

TIGRAY: ATLAS OF THE HUMANITARIAN SITUATION

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Authors: Sofie Annys¹, Tim Vanden Bempt², Emnet Negash^{1,3}, Lars De Sloover¹, Jan Nyssen¹

¹ Department of Geography, Ghent University, Belgium

² Concerned citizen (Leuven, Belgium) who follows the war in Tigray closely, documenting it on Twitter (@tvbempt)

³ Institute for Climate and Society, Mekelle University, Tigray, Ethiopia

Contact: tigraymaps@gmail.com

Link to configurable Web Application: <https://arcg.is/vmbWHO>

ABSTRACT

At the beginning of November 2020, an armed conflict emerged in Tigray, Ethiopia's northernmost region. The objective of this 'Atlas of the Humanitarian Situation' is to document and map the situation in which approximately 6 million Tigrayans currently find themselves. For this, we contacted key informants in different districts of Tigray to collect qualitative and quantitative evidence of the actual situation on the ground. We also confronted these data and testimonies with information disclosed by the Government of Ethiopia and by humanitarian organizations. The 19 maps in this atlas provide detailed information at the scale of districts (*woredas*) or sub-districts (*tabiyas*). Besides background information related to administrative divisions, social and natural resources - locations of internally displaced people, massacres and civilian casualties receive due attention. Humanitarian access and needs are particularly addressed; official data on humanitarian aid distribution are mapped, and contrasted to ground evidence related to such distributions. The final outlook, using a map of the onset of the growing season, forewarns that a continuation of the Tigray war may lead to another failed harvest in the next season.

Keywords: Civilian casualties; Internally Displaced People; Humanitarian needs; Humanitarian access; Humanitarian assistance; Ethiopia

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FUNDING & COPYRIGHT

The authors did not receive any financial support to carry out this research. This atlas (text, illustrations and maps) is free from copyright and can be reused without restriction, subject only to the obligation to acknowledge the source.

DISCLAIMER

All maps were compiled according to the best of our knowledge and do by no means reflect a political opinion. For questions or suggestions related to the work presented here, please contact tigraymaps@gmail.com.

LIST OF ACRONYMS

ADF	“Amhara Defence Force” – it does not formally exist but we refer to it as a combination of combatants belong to the Amhara Regional Forces, Amhara militias and armed Fanno militants
BoFED	Bureau of Finance and Economic Development
CSA	Central Statistics Agency of Ethiopia
EDF	Eritrean Defence Force
ENDF	Ethiopian National Defence Force
EPRDF	Ethiopian People’s Revolutionary Democratic Front
GIS	Geographic Information System
GoE	Government of Ethiopia
IDP	Internally Displaced People
JEOP	USAID Food for Peace supported Joint Emergency Operation
MoP	Ministry of Peace
OCHA	UN Office for the Coordination of Humanitarian Aid
PP	Prosperity Party, the political party of Ethiopia’s Prime Minister Abiy Ahmed
REST	Relief Society of Tigray
TDA	Tigray Development Association
TDF	Tigray Defence Force
TPLF	Tigray People’s Liberation Front

LIST OF MAPS

- Map 1 National and international context at the start of the Tigray War.
- Map 2 Reported conflict incidents in the first four months of the Tigray War, including battles, ambushes, air strikes, drone attacks and shelling.
- Map 3 Administrative boundaries at woreda (district) level, as implemented in January 2020.
- Map 4 Topographic Roughness Index, indicating contrasts in elevation.
- Map 5 Topography (absolute elevation above sea level).
- Map 6 Average annual precipitation derived from TAMSAT satellite rainfall estimates.
- Map 7 Average length of the moisture-limited growing period.
- Map 8 Population density at woreda level, as calculated from population projections.
- Map 9 Land use/cover classification, as generalized from the ESA land cover classification.
- Map 10 Approximate territorial control on 17 February 2021.
- Map 11 Heatmap of the fully documented civilian casualties in the Tigray War on 21 February 2021.
- Map 12 Heatmap of civilian casualties in the Tigray War up to 6 March 2021, as well as occurrence of massacres.
- Map 13 Restricted humanitarian access due to the ongoing conflict.
- Map 14 Number of people in need of humanitarian assistance.
- Map 15 Sites with Internally Displaced People (IDPs) in Tigray. Numerous townspeople who have fled to rural areas could not be mapped.
- Map 16 Aid provided to the woredas, according to the Ministry of Peace on 13 February 2021.
- Map 17 Aid provided to the woredas, according to the Interim Government of Tigray on 12 February 2021.
- Map 18 Contrasting information on aid provided to the woredas.
- Map 19 Average start of the moisture-limited growing period

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	Methodology	4
2.1.	Interviews	4
2.2.	Secondary data	6
2.3.	Mapping	6
3.	Background information.....	7
3.1.	Administrative division	7
3.2.	Topography and constraints of topographic roughness.....	10
3.3.	Precipitation	13
3.4.	Average length of growing period	15
3.5.	Population density.....	17
3.6.	Land cover and natural vegetation density	19
4.	Information on the war and civilian victims	21
4.1.	Territorial control as around mid-February 2021	21
4.2.	War crimes and fully documented civilian victims	23
4.3.	Massacres and documented civilian casualties	26
5.	Humanitarian needs and access	28
5.1.	Humanitarian access on 20 February 2021, according to UN OCHA	28
5.2.	Humanitarian needs on 28 February 2021, according to UN OCHA	30
5.3.	Internally Displaced People and refugees	32
5.4.	Humanitarian aid provision	34
5.4.1.	According to UN OCHA	34
5.4.2.	According to the Ethiopian Ministry of Peace on 13 February	35
5.4.3.	According to the Interim Government of Tigray.....	37
5.5.	Ground evidence related to humanitarian aid distribution	40
5.5.1.	Context	40
5.5.2.	Functioning of aid distribution	40
5.5.3.	Witness from within a local NGO.....	41
5.5.4.	Testimonies from people on the side of receiving aid.....	41
6.	Discussion.....	43
6.1.	Official statements vs possible reality of humanitarian assistance coverage	43
6.2.	Food aid as a weapon in the Tigray war	43
6.3.	Outlook: the Tigray war may lead to another failed harvest in the next season	44
7.	References.....	46
7.1.	Maps.....	46
7.2.	Other references	47

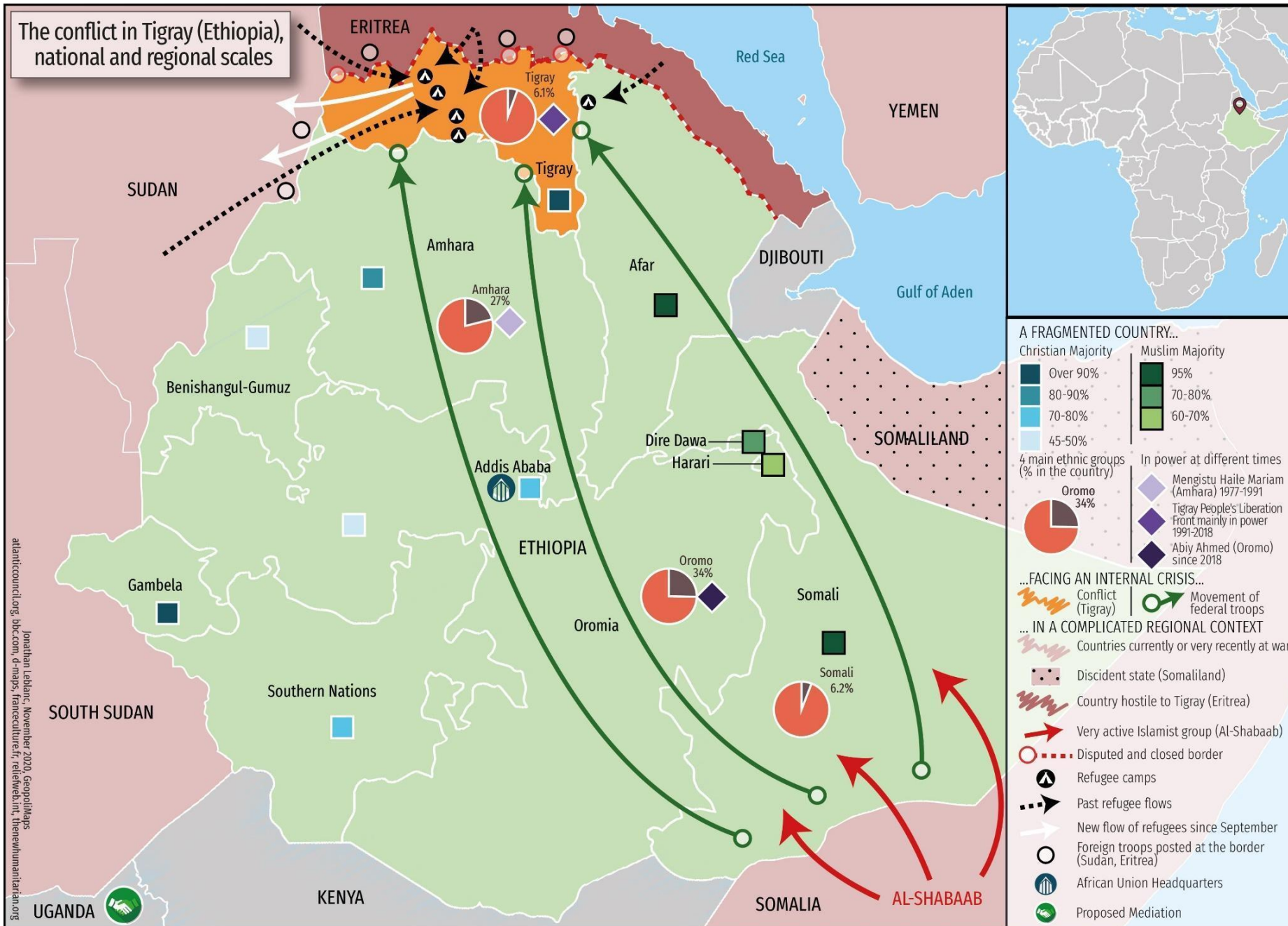
1. INTRODUCTION

At the beginning of November 2020, an armed conflict emerged in Tigray, Ethiopia's northernmost region, which borders Eritrea in the north and Sudan in the west. In this conflict, the Ethiopian National Defence Force (ENDF) and its allies – formal and informal military factions of the Amhara region (further called ADF for “Amhara Defence Force”), the Eritrean Defence Force (EDF) and a minority of Somali soldiers – oppose the troops of the ousted Tigray Regional Government, led by the Tigray People's Liberation Front (TPLF)¹. The TPLF is the political party formerly leading the Ethiopian People's Revolutionary Democratic Front (EPRDF). The Government of Ethiopia (GoE), led by PM Abiy Ahmed, has for months denied the presence of Eritrean soldiers in the Tigray Region; on 3 March, the government issued an ambiguous statement to the effect that Ethiopia ‘did not invite’ Eritrean troops (Map 1).

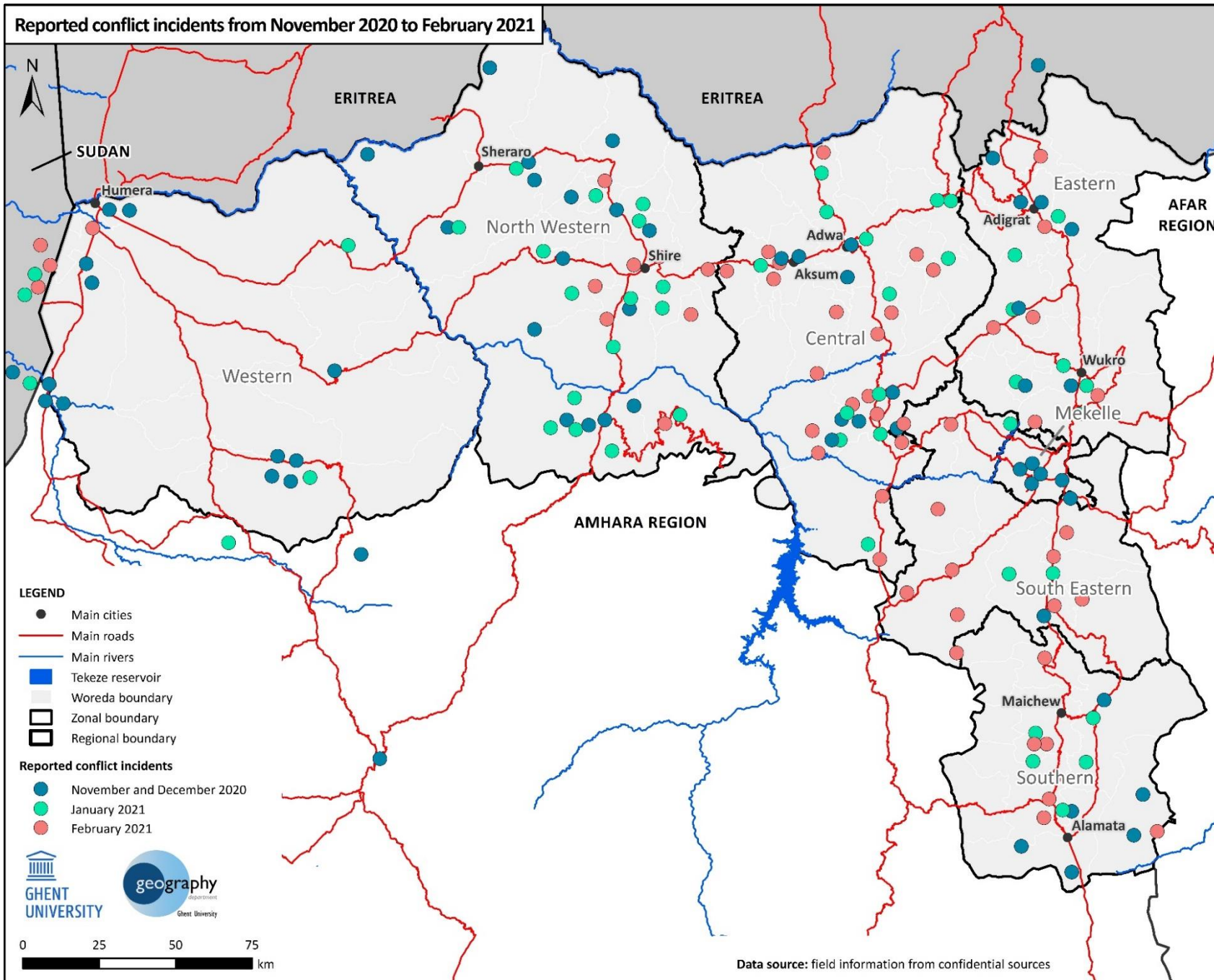
In an official communiqué on 29th November, the Government of Ethiopia stated that the military operation in Tigray was completed, and Prime Minister Abiy Ahmed appointed an “Interim Government of Tigray”. However, four months into the conflict, the armed conflict is still ongoing on a large scale (Map 2), many people are internally displaced and the number of reports on severe atrocities against unarmed civilians is growing rapidly. These reports systematically document massacres, (often extreme) sexual violence, destruction of civilian infrastructure and mass looting. As communication lines are not yet fully restored (the internet is still shut down in the entire region and telephone lines are only working in Mekelle and a few towns), well-founded fears exist that the recent reports only uncover the tip of the iceberg.

The war emerged in the aftermath of a destructive locust plague, and in the context of the ongoing COVID-19 pandemic, and food insecurity was already high before the conflict. As a result of the conflict, many Tigrayans have become in dire need of humanitarian aid (food as well as medical supplies and health care services). In spite of the official line of the GoE, ‘formal’ humanitarian aid so far has not reached many of the people who need it most, due to restricted accessibility because of safety reasons. This is recognised by several government officials at the grassroots level, and was reiterated by senior humanitarian aid workers recently.

Considering this information, the objective of this ‘Atlas on the Humanitarian Situation’ is to document and map as much information as possible on the situation in which approximately 6 million Tigrayans find themselves four months after the war erupted. For this, we contacted key informants in different woredas (districts) of Tigray and collected qualitative as well as quantitative evidence of the actual situation on the ground. Then, we confronted these testimonies with information disclosed by the GoE and by humanitarian organizations. As communication lines are still blocked, we document pieces of a bigger puzzle, yet to be fully reconstructed. By providing spatially explicit information, we also hope to transfer useful information to humanitarian and development actors.



Map 1
National and international context at the start of the Tigray War.
Data source: GeopoliticalMaps (2020)



Map 2
Reported conflict incidents in the first four months of the Tigray War, including battles, ambushes, air strikes, drone attacks and shelling.

Data source:
Field information from confidential sources (this may therefore not be fully comprehensive)

Data source: field information from confidential sources

2. Methodology

2.1. Interviews

To collect qualitative and quantitative evidence on the actual situation on the ground, we conducted numerous interviews with people from different woredas in Ethiopia. This was possible given our long-term involvement in Tigray as researchers, through family links, as previous staff of the Bureau of Agriculture, as lecturers... Over time, a large network of friends and colleagues has been established.

