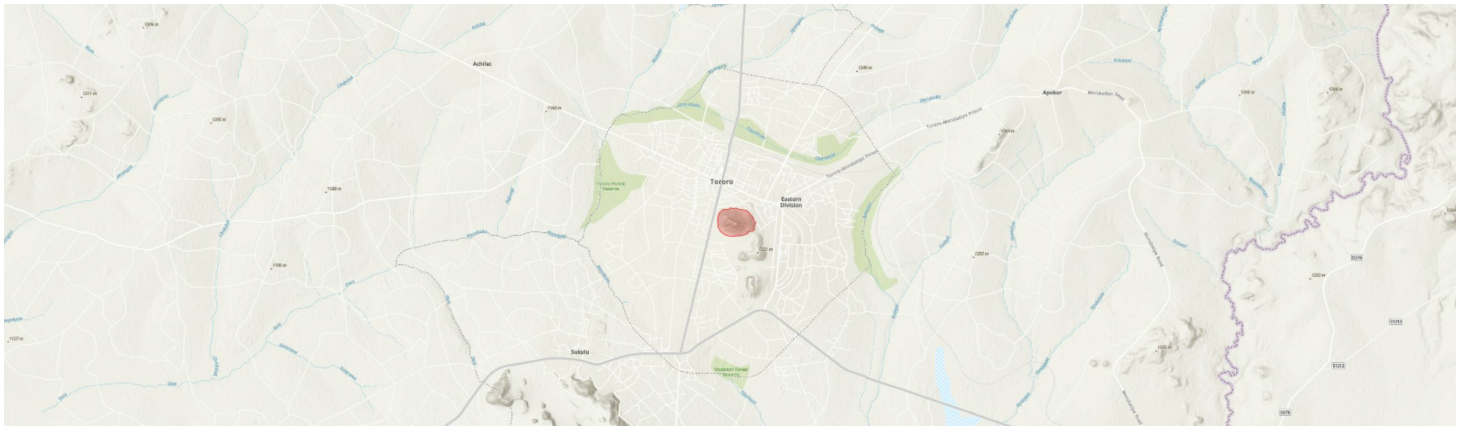


Tororo Rock

UGATIPA4



Country: **Uganda**

Administrative region: **Eastern (Region)**

Central co-ordinates: **0.68518 N, 34.18311 E**

Area: **0.38km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

Tororo Rock qualifies as an IPA under criterion A(i) as it contains a major portion of the global population of *Aloe tororoana*, a species currently assessed on the IUCN Red List as Vulnerable.

Site description

Tororo Rock is a prominent volcanic peak situated within Tororo District of Eastern region, Uganda, within 10 km of the Kenya border. It falls within the Tororo municipality, rising precipitously ca. 280 m above the surrounding town to a maximum height of 1,479 m. The slopes of the mountain support intact bushland, and extensive areas of exposed rock with a lithophytic flora on the steeper slopes.

Botanical significance

Tororo Rock is of global botanical importance for holding the largest and most secure wild population of the Ugandan endemic aloe, *Aloe tororoana*. Here, *A. tororoana* grows plentifully on steep and often inaccessible slopes and cliffs in areas without dense vegetation (Carter et al. 2011; Andima et al. 2014; Cole & Forrest 2017). It is currently assessed on the IUCN Red List as Vulnerable under criterion D2 (IUCN SSC East African Plants Red List Authority 2013),

but given ongoing threats to some of its subpopulations, this assessment should be upgraded to Endangered under criterion B. Away from Tororo Rock, it is known only from the Osukuru (Sukulu) Hills to the southwest of Tororo, which are subject to ongoing and planned industrial activity through the Osukuru Industrial Complex, including phosphorite and iron ore deposits. A record of this species from the Toror Hills in the Northern region of Uganda (based on H.C. Dawkins #636, MO), mentioned in the Red List assessment, is believed to be in error as this site is a long way out of the range for this species.

The Tororo Rock IPA also contains a population of *Pennisetum procerum* growing in rock crevices. Although not an IPA trigger species, *P. procerum* is a crop wild relative to Pearl Millet, and hence a potential source of novel genes for crop resilience such as tolerance to drought, which may be important for diversification of the genetic base of this crop which is grown in eastern Uganda. In Uganda, *P. procerum* is only known from Karamoja region, Sipi and Tororo Rock (Kalema et al. 2016).

Habitat and geology

Tororo Rock is a volcanic plug comprising carbonatite (high-carbonate alkaline igneous rock) of Middle Eocene age (ca. 40 Ma), as an intrusion within Pre-Cambrian syenites (Williams 1952; HiTech AlkCarb 2022). Other lower lying carbonatite outcrops occur immediately to the south of the rock, but these are not included in the IPA because they have been extensively denuded of vegetation. The Tororo Rock IPA is surrounded by urban development, but as the slopes steepen, natural bushland vegetation remains intact. The bushland communities are mostly composed of species of *Combretum*, *Bridelia*, *Acacia*, *Euclea*, *Rhus*, *Allophylus*, *Ficus*, *Olea* and *Capparis*. On the steeper slopes there are areas of bare rock with pockets of shallow soil that support a succulent flora including *Aloe tororoana* and *Euphorbia magnicapsula*, both frequent here. There are also limited patches of *Themeda triandra* grassland on the

upper slopes, often lightly wooded with *Acacia hockii* and *E. magnicapsula* (J. Kalema, pers. obs.).

