursi (31.8) were much lower than other Woredas.



**Figure 3.5.12 Illiterate Population Rate and Pupils Teacher Rate by Woreda**



**Figure 3.5.13** Number of Health Institutions and Staff per 10,000 people by Woreda

## 2) Health

As for the health conditions, two indicators, numbers of health institutions<sup>20</sup> and health staff<sup>21</sup> per 10,000 people, were used to differentiate the 64 food insecure Woredas. (See Figure 3.5.13.) In general, both number of health institutions and health staff were at a very low level in the 64 Woredas because the average numbers of health institutions and health staff per 10,000 people were 0.78 and 2.05, respectively. Among them, the Woredas in the Oromiya Zone had more facilities and staff per 10,000 people (1.21-1.75 institutions and 2.33-4.44 staff per 10,000 people) than other Woredas. Also Zequala Woreda had better figures (1.59 and 4.78).

## 3) Categorization of the 64 Food Insecure Woredas by Education and Health Data

To classify the 64 Woredas in terms of education and health conditions, the PTR and number of health institutions per 10,000 people were selected. The reason for the selection of the PTR was that the number of Woreda data was more than that of the illiterate population rate. As for the selection of the health data, it was likely that staffing would be decided after the facility development; hence, the number of facility could be more fundamental for health service extension. The table below shows the result.

**Table 3.5.7 Categorization of the 64 Food Insecure Woredas by Education and Health Data**

Indicator	No data on PTR	High PTR rate	Low PTR rate
		More teachers are necessary	Less teachers are necessary
No data on health institutions	Abergelie (1Woreda)	Habru (1 Woreda)	Alebuko, Angolelana Tera, Gazgibela, Menze Gera Mider, Menze Qeya Gebriel, Sehala, Telemt (7 Woredas)
More health institutions	Less urgently need health facility development	-	Adarekaye, Ambassel, Aregoba Special, Artuma Fursi, Bati, Dewa Chefa, Dewa Harewa, Jilena Timuga, Kalu, Kuta Ber, Menze Lalo Mider, Menze Mama Mider, Seqota, Worebabu, Zequala (15 Woredas)
Less health institutions	Urgently need health facility development	Asagirt, Dabat (2 Woredas)	Beyeda, East Belesa, Kelela, Mekedela, West Belesa (5 Woredas)
		Dahena, Dawunt, Debre Sina, Delanta, Dessie Zuria, Ebinata, Enebse Sar Mider, Gidan, Goncha Siso Enese, Jamma, Janamora, Laye Gayint, Legambo, Legehida, Libo Kemkem, Mehal Sayint, Sayint, Simada, Tenta, Wogedi, Wogera, Wore Illu (22 Woredas)	

