

Profile on Environmental and Social Considerations in Kenya

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List of Acronyms and Abbreviations

ACHPR	African Commission on Human and Peoples' Rights
AEWA	African -Eurasian Migratory Waterbird Agreement
AFD	The French Development Agency
AfDB	African Development Bank
ASALs	Arid and Semi-Arid Lands
AU	African Union
CDKN	Climate and Development Knowledge Network
CEMIRIDE	Centre for Minority Rights Development
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLBs	Community Land Boards
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COL	Commissioner of Land
COMESA	Common Market for Eastern and Southern Africa
CSO	Civil Society Organization
DC	District Commissioner
DEC	District Environmental Committee
DEO	District Environmental Office
DFID	UK Department for International Development
DLBs	District Land Boards
DO	District Officer
EA	Environmental Audit
EAC	The East African Community
EC	European Commission
ECOSOC	United Nations Economic and Social Council
EIA	Environmental Impact Assessment
EIA/EA 2003	The Environmental (Impact Assessment and Audit) Regulations, 2003
EMCA 1999	The Environmental Management and Coordination Act, 1999
EMP	Environmental Management Plan
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FPIC	Free, Prior and Informed Consultations
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GNP	Gross National Product
GOJ	Government of Japan
GOK	Government of Kenya
IBAs	Important Bird Areas
ICC	The International Criminal Court
IEE	Initial Environmental Evaluation
IFC	International Finance Corporation
ILO	International Labor Organization

IMCE	Inter Ministerial Committee on Environment
IP	Indigenous People
IPACC	the Indigenous Peoples of Africa Coordinating Committee
IPF	Indigenous People Framework
IPP	Indigenous People Plan
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
KANU	Kenya African National Union
KAP-SLM	Kenya Agricultural Productivity and Sustainable Land Management Project
KARI	Kenya Agricultural Research Institute
KFS	Kenya Forest Service
KfW	Kreditanstalt für Wiederaufbau
KJAS	Kenya Joint Assistance Strategy
KNCHR	Kenya National Commission on Human Rights
Ksh	Kenya Shilling
KURA	Kenya Urban Roads Authority
KWS	Kenya Wildlife Service
MDGs	Millennium Development Goals
MEMR	Ministry of Environment and Mineral Resources
MENR	Ministry of Environment and Natural Resources
MNP	Marine National Park
MNR	Marine National Reserve
MOL	Ministry of Land
MRG	Minority Rights Group International
NCCRS	The National Climate Change Response Strategy
NEAPC	National Environment Action Plan Committee
NEC	National Environment Council
NEMA	National Environment Management Authority
NGO	Non Governmental Organization
NLC	National Land Commission
NMK	National Museums of Kenya
ODM	Orange Democratic Movement
OP	Operational Policies
PAP	Project Affected People
PC	Provincial Commissioner
PDE	Provincial Director of Environment
PEC	Provincial Environmental Committee
PEO	Provincial Environmental Office
PNU	Party of National Unity
PO	Provincial Officer
PS	Performance Standards
RAP	Resettlement Action Plan
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
ROD	Records of Decision

R-PIN	Readiness Plan Information Note
R-PPP	Readiness Plan Project Proposal
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
TAC	Technical Advisory Committee
TOR	Terms of Reference
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN-HABITAT	UN Programme for Human Settlements Programme
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNON	United Nations Office at Nairobi
UNPF	United Nations Population Fund
USEPA	United States Environmental Protection Agency
USD	United State Dollar
WB	World Bank
WFP	World Food Program
WHO	World Health Organisation
WRMA	Water Resources Management Authority

**Chapter 1 General Condition of
the Republic of Kenya**

Chapter1 General Condition of the Republic of Kenya

1.1 General characteristics

Country profile of the Republic of Kenya (hereinafter referred to as “Kenya”) is shown in Table 1.1-1.

Table 1.1-1 Country profile of Kenya

General Information	
Name of the country	The Republic of Kenya (“Jamhuri ya Kenya” in Kiswahili)
Area	582,646 sq km (Land area: 546,082 sq km (National Parks: 25,334 sq km), Water: 11,230 sq km)
Population	41,070,934 [2011 est. * ¹] (Urban: 32.3%, Rural: 67.7% * ²)
Capital	Nairobi (around 3.14 million, 2009 * ²)
Ethnic groups	Kikuyu: 22%, Luhya: 14%, Luo: 13%, Kalenjin: 12%, Kamba: 11%, Kisii: 6%, Meru: 6%, Other Africans: 15%, Other Non-African: 1% (* ¹)
Language	National language: Kiswahili Official language: Kiswahili, English Other indigenous languages
Religion	Protestant, Roman Catholic, Indigenous beliefs, Muslim, etc.
Time difference	-6 (GMT +3)
Government	
Type	Republic
President	Mwai Kibaki
National Assembly	Unicameral (222 seats, 5 years) After next general election in 2012, the Parliament consists of - (1) National Assembly: 349 seats (2) Senate: 67 seats
President	Raila Amolo ODINGA
Economy	
Currency	Kenyan Shillings (Kshs)
Exchange Rate	1USD = 82.84Kshs (May, 2011)
Industries	Agriculture: coffee, tea, horticulture products, sisal, cotton, corn, pyrethrum Industry: food-processing, beer, tobacco, cement, oil refinery, sugar Mining: soda ash, fluorspar
GDP	294 billion USD [2009* ⁴]
GDP real growth rate	2.6% [2009* ⁴] 4.0% [2010 est. * ¹]
GNI per capita	760 USD [2009* ⁴]
Inflation	6.7% [2009* ⁴]
Unemployment rate	40% [2008 est. * ¹]
Exports and Imports	Exports: 73 billion USD / Imports: 112 billion USD [2009* ⁴]
Exported/Imported goods	Exports: horticulture products, tea, clothes/accessory, soda ash, iron, coffee Imports: oil products, machinery, crude petroleum, transportation equipment
Development Indicator	
Poverty headcount ratio at national poverty line	46.6% [2006* ⁵]

(% of population)	
Income share held by lowest 20%	4.7% [2005* ⁴]
Number of rural poor (million)	around 1,545 million [2009* ⁵]
Poverty headcount ratio at rural poverty line (% of rural population)	49.7% [2006* ⁵]
Life expectancy at birth (years)	55 [2009* ⁴]
Fertility rate (births per woman)	4.9 [2009* ⁴]
Mortality rate, infant (per 1,000)	54.8 [2009* ⁵]
Mortality rate, under-5 (per 1,000)	84.0 [2009* ⁴]
Prevalence of HIV (% of population ages 15-49)	6.3% [2009* ⁴]
People living with HIV/AIDS	1.2 million [2003* ¹]
Improved water source (% of population with access)	59% [2008* ⁴]
Improved sanitation facilities (% of population with access)	31% [2008* ⁴]
Literacy rate (% of people ages 15 and above)	86.5% [2008* ⁵]
Primary completion rate, total (% of relevant age group)	90% [2005* ⁴]
Human Development Indicator (HDI)	0.470 [2010* ⁶]

Source: The World Factbook - Kenya, *Central Intelligence Agency (CIA)* (*1)

<https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

2009 Population and Housing Census Highlights, *Kenya National Bureau of Statistics* (*2)

Kenya Facts and Figures 2009, *Kenya National Bureau of Statistics* (*3)

Kenya Country Data Profile, *World Bank* (*4)

Rural Poverty Portal – Kenya, International Fund for Agricultural Development (IFAD) (*5)

<http://www.ruralpovertyportal.org/web/guest/country/statistics/tags/kenya>

International Human Development Indicators - Kenya, *United Nations Development Programme (UNDP)* (*6)

<http://hdrstats.undp.org/en/countries/profiles/KEN.html>

Basic Information of Republic of Kenya, Ministry of Foreign Affairs of Japan

<http://www.mofa.go.jp/mofaj/area/kenya/data.html>

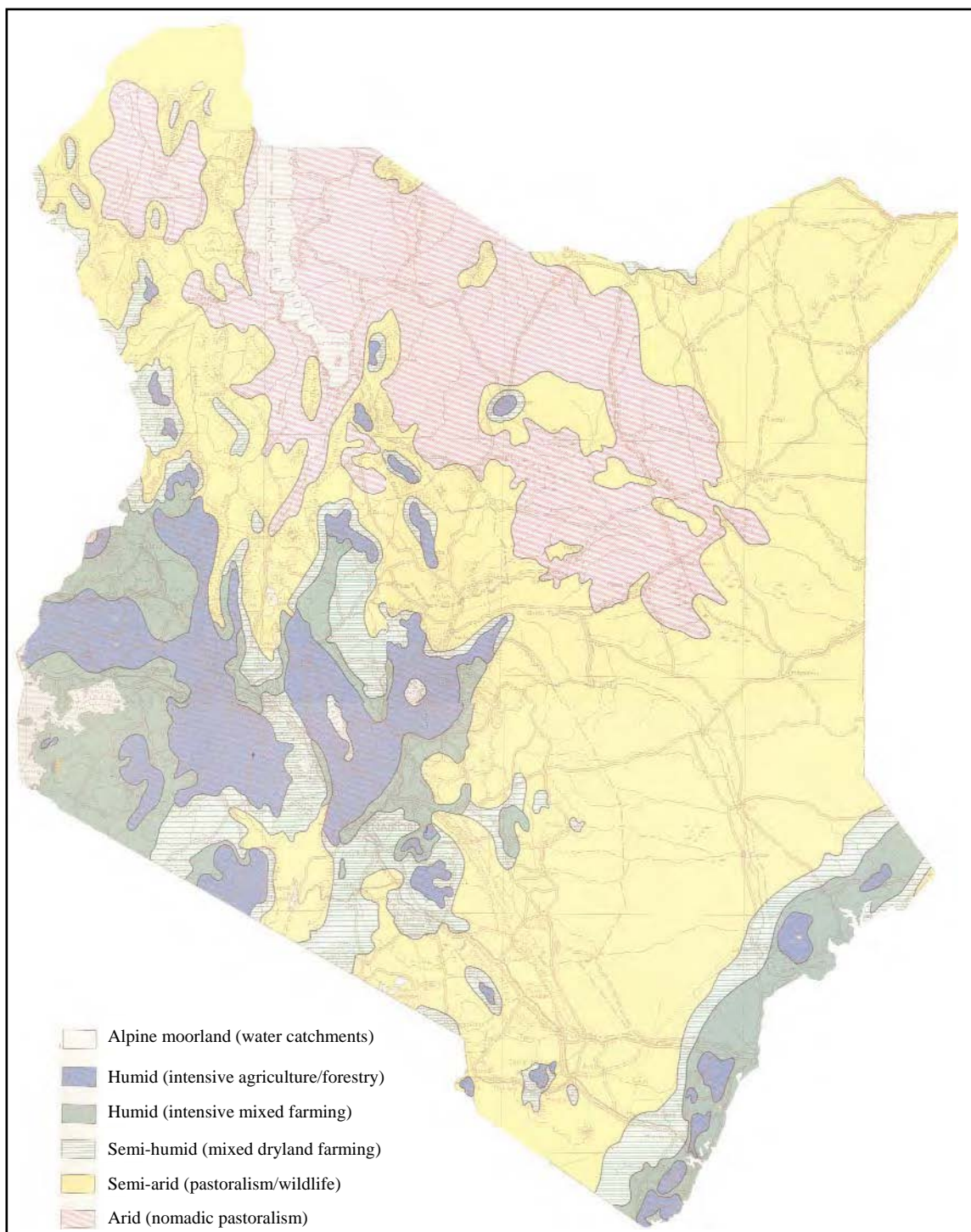
1.1.1 Location and topography

Kenya is located in East Africa along the Indian Ocean. The border countries are Ethiopia on the North, Sudan on North West, Somalia on the East, Tanzania on the South, and Uganda on the West (See Figure 1.1-1). It covers a total area of 582,646km² and is notable for its topographical variety. The land stretches from the sea level in the east to 5,199 meters at the peak of the snow-capped Mount Kenya. The altitude changes through the coastal belt and plains (below 152 meters above sea level), the dry intermediate low belt to what is known as the Kenya Highlands (over 900 meters above sea level). The highlands are bisected by the Great Rift Valley; a fertile plateau lies in the east. The highlands are the site of the highest point in Kenya (and the second highest in Africa): Mount Kenya, which reaches 5,199 meters. Lake Naivasha, which is freshwater lake, and Lake Nakuru and Lake Elementaita, both are soda lake, are located in the highlands as well. Lake Victoria is situated to the southwest, and is shared with Uganda and Tanzania. The Lake Victoria Basin is dominated by Kano plains which are suited for farming through irrigation. The northern part of Kenya is plain and arid.

About 15-17 percent of Kenya's total land area has sufficient fertility and rainfall to be farmed, and only 7-8 percent can be classified as first-class land. This area supports production of tea, coffee, pyrethrum, horticulture and floriculture, and food crops such as maize, wheat, potatoes, pulses, and dairy farming. The semi-arid area covering about 32% of total land has average rainfall and supports mixed crop and livestock rearing. Irrigated flower farming has in the recent past emerged as a major type of land use alongside agro-pastoralism. Over 50% of the total land cover is arid with extremely low and erratic rainfall. The expansive land is used for extensive livestock production under nomadic systems. (See Figure 1.1-2 and Table 1.1-2)



Source: Map No. 4187 Rev. 1, UNITED NATIONS, January 2004
Figure 1.1-1 Map of Kenya



Source: Land Use in Kenya – The case for a national land use policy, Kenya Land Alliance, p.iii

Figure 1.1-2 Land use in Kenya

Table 1.1-2 Portion of agricultural and irrigation land

Agricultural Land	9.1% [2007]
Irrigation Land	1.8% [2007]

Source: Rural Poverty Portal – Kenya, International Fund for Agricultural Development (IFAD)
<http://www.ruralpovertyportal.org/web/guest/country/statistics/tags/kenya>

1.1.2 Climate

Kenya's climate varies from tropical along the coast to temperate inland to arid in the north and northeast parts of the country. The climate along the coast is tropical. This means rainfall and temperatures are higher throughout the year. The further inside Kenya, the more arid the climate becomes. An arid climate is nearly devoid of rainfall, and temperature swings widely according to the general time of the day/night. The "long rains" season occurs from March/April to May/June. The "short rains" season occurs from October to November/December. The rainfall is sometimes heavy and often falls in the afternoons and evenings. The temperature remains high throughout these months of tropical rain. The hottest period is February and March, leading into the season of the long rains, and the coldest is in July and August.

Annual average rainfall in the country is approximately 630mm, ranging from less than 200mm in the northern ASAL areas to 1,800mm in the western region.

Table 1.1-3 Temperature (°C) and rainfall (mm) of major cities

	Nairobi			Mombasa			Kisumu			Lodwar		
	Mean Temp		Mean Total Rainfall	Mean Temp		Mean Total Rainfall	Mean Temp		Mean Total Rainfall	Mean Temp		Mean Total Rainfall
	Daily Min	Daily Max		Daily Min	Daily Max		Daily Min	Daily Max		Daily Min	Daily Max	
Jan	11.5	24.5	64.1	23.2	32.0	33	23.8	30.6	79	22.1	35.6	8
Feb	11.6	25.6	56.5	23.6	32.3	15	24.1	30.8	84	23.2	36.2	8
Mar	13.1	25.6	92.8	24.2	32.6	56	24.1	30.4	169	24.2	36.4	21
Apr	14.0	24.1	219.4	23.9	31.2	163	23.4	28.8	213	24.5	35.1	48
May	13.2	22.6	176.6	22.7	29.3	240	22.8	28.2	167	24.6	34.7	24
Jun	11.0	21.5	35.0	21.3	28.4	80	22.2	27.9	85	24.2	34.1	9
Jul	10.1	20.6	17.5	20.4	27.7	70	21.9	27.7	85	23.7	33.1	19
Aug	10.2	21.4	23.5	20.3	27.9	66	22.2	28.2	81	23.8	33.6	10
Sep	10.5	23.7	28.3	20.8	28.8	72	22.8	29.4	90	24.3	35.0	5
Oct	12.5	24.7	55.3	22.0	29.6	97	23.8	30.5	95	24.8	35.4	9
Nov	13.1	23.1	154.2	23.1	30.6	92	23.7	30.1	139	23.8	34.7	17
Dec	12.6	23.4	101.0	23.3	31.6	75	23.5	29.9	101	22.5	35.0	12

Source: World Weather Information Service

1.1.3 Water resources

(a) Major Basins

Major basins in Kenya are Lake Victoria, Rift Valley, Athi River, Tana River, and Ewaso Ng'iro River. Mt. Kenya (199,558ha), the Aberdare ranges (103,315ha), the Mau Complex (400,000ha), Mt. Elgon (73,089ha), and Cherangani (128,000ha) form the "water towers" in Kenya and provide water with these basins.

FAO estimates total renewable water resources in Kenya as 30.7 km³ (total internal renewable water resources: 20.7 km³ including 3.5 km³ of groundwater produced internally which overlaps

3 km³ with surface water + surface water entering the country: 10 km³). Total renewable water resources per capita is 792 m³ (2008)¹.

Detailed information of major basins in Kenya is shown in Table 1.1-4 and locations of them are shown in Figure 1.1-3. Information about major rivers and lakes in Kenya is shown in Table 1.1-5.

Table 1.1-4 Major basins in Kenya

Basin	Size of Basin (km ²)	Potential Groundwater (km ³)	Potential Surface Water (km ³)	Percentage of Total Potential Water (%)
Lake Victoria Basin	46,000	0.12	11.672	54.1
Rift Valley Basin	130,000	0.13	2.784	3.4
Athi River Basin	67,000	0.09	1.152	4.3
Tana River Basin	127,000	0.15	3.744	32.3
Ewaso Ng'iro Basin	210,000	0.14	0.339	5.8

Source: *Kenya Water Report 2005*, Ministry of Water and Irrigation



Source: *The 2nd UN World Water Development Report: 'Water, a shared responsibility'*, World Water Assessment Programme, 2006

Figure 1.1-3 Map of major rivers and their basins

¹ *Country Fact Sheet – Kenya*, aquastat, FAO

Table 1.1-5 Major rivers and lakes in Kenya

River	River Length (km)	Catchment Area (km ²)	Mean Annual Rainfall (mm)
Victoria Basin			
Nzoia	315	12,696	1,350
Yala	261	3,262	1,500
Nyando	153	3,450	1,400
Sondu	176	3,489	1,480
Kuja	180	6,868	1,340
Mara	198	9,574	980
Rift Valley Basin			
Turkwe	390	20,283	530
Kerio	403	14,172	450
Ewaso Ng'iro South	213	8,534	760
Athi Basin			
Athi	631	36,905	610
Tana Basin			
Tana	1,050	95,430	600
Ewaso Ng'iro Basin			
Ewaso Ng'iro	740	91,428	370
Lake	Elevation (m)	Size of Surface Water (km ²)	
Victoria Basin			
Victoria	1,133	68,800	
Rift Valley Basin			
Turkana	360.4	6,405	
Naivasha	1,884	139	
Nakuru	1,760	5 – 45	
Elementaita	1,670	18	
Bogoria	990	30	
Baringo	970	130	
Magadi	550	100	

Source: *Kenya Water Report 2005*, Ministry of Water and Irrigation

Most lakes in Kenya contain saline water except Lake Victoria, Lake Naivasha, and Lake Baringo.

