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Data set

Repeat photography of a joint military operation involving the Ethiopian and Eritrean armies in Inderta, Tigray, Ethiopia (November 2020)

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The Eritrean PFDJ government has actively participated in the conflict against Ethiopia's Tigray region since it began in November 2020, supporting the Ethiopian government (1). Regularly, Eritrea dispatched Eritrean Defence Force (EDF) troops to aid the Ethiopian National Defence Forces (ENDF) in their conflict with the Tigray region (2). Following the Eritrean admission of its involvement (3), the Ethiopian Prime Minister Abiy Ahmed, however, minimized the scope of the Eritrean participation throughout the conflict and tended to confine it to the Ethio-Eritrean border regions (4). Here we present a dataset of repeated video images, allowing the examination of the coordination between the Ethiopian and Eritrean armies in the war in late 2020, deep within Tigray. The warfare imagery was accurately placed near Miheni in Inderta district, and shows unequivocally that Eritrean forces participated in fighting in Tigray in close coordination with the Ethiopian army. It is 180 kilometers, or 102 kilometers as the crow flies, to the Eritrean border from Miheni.

1. The video

A six-and-half minutes video has been published on 25 February 2022 by Asena Television (5) or ATV, showing the strong cooperation between Ethiopian and Eritrean armies in the joint conquest of Tigray. It shows military operations in Tigray's Inderta *woreda* or district, along the road between Mekelle and Hagere Selam, in the last days of November 2020, some 180 km away from the closest Eritrean border crossing along roads and 102 km as orthodromic distance ('as the crow flies'). We have revisited the place and present three repeat photos of still scenes of this video, that evidence that the location of the operations of the Eritrean army was without doubt in Southwestern Tigray. The original video is uploaded in attachment, and a version with English subtitles was republished on the Tigray Voice twitter account (6).

The introduction to the video is in Tigrinya language, as it was broadcast by an Eritrean opposition YouTube channel (5). They mention that the film looks professionally prepared, not just filmed by an individual with a smartphone. The film was on a video cassette found on a dead Ethiopian soldier.

In the talk between the Ethiopian and Eritrean commanders, the target of the attack is mentioned several times: Hagere Selam mountain pass, which they eventually conquered.

As soon as the video emerged, we recognised that the scenes were filmed near Miheni, thanks to its regenerating woody vegetation (7, 8) and relative positions of the road and a cliff that appears at several instances in the video. Miheni is part of the Addi Azmera *tabiya*, located in

Inderta *woreda*, to the west of Giba River. To bring irrefutable proofs of warfare by Eritrean troops deep inside Tigray, we have localised three standing places from where the video imagery has been taken and repeated the imagery in January 2023. The three repeated video stills are presented below.

Indeed, in the video we analyse here, right at the beginning of the war, and 180 km away from the border, an Eritrean commander identified as Brigadier General Haddish Efrem is displayed at length, coordinating warfare with the Ethiopian Major General Zewdu Belay (Fig. 1). See the Major-Gen. insignia with two stars on Zewdu's shoulder; it predates the year 2022, when the ENDF reverted back to the Derg era insignia, replacing the crossed sabres with a stylized lion (9).



Fig. 1. Still of the video recorded at Miheni with Brig.-Gen. Haddish Efrem (EDF, left) and Major-Gen. Zewdu Belay (ENDF, right); 00:45 minutes into the video.

Most of the communication between the generals is in Tigrinya language, as well as orders given by General Haddish to the Eritrean troops. Tigrinya is the commonly used language in Eritrean administration and army. Haddish Efrem is a top military officer in Eritrea (10), sometimes mentioned as belonging to the “inner circle” of Eritrean president Isayas Afewerki (11). The Italian newspaper *Corriere della Sera* mentioned him as taking the lead in the Eritrean support to Islamist militias in Somalia, back in 2007 (12).

2. Repeated video stills

a. Video still 1, in a vantage point underneath Miheni's church



Fig. 2. Still 1 from the ATV video, 01:10 minutes into the video. Imagery recorded in the morning; see the long shadows projected to the WNW. The EDF and ENDF generals and their staff are standing in an open place, high up in the Miheni forest, what gives them a view on the Ala'isa front, some 6 km to the northwest. We note that EDF Brig.-Gen. Haddish Efrem (second from left) wears an outlet store combat outfit over his Eritrean uniform trouser.