In the context of these interviews, it should be noted that communication lines in Tigray were blocked on 4 November 2020, at the start of the conflict. In the month of November, there has been a continuous black-out for telephone lines as well as for internet connections. At that time, we started sending out email messages broadly to all our friends in Tigray, hoping that such “messages in a bottle” would be picked up by some (e.g. through satellite telephones) and could be distributed somehow. This also was the time at which PM Abiy Ahmed promised to conquer the town of Mekelle and the Tigray Region “at any cost” - which was later reworded in terms of conducting a “final offensive”².

From the end of November onwards, we managed to have some rare contacts through people finding telephone signals on mountain tops near the borders of Tigray. Since December, telephone communication has slowly become possible with Mekelle and a few other major towns in Tigray (with intermittences). Still today, 9 March 2021, many of our interviews can only take place when people come to Mekelle or other major towns to take news from their relatives, or for cash withdrawals from the bank, which is only possible in Mekelle.

Since the gradual re-emergence of telephone connections in Tigray (the internet is still blocked), we managed to get into contact with our network again and started to conduct interviews. This atlas is largely founded on those telephone calls, for which we estimate to have included over 2000 telephone interviews.

These telephone interviews^{3,4} can be grouped in the following categories:

- Data collection
- > 300 semi-structured interviews⁵
- > 100 in-depth interviews⁶
- > 100 generalist interviews⁷ with office holders at regional, national and international levels.

For the semi-structured and in-depth interviews, we only have corresponded with people who we knew before the war started and whom we trusted both in professional and personal life. All interviewees accepted only to give information on the condition of strict anonymity.

At the start of our interviews in early January, people were afraid to speak, and used very indirect terminology. Nowadays, most people talk openly on the situation and the numerous killings. One of the main reasons for this evolution is that there are now hundreds of thousands of telephone calls narrating the plight to relatives. This makes that our correspondents assume that when they transmit information, it will not be singled out by security services. Another important reason is that the accumulation of negative war impacts has made people to abandon their traditional precautions when communicating plight – which traditionally cannot be done over the phone.

Yet, still, much has not been narrated and is interiorized. Co-author Emnet, who is native from Adigrat had not been informed about a number of destructions in the town, until he discovered the most recent Google Earth



image (Fig. 2.1). This satellite-based evidence subsequently helped to get new information from friends and family members.



Fig. 2.1. Google Earth view of Adigrat before (left) and after occupation by Eritrean troops (right). Shadows indicate that both satellite images were realised approximately at the same time of the day, around 11 AM.

On the December 19 image we observe many compounds with damaged structures, evidence of fire, bright “spackle” around buildings indicating looting, absence of vehicles along the streets. Though we telephoned with many people in Adigrat, none of them mentioned the damage that can be observed on this imagery.

The point here is that our interviews have allowed a sampling of the humanitarian crisis, but that large parts of the full picture still have to emerge.

has been confirmed (for the worse) once media have had access to some parts of Tigray. And yet, by early March these accessible parts were still small, with most media operating from Mekelle⁹ and reporting on Eastern and Central Tigray.

Important to note also is that the magnitude of the humanitarian crisis that we contribute to unearthing through our interviews and situation reports⁸

2.2. Secondary data

In addition to the numerous interviews, different secondary data sources have been consulted for this atlas. These data sources mainly include the nearly weekly updated situation reports from UN OCHA (Office for the Coordination of Humanitarian Aid)¹⁰, official communications by the GoE,

2.3. Mapping

Thematic maps were prepared based on various data sources, ranging from interviews with key informants to reports by humanitarian organizations, official communications from governmental institutions, news articles, and online data sources such as MapEthiopia¹¹ or the Humanitarian Data Exchange¹².

The thematic maps are organised by categories:

- Background information
- Information on the humanitarian situation
- Information on the war and civilian victims

Interim Government (also often referred to as the 'Transitional Government') or governmental institutions such as the Ethiopian Ministry of Peace (MoP).

All maps initially were prepared in ArcMap 10.4 as 'static maps', presented in this document. The GIS data layers used to prepare these maps have also been imported into a simple but configurable ArcGIS Online Web Application. This allows users to interact with the data layers, to zoom, to share and export maps according to user preferences. In order to avoid misinterpretation and miscommunication, the online maps always have to be consulted together with the explanatory notes and metadata provided in this document.

Link to the Web Application: <https://arcg.is/vmbWHO>.

3. Background information

3.1. Administrative division

Tigray has been first mapped in chart, a rough map dated from the 15th C. CE¹³⁻¹⁵ (not represented here). In that chart, district names as Shire, Tembien, Enderta, Seraye, or Agame are placed in a circle around the capital Aksum. That town was the capital of a kingdom that lasted for about the first millennium CE in what are now the highlands of Tigray and Eritrea, and remained up to now a major centre of the Orthodox Church.



Fig. 3.1. Tigray and its neighbours as mapped by French cartographer Rigobert Bonne¹⁶ in 1771.

While Tigray was well established by the end of the 18th C. (Fig. 3.1), a treaty between Abyssinian emperor Menelik and the Italian colonisers

divided it in two parts, that subsist until today: Eritrea to the north and Tigray as part of the Ethiopian Empire in the south.

The Abyssinian emperors Menelik and Haileselassie later divided the country into provinces, replacing territories that were formerly semi-autonomously governed¹⁷. As colonial powers did elsewhere, Haileselassie cut into these existing territories and used this territorial reorganisation as a way to reward his allies. The new provinces were constructed along the strength of local powers (zones of influence of major towns), regardless of ethnic composition, as documented also on maps dating back to imperial times. For instance, the Shoa province comprised Amhara, Oromo and Afar population. The then Tigray comprised the major part of the Danakil depression, inhabited by Afar people.

This administrative division lasted for less than a century, until 1991 when the EPRDF came to power. At that time, a federalist structure was introduced, with the stated intention of avoiding the collapse of the Ethiopian state by recognising the right to self-determination of the 'nations, nationalities and peoples' of Ethiopia. National Regional States (hereafter called Regions) were established to reflect this, although even the most ethnically homogeneous Regions had at least ethnic minorities. Tigray became the home of the largely dominant Tigray people as well as Irob, Kunama and Raya Oromo on the margins. Hence, the Tigrinya-speaking parts of the Gondar and Wollo provinces, results of the emperors' partitioning, were regrouped with Tigray, just like the Afar-speaking areas of Tigray and Wollo formed the Afar region.

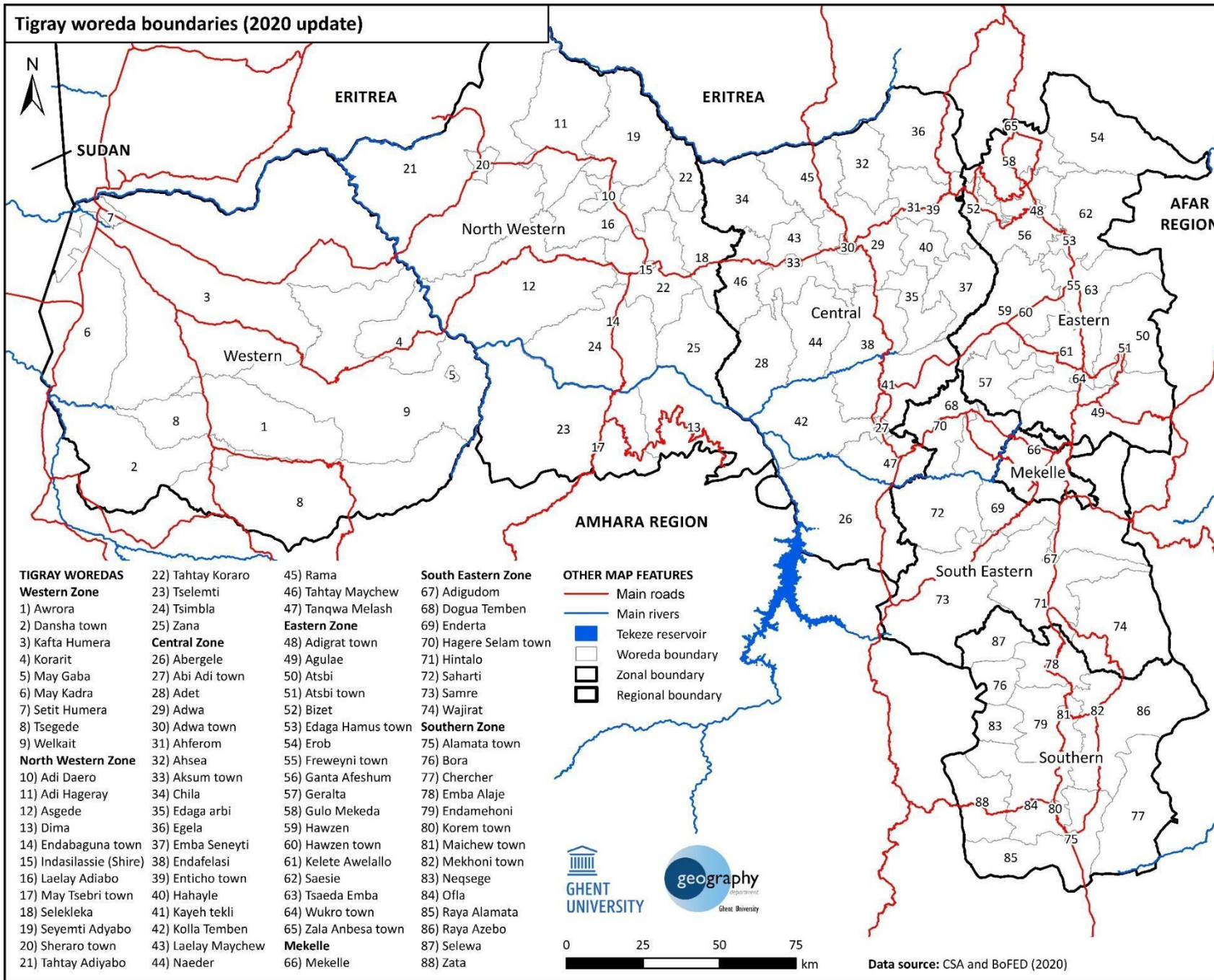
In the early 1990s an administrative division of Tigray was established, comprising about 60 woredas. Soon it became clear that there were insufficient resources to fully equip 60 woreda towns with all services deemed to be hosted by such administrative centres: branches of main ministries, bank, urban services, etc.

In the late 1990s, Tigray's woredas were regrouped into 35 larger woredas. These have been operational for about 20 years. The detail of these pre-2020 woredas is quite well rendered on Wikipedia¹⁸.

Between 2018 and 2020, as part of a reform aimed to deepen and strengthen decentralisation, woredas were reorganised. As smaller towns

had been growing, they were now providing a range of services (markets, even banks), so that people were travelling to the closest such towns for these services, but continued to have to travel to the formal woreda centre, often in a different direction, for most government administrative services.

A huge consultation, involving numerous village meetings, was organised in this period, and we witnessed heated debates, particularly in the more remote areas. Based on these consultations, Tigray was re-organised into 88 woredas in January 2020, basically along the lines of the 1991 woredas to which 21 independent urban administrations were added (Map 3).



Map 3
Administrative boundaries at woreda (district) level, as implemented in January 2020.

Data source:
CSA & BoFED (2020)

3.2. Topography and constraints of topographic roughness

The Tigray highlands have been uplifted by some 2500 metres in ca. 25 million years, since the Miocene¹⁹. This has led to the creation of a steep escarpment on the eastern side of the region, towards the Rift Valley. As the edge of the Rift Valley is not one single fault, but a bundle of faults, so that locally level terrain is found along the escarpment, the so-called grabens²⁰.

The plateau itself, generally drops towards the west. Yet, as uplift has been rapid (in geological terms), deep valleys and gorges have incised (Fig. 3.2), the most notable of which are occupied by Tekeze, Weri'i and Giba rivers¹⁹, with spectacular roads winding across them²¹.



Fig. 3.2 Tselemti topography (No. 23), with incision of a “young” gorge

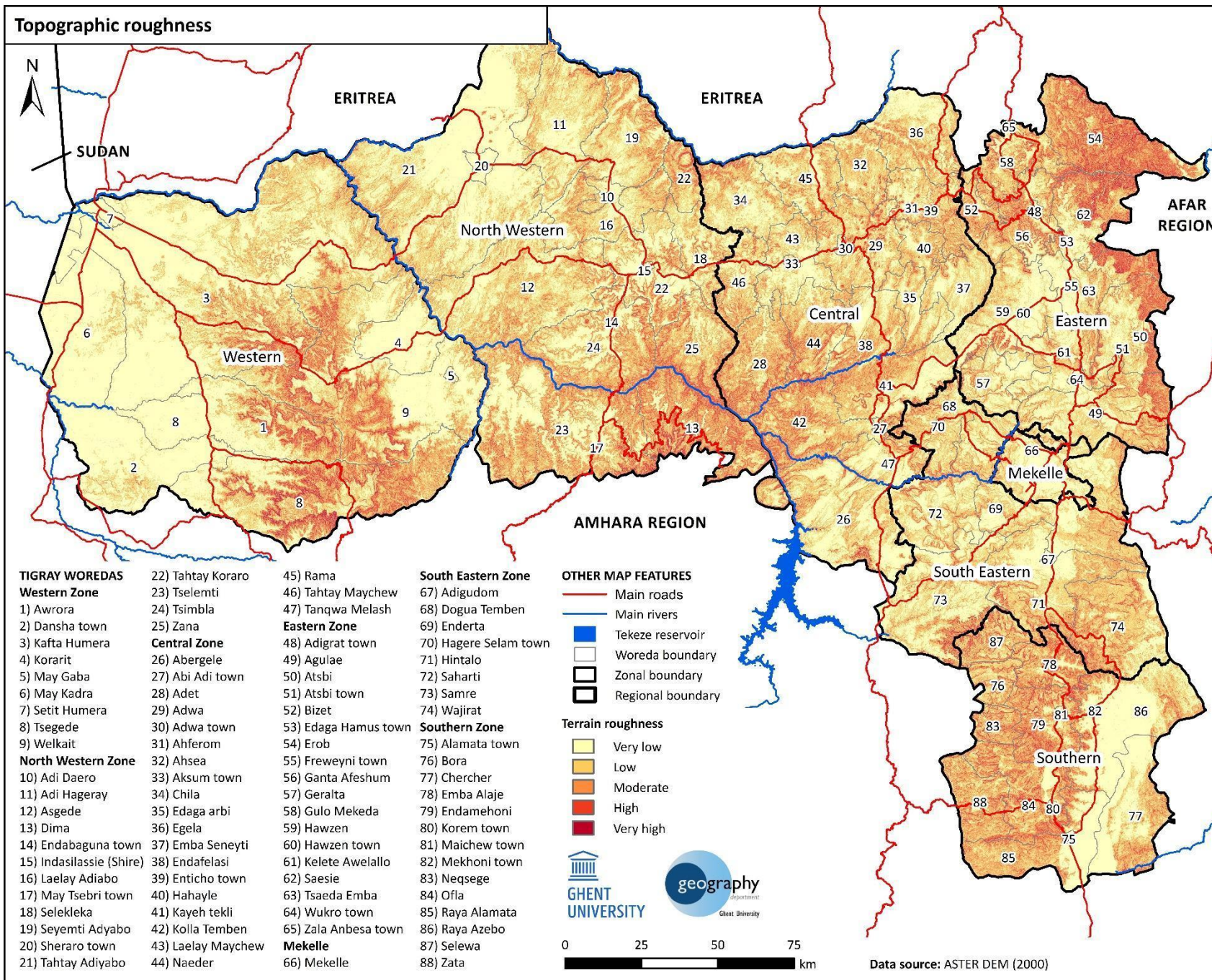


Fig. 3.3 Footpath to overcome the steep cliffs between Abiy Addi (No. 27) and Dogu'a Tembien (No. 68)

The geological formations of Tigray²² consist of alternating hard and soft subhorizontal layers, which contribute to the formation of a stepped morphology structure^{23,24}.