(b) Dams

Dams in Kenya are used for a number of purposes which include water supply, irrigation, and flood control. Especially, big cities such as Nairobi and Eldoret have water supply systems relying on dams.

In Kenya, 26 medium to large dams (with capacity of over 100,000 m³ and a height of over 10m) and over 4,000 small dams (with storage capacity equal to or less than 100,000 m³ and a height of up to 10 m) exist. Figure 1.1-4 shows location of existing and on-going dams.



Source: Kenya Water Report 2005, Ministry of Water and Irrigation

Figure 1.1-4 Location of existing and on-going dams

(c) Water strategy of Kenya Vision 2030

High quality water supplies are necessary for the economic and social developments anticipated by Kenya Vision 2030. Therefore, it aims to conserve water sources and start new ways of harvesting and using rain and underground water. In addition, to promote agricultural productivity, the area under irrigation and drainage will be increased from 140,000 to 300,000 ha. Rehabilitation of hydro-meteorological data gathering network and construction of multipurpose dams are aimed. The water and sanitation facilities to support industries and a growing urban population will be constructed as well.

1.1.4 Policy, legal, and administrative framework

(a) Political system

After independence from Britain in 1963, Kenya became a republic country and is a member country of Commonwealth.

The President, who is the head of State and Commander-in-Chief of the Armed Forces of the Republic, is elected by popular vote for a five-year term and eligible for a second term. The country was a de facto one-party state from 1969 until 1982 when the ruling Kenya African National Union (KANU) made itself the sole legal party in Kenya. Violent unrest - and international pressure - led to the restoration of multi-party politics in the early 1990s.

Mwai KIBAKI of Party of National Unity (PNU), who was re-elected in December 2007, brought charges of vote rigging from the Orange Democratic Movement (ODM) candidate Raila ODINGA and unleashed two months of violence in which as many as 1,500 people died. UN-sponsored talks in late February, 2008 produced a power sharing accord² bringing ODINGA into the government in the restored position of prime minister.

Next general election will be conducted in 2010.

(b) The Constitution

The 2010 Constitution of Kenya was drawn up to replace the 1963 independence constitution. The new Constitution was approved by 67% of Kenyan voters and promulgated on 27 August 2010. Constitutional Reforms in Kenya have been a major issue since Kenya gained independence. There were repeated attempts to amend the Constitution of Kenya (1963), intensifying in the late 1990s and early 2000s, but only finally reaching success following the outbreak of post-election violence in early 2008.

It is written in the 2010 Constitution that the State shall promote and protect the diversity of language of the people of Kenya and promote all forms of national and cultural expression through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage. Every citizen is entitled to the rights, privileges and benefits of citizenship, and Parliament shall enact legislation to ensure that communities receive compensation or royalties for the use of their cultures and cultural heritage.

A bicameral system is newly introduced, and the Parliament of Kenya shall consist of the National Assembly and the Senate. In the Bill of Rights (Chapter 4), equality and freedom from discrimination is clearly mentioned, and the State shall not discriminate directly or indirectly against any person on any ground, including race, sex, pregnancy, marital status, health status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, dress, language or birth. To give full effect to the realisation of the rights guaranteed in the Constitution, the State shall take legislative and other measures, including affirmative action programmes and policies designed to redress any disadvantage suffered by individuals or groups

² National Accord and Reconciliation Bill, which was in effect on 20 March, 2008.

because of past discrimination.

Reconstruction of local administration and transition of the Parliament to bicameral system will come after next general election.

(c) Kenya Vision 2030

Kenya Vision 2030 is Kenya's new development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrialising, "middle-income country providing a high quality life to all its citizens by the year 2030". The Vision is based on three "pillars": the economic, the social and the political. The adoption of the Vision by Kenya comes after the successful implementation of the Economic Recovery Strategy for Wealth and Employment Creation (ERS).

The economic pillar aims to improve the prosperity of all Kenyans through an economic development programme, covering all the regions of Kenya, and aiming to achieve an average GDP growth rate of 10% per annum beginning in 2012. The social pillar seeks to build a just and cohesive society with social equity in a clean and secure environment. The political pillar aims to realise a democratic political system founded on issue-based politics that respects the rule of law, and protects the rights and freedoms of every individual in Kenyan society.

The Kenya Vision 2030 is to be implemented in successive five-year Medium-Term Plans, with the first such plan covering the period 2008-2012.

(d) Administration system: Central Government

The Cabinet consists of the President, the Vice-President, the Prime Minister, two Deputy Prime Ministers, thirty-seven Ministers, and 49 Assistant Ministers³. After next general election, the position of Prime Minister will be abolished, and the Cabinet will consist of the President, the Deputy President, the Attorney-General, and not fewer than fourteen and not more than twenty-two Cabinet Secretaries⁴.

Current forty Ministries are shown in Table 1.1-6.

Table 1.1-6 List of Ministries

Ministry
Ministry of State for Planning, National Development and Vision 2030
Ministry of State for Provincial Administration and Internal Security
Ministry of State for Public Service
Ministry of State for Defence
Ministry of State for Development of Northern Kenya and other Arid Lands
Ministry of State for Special Programmes
Ministry of State for National Heritage and Culture
Ministry of State for Immigration and Registration of Persons

³ Kenya Facts and Figures 2009, Kenya National Bureau of Statistics, p.5

⁴ Section 152(1), the 2010 Constitution

Ministry of Agriculture
Ministry of Co-operatives Development and Marketing
Ministry of East African Community
Ministry of Education
Ministry of Energy
Ministry of Environment and Mineral Resources
Ministry of Finance
Ministry of Fisheries Development
Ministry of Foreign Affairs
Ministry of Forestry and Wildlife
Ministry of Gender, Children and Social Development
Ministry of Higher Education, Science and Technology
Ministry of Home Affairs
Ministry of Housing
Ministry of Industrialization
Ministry of Information and Communication
Ministry of Justice, National Cohesion and Constitutional Affairs
Ministry of Labour
Ministry of Lands
Ministry of Livestock Development
Ministry of Local Government
Ministry of Medical Services
Ministry of Nairobi Metropolitan Development
Ministry of Public Health and Sanitation
Ministry of Public Works
Ministry of Regional Development Authorities
Ministry of Roads
Ministry of Tourism
Ministry of Trade
Ministry of Transport
Ministry of Water and Irrigation
Ministry of Youth Affairs and Sports

Source: Office of Public Communications (Office of Government Spokesman)
<http://www.communication.go.ke/ministry.asp?id=ministry>

(e) Administration System: Local Government

Kenya is divided into eight Provinces (Mkoa): Coast, Northeastern, Eastern, Central, Rift Valley, Nyanza, Western, and Nairobi, each headed by a presidentially appointed commissioner, Provincial Commissioner (PC). These are subdivided into 254 districts in 2009⁵, each headed by a presidentially appointed commissioner, District Commissioner (DC). The Districts are further divided into Division (Tarafa), Location (Mtaa), and Sublocation (Mtaa mdogo). The ministries have local offices in each Province and District, and local officers, Provincial Officer (PC) in

⁵ “All constituencies now turned into districts”, July 13 2009, *Daily Nation*
<http://www.nation.co.ke/News/-/1056/623360/-/ukx8ve/-/index.html>

Province and District Officer (DC) in District), are stationed.

Provincial boundary and summary of each Province are shown in Figure 1.1-5 and Table 1.1-7, respectively.

However, significant changes to local administration structure, including greater devolution of power to 47 counties and creation of a second legislative chamber with responsibility for representing the interests of the counties and region will happen in accordance with the 2010 Constitution.

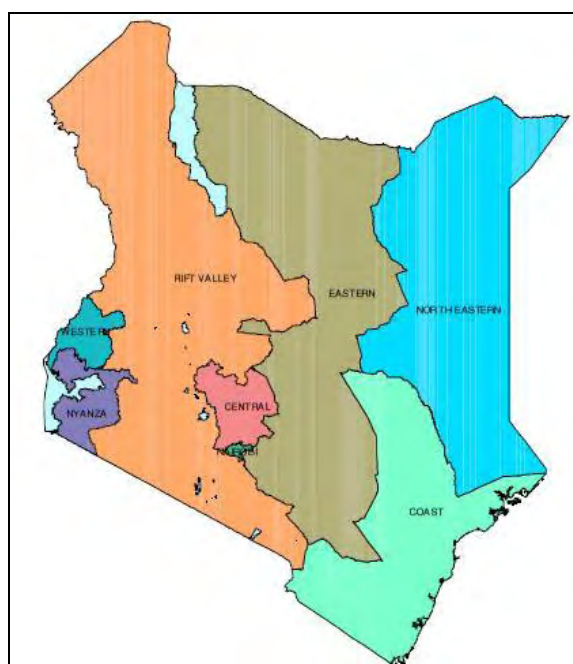


Figure 1.1-5 Provinces in Kenya

Table 1.1-7 Summary of Provinces

Province	Size (km ²)	Population (million)	Summary
Central	13,220	4.38	It is located to north of Nairobi and west of Mt. Kenya. The provincial capital is Nyeri. Central Province is characterized by steep slopes and high rainfall in the mountainous areas while low laying areas on the lee ward side of Mount Kenya and the Aberdares Ranges have erratic rainfall. It is a key producer of coffee, one of Kenya's key exports. Much of Kenya's dairy industry is also based in this province. There are 965,000 ha of potential agricultural land of which 753,400 ha have been exploited for agriculture. The forest area is composed of Mount Kenya Forest and the Aberdare forest reserve forms an important water catchment area for the country.
Coast	86,000	3.33	It comprises the Indian Ocean coastal strip with the capital city at Mombasa. East Africa's first Marine National Park is located in Watamu, which is a small fishing community. The climate is tropical humid. It is characterized by 4 topographical features, the coastal plains which stretches from the sea level to 30 m a.s.l., the foot plateau which stretches

			from 60m to 140 m a.s.l., the coastal range particularly around Kilifi creek, and the Nyika plateau rising upto 150m a.s.l. Prominent feature of its geology is the fringing reef that has been formed from an inter tidal platform. Coral reef creates a habitat for abundant biodiversity Coastal areas covered by mangroves estimated as 53,000 ha, and the largest continuous patch is found near Lamu, an area of approximately 335km ² . The Coastal forest predominantly located within the coastal plain is characterized by high drought resistance adaptation and high endemism.
Eastern	159,891	5.67	It is the second largest Province after Rift Valley. The provincial capital is Embu. It includes the Chalbi Desert, Mt. Kenya, and the eastern half of Lake Turkana. The climate is arid to semi-arid. Its most important permanent river is Ewaso Ng'iro. Athi and Tana, which are two major rivers in Kenya flow in this Province.
Nairobi	696	3.14	Nairobi province is also the capital city of Kenya It is the largest city of Kenya and the most populous city in East Africa as well. At 1,795 m a.s.l., Nairobi enjoys a moderate climate. Nairobi is now one of the most prominent cities in Africa politically and financially. It is home to thousands of Kenyan businesses and over 100 major international companies and organizations.
North Eastern	126,902	2.31	North Eastern Province is the third largest province in Kenya The provincial capital is the town of Garissa, near the Coast Province. The climate is semi-arid and hot. Rain falls infrequently, usually only around April or October, and quite sporadically from year to year. Combined with hot temperatures and extreme evaporation, this makes the region best suited to nomadic pastoralism based on the Arabian camel, which is well adapted to surviving in hot, dry habitats. Because there are no rivers of any significance in the region, there is little or no possibility of irrigation-based development. The region is also abundant with wildlife and home to a rare type of antelope called the Hirola, which is classified as an endangered species.
Nyanza	15,788	5.44	It is located in the southwest part of Kenya around Lake Victoria and includes part of the eastern edge of the Lake. The provincial capital is Kisumu, the third largest city in Kenya. The climate of the province is quite reliable and favourable for most of the food and cash crops. Nyanza is endowed with various resources including the rich soils of Kisii Highlands as well as ample rainfall which support agriculture and livestock production, large water mass, variety of mineral resources, forest resources as well as wildlife. The Kano plains and the adjacent zones are suitable for cotton as well as irrigated rice. Generally, there is a mixture of cash and food crop production. Food crops include maize, sorghum, beans, groundnuts, cassava, sweet potatoes etc. Among the cash crops grown are; tea, coffee, cotton, rice, tobacco, sugar cane, bananas, etc. Some cash crops serve a dual purpose of cash as well as food crops.
Rift Valley	182,539	10	Rift Valley is the country's largest province. The greater part of the Province falls within the Eastern branch of the great Rift Valley. The provincial capital is Nakuru. The basic climate of the Province is highland equatorial with two rainy seasons and with temperatures modified by altitude, showing a small annual range between maxima and minima. The southern section of the Valley comprises the Ewaso Ngiro and Magadi basins that drain southwards into Lake Natron and Lake Magadi. Both these lakes are densely saturated with soda salts which are commercially exploitable. The Northern section comprises the Turkwel, Kerio and Suguta basins, all drain northward into Lake Turkana. It is slightly saline and rich in fish. The central section comprises the Baringo, Nakuru and

			Naivasha basins, all of which drain internally. The central section is therefore better watered and more developed agriculturally than the other two sections. The topography of the Valley floor is varied by a large number of extinct and dormant volcanoes. The exploitation of geothermal power in the Lake Bogoria is presently being investigated for commercial viability while in Naivasha it is being exploited at Olkaria.
Western	8,434	4.33	The province is situated in the western part of Kenya. The provincial capital is Kakamega. The climate of the area is tropical. Rainfall in the province is relatively high. Western province is on a peneplained surface, south of Mt. Elgon and west of the Nandi escarpment with a general elevation between 1200 m and 1700 metres. The economy of Western province is still largely rural and more than 90% of the populations earns its living from agriculture and livestock. The farms are privately owned and usually quite small, mostly 1-3 hectares. The main food crops are maize, millet, bananas and cassava and the cash crops consist of sugar cane tea, tobacco and rice.

Source: *Provincial Environment Action Plan 2006-2011* of Central, Coast, Eastern, Nairobi, North Eastern, Nyanza, Rift Valley, and Western Province, NEMA

The territory of Kenya will be divided into forty-seven Counties (see Table 1.1-8), and each county has a government consisting of a county assembly and a county executive.

Table 1.1-8 Districts and Counties established by the Constitution 2010

Province	District (capital of district)	County	No	Province	District (capital of district)	County	No
Coast	Mombasa (Mombasa)	Mombasa	1	Rift Valley	Turkana (Lodwar)	Turkana	23
	Kwale (Kwale)	Kwale	2		West Pokot (Kapenguria)	West Pokot	24
	Kilifi (Kilifi)	Kilifi	3		Samburu (Maralal)	Samburu	25
	Tana River (Tana River)	Tana River	4		Trans Nzoia (Kitale)	Trans Nzoia	26
	Lamu (Lamu)	Lamu	5		Uasin Gishu (Eldoret)	Uasin Gishu	27
	Taita-Taveta (Wundanyi)	Taita/Taveta	6		Elgeyo-Marakwet	Elgeyo /Marakwet	28
North Eastern	Garissa (Garissa)	Garissa	7		Nandi (Kapsabet)	Nandi	29
	Wajir (Wajir)	Wajir	8		Baringo (Kabarnet)	Baringo	30
	Mandera (Mandera)	Mandera	9		Laikipia District (Nanyuki)	Laikipia	31
Eastern	Marsabit (Marsabit)	Marsabit	10		Nakuru District (Nakuru)	Nakuru	32
	Isiolo (Isiolo)	Isiolo	11		Narok District (Narok)	Narok	33
	Meru (Meru)	Meru	12		Kajiado District (Kajiado)	Kajiado	34
	Tharaka-Nithi	Tharaka -Nithi	13		Kericho District (Kericho)	Kericho	35
	Embu (Embu)	Embu	14		Bomet District (Bomet)	Bomet	36
	Kitui (Kitui)	Kitui	15	Western	Kakamega (Kakamega)	Kakamega	37
	Machakos (Machakos)	Machakos	16		Vihiga (Vihiga)	Vihiga	38
	Makueni (Makueni)	Makueni	17		Bungoma (Bungoma)	Bungoma	39
	Mbeere (Siakago)	-	-	Busia (Busia)	Busia	40	
Central	Nyandarua (Nyahururu)	Nyandarua	18	Nyanza	Siaya (Siaya)	Siaya	41

	Nyeri (Nyeri)	Nyeri	19		Kisumu (Kisumu)	Kisumu	42
	Kirinyaga (Kerugoya/Kutus)	Kirinyaga	20		Homa Bay (Homa Bay)	Homa Bay	43
	Murang'a (Murang'a)	Murang'a	21		Migori (Migori)	Migori	44
	Kiambu (Kiambu)	Kiambu	22		Kisii Central (Kisii)	Kisii	45
					Nyamira (Nyamira)	Nyamira	46
				-	-	Nairobi	47

Source: First Schedule, The Constitution of Kenya, 2010

In addition, Kenya has four classes of local authorities: City, Municipality, Town, and County council. Many of the councils raise their own revenues by taxes, construct and maintain roads, carry out public health schemes, construct and improve housing, support education, and provide agricultural and social welfare services.

1.2 Laws and regulations on environmental protection and social considerations

1.2.1 Laws and regulations on environmental protection

In 1999, the Environmental Management and Coordination Act (EMCA) which aims to strengthen the legal and institutional framework for environmental management was established and enacted in 2000. EMCA created the National Environment Council (NEC)⁶ with policy making function and National Environmental Management Authority (NEMA) as the principal instrument of the Government in the implementation of all policies relating to the environment.

Under EMCA, various regulations concerning implementation of Environmental Impact Assessment (EIA) and Environmental Audit (EA) for policies, plans, programmes, projects, and activities and management of pollution such as air, water, wastes, and noise.

Other environmental consideration related legislations are wildlife conservation, forest management, water resources management, and safety and health for workers.

Acts, regulations, and rules on environmental protection and management are shown in Table 1.2-1.

Table 1.2-1 Acts, regulations, and rules on environmental protection

Act, regulations, and rules	Summary	Relevant authority
1. Overall environment management		
The Environmental Management and Co-ordination Act, 1999 * amendments proposed	Environmental management and pollution control	MEMR NEC NEMA
1-1. Environmental Impact Assessment (Strategic Environmental Impact Assessment)		
The Environmental (Impact Assessment and Audit) Regulations, 2003 * amendments proposed as The Environmental (Impact, Audit and Strategic Assessment) Regulations	EIA procedure and EA	NEMA

⁶ NEC shall mainly consist of the Permanent Secretaries in the Ministries responsible for the matters specified in the First Schedule of EMCA.

