STATE OF CONSERVATION OF LAKE MALAWI NATIONAL PARK

NAME: Lake Malawi National Park, STATE PARTY: Malawi, ID No: N 289

1. EXECUTIVE SUMMARY

State of conservation report for Lake Malawi National Park World Heritage Site outlines the progress that has been undertaken by the Site since 2022 in response to the IUCN/UNESCO joint Mission report following to the visit undertaken from 27th March – 2nd April (**Decisions 44 COM 7B.82** and Decisions **45 COM 7B.74) by** the World Heritage Committee. As it has been noted by the World Heritage Committee in its **Decision: 45 COM 7B.74** recalling Decisions 44 COM 7B.82 the effort which the State Party of Malawi has taken for the property's conservation and the implementation of the 2022 mission recommendations, the management has put much effort for the conservation, maintenance and monitoring of the Outstanding Universal Values of the property by engaging different stakeholders including the local communities.

In response to the Mission undertaken by UNESCO for the self-evaluation of RIPPLE Africa project, Malawi received support from UNESCO Norway Funds through RIPPLE Africa which is an extension project for fish conservation project currently being implemented at Lake Malawi National Park National Park World Heritage Site. The support is aimed at .protection of cichlids breeding areas within the 100m protected zone of the shore line contributing to the protection of the OUV of the World Heritage Site. The project has supported the Site in capacity building to local communities, supporting Department of Parks and Wildlife with procurement of equipment like boats and motorcycles for law enforcement and extension services,. However, they have also enhanced the collaboration between Government departments in the management and protection of the property.

Africa Development Bank provided grant for Promoting Investment in Tourism Sector and in the conservation of Lake Malawi National Park World Heritage Property. This has enhanced conservation and monitoring activities for the property as they have procured a speed boat for law enforcement research and ecological monitoring. Rehabilitation of the Environmental Education Centre as well as construction of the new magnificent Park entrance gate which has promoted tourism management for the property.

Malawi Watershed Services Improvement Project (MWASIP) is a project that promote watershed catchment areas and the project is assisting watershed institutions and Lake Malawi National Park is one of the institution that has benefited the grant whereby the project has constructed staff houses and purchase of new motor vehicle and some equipment for conservation management.

The BIOPAMA through Malawi University of Sciences and Technology introduced a monitoring tool for park management called Integrated Management Effectiveness Tool (IMET). The Integrated Management Effectiveness Tool (IMET) in African protected areas enables managers to anticipate certain threats and destruction (IUCN 2024). IMET's added value to the park management. This tool is

a decision-support system offering a systematic, robust and results-oriented analysis, based on information gathered in the field using participatory methods. It provides managers with the elements needed to collectively analyse the current situation, identify strengths, weaknesses and threats, and support the development of a list of improvements needed to achieve objectives.

AWHF supported Lake Malawi National Park by providing resources that were used to build capacity of local community in the area of ecotourism promotion. They also supported the marketing of Lake Malawi National Park by promoting the visibility of Lake Malawi National Park by conducting different programs on National Televisions. Public awareness were conducted through Dzimwe Community Radio and community meetings. This project also promoted tree planting in schools and in villages through VNRCs.

From what is being examined by the World Heritage Committee "Document **WHC/23/45.COM/7B** Add." there are number of activities that are being addressed for monitoring of management of the key Outstanding Universal Values of the property to maintain its status of World Heritage Site. As indicated above management activities undertaken as requested by the WHC are outlined below paragraph by paragraph.

The Outstanding Universal Values of the site are being maintained though there might be some challenges as pointed out in the previous Monitoring Mission and are indicated below as current issues observed by the State Party.

WORLD HERITAGE VALUES OF LAKE MALAWI NATIONAL PARK		
Values	**Description**	**WH Criterion**
Outstanding natural beauty of lake in Rift Valley	The lake is characterized by its crystal clear waters, and the diversity of habitats amongst its many rocky islands and shores. It is situated in the Great Rift Valley and set against the wooded hillsides of steep escarpments on either side. Much of the shoreline is composed of massive rounded granite boulders, partially submerged and washed by wave action. Between the steeper rocky sections are sun-drenched sandy bays, with inflowing rivers and streams creating the occasional reed-filled lagoon and lake-edge swamps. The position of these landscape elements creates scenes of Outstanding Natural Beauty (Statement of Outstanding Universal Values, 2010).	(vii)
Key example of evolutionary processes	The lake provides an extraordinary example of evolutionary processes, the phenomenal adaptive radiation of cichlid fishes (known locally as mbuna) along its rocky shores resulting in an array of species and varieties unmatched anywhere else in the world. The speciation of cichlid fishes in Lake Malawi is considered to be of equal or greater importance for the study of evolutionary processes as the Galapagos Island finches or honeycreepers of Hawaii (IUCN Evaluation, 1980, SoOUV, 2010)	(ix)
Extraordinary diversity of fish species	The lake is thought to have the largest number of fish species of any lake in the world, with estimates varying between about 1,000 (SoOUV, 2010) and 3,000 species (UNEP-WCMC, 2012), of which as many as 800 belong to the family Cichlidae. Lake Malawi is home to 15% of the world's freshwater fish species (Chafota et al., 2005)	(x)
Extremely high levels of species endemism	Endemism is extremely high, with more than 98% of cichlid fish known only from Lake Malawi (SoOUV, 2010).	(x)
Terrestrial	The terrestrial part of property comprises wooded hillsides that protect part of the catchment of the lake, the	