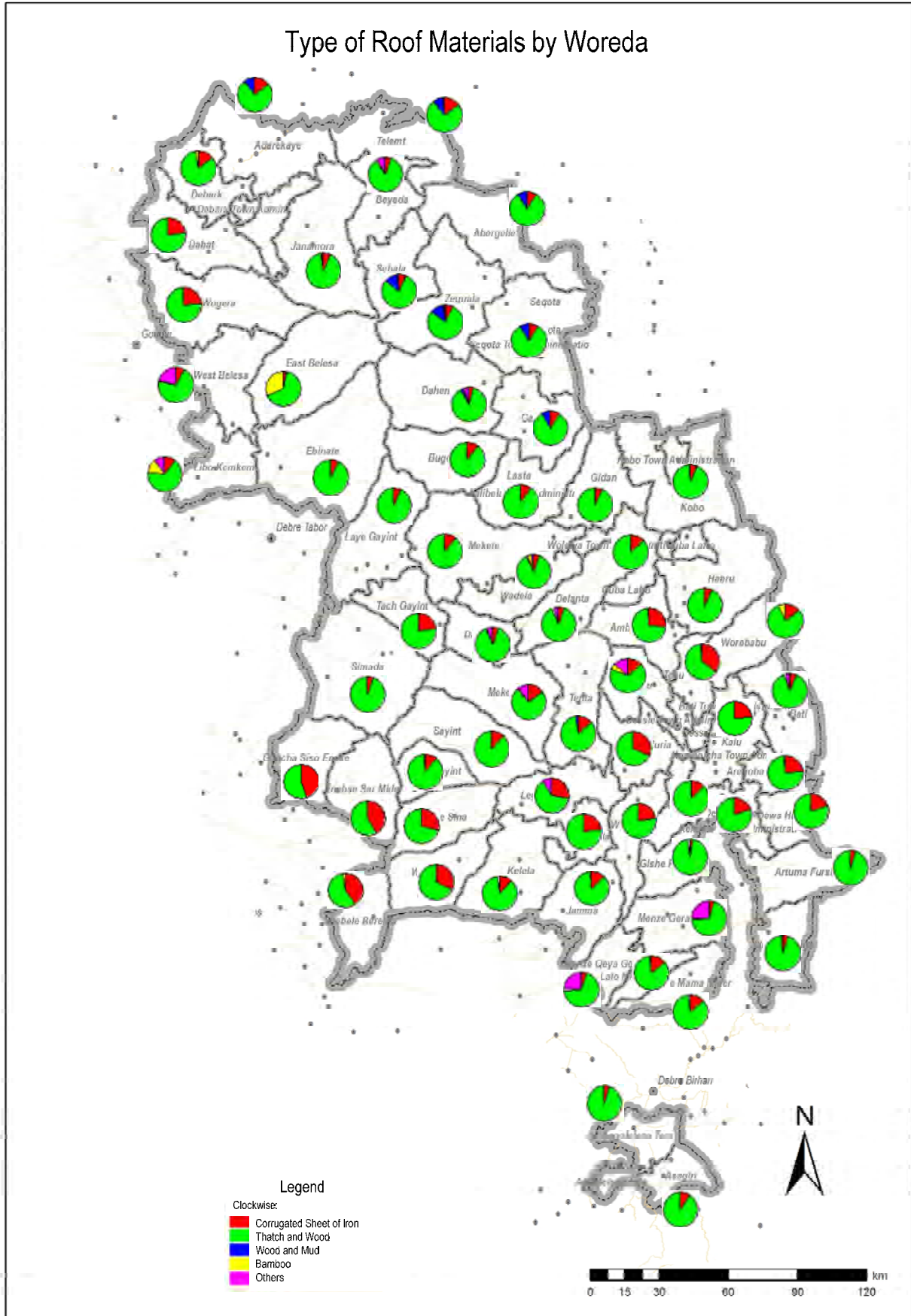
## (4) Rural Society

### 1) Roof Materials

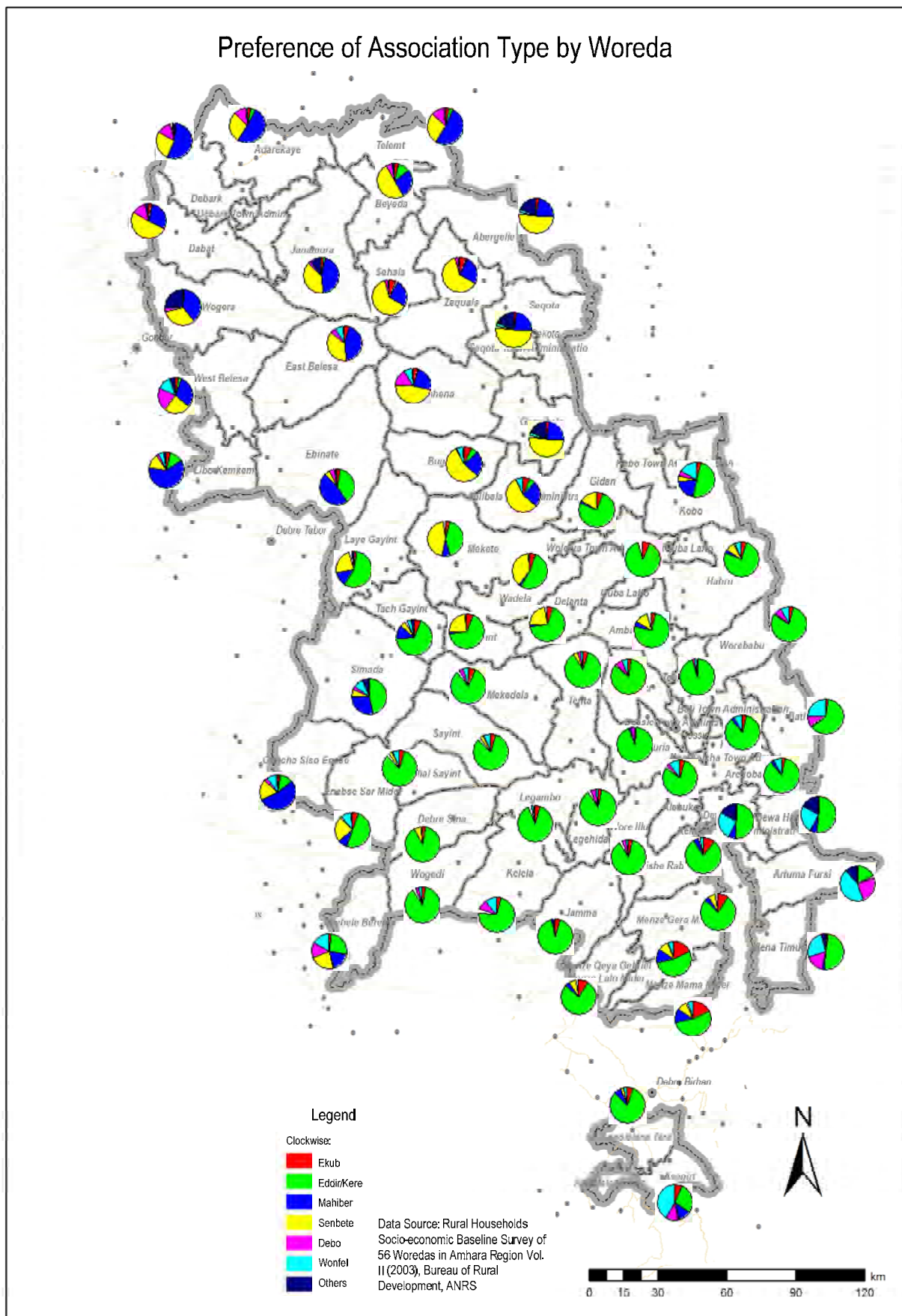
In the rural areas, it was common that rich farmers tended to live in houses with corrugated iron sheets while the poor tended to live in houses with thatch and wood. Here, the type of roof materials was used to grasp the situation of the rural poor. (See the figure below.)

<sup>20</sup> Health institutions include hospital, health center, health station/clinic, health post and drug shop.

<sup>21</sup> Health staff include physician, health officer, nurse (midwife, senior, junior), health assistant, laboratory technician and front line health worker.



**Figure 3.5.14** Type of Roof Materials by Woreda



**Figure 3.5.15 Preference of Association Type by Woreda**

Basically, the houses with thatch and wood dominated in all the Woredas, and more than three quarters of rural houses were with thatch and wood roof in the 46 Woredas. The houses roofed with corrugated iron sheets were more common in the Woredas around Dessie and Kombolcha. There were also five Woredas with high rates of corrugated iron sheet roofing in the south-western part of the Study Area.

