3. Lake Turkana National Parks (Kenya) (N 801bis)

Year of inscription on the World Heritage List
1997

Criteria
(viii) (x)

Year(s) of inscription on the List of World Heritage in Danger
N/A

Previous Committee Decisions
N/A

International Assistance
Total amount provided to the property: USD 35,300. 2000: USD 25,300 (conservation) for a management plan project Sibiloi/Central Island National Parks World Heritage Site Management Plan; 2001: USD 10,000 (preparatory) for Finalizing the nomination files “Lake Turkana National Parks” (Sibiloi/Central Island National Parks (Extension) and South Island National Park, and Rift Valley Lakes Reserve.

UNESCO Extra-budgetary Funds
N/A

Previous monitoring missions
N/A

Factors affecting the property identified in previous reports
N/A

Illustrative material
http://whc.unesco.org/en/list/801

Current conservation problems
In March 2011, the World Heritage Centre and IUCN received information on a major hydroelectric dam project (GIBE III) on the Omo River in Ethiopia that is likely to affect both Lake Turkana, situated downstream in neighbouring Kenya, and the cultural landscape of the Lower Omo Valley in Ethiopia. This information included a letter of concern from International Rivers and Friends of Lake Turkana, and a report entitled ‘Assessment of Hydrological Impacts of Ethiopia’s Omo Basin on Kenya’s Lake Turkana Water Levels’ prepared for the African Development Bank. In a letter dated 11 March 2011 addressed to the State Party of Ethiopia, the World Heritage Centre expressed its concern about this proposed construction, and requested additional details on the GIBE III dam project as well as a copy of its Environmental Impact Assessment (EIA). The State Party of Kenya was also informed. On 27 April 2011, the State Party of Ethiopia responded to the World Heritage Centre stating that impact assessments have been conducted taking into account the potential impacts of the project in relation to the World Heritage Convention, and that precautionary measures
have been put in place, and will continue to be implemented, to avert potential adverse effects. However, no relevant documents, such as the requested EIA, were provided in conjunction with the State Party letter, and no information on the precautionary measures was provided.

IUCN further received information that the Industrial and Commercial Bank of China (ICBC) and the Exim Bank of China’s approved in July 2010 the required funding for a major portion of the GIBE III dam’s cost.

a) **Likely impacts of the GIBE III dam**

Preparatory construction work on the GIBE III dam located on the Omo River in Ethiopia has been ongoing since 2006. GIBE III is expected to be the tallest dam in Africa and the fourth tallest in the world, with a height of 240 m and a reservoir with a surface area of 200 km². Given that Lake Turkana depends on the Omo River for almost 90% of its water inflow and much of its nutrients, the potential adverse downstream impacts of this dam are significant. The World Heritage Centre and IUCN note that two EIAs have been prepared for GIBE III proposal, including i) the 2006 ‘Gibe III Hydroelectric Project Environmental Impact Assessment’, and ii) the 2008 ‘Gibe III Hydroelectric Project: Environmental Impact Assessment - Additional Study on Downstream Impact.’ While neither EIA has been submitted to the World Heritage Committee for review, the African Development Bank’s evaluation of these documents is reviewed below.

The African Development Bank’s (ADB) ‘Assessment of Hydrological Impacts of Ethiopia’s Omo Basin on Kenya’s Lake Turkana Water Levels’, in which was released in April 2010, notes that the filling of the GIBE III’s very large reservoir will require several years and will “...deprive the lake of 85% of its normal annual inflow in one year...”, and cause the lake’s water level to drop significantly. In particular, the ADB study notes that the filling of the dam’s reservoir is likely to “...dry up Ferguson’s Gulf, the most productive fishing area of the lake.”

The African Development Bank hydrology study also notes that a number of the project’s potential impacts have not yet been quantified, including the likely impact of the dam’s reservoir, which will capture sediment transported by the river, leading to erosion, changes in water quality, and reduced water tables, and large-scale potential water seepage losses through the reservoir. This study states the even greater hydrological changes could result from plans to exploit the Omo River for irrigation, which could permanently reduce flows into the property by 30% or more.

The World Heritage Centre and IUCN note that in August and July of 2010, the African Development Bank, the World Bank and the European Investment Bank withdrew their funding considerations for the GIBE III dam. At the same time, the Industrial and Commercial Bank of China (ICBC) and the Exim Bank of China reportedly approved financing covering a major portion of the dam’s cost.

The World Heritage Centre and IUCN consider that the direct and indirect impacts of the GIBE III dam on the property’s hydrology are likely to result in a significant decline in Lake Turkana’s freshwater aquatic species and associated biological systems, which are the basis for its inscription on the List of World Heritage under criterion (x). Lake Turkana – which is a serial property made up of Sibiloi, Central, and South Island National Parks - is a major breeding ground for the Nile crocodile, hippopotamus, a variety of snake and fish species, and a key stopover point for migrant waterfowl. Changes in the annual flooding influx of the Omo River in particular could affect fish spawning, which would have serious consequences on the Lake’s food chain and ecology. The World Heritage Centre and IUCN also note that the physical changes described above could also affect the pastoral and agro-pastoral economies throughout the Lake Turkana region that are reliant on lake’s waters for drinking water, fishing and grazing.