Fig. 3. Photo of the same location in Miheni, January 2023. The road leading to the quarried cliff underneath the village is visible. The farm field is located at 13.61511°N , 39.35723°E , view towards NNE. The heap of stones in Fig. 2, probably prepared by soldiers to protect themselves from enemy fire, has been removed later on by the farmer, as it was an obstacle for tillage.

b. Repeated video still 2, along the main road



Fig. 4. Still 2 from the ATV video, 02:31 minutes into the video, with Eritrean general Haddish Efreem along the road from Mekelle to Hagere Selam, in late November 2020. They are now much lower than the previous vantage point near the top of the slope, and proceed with their troops along the main road towards Hagere Selam.



Fig. 5. Same landscape as in Fig. 4, revisited in January 2023. Camera location at 13.61205°N, 39.35466°E; view towards NNW. Note the cliff at the back, which occurs at various occasions in the video. The church of Miheni is on the top of the plateau.

c. Video still 3, along the main road



Fig. 6. Still 3. Same people along the same road as in Fig. 4, 02:08 minutes into the video, crossing the Miheni exclosure



Fig. 7. On the January 2023 repeat photo, the position and shape of trees, shrubs and individual stones matches with the military scene of Fig. 6, two years earlier.

3. Contextual information

a. Eritrean involvement

The involvement of the Eritrean Defense Force (EDF) in the Tigray war, in total collaboration with the ENDF, is highly attested by eyewitnesses (13), but is largely denied by Ethiopian authorities and the PFDJ Eritrean party-state (“People's Front for Democracy and Justice”). This is in contrast to other extraterritorial actions in the Tigray conflict, which are undisputed. Indeed, the Tigray Defence Force (TDF) has been operating militarily several hundred kilometers south of the region (14), and the Amhara authorities openly assert that their Special Forces and militias are occupying Western Tigray (15).

The Eritrean government has actively participated in the conflict against Ethiopia's Tigray region since it began in November 2020, supporting the Ethiopian government (1). Regularly, Eritrea dispatched troops to aid Ethiopia's federal government forces in their conflict with the Tigray region (2). As an illustration, witnesses and survivors said that the Eritrean Defence Forces massacred hundreds of civilians in Aksum (16, 17).

Following Eritrean admission of its involvement (3), the Ethiopian Prime Minister Abiy Ahmed, however, minimized the scope of the Eritrean participation throughout the conflict and tended to confine it to the Ethio-Eritrean border regions (4). Antonio Guterres, the UN secretary-general, fell for Abiy's fabrications about Eritrea's non-participation in the Tigray conflict (18). All this is then challenged by the relocated video imagery, at the beginning of the war and deep into Tigray.

b. The scenes in the Miheni exclosure landscape

The entire video was recorded within the Miheni exclosure (Fig. 8). In Tigray, exclosures are areas from which unwanted livestock browsing and wood harvesting are excluded (19); the wider slope (Fig. 9) between Miheni village and Hurura River (20) -a tributary of Giba and Tekeze Rivers- is one of such successful environmental restoration sites, about half way along the road from Mekelle to Hagere Selam (21).



Fig. 8. General view of the landscape where the video (broadcast by ATV) has been recorded. Coordinates of the camera location: 13.61211°N, 39.35458°E.



Fig. 9. Google Earth vertical view, north is up; 1, 2 and 3 are the locations of the repeated video stills. Centre of the aerial view is at 13.61511°N, 39.35723°E; width of the scene is approx. 1450 m. Homogeneous light brown areas are farmlands; brown-green areas with a spickled texture are exclosures with forest regrowth.

In the late 1980s, the community decided to protect the slope from the village down to Hurura River, and trees have grown since then, what explains that the trees are all more or less of the same height and the canopy not yet closed (22). The reforested area was then used as a temporary location for the Eritrean and Ethiopian military commanders guiding the battles in Afedena and Ala'isa, up along the road to Hagere Selam (Fig. 10).



Fig. 10. Google Earth oblique view towards north, with indication of location of the ATV video stills. Location 1 offers a direct view line to the battle field at Afedena (9 km to the NW), while taking protection underneath the hilltop where Miheni's Abba Gabir church is located.

c. Subsequent massacres

Amongst the commanders that are extensively filmed, there are most probably also the Ethiopian and Eritrean defence personnel responsible for the troops who carried out the massacre in Hagere Selam on 3 to 5 December 2020, where they killed between 23 and 60 civilians by shelling and executions when they entered the town and plundered it (23). On 14 December, a further 30 to 50 people were massacred in Addi Qoylo (24), Ala'isa (25) and surroundings, villages along the road from Miheni to Hagere Selam, in which the same troops could also have been involved.

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