biodiversity	biodiversity of these terrestrial habitats includes a few notable species. Mammals include hippo (particularly in the Monkey Bay area) otters, duiker, baboon, velvet monkey, bush pig. Leopard and bushbuck have been reduced or extirpated from the area. The park is rich in birdlife including fish eagle along the shoreline. The island especially Boadzulu, is important nesting areas for white-throated cormorant which number several thousand. Reptiles include crocodiles and abundant monitor lizards on Boadzulu Island.(SoOUV, 2010)

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Topics of the State of Conservation Report (as format)	**Summaries of State Party's Report on the State of Conservation of Lake Malawi National Park World Heritage Property, MALAWI**
2. Response from the State Party to the World Heritage Committee's Decision, paragraph by paragraph **Decision: 45 COM 7B.74**	**The World Heritage committee decisions or recommendations, Decision: 45 COM 7B. 74** **With reference to the extract of the Decisions adopted by the World Heritage Committee at its 45th session of the World Heritage Committee (Riyadh,2023) and recalling Decision 44 COM 7B.82** **MALAWI'S (STATE PARTY) RESPONSES TO WORLD HERITAGE COMMITTEE'S DECISION** (1) Response to paragraph 3 - to ensure effective coordination of activities to ensure effectiveness and ensure their contribution to the protection of the property's Outstanding Universal Values (OUV), partnership has been developed and promoted through; (i) Work collaboration with several partners has been enhanced to strengthen the management capacity and protection of the property. This has been done through mobilization of resources for implementation of management activities. UNESCO Netherlands Funds-in-Trust support through RIPPLE Africa is implementing awareness programme on cichlids fish conservation project, Malawi Watershed Services Development Project (MWASIP) supported an infrastructure development project and provided a new vehicle that has enhanced law enforcement in the property, African Development Bank supported rehabilitation of the Environmental Education Centre and construction of the new visitor park-entry gate, provision of law enforcement equipment that included the speedboat for law enforcement , introduction of IMET by Malawi University of Science and Technology through BIOPAMA support funds and capacity building for park staff and research through JICA Project ''Integrated Natural Resources Management Systems (IntNRMS) Project''

	(ii) Established local institutions known as Village Natural Resources Committee (VNRC) in the enclave villages and all adjacent villages around the Property. An Association for the Village Natural Resources Committee known as Mangochi Salima Lake Park Association (MASALAPA) was created to be an umbrella body for the VNRCs. The Association is registered with the Register General Office. The key objective for the local institutions is to assist and collaborate in the management, conservation and preservation of natural resources in the property. A Collaborative Management agreement was signed between the local communities and Government (Department of National Parks and Wildlife) through MASALAPA. Representing all local communities. (iii) Enhanced community participation through revenue sharing scheme where local communities in and around the property get 25% of the revenue collected from park fees, concession fees and research fees through the umbrella body ' Mangochi Salima Lake Park Association' for social development in their village. (iv) With the grant from UNESCO-Netherlands Funds-in-Trust through RIPPLE Africa, the property has enhanced the working collaboration between local institutions within the enclave villages and adjacent villages on the conservation of cichlids fish and other species of fish within the protected zone. The Beach Village Committees (BVCs) and Village Natural Resources Committees (VNRCs) are working together towards the protection and conservation of cichlids fish and other fish species in and around the 100m protected zone. There is collaboration between Department of National Parks and Wildlife and Department of Fisheries in the protection of fisheries resources. Law enforcement has been enhanced through joint patrol operations both on the lake and the mainland. The judiciary support enforcement by handling with speed all illegal cases found in the property. (v) Research cooperation and international assistance with management and monitoring of aquatic and terrestrial components of the property, tourism development and community-based conservation efforts. Through JICA Project *(The state of Fish Biodiversity in the literal zone of the Lake Malawi National Park, Rusuwa and Zatha 2022*). The property has jointly with local communities in the enclave and adjoining village conducted dead wood survey to come up with the quotas for resource collection in each community zone (Report pending). The development of resource use guidelines has been initiated through JICA Project where community survey on livelihood distribution has been conducted in the