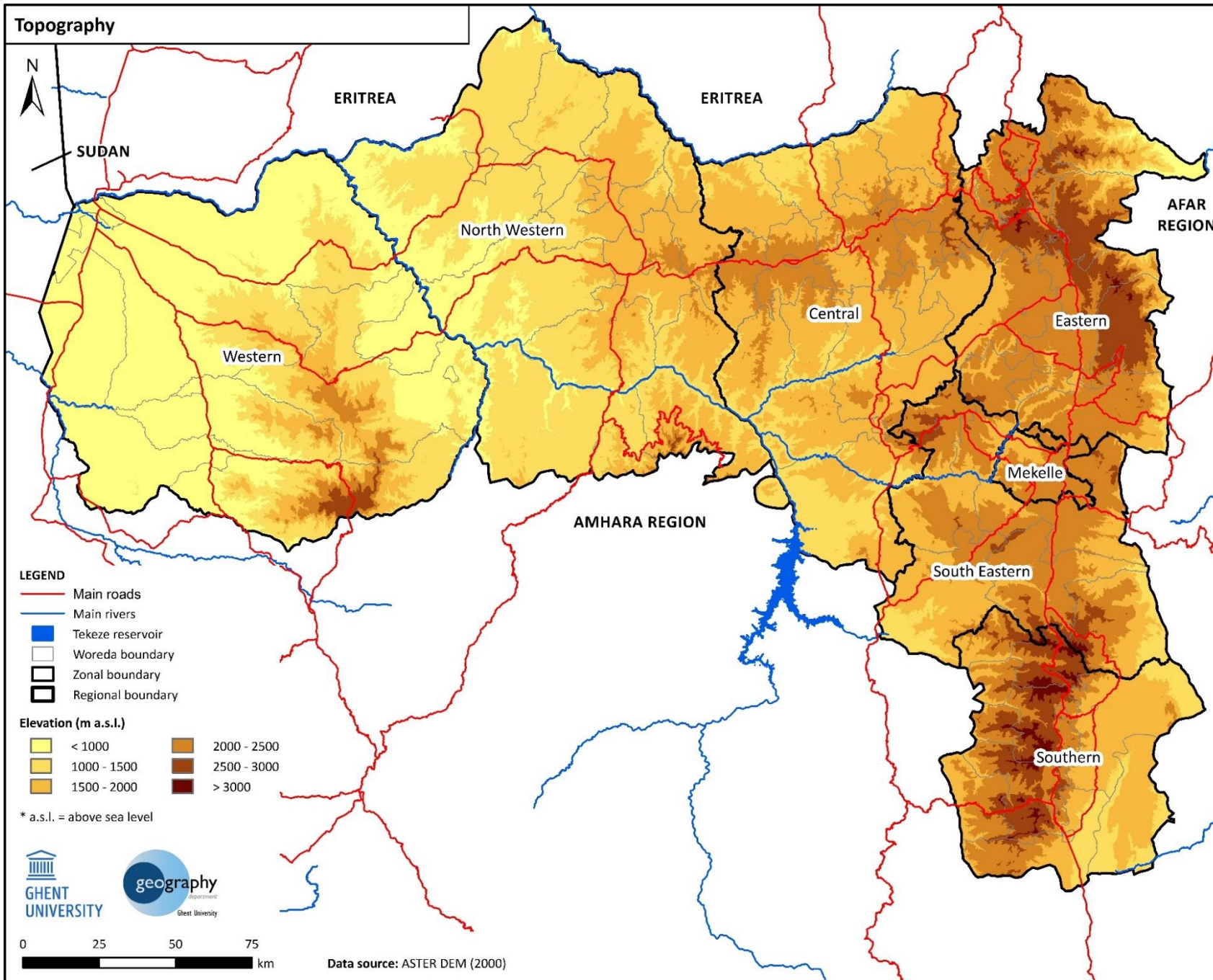
The Mesozoic sedimentary layers²⁵ are subhorizontal and present alternating hard (Fig. 3.3) and soft layers. The basalt flows^{26,27} that are on top of it, are also subhorizontal and interbedded with soft silicified lake deposits. Furthermore, intervening sills of Mekelle dolerite also form hard, subhorizontal layers²⁸. The relief thus consists of an alternation of flats and escarpments, reflecting the unequal resistance of the rocks subjected to weathering²⁹. Occurrence of ancient planation surfaces further contributed to the creation of a stepped landscape³⁰. The edges of the scarps are nearly horizontal, underlining the tabular structure.

This results in generally rugged landscapes, that are overall difficult of access. In historical times, most displacements were on foot, leading to the establishment of a dense network of long-distance trails^{15,31}. During the Italian control of the region, the first modern roads were established³²; this network that remained the basic road infrastructure until the mid 1990s, when a start was made to establish a modern network of mostly asphalted roads, that clearly avoids the areas with high relief. In addition, since around 2005, huge community efforts were done to establish rural roads, aiming at reaching all tabiyas³³. These rural access roads however easily suffer from gully erosion³⁴, and need maintenance for securing access. In the rural tabiyas, the main means of communication is still on foot, with help of donkeys for carrying loads³⁵.



Map 4
Topographic Roughness Index, indicating contrasts in elevation.

Data source:
ASTER DEM (2000)



Map 5
Topography (absolute elevation above sea level).

Data source:
Aster DEM (2000)

3.3. Precipitation

Overall, annual rainfall in Tigray shows a clear south-north gradient, with decreased annual rainfall as one moves away from the equator.³⁶

Topographical factors, especially elevation and general orientation of the valley and slope gradient over longer distances, determine the spatial distribution of annual rain, which varies between 400 and 1800 mm per year. Precipitation is highest nearby cliffs and other eminent slopes, perpendicular to the main valleys which are preferred flow paths for the air masses (Fig. 3.4). Due to the occurrence of large drop sizes rains can be very intense (Fig. 3.5).³⁷



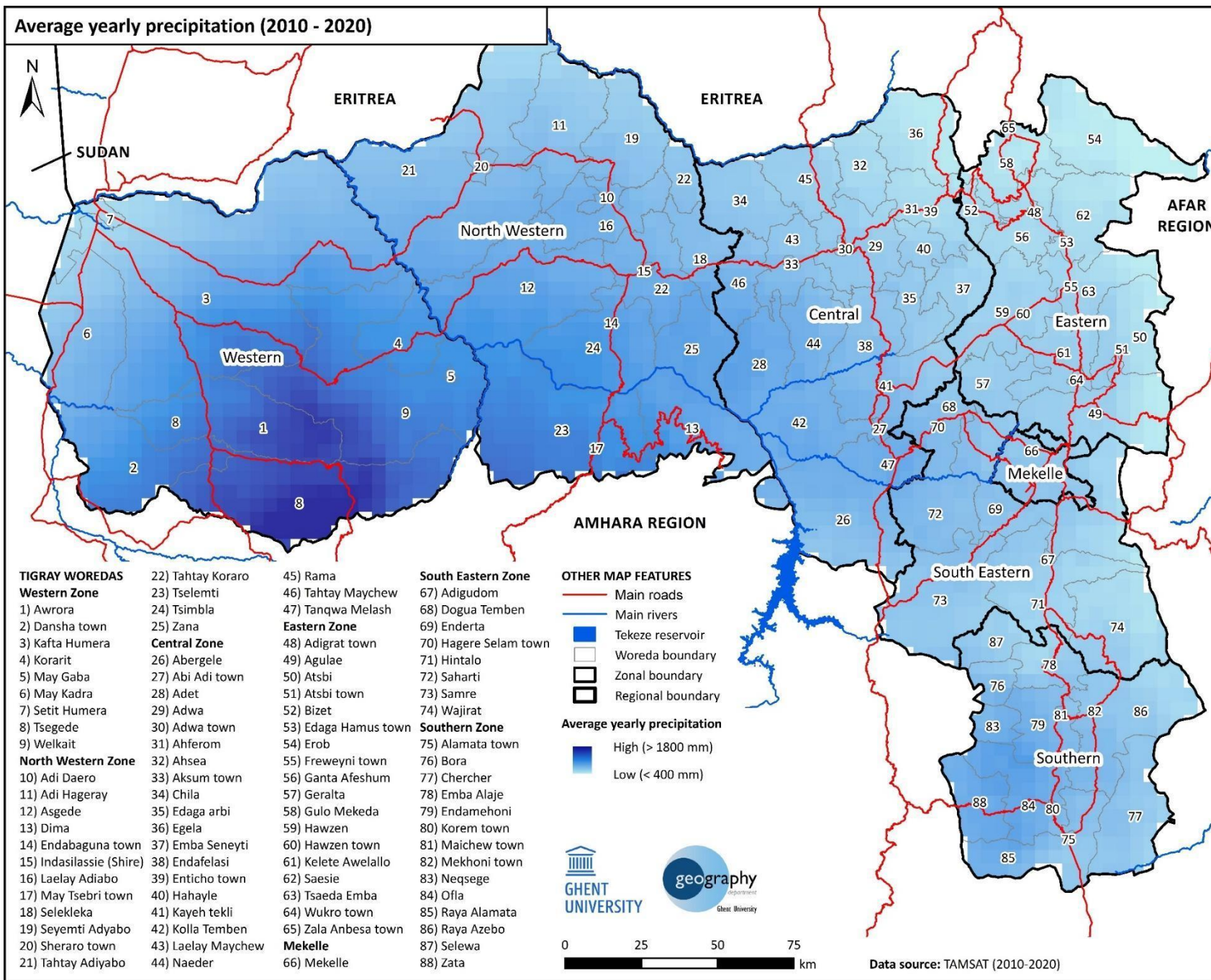
Fig. 3.4 Heavy rains over the Giba valley, west of Mekelle, as seen from far...

Locally, there can be strong contrasts in annual rainfall, in relation to intervening mountain ranges that create rain shadows.³⁸



Fig. 3.5 ...and from nearby.

The very high rainfalls in the southern part of Western Tigray are remarkable and would be in the first place attributed to orographic rains related to the Simien mountains. We are not aware of any study detailing this particularly humid area with rains up to 1800 mm per year.



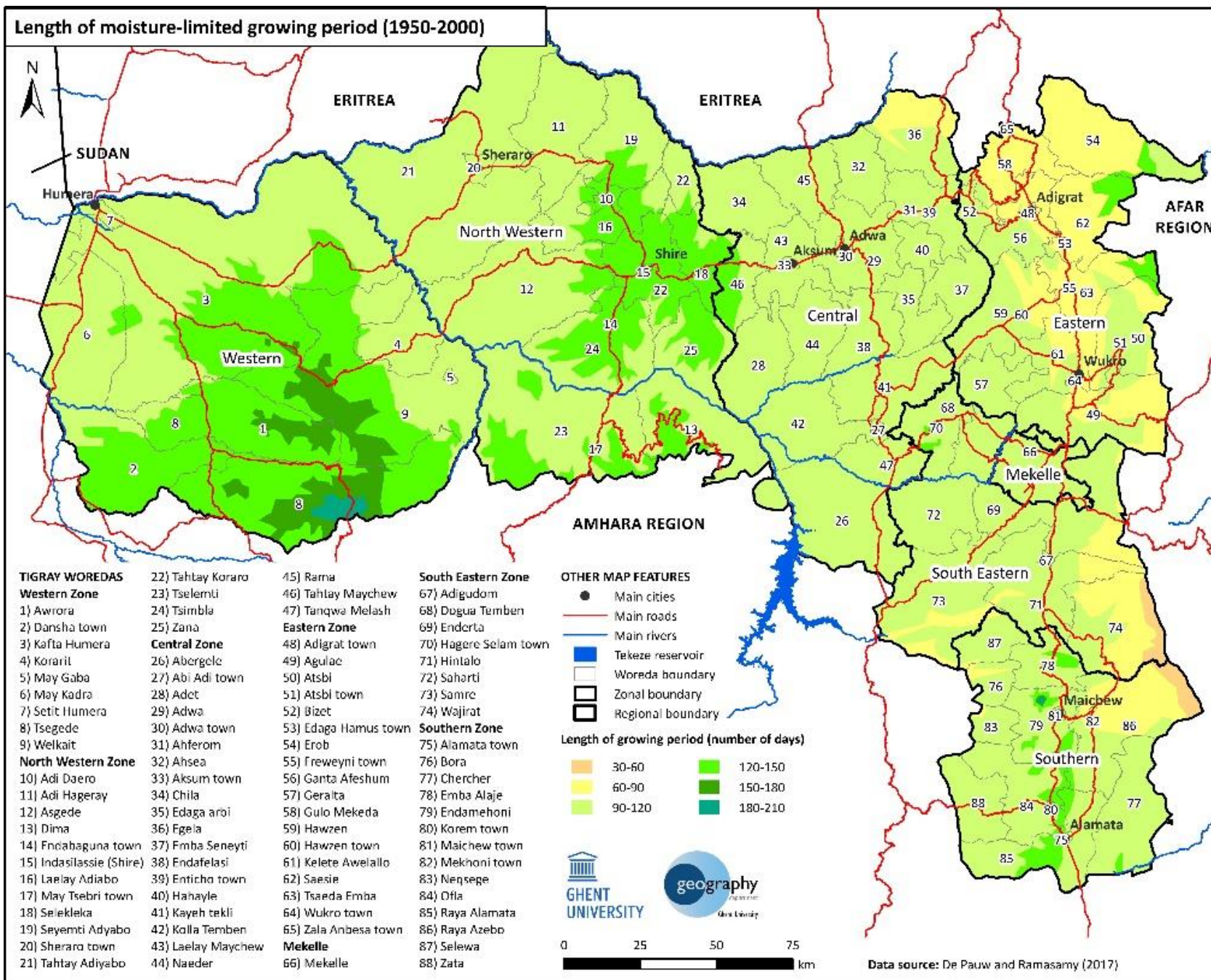
Map 6
Average annual precipitation derived from TAMSAT satellite rainfall estimates

Data source:
TAMSAT (2010-2020)

3.4. Average length of growing period

The growing period is the period of the year in which annual crops and other herbaceous plants grow successfully^{39,40}. The length of the growth period is mainly determined by moisture availability, but also type of crop and absence of temperature limitations. Some crops are early maturing and some are not. The vast majority of Tigray has a growing period of 90 – 120 days (Map 7), stretched over the months of June to September⁴¹. In northwestern and western Tigray, the growing period is longer, and maize

and sorghum are frequently cultivated. Some areas in the northeast of Tigray and along the eastern Rift Valley escarpment have a growing period of less than 90 days, which is less than the minimum required number of days for most crops to grow. The overall short length of the growing period leads to a great chance of crop failure with the smallest variation in moisture availability, which is among the reasons Tigray is often at risk of crop failure⁴².



Map 7
Average length of the moisture-limited growing period.

Data source:
De Pauw & Ramasamy (2017)

3.5. Population density

Tigray's population density strongly follows the "classic" distribution in the country, as presented already by Mesfin Woldemariam in 1972⁴³. High population densities are found in the highlands, in relation to several factors including more suitable climate (moister and less evaporation), lower incidence of diseases, and often fertile soils on volcanic materials.

Rains can be intense everywhere, but in the highlands people typically have settled in places where intense rains are better seasonally distributed^{44,45}. Typically, where rains are more seasonal (i.e. where rainfall intensity is more concentrated) the population density is lower. This is the case, for instance, for Abergelle (No. 26 on the map); the rainfall distribution here is highly seasonal, and rains fall annually in two dozen of very intense events³⁷.

High population densities in urban areas are expected, as well as the relatively high densities in the Raya graben (around 1400 m a.s.l.; woredas No. 77, 85 and 86), where irrigation agriculture has been strongly developed over the last decades^{46,47}. The expansion of irrigation along the lower Tekeze river⁴⁸ did not lead to higher population densities that would be visible at the scale of woredas.

The low population density of Inderta (a large woreda surrounding Mekelle on all four directions, No. 69 on the map) is counter-intuitive. However, this is partly an artefact due to the fact that Indirta also includes areas on the Rift Valley escarpment, with low population density (most of Indirta's eastern sector). Another potential reason is the dry limestone environment, a characteristic of Indirta; the 2020 woreda borders have remarkably been adjusted to the limestone area.