Tororo experiences a humid climate with average annual rainfall of over 2,000 mm. The main wet season peaks in April and May, with a shorter wet season in November-December. The months with the lowest amounts of rainfall are February and July.

Conservation issues

Tororo Rock is included in Uganda's Key Biodiversity Areas network based on the population of *Aloe tororoana* (Plumptre et al. 2017). While the site has been afforded some protection by the local community and authorities, currently Tororo Rock is not formally protected, and faces a number of threats, partially driven by its proximity to Tororo town. Encroachment for settlement and agriculture, cattle grazing, uncontrolled burning and harvesting of firewood and poles continue to degrade the vegetation, particularly on the lower slopes (P. Nyadoi, pers. comm. 2022). Past extraction of the carbonatite rock for local construction and road building has occurred, but community protests have led to these activities being halted (IUCN SSC East African Plants Red List Authority 2013). However, the lower-lying extrusions of carbonatite immediately to the south of Tororo Rock, outside of the IPA boundary, are mined for cement. There is thus a potential risk of habitat degradation arising from this mining activity in the neighbourhood, should it ever expand to the hill (Kalema et al. 2016). The erection of a series of telecommunication masts at the summit of the rock with associated power lines resulted in localised clearance of vegetation (IUCN SSC East African Plants Red List Authority 2013). Tourist footfall at the site is significant, with ladders having been erected to allow easy access to the summit, but the tourist route is clearly defined, and most of the populations of the *Aloe* are on inaccessible parts of the cliff. Rock climbing by mountaineers may, however, cause some erosion of the species' fragile habitats. There are also some concerns over the unsustainable harvesting of the *Aloe* for its medicinal uses (see Key Ecosystem Services below), and there was evidence of reduction of the accessible populations of this species during a site visit in March 2025, attributed in part to harvesting. Other threats noted during the same visit included the spread of invasive species including *Chromolaena odorata* and *Lantana camara*, and - of particular concern - an extensive recent fire on the upper slopes that had impacted much of the bushland and some of the *Aloe* populations, this having apparently being set accidentally by visitors (I. Darbyshire et al., pers. obs. 2025).

Between 2014 and 2018, Uganda Wildlife Society implemented a conservation initiative at this site, which included replanting of some indigenous species and collaborating with Tororo District council and local communities to promote the protection of the fragile habitats and to develop an ordinance for the site. However, the funded project ended before completion of the ordinance, and some recommendations were not implemented, including the formal demarcation of the site boundary (P. Nyadoi, pers. comm. 2022). In

2023, however, the UN-Uganda National World Wildlife Day Celebration was hosted by Tororo District, and the Ministry of Tourism committed to support gazettement of the Rock as one of Uganda's important tourism and conservation areas. This builds on the earlier efforts by UWS and the local government towards securing the Rock and protecting it from all forms of encroachment. Assigning the rock as an IPA will help facilitate the process and elicit stakeholder investments towards conservation and sustainability of its biodiversity and tourism values (P. Nyadoi, pers. comm. 2024).

Site assessor(s)

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Date of first assessment:
4th Nov 2024

Reviewed by:
Priscilla Nyadoi, Uganda Wildlife Society

IPA criterion A species

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE
<i>Aloe tororoana</i> <i>Reynolds</i>	A(i)	✓	✓	✓	—	✓	Frequent

IPA criterion C qualifying habitats

HABITAT	QUALIFYING SUB-CRITERION	≥ 5% OF NATIONAL RESOURCE	≥ 10% OF NATIONAL RESOURCE	1 OF 5 BEST SITES NATIONALLY	AREAL COVERAGE AT SITE
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General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Shrubland - Subtropical/Tropical Moist Shrubland	—	Major
Rocky Areas - Rocky Areas [e.g. inland cliffs, mountain peaks]	—	Major
Grassland - Subtropical/Tropical Dry Lowland Grassland	—	Minor

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Tourism / Recreation	—	Major
Utility & service lines	—	Minor
Residential / urban development	—	Minor
Harvesting of wild resources	—	Minor
Agriculture (pastoral)	—	Minor
Agriculture (arable)	—	Minor

Threats

THREAT	SEVERITY	TIMING
Transportation & service corridors - Utility & service lines	Low	Ongoing - stable
Residential & commercial development - Tourism & recreation areas	Low	Ongoing - increasing
Human intrusions & disturbance - Recreational activities	Medium	Ongoing - increasing
Energy production & mining - Mining & quarrying	Medium	Past, not likely to return

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Low	Ongoing - trend unknown
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Low	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	Unknown	Ongoing - trend unknown
Biological resource use - Gathering terrestrial plants	Medium	Ongoing - trend unknown

Conservation designation

DESIGNATION NAME	PROTECTED AREA	RELATIONSHIP WITH IPA	AREAL OVERLAP
Tororo Rock	Key Biodiversity Area	protected/conservation area overlaps with IPA	1

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
No management plan in place		—	—

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