On the contrary, there were 11 Woredas where more than 90% of houses were with thatch and wood (Gishe Rabele, Artuma Fursi, Angolelana Tera, Jilena Timuga, Simada, Gidan, Habru, Laye Gayint, Ebinata, Kobo and Janamora). East Belesa Woreda was specific since nearly one third of the houses were with bamboo roof.

## 2) Preference of Indigenous Local Groups/Activities

There were several local indigenous institutions like *Ekub*, *Eddir/Kere*, *Mahiber*, *Senbete*, *Debo*, *Wonfel*<sup>22</sup>. According to the preference of households among these local associations, *Eddir/Kere* was predominant in the South Wollo, Oromiya and North Shewa Zones. In the Wag Himera, *Senbete* was the first preference. The North Wollo Zone seemed to be the mixed area of *Eddir/Kere* and *Senbete* since the *Eddir/Kere* dominated in the northern Woredas while *Senbete* dominated in the southern Woredas. On the contrary, *Mahiber* was preferred in the North Gonder and the northern part of South Gonder. *Wonfel* seemed to be more popular in several Woredas in the south such as Asagirt and Artuma Fursi. (See Figure 3.5.15.)

## 3) Categorization of the 64 Food Insecure Woredas by Rural Society Data

The rural societies in the 64 Woredas were very diverse. Although it was difficult to categorize the 64 Woredas from the viewpoints of rural society, it was conducted based on the above two indicators as shown below.

**Table 3.5.8 Categorization of the 64 Food Insecure Woredas by Rural Society Data**

Indicator		High Preference on Mahiber and Senbete (Higher than the average: > 32%)	Low Preference on Mahiber and Senbete (Lower than the average: < 32%)
		More influence of Orthodox Church	Less influence of Orthodox Church
More Thatch and Wood Roofing Houses (Higher than the average: >81%)	Less wealthy farmers	Abergelle, Beyeda, Bugena, Dahena, Debark, Ebinata, Gazgibela, Janamora, Lasta, Laye Gayint, Mekete, Seqota, Simada, Wadela (14 Woredas)	Alebuko, Angolelana Tera, Artuma Fursi, Asagirt, Bati, Dawunt, Delanta, Gidan, Gishe Rabele, Guba Lafto, Habru, Jamma, Jilena Timuga, Kelela, Kobo, Mehal Sayint, Menze Lalo Mider, Menze Mama Mider, Sayint, Tenta (20 Woredas)
Less Thatch and Wood Roofing Houses (Lower than the average: <81%)	More wealthy farmers	Adarekaye, Dabat, East Belesa, Enebse Sar Mider, Goncha Siso Enese, Libo Kemkem, Sehala, Shebele Berenta, Telemt, West Belesa, Wogera, Zequala (12 Woredas)	Ambassel, Aregoba Special, Debre Sina, Dessie Zuria, Dewa Chefa, Dewa Harewa, Kalu, Kuta Ber, Legambo, Legehida, Mekedela, Menze Gera Mider, Menze Qeya Gebriel, Tach Gayint, Tehulederie, Wogedi, Wore Illu, Worebabu (18 Woredas)

<sup>22</sup> *Ekub*: Rotating saving and credit system among local people; *Eddir/Kere*: Rural and urban community traditional organization to help individuals during funeral arrangements; *Mahiber*: Based on holy days group of people, they prepare food and drink (like tela; local beer) by turn (usually monthly), then they discuss on social and economic issues. ; *Senbete*: People who are voluntarily prepare food and drink and provide to people on Sunday at the Church according to Orthodox Christians. (Sunday is called Senbet.) ; *Debo*: Group work particularly farming activity that requires much labor. After they finish the first one, they continue to the others. ; *Wonfel*: It may not be a group work. Individual will work for another and another should work to the first one other time.



### 3.5.3 Agriculture and Livestock

Categorization of the 64 Woredas (the Study Area) based on the present agricultural conditions was made by five main agricultural characteristics. The characteristics employed include: i) prevailing farming system, ii) annual cropped area of temporary crops per farm household, iii) primary and secondary temporary crops cultivated, iv) extent of temporary crops cultivation in belg season, and v) holding size of livestock per household. The classification was made based on the statistic date presented in Ethiopian Agricultural Sample Enumeration, 2001/02, CACC.

#### (1) Prevailing Farming System

The farming system in the Study Area could be categorized into: i) crop production system, ii) livestock production system, and iii) crop + livestock production system. The classifications by the categories are shown in the following table.

**Table 3.5.9 Classification of the 64 Woredas and the 8 Woredas by Prevailing Farming System**

Proportion of Crop + Crop & Livestock Farm Households to Total	Map Legend	Study Area (No.)	Proportion of Crop + Crop & Livestock Farm Households to Total (%)							
			Target Woreda							
			Ebinate	Simada	Bugena	Gidan	Kobo	Mekedela	Legambo	Aregoba
> 95 %	1	30 woredas								
90 - 94 %	2	27 woredas	97	93	94	96	93	95	94	98
85 - 89 %	3	7 woredas								

#### (2) Cropped Area of Temporary Crops per Farm Household

The 64 and 8 target Woredas were classified into 4 groups based on the annual cropped area of temporary crops per farm household as shown below.

