NGORONGORO CONSERVATION AREA AUTHORITY

CULTURAL HERITAGE DEPARTMENT

SUBJECT: STATE OF URGENCY FOR REOPENING OF THE LAETOLI HOMININS FOOTPRINTS

JUNE, 2022

1.0 INTRODUCTION.

Our knowledge of early hominid species is dependent on rare, chance finds and includes both fossils remains and trace fossils such as footprints. In 1976 the world's oldest footprint trackways were discovered by Mary Leakey frozen in ash beds at Laetoli within the Ngorongoro Conservation Area, a World Heritage Site (Leakey and Hay, 1979). More recently, a further set of both hominin and animal footprints, dating back to 3.66MY, has been discovered at the site (Masao et al., 2016). In 2016, prior to discovery of the new tracks, the Tanzanian Government had already identified the record of international importance, —the need to manage and to protect these assets is paramount to the nation and the communities surrounding them as physical and human-induced forces continue to damage the paleoanthropological and archaeological assets that document the historical events that shaped humanity's existence in Tanzania.

In an effort to preserve sets of prints discovered by the Leakey's in 1976, they were covered with a complex sandwich of geo-materials however, following an inspection in 2015/2016, it has become apparent that while this has prevented vegetation encroachment this has exacerbated their degradation from subsurface moisture. An urgency exists therefore to understand the state of preservation of the tracks, the factors that are causing their degrading and to ascertain if further tracks exist that are as yet undiscovered before they are lost to the forces of nature. The importance of the tracks is fundamental to early anthropological research but equally important economically for the local communities that depend on them for income today and the future cultural heritage tourist revenue that the site represents.

In February, 2022, NCAA organized an online zoom meeting with the experts and researchers from different places to discuss the on-going conservation efforts and challenges of the hominin footprints trail at Site G since their discovery more than 40 years ago. The team has agreed to form a multidisciplinary international team of experts who will work together and search for the funding opportunities to rescue this important heritage in the world and make it accessible to the public.

In June, 2022, one of the team membersinformed the Laetoli team that he has secured small amount of fund to help his travel and make the periodic monitoring of the Site G hominin footprints as per agreed UNESCO 2019 way forward.The present proposal seeks for the support and facilitation of the proposed activities to be done at Laetoli by the experts and scientists from within and outside the country.

2.0Current state of Conservation since 2016

Re-excavations conducted in 2016 on thefootprints at site G revealed changes to the footprints Tuff as a result of chemical reaction during consolidation processes as well as microbiological effects. The 2016 re-excavations conservation studies detailed descriptions of the geology, mineralogy and geochemistry of Tuff 7 at Site G (Locality 8) and the results of laboratory studies of the physical-mechanical properties of Laetoli tuffs and their microbiology have been reported. The results, conclusions and recommendations based on that preliminary work were presented at the Third Monitoring Committee Meeting on January 16, 2017 at the NCAA headquarters in Ngorongoro. In relation to the need for exposure of the footprints for public exhibition, the 2016 studies provided room for contemplation on the best way such project could be executed.

3.0 Major Conservation Concerns in 2016:

Though well intentioned, the conservation efforts and the anthropogenic derived re-burial of the prints has in fact caused more harm than anticipated. Based on visual observation and analyses of the data collected (2011, 2014, and 2016), the State Party is gravely concerned with the current state of preservation of the Laetoli hominin footprint trail at Site G in that:

A. Covering of the footprints has created an artificial environment and thus altering the footprint tuff. The process has contributed to environmental conditions that have allowed for bioturbation and proliferation of termitary and tunneling along the edge of the footprint surfaces.

B. By covering the footprints, the process rather than allow for a better trans-evaporation of underground water, it has resulted in prolonged water saturation

that has dramatically changed the chemistry of the footprints tuff, thus resulting in irreversible changes of the tuff surface.

C. Sediment dissolution as a process has greatly contributed to the deterioration and loss of details and scientific data originally preserved on the footprint surface.

D. The reburial as a process has never been consistent with smart conservation efforts that allow for real-time monitoring and for the mitigation processes, contra to 2015 UNESCO Policy for the Integration of a Sustainable Development Perspectives into the Processes of the World Heritage Convention (Resolution 20 GA 13).

4.0 PROPOSED ACTIVITIES

The following are the main project activities;

1. Construction of the temporary enclosure without any permanent foundation as a lightweight building or tent with sidewalls that covers the whole footprints area to protect the footprints from direct sun, wind, sudden rain or any other weather or human impact.
2. Opening of the half trail of the footprints at site G
3. Mapping and photogrammetric of the footprints at site G as part of periodic monitoring
4. Developing an active monitoring and mitigation plan and implementing it
5. Completing the current conservation report (formerly known as the roadmap document) and providing responses to highlighted issues and areas identified at the 2019 Paris UNESCO meeting and resubmit it to UNESCO.

4.1 EXPECTED SEQUENCE OF ACTIVITIES.

SN	TIME FRAME	NO. DAYS	ACTIVITIES	RESPONSIBLE	PLACE
1	June,19-22		Arrival dates for the International and National Experts and scientists at NCAA	1. Eng. Joshua Mwankunda 2. Dr. AgnessGidna	
2.	June, 23	1	Experts/researchers meeting and discussion about the work	1. CC 2. International and National team	NCAA
3.	June, 24	1	Camping at Laetoli, site visit and cleaning	Experts Team	Laetoli
4.	June, 26-July 3rd	10	Construction of the temporary shelter, site mapping, visiting various localities	Experts	Laetoli
5.	July 5th-July 8th	4	Opening of the half trail of the footprints	Experts	Laetoli
6.	July 10th		**OPENING CELEBRATION**		

5.0 EXPECTED PROGRAMS ON THE OPENING OF THE FOOTPRINTS

1. Official visit and statement of the opening of the footprints to the public
2. Public outreach and educational program
3. Scientific presentations
4. Media coverage

6.0 BUDGET

SN	INTENDED SPENDING	DETAILS	ESTIMATE COST
1.	Construction of the temporary shelter	▪ Design of the shelter ▪ Construction of the shelter	123,000,000/=
2.	Opening of the half trail of the footprints	▪ Protective clothing footwear and gears ▪ Small tool and equipment ▪ Printing and publications ▪ Per diems-domestics ▪ Working station computer to install data ▪ Food and refreshments ▪ International travels ▪ Professional allowance ▪ Diesel to facilitate the opening ▪ Air travel tickets ▪ Opening Ceremonial ▪ Casual laborers ▪ Media coverage	300,000,000/=
		TOTAL	**423,000,000/=**

I submit.

Gidna