1-2. Pollution Control		
(Draft) The Environmental Management and Coordination (Air Quality) Regulations, 2008 * to be gazetted	Air quality	NEMA
The Environmental Management and Coordination, (Water Quality) Regulations 2006	Water quality for domestic use and effluent	NEMA
The Environmental Management and Coordination, (Waste Management) Regulations 2006	Waste management	NEMA
The Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009	Noise and vibration management	NEMA
The Environmental Management and Co-Ordination (Controlled Substances) Regulations, 2007	Protection of Ozone layer	NEMA
The Environmental Management and Co-Ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006	Protection of biological diversity and genetic resources	NEMA
The Environmental Management and Co-Ordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulations, 2009	Conservation of wetlands, river banks, lake shores and sea shore	NEMA
The Environmental (Prevention of Pollution in Coastal and Other Segments of the Environment) Regulation, 2003	Management of effluent from ships	NEMA
2. Natural environment		
The Wildlife (Conservation and Management) Act (Cap 376) (1985) Revised Edition 2009	Wildlife conservation and management	Min. of Forestry and Wildlife KWS
The Forests Act, 2005	Forest management and conservation	Min. of Forestry and Wildlife KFS
The Water Act, 2002	Water resource management and water supply and sewage	WRMA
The Water Resources Management Rules, 2007	Water resource control (including groundwater) and requirement for water use/effluent discharge permit	Min. of State for National Heritage and Culture NMK
The National Museums and Heritage Act (Cap 216) (2006) Revised Edition 2009	Establishment of National Museums and conservation of cultural heritage	Min. of Water and Irrigation WRMA
3. Stage of Project Implementation		
The Occupational Safety and Health Act, 2007	Occupational safety and health management	Min. of Labour
The Public Health Act (Cap. 242)	Prohibition of disturbance of safety and public health in livelihood environment	Min. of Public Health and Sanitation
The Physical Planning Act (Cap. 286) Revised Edition 2010 (1996)	Development permit from local authority	Min. of State for Planning, National Development and Vision

		2030 Central/District Liaison Committee
The Energy Act, 2006	Development permit for construction of facilities for energy project	Min. of Energy
The Wayleaves Act (Cap. 292) Revised Edition 2010 (1989)	Procedures for construction of sewers, pipelines, etc. on private land	GOK

Further, the EMCA regulations on chemical control will be established⁷.

1.2.2 Laws and regulations on social considerations

The basic idea and principle of social considerations such as secure and protection of human and property rights are mentioned in the Bill of Rights, Chapter IV of the Constitution, 2010. Indigenous people in Kenya have not been clearly identified and defined officially, nor did specific law and regulation concerning protection of their rights exist before the Constitution, 2010. In the Bill of Rights of the Constitution, 2010, it is clearly mentioned that all State organs and all public officers have the duty to address the needs of vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalized communities, and members of particular ethnic, religious or cultural communities, and affirmative action programmes shall be designed to ensure minorities and marginalized groups participation to the society. In accordance with section 260 of the Constitution, 2010, “marginalized community” means (a) a community that, because of its relatively small population or for any other reason, has been unable to fully participate in the integrated social and economic life of Kenya as a whole, (b) a traditional community that, out of a need or desire to preserve its unique culture and identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole, (c) an indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy, or (d) pastoral persons and communities.

Direct or indirect discrimination against “marginalized group⁸”, who, because of laws or practices before, on, or after the effective date, were or are disadvantaged by discrimination on one or more of the grounds on race, sex, pregnancy, marital status, health status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, dress, language or birth is prohibited in the Constitution, 2010. Especially, Parliament needs to enact legislation to promote the representation in Parliament of (a) women, (b) persons with disabilities, (c) youth, (d) ethnic and other minorities, and (e) marginalized communities⁹.

In addition, collective land rights is newly introduced, which is referred as “community land” in the Constitution, 2010.

⁷ Based on the interview with the officer of NEMA Compliance Division conducted on 11 April, 2011

⁸ Section 260, the Constitution, 2010

⁹ Section 100, the Constitution, 2010

Table 1.2-2 Acts, Regulations, and Rules on Social Considerations

Act, regulations, and rules	Summary	Relevant authority
1. Constitution		
The Constitution of Kenya, 2010	Protection of rights of marginalized group and community (Chapter IV) New land tenure of community land (Chapter VI)	GOK
2. Land		
Land Acquisition Act (Cap. 295) Revised Edition 2010 (1983)	Procedures of compulsory land acquisition	Min. of Lands
Government Lands Act (Cap. 280) Revised Edition 2010 (1984)	Regulating the leasing and other disposal of Government lands	Min. of Lands COL
Trust Land Act (Cap. 288) Revised Edition 2010 (1970)	Provision for the setting apart of land and payment of compensation with regard thereto	Min. of Lands COL
Registration of Titles Act (Cap. 281) Revised Edition 2010 (1982)	Transfer of land by registration of title	Min. of Lands Council Divisional Land Board
Registered Land Act (Cap. 300) Revised Edition 2010 (1989)	Governs registration of land, and lays down procedures for registration of land, mode of ownership identified under the Act	Min. of Lands
Land (Group Representatives) Act (Cap 287) Revised Edition 2010 (1970)	Provide for the incorporation of representatives of groups who have been recorded as owners of land under the Land Adjudication Act, and for purposes connected therewith and purposes incidental thereto	Min. of Lands Recorder of Titles
Land Adjudication Act (Cap 284) Revised Edition 2010 (1977)	Provides ascertainment and recording of rights and interests in trust land and for the purposes connected there with	Min. of Lands
Land Consolidation Act (Cap 283) Revised Edition 2009 (1977)	Serves to prevent fragmentation and subdivision of land, and provides for the ascertainment of rights and interests in and for the consolidation of land in the special areas	Min. of Lands
Land Titles Act (Cap. 282) Revised Edition 2010 (1982)	Provision for the removal of doubts that have arisen in regard to titles to land and to	Min. of Local Government

	establish a Land Registration Court	
Land Disputes Tribunals Act (Cap303A) Revised Edition 2010 (1990)	Establish Land Disputes Tribunals and define their jurisdiction and powers and for connected purposes	Min. of Local Government Local Authority
Landlord and Tenant (Shops, Hotels and Catering Establishments) Act (Cap 301) Revised Edition 2010 (1984)	Make provision with respect to certain premises for the protection of tenants of such premises from eviction or from exploitation and for matters connected therewith and incidental thereto	Min. of Roads
Land Control Act (Cap. 302) Revised edition 2010 (1989)	Control of transactions of agricultural land and land within townships and municipalities but designated as agricultural land	Min. of Lands
Valuers Act (Cap.532) Revised Edition 2010 (1985)	Valuation practice, qualifications of a Valuer, activities and conduct in undertaking valuation duties	Min. of Lands
3. Human Rights		
The Kenya National Commission on Human Rights Act, 2002	Protection and promotion of human rights	KNCHR
4. Labour		
The Employment Act, 2007	Declare and define the fundamental rights of employees, to provide basic conditions of employment of employees, to regulate employment of children, and to provide for matters connected with the foregoing	Min. of Labour
The Labour Relations Act, 2007	provide for the registration, regulation, management and democratisation of trade unions and employers organisations or federations, to promote sound labour relations through the protection and promotion of freedom of association	Min. of Labour
The Work Injury Benefits Act, 2007	Provide for compensation to employees for work related injuries and diseases contracted in the course of their employment and for connected purposes	Min. of Labour

1.3 Administrative framework related to the environmental and social considerations

1.3.1 Administrative framework for environmental protection

(a) Ministry of Environment and Mineral Resources: MEMR

Ministry of Environment and Mineral Resources (MEMR) is in charge of protection and conservation, monitoring, sustainable management of environment and mineral resources in Kenya. MEMR coordinates and governs formulation of policies related to environment and natural resources, sustainable management of mineral resources, protection of natural resources, maintenance of the database necessary for environmental management, research on land and soil, development of mineral resources, and meteorological services through National Environment Management Authority (NEMA), Kenya Meteorological Department, Mines and Geology Department, and Department of Resource Surveys and Remote Sensing (DRSRS)..

Following six institutions were established under MEMR based on EMCA 1999, in addition to NEMA.

- National Environment Council: NEC
- National Environment Action Plan Committee: NEAPC
- Standards and Enforcement Review Committee: SERC
- National Environment Tribunal: NET
- Public Complaints Committee: PCC
- National Environment Trust Fund: NETFUND

NEC consists of the Minister of MEMR, who shall be the chairman, the Permanent Secretaries in the Ministries for the time being responsible for the matters¹⁰ specified in the First Schedule of EMCA 1999, and the representatives of public universities, research institutions, business community, and NGO. The Director-General of NEMA is the secretary of NEC. The key functions of NEC are policy formulation and direction for the purposes of EMCA 1999, setting of national goals and objectives, determination of policies and priorities for the protection of the environment, and promotion of cooperation among public departments, local authorities, private sector, and NGOs.

NEAPC prepares, every five years, a national environment action plan which identifies and recommends policy and legislative approaches for preventing, controlling or mitigating specific as well as general adverse impacts on the environment.

SERC advises NEMA on how to establish criteria and procedures for the measurement of water quality, air quality, noise, etc. In addition, SERC prepares and recommends to the Director-General of NEMA guidelines or regulations for the preservation of fishing areas, aquatic areas, water sources and reservoirs and other areas where water may need special protection.

¹⁰ Agriculture, Economic planning and development, Education, Energy, Environment, Finance, Fisheries, Foreign affairs, Health, Industry, Law or Law enforcement, Local government, Natural resources, Public administration, Public works, Research and technology, Tourism, and Water resources

NET was established to review administrative decisions made by NEMA relating to issuance, revocation or denial of licence and conditions of licence. It also provides legal opinion to NEMA on complex matters where the Authority seeks such advice. In addition, the Tribunal has powers to change or give an order and direction regarding environmental issues in dispute.

PCC was established to investigate any allegations or complaints against any person or against NEMA in relation to the condition of the environment in Kenya and to make a report of its findings together with its recommendation thereon to NEC.

The object of NETFUND is to facilitate research intended to further the requirements of the environmental management, capacity building, environmental awards, environmental publications, scholarships and grants.

(b) National Environment Management Authority: NEMA

NEMA is established under the Environmental Management and Coordination Act (EMCA) No. 8 of 1999, as the principal instrument of government in the implementation of all policies relating to the environment. In NEMA, there are five main departments and one sub-department under Director General and Directorate (see Figure 1.3-1). The main regulatory functions of the Department of Compliance and Enforcement are pollution control through formulation of regulations, setting up standards, and issuance of licences or permits to operators, issuance of EIA licencess after its review, and control and monitoring of Environmental Audits (EA).

The Provincial and District Environment Committees (Provincial Environment Committee: PEC/District Environment Committee: DEC) chaired by the Provincial and District Commissioners respectively are appointed, and Provincial Environment Office (PEO) and District Environment Office (DEO) are established as field offices of NEMA. In addition, environmental directors at provincial level (Provincial Environment Directors: PDE) are appointed by the Government.

However, PEO and DEO will be reorganized in accordance with county system established by the Constitution, 2010. NEMA has planned to implement a decentralisation programme regarding the processing of EIA reports and Environmental Audit, and functions of field offices will be strengthened¹¹.

There are 500 staffs in NEMA. Annual budget for 2010/2011 is 7.5 million USD.

Annually, around 80 to 100 EIA reports are submitted to EIA/SEA unit, which has 15 staffs.

¹¹ based on the interview with NEMA officers of Compliance Division and EIA/SEA Unit (11 April, 2011)

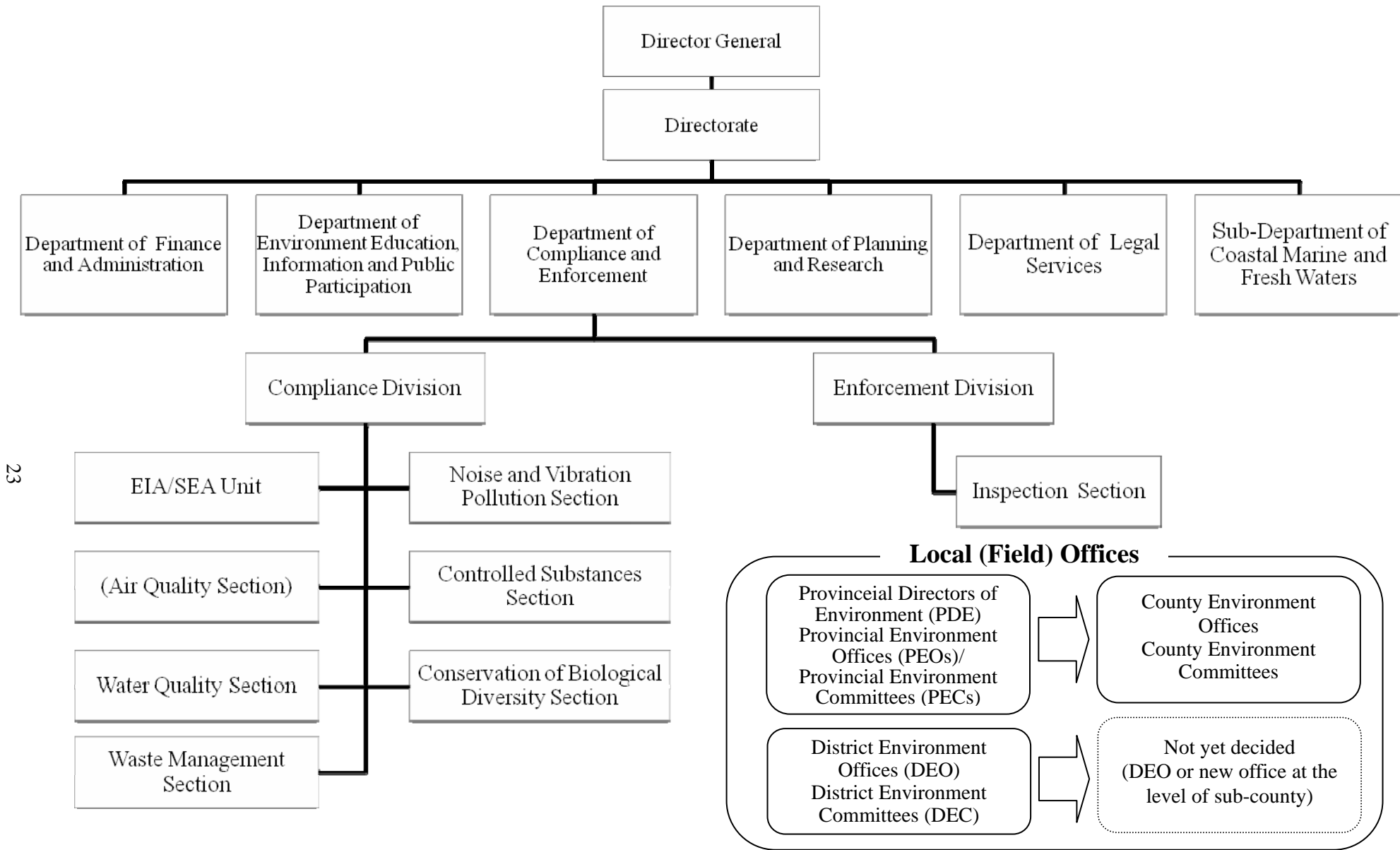


Figure 1.3-1 Organizational structure of NEMA (EIA and Pollution Control Division)

(c) Ministry of Forestry and Wildlife

The Ministry promotes sustainable and participatory management of forestry and wildlife resources to enhance socio-economic development of Kenyans through formulation and review of policy and legislation of forestry and wildlife resources, promotion of conservation education programmes for youth in relation to Forestry, Wildlife and Environment, and facilitation and utilization of forestry and wildlife products.

There are three state corporations under the Ministry undertaking protection, conservation, enforcement of wildlife and forestry laws and regulations, and the general management of wildlife and forestry services in the country. The Ministry has mandate of facilitation and monitoring of these state corporations.

- Kenya Wildlife Service: KWS
- Kenya Forest Service: KFS
- Kenya Forestry Research Institute: KEFRI

KEFRI was established in 1986 with the mandate of carrying out research in forestry and allied natural resources.

(d) Kenya Wildlife Service: KWS

KWS is a state corporation, under the Ministry of Forestry and Wildlife, mandated to conserve and manage Kenya's wildlife and habitat. It was established by the Wildlife (Conservation and Management) Act, Cap 376¹². The key functions of KWS are to formulate policies regarding the conservation, management, and utilization of all types of fauna (not being domestic animals) and flora, advise the Government on establishment of National Parks, National Reserves, and other protected wildlife sanctuaries, manage National Parks and National Reserves, prepare and implement management plans for National Parks and National Reserves and the display of fauna and flora in their natural state for the promotion of tourism and for the benefit and education of the inhabitants of Kenya, and administer and co-ordinate international protocols, conventions, and treaties regarding wildlife in all its aspects in consultation with the Forestry and Wildlife Minister.

The fees for permission to enter or reside in a National Park, for the admission of vehicles, or for the use of any amenities provided by KWS in a National Park are levied by KWS in accordance with the Wildlife (Conservation and Management) (National Parks) Regulations.

Overall budget estimates for implementation of Strategic Plan 2008-2012 of KWS around Kshs 27.5 billion (Development Partners = 2,591,000,000 and GOK/KWS = 24,927,335,000).

The operation and activities of KWS is managed by the Board of Trustees of KWS which consists of the permanent secretary in the Ministry responsible for matters relating to wildlife, finance, local government, the Commissioner of Police, the Director of Forests, a representative of the Permanent Secretary in the Office of the President responsible for internal security, the

¹² Section 3, The Wildlife (Conservation and Management) Act (Cap. 376)

Director of Veterinary Services. The Director shall be appointed by the President. The Board of Trustees may appoint and may employ agents or servants of KWS as may be necessary for the discharge of the functions of KWS under the Wildlife (Conservation and Management) Act.

KWS manages about 8 per cent of the total land mass of the country. This land contains 27 National Parks (including Marine National Parks), 33 National Reserves (including Marine National Reserves), and 4 Sanctuaries (see Table 2.3-1 for further information). KWS divide the whole country into eight conservation areas (see Table 1.3-1), and each conservation area is managed by one Assistant Director and one or two Warden(s).

An authorized officer of KWS has an authority to stop and detain any person whom he finds doing any act for which a licence or permit is required under the Wildlife (Conservation and Management) Act or the rules for the purpose of requiring that person to produce his licence or permit, and if that person fails to produce the appropriate licence or permit he may be arrested by the officer without a warrant¹³. In addition, the President may, through the Commissioner of Police, make available to KWS such firearms as may be necessary for KWS to effectively carry out its functions under the Act¹⁴. Number of suspects arrested on the charges of grazing in National Parks / Reserves, destruction of water catchment areas, bush meat poaching, and possession of and dealing in trophies in 2008 was 3,476¹⁵.