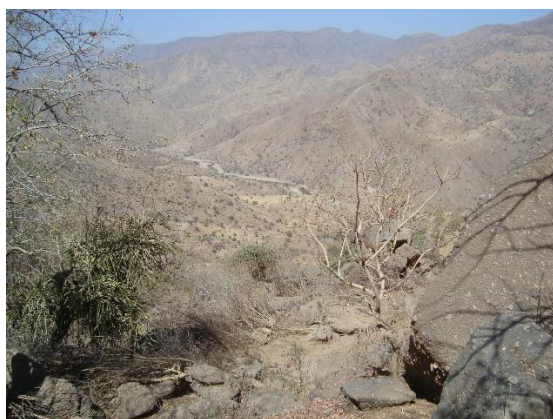
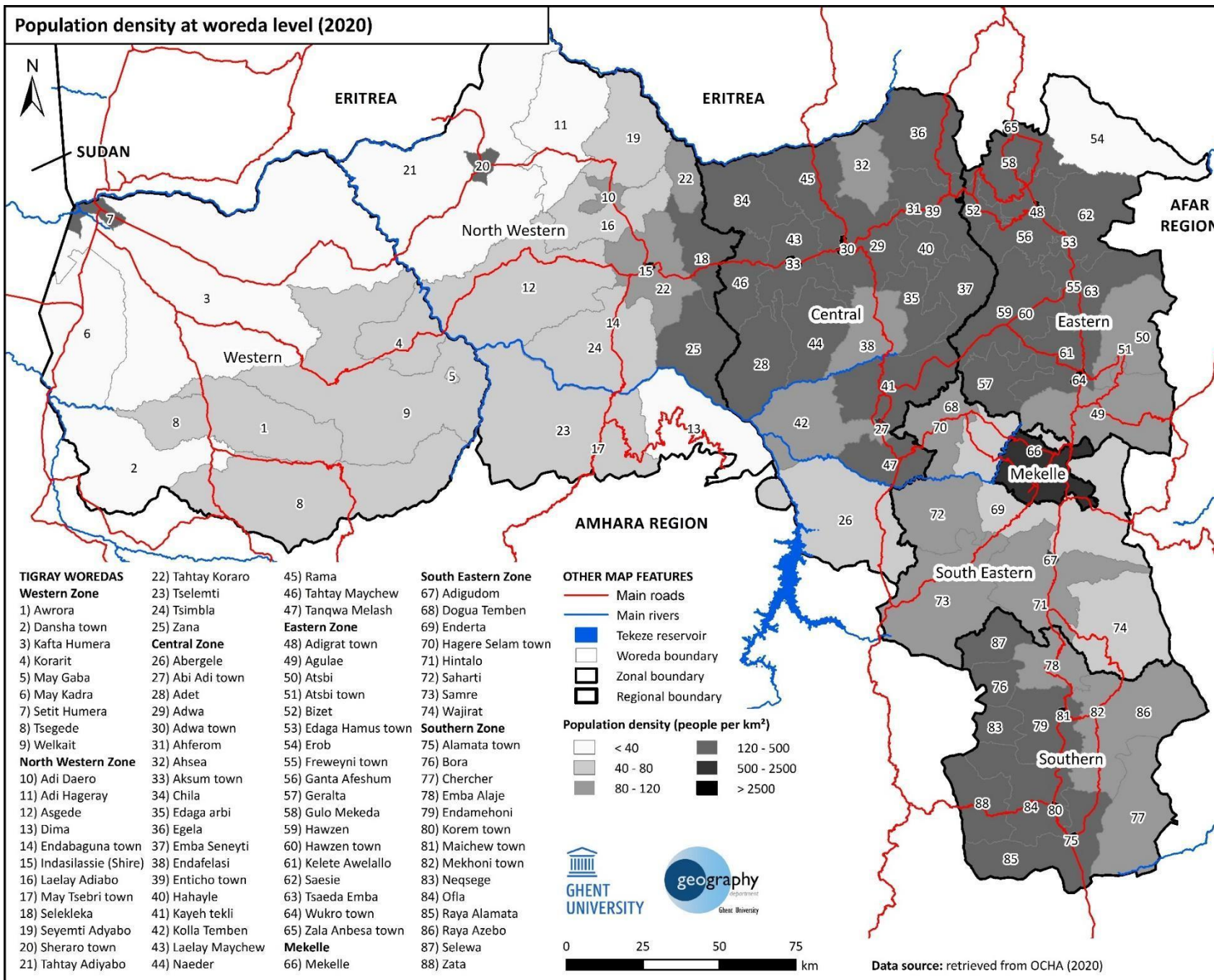


Fig. 3.6 Areas with contrasting population densities: from very low population densities in the lowlands, to medium densities in the highlands and very high population densities in urban centres.



Map 8
Population density at woreda level, as calculated from population projections.

Data source:
OCHA (2020)

3.6. Land cover and natural vegetation density

The larger part of Tigray is constituted of rugged highland terrain occupied by a dominant land cover of cropland, followed by vegetated areas (bush-, shrub-, grassland and forests)⁴⁹.

Most inhabitants depend on agriculture for their subsistence, despite the difficult conditions for cultivating. Crop growth varies mainly according to altitude and soil type. The main crops grown in the dogu'a highlands are *Hordeum vulgare* L. (barley), *Triticum sativum* L. (wheat), *Eragrostis tef* L.(tef) and pulses, while *Zea mays* L. (maize), and *Sorghum bicolor* L (sorghum) are widely grown in the kolla lowlands. In the transition zones, it is also common to see the lowland and highland crops growing next to each other⁵⁰.

Tigray has dominantly an age-old⁵¹ grain-based oxen plough cropping system, which is practiced by a large number of farmers throughout the region.⁵² Livestock play a key role for land preparation, agricultural input and output transportation, and providing farmyard manure for maintaining the soil fertility mainly in the homesteads. And obviously they can be sold when there is need for cash⁵³. Shortage of grazing land has led to a livestock feed crisis. Many areas are extensively cultivated, even on steep slopes and valley sides, going beyond agronomic limits. However, the situation has improved nowadays when compared to 1970s, when crop farming extension had resulted in high land degradation as few soil and water conservation measures were taken⁵⁴.

Open woodland of small shrub and tree species has regenerated during the past decades in exclosures⁵⁵, and semi-natural forest vegetation remains largely restricted to small, isolated patches holding different afro-montane

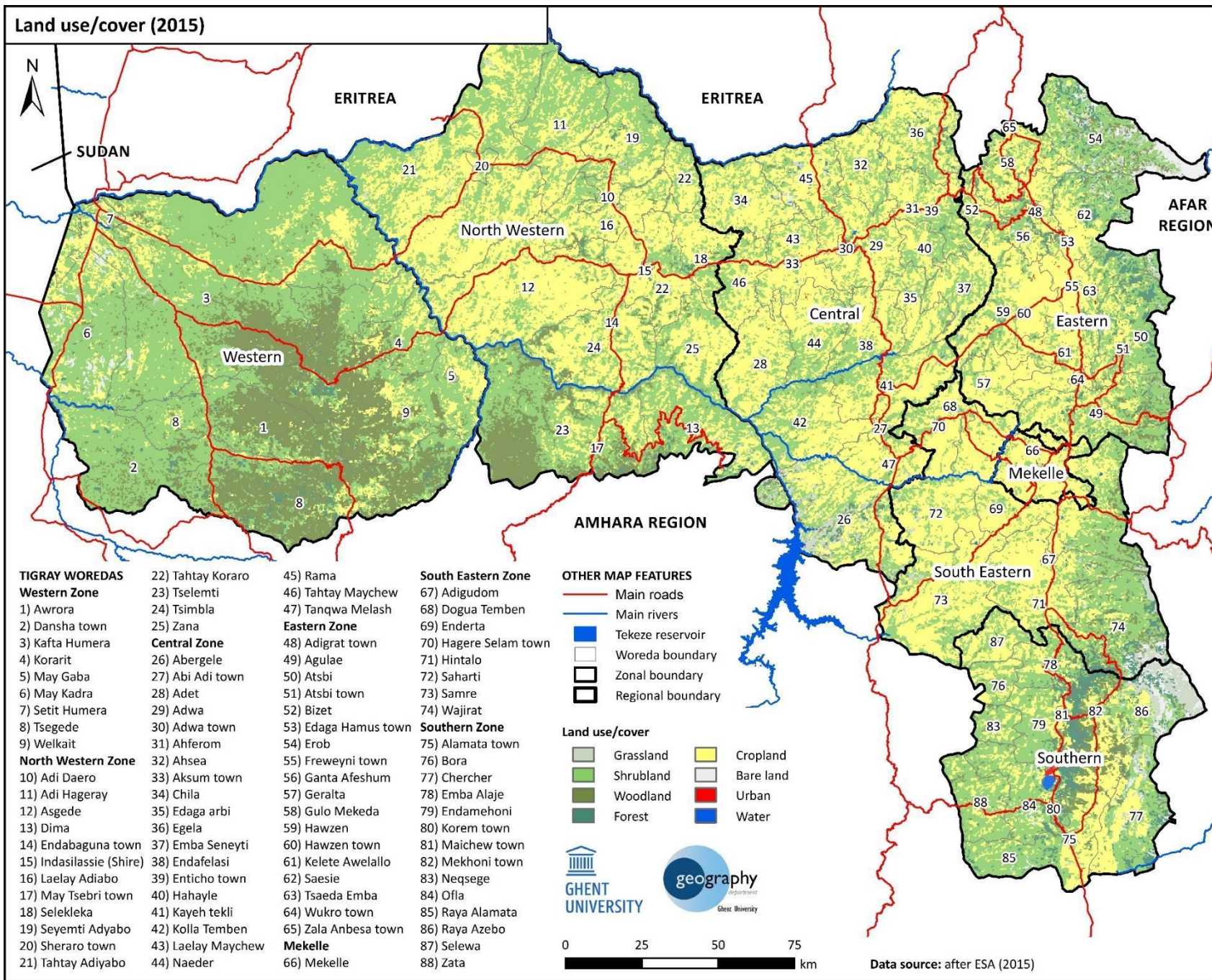
forest types⁵⁶. Afroalpine vegetation occurs on the highest peaks in the Tsibet and Mugulat massifs⁵⁷ (Nos. 56 and 78 on the map).

Unlike the openfields of the Tigray plateau, woody vegetation still is a dominant feature along the eastern escarpment towards the Rift Valley, probably due to the marginal character and less favourable crop farming conditions⁵⁸. Along the escarpment, a clear environmental gradient with respect to humidity and temperature exists. Due to humans using the land, however, the vegetation shifted from true moist coniferous montane (climax) forests to semi-natural dry montane forests dominated by *Juniperus procera* and *Olea europea spp. africana* above 2200 metres such as in the Hugumburda (No. 50) and Des'a forests⁵⁹⁻⁶¹ (No. 80).

Western Tigray is less populated and still comprises large woodland savannah and forested areas. On the level but dissected Quaternary alluvial fan of the Tekeze River¹⁹, large-scale commercial farming of sesame has been developed over the last decades⁶², crossing over into the Amhara Region and Sudan as well, and prompting large-scale seasonal labour migration as well as some spontaneous resettlement.

Especially since the 1990s, hard work has been undertaken to conserve soil and water throughout the Tigray region. This is testimony of the resilience of the Tigray people and land, and it visibly boosted groundwater availability, hence also vegetation, and agriculture⁶³.

Irrigation agriculture is practised at local scale in many places, such as in the Raya graben⁶⁴, along the Tekeze river⁴⁸, downstream from numerous small reservoirs⁶⁵, and at any place where natural springs are present⁶⁶ – the discharge of which has often improved over the years as a result of the soil and water conservation activities⁶⁷.



Map 9
Land use/cover classification, as generalized from the ESA land cover classification.

Data source:
ESA (2015)

4. Information on the war and civilian victims

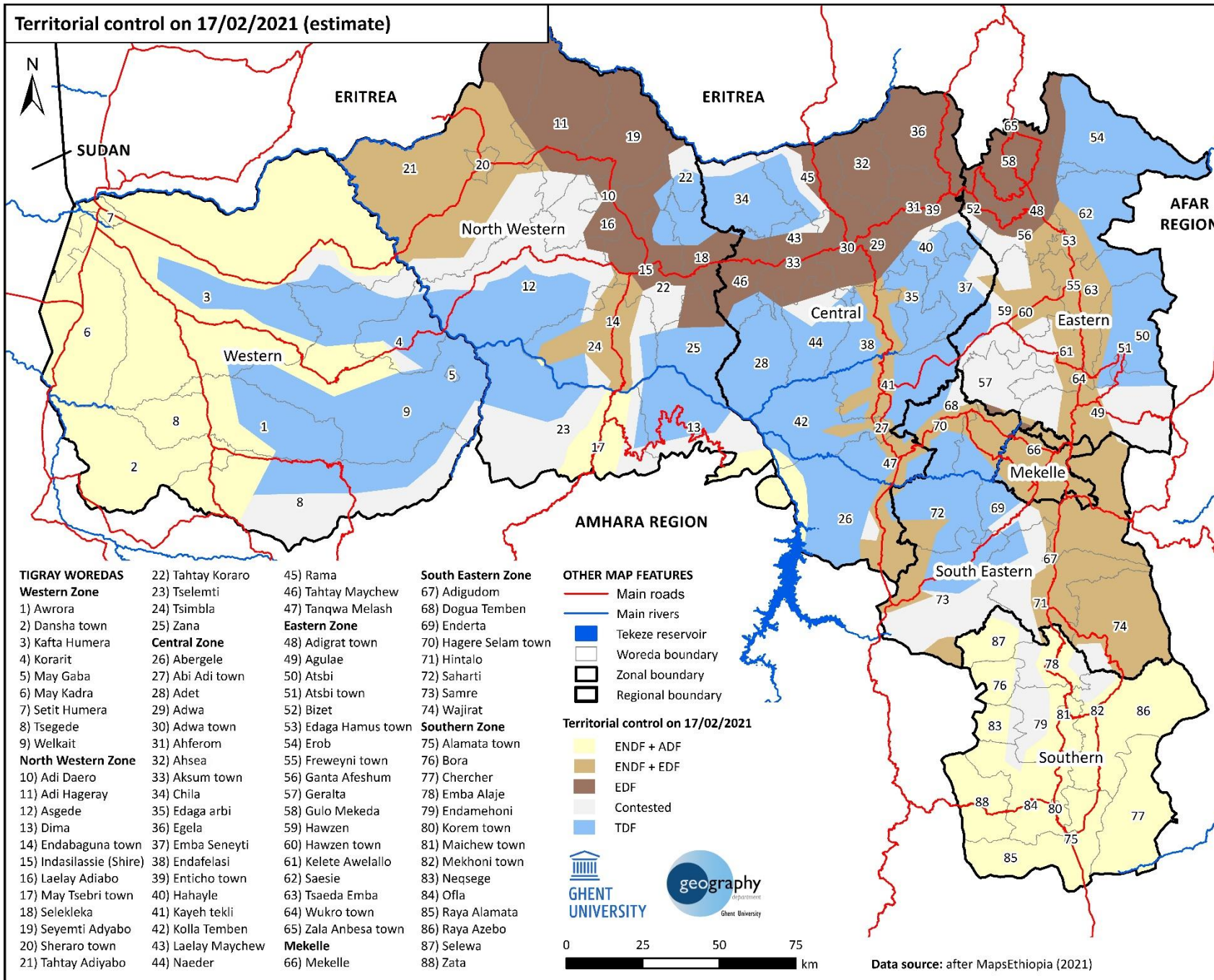
4.1. Territorial control as around mid-February 2021

All our sources mention that on or north of the road Shire-Adigrat the territory is controlled by Eritreans, except for pockets of Tigray resistance. A particular source of information regarding territorial control is the dynamic webpage prepared by MapEthiopia⁶⁸, which collects all reliable information on war fronts and represents the areas controlled by ENDF and its allies, as well as TDF. While MapEthiopia's documentation frequently mentions the strong presence of Eritrean soldiers, they do however not map the territorial control by the Eritrean army.

We have combined the territorial control information from MapEthiopia (status on 17 February 2021) and from interviews of sources in the field to prepare a consolidated map of territorial control of Tigray. It aims at giving a general overview of the situation, as around mid-February 2021.

This shows that overall, the north of Tigray is fully occupied by the Eritrean Defence Force (in dark brown); whereas towns and roads are areas occupied jointly by ENDF and EDF (light brown areas); Western and Southern Tigray, are occupied jointly by ENDF and Amhara forces (yellow areas); and blue areas are controlled by TDF. There are large undecided, or buffer zones, where ENDF and allies are not permanently present, but in which they make regular incursions, including mass killings which in several instances seemed to be in retaliation of attacks by TDF.

Note that the situation on the ground is volatile as fighting continues, although the pattern shown in the map does not appear to have significantly changed since mid-February.



Map 10
Approximate territorial control on 17 February 2021.

Data source:
MapEthiopia (2021) in combination with information from key informants

4.2. War crimes and fully documented civilian victims

“Related to civilian damage, maximum caution was taken. In just 3 weeks of fighting, in any district, in Humera, Adi Goshu, ... Aksum, ..., Edaga Hamus, The defence forces never killed a single civilian in a single town. No soldier from any country could display better competence.”⁶⁹ Those were the words of Ethiopian Prime Minister Abiy Ahmed in his victory speech for the federal parliament on November 30. He stressed: “Not a single civilian was killed”. The victory was counterfeit and so was the statement on no civilian casualties, sadly. Amid ongoing fighting, the number of killed soldiers is rising fast, and so is the number of civilians who are killed in the war.

At the time of completing this atlas (early March 2021) the Aksum^{70,71} and Maryam Dengelat massacres⁷² are headlines in international media. The very day that Prime Minister Abiy claimed that no civilians had been killed was a day of mourning in Aksum, and of mass burials. Just today the Aksum and Edaga Hamus massacres are headlines in international media. Names of civilians who lost their lives as a result of warfare slowly surface. The communication blackout and lockdown of the region make it very hard to get verified information, so the actual number of deaths is likely much higher than the sample that we have collected so far.

Through Twitter (@tvbempt), we have collected verified identities of civilian victims of the war on Tigray. The list⁷³ is populated from a mix of sources, ranging from social media posts, media reports, advocacy groups listings (for instance Irob Advocacy⁷⁴) and direct reports (as posted for instance on tghat.com⁷⁵). The social media posts are mostly from family and friends who mourn the death of their loved ones, which they learnt about by telephone. Each one has been contacted to try and get a

verification of the circumstances. Several advocacy groups are also documenting. It is however noted that there are families who, for various reasons, do not report loss of relatives on social media, reducing the sample of fully documented casualties. Among the families who reported the killing of their dearest, 14% have also provided a photograph.

Given that only a small part of the civilian victims are fully documented so far, we represent their spatial distribution in the form of a heatmap, in which the magnitude is shown as colour varying by intensity.

The victims of the Hitsats (west of Shire) and Debre Abbay massacres (SSW of Shire) are poorly represented in our sample which in the first case is probably due to the fact that the victims are not locals but Eritrean refugees, and in the second case, to the remoteness of the place. Both massacres are represented by a special symbol on the map.