**Table 3.5.10 Classification of the 64 Woredas and the 8 Woredas by Cropped Area of Temporary Crops per Farm Household**

Annual Cropped Area of Temporary Crops per Farm Household (ha)	Map Legend	Study Area (No.)	Annual Cropped Area of Temporary Crops per Farm Household (ha)							
			Target Woredas							
			Ebinate	Simada	Bugena	Gidan	Kobo	Mekedela	Legambo	Aregoba
0.4 - <0.5	1	1 woredas								
0.5 - <1.0	2	43 woredas	0.96	1.06	0.76	0.65	0.79	0.70	1.00	0.52
1.0 - <1.5	3	18 woredas								
>1.5	4	2 woredas								

#### (3) Primary and Secondary Temporary Crops Cultivated

Major crops cultivated in the 64 Woredas are cereals followed by pulse and oil seeds. The classification based on the combination of primary and secondary temporary crops cultivated is shown in the table below.

**Table 3.5.11 Classification of the 64 Woredas and the 8 Woredas by Dominant Crops**

No. of Woredas Grouped by Combination of Most & 2nd Dominant Crop	Map	Study Area (No.)	No. of Woredas Grouped by Combination of Most & 2nd Dominant Crop							
			Target Woredas							
			Ebinate	Simada	Bugena	Gidan	Kobo	Mekedela	Legambo	Aregoba
Teff - sorghum	1	11 woredas								
Barley - wheat	2	11 woredas	most	most	most	most	most	most	most	most
Sorghum - teff	3	10 woredas	teff	teff	teff	barley	sorghum	teff	barley	teff
Teff - wheat	4	9 woredas	2nd	2nd	2nd	2nd	2nd	2nd	2nd	2nd
Teff - barley	5	8 woredas	wheat	sorghum	barley	wheat	teff	barley	wheat	wheat
Other Combinations 1/	6	15 woredas								

1/: Barley - sorghum 4; wheat - teff 3; barley - teff/wheat - barley/sorghum - millet 2; sorghum - maize & teff - maize 1

(4) Extent of Temporary Crops Cultivation in Belg Season

The 64 Woredas could be differentiated into areas with a single cropping season of meher and two cropping seasons of meher and belg. The classification by the extent or proportion of the belg cropped area to the meher cropped area is shown in the following table.

**Table 3.5.12 Classification of the 64 Woredas and the 8 Woredas by Extent of Belg Crops**

Proportion of Belg Crop Cultivated Areas to Meher Crop Cultivated Areas (%)	Map Legend	Study Area (No.)	Proportion of Belg Crop Cultivated Areas to Meher Crop Cultivated Areas (%)							
			Target Woreda							
			Ebinate	Simada	Bugena	Gidan	Kobo	Mekedela	Legambo	Aregoba
> 30 %	1	30 woredas								
>20 - 30 %	2	27 woredas	2.1	4.3	0.0	32.9	7.7	7.5	72.0	12.8
>10 - 20 %	3	7 woredas								

(5) Holding Size of Livestock per Household

The livestock sub-sector is an essential economic activity in the 64 Woredas and the economic importance of the sub-sector is especially high in the high altitude areas and for limited land holding households. To examine the importance of the sub-sector in the 64 Woredas, holding size of livestock per farm household expressed in total livestock units were applied for classification as indicated below.

**Table 3.5.13 Classification of the 64 Woredas and the 8 Woredas by Livestock Holding Size**

Holding Size of Livestock Unit per Household (No.)	Map Legend	Study Area (No.)	Holding Size of Live Stock Units per Household (No.)							
			Target Woreda							
			Ebinate	Simada	Bugena	Gidan	Kobo	Mekedela	Legambo	Aregoba
2 - <3	1	4 woredas								
3 - <4	2	27 woredas								
4 - <5	3	27 woredas	3.6	3.4	3.5	3.1	3.8	3.7	3.3	3.4
>4	4	6 woredas								

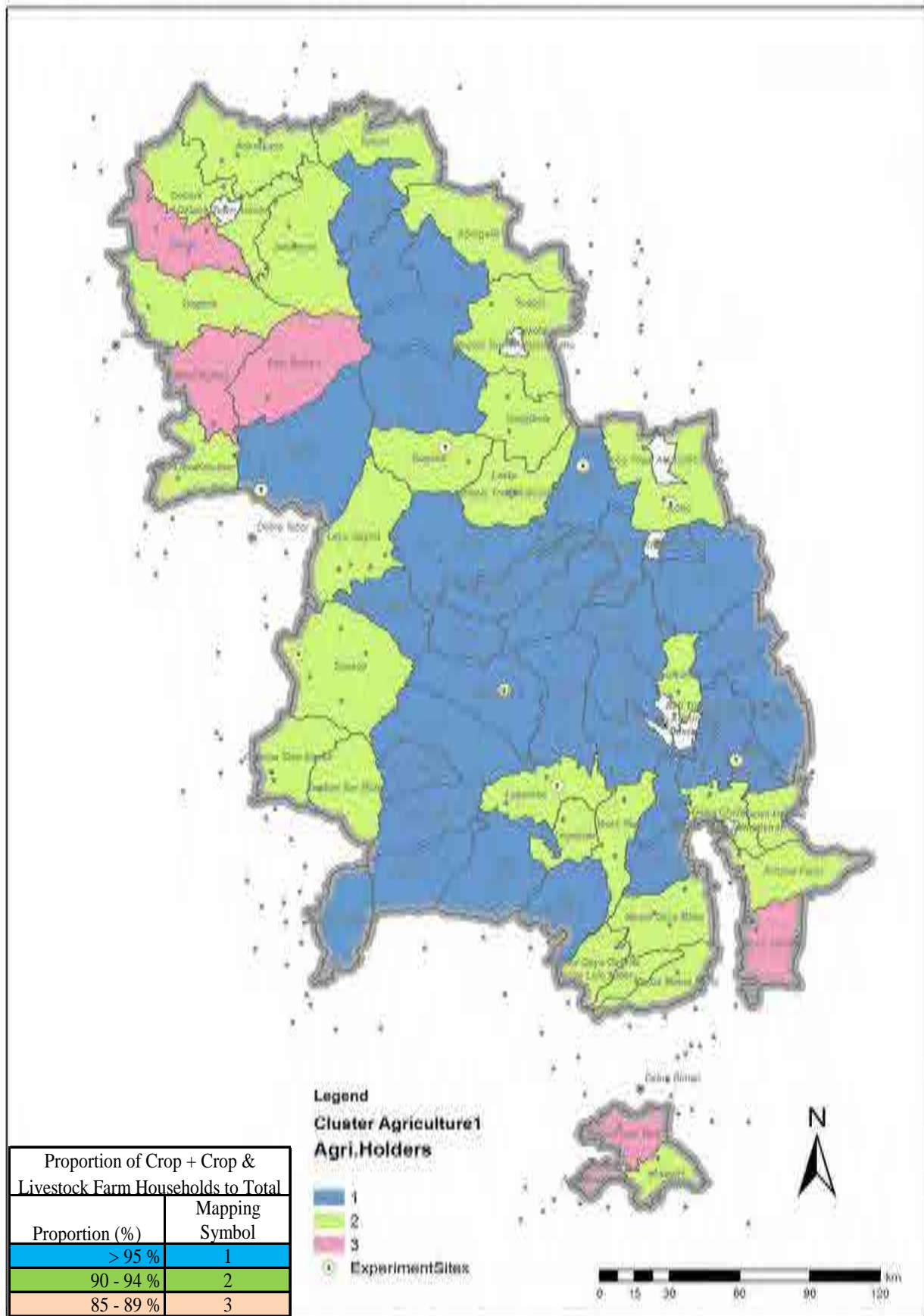
The results of the classifications are summarized in the following table.