Table 1.3-1 Conservation Areas and location of their headquarters

Conservation Area	Headquarters
Northern Conservation Area	Marsabit National Reserve
Eastern Conservation Area	Meru National Park
Coast Conservation Area	Mombasa
Tsavo Conservation Area	Tsavo East
Southern Conservation Area	Nairobi National Park
Mountain Conservation Area	Abadares
Western Conservation Area	Kitale
Central Rift Conservation Area	Lake Nakuru

Source: Conservation Areas, KWS website (http://www.kws.org/parks/conservation_areas/index.html)

In terms of economic contribution, tourism industry accounts for 21% of total foreign exchange earnings and 12% of GDP, and wildlife resources managed by KWS are the backbone of the tourism industry in Kenya. KWS accounts for 90% of Safari Tourism and about 75% of total tourist earnings. In Kenya Vision 2030, following goals for 2012 are set;

- (i) To quadruple tourism's GDP contribution to more than Kshs 200 billion,

¹³ Section 49, The Wildlife (Conservation and Management) Act (Cap. 376)

¹⁴ Section 57A, The Wildlife (Conservation and Management) Act (Cap. 376)

¹⁵ Annual Report 2008, Kenya Wildlife Services

(ii) To raise international visitors from 1.6 million in 2006 to 3 million in 2012, while raising average spent per visitor from the present Kshs 40,000 to at least Kshs 70,000, and

(iii) To increase hotel beds from 40,000 to at least 65,000 combined with an emphasis on a high quality service.

To achieve these goals, KWS focuses on branding of the most popular parks with the aim of offering high quality experience at premium rates (the premium parks initiative), expansion and rehabilitation of facilities and infrastructure in National Parks including bed capacity through investments into less frequented parks (the under-utilised parks initiative), and development of eco tourism, cultural tourism, bird tourism, etc. (the niche products initiative).

(e) Kenya Forest Service: KFS

KFS is a state corporation, under the Ministry of Forestry and Wildlife, mandated to conserve, develop, and sustainably manage forestry resources. It was established by the Forests Act, 2005¹⁶. The key functions of KFS are to formulate policies and guidelines regarding the management, conservation, and utilisation of all types of forest areas in the country, manage all State forests and provisional forests, and draw or assist in drawing up management plans for all indigenous and plantation state, local authority, provisional and private forests in collaboration with the owners or lessees. In addition, KFS collects all revenue and charges due to the Government in regard to forest resources, produce, and services¹⁷.

Overall budget estimates for implementation of KFS Strategic Plan, 2009/10-2013/14 around Kshs 25 billion (GOK = 10.7 billion (42 %), KFS revenue = 9.7 billion (38 %), and External/Others = 4.6 billion (20 %)).

The operation and activities of KFS is managed by the Forests Board which consists of the permanent secretary in the Ministry responsible for matters relating to forestry, water, finance, local government, the Director of KWS, KFS, and Kenya Forestry Research Institute, the Director-General of NEMA, and eight other persons, not being public servants, appointed by the Forestry and Wildlife Minister. The Director of KFS is appointed by the Board in consultation with the Forestry and Wildlife Minister, and the Board may appoint officers, agents or servants of KFS as may be necessary for the discharge of the functions of KFS.

The Forests Board considers and recommends to Forestry and Wildlife Minister the establishment of state forests on un-alienated Government land and any other Government land and approves the policies of KFS affecting forestry practice and development, and so on.

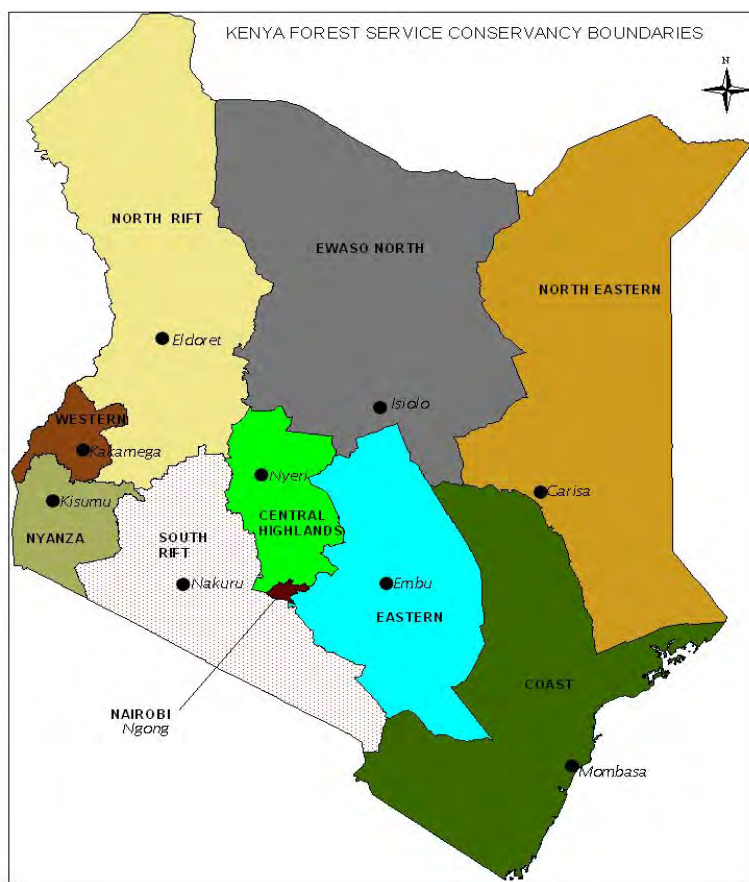
The Board has divided the country into ten forest conservancy areas (see Figure 1.3-2) for the proper and efficient management of forests and established a forest conservation committee in respect of each conservancy area. The committee consists of a chairman appointed by the Board, one representative of the provincial administration, the forest officer in-charge of the area who

¹⁶ Section 4, Forests Act, 2005

¹⁷ Section 5, Forests Act, 2005

shall be the secretary, one nominated member from the timber industry operating in the area, four persons knowledgeable in forestry matters nominated by forest associations operating in the conservancy area, an agricultural officer based in the area, and an environmental officer based in the area. There are 76 Zonal Forest Offices headed by regional manager, 150 Forest Station, and 250 divisional forest extension offices.

In addition, KFS in collaboration with the civil society is in the process of building capacity within communities to form Community Forest Associations for joint forest management especially in areas of forest protection.



Source: materials provided by KFS

Figure 1.3-2 Forest Conservation Area

At the KFS headquarters level, Enforcement and Compliance Division (ENCOM) is in charge of protection and management of state forests. Plantation and Enterprise Division is involved in industrial forest plantations programme, and there are approximately 125,000 hectares of industrial forest plantations composed of mainly Cypress, Pines and Eucalyptus.

1.3.2 Administrative framework for land control

(a) Ministry of Lands: MOL

The Ministry of Lands has five departments: Lands, Physical Planning, Survey, Land Adjudication and Settlement, and Administration, and has approximately 50 offices in the country. The Commissioner of Lands (COL) is the administrator responsible for the compulsory acquisition of land. Unlike other procedures at the Ministry of Lands, for example, land registration, land disputes resolution, etc, the procedures for compulsory acquisition are not decentralized and all the power resides in COL at the central government.

1.4 International Treaty, Convention, and Agreement on environmental and social issues

1.4.1 International and Regional Treaties, Conventions, and Agreement

International Treaties, Conventions, and Agreement which Kenya ratified, signed, and joined are shown in Table 1.4-1 and regional ones are shown in Table 1.4-2.

Table 1.4-1 International Treaties, Conventions, and Agreement

Name of Convention/Treaty	Date and Status of Signature/Accession and Ratification
Air and Atmosphere (including Climate Change)	
United Nations Framework Convention on Climate Change (1992)	30 Aug 1994 - ratification
Kyoto Protocol to The United Nations Framework Convention on Climate Change	25 Feb 2005 - accession
Vienna Convention the Protection of the Ozone Layer	9 Nov 1988 – accession
Montreal Protocol on Substances that Deplete the Ozone Layer	9 Nov 1988 - ratification
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (1990)	7 Sep 1994 - ratification
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (1992)	27 Sep 1994 - ratification
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer adopted by the Ninth Meeting of the Parties (1997)	12 Jul 2000 – ratification
Stockholm Convention on Persistent Organic Pollutants (2001) (POPs)	24 Sep 2004 - ratification
Marine Environment/Fishery	
United Nations Convention on the Law of the Sea (1982)	2 Mar 1989 - ratification
Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (1994)	29 Jul 1994 - signature
Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995)	13 Jul 2004 - accession
Convention on the High Sea (1962)	20 Jun 1969 - accession
Convention on Fishing and Conservation of the Living Resources of the High Seas (1958)	20 Jun 1969 - accession
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (London Convention) (1975) and London Protocol 1996	7 Jan 1976 – ratification 14 Jan 2008 - accession
International Convention for the Prevention of Pollution from Ships, 1973, as amended (MARPOL 73/78)	- ratified
International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) (1990)	- ratified

Name of Convention/Treaty	Date and Status of Signature/Accession and Ratification
(International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM 2004)) *not yet in force	- ratified
Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969	- ratified
Hazardous Waste	
Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal (1989)	1 Jun 2000 - accession
Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1995)	9 Sep 2009 - accession
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998)	3 Feb 2005 - ratification
Biodiversity/Natural Resources	
Convention on Biological Diversity (1992)	26 Jul 1994 - ratification
Cartagena Protocol on Biosafety to The Convention on Biological Diversity	24 Jan 2002 - ratification
Convention on Wetland of International Importance Especially as Waterfowl Habitat (The Ramsar Convention) (1975)	5 Oct 1990 - ratification
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1975) (Amendments on 1979 and 1983 were accepted on 1982 and 2002, respectively))	13 Dec 1978 - ratification
Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (1994) (a regional agreement under the larger framework of CITES Convention)	17 Jan 1997 - ratification
The Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) (1983)	1 May 1999 - ratification
International Convention for the Protection of New Varieties of Plants (1961) (Revised on 1972 and on 1978)	13 Apr 1999 – accession
International Plant Protection Convention (1952)	7 May 1974 - adherence
Forestry	
United Nations Convention to Combat Desertification (UNCCD) (1996)	24 Jun 1997 - ratification
Culture	
UNESCO Convention for the Protection of the World Cultural and Natural Heritage (World Heritage Convention) (1972)	– accession
Convention for the Safeguarding of the Intangible Cultural Heritage 2003	24 Oct 2007 - ratification
Human Rights/Indigenous People	
International Convention on the Elimination of All Forms of Racial Discrimination (1965)	13 Sep 2001 – accession
International Covenant on Economic, Social and Cultural Rights (1966)	1 May 1972 – accession
International Covenant on Civil and Political Rights (1966)	1 May 1972 – accession
Convention on the Elimination of All Forms of Discrimination against Women (1979)	9 Mar 1984 – accession
Convention on the Rights of the Child (1989)	30 Jul 1990 – ratification
Discrimination (Employment and Occupation) Convention (1958)	7 May 2001 – ratification
Convention on the Rights of Persons with Disabilities (2006)	19 May 2008 – ratification
Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography (2000)	8 Sep 2000 - signature
Convention on the non-applicability of statutory limitations to war crimes and crimes against humanity (1968)	1 May 1972 – accession
International Convention on the Suppression and Punishment of the Crime of Apartheid (1973)	2 Oct 1974 - signature

Name of Convention/Treaty	Date and Status of Signature/Accession and Ratification
Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in armed conflict (2000)	28 Jan 2002 ratification
Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984)	21 Feb 1997 - accession
International Convention against Apartheid in Sports (1985)	16 May 1986 - signature
International Convention for the Protection of All Persons from Enforced Disappearance (2006)	6 Feb 2007 - signature

Source: website of each treaty/protocol/agreement

Table 1.4-2 Regional Treaties, Conventions, and Agreement

Name of Convention/Treaty	Date and Status of Signature/Accession and Ratification
Establishment of EAC	
East African Community Treaty for the Establishment of the East African Community (2000)	- ratification
Hazardous Waste	
BAMAHO Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa (2008)	17 Dec 2003 - signature
Natural Resources including Marine Environment	
Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (1996) (Amended was adopted on 31 Mar 2010 as Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean)	31 Mar 2010- signature
Protocol for the Protection of the Marine and Coastal Environment of the Western Indian Ocean from Land-Based Sources and Activities (adopted on 2010)	31 Mar 2010- signature
African Convention on the Conservation of Nature and Natural Resources (1969)	12 May 1969 – ratification
African Convention on the Conservation of Nature and Natural Resources (Revised Version) *not yet in force	17 Dec 2003 - signature
EAC Protocol on Environment & Natural Resource Management (2005)	-
Biodiversity	
Under CMS	
The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	1 Jun 2001 - contracted
Indian Ocean South -East Asian Marine Turtle Memorandum of Understanding (IOSEA)	9 May 2002 – signature
Convention on the African Migratory Locust (1962)	- ratification
Human Rights/Indigenous People	
African Charter on Human and Peoples' rights (2003)	10 Feb 1992 – ratification
African Charter on the Rights and Welfare of the Child (1990)	25 Jul 2000 – ratification
Agreement for the Establishment of the African Rehabilitation Institute (ARI) (1991)	9 May 2006 – ratification
Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights (2004)	4 Feb 2004 - ratification
Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (2005)	6 Oct 2010 - ratification
African Youth Charter (2010)	28 Jun 2008 - signature

Source: website of AU, EAC, and each treaty/protocol/agreement

1.4.2 East African Community Treaty

The East African Community (EAC) is the regional intergovernmental organisation of the Republics of Kenya, Uganda, the United Republic of Tanzania, Republic of Rwanda and Republic of Burundi with its headquarters in Arusha, Tanzania.

The Treaty for Establishment of the East African Community was signed on 30 November 1999 and entered into force on 7 July 2000 following its ratification by the original three Partner States -- Kenya, Uganda and Tanzania. The Republic of Rwanda and the Republic of Burundi acceded to the EAC Treaty on 18 June 2007 and became full Members of the Community with effect from 1 July 2007.

The EAC aims at widening and deepening co-operation among the Partner States in, among others, political, economic and social fields for their mutual benefit. To this extent the EAC countries established a Customs Union in 2005 and are working towards the establishment of a Common Market in 2010, subsequently a Monetary Union by 2012 and ultimately a Political Federation of the East African States.

The realisation of a large regional economic bloc encompassing Burundi, Kenya, Rwanda, Tanzania and Uganda with a combined population of more than 125 million people, land area of 1.82 million sq kilometres and a combined Gross Domestic Product of \$73 billion (2009*), bears great strategic and geopolitical significance and prospects of a renewed and reinvigorated East African Community.

In addition to partnership on economical issues, EAC member countries promote their cooperation in protection of environmental and natural resources through EAC Protocol on Environment and Natural Resources Management.

1.5 Activities of NGOs and CBOs

There are approximately 600 registered NGOs, and around 200 NGOs are actually operational in the environmental sector. It is called as CSO (Civil Society Organization) or CBO (Community Based Organization) in Kenya.

Table 1.5-1 International NGOs

Organization	Programme/Operation in Kenya
The World Wide Fund For Nature (WWF)	Conservation of mangroves and coral reef along east african coast (coast of Kenya, Tanzania, and Mozambique) Pollution control and habitat conservation/restoration of lakes in Rift Valley through the African Rift Lakes (AFL) Programme
The International Union for Conservation of Nature (IUCN)	Collecting environmental data Analyzing the causes and effects of environmental destruction Giving advice on effective environmental management to the government Publishing books and reports on environmental education
Birdlife International	Protection of important habitats of birds such as IBAs
Environment Liaison Centre International (ELCI)	Promotion of networking among NGOs working on environment and development issues Sustainable Agriculture Programme (Kenya Organic Agriculture

	Network) Health and Environment Programme (Jaboya Project) (in Kenya, Uganda, and Tanzania)
African Wildlife Foundation (AWF)	Protection of endangered species and prevention of forest degradation in Samburu and Kilimanjaro areas Strengthening the capacity of community organizations in wildlife conservation

Table 1.5-2 Local NGOs

Organization	Programme/Operation in Kenya
Nature Kenya (East Africa Natural History Society)	Promotion of conservation activities and research on natural resources in East Africa Protection and monitoring of IBAs
Wildlife Clubs of Kenya (WCK)	Formed in 1968 by Kenyan Students, and first conservation education programme of its kind on the continent of Africa Education on forest and wildlife conservation
Green Belt Movement Kenya	Mobilization of community consciousness- using tree planting as an entry point- for self-determination, equity, improved livelihoods and security, and environmental conservation
Kenya Forests Working Group (KFWG)	Sustainable forest management through advocacy, research, partnership with stakeholders
East African Wild Life Society (EAWLS)	Protection of endangered, rare or threatened species and habitats in East Africa
Rhino Ark	Protection of wildlife habitats and avoidance of human-wildlife conflicts by installation of an electrified fence to encircle both the Aberdares National Park and the demarcated forestry areas which make up the Aberdares Conservation Area
Coastal Oceans Research and Development in the Indian Ocean (CORDIO)	Research on marine habitats and coral reefs
David Sheldrick Wildlife Trust	Orphan's project for elephant and rhino Mobile Veterinary Unit in Tsavo and Mara areas
Friends of Nairobi National Park (FoNNaP)	Conservation of nature in Nairobi National Park Promotion of partnership with local community
Kenya Land Conservation Trust (KLCT)	Conservation of important habitat area
Local Ocean Trust	Protection and monitoring of sea turtles in Watamu
Baobab Trust	Conservation of sustainable ecosystem Programme on food security, health, conservation of water resources, and agriculture
African World Heritage Fund	Protection and conservation of world natural heritage in Africa
Save the Elephant	Protection of elephants through GPS tracking
Kenya Land Alliance (KLA)	To sensitize civil society, government, donors, and the public in order to create greater understanding of what is needed to secure, and protect land rights of rural, urban poor and other disadvantaged groups.

1.6 Assistance policy for Kenya by various donors

Headquarters of international organizations such as United Nations Environment Programme (UNEP), The United Nations Human Settlements Programme (UN-HABITAT), and the United Nations Office in Nairobi (UNON), the main coordinating and headquarters for the UN in

Africa & Middle East and regional offices of other UN organizations and donors are located in Nairobi. (see Table 1.6-1)

Table 1.6-1 UN institutions in Nairobi

	Organization
UN	United Nations Office at Nairobi(UNON)
	United Nations Common Services Project in Kenya
Headquarters	United Nations Environment Programme (UNEP)
	United Nations Human Settlements Programme (UN-Habitat)
Regional Offices	Food and Agriculture Organisation for the United Nations (FAO)
	United Nations Development Programme (UNDP)
	United Nations Educational, Scientific and Cultural Organization (UNESCO)
	World Food Program (WFP)
	World Health Organisation (WHO)
	International Labour Office (ILO)
	United Nations Children's Fund (UNICEF)
	United Nations Programme on HIV/AIDS (UNAIDS)
	United Nations Development Fund for Women (UNIFEM)
	United Nations Population Fund (UNPF)
	United Nations High Commission for Refugees (UNHCR)
	International Civil Aviation Organization (ICAO)
	International Maritime Organization (IMO)
	International Monetary Fund (IMF)
	United Nations Drug Control Programme (UNDCP)
	United Nations Industrial Development Organization (UNIDO)
United Nations Office for Project Services (UNOPS)	
United Nations Centre for Regional Development (UNCRD)	

Source: Other UN Agencies in Nairobi, United Nations Office at Nairobi (<http://www.unon.org/unag.php>)

Activities of international organizations in Kenya are summarized in Table 1.6-2.