	enclave villages and adjoining villages (Report pending). Baseline survey was conducted in areas of the lake for ecological monitoring of fish species in the areas of the park. 2. Response to paragraph 4 – on recalls and request for the State Party to assess the feasibility of potential extension and requesting International Assistance and technical support from the World Heritage Centre and IUCN for this work as required, the State Party marked some of the terrestrial and aquatic boundaries as requested in the previous recommendation by the World Heritage Centre with support from Netherlands Funds for UNESCO and African Development Bank. (i) The property boundary is Gazetted any change regarding extension has to go through the Parliament (National Parks (ESTABLISHMENT) Order G.N. 205/1980. Need for revisiting this process. (ii) The property included in the Key Biodiversity Areas enhancing its protection values (Sayer, C.A, Palmer-Newton, A.F and Darwall, W.R.T (2019). 3. Response to paragraph 5 on Mangochi Water Supply Project on Nkhudzi Hill component of the property- monitoring work for the assessment of the impact of the project is continuing both on the lake and terrestrial area. (i) A permanent Rangers' shelter was constructed on top of the hill and a gate fixed on the entry point to the tank with support from the SRWB. Permanent presence of rangers will closely monitor illegal activities and resource use (firewood) collection. The number of firewood collectors has not increased and the surrounding communities are encouraged to establish their woodlots by provision of seedlings. Wildfires are seriously controlled to promote the regeneration in areas of the pipe-line and along the access road.

	(ii) Dry season and rainy season aquatic ecology monitoring at Nkhudzi is done jointly with Department of National Parks and Wildlife and Department of Fisheries (Fisheries Monitoring protocol for an integrated approach to resources and ecosystem management and conservation of Nkhudzi Hill, July, 2022; February 2023, June 2023). (iii) Pavements and water ways constructed along the access road to the tank to control erosion and siltation of the section of the hill. Further tree cutting is not allowed in the project area and trees were planted on the periphery of the park boundary to reduce run-off. Tree planting in the adjacent villages to the project area is encouraged in every rainy season. (iv) Emphasis is made that for any construction of new major infrastructure project with potential impact on the property's OUV including oil exploration and tourism development, an Environmental Impact Assessment has to be conducted in a World Heritage context. (v) A Heritage impact assessment for Monkey Bay – Cape Maclear road was submitted to meet the requirements of the World Heritage Committee before the progress commenced at the site. This was before the contractor started working in the area of the property from Cape Maclear turn off. 4. Response to paragraph 6 -The property documented the damage caused by the Mangochi Water Supply project through impact assessment conducted by the State Party. Records of monitoring works during the construction period and aquatic ecological monitoring are being kept for future references. Enforcement work is ongoing activity to ensure there is no cutting of trees by poachers or resource users. Fisheries diversity monitoring is ongoing activity (Fisheries Monitoring protocol for an integrated approach to resources and ecosystem management and conservation of Nkhudzi Hill, July, 2022; February 2023, June 2023). *5.* Response to paragraph 7 - The State Party will follow all necessary steps for any development Projects to be undertaken (including oil exploration outside the Property's boundary and any

infrastructure and tourism developments that may impact on the property's OUV) by conducting Environmental Impact Assessment (EIAs) in conformity with IUCN's New Guidance and Toolkit for Impact Assessments in a World Heritage Context. (Report on Monitoring compliance to Environmental and Social safeguards for staff houses construction at LMNP, 2023; Environmental and Social Impact Assessment for the Upgrading of Monkey Bay – Cape Maclear Road, LMNP World Heritage Site, December 2022) and Maintenance of staff houses at Cape Maclear (to be submitted).

6.Response to Paragraph 9 – following the recommendations from the 2022 joint World Heritage Centre/IUCN Reactive Monitoring mission on the following matters;

(a) The Mangochi Water Supply project - monitoring of the area both on terrestrial and aquatic areas to see that there is no any further negative impacts by enforcing the law using Amended (2017) National Parks and Wildlife Act and other related regulations. Aquatic Ecological monitoring is being conducted jointly by DNPW and Department of Fisheries. Oil exploration activities are closely monitored by several environmental agencies.