While no numbers exist for the total amount of civilian casualties, well-documented cases of 1164 deaths (by 21 February) indicate that: 7% of the dead are women, and 93% are men (Fig. 4.1), in line with an often stated intention to “eradicate Tigray fighters, as well as the future generation of fighters”. Among the men, 7% are priests and deacons, traditionally people with authority in their community. All age groups are represented among the victims, in line with the population pyramid.

Casualties are dominantly (27%) victims of massacres or killing sprees; 7% point-blank executions, in house searches, rounding up of civilians, or after arrest (including journalist Dawit Kebede). Though impressive in video footage, only 3% of the known victims were killed during shelling and airstrikes. 54% is killed by violence that has not been further detailed - most of them can be allocated in the massacre and executions categories. For

the women, deceased victims of sexual violence may not be well documented. As at early March 2021, the cases that had been reported were all women.

Perpetrators comprised Amhara militia (7%), Eritrean (49%) and Ethiopian soldiers (11%) – with an additional 10% mentioning “either Ethiopian or Eritrean soldiers, they jointly carried out the killings”. In 23% of the cases, the affiliation of the perpetrator was not provided.

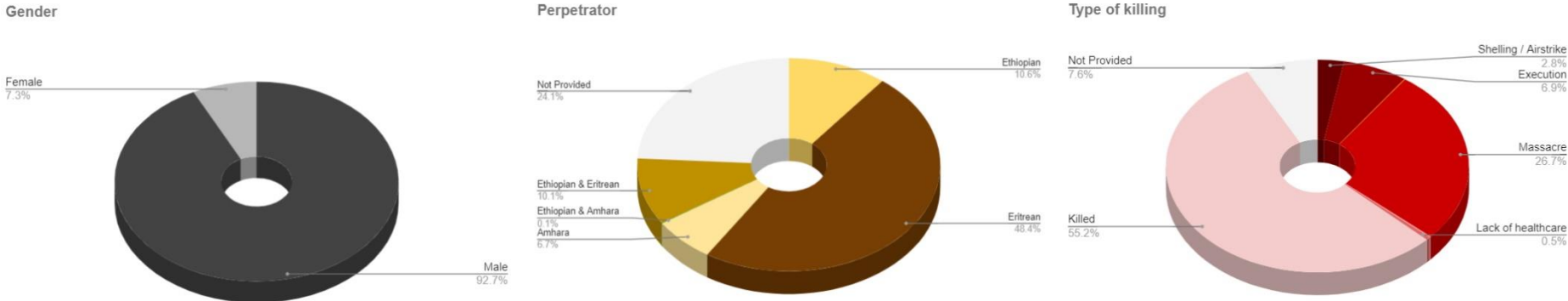
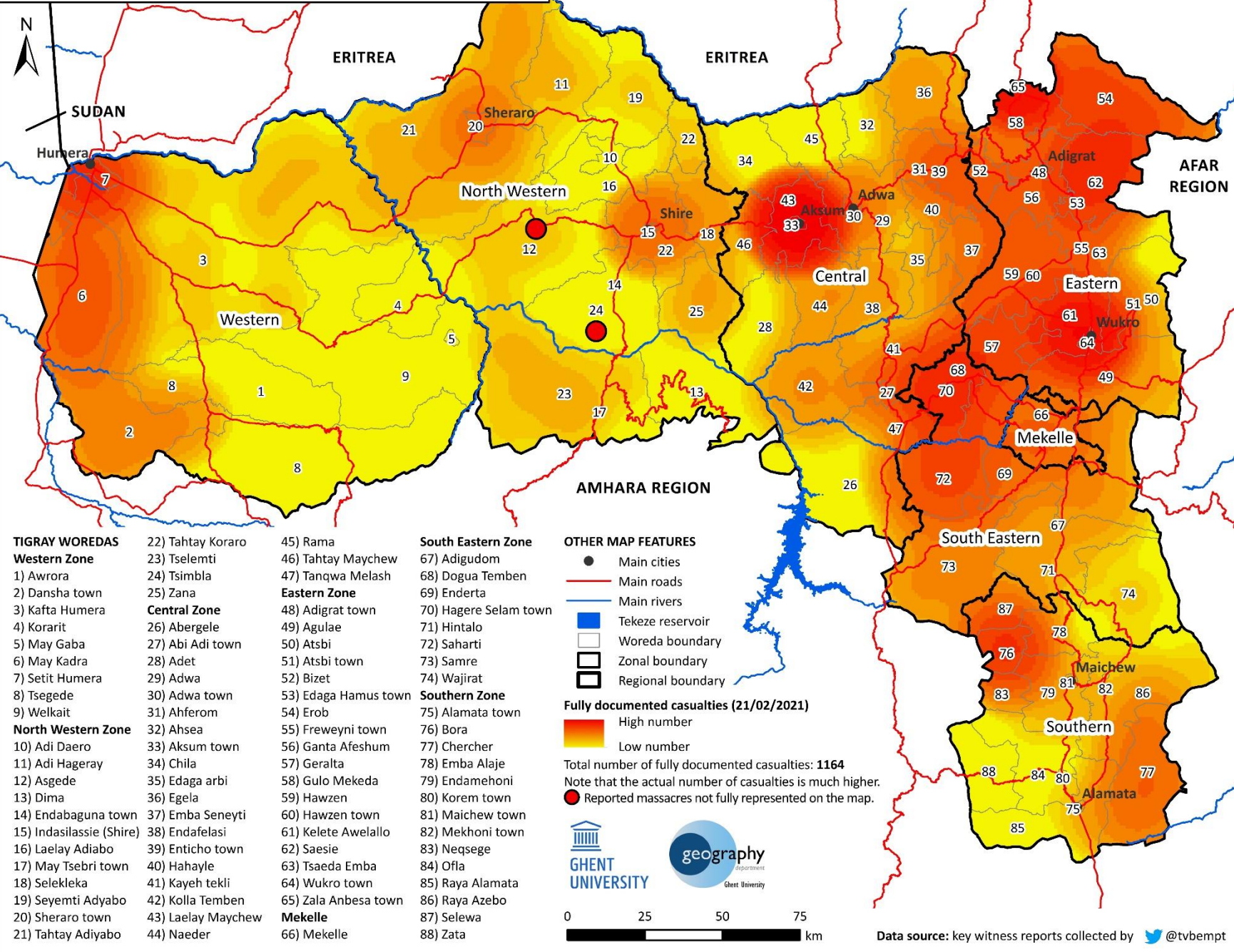


Fig. 4.2 Graphic representation of fully documented civilian casualties

Fully documented civilian casualties in Tigray war (21/02/2021)



Map 11
 Heatmap of the fully documented civilian casualties in the Tigray War on 21 February 2021.

Data source:
 social media posts, media reports, advocacy groups listings and direct reports

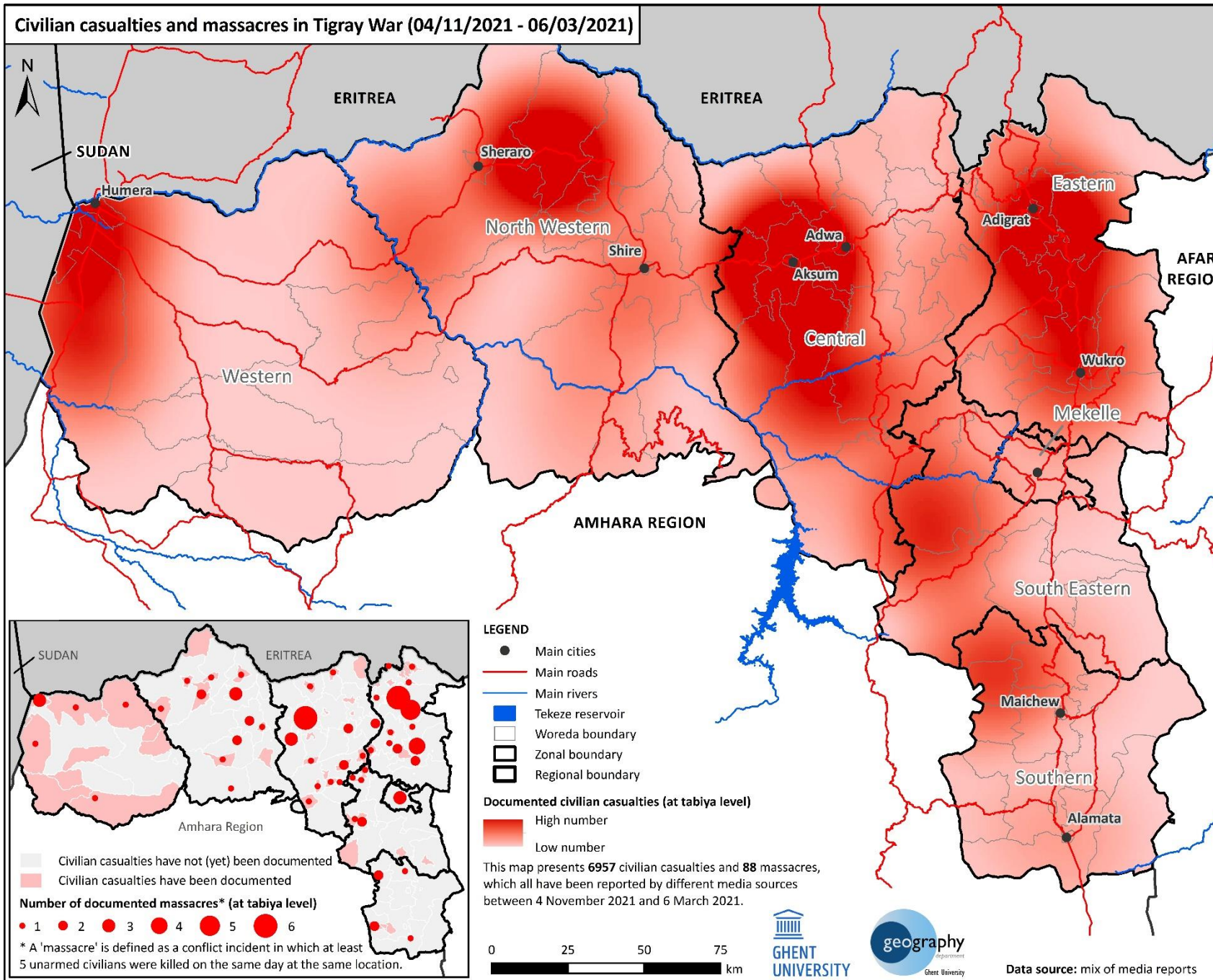
4.3. Massacres and documented civilian casualties

In addition to the map on ‘fully documented civilian casualties’, a map on ‘reported civilian casualties’ was prepared as well. In this map, a total of 6957 civilian victims is presented, as derived from nearly 1200 (social) media reports, reports of different NGOs and humanitarian actors and press releases. As lack of media access and a still ongoing communication blockage in many parts of the region make reporting very difficult, the number of verifiable sources is minimal and the number of casualties is most likely an extreme underrepresentation.

The main difference with the previous map is that the names of the victims and the exact circumstances in which the unarmed civilians were killed, are mostly unknown yet or are not fully documented. Another difference is that this new map presents information at tabiya level, whereas the woreda level is used for the previous map.

Based on the established database, a list of massacres was compiled as well. For this purpose, a ‘massacre’ has been defined as ‘a conflict incident in which at least 5 unarmed civilians were killed on the same day at the same location’ – a definition that comes from historical studies of massacres, including those committed during the Armenian genocide^{76,77}. The documented 88 massacres of the Tigray war are represented on the inset map of Map 12.

An important remark is also that this new map, as well as the previous map, do not include deaths by starvation or lack of medical care. At this stage, this is a totally under-documented aspect of the war. As mentioned before, the total number of civilian victims is expected to be much larger than represented here in this atlas.



Map 12
Heatmap of civilian casualties in the Tigray War up to 6 March 2021, as well as occurrence of massacres.

Data source:
social media posts, media reports, advocacy groups listings and direct reports

5. Humanitarian needs and access

5.1. Humanitarian access on 20 February 2021, according to UN OCHA

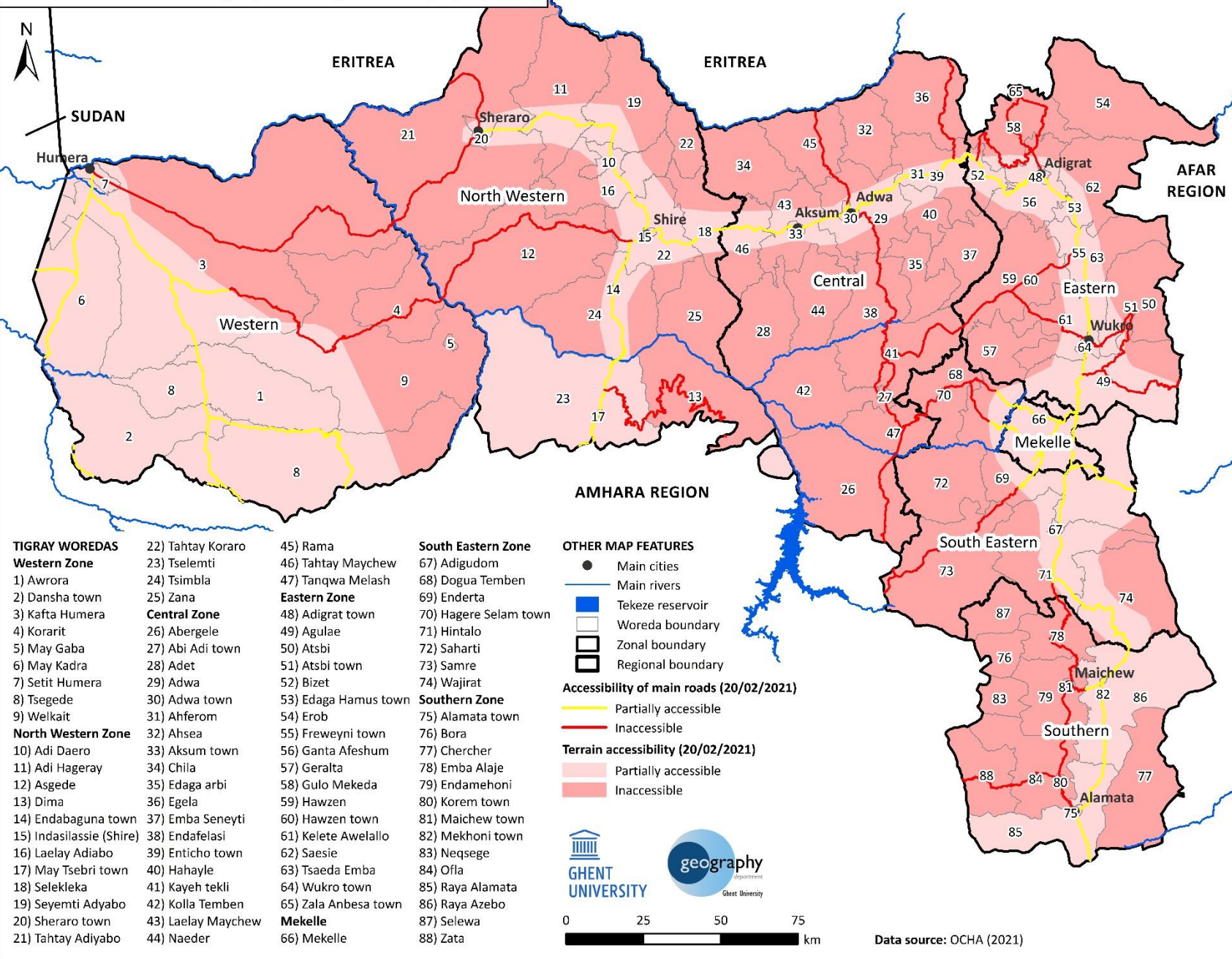
Closely linked to Map 10 (territorial control), here we present the humanitarian access according to UN OCHA, which is evaluated based on information from the ground.

The UN OCHA Tigray region humanitarian update of 12 February 2021 states: “Inside Tigray, more partners have been able to operate along the main road from Alamata to Shire and are working to scale up their response in Adigrat, Aksum, Adwa and Shire, which are currently accessible locations. While very few partners, such as Action Against Hunger and

World Vision International, have been able to access small towns off the main road, including Abiy Adi, Hagere Selam and Samre, access to rural areas remains an acute challenge.”⁷⁸

As many people have moved out of towns to rural areas for safety reasons (see Section 5.3 on Internally Displaced People), it very challenging to reach most people who are in urgent need of humanitarian aid (food aid as well as medical supplies and health care services).