The World Heritage Centre and IUCN further note that two dams have already been built on the Omo River further upstream from the GIBE III site, GIBE I and GIBE II, and that two additional large dams are planned downstream, GIBE IV and GIBE V. These last two
schemes are reportedly under study. The World Heritage Centre and IUCN emphasize that they consider that all major dam projects affecting World Heritage properties, whether located within a property or situated outside its boundaries so as to adversely affect its Outstanding Universal Value, should undergo thorough environmental and social impact assessments in line with the international best practice principles, comply with the World Commission on Dams (WCD) guidelines regarding options assessment, public participation, environmental flows, compliance, and benefit sharing, and be submitted to the World Heritage Committee for review and consideration prior to granting of approval, in line with Paragraph 172 of the Operational Guidelines.

**Conclusion**

The World Heritage Centre and IUCN note that the African Development Bank's evaluation of the GIBE III proposal, ‘Assessment of Hydrological Impacts of Ethiopia’s Omo Basin on Kenya’s Lake Turkana Water Levels’ (April 2010), concludes that the GIBE III dam would significantly alter the property’s hydrological regime and likely result in a significant drop in the Lake’s water levels, cessation of the current seasonal flooding pattern, losses of nutrient and mineral-rich sediments due to the upstream reservoir, rising salinity and the disruption of the lake’s chemical balance, among other impacts that have yet to be quantified.

The World Heritage Centre and IUCN consider that the GIBE III dam is likely to significantly alter Lake Turkana's fragile hydrological regime, and threaten its aquatic species and associated biological systems, which are the basis of its inscription on the List of World Heritage under criterion (x) and therefore threaten the property’s Outstanding Universal Value, in line with Paragraph 180(b) (ii) of the Operational Guidelines. They recommend that the World Heritage Committee request the State Party of Ethiopia to immediately halt construction on this dam, in line with Article 6 of the Convention. The State Party of Ethiopia should also be requested by the Committee to submit all assessments for the planned GIBE IV and GIBE V dams and irrigation projects on the Omo River.

Given the complexity of this issue, the World Heritage Centre and IUCN recommend that the World Heritage Committee request both States Parties of Kenya and Ethiopia to invite a joint World Heritage Centre/IUCN reactive monitoring mission to review the likely impacts of the GIBE III dam on Lake Turkana, and to also request them to provide detailed information on all hydro-electric development and large-scale irrigation plans in the Omo region.

**Draft Decision: 35 COM 7B.3**

The World Heritage Committee,

1. Having examined Document WHC-11/35.COM/7B.Add,
2. Expresses its utmost concern about the proposed construction of the GIBE III dam on the Omo River in Ethiopia and its likely impacts on Lake Turkana, which is located downstream in neighbouring Kenya and draws almost 90% of its inflow from the above river;
3. Takes note of the African Development Bank’s April 2010 study of the GIBE III proposal, “Assessment of Hydrological Impacts of Ethiopia’s Omo Basin on Kenya’s Lake Turkana Water Levels”, which concludes that the construction and operation of the dam is likely to result in a significant drop in the Lake’s water levels, cessation of the current seasonal flooding pattern, losses of nutrient and mineral-rich sediments due
to the upstream reservoir, rising salinity and the disruption of the lake’s chemical balance, among other impacts that have yet to be quantified;

4. **Considers** that the GIBE III dam is likely to significantly alter Lake Turkana’s fragile hydrological regime, and threaten its aquatic species and associated biological systems, which are the basis of its inscription on the List of World Heritage under criterion (x), and that this development may pose an imminent danger to the property’s Outstanding Universal Value, in line with Paragraph 180(b) (ii) of the Operational Guidelines;

5. **Urges** the State Party of Ethiopia to immediately halt all construction on the GIBE III dam in line with Article 6 of the Convention requiring State Parties not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage located on the territory of another State Party, and to submit all assessments for this proposal to the World Heritage Centre, in line with Paragraph 172 of the Operational Guidelines;

6. **Also expresses its concern** about the potential cumulative impacts of the proposed GIBE IV and GIBE V dams and large-scale irrigation plans on the property’s Outstanding Universal Value, and **requests** the State Party of Ethiopia to submit assessments for all proposed dams and associated irrigation plans on the Omo River;

7. **Also requests** the States Parties of Kenya and Ethiopia to invite a joint World Heritage Centre/IUCN reactive monitoring mission to review the impacts of the GIBE III dam on the Outstanding Universal Value of Lake Turkana, and to provide detailed information on plans for other hydro-electric developments and associated large-scale irrigation in the Omo region;

8. **Encourages** all financial institutions supporting the GIBE III dam to put on hold their financial support until the World Heritage Committee reviews this issue at its 36th session in 2012, and to take account of the Committee’s decisions when deciding whether to provide such funding;

9. **Further requests** the States Parties of Ethiopia and Kenya to submit to the World Heritage Centre, by **1 February 2012**, a report on the course of action taken in response to this decision for examination by the World Heritage Committee at its 36th session in 2012, **with a view to considering, in light of the mission’s review of the likely impacts of the GIBE III dam on Lake Turkana, the possible inscription of the property on the List of World Heritage in Danger.**

---

5. **Vredefort Dome (South Africa) (N 1162)**

**Year of inscription on the World Heritage List**

2005

**Criteria**

(viii)

**Year(s) of inscription on the List of World Heritage in Danger**

N/A