**Table 3.5.14 Categorization of the 64 Woredas by Agricultural Features**

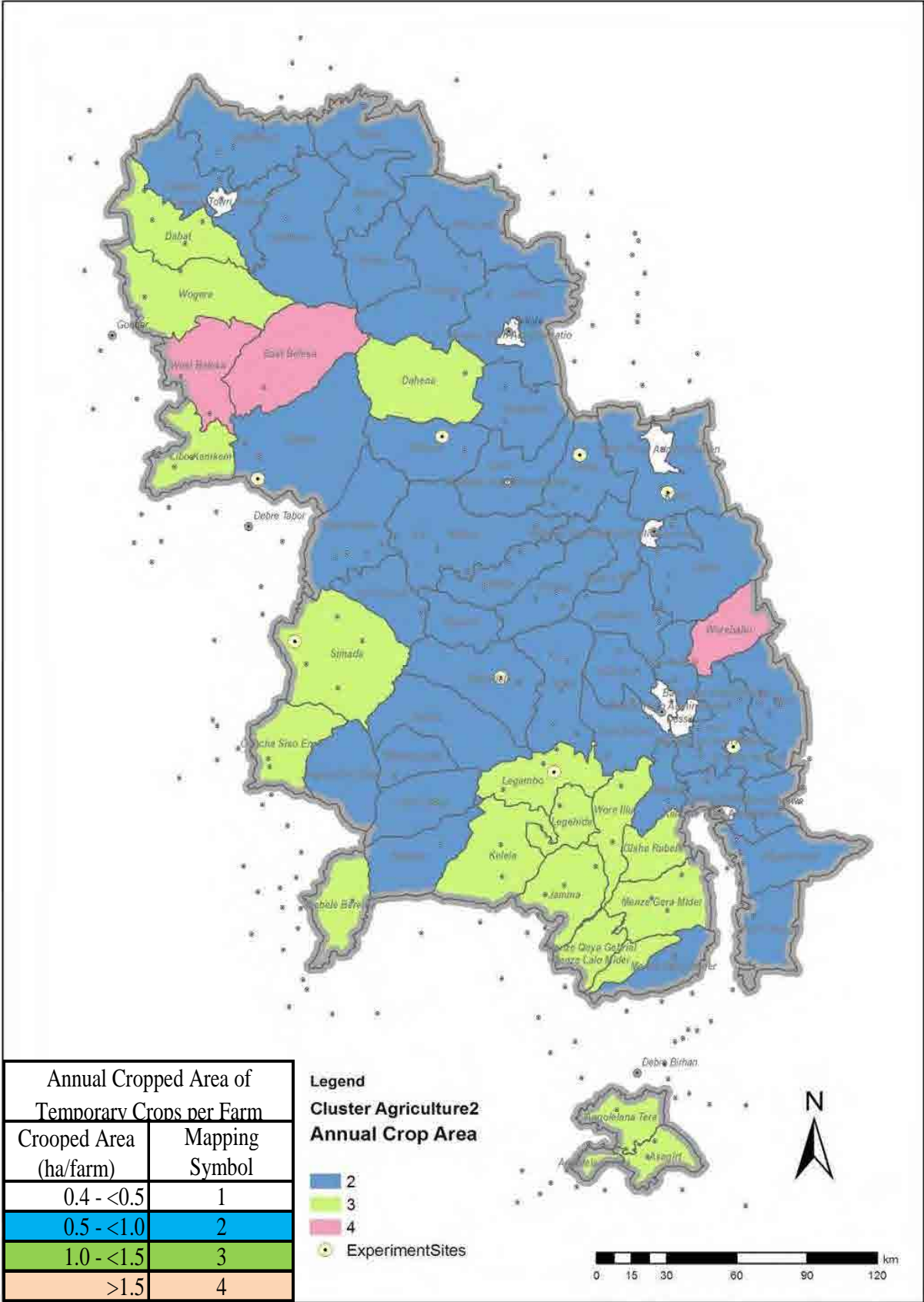
Woreda	Agro-Climate Zone	Agricultural Holders by Farming System Proportion of (Crop + Crop & Livestock)	Annual Temporary Crops Cropped Area per Household (ha)	Classification by Dominant Crop Combination 2nd Dominant	Proportion (%) of Belg Cropped Areas to Cropped Areas in Meher	Holding Size of Livestock per Farm Household
1 Enebe Sar Mider	WD	2	2	4	1	2
2 Goncha Siso Enese	WD	2	3	4	1	2
3 Shebele Berenta	WD	1	3	1	1	2
4 Adarekaye	UK	2	2	6	1	3
5 Beyeda	D	1	2	2	1	2
6 Dabat	WD	3	3	3	1	2
7 Debark	UK	2	2	2	1	3
8 East Belesa	WD	3	4	1	1	3
9 Janamora	WD	2	2	2	1	2
10 Telemt	WD	2	2	6	1	3
11 West Belesa	WD	3	4	1	1	3
12 Wogera	WD	2	3	6	1	2
13 Angolelana Tera	WD	3	3	2	3	4
14 Asagirt	D	2	3	6	4	3
15 Gíše Rabele	WD	1	3	2	2	3
16 Menze Gera Mider	D	2	3	2	4	3
17 Menze Lalo Mider	D	2	3	6	2	2
18 Menze Mama Mider	WD	2	2	6	1	2
19 Menze Oeya Gebriel	WD	2	3	2	4	3
20 Bugena	WD	2	2	5	1	2
21 Dawunt	WD	1	2	4	1	3
22 Delanta	D	1	2	4	1	3
23 Gidan	D	1	2	2	4	2
24 Guba Lafo	WD	1	2	1	4	2
25 Habru	UK	1	2	3	2	2
26 Kobo	WD	2	2	3	1	2
27 Lasta	WD	2	2	5	1	2
28 Mekete	WD	1	2	5	1	2
29 Wadela	D	1	2	6	3	2
30 Artuma Fursi	D	2	2	3	3	3
31 Baf	UK	1	2	2	1	4
32 Dewa Chefa	D	2	2	3	2	3
33 Dewa Harewa	D	2	2	3	2	3
34 Jilena Timuga	D	3	2	3	2	4
35 Ebinate	WD	1	2	4	1	2
36 Laye Gayint	WD	2	2	2	2	2
37 Libo Kemkem	WD	2	3	1	1	2
38 Simada	WD	2	3	1	1	2
39 Tach Gayint	WD	1	2	4	1	2
40 Alebuko	D	1	2	6	2	2
41 Ambassel	WD	1	2	6	3	2
42 Aregoba Special	UK	1	2	4	2	2
43 Debre Sina	WD	1	2	6	1	2
44 Dessie Zuria	D	1	2	5	4	2
45 Jamma	WD	1	3	4	1	3
46 Kalu	WD	1	2	2	2	2
47 Kelela	WD	1	3	4	1	3
48 Kuta Ber	WD	1	2	6	3	3
49 Legambo	D	2	3	2	4	2
50 Legehida	WD	2	3	6	3	3
51 Mehal Sayint	WD	1	2	5	1	3
52 Mekedela	WD	1	2	5	1	2
53 Sayint	WD	1	2	5	1	3
54 Tehulederie	WD	2	2	3	3	2
55 Tenta	D	1	2	6	3	2
56 Wogedi	WD	1	2	1	1	2
57 Wore Illu	D	2	3	6	3	3
58 Worebabu	UK	1	1	3	2	2
59 Abergelie	UK	2	2	1	1	3
60 Dahena	WD	1	3	5	1	4
61 Gazgibela	WD	2	2	1	1	4
62 Sehala	UK	1	2	1	1	4
63 Seqola	WD	2	2	1	1	3
64 Zequala	UK	1	2	3	1	4