Humanitarian access in Tigray according to OCHA (20/02/2021)



- | | | | |
|---------------------------|---------------------|----------------------|---------------------------|
| TIGRAY WOREDAS | 22) Tahtay Koraro | 45) Rama | South Eastern Zone |
| Western Zone | 23) Tselemti | 46) Tahtay Maychew | 67) Adigudom |
| 1) Awrora | 24) Tsimbla | 47) Tanqwa Melash | 68) Dogua Temben |
| 2) Dansha town | 25) Zana | Eastern Zone | 69) Enderta |
| 3) Kafta Humera | Central Zone | 48) Adigrat town | 70) Hagere Selam town |
| 4) Korarit | 26) Abergele | 49) Agulae | 71) Hintalo |
| 5) May Gaba | 27) Abi Adi town | 50) Atsbi | 72) Saharti |
| 6) May Kadra | 28) Adet | 51) Atsbi town | 73) Samre |
| 7) Setit Humera | 29) Adwa | 52) Bizet | 74) Wajirat |
| 8) Tsegede | 30) Adwa town | 53) Edaga Hamus town | Southern Zone |
| 9) Welkait | 31) Ahferom | 54) Erob | 75) Alamata town |
| North Western Zone | 32) Ahsea | 55) Freweyni town | 76) Bora |
| 10) Adi Daero | 33) Aksum town | 56) Ganta Afeshum | 77) Chercher |
| 11) Adi Hageray | 34) Chila | 57) Geralta | 78) Emba Alaje |
| 12) Asgede | 35) Edaga arbi | 58) Gulo Mekeda | 79) Endamehoni |
| 13) Dima | 36) Egela | 59) Hawzen | 80) Korem town |
| 14) Endabaguna town | 37) Hawzen town | 60) Hawzen town | 81) Maichew town |
| 15) Indasilassie (Shire) | 38) Endafelasi | 61) Kelete Awelallo | 82) Mekhoni town |
| 16) Laelay Adiabo | 39) Enticho town | 62) Saesie | 83) Neqsege |
| 17) May Tsebri town | 40) Hahayle | 63) Tsaeda Emba | 84) Ofra |
| 18) Selekleka | 41) Kayeh tekli | 64) Wukro town | 85) Raya Alamata |
| 19) Seyemti Adyabo | 42) Kolla Temben | 65) Zala Anbesa town | 86) Raya Azebo |
| 20) Sheraro town | 43) Laelay Maychew | Mekelle | 87) Selewa |
| 21) Tahtay Adiyabo | 44) Naeder | 66) Mekelle | 88) Zata |

OTHER MAP FEATURES

- Main cities
- Main rivers
- Tekeze reservoir
- Woreda boundary
- Zonal boundary
- Regional boundary

Accessibility of main roads (20/02/2021)

- Partially accessible
- Inaccessible

Terrain accessibility (20/02/2021)

- Partially accessible
- Inaccessible

GHENT UNIVERSITY

geography department

0 25 50 75 km

Data source: OCHA (2021)

Map 13
Restricted humanitarian access due to the ongoing conflict.

Data source:
OCHA (2021a)

5.2. Humanitarian needs on 28 February 2021, according to UN OCHA

The OCHA situation report of 28 February⁷⁹ mentions that 950,000 people were in need of aid before the conflict, to which a projected 1.3 million additional people need to be added, due to the war. The share of this total of 2.07 million people over Tigray is shown on Map 14. OCHA also mentions the targeted people for humanitarian assistance in adjacent zones of Amhara (34,000) and Afar regions (130,000).

The needs are highest in the Northwestern, Central and Eastern zones, where assistance is needed for each person out of 2 up to 3, or 33% up to 50% of the number of the inhabitants.

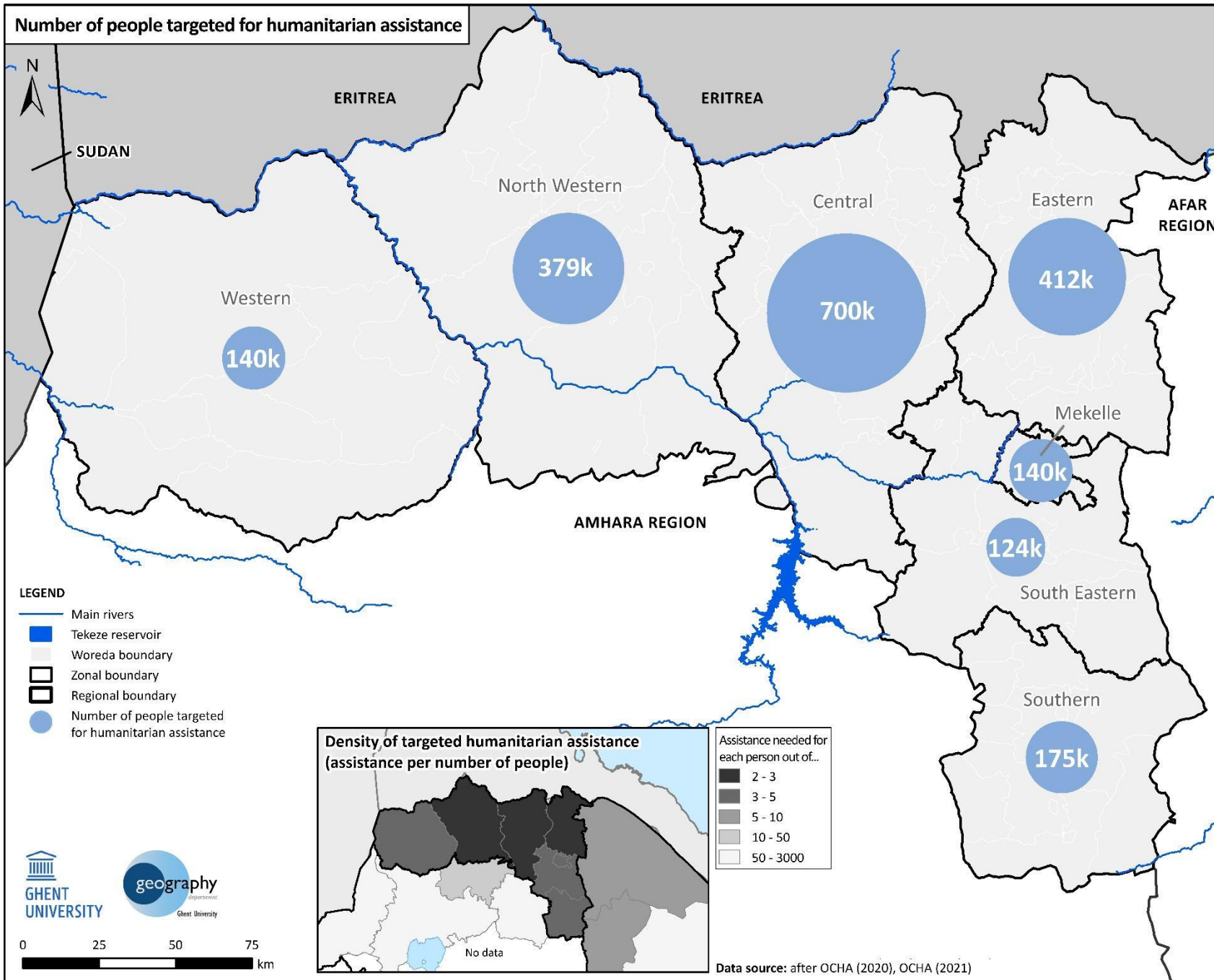
Our own earlier observations on food aid in Tigray⁸⁰ show that it is crucial that aid is distributed in one or two locations in each tabiya. There are more than 700 tabiyas in Tigray. Rural people come then with their donkeys to carry the aid from the distribution centre to their homestead. Conventionally, when aid was managed by the Regional Government or the Relief Society of Tigray in peace time, it was not allowed to load food aid to motorised vehicles after distribution, in order to decrease the risk of selling

the aid to merchants, either by the beneficiaries or the officers responsible for distribution.

Given the widespread starvation in Tigray, a widespread aid distribution all over the region (“blanket approach”) will also be necessary in the first place; fine-tuning can then be done based on background information provided here, and detailed assessments made in the field.

A big additional problem is that in most places grinding mills do not work for lack of fuel or electricity⁸¹. The humanitarian organisation Tesfay which has started organising aid to Adigrat and Irob therefore delivers flour to the beneficiaries rather than grain⁸².

This section on humanitarian needs gives a focus on food and material assistance. The specific needs for children⁸³, water, sanitation, medical aid were not (yet) mapped, and neither the immense needs for curing the victims of rape and other gender-based violence.⁸⁴



Map 14
Number of people in need of humanitarian assistance.

Data source:
OCHA (2021b)

5.3. Internally Displaced People and refugees

After four months of warfare, hundreds of thousands of Tigrayans are internally displaced (Map 15 – presenting > 700,000 IDPs) or have fled to neighbouring Sudan by crossing the Tekeze River (see data layer in the Web Application – presenting > 70,000 refugees), due to major safety issues and the destruction of civilian infrastructure. People are especially fleeing the ongoing conflict incidents (Map 2), the random killing and frequently occurring massacres (Map 12), but especially also the ethnic cleansing in Western Tigray, where people who are not able or wishing to identify as Amhara, are expelled or killed⁸⁵.

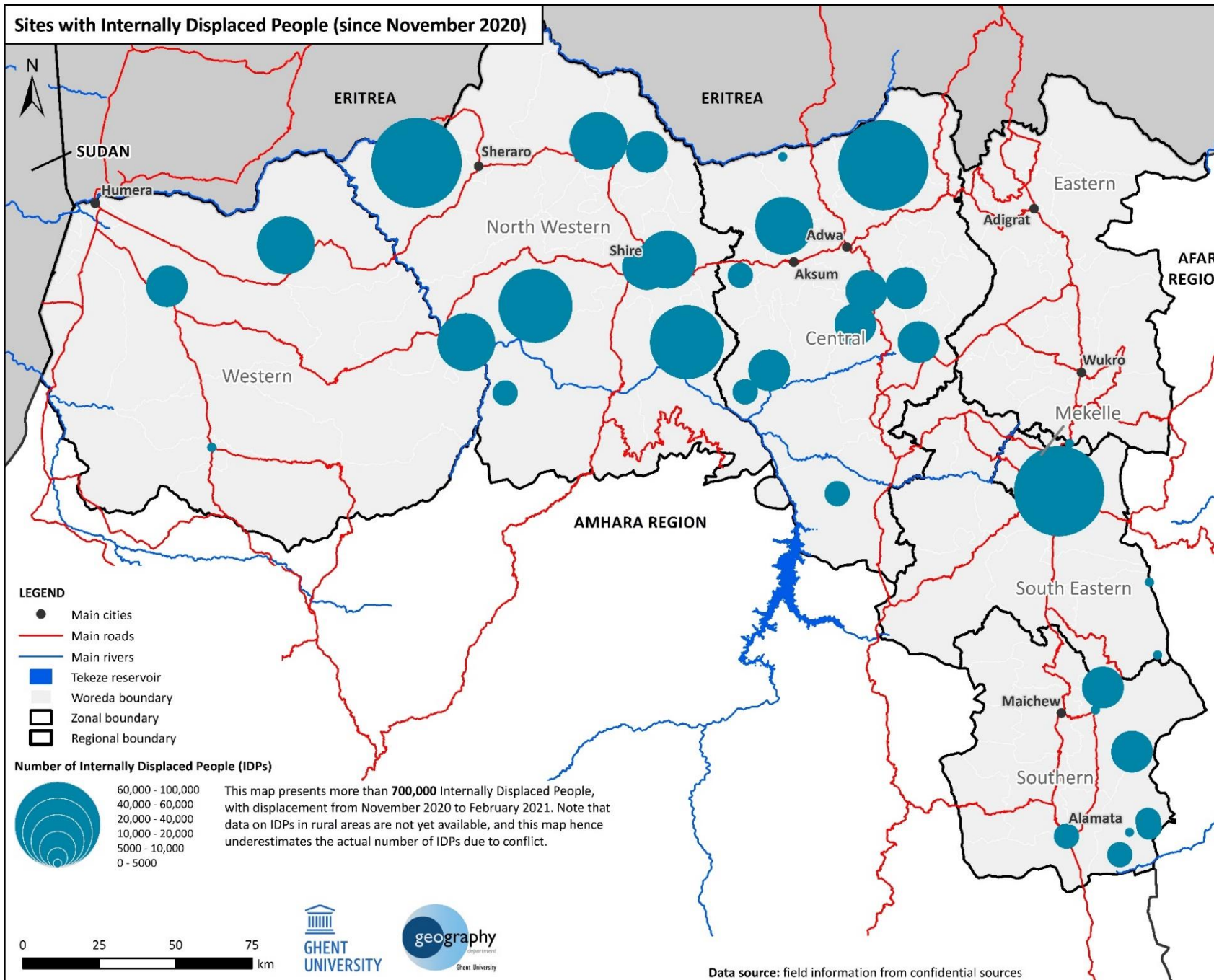
As many people are living with family members in larger towns (mainly Mekelle for people from Central and Eastern Tigray), which are considered to be more safe, or are hiding in rural areas (e.g. mountainous areas, caves or bushes) – it is very difficult to get a proper estimation of the actual number of IDPs in Tigray. However, Gebremeskel Kassa, a senior official in the interim administration in Tigray appointed by the federal government, estimated that as of early January 2021, 2.2 million Tigrayans were internally displaced⁸⁶.

Whereas the Tigrayan refugees in Sudan arrive in formally established - though overcrowded - refugee camps with fully developed facilities (e.g. in

Hamdayet, Um Raquba or Tunaydbah), people who are internally displaced often reside in school buildings or temporary shelters (see example from Shire below). In these places, food security often is a problem and access to water, sanitation or health care services is not guaranteed. In many of the IDP sites, pregnant women urgently need medical follow-up and assistance, and people are prone to diseases such as malaria, diarrhea, pneumonia... In addition to this, many of the IDPs have experienced traumatic incidents, and need psychological assistance.

One of our key informants told us that “there are currently around 80,000 IDPs in Shire, spread across three different schools. In January 2021, at Aksum University’s Shire Campus, there were more than 40,000 displaced Tigrayans. The others are in the Shire Preparatory School and the Primary School. Amongst the displaced at Aksum Uni’s Shire campus are pregnant women, elderly, children and many sick people needing medical attention”.⁸⁷

As the houses of IDPs frequently have been destroyed or were fully looted, and the conflict is ongoing in large parts of Tigray, short-term perspectives on returning home do not exist.



Map 15

Sites with Internally Displaced People (IDPs) in Tigray. Numerous townspeople who have fled to rural areas could not be mapped, as well as people in rural areas who moved to other rural areas or live near their homestead but hidden in caves or 'the bush'.

Data source:

Field information from confidential sources

5.4. Humanitarian aid provision

5.4.1. According to UN OCHA

Most detailed information is given for the town of Shire in northwest Tigray. The aid officially brought to Shire came in two batches. On 20 December, food aid was reportedly delivered by the National Disaster Risk Management Commission (NDRMC). According to UN OCHA: “The Ethiopian Government stated that the Government dispatched relief food and other humanitarian commodities to the Tigray region, including 44 truckloads of food assistance to Shire Town, 30 truckload of food supplies and three truckload of medical supplies to Mekelle”⁸⁸.

For Shire this would correspond to despatched aid between 1100 tonnes and 1760 tonnes (depending on the carrying capacity of the lorries, 25 or 40 tonnes). This assistance was aimed at both the inhabitants of the town and the IDPs. In theory, with such volumes, between 73 000 and 117 000 people could have been supplied with 15 kg each.

A second aid delivery to Shire was planned for the days after 25 January. It was brought in by JEOP and REST, and claimed to be lasting for two months. According to UN OCHA: “JEOP/REST visited Shire town and is now working with the local administration to begin food distribution in the coming week for up to 131,456 beneficiaries.”⁸⁹

Both quoted reports also mention volumes of aid delivered to Mekelle and to all zones of Tigray, without giving the same detail as for Shire.

On 5 February 2021, OCHA official Jens Laerke stated that it was “less of a problem” to deliver food aid which is being warehoused in Mekelle. “The

problem is access both to get into Tigray in the first place and also getting from Mekelle into the countryside where most of the people in need are.”⁹⁰

On 28 February, UN OCHA further states⁹¹ that “despite large amounts of food aid reportedly dispatched across Tigray, it is unclear how much aid is reaching their intended beneficiaries, according to the latest Emergency Coordination Centre meeting on 19 February. Thousands of people have not received vital assistance for almost four months since the conflict broke out in early November 2020. Humanitarians are putting in place appropriate systems to strengthen the targeting of food beneficiaries and the monitoring of food distributions, although continued disruptions to electricity and communications make such efforts extremely challenging. Electricity was switched off across the entire Region from 17 to 27 February, and phone communications were shut down from 16 to 27 February in several towns, including Axum, Adwa and Shire, where it had previously resumed. Although 71 per cent of the funding requested earlier has been received, the rising needs have vastly outstripped the requirements estimated in the preliminary response plan that was developed by the humanitarian community in the first weeks of the conflict. Several critical clusters, including Shelter, Health, Protection and Education, report that the resources received are inadequate for the dire needs, even in areas that are currently accessible”.

5.4.2. According to the Ethiopian Ministry of Peace on 13 February

On 13 February, the Ministry of Peace of Ethiopia (MoP) distributed a list of 32 woredas in Tigray where food aid would have been distributed⁹². Those who are familiar with the names of the 88 existing woredas and town administrations in Tigray, noted that this list comprises strongly modified names, amharanised names, duplicates, towns and woreda names mixed up. We have reconstituted the MoP list, matched it with actual woredas – except for one woreda name (“Dro”) out of which we really could not make anything.