(b) Encouraging and supporting the local communities in the enclave villages, the RIPPLE Africa and Integrated Natural Resources Management System (IntNRMS) project area encouraging local communities to establish fish sanctuaries in all the enclave villages, Survey on social economic needs assessment and livelihood styles was conducted in the enclave village to assist in coming up with livelihood alternative strategies. Survey on dead wood availability was done jointly by the park, Japanese Researchers and local communities. This survey will assist in coming up with Resource Use Guidelines for the property. AWHF supported the site with capacity building in area of tourism management to local tour guides in the enclave village and promoted in tree planting in the enclave village and villages around the park.

(c) In response to resource use and illegal agriculture encroachment within the property, dead wood survey was conducted jointly by Japanese researchers, park officers and local communities which will assist to come up with quotas and zones will be demarcated for collection of dead wood. Law enforcement activities have been enhanced on both terrestrial and aquatic areas to protect park resources. This has been achieved with the provision of the speedboat and other law enforcement equipment from AfDB, provision of a new vehicle by Malawi Watershed Services Improvement

	Project (MWASIP) for deployment of terrestrial patrols and enhanced community awareness programme through RIPPLE Africa support. Marking of the park boundary assist in monitoring encroachment (The state of Fish Biodiversity in the literal zone of the Lake Malawi National Park ,Rusuwa and Zatha 2022; Six New Species of Labeotropheus (Cichliformes:Cichlidae) from the Malawi Shore of Lake Malawi, Africa, Pauers and Phiri 2023) (d) In response to agriculture and other land use practices in the headwaters of the river catchment a property to work with different stakeholders in the area of agriculture and afforestation to conserve the catchment area to encourage afforestation and good agriculture practices. The Department of Fisheries assist in Monitoring of water turbidity around the mouth of Linthipe River close to Maleri islands. (e) In response to ecological monitoring of the property and to ensure that nonnative species of fish (especially top-level predators) are not introduced into the lake or its catchment areas - monitoring on terrestrial and marine species population distribution and diversity in the property is being done by the Property on its normal research activities and the property is also being assisted by University of Malawi Biology Department, Department of Fisheries and other outside Researchers on cichlids fish species population distribution and diversity. Some of monitoring data available in Research papers for; (i) Habitat Complexity Predicts the Community Diversity of Rocky dwelling cichlid fish in L. Malawi, East Africa by Baoqling Ding, Patrick D. Danley,Martin Huseman Jason Carole (2014),Springer International. (ii) Hybridization and Contemporary evolution in an introduced cichlids fish from Lake Malawi National Park by Told Streelman,S.L. Gmyrek,M.R.Kidd,C.Kidd,R.L.Robinson,E.Hert,A.J.Ambali,T.D.Kocher (iii) Elevated mtDNA diversity in introduced population of Cynotilapia afra in Lake Malawi National Park is evidence for multiple source populations and hybridization ,Hastings Zidana,George Turner and Cock Van Oosterhout and Bernard Hanfling,Department of Biology Science, University of Hall,HU5,2DX,School of Biological Science,UK. (iv) Seasonality, depth and habitat distribution of breeding males of Orechromis spp. “Chambo” in Lake Malawi National Park by K.R.Mckaye and J.F.Stauffer Reapplication Environmental aboratory,University of Maryland,Frostburg,MD 21532 and School of Forest Resources Pennsylvania, State University ,University Park,USA. (v) Woodland Monitoring, on Published paper, Lake Malawi National Park, Research Activities.

	(vi) Cichlids Fish spp.diversity distribution in Lake Malawi National Park, Non Published Paper by Lake Malawi National Park Research Activity (f) Response to the strengthening the capacity of the Park and other institutions, including through enhanced inter-agency synergies and collaboration, the property has collaborated with public universities by working together in the Japanese Project Integrated Natural Resources Management Systems (IntNRMS). Through the project the Park is conducting research together with Japanese Researchers, University of Malawi, Lilongwe University of Agriculture and Natural Resources (LUANAR). Aquatic Ecological Monitoring work for Nkhudzi Hill SRWB Water Supply Project is being done jointly with Department of Fisheries where Park Officers are getting knowledge in aquatic resources data collection (Report pending). One officer is undergoing Msc Degree in Natural Resources Management through JAICA Project. Local institution (VNRCs and BVCs) are being trained how to work together, sustainability use fish resources, establish effective conservation groups and enforce by-laws in their villages through RIPPLE Africa project. (g) Response to promoting sustainable tourism initiative, the property is promoting the publicity of this site through local radios, local televentions and social media platforms. The USAID through REFRESH Project assisted the site to document areas of interest and put them on local TV and local Newspapers. Local tour guides were trained in interpretation by Malawi School of Tourism with the support from AWHF. Upgrading of the infrastructure at Environmental Education Centre and the construction of the new park entry gate promote tourism. The Government has upgraded the Monkey Bay – Cape Maclear road to promote tourism at this property.
3. Other current conservation issues identified by the State Party	Issues of climate change have been experienced which are affecting the property management. There has been high water level in the lake for the past three years starting from 2022.