Table 1.6-2 Activities of international organizations in Kenya

Organization	Programme/Operation in Kenya
FAO: Food and Agriculture Organization of the United Nations	Programmes in Kenya focus on policy, strategy, and programme assistance, food security information analysis, donor coordination, linking public and private sector efforts, and emergency preparedness and response. Conservation and restoration of mangrove forests and wetlands, preparation of environmental management and protection plan, water quality monitoring of Lake Victoria, etc. in partnership with KWS.
UN-HABITAT: UN Programme for Human Settlements	Kenya Slum Upgrading Project: KENSUP in Kibera slum in Nairobi, which is the largest slum in East Africa. The objective of KENSUP is to improve the overall livelihoods of people living and working in slums through targeted interventions to address shelter, infrastructure services, land tenure and employment issues, as well as the impact of HIV/AIDS in slum settlements.
UNDP: United Nations Development Programme	Integration of environment into national and district planning processes, review of national plans for improved donor coordination,

		and Kenya Poverty Environment Initiative, co-funding with UNEP, UNDP, and DFID.
UNICEF: United Nations Children's Fund		Programme supporting Kenya to achieve MDGs in water and sanitation by 2015.
UNEP: United Nations Environment Programme		Capacity building and technical support through MEMR, technical support (Bali Strategic Plan), Nairobi River Clean-Up programme, and Regional Biodiversity Programmes (Montane ecosystems, protected areas and a number of Projects in W. Indian Ocea).

Kenya received about USD 1 billion in support during 2007, about USD 27 per capita. Among multilateral donors, the share in total support was: World Bank (41 %) European Commission (18 %), and the African Development Bank (16 %). Among bilaterals, China's support was 14 %, and KfW of Germany and AFD of France, contributed 13 % each¹⁸.

The framework of the Kenya Joint Assistance Strategy (KJAS) gives a prospective distribution by sector among active donors (see Table 1.6-3).

Table 1.6-3 Donors' sector presence

Sector Group	A IDB	Canada	Denmark	EC	France	Finland	Germany	Italy	Japan	Netherlands	Norway	Spain	Sweden	UK	UN System	US	World Bank	Total lead/active in each sector
Agriculture, Livestock, and Forestry	•	•	•				•		•	•			☐		•	•	•	10
Democratic Governance		•	•	•		•	•				•	•	•	☐	•	•	•	12
Education	•	•		•			•	•	•					•	☐	•	•	11
Energy	•			•	•	•			☐			•			•		•	8
Environment	•		☐	•	•	•			•	•				•	•	•	•	10
Gender	•	☐		•							•	•	•		•			7
Health and HIV/AIDs			•	•	•		☐	•	•			•		•	•	•	•	11
Land									•				•	•	☐	•	•	6
Private Sector Development	•		•	•	•				•	•				•	•	•	☐	10
Roads and transportation	☐			•	•				•						•		•	6
Social Protection				•	•			•	•			•		•	•	•	☐	9
Urban, local government, and decentralization	•			•	•			•					•		•		☐	7
Water and Sanitation	•			•	•		•	•	•	•		•	☐		•	•	•	12
Total lead/agency	1	1	1	0	0	0	1	0	1	0	0	0	2	1	2	0	3	
Total active/agency	9	3	5	12	8	3	5	5	10	5	2	6	6	7	13	9	12	

☐ Current Lead Donor/Chair
• Active Donor

Source: Kenya 2008-2012 Country Strategy Paper, AfDB, November, 2008

¹⁸ Kenya 2008-2012 Country Strategy Paper, AfDB, November, 2008

1.7 Achievements of MDGs

It is not likely to eradicate extreme poverty and hunger (MDG 1), as per capita GDP growth rates have been too low and erratic to reduce sharply the proportion of people living in poverty. Free primary education, introduced in 2003, dramatically improved access and completion rates, so Kenya may reach MDG 2, but there are still about one million primary school age children out of school and many school leavers still have very low levels of learning achievements. With improved gender parity in education, Kenya may also achieve one target of MDG 3. Although preliminary results from the 2008-09 Demographic and Health Survey indicate that the child mortality rate fell from 115 in 2003 to 74 in 2007, and the infant mortality rate from 77 to 52, Kenya is still unlikely to achieve MDG 4. The prevalence of underweight, stunting and wasting has not changed much during the last 15 years, and malnutrition remains a key contributor to half of child and infant deaths in Kenya. Maternal mortality did not improve significantly in the 2000s, and so MDG 5 remains out of reach. By contrast, Kenya is likely to achieve MDG 6, as it has been able to sharply reduce its adult HIV prevalence rate, due in part to successful awareness-raising efforts that have led to less risky behaviour¹⁹.

¹⁹ World Bank Group's "*Country Partnership Strategy for the Republic of Kenya for the Period FY2010-13*", World Bank, IFC, MIGA, March 23, 2010

Chapter 2 Natural Environment

Chapter2 Natural Environment

2.1 General characteristics

The major land-cover types in Kenya are forests, savannahs, grasslands, wetlands, fresh and saline water bodies, and deserts. Of the total land cover, about 2.4% is under indigenous and exotic forests. More than 75% of the country is classified as arid and semi-arid lands (ASALs). This area is predominantly used for livestock production and conservation of wildlife.

A total of 467 lake and wetland habitats are estimated to cover 2.5% of the territory. In order to preserve the country's wildlife, about 8% of Kenya's land area is currently under protection as National Parks and National Reserves.

Forests are the backbone of Kenya's economy through agriculture and tourism. They also support livelihoods through provision of food, medicine, wood for construction, fuel-wood, and services such as water catchment areas. Despite their importance, indigenous forests have been rapidly declining from 1,687,390 ha in 1994 to 1,200,000 ha, and plantation forests have declined from 165,000ha in 1988 to the current 120,000 ha. Most of this loss has occurred through forest excisions and encroachment for agriculture and settlements. Other losses have occurred through forest fires and overexploitation of preferred forest species.

2.2 Policy and laws and regulations on natural environment protection and conservation

2.2.1 Kenya Vision 2030

Kenya aims to be a nation that has a clean, secure and sustainable environment by 2030. The goals for 2012 are: (i) to increase forest cover from less than 3% at present to 4%; and (ii) to lessen by half all environment-related diseases. Specific strategies will involve improving pollution and waste management through the design and application of economic incentives and the commissioning of public-private partnerships (PPPs) for improved efficiency in water and sanitation delivery. Kenya will also enhance disaster preparedness in all disaster-prone areas and improve the capacity for adaptation to global climatic change. In addition, the country will harmonise environment-related laws for better environmental planning and governance.

The flagship environment projects for 2012 are:

- ✓ The Water Catchment Management Initiative: This calls for rehabilitating of the five water towers (Mau Escarpment, Mt. Kenya, Aberdares Range, Cherangani Hills and Mt. Elgon)
- ✓ Securing the Wildlife Corridors and Migratory Routes Initiative: Kenya will conserve wildlife corridors and migratory routes
- ✓ The Solid Waste Management System Initiative: This calls for relocation of the Dandora dump site, and development of solid waste management systems in 5 leading municipalities and in the economic zones planned under Vision 2030
- ✓ The Plastic Bags Initiative: This will require tightening regulations in order to limit

production and usage of environmentally-detrimental plastic bags

- ✓ The Land Cover and Land Use Mapping Initiative: This is to comprehensively map land use patterns

2.2.2 The Forests Act, 2005

The Forests Act, 2005 provides for the establishment, development and sustainable management, including conservation and rational utilization of forest resources for the country's socio-economic development.

- (a) Definitions and owners of “state forest”, “local authority forest”, “private forest”, “provisional forest”, and “natural reserve”

State forest – any forest declared to be a state forest by the Minister, on the recommendation of the Forests Board, by notice in the Gazette (section 23) or declared by the Minister to be a central forest, a forest area or nature reserve before the commencement of the Act and which has not ceased to be such a forest or nature reserve. State forests are owned by the Government and KFS is in charge of their management.

Local authority forest – on the recommendation of the forest conservation committee for the area within which a forest is situated, the local authority, and the Board, any land under the jurisdiction of a local authority declared by the Minister to be a local authority forest where (a) the land is an important catchment area, a source of water springs, or is a fragile environment, (b) the land is rich in biodiversity or contains rare, threatened or endangered species, (c) the forest is of cultural or scientific significance, or (d) the forest supports an important industry and is a major source of livelihood for the local community (section 24).

In addition, following forests are the local authority forests as well;

- (i) any forest situated on trust land which has been set aside as a forest by a local authority pursuant to the provisions of the Trust Land Act, and
- (ii) any arboretum, recreational park or mini-forest created under section 30 of the Act which requires the local authority to cause housing developers and market centres to establish mini-forests and recreational parks respectively

Local authority forest is owned and managed by the local authority declared by the Minister as an owner of the forest.

Private forest - any forest owned privately by an individual, institution or body corporate.

Provisional forest - on the recommendation of the Board, any local authority forest or private forest, which in the opinion of the Board is mismanaged or neglected, declared to be a provisional forest by the Minister by order published in the Gazette. This declaration is only made when the Director of KFS has issued a notice requiring the local authority or private owner, as the case may be, to undertake specific silvicultural practices to improve the forest, and

such notice has not been complied with, or the forest owner is unable to undertake the specified practices (section 26).

A provisional forest is managed by KFC in collaboration with the owner, and any profit accruing is paid to the owner less the expenses incurred by KFS in managing the forest (section 26). A provisional forest will revert to the owner where the Forests Board is satisfied that it has been adequately rehabilitated and the owner has given an undertaking to efficiently manage it (section 27 (1)).

Nature reserve –any forest area, or woodland or any part of one that has a particular environmental, cultural, scientific, or other special significance, on the recommendation of KFS, declared by the Minister, in consultation with the Minister responsible for local authorities, to be a nature reserve for the purpose of preserving its biodiversity and natural amenities (section 32). Nature reserve is managed by KFS.

Section 21 of the Act states that all forests in Kenya other than private and local authority forests are vested in the state except where, through the provisions of the Act or other written law, rights have been granted to another person.

(b) Prohibited activities in the designated forests

Nature Reserve

No cutting, grazing, removal of forest produce, hunting or fishing, shall be allowed in a nature reserve except with the permission of the Director granted in consultation with other conservation agencies, which permission shall only be given with the object of facilitating research (section 32(3)).

In addition, any forest community, or person who is desirous of utilising or conserving any grove or forest which is part of a nature reserve for cultural, religious, educational, scientific or other reasons shall submit an application, in the prescribed form, to the Board through the forest conservation committee for the area in which the nature reserve occurs (section 33(1)). Upon receipt of the application, the Forests Board shall make inquiries regarding the application, including the authenticity of the application and the suitability of the site vis-a-vis the activities for which the application is made, and, based on such inquiry, the Board may within three months of receipt of the application (a) grant the application as requested, (b) grant the application on specified terms and conditions, or (c) refuse to grant the application, giving reasons for such refusal.

Sacred groves²⁰

Sacred groves found in any state forest, nature reserve, local authority forest or private forest shall not be interfered with and any person who, without lawful authority, fells, cuts, damages or

²⁰ a grove with religious or cultural significance to a forest community (section 2 of the Forest Act, 2005)

removes any such grove or tree or regeneration thereof, or biodiversity therein, or abets in the commission of any such act commits an offence (section 33(4)).

Protected trees, species or family of tree

The President may, on the advice of the Minister, by order published in the Gazette, declare any tree, species or family of tree species to be protected in the whole country or in specific areas thereof, and the Minister shall cause this information to be disseminated to the public (section 34(1)). Any person who fells, cuts, damages or removes, trades in or exports or attempts to export any protected tree, species or family of trees or regeneration thereof or abets in the commission of any such act commits an offence (section 34(2)).

State forest, local authority forest, and provisional forest

Except under a licence or permit or a management agreement issued or entered into under the Act, no person shall –

- (i) fell, cut, take, burn, injure or remove any forest produce;
- (ii) be or remain therein between the hours of 7 p.m. and 6 a.m. unless he is using a recognised road or footpath, or is in occupation of a building authorised by the Director, or is taking part in cultural, scientific or recreational activities;
- (iii) erect any building or livestock enclosure, except where the same is allowed for a prescribed fee;
- (iv) smoke, where smoking is by notice prohibited, or kindle, carry or throw down any fire, match or other lighted material;
- (v) de-pasture or allow any livestock to be therein;
- (vi) clear, cultivate or break up land for cultivation or for any other purpose;
- (vii) enter any part thereof which may be closed to any person;
- (viii) collect any honey or beeswax, or hang on any tree or elsewhere any honey barrel or other receptacle for the purpose of collecting any honey or beeswax, or enter therein for the purpose of collecting honey and beeswax, or be therein with any equipment designed for the purpose of collecting honey or beeswax;
- (ix) construct any road or path;
- (x) set fire to, or assist any person to set fire to, any grass or undergrowth or any forest produce;
- (xi) possess, bring or introduce any chain saw or logging tools or equipment;
- (xii) damage, alter, shift, remove or interfere in any way whatsoever with any beacon, boundary mark, fence notice or notice board.

Any person who contravenes the above mentioned provisions commits an offence and is liable on conviction to a fine of not less than Kshs 50,000 or to imprisonment for a term of not less than six months, or to both such fine and imprisonment (section 52).

All forests

Any person who, without lawful authority -

- (i) marks any forest produce, or affixes upon any forest produce, a mark ordinarily used by a forest officer to indicate that the forest produce is the property of the Government, or that it may or has been lawfully cut or removed;
- (ii) alters, obliterates, removes or defaces any stamp, mark, sign, licence, permit or other document lawfully issued under the authority of the Act, or removes or destroys any part or a tree bearing the stamp or other mark used by any forest officer;
- (iii) covers any tree stump in any state or local authority forest or on any unalienated Government land with brushwood or earth, or by any other means whatsoever conceals, destroys, or removes or attempts to conceal, destroy or remove such tree stump or any part thereof;
- (iv) wears any uniform or part of a uniform, or any badge or other mark issued by the Service to be worn by forest officers or other employees of the Service, or who in any other way holds himself out to be an employee of the Service; or
- (v) counterfeits or issues without lawful authority any licence or other document purporting it to be a licence or document issued under the Act or any rules made thereunder,

commits an offence and shall be liable on conviction to a fine of not less than Kshs 200,000, or to imprisonment for a term of not less than three years, or to both such fine and imprisonment (section 53).

In addition, any person who makes or is found in possession of charcoal in a state, local authority, or provisional forest; or in private forest or farmlands without a licence or permit of the owner as the case may be, commits an offence and is liable on conviction to a fine of not less than Kshs 50,000 or to imprisonment for a term of not less than one year, or to both such fine and imprisonment (section 54(1)).

Any person who wilfully or maliciously sets fire to any private, provisional, local authority or state forest commits an offence and is liable to a fine of not less than Kshs 200,000, or to imprisonment for a term of not less than one year, or to both such fine and imprisonment ((section 54(2)).

Any person who operates a sawmill in a manner contrary to that prescribed in rules made under the Act commits an offence and is liable on conviction to a fine of not less than Kshs 500,000 or to imprisonment for a term of not less than three years, or to both such fine and imprisonment (section 54(3)).

Any person who, in any forest area -

- (i) introduces any exotic genetic material or invasive plants without authority from KFS;
- (ii) dumps any solid, liquid, toxic or other wastes;
- (iii) grows any plant from which narcotic drugs can be extracted; or
- (iv) extracts, removes, or causes to be removed, any tree, shrub or part thereof for export,

commits an offence and is liable on conviction to a fine of not less than Kshs 3 million or to

imprisonment for a term of not less than ten years, or to both such fine and imprisonment (section 54(8)).

(c) Licence for use of State forest

Where the Forests Board is satisfied that utilization of a forest can be done through the granting of concessions, KFS may, by licence, grant the same subject to an EIA licence in accordance with the EMCA, 1999 (section 40(1)).

The grantee of a concession shall -

- (i) comply with the guidelines or management plans prescribed by the Service;
- (ii) protect the concession area from destruction and encroachment by other persons;
- (iii) ensure that the forest areas under his management are maintained for the conservation of biodiversity, cultural or recreational use;
- (iv) maintain the physical boundaries of the concession;
- (v) take precautions to prevent the occurrence and spread of forest fires in connection with any or all operations within or outside the concession area;
- (vi) ensure that all structures and facilities constructed or operated by and in connection with any activities are maintained according to the conditions of the licence (section 40(2)).

The licence shall indicate the nature of the concession, including its physical location and boundaries, and the purpose for which it is granted (section 40(3)).

The Forests Board may withdraw a concession granted where a grantee breaches any of the conditions prescribed under section 40(2) (section 40(4)).

2.2.3 The Wildlife (Conservation and Management) Act (Cap. 376) Revised Edition 2009

The Wildlife (Conservation and Management) Act (Cap. 376) stipulates the protection, conservation and management of wildlife in Kenya. First Schedule of the Act is a list of game animals and Second Schedule is a list of game birds. Third Schedule listed protected animals in Kenya.

(a) Definitions of “National Park”, “National Reserve”, “Local Sanctuary”

National Park - any area of land declared to be a National Park, after consultation with the competent authority, by the Minister (section 6).

The Minister, after consultation with the competent authority, may by order declare that any National Park, National Reserve, local sanctuary or a specified part thereof, shall cease to be a National Park, National Reserve or local sanctuary, subject to a notice in the Gazette and in at least one newspaper circulating throughout Kenya of the intention to make the order and inviting objections within a period of not more than 60 days. Not earlier than sixty days after the last date of such publication, a draft of the order has been laid before the National Assembly and the National Assembly has by resolution approved the order (section 7).

KWS control, manage and maintain all National Parks (section 9(1)).

Within a National Park the Director of KWS may (i) reserve or set aside any portion of the

Park as a breeding place for animals or as nurseries for vegetation, (ii) authorize the construction of such roads, bridges, air fields, buildings and fences, the provision of such water supplies, and the carrying out of such other works, as may be necessary for the purposes of the Park, and (iii) with the approval of the Minister, let sites for the erection of hotels, or other accommodation for visitors to the Park (section 9(2)).

National Reserve - any area of land declared to be a National Reserve by the Minister, with the agreement of the competent authority, by notice in the Gazette (section 18(1)). An agreement between the Minister and a competent authority may include agreement as to restrictions or conditions relating to the provisions which shall apply to the area concerned, and any such restrictions or conditions shall be specified by the Minister in the notice of declaration (section 18(2)).

In addition, any area which was administered by a local authority as a game reserve shall become a National Reserve and shall continue to be so administered until the Minister, after consultations with the competent authority, by notice in the Gazette, otherwise directs either generally or in relation to any specified area (section 18(6)).

Local Sanctuary - any specified area declared to be a local sanctuary by the Minister, after consultation with the competent authority, by notice in the Gazette. Any animal specified in the same notice or a later notice shall not be hunted (section 19(1)). The area of a local sanctuary shall not exceed 2,600 hectares (section 19(2)).

Protection areas - any area adjacent to National Park, National Reserve, or local sanctuary declared to be a protection area by the Minister by notice in the Gazette, where the Minister, after consultation with the competent authority, is satisfied that it is necessary, for ensuring the security of the animal or vegetable life in a National Park or in a National Reserve or in a local sanctuary or for preserving the habitat and ecology thereof, to prohibit, restrict or regulate any particular acts in such area (section 15(1)).