Source: Ethiopian Agricultural Sample Enumeration, 2001/02, Results for Amhara Region, Farm Management Practices, Part II.A, CACC

Map Legend									
Proportion of Crop + Crop & Livestock Farm Households to Total		Annual Cropped Area of Temporary Crops per Farm Household (ha)		No. of Woredas Grouped by Combination of Most & 2nd Dominant Crop		Proportion (%) of Belg Cropped Areas to Cropped Area in Meher		Holding Size of Live Stock Units per Household (No.)	
Proportion (%)	Mapping Symbol	Cropped Area (ha/farm)	Mapping Symbol	Most-2nd Dominant	Mapping Symbol	Proportion (%)	Mapping Symbol	Holding	Mapping Symbol
> 95 %	1	0.4 - <0.5	1	Teff - sorghum	1	0 - <10 %	1	2 - <3	1
90 - 94 %	2	0.5 - <1.0	2	Barley - wheat	2	10 - <20 %	2	3 - <4	2
85 - 89 %	3	1.0 - <1.5	3	Sorghum - teff	3	20 - <30 %	3	4 - <5	3
		>1.5	4	Teff - wheat	4	>30 %	4	>4	4
				Teff - barley	5				
				Others	6				



**Figure 3.5.16 Classification of the 64 Woredas by Prevailing Farming System**



**Figure 3.5.17** Classification of the 64 Woredas by Cropped Area of Temporary Crops per Farm Household

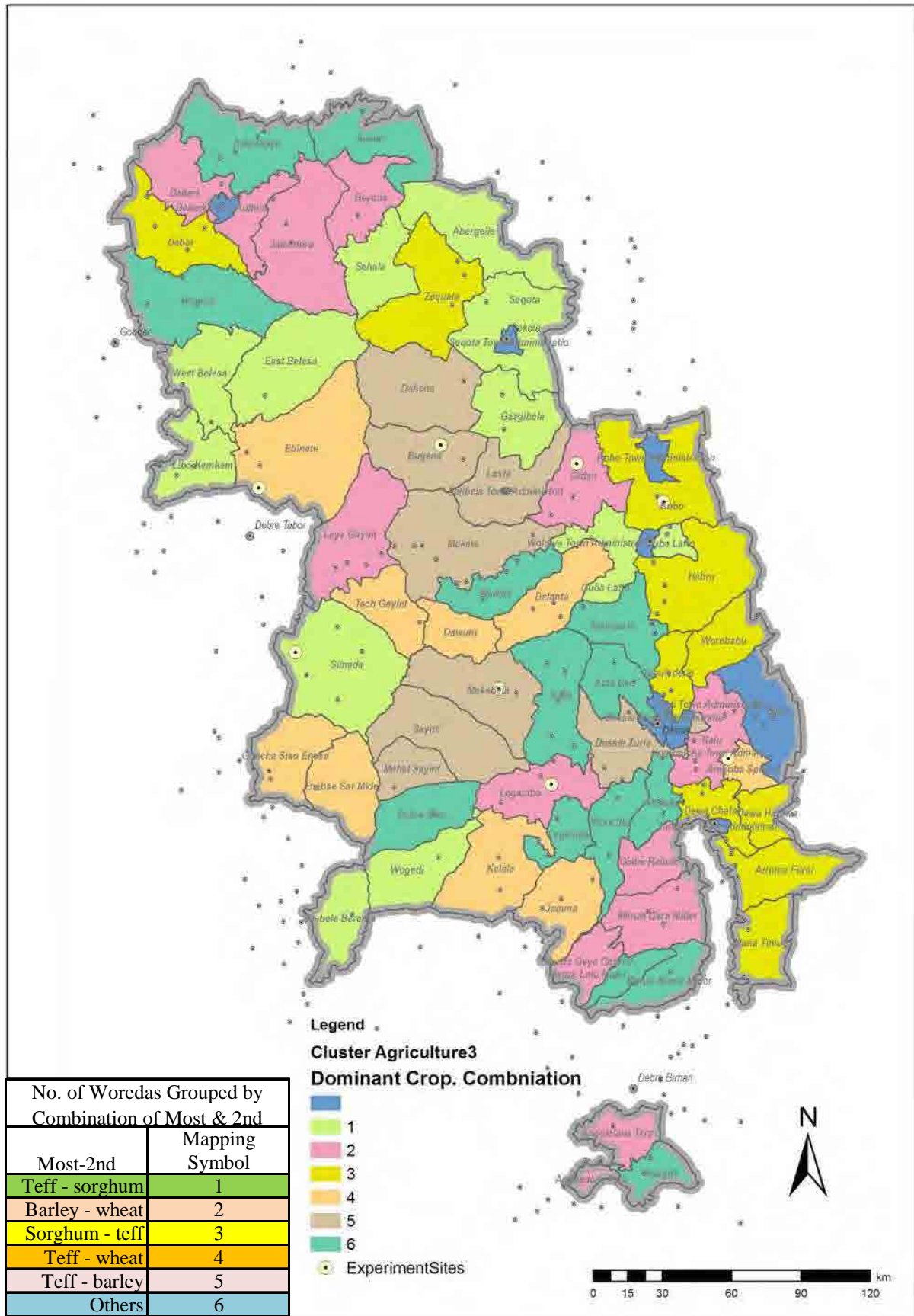


Figure 3.5.18 Classification of the 64 Woredas by Dominant Crop Combination

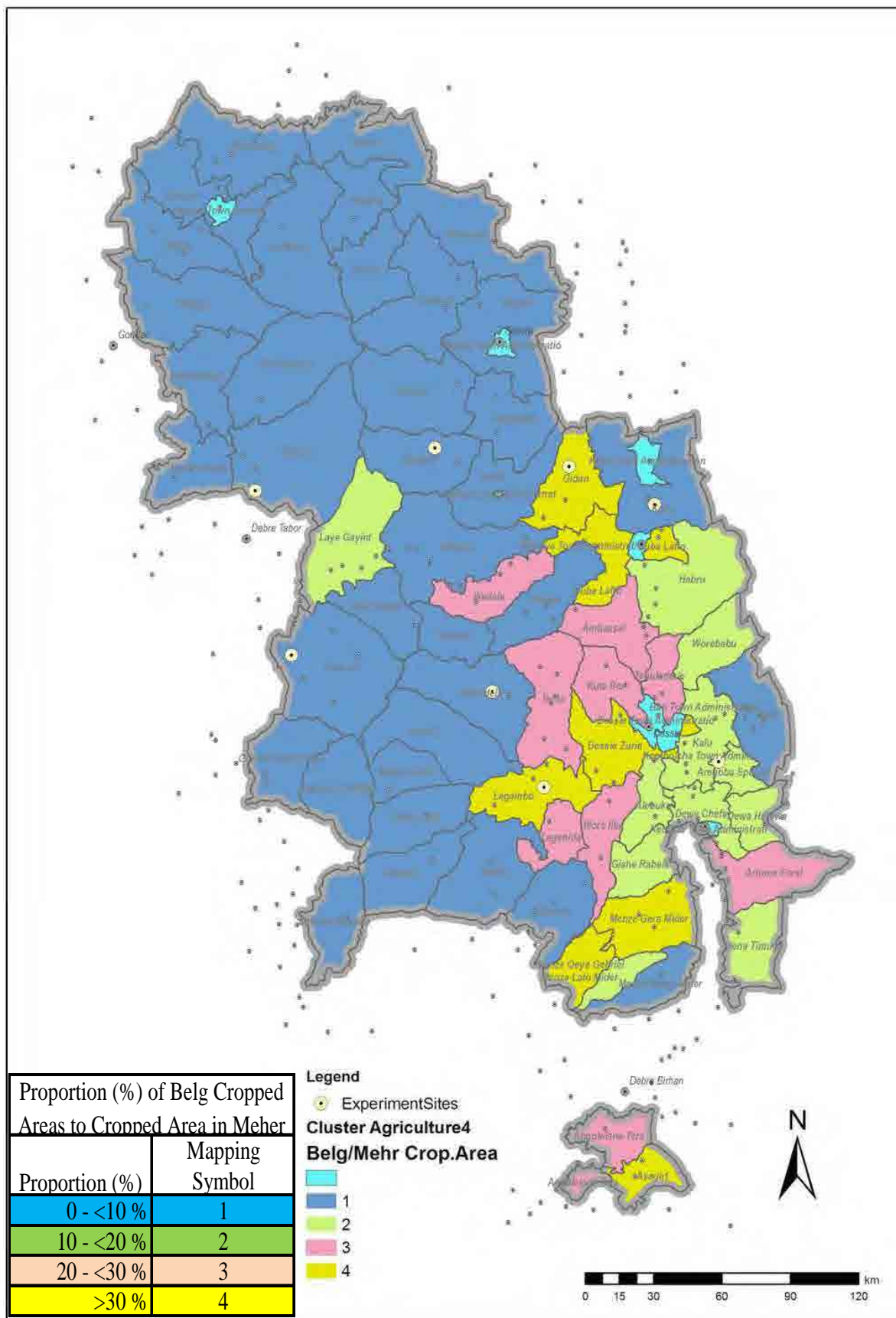


Figure 3.5.19 Classification of the 64 Woredas by Extent of Belg Crops

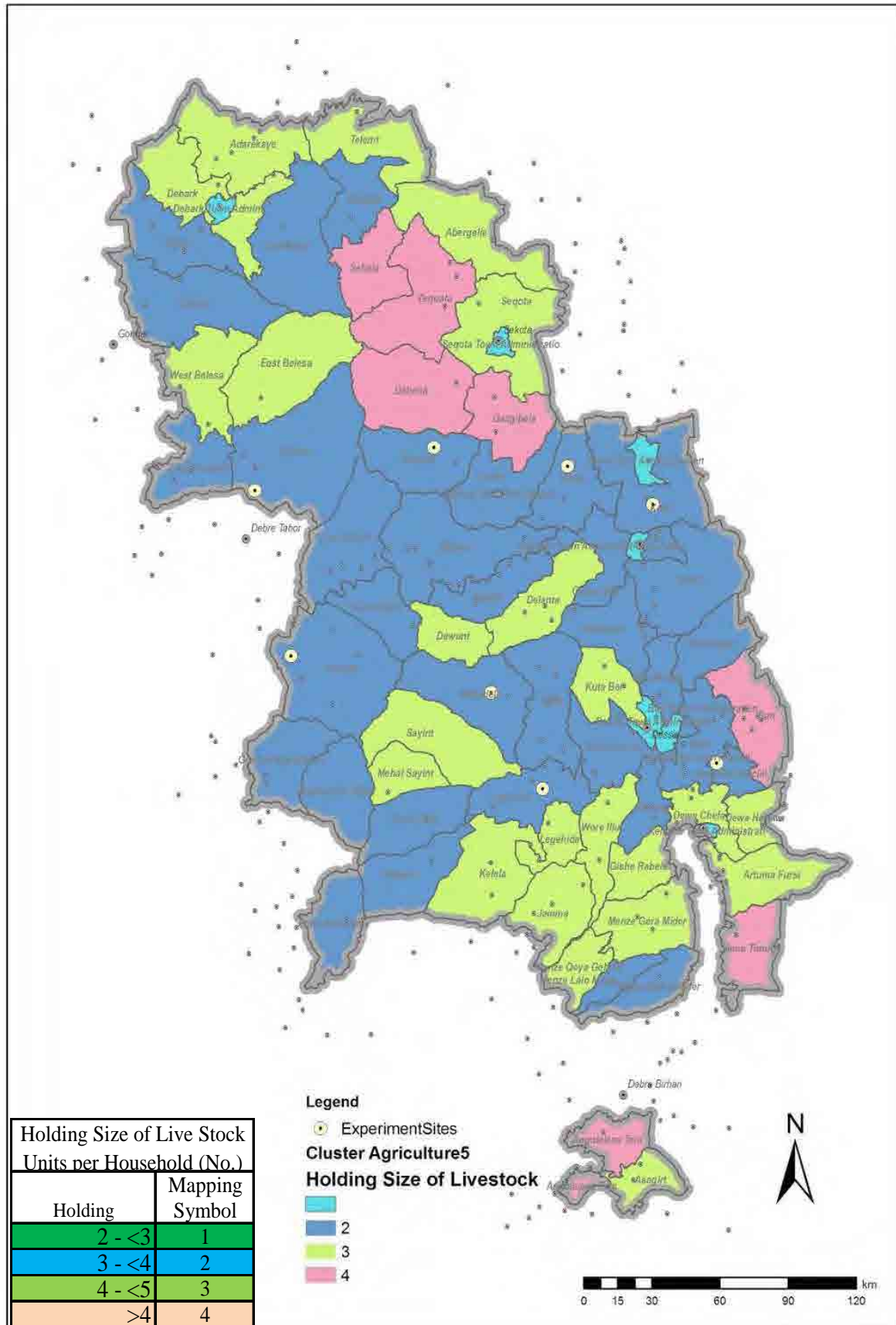


Figure 3.5.20 Classification of the 64 Woredas by Livestock Holding Size