In map 16, the hatched woredas are those that supposedly received the aid reported by MoP. In most of these woredas, only a part is controlled by the ENDF and its allies, along the roads, and if all went well, one or a few distributions would have taken place in towns along the roads. That does not necessarily mean that most of the aid really reached the intended beneficiaries - see below. Other woredas where aid was dispatched are on the Eritrean border. Further, and particularly south of Adwa-Aksum, aid would have been sent to woredas that are totally not under government control; one may presume that it has been diverted somewhere.



FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA MINISTRY OF PEACE

The Government of the Federal Democratic Republic of Ethiopia
is continuing to deliver aid in the
32 Woredas of Tigray Regional Administration

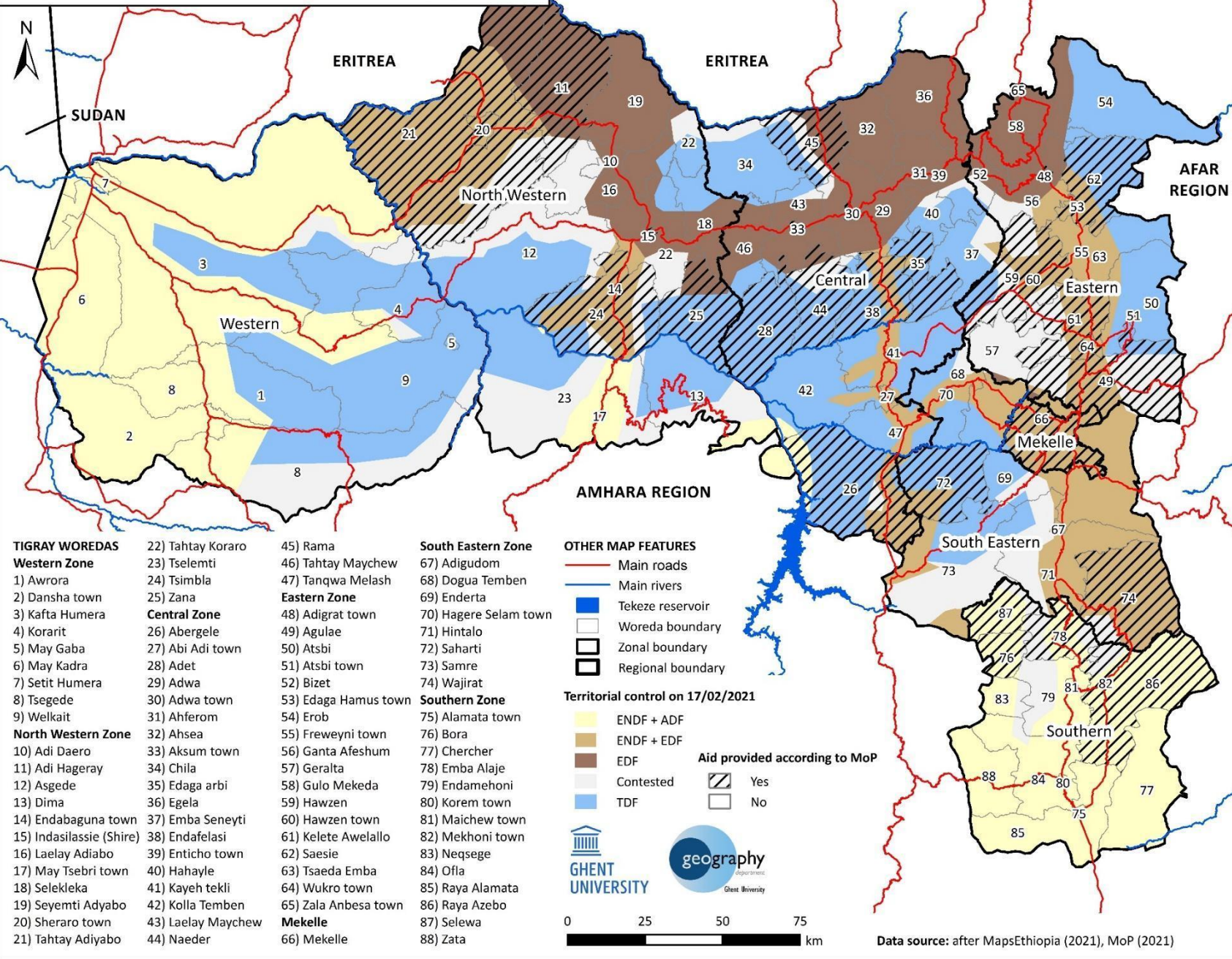
- | | |
|--------------------|----------------------|
| 1- Adigrat | 17- Haiqui Mishap |
| 2- Adi queyh | 18- Kilitawlalo |
| 3-Adi- Hagerye | 19- Lewuha Sahsits |
| 4- Adi Gubri | 20- Mekelle |
| 5-Adwa | 21- Shire |
| 6-Axum | 22- Telequa Abergele |
| 7-Arabi | 23- Raya Izebo |
| 8-Bora | 24- Naeder Ayto |
| 9- Chila | 25- Shiraro |
| 10- Dale Sale wuha | 26- Tahitye Adhabo |
| 11-Endeb Guna | 27- Raya Ezebo |
| 12- Embalage | 28- Rawa |
| 13- Edag Arbi | 29- Ren Rawa |
| 14- Dro | 30- Mie kintal |
| 15- Gijet | 31- Wajiret |
| 16. Hawzane | 32- Zena |

The source of 70% of the emergency aid is the Ethiopian government

**OUR PRIORITY IS MEETING
THE NEEDS OF OUR PEOPLE**

**26 National and international partners are delivering emergency
humanitarian aid around the clock.**

Aid provided to woredas, according to the MoP (13/02/2021)



Map 16

Aid provided to the woredas, according to the Ministry of Peace on 13 February 2021.

Data source:
MoP (2021)

5.4.3. According to the Interim Government of Tigray

The "Interim Government (or Administration) of Tigray" is the local government appointed by PM Abiy Ahmed end of November 2020. On 12 February 2021, UNOCHA reports that "Since the beginning of the conflict, some 1.8 million people, out of the 4.5 million targeted by the interim administration, has reportedly received food assistance from NDRMC and Joint Emergency Operation (JEOP), according to the Government. According to the interim Government, assistance has been dispatched to Endamehoni, Ganta Afeshum, Gulo Mekeda, Hintalo Wajirat, Kilte Awelalo, Kola Tembien, Saharti Samre, Werie Leke and Mekele Town, and distribution has started in all the dispatched woredas except Kola Tembien, Saharti Samre and Werie Leke."⁹³

It is noteworthy that the woreda names have been taken from an old map dating from before the reorganisation of Tigray's woredas in January 2020. Though the boundaries of the former and new woreda do not always overlap, we have represented as well as possible the areas where aid is claimed to be distributed on the map below.

In view of the map, much of this aid would have been distributed in areas where the Interim Government is not in control. This is odd and indeed, the distribution is not going as smoothly as officially announced. On the same date of 12 February, Voice of America Tigrinya published an interview of Ms Etenesh Nigussie, head of communication affairs for the "Tigray Interim Administration", in which she is outspoken about the challenges.⁹⁴

VoA: The federal government and the Interim Administration of Tigray are not willing to open a humanitarian corridor for two thirds of Tigray. Why is your administration not willing to open this corridor?

Etenesh Nigussie (EN): There are many challenges to transport food aid. For example, lorry drivers are not willing to go to many areas due to security problems. Now, we found some willing lorry drivers and food aid is on the way to the areas in need. However, we still have a security problem. As you know, Eritrean troops are in Tigray and they loot the aid during transportation. So, food aid is not reaching the people in need. This is the main challenge.

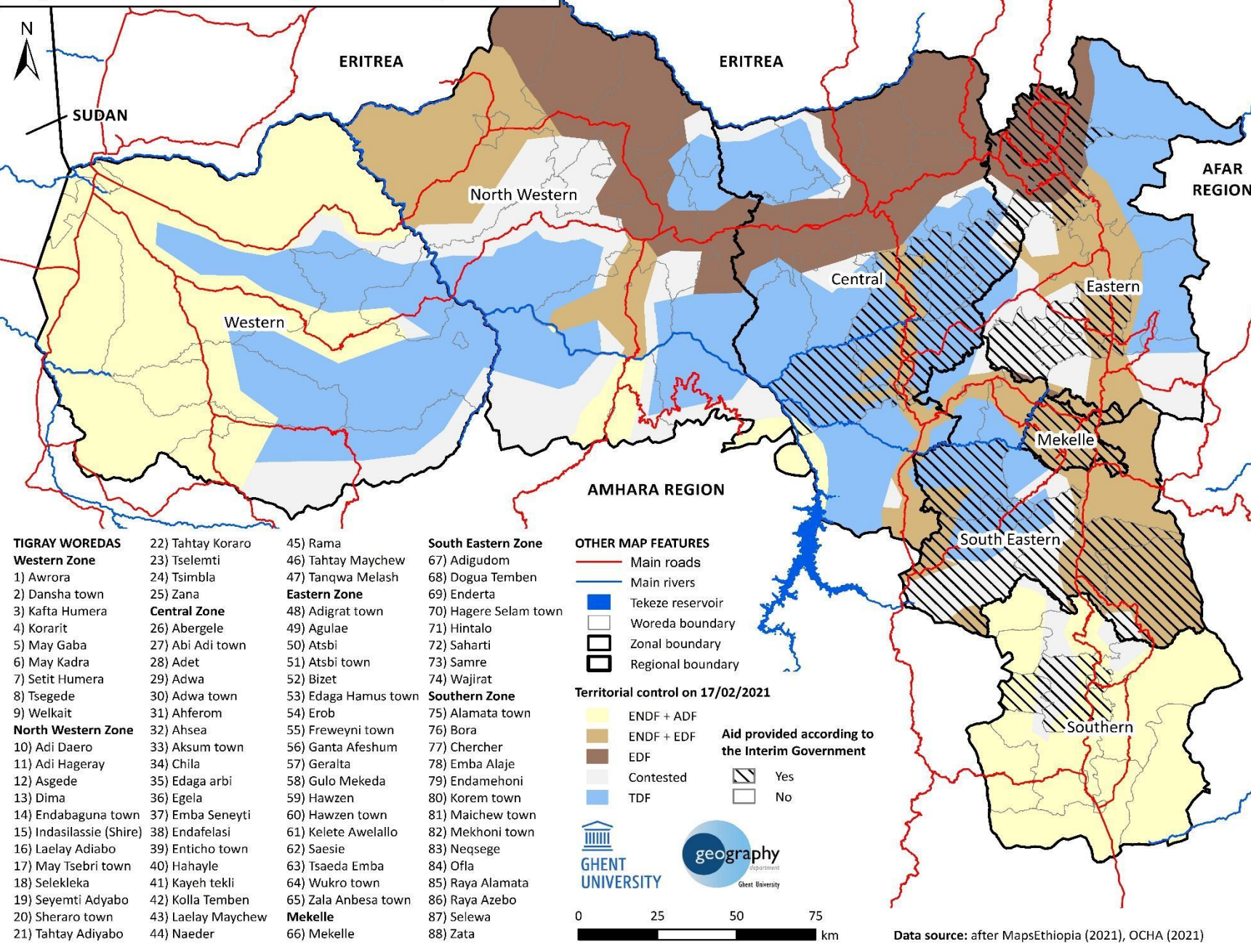
VoA: Have you ever issued a press release regarding the presence of Eritrean troops and the Amhara militia? Have you ever demanded those forces to pull out from Tigray.

EN: Regarding this, we always get questions and we try to give an answer. The Eritrean troops and Amhara militia must pull out from Tigray. The interim administration is doing its best. The presence of Eritrean troops in Tigray is the biggest challenge we have now.

VoA: However, OTNAA [an opposition party in Tigray] is asking the interim administration to pressure the federal government to withdraw Eritrean troops and Amhara militias from Tigray, and they alert the international community.

EN: That is great. We are working on it and we will continue working on it.

Aid provided to woredas, according to Interim Gov. (12/02/2021)

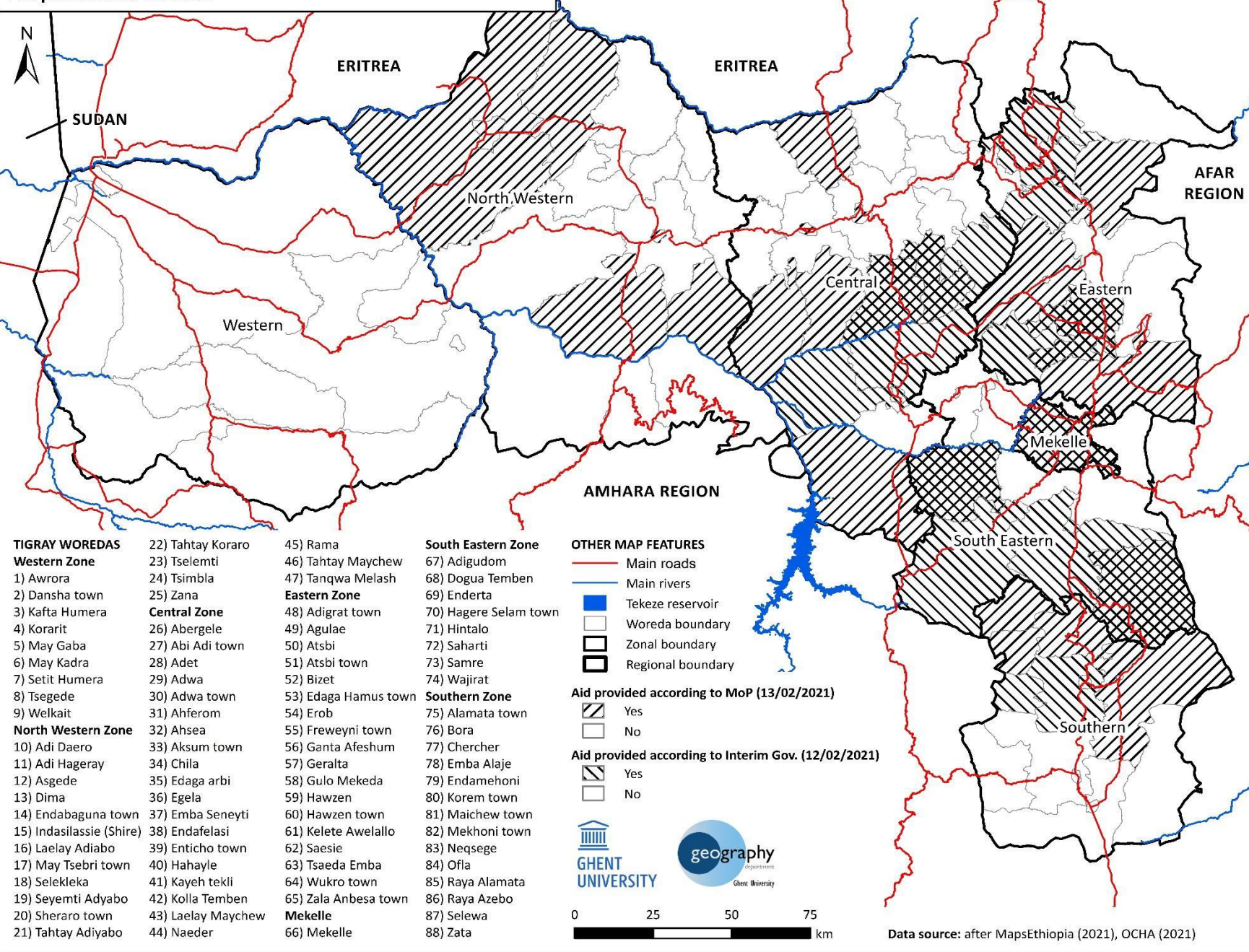


Map 17

Aid provided to the woredas, according to the Interim Government of Tigray on 12 February 2021.