In addition, the Director of KWS may enter into any agreement with a competent authority which the Director may consider necessary for the purpose of ensuring that animal migration patterns essential to the continued viability of a National Park or National Reserve are maintained (section 20(1)).

(b) Prohibited activities in National Park, National Reserve, and Local Sanctuary

National Park and National Reserve

Any person who hunts any animal in a National Park shall be guilty of a forfeiture offence and liable to a fine of not less than Kshs 5,000 and not more than Kshs 20,000 or to imprisonment for a term which shall not be less than six months and not more than three years, with or without corporal punishment or to both (section 13(1)).

Moreover, any person who, without authorization, –

- (i) enters or resides in a National Park otherwise than in the course of his duty as a public officer or as a person lawfully employed in the Park;
- (ii) cuts, injures or sets fire to any vegetation in a National Park, or allows any fire lighted by himself or his servants to enter a National Park;
- (iii) collects or attempts to collect any honey or beeswax or hangs on any tree or elsewhere any honey barrel or other receptacle for the purpose of collecting honey or beeswax, in a National Park;
- (iv) wilfully damages any object of geological, prehistoric, archaeological, historic, marine or other scientific interest within a National Park, or knowingly removes or attempts to remove any such object or any portion thereof from a National Park;
- (v) is, without lawful excuse in possession of any animal or trophy within or without a National Park;
- (vi) knowingly introduces any animal or domestic animal or vegetation into a National Park;
- (vii) deliberately disturbs or stampedes any animal in a National Park;
- (viii) wilfully damages any structure lawfully placed in a National Park;
- (ix) clears, cultivates or breaks up for cultivation any land in a National Park; or
- (x) catches or attempts to catch any fish in a National Park,

shall be guilty of an offence and liable to a fine not exceeding Kshs 10,000 or to imprisonment for a term not exceeding one year or to both (section 13(3)).

(c) Licence necessary for the various activities in National Park and National Reserve

The Wildlife (Conservation and Management) Regulations includes various forms for licence application, consent and authority, and registrations (consent for mines, authority for cinematograph/photography film, game licence, register of game animals and/or birds, professional hunters licence, certificate of ownership of hunted animals, certificate of ownership for possession of trophies, and dealer's licence).

Application forms are processed in accordance with following procedures.

- (i) each application form shall be sent to the Licensing Officer;
- (ii) the forms will be presented to the Committee, which consists of the Permanent Secretary of the Ministry of Tourism and Wildlife or his nominee, the Director of KWS or his nominee, the Licensing Officer, the Chief Tourist Officer, and two other KWS Senior Officers appointed by the Minister, for processing and a decision as to their suitability;
- (iii) the Licensing Officer will notify the applicants of the decision;
- (iv) all licences will be issued by the Licensing Officer;

2.2.4 The Environmental Management and Co-Ordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulations, 2009

The major objectives of the Regulations include to provide for the conservation and sustainable use of wetlands and their resources in Kenya, to promote the integration of

sustainable use of resources in wetlands into the local and national management of natural resources for socio-economic development, and to ensure the protection of wetlands as habitats for species of fauna and flora. Wetland Resource Use Permit and Temporary Permit are required for any activities in wetlands and the use of wetlands in accordance with the Regulations.

(a) Definitions of “Protected Wetland” and its designation procedures

The Minister may, by notice in the Gazette, declare an area to be a protected wetland where such area has national and international significance due to its biological diversity, ecological importance, landscape, natural heritage, or aesthetic value (section 8(1)).

The declaration of a protected wetland may be done by the Minister, in consultation with the relevant lead agency or on the recommendation of NEMA on its own motion or in consultation with the lead agency, a registered civil society organization, or an individual person (section 9(1)). Where NEMA of its own motion or in consultation with the relevant lead agency initiates the process of declaring an area to be a protected wetland, NEMA shall –

- (i) by notice in the Gazette and in at least one newspaper circulating in the local area, notify the public of its intention to declare the area to be a protected wetland, which notice shall identify and assign terms of reference to a task force which shall be mandated to prepare the wetland management plan;
- (ii) set up a task to prepare a wetland management plan by, incorporating the views of the people inhabiting the areas contiguous to the wetland; and
- (iii) cause a Strategic Environmental Assessment (SEA) of the management plan to be undertaken in accordance with EMCA 1999.

Where NEMA is satisfied with the findings under review of SEA report, it shall submit its recommendations to the Minister for the gazettelement of the wetland (section 9(2) and (3)).

(b) Restriction of activities in Protected Wetland

Upon declaration of an area to be a Protected Wetland, research, eco-tourism, restoration or enhancement of the wetland, or any other activities identified in the Management plan are the only activities permitted to be carried out in the area (section 8(2)).

On the other hand, the following sustainable uses of wetland resources shall not be subject to the Regulations (section 11).

- (i) subsistence harvesting of papyrus, medicinal plants, trees and reeds;
- (ii) any cultivation where the cultivated area is not likely to adversely affect the wetland;
- (iii) fishing, subject to the provisions of the Fisheries Act;
- (iv) collection of water for domestic use;
- (v) hunting, subject to the provisions of the Wildlife (Conservation and Management) Act;
- (vi) small-scale fish farming; and
- (vii) grazing of livestock.

2.3 Wildlife species

2.3.1 Endemic species

KWS specifies following species (20 Mammals, 6 Birds, 21 Reptiles, 11 Amphibians, and 2 Plants) as endemic species in Kenya. (see Table 2.2-1)

Table 2.3-1 Endemic species in Kenya

Taxonomy		English name	Latin name
Mammals	1	Golden rumped Elephant shrew	Rhynchcyon Chrysopygus (macroscelidea-macroscelidida)
	2	Tana river crested mangabey	Cercocebus galeritus (primates- cercopithecida)
	3	Tana river red colobus	Ptilocolobus rufomitratu (primates-cercopithecidae)
	4	Smoky white toothed shrew	Crociodura fumosa(soricomorpha-soricidae)
	5	Nyiro shrew	Crociodura macowli(soricomorpha-soricidae)
	6	Rainey's shrew	Crociodura raineyi(soricomorpha-soricidae)
	7	Ultimate shrew	Crociodura ultima(soricomorpha-soricidae)
	8	Mt. Gorgues Pipistrelle	Pipistrellus aere(chiroptera-verspertilionidae)
	9	Kenya's butterfly bat	Glaconycteris kenyacola(chiroptera-verspertilionidae)
	10	Hunters hartebeest	Beatragus hunter (Artiodactyla-Bovidae)
	11	Mianzini African mole rat	Tachyoryctes annectans(Rodentia-spalacidae)
	12	Aberdare mountains African mole	Tachyoryctes audax(Rodentia-spalacidae)
	13	Kenyan African mole rat	Tachyoryctes ibeanus(Rodentia spalacidae)
	14	Naivasha African mole rat	Tachyoryctes Naivasha(Rodentia spalacidae)
	15	King African mole rat	Tachyoryctes rex(Rodentia spalacidae)
	16	Embi African mole rat	Tachyoryctes spalacinus(Rodentia spalacidae)
	17	Storey's African mole rat	Tachyoryctes storey(Rodentia spalacidae)
	18	Zena's Brush furred rat	Lophuromys zena(Rodentia muridae)
	19	Giant Thicket rat	Gramomys Gigas(Rodentia spalacidae)
	20	Dolmans vlei rat	Otomys dollmani(Rodentia spalacidae)
Birds	1	Williams Bushlark	Mirafraga Williamsi(Alaudidae)
	2	Aberdare cisticolla	Cisticolla aberdare(cisticolidae)
	3	Tana river cisticolla	Cisticolla restructus(cisticolidae)
	4	Hindes Babbler	Turdoides hindei(timaliida)
	5	Clarkes weaver	Ploceus golandi(ploceidae)
	6	Sharpes long claw	Macronyx sharpie(motacilidae)
Reptiles	1	Teitana purple glossed snake	Amblyodispas teitana (Squamata ophidia-Atractaspididae)
	2	Malindi centipede eater	Aprallactus tumeri (Squamata ophidian-Atracataspididae)
	3	Tana delta smooth snake	Meizdon krameri (Squamata ophidian-Colubridae)
	4	Lamu worm snake	Leptotyphlops boulengri (Squamata ophidian-Leptotyphlopidae)
	5	Drewe's worm snake	Leptotyphlops drewesi (Squamata ophidia Leptotyphlopidae)
	6	Mount Kenya bush viper	Artheris desaixi (Squamata ophidian-Leptotyphlopidae)
	7	Kenya horned viper	Bitis worthingtoni (Squamata ophidian- Viperidae)
	8	Montane viper	Montatheris hindii (Squamata ophidian- Viperidae)
	9	Elementaita Rock Agama	Agama caudospinosa (Sauria-Agamidae)
	10	Mount Kenya hornless chameleon	Bradypodion excubitor (Sauria-Chameleontidae)

	11	Mount Marsabit chameleon	Chamaeleo Marsabitensis (Squamata sauria-Chamaeleonidae)
	12	Mt Kulal chameleon	Chamaeleo narraioca (Squamata sauria-Chamaeleonidae)
	13	Mt. Kenya side striped chameleon	Chamaeleo schubotzi (Squamata sauria-Chamaeleonidae)
	14	Eldama Ravine chameleon	Chamaeleo tramperi (Squamata sauria-Chamaeleonidae)
	15	Tana river Gekko	Hemidactylus modestus (Squamata sauria-Gekkonidae)
	16		Panaspis thomasi (Squamata sauria-Scinidae)
	17	Turkana mud turtle	Pelusios broadly (Testudines-Pelomedusidae)
	18	Mt. Kenya worm snake	Leptotyphlops keniensis (Squamata ophidian-leptotyphlopidae)
	19	Finchis Agama	Agama firchi (Squamata ophidian-Agamidae)
	20	Mt. Nyiro chameleon	Chamaeleo ntute (Squamata ophidian-chamaeleonidae)
	21	-	Hemidactylus barbierii (Squamata ophidian-Gekkonidae)
Amphibians	1	Lonnbergs toad	Bufo lonnbergi (Anura-Bufonidae)
	2	Mocquard,s Toad	Bufo mocquardi (Anura-Bufonidae)
	3	Lake Turkana Toad	Bufo Turkanae (Anura-Bufonidae)
	4	Bladder Reed Frog	Hyperolius cystocandicans (Anura-Hyperoliidae)
	5	Montane Reed Frog	Hyperolius Montanus (Anura-Hyperolidae)
	6	Shimba Hills Reed Frog	Hyperolius Rubrovermiculatus (Anura Hyperolidae)
	7	Sheldrick's Reed Frog	Hyperolius Sheldricki (Anura-Hyperolidae)
	8	Du Toit's Torrent Frog	Hyperolius Dutoiti (Anura-Petropedetidae)
	9	Irangi Puddle Frog	Phrynobatrachus Irangi (Anura-Petropeditae)
	10	Highland Ridged Frog	Boulengerula Taitama (Gymnophiona-Caecilidae)
	11	Taita Caecilian	Phrynobatrachus Kinangopensis (Anura-Ranidae)
Plants	1	Amaranthus brownii	Allmanlopsis Ispp (Amaranthaceae)
	2	Cathinum Kilifencies	Dibrachionostylus (Rubiaceae)

Source: List provided by KWS

2.3.2 Endangered species

(a) Endangered species in the IUCN Red List of Threatened Species

Table 2.3-2 Species in the IUCN Red List of Threatened Species in Kenya

Criteria	English name of the species	Criteria by Red List of Kenya
Endangered (EN)	Tana River Crested Mangabey	CR
Near Threatened (NT)	Striped Hyaena	EN
	Lesser Kudu	VU
	Leopard	EN

Least Concern (LC)	Sitatunga	EN
	Roan Antelope	CR
	Sable Antelope	CR
	Greater Kudu	VU
	Spotted Hyaena	VU
	Lelwel Hartebeest	EN
	Rothschild's Giraffe	EN

Source: List provided by KWS and The IUCN Red List of Threatened Species, 2010.4

(b) Endangered species by local definition

The National Red List is drafted by KWS (see Table 2.2-3). The draft list is waiting for public comments, and KWS is planning to hold a Workshop on August, 2011 inviting national stakeholders. This draft list is supposed to be finalized by the end of 2011.

Table 2.3-3 Draft National Red List of Kenya

Category	Species name	Common name
A.Mammals		
Critically Endangered	<i>Cephalophus adersi</i>	Aders' Duiker
	<i>Diceros bicornis</i>	Black Rhinoceros
	<i>Beatragus hunteri</i>	Hirola
	<i>Procolobus rufomitratus</i>	Eastern Red Colobus
	<i>Cercocebus galeritus</i>	Tana Crested Mangabey
	<i>Hippotragus equinus</i>	Roan Antelope
	<i>Hippotragus niger</i>	Sable Antelope
	<i>Tragelaphus eurycerus isaaci</i>	Eastern Bongo
Endangered	<i>Ceratotherium simum simum</i>	White Rhino
	<i>Balaenoptera borealis</i>	Coalfish Whale
	<i>Balaenoptera musculus</i>	Blue Whale
	<i>Equus grevyi</i>	Grevy's Zebra
	<i>Lycaon pictus</i>	African Wild Dog
	<i>Grammomys gigas</i>	Giant Thicket Rat
	<i>Otomys barbouri</i>	Barbour's Vlei Rat
	<i>Otomys jacksoni</i>	Mount Elgon Vlei Rat
	<i>Rhynchocyon chrysopygus</i>	Golden-Rumped Elephant Shrew
	<i>Loxodonta Africana</i>	African Elephant
	<i>Panthera leo</i>	African Lion
	<i>Acinonyx jubatus</i>	Cheetah
	<i>Hyaena Hyaena</i>	Striped Hyaena
	<i>Tragelaphus spekii</i>	Sitatunga
	<i>Panthera pardus</i>	Leopard
	<i>Alcelaphus buselaphus</i>	Lelwel Hartebeest
	<i>Giraffa camelopardalis rothschildi</i>	Rothschild's Giraffe
-	Giant Forest Hog	
Vulnerable	<i>Cloeotis percivali</i>	Percival's Trident Bat
	<i>Hippopotamus amphibius</i>	Common Hippopotamus

	<i>Myonycteris relicta</i>	East African Little Collared Fruit Bat
	<i>Megaptera novaeangliae</i>	Hump Whale
	<i>Dugong dugong</i>	Dugong
	<i>Physeter macrocephalus</i>	Sperm Whale
	<i>Bdeogale jacksoni</i>	Jackson's Mongoose
	<i>Rhynchocyon petersi</i>	Black And Rufous Elephant Shrew
	<i>Pelomys hopkinsi</i>	Hopkins's Groove-Toothed Swamp Rat
	<i>Taphozous hildegardeae</i>	Hildegard's Tomb Bat
	<i>Gazella soemmerringii</i>	Soemmerring's Gazelle
	<i>Profelis aurata</i>	African Golden Cat
	<i>Rhinopoma macinnesi</i>	Macinnes's Mouse-Tailed Bat
	<i>Surdisorex norae</i>	Aberdare Shrew
	<i>Surdisorex polulus</i>	Mt. Kenya Shrew
	<i>Tachyoryctes audax</i>	Audacious Mole Rat
	<i>Mastomys pernanus</i>	Dwarf Multimammate Mouse
	<i>Myonycteris relicta</i>	East African Little Collared Fruit Bat
	<i>Dendrohyrax validus</i>	Eastern Tree Hyrax
	<i>Crocidura elgonius</i>	Elgon Shrew
	<i>Crocidura fischeri</i>	Fischer's Shrew
	<i>Taphozous hamiltoni</i>	Hamilton's Tomb Bat
	<i>Crocidura allex</i>	Highland Shrew
	<i>Taphozous hildegardeae</i>	Hildegard's Tomb Bat
	<i>Tadarida lobata</i>	Kenyan Big-Eared Free-Tailed Bat
	<i>Otomops martiensseni</i>	Large-Eared Free-Tailed Bat
	<i>Otomops martiensseni</i>	Large-Eared Free-Tailed Bat
	<i>Beamys hindei</i>	Lesser Hamster-Rat
	<i>Paraxerus palliatus</i>	Red Bush Squirrel
	<i>Crocidura monax</i>	Rombo Shrew
	<i>Crocidura fumosa</i>	Smoky White-Toothed Shrew
	<i>Physeter catodon</i>	Sperm Whale
	<i>Lutra maculicollis</i>	Spotted-Necked Otter
	<i>Pedetes capensis</i>	Springhare
	<i>Crocidura xantippe</i>	Vermiculate Shrew
	<i>Crocuta crocuta</i>	Spotted Hyaena
	<i>Tragelaphus imberbis</i>	Lesser Kudu
	<i>Tragelaphus strepsiceros</i>	Greater Kudu
B. Birds		
Critically Endangered	<i>Apalis fuscigularis</i>	Taita Apalis
	<i>Turdus helleri</i>	Taita Thrush
	<i>Fregata andrewsi</i>	Christmas Island Frigatebird
	<i>Gypaetus barbatus</i>	Bearded Vulture
Endangered	<i>Acrocephalus griseldis</i>	Basra Reed-Warbler
	<i>Anthreptes pallidigaster</i>	Amani Sunbird
	<i>Eremomela turneri</i>	Turner's Eremomela
	<i>Anthus sokokensis</i>	Sokoke Pipit
	<i>Ardeola idae</i>	Madagascar Pond-Heron
	<i>Cisticola aberdare</i>	Aberdare Cisticola
	<i>Falco cherrug</i>	Saker Falcon