4. In conformity with paragraph 172 of the Operational Guidelines **below are descriptions of potential major restorations, alterations and/or new construction(s) within the protected area and its buffer zone and/or corridors that might be envisaged**	
A)Major restorations	N/A
B) Alterations and/or new construction(s)	1) Expansion of enclave settlements. In the 1970s the population in the enclave villages was at 4,615, in early 1990s it rose to 10,000. In 2002 it was estimated at 18, 000 (Ambali, *et al*; 2002. It is now have grown to over 25, 000 (National Statistics 2018). 2) Inappropriate tourism development: Although all the existing tourism facilities in and around the park appear to be low-impact establishments, there is a real risk of inappropriate developments that could impact the natural beauty and other attributes of the area. Examples include the ecotourism facilities like Hotels, Lodges and cottages along the lakeshores outside the park. 3) Water supply Tank. A water tank was constructed on Nkhudzi hills at one of the component side of the property 4) Expansion of Monkey Bay Trading Centre where construction of houses from communities is within the park boundary which is giving pressure to the management of the property. 5) Tourist and domestic waste. Tourist and domestic wastes, including pollution both on land and water. This is a particular problem around some of the village enclaves within the property, but also affects all lakeshore communities. 6) Land degradation, erosion and siltation. Satellite imagery of the lake catchment areas reveals dramatic declines of vegetation cover and increased incidence of bare (eroded) soil. A picture taken by Mission team during their inspection on the mouth of Linthipe river show increased rates of surface run-off and soil erosion. This is leading to increased rates of siltation, decreased water clarity and alterations in water nutrient balance. The long-term ecological consequences of such changes are not fully understood, but it is likely to have an adverse effect on the rock-dwelling mbuna cichlids many of which graze algae from submerged rocks. Sedimentary deposits on these rocks and decreased penetration of light are likely to interfere with these fish feeding grounds. 7) Over-fishing. There are five fishing enclave villages within Lake Malawi National Park (Chembe, Msaka, Mvunguti, Zambo and Chidzale), and over-fishing is reported to be a serious problem, with many species suffering dramatic declines in numbers (Chafota et al., 2006, Weyl et. al., 2010). However, it is reported that

	the populations and distribution of mbuna cichlids in the National Park have not changed based on fisheries data collected since the 1970s).

OVERALL CONSERVATION OUTLOOK

Lake Malawi retains its outstanding attributes as one of the world's great freshwater lakes, and its natural beauty remains undiminished. The evolutionary processes that have resulted in the development of an extraordinary diversity of colorful rock-dwelling cichlid fish are likely to be intact since the rocky lakeshore habitats are stable and potential threats (e.g. introduced predators, or large-scale pollution) have not been realized. The limited available evidence (from fisheries surveys) suggests that species diversity and levels of endemism are being maintained, but more systematic monitoring of these key attributes is required.

The World Heritage property covers just 0.02% of the lake's area and is vulnerable to threats originating beyond its boundaries, including over-fishing and the degradation of aquatic habitats resulting from soil erosion in the lake's catchment areas.

Despite the tremendous support the property is receiving from the WHC, the operation budget remain limited as Other Recurrent Transaction Funds are not always provided as stipulated in the budget line from Government. Budgets are insufficient to provide the level of management input required. There are no buffer zones for communities to have a utility area for their needs of thatch grass and firewood instead they rely on the Park and there is high demand for the resources following to the growing population in the enclave villages.

The policy, legislative and planning framework for Lake Malawi National Park is strong, and the key values of the property – its scenic qualities and the evolutionary processes that have led to the development if its extraordinarily rich, endemic fish fauna - remain largely intact. These values are however, threatened by a number of insidious factors related to the pressures of a rapidly growing human population causing deforestation and soil erosion in the lake's catchment areas, and ever-more intensive exploitation of fisheries. LMNP is very small (94km^2, of which only 7 km^2 covers aquatic habitats), accounting for just 0.02% of the lake's surface area. This makes it especially vulnerable to potentially devastating threats from outside its borders, including the threat of commercial fishing.

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