Data source:
OCHA (2021a)

Aid provided to woredas



- | | | | |
|---------------------------|---------------------|----------------------|---------------------------|
| TIGRAY WOREDAS | 22) Tahtay Koraro | 45) Rama | South Eastern Zone |
| Western Zone | 23) Tselemti | 46) Tahtay Maychew | 67) Adigudom |
| 1) Awrora | 24) Tsimbla | 47) Tanqwa Melash | 68) Dogua Temben |
| 2) Dansha town | 25) Zana | Eastern Zone | 69) Enderta |
| 3) Kafta Humera | Central Zone | 48) Adigrat town | 70) Hagere Selam town |
| 4) Korarit | 26) Abergele | 49) Agulae | 71) Hintalo |
| 5) May Gaba | 27) Abi Adi town | 50) Atsbi | 72) Saharti |
| 6) May Kadra | 28) Adet | 51) Atsbi town | 73) Samre |
| 7) Setit Humera | 29) Adwa | 52) Bizet | 74) Wajirat |
| 8) Tsegede | 30) Adwa town | 53) Edaga Hamus town | Southern Zone |
| 9) Welkait | 31) Ahferom | 54) Erob | 75) Alamata town |
| North Western Zone | 32) Ahsea | 55) Freweyni town | 76) Bora |
| 10) Adi Daero | 33) Aksum town | 56) Ganta Afeshum | 77) Chercher |
| 11) Adi Hageray | 34) Chila | 57) Geralta | 78) Emba Alaje |
| 12) Asgede | 35) Edaga arbi | 58) Gulo Mekeda | 79) Endamehoni |
| 13) Dima | 36) Egela | 59) Hawzen | 80) Korem town |
| 14) Endabaguna town | 37) Emba Seneyti | 60) Hawzen town | 81) Maichew town |
| 15) Indasilassie (Shire) | 38) Endafelasi | 61) Kelete Awelallo | 82) Mekhoni town |
| 16) Laelay Adiabo | 39) Enticho town | 62) Saesie | 83) Neqsege |
| 17) May Tsebri town | 40) Hahayle | 63) Tsaeda Emba | 84) Ofia |
| 18) Selekleka | 41) Kayeh tekli | 64) Wukro town | 85) Raya Alamata |
| 19) Seyemti Adyabo | 42) Kolla Temben | 65) Zala Anbesa town | 86) Raya Azebo |
| 20) Sheraro town | 43) Laelay Maychew | Mekelle | 87) Selewa |
| 21) Tahtay Adiyabo | 44) Naeder | 66) Mekelle | 88) Zata |

Map 18
Contrasting information on aid provided to the woredas

Data source:
MoP (2021) and OCHA (2021a)

Data source: after MapsEthiopia (2021), OCHA (2021)

5.5. Ground evidence related to humanitarian aid distribution

5.5.1. Context

In absence of reliable quantitative and spatially distributed information on aid effectively delivered to the needy people, we can just present our qualitative observations, drawn from interviews. To fully understand the context, it should be mentioned also that on 8 February, the Ethiopian

5.5.2. Functioning of aid distribution

On our request, a senior Tigrayan activist contacted people on the ground and provided this report on the functioning of aid distribution:

“One of the big problems is the absence of structures to reach out the needy. The Relief Society of Tigray (REST) was the main organised institution for this, but REST is now having a lot of problems:

- Its’ management is interim and the board members have been replaced; Amharas are dominating the board now.
- REST’s 33 warehouses in various woredas (7,000 - 10,000 Qt. capacity) are destroyed.
- 11 offices looted.
- 70 trucks and vehicles taken away as part of the overall looting from the region.
- Other Tigray-based NGOs are forced to defame REST.

“Having all these problems, REST’s hands are tied. But, USAID and CRF want to deliver aid through REST, aiming at reaching 1.3 million people. So, they are trying their best. But internet connection made them incapable to communicate with their foreign partners.

government officially dissolved the boards of the two largest local NGOs in Tigray⁹⁵, which are largely trusted by the people in the region. The Tigray Development Association (TDA) and the Relief Society of Tigray (REST) will now formally be governed by 'a caretaker administrative board.

“They continue trying to directly deliver aid to the needy, after the consultation of elders and others. There are logistics problems and people at the interim administration or the military are not willing to help them. As there is no stable local administration in the woredas as well, it is hard to deliver aid. USAID is now forcing the federal government for going themselves down the level of tabiyas (sub-districts), as well as woredas far from the main roads to deliver aid.”

“If REST is having hard time in reaching out to the public with its existing structures, it is almost impossible for others.”

“The others, like WFP, are trying to use the interim administration and the elders assigned by them, but the military is intervening in the process, making it impossible to deliver aid. Military vehicles have been requisitioned for aid delivery. The military are taking much of the aid and together with the interim administration boys, they sell it to flour factories, rather than bringing it to the needy.”

“The military have a clear intention, sometimes speak it out loudly, to starve the public to punish them and then to make the TDF surrender.”

5.5.3. Witness from within a local NGO

To triangulate the testimony from before, we also contacted a local NGO¹, which provided us the following information:

“With our NGO, we have shifted back from development activities to humanitarian assistance, because Ethiopia is attacking us so badly. Food aid is only provided to towns and villages along the main roads, not to the rural areas. We are responsible for transporting food aid in bulk, but we do not distribute it directly to the beneficiaries. The names of beneficiaries and quantities are decided by others. We have no control, no decision. If somebody wants to be a member of the PP, they give him quintals² and

5.5.4. Testimonies from people on the side of receiving aid

In addition to reports from development actors, we also collected testimonies from the people who are on the side of receiving aid. For this, we again contacted people from different woredas in Tigray, and conducted several interviews over the phone (see table on next page).

quintals of grain. The poor get nothing. Those who manage to collect a lot of food aid sell it on the black market later on.”

Our witness continues:

“We went to bring food aid to a town in a woreda³ that is fully controlled by the Eritrean army (EDF on Map 10). All the food aid that we brought was taken by the Eritrean soldiers. I was so sad. On that occasion, I discussed with some farmers. They told me that the Eritreans took everything. They took all medicines from the hospital and sent it to their country. Over there, the people are suffering and may die from the smallest thing.”

We do not claim that our interviews are fully representative for the entire woreda (or zone), but again the different testimonies confirm that aid is not fully reaching the people who need it, often due to limited access in rural areas, and because aid is transferred to others (e.g. by looting).

¹ Name of the organisation known by the authors, but not mentioned in order to protect the witness

² The quintal is the commonly used measurement unit for grains and small pulses in Ethiopia. 1 Qt = 100 kg.

³ Name of the woreda is known by the authors

Zone	Location	Woreda No.	Testimonies
Northwestern	Adi Daero	10	"Residents were denied food aid after the town's inhabitants refused to appoint PP officials as administrators. The residents demanded the evacuation of Eritrean soldiers instead."
	Shire town: residents	15	"The initial wheat aid distribution was in December. Distribution was handled by the Ethiopian government, and the aid did not get to all of Shire's residents. Furthermore, those that were given 7 kg of wheat were required to sign for 15 kg. If they refused to sign for 15 kg, they were denied the 7 kg. It is important to emphasize that there was no electricity and hence, there was no way of grinding the grain. During this period, three young men who were displaced and were taking shelter outside the warehouse, were killed after they were accused of stealing wheat, which was impossible as these youngsters did not have a place to stay and did not have the means to prepare the wheat." "In the second week of February, USAID labelled aid trucks have begun to arrive and people have been given 1 liter of cooking oil and 3 kg of split peas, and around 15 kg wheat per person. There is gross shortage of food in Shire! People have to sell all they have at low prices to be able to buy food; people are literally starving to death."
	Shire town: IDPs	15	"The wheat aid given to the displaced people was 15 kg per person. The staff handed out wheat until 6 PM, until their workday was done. The next day, as people lined up early in the morning, they were told that the wheat was stolen as an excuse not to give more wheat. However, there is ample evidence that all the remaining wheat was transported to Eritrea by the Eritrean soldiers." "In January, 30 kg wheat per person was distributed, but only to the IDPs and not to the residents of the town. The IDPs were told that the 30 kg wheat was to last for the next two months and that they should not expect any more aid in these next two months."
Central	Yechila	26	"They only distributed 15 kg of grain per person, but there was no oil nor beans. All other places in Abergele woreda did not get any aid."
	Adwa	29	"Last time, they made us sign for having received 15 kg while they only gave 7 kg".
	Aksum	33	"I heard there has been food aid of 15 kg of grain per family, and only once. Neither I, nor my relatives have received aid. I am not so sure about how many families received that 15 kg of food aid. How many days would that last? Who takes the rest? The Eritreans?"
Eastern	Adigrat	48	"They registered us four times saying that they will give aid but none was given. We think that the people who register us are taking the grain for themselves and resell it."
	Irob	54	A witness from Irob woreda mentioned to Associated Press that Ethiopian authorities are withholding food aid from families suspected of links to Tigray fighters: "If you don't bring your father, your brothers, you do not get the aid, you will starve". ⁹⁶
Mekelle	Mekelle	66	"Some people that I know received food aid and they only got 8 kg of wheat and expired corn flour, the so-called <i>fafa</i> ."
Southeastern	Hagere Selam	70	"Mostly transport to and from Mekelle is possible. The road is closed from time to time when battles occur in nearby areas. Here, food aid distribution has started, 25 kilogram of grain per person. But it has been interrupted; I do not know the reason. The aid was brought by the Relief Society of Tigray. It was distributed by the appointed district administrator, under supervision of the army. The new administrator is not dedicated at all, he is afraid of the situation. People do not like him because he works with the soldiers."
Southern	Addishuhu	78	"They distributed 15 kg of grain per person, only once, there was no oil or beans."
Other: rural areas away from the main road			In general, there is no information from rural dwellers as there is no telephone network. Several urban people told us: "food aid only comes to towns and large villages along the main roads, in minimal amounts. The do not bring it to the rural areas, and they do not call the people from the rural areas to collect it in town." The Mekelle business community stated: "There is no humanitarian access outside Mekelle, and civilians are being killed..." ⁹⁷

6. Discussion

6.1. Official statements vs possible reality of humanitarian assistance coverage

In summary, from section 5 it seems likely that much of the aid that according to official statements, is distributed to “those in need”, in reality does not reach its destination. This has been illustrated by a conceptual diagram on Twitter (Fig. 6.1).

In the diagram, the proportion of aid that actually goes off to distribution to Tigrayans who need it, is represented by the lowest but one arrow, taking into account that a large share of what is distributed to households in Tigray is again looted from the homestead by Eritrean soldiers. Note that this diagram is not based on records or data, but on ‘guesstimates’. The evidence we provide in section 5 suggests that these guesstimates are not completely implausible.

6.2. Food aid as a weapon in the Tigray war

Woredas near the Eritran border are represented as “Food assistance only”. Our witness who was in charge of aid distribution in those places says: “it is taken by the Eritrean army”. Another witness, from Irob woreda (extreme northeast of Tigray) mentioned to Associated Press that Ethiopian authorities withholding food aid from families suspected of links to Tigray fighters: “If you don’t bring your father, your brothers, you don’t get the aid, you’ll starve”⁹⁹. In many of the above testimonies the use of food aid as a weapon against the Tigray resistance is like a red thread.

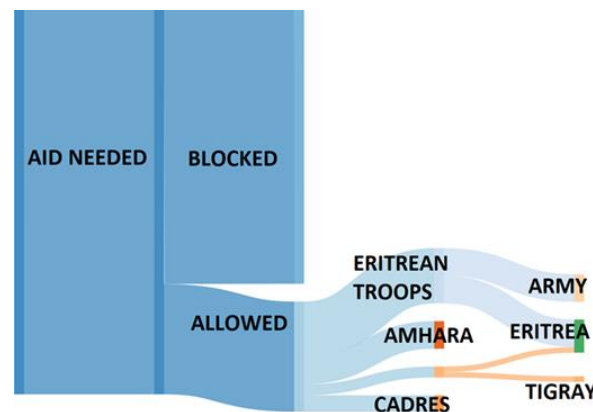


Fig. 6.1. Conceptual diagram of humanitarian aid to Tigray, after @FitwiDesta on Twitter⁹⁸.

Starting 10 February, aid has been interrupted to the Hawzen and Tembien areas and lorries had to return back to Mekelle by order of the ENDF. According to a witness in Mekelle, the army is doing this following the heavy losses on the war fronts in the first half of February 2021 (TDF’s “Operation Seyoum Mesfin”)¹⁰⁰.

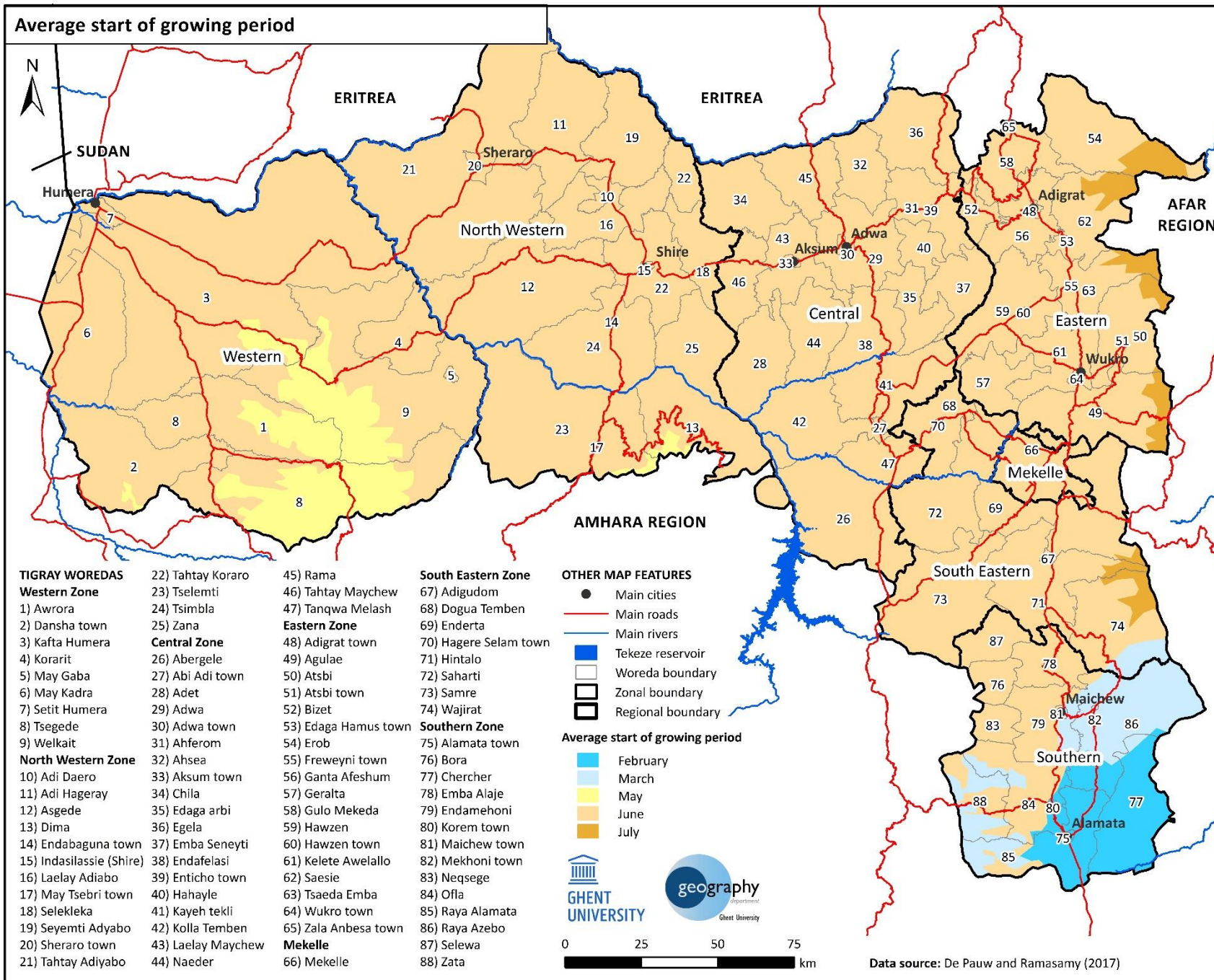
6.3. Outlook: the Tigray war may lead to another failed harvest in the next season

Kremti is the main (summer) rainy season in Tigray, when cropping takes place⁵⁰. If the war continues, there will be low inputs on farms during *kremti*, and this will lead directly to crop failure at the end of the year. Early February, a message was conveyed from within the rural areas controlled by TDF by Mulugeta Gebrehiwot; as narrated by Alex de Waal (whose earlier call with Mulugeta was recorded)¹⁰¹: “Farmers express their hope that the war should be over before *kremti*, otherwise there will be huge famine and starvation next year”¹⁰².

Map 19 presents the average start of the growing period, which is June in most of Tigray⁴¹. Land preparation needs to be done in the two preceding months. Indeed, a cropping season needs to be well prepared⁴². Farmers have modernised a lot over the last decades, they work with fertiliser and selected seed, get advice from the Office of Agriculture. They also must select the crop to be grown in function of the length of the growing period (Map 7). Mulugeta insisted: “If all this is not in place, if people are forced to consume also the grain that is normally conserved as seed, how can they sow in the next cropping season? Will they have oxen for ploughing?” OCHA, based on an assessment in 21 woredas of Tigray (out of 88) mentions that “the agricultural systems have been devastated” and

“funding to re-equip the office of agriculture at *woreda*-level, in addition to providing emergency agricultural inputs (seed, fertilizer, chemicals and animal drugs), is an urgent priority.”¹⁰³ They mention also that many (parts of) woredas remain inaccessible, a problem that in our view can only be solved by implementing the international recommendations of a retreat of the Eritrean and Amhara forces out of Tigray, and peace negotiations between the Federal Government of Ethiopia and TPLF/TDF/Regional government of Tigray¹⁰⁴.

WeForest¹⁰⁵ states that “organisations, in collaboration with government agencies, are preparing to provide relief aid to the most affected districts, including those where WeForest is active. The bulk of the response is being directed towards critical, short-term needs, with very few agencies giving consideration to the longer term. For these communities to have the slightest chance of post-conflict recovery, they need to start working towards the next planting season in May. The harvest in November needs to feed the communities until the next one in the following year.” They have started collecting funds to provide 23,000 households with critical agricultural inputs such as seeds and oxen.



Map 19
Average start of the moisture-limited growing period

Data source:
De Pauw & Ramasamy (2017)

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