	<i>Ploceus golandi</i>	Clarke's Weaver
	<i>Otus ireneae</i>	Sokoke Scops-Owl
	<i>Macronyx sharpei</i>	Sharpe's Longclaw
	<i>Zoothera guttata</i>	Spotted Ground-Thrush
	<i>Zosterops poliogaster silvanus</i>	Taita Montane White-Eye
Vulnerable	<i>Hirundo atrocaerulea</i>	Blue Swallow
	<i>Falco naumanni</i>	Lesser Kestrel
	<i>Apalis chariessa</i>	White-Winged Apalis
	<i>Turdoides hindei</i>	Hinde's Pied-Babbler
	<i>Aquila clanga</i>	Greater Spotted Eagle
	<i>Aquila heliaca</i>	Imperial Eagle
	<i>Torgos tracheliotos</i>	Lappet-Faced Vulture
	<i>Glareola ocularis</i>	Madagascar Pratincole
	<i>Muscicapa lendu</i>	Chapin's Flycatcher
	<i>Chloropeta gracilirostris</i>	Papyrus Yellow Warbler
	<i>Cinnyricinclus femoralis</i>	Abbott's Starling
	<i>Balaeniceps rex</i>	Shoebill
	<i>Sheppardia gunningi</i>	East Coast Akalat
	<i>Cisticola aberrans</i>	Taita Rock Cisticola
C. Reptiles		
Critically Endangered	<i>Eretmochelys imbricata</i>	Hawksbill Turtle
Endangered	<i>Chelonia mydas</i>	Green Turtle
	<i>Lepidochelys olivacea</i>	Olive Ridley
	<i>Python natelemis</i>	African Rock Python
Vulnerable	<i>Malacochersus tornieri</i>	Crevice Tortoise
	<i>Pelusios broadleyi</i>	Turkana Mud Turtle
D. Fish		
Critically Endangered	<i>Oreochromis esculentus</i>	Singidia Tilapia
	<i>Oreochromis hunteri</i>	Lake Chala Tilapia
	<i>Oreochromis jipe</i>	Jipe Tilapia
	<i>Oreochromis variabilis</i>	Victoria Tilapia
	<i>Ptyochromis sp. nov.</i>	Rainbow Sheller
	<i>Xenoclaris eupogon</i>	Lake Victoria Deepwater Catfish
	<i>Platycephalus amboniensis</i>	Montane Dancing-Jewel
Endangered	<i>Alcolapia alcalicus</i>	-
	<i>Cheilinus undulatus</i>	Giant Wrasse
	<i>Marcusenius victoriae</i>	Victoria Stonebasher
	<i>Xystichromis nuchisquamulatus</i>	Kyoga Flameback
Vulnerable	<i>Carcharias Taurus</i>	Grey Nurse Shark
	<i>Thunnus obesus</i>	Bigeye Tuna
	<i>Rhincodon typus</i>	Whale Shark
	<i>Urogymnus asperrimus</i>	Porcupine Ray
	<i>Carcharhinus longimanus</i>	Oceanic Whitetip Shark
	<i>Carcharodon carcharias</i>	Great White Shark
	<i>Rhina ancylostoma</i>	Bowmouth Guitarfish
	<i>Taeniura meyeri</i>	Black-Blotched Stingray
	<i>Rhynchobatus djiddensis</i>	Giant Guitarfish

	<i>Pseudoginglymostoma brevicaudatum</i>	Shorttail Nurse Shark
	<i>Epinephelus lanceolatus</i>	Brindle Bass
	<i>Nothobranchius patrizii</i>	Blue Notho
	<i>Nothobranchius ojiensis</i>	Boji Plains Nothobranch
	<i>Nothobranchius elongatus</i>	Elongate Nothobranch
	<i>Labeo percivali</i>	Ewaso Nyiro Labeo
E. Trees		
Critically Endangered	<i>Osyris lanceolata</i>	East African Sandalwood
Endangered	<i>Encephalartos kisambo</i>	Voi Cycad
	<i>Lovoa swynnertonii</i>	Kilimanjaro Mahogany
	<i>Gigasiphon macrosiphon</i>	Gigasiphon
Vulnerable	<i>Prunus africana</i>	Red Stinkwood
	<i>Vitex keniensis</i>	Meru Oak
	<i>Ocotea kenyensis</i>	Camphor
	<i>Polyscias kikuyuensis</i>	Parasol Tree
	<i>Aloe ballyi</i>	Rat Aloe
	<i>Populus ilicifolia</i>	Tana River Poplar
Protected	<i>Adansonia digitata</i>	Baobab
	<i>Brachyleana huillensis</i>	Silver Oak
	<i>Thurnbergia spp</i>	African Black Wood
		Elgon Teak

Source: Draft National Red List of Kenya, KWS

2.3.3 Species subject to international treaty/convention/agreement

(a) African -Eurasian Migratory Waterbird Agreement (AEWA)

The Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) is the largest of its kind developed so far under CMS. The agreement covers 118 countries and the European Union (EU) from Europe, parts of Asia and Canada, the Middle East and Africa. In fact, the geographical area covered by the AEWA stretches from the northern reaches of Canada and the Russian Federation to the southernmost tip of Africa. The Agreement provides for coordinated and concerted action to be taken by the Range States throughout the migration system of waterbirds to which it applies. (see Figure 2.2-1)

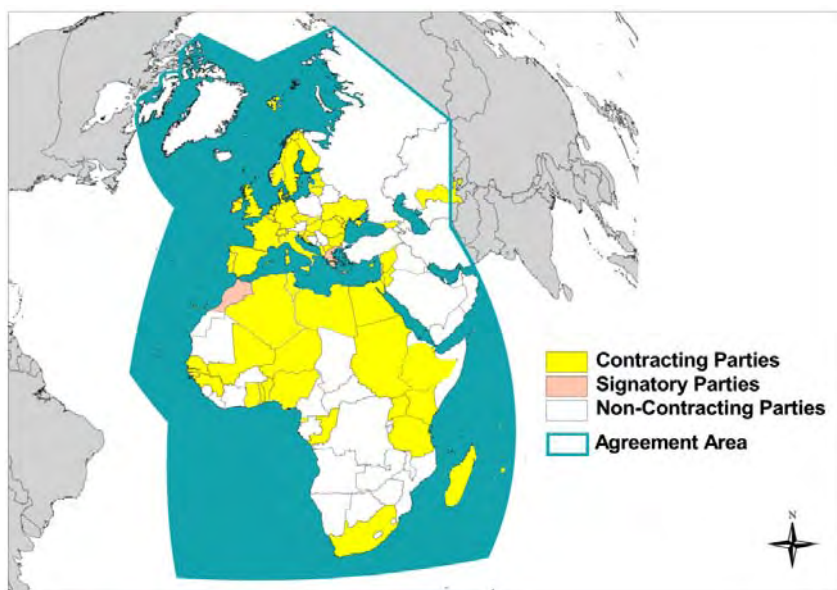


Figure 2.3-1 Geographical scope of AEWA (Contracting Parties as of 1 February 2010)

The AEWA covers 255 species of birds ecologically dependent on wetlands for at least part of their annual cycle, including many species of divers, grebes, pelicans, cormorants, herons, storks, rails, ibises, spoonbills, flamingos, ducks, swans, geese, cranes, waders, gulls, terns, tropic birds, auks, frigate birds and even the south African penguin.

Estimated mean numbers of waterbird species covered by AEWA and their trend in Kenya are shown in the Table 2.2-4. Cape Teal and Chestnut-banded Plover are categorized as Category 1 of Column A in Table1-Status of the Populations of Migratory Waterbirds.

Table 2.3-4 Estimated mean numbers of waterbird species covered by AEWA and their trend

Species	Estimated mean 2002-2005 (January counts)	Trend
Purple Heron / <i>Ardea purpurea</i>	80	Decline
Great Egret / <i>Casmerodius albus</i>	230	Decline
Woolly-necked Stork / <i>Ciconia episcopus</i>	20	Decline
Lesser Flamingo / <i>Phoenicopterus minor</i>	1.3 million	Stable
Cape Teal / <i>Anas capensis</i>	1700	Decline
Striped Crake / <i>Aenigmatolimnas marginalis</i>	No. Data	Unknown
Crab Plover / <i>Dromas ardeola</i>	2600	Stable
Chestnut-banded Plover / <i>Charadrius pallidus</i>	530	Decline
Brown-chested Plover / <i>Vanellus superciliosus</i>	No Data	Unknown
Great Snipe / <i>Gallinago media</i>	60	Decline
Roseate Tern / <i>Sterna dougallii</i>	No Data	Unknown

Source: Information provided by KWS

2.4 Important and critical ecosystem/habitat

2.4.1 National Parks, National Reserves, and Sanctuaries

There are 27 National Parks and Marine National Parks, 33 National Reserves and Marine National Reserves, and 4 Sanctuaries in Kenya. Major National Parks, National Reserves, and Sanctuaries are shown in Table 2.3-1, and their locations are shown in Figure 2.3-1.

Table 2.4-1 List of major National Parks, Nature Reserves, and Sanctuaries

	National Park/ National Reserves	Type	Size (km ²)	Location	Summary
National Park					
1	Aberdare National Park	W	-	160 km from Nairobi	Higher areas of the Aberdare Mountain Range of central Kenya.
2	Amboseli National Park	P	390.26	Loitokitok District, Rift Valley Province	The ecosystem mainly savannah grassland spread across the Kenya-Tanzania border
3	Arabuko Sokoke National Park	S	6	110km north of Mombasa	The largest stretch of coastal forest remaining in Eastern Africa.
4	Central Island National Park	S	5	800 km from Nairobi	The park is within Lake Turkana.
5	Chyulu Hills National Park	S	741	In Kibwezi District, Eastern Province	Land of black frozen lava studded with blazing red-hot poker trees
6	Hells Gate National Park	S	68	Naivasha , Rift Valley Province	Savannah ecosystem harbours a wide variety of wildlife.
7	Kora National Park	W	1,787	280 km to the north-east of Nairobi	Gazetted in 1973 as a reserve, and gazetted as a park in 1990.
8	Lake Nakuru National Park	P	-	Nakuru district of the Rift Valley Province	Ecosystem comprises of the lake, surrounded by mainly wooded and bushy grasslands.
9	Malka Mari National Park	S	-	North east of Kenya on the Mandera plateau	Gazetted in 1989 due to its high concentration of wildlife but has not been developed
10	Marsabit National Park & Reserve	S	1,554	Marsabit District, Eastern Province	Densely forested mountain and three crater lakes
11	Meru National Park	W	870	East-north-east of Mount Kenya in Meru District of Eastern Province	Parks are part of Semi-arid zone and have irregular rainfalls.
12	Mount Elgon National Park	S	196	On the western border of Kenya with Uganda, in Trans-nzoia District of Rift Valley Province	Untamed wilderness, secluded splendour
13	Mt. Kenya National Park	M	2,800	East of the Rift Valley	At 5,199m the mountain is the second highest peak in Africa.
14	Mt. Longonot National Park	S	52	Naivasha, Rift	The ecosystem mainly

				Valley Province	comprises of the mountain rising to 2,776 m
15	Nairobi National Park	U	117	Nairobi Province	Unique ecosystem by being the only protected area in the world close to a capital city.
16	Ndere Island National Park	S	4.2	Kisumu District of Nyanza Province.	Ndere means "meeting place" in the language of the local Luo tribe.
17	Oi Donyo Sabuk National Park	S	20.7	Machakos District, Eastern Province	Buffalo are the dominant animals in the ecosystem.
18	Ruma National Park	S	120	In Western Kenya close to Lake Victoria.	The only Terrestrial Park in the entire Nyanza Province.
19	Saiwa Swamp National Park	S	2.9	Trans Nzoia District, Rift Valley Province	The park ecosystem comprises of forest and swamp vegetation.
20	Sibiloi National Park	S	1,570	Lake Turkana, Marsabit District, Eastern Province	Unique prehistoric and archaeological sites some of which are linked to the origin of man.
21	Tsavo East National Park	W	13,747	South East Kenya, inland from the Coast	One of the largest National parks in the world and covers a massive 4% of Kenya's total land area
22	Tsavo West National Park	W	9,065	South Eastern Kenya, Inland from Mombasa	The savannah ecosystem
National Reserve					
1	Kakamega Forest National Reserve	S	44	Western Province, situated in the Lake Victoria basin,	Offers unique wildlife and scenic beauty
2	Marsabit National Reserve	S	1,554	Marsabit District, Eastern Province	Densely forested mountain and three crater lakes
3	Mwea National Reserve	S	42	Mbeere District, Eastern Province	The savannah ecosystem comprises of small hills with bushy vegetation and scattered large trees.
4	Shimba Hills National Reserve	S	300	Kwale district of Coast Province	The coastal ecosystem comprise of a heterogeneous habitat
5	Tana River Primate Reserve	S	6	350km east of Nairobi and 240km north of Mombasa	Established to protect the Tana riverine forest and the two endangered primates, Mangabey and the red colobus monkey.
Marine National Park					
1	Kisite Mpunguti Marine Park	-	39	40km from Ukunda town in Msambeni District	The ecosystem covers a marine area with four small islands surrounded by coral-reef.
2	Mombasa Marine National Park	-	-	In Mombasa town along the Kenyan coast	The park comprises of the sea waters, mangroves, sea grasses, and sea weeds, and is home to variety of marine life

3	Malindi Marine National Park	-	-	South Eastern Kenya	Magnificent resources and high fish diversity, marine mammals, and various species of shorebirds.
Marine National Reserve					
1	Kiunga National Marine Reserve	-	270	Lamu District, Coast province	The marine ecosystem incorporates a chain of about 50 calcareous offshore islands and coral reefs.
2	Mombasa Marine Reserve	-	more than 200	Lamu District, Coast province	Prolific marine life, a variety of off shore birds can be seen.
3	Watamu Marine National Reserve	-	10	North Coast, Malindi – Kenya	Part of a complex of marine and tidal habitats along the Kenya's north coast.
Sanctuary					
1	Kisumu Impala Sanctuary	-	Less than 14.2(Nd ere Isl)	Located 355 Km North of Nairobi	Grassland and woodlands ecosystem
2	Nairobi Animal Orphanage	-	-	-	-
3	Nairobi Safari Walk	-	-	-	-

Type: P (Premium Park) / U (Urban Safari) / W (WildernessPark) / M (Mountain Park) / S (Scenic and Special Interest)

Source: Kenya Wildlife Service Parks and Reserves, KWS (http://www.kws.org/parks/parks_reserves/index.html)
Strategic Plan 2008-2012, Kenya Wildlife Service

2.4.2 Coral reefs

National Parks and National Reserves which cover coral reefs are shown in Table 2.3-2.

Table 2.4-2 National Parks and National Reserves which cover coral reefs

Site Name	Designation	IUCN cat.	Size(km ²)	Year
Diani	MNR	VI	75.00	1993
Kisite	MNP	II	28.00	1978
Kiunga	MNR	VI	250.00	1979
Malindi	MNP	II	6.30	1968
Malindi-Watamu	MNR	VI	177.00	1968
Mombasa	MNP	II	10.00	1986
Mombasa	MNR	VI	200.00	1986
Mpunguti	MNR	VI	11.00	1978
Watamu	MNP	II	32.00	1968
Kiunga Marine National Reserve	UNESCO Biosphere Reserve	-	600.00	1980
Malindi-Watamu BiOSPHERE Reserve	UNESCO Biosphere Reserve	-	196.00	1979

Source: pp.183-185, *World Atlas of Coral Reefs*, University of California Press

2.4.3 Mangrove wetlands

East African Mangroves Eco Region²¹²²

The East African mangroves support the greatest flora and faunal diversity of African mangroves, as well as provide critical habitat for maintaining nearby coral reefs and populations of fish and birds. It is located in Eastern African Coast, along Kenya, Mozambique, Somalia, Tanzania, and the western coast of Madagascar and covers 15,000 km².

Major mangrove forests exist in Mida Creek and Lamu Archipelago near Arabuko Sokoke National Park. Watamu Marine National Park, Ras Tenewi Marine National Park, and Kiunga National Marine Reserve cover mangrove forests as well.

Major threats are conversion of the Mangroves to rice farms, salt pans, aquaculture, and urbanisation. They also ultimately receive all untreated wastes discharged upstream, as well as oil and industrial pollution, silt, and pesticides.

2.4.4 Areas subject to international treaty/convention/agreement

(a) Ramsar Convention registered wetlands

In Kenya, five lakes (total of 101,849 ha) shown in Table 2.3-3 are registered as Ramsar wetlands. Their locations are shown in Figure 2.3-2.

²¹ East African Mangroves, WWF (http://wwf.panda.org/about_our_earth/ecoregions/east_african_mangroves.cfm)

²² "WWF Full Report" and "Ecoregion Profile" of East African mangroves (AT1402), Wild World (http://www.worldwildlife.org/wildworld/profiles/terrestrial/at/at1402_full.html)(<http://www.nationalgeographic.com/wildworld/profiles/terrestrial/at/at1402.html>)

Table 2.4-3 Ramsar Convention registered sites in Kenya

Site	Area (ha)	Year of registration	Brief overview
Lake Naivasha	30,000	1995	Located in a high altitude trough of the Rift Valley, one of the few freshwater lakes in eastern Africa.
Lake Elementaita	10,880	2005	A shallow saline, alkaline lake. An average of over 610,000 birds of more than 450 species have been counted in the area
Lake Nakuru	18,800	1990	National Park. A very shallow, strongly alkaline lake, with surrounding woodland and grassland
Lake Baringo	31,469	2002	National Reserve. Freshwater lakes The lake provides critical habitat and refuge for nearly 500 bird species.
Lake Bogoria	10,700	2001	National Reserve. An alkaline soda lake hydrologically dominated by hot springs. Provides critical refuge for the lesser flamingo, with a population of 1 to 1.5 million.

Source: Ramsar Sites Information Service (<http://ramsar.wetlands.org/Database/Searchforsites/tabid/765/language/ja-JP/Default.aspx>)



Source: Ramsar Sites Information Service (<http://ramsar.wetlands.org/Database/Searchforsites/tabid/765/language/ja-JP/Default.aspx>)

Figure 2.4-2 Location of Ramsar Registered wetlands

(b) Biosphere Reserve

Biosphere reserves are sites recognized under UNESCO's Man and the Biosphere (MAB) Programme to promote sustainable development based on local community efforts and sound science.

Biosphere Reserves in Kenya are shown in Table 2.3-4 and their locations are shown in Figure 2.3-3.

Table 2.4-4 Biosphere Reserves in Kenya

Site	Area (ha)	Year designated	Ecosystem Type	Major habitats & land cover types
Mount Kenya	71,759	1978	Mixed mountain and highland systems	Mountainous area, lower zone (below 2,500m) dominated by <i>Juniperus procera</i> and <i>Podocarpus</i> spp.; wetter areas dominated by <i>Cassipourea malosana</i> ; higher altitude zone (2,500/3,000m) dominated by bamboo (<i>Arundinaria alpina</i>) on south-eastern slopes, and a mosaic of bamboo and <i>Podocarpus milanjanus</i> ; maximum rainfall areas supporting <i>Hagenia abyssinica</i> and <i>Hypericum revolutum</i> ; grassy glades on ridges; lower alpine or moorland zone characterized by tussock grasses (<i>Festuca pilgeri</i>) and sedges (<i>Carex</i> spp.); upper alpine zone with giant rosette plants (<i>Lobelia telekii</i> and <i>L. keniensis</i> , <i>Senecio keniodendron</i> and <i>Carduus</i> spp.); river banks with megaphytic <i>Senecio battiscombei</i> and <i>Helichrysum kilimanjari</i>
Mount Kulal	700,000	1978	Warm deserts and semi-deserts /lakesystems	Mountain forest, desert; montane zone with rainforest, mist forest and grassland; sub-montane zone with dry evergreen forest of <i>Olea africana</i> and <i>Juniperus procera</i> with a shrub layer of <i>Euclea</i> spp. and <i>Carissa</i> spp. and grassland; sub-humid/semi-arid zone of <i>Combretum</i> spp. woodland with <i>Euphorbia</i> spp. and <i>Acacia drepanolobium</i> woodland with an understory of <i>Duosperma eremophilum</i> ; semi-arid zone of <i>Acacia mellifera</i> and <i>Commiphora</i> spp. bushland; semi-arid/arid zone with bush-land of <i>Acacia reficiens</i> and woodland of <i>Acacia tortilis</i> ; ever-green shrubland of saltbush; lava desert; salt desert; lake ecosystems
Malindi-Watamu	19,600	1979	Tropical coastal/marine zone	Sub-littoral zone with microscopic marine plants; corals; intertidal sand and mud with marine angiosperms such as <i>Cymodocea rotundata</i> , <i>Halodule wrightii</i> , <i>Thalassia hemprichii</i> etc.; mangroves with <i>Rhizophora mucronata</i> , <i>Bruguiera cylindrica</i> and <i>Ceriops</i> sp.; intertidal rock zones with red algae such as <i>Bostrychia</i> spp. and <i>Placophora binderi</i> .
Kiunga	60,000	1980	Tropical coastal/marine zone including coral reefs	Sub-littoral zone with microscopic marine plants; intertidal sand and mud with marine angiosperms; dwarf shrub thicket areas with salt tolerant species; mangrove swamps; coral reefs
Amboseli	483,206	1991	Tropical grasslands and savanna	<i>Commiphora</i> / <i>Acacia</i> bushland; saline/alkaline plains with <i>Suaeda monoica</i> and <i>Salvadora persica</i> ; <i>Acacia</i> woodland with yellow-barked acacia (<i>Acacia xanthophloea</i> and <i>A. tortilis</i>); swampland supporting sedges (<i>Cyperus</i> spp.) including <i>Cyperus papyrus</i> ; agroecosystems

				with tomatoes, onions, maize, bananas etc.
Mount Elgon	208,821	2003	Mixed mountain highland system Volcanic mountains and deep valleys and gorges	Moorland and Heathland Afro-alpine and Afro-montane forest Agricultural land (maize, beans, wheat, tea and horticulture) Residential areas

Source: UNESCO MAB Biosphere Reserves Directory (Kenya), The MAB Programme/UNESCO (<http://www.unesco.org/mabdb/br/brdir/directory/contact.asp?code=KEN>)



Figure 2.4-3 Location of Biosphere Reserves in Kenya

2.4.5 Other important ecosystems and habitats

(a) Important Bird Area: IBAs

A site is recognised as an IBA only if it meets certain criteria, based on the occurrence of key bird species that are vulnerable to global extinction or whose populations are otherwise irreplaceable. The IBA programme aims to guide the implementation of national conservation strategies, through the promotion and development of national protected-area programmes.

Followings are the criteria for IBA selection.

- A1 - Globally threatened species: The site is known or thought regularly to hold significant numbers of a globally threatened species²³, or other species of global conservation concern.
- A2 - Restricted-range species: The site is known or thought to hold a significant component of a group of species whose breeding distributions define an Endemic

²³ The site qualifies if it is known, estimated or thought to hold a population of a species categorized by the IUCN Red List as Critically Endangered (CR), Endangered (EN) or Vulnerable (VU). In general, the regular presence of a CR or EN species, irrespective of population size, at a site may be sufficient for a site to qualify as an IBA. For VU species, the presence of more than threshold numbers at a site is necessary to trigger selection.

Bird Area (EBA) or Secondary Area (SA)²⁴.

A3 - Biome-restricted species: The site is known or thought to hold a significant component of the group of species whose distributions are largely or wholly confined to one biome.

A4 – A site may qualify on any one or more of the four criteria listed below:

- i). Site known or thought to hold, on a regular basis, 1% of a biogeographic population of a congregatory waterbird species.
- ii). Site known or thought to hold, on a regular basis, 1% of the global population of a congregatory seabird or terrestrial species.
- iii). Site known or thought to hold, on a regular basis, 20,000 waterbirds or 10,000 pairs of seabirds of one or more species.
- iv). Site known or thought to exceed thresholds set for migratory species at bottleneck sites.

There are 1,217 IBAs²⁵ in Africa, and their total area is 2,205,066 km². In Kenya, 60 IBAs have been selected (see Table 2.3-5 and Figure 2.3-4). Kenya's IBAs represent all key habitat types in Kenya: 22 Forests (of these, 20 (90%) are protected areas); 18 wetlands (only 5 (27%) are in protected areas); 12 semiarid and arid areas (7 (58%) are protected areas); 6 moist grasslands (3 (50%) are in protected areas). In other categories, there are two sites, neither of them protected. Of these 60 sites, 46 hold globally threatened bird species, 29 have range-restricted birds, 32 host biomerestricted birds, and 13 are identified for holding congregatory bird species. At least five other sites were considered potential IBAs.

Table 2.4-5 IBAs in Kenya

	Site Name	IBA Criteria	Size (km ²)	Final Code
1	Diani Forest	A1	80	KE009
2	Gede Ruins National Monument	A1	44	KE011
3	Kaya Waa	A1	20	KE013
4	Ruma National Park	A1	12,000	KE040
5	Ol Donyo Sabache	A1	1,000	KE054
6	Kianyaga valleys	A1, A2	12,000	KE002
7	Kinangop grasslands	A1, A2	77,000	KE004
8	Mukurweini valleys	A1, A2	30,000	KE006
9	Dzombo Hill Forest	A1, A2	295	KE010
10	Kaya Gandini	A1, A2	150	KE012
11	Taita Hills Forests	A1, A2	400	KE021
12	Chyulu Hills forests	A1, A2	18,000	KE026
13	Machakos valleys	A1, A2	5,000	KE029
14	Mwea National Reserve	A1, A2	4,200	KE032

²⁴ EBAs are defined as places where two or more species of restricted range, i.e. with world distributions of less than 50,000 km², occur together. More than 70% of such species are also globally threatened. A SA supports one or more restricted-range species, but does not qualify as an EBA because less than two species are entirely confined to it.

²⁵ Global Summary, Sites – Important Bird Areas (IBAs), Birdlife International (<http://www.birdlife.org/datazone/info/ibaglobalsum>)

15	Masai Mara	A1, A2	664,000	KE050
16	Mau Narok: Molo grasslands	A1, A2	40,000	KE052
17	South Nguruman	A1, A2	50,000	KE056
18	Aberdare Mountains	A1, A2, A3	179,900	KE001
19	Kikuyu Escarpment forest	A1, A2, A3	37,600	KE003
20	Mount Kenya	A1, A2, A3	271,000	KE005
21	Arabuko-Sokoke Forest	A1, A2, A3	41,600	KE007
22	Dakatcha Woodland	A1, A2, A3	32,000	KE008
23	Marenji Forest	A1, A2, A3	1,520	KE017
24	Shimba Hills	A1, A2, A3	21,740	KE020
25	Tana River Forests	A1, A2, A3	3,700	KE023
26	Dida Galgalu desert	A1, A2, A3	620,000	KE027
27	Meru National Park	A1, A2, A3	87,000	KE031
28	Shaba National Reserve	A1, A2, A3	23,900	KE034
29	North Nandi forest	A1, A2, A3	10,500	KE053
30	Kakamega forest	A1, A2, A3	18,300	KE058
31	Mount Elgon	A1, A2, A3	95,000	KE059
32	Lake Elmenteita	A1, A2, A4i, A4iii	7,200	KE046
33	Lake Naivasha	A1, A2, A4i, A4iii	23,600	KE048
34	Lake Nakuru National Park	A1, A2, A4i, A4iii	18,800	KE049
35	Nairobi National Park	A1, A2, A4ii	11,700	KE036
36	Mrima Hill Forest	A1, A3	250	KE018
37	Tsavo East National Park	A1, A3	1,175,000	KE024
38	Tsavo West National Park	A1, A3	906,500	KE025
39	Dunga swamp	A1, A3	100	KE037
40	Koguta swamp	A1, A3	200	KE038
41	Kusa swamp	A1, A3	350	KE039
42	Yala swamp complex	A1, A3	8,000	KE041
43	South Nandi forest	A1, A3	18,000	KE055
44	Busia grasslands	A1, A3	250	KE057
45	Sio Port swamp	A1, A3	400	KE060
46	Tana River Delta	A1, A3, A4i, A4iii	130,000	KE022
47	Lake Bogoria National Reserve	A1, A4i, A4iii	10,700	KE045
48	Lake Magadi	A1, A4i, A4iii	10,500	KE047
49	Samburu and Buffalo Springs National Reserves	A3	29,600	KE033
50	Amboseli National Park	A3	39,200	KE042
51	Cherangani Hills	A3	95,600	KE043
52	Lake Baringo	A3	28,400	KE044
53	Mau forest complex	A3	270,300	KE051
54	Kisite island	A4i	1	KE014
55	Kiunga Marine National Reserve	A4i	25,000	KE015
56	Mida Creek, Whale Island and the Malindi: Watamu coast	A4i	26,100	KE016
57	Sabaki River Mouth	A4i	20	KE019
58	Dandora ponds	A4i	300	KE035
59	Lake Turkana	A4i, A4iii	756,000	KE028

60	Masinga reservoir	A4i, A4iii	100,000	KE030
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Source: Sites – Important Bird Areas (IBAs), Birdlife International (<http://www.birdlife.org/datazone/site/search>)

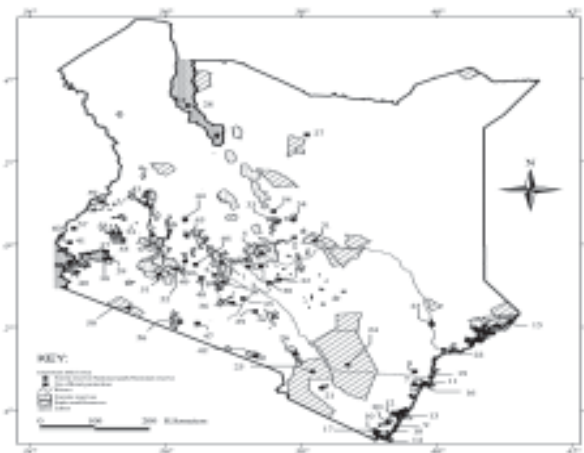


Figure 2.4-4 Locations of IBAs in Kenya

Following six IBAs are recognized as critical areas, and Nature Kenya and relevant institutions (KWS, NEMA, etc.) conduct detailed monitoring in the areas.

- ✓ Arabuko-Sokoke Forest (Coast Province) - KE007
- ✓ Kakamega Forest (Western Province) - KE058
- ✓ Kinangop Grasslands (Central Province/Rift Valley Province) - KE005
- ✓ Kikuyu Escarpment Forests (Central Province) - KE003
- ✓ Mukurweini Valleys (Central Province) - KE004
- ✓ Lake Victoria Papyrus Swamps (Dunga, Koguta, Kusa) (Nyanza Province) - KE037, 038, 039

(b) WWF Global 20026

The WWF's Global 200 aims to represent all of the world's biodiversity by identifying outstanding ecoregions in all of the world's biomes and biogeographic realms. These ecoregions include those with exceptional levels of biodiversity, such as high species richness or endemism, or those with unusual ecological or evolutionary phenomena.

Table 2.3-6 shows the Global 200 certified areas within Kenya.

Table 2.4-6 Global 200 within Kenya

Area	Name of Eco Region	Countries
Tropical and Subtropical Moist Broadleaf Forests	East African Coastal Forests	Kenya , Somalia, Tanzania
	Eastern Arc Montane Forests	Kenya , Tanzania
Tropical and Subtropical Grasslands, Savannas and Shrublands	Horn of Africa Acacia Savannas	Eritrea, Ethiopia, Kenya , Somalia, Sudan

²⁶ WWF's Global 200, WWF (<http://www.worldwildlife.org/science/ecoregions/global200.html>)

	East African Acacia Savannas	Ethiopia, Kenya , Sudan, Tanzania, Uganda
	Sudanian Savannas	Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Eritrea, Ethiopia, Kenya , Nigeria, Sudan, Uganda
Montane Grasslands and Shrublands	East African Moorlands	Democratic Republic of Congo, Kenya , Rwanda, Tanzania, Uganda
Mangroves	East African Mangroves	Kenya , Mozambique, Somalia, Tanzania
Large Lakes	Rift Valley Lakes	Burundi, Democratic Republic of Congo, Ethiopia, Kenya , Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia
Tropical Coral	East African Marine	Kenya , Mozambique, Somalia, Tanzania

Source: List of Global 200, WWF
(http://www.wwf.or.jp/activities/lib/g200_english.html)(<http://www.wwf.or.jp/activities/lib/g200.html>)

2.5 Forests

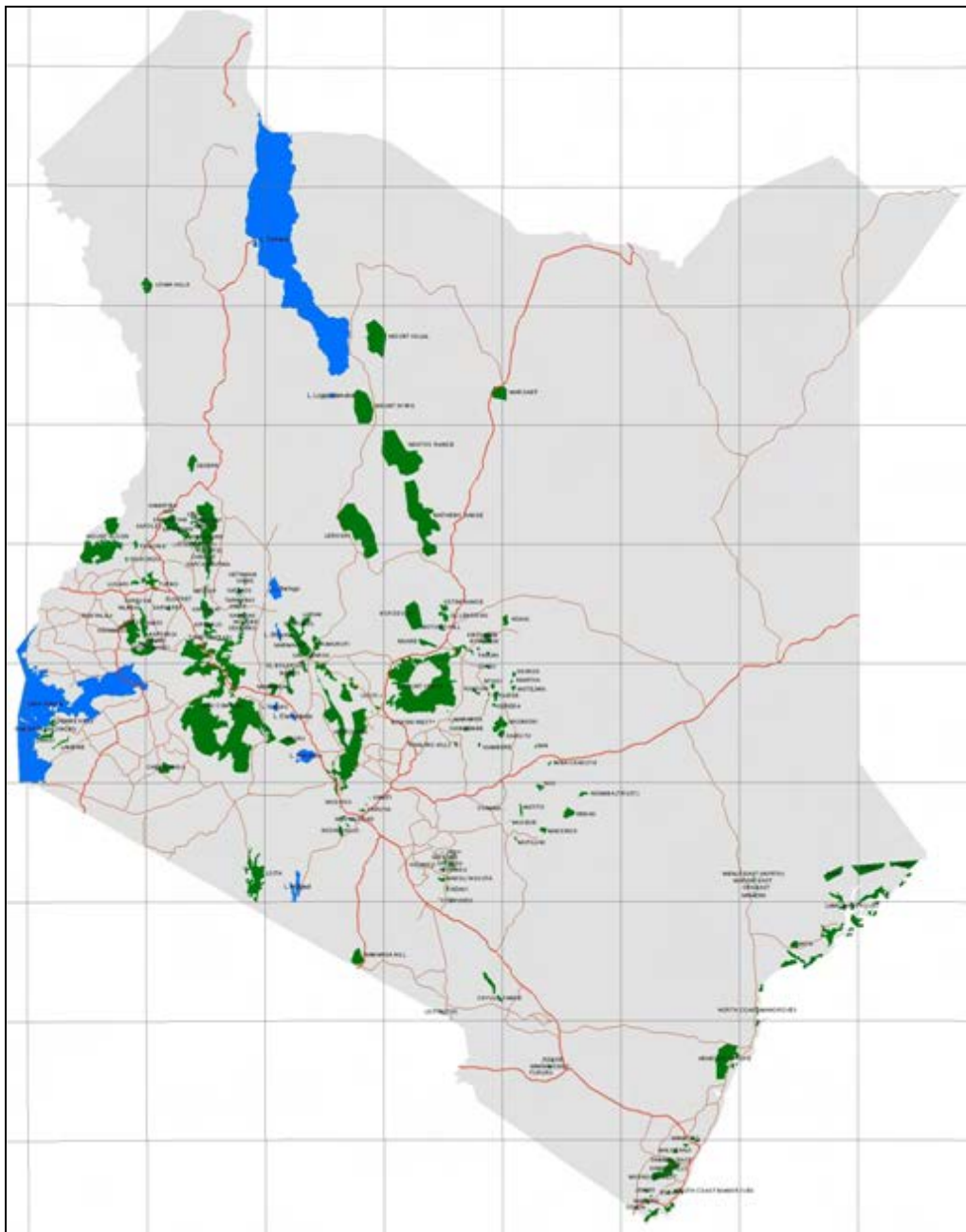
Table 2.4-1 shows type and size of forests in 2000 and 2008. Forest cover in Kenya is shown in Figure 2.4-1.

The list of state forests managed by KFS is attached as Annex 2.

Table 2.5-1 Forests in Kenya

Type	Size of forests (1,000ha)	
	2000	2008
Closed canopy forests		
Indigenous closed canopy	1,190	1,165
Mangroves	54	54
Industrial plantation forest	134	107
Private plantation forests	78	90
Sub total	1,456	1,406
Other forests		
Woodlands	2,100	2,050
Sub total	2,100	2,050
Total	3,556	3,456

Source: KFS Strategic Plan 2009/10 – 2013/14



Source: Material provided with KFS

Figure 2.5-1 Forest cover in Kenya

Chapter 3 Pollution Control

Chapter3 Pollution Control

3.1 General condition

Air, water, noise and waste pollution in Kenya has been on the increase due to a number of factors. Firstly, the high population growth has increased demand for land both for settlement and for food production and water catchment areas, with their prime agricultural conditions, are being encroached upon and degraded. The high growth has also increased the number of vehicles on the road, which has caused higher emissions into the environment, and has contributed to the increase in solid waste generation such as plastic bags.

Secondly, rapid urbanization has created informal settlements which do not have proper sewage facilities leading to water pollution as the untreated sewage makes its way into rivers and groundwater. Urbanization has also led to a growing building and infrastructure construction industry whose challenges include increased noise and excessive vibrations.

Thirdly, with the increased demand for energy, air pollution is on the increase with fossil fuels and charcoal burning being the most common energy generators. This has led to the increase of air pollutants, including greenhouse gases, and methane (CH₄), carbon monoxide (CO) and tiny particulates in the air.

3.2 Air pollution

3.2.1 Current situation of air pollution

The main sources of atmospheric pollution are vehicles, industries, emissions from the use of charcoal and firewood, and other municipal sources such as the open burning of waste. The increasing number of cars in Kenya has intensified traffic and pollution problems, and vehicle emissions are the dominant source (almost 70 %) of air pollution including sulphur dichloride (SO₂), carbon monoxide (CO), nitrogen oxide (NO_x), and lead (Pb).

Charcoal burning, a very prevalent energy source in Kenya, is another sources of air pollution as well. It emits methane (CH₄) and CO and sends tiny particulates into the air. The burning of biomass fuels, especially in poorly ventilated kitchens yield high emissions of a number of pollutants.

3.2.2 Regulations on control of air pollution

Environmental Management and Co-ordination (Air Quality) Regulations, 2009 have been drafted in accordance with section 78 of EMCA 1999. However, the Regulations are not yet in effect.

The Regulations establish ambient air quality tolerance limits for industrial area, residential, rural, and other area, and controlled area²⁷, and emission standards for mobile sources (e.g. motor vehicles), stationary sources (e.g. industries), and any other air pollution source as may

²⁷ a) Residential areas and hospitals, b) National Parks, c) Reserves and Sanctuaries, d) Conservation areas, e) Central Business Districts, and f) Any other area declared by NEMA from time to time (Sixth Schedule of the Environmental Management and Co-ordination (Air Quality) Regulations, 2009)

be determined by the Minister in consultation with NEMA.

Ambient air quality tolerance limits and emission standards are attached as Annex 3 a) and b). Table 3.2-1 shows comparison of ambient air quality standards between that of Environmental Management and Co-ordination (Air Quality) Regulations, 2009 (draft) and major international standards.

Table 3.2-1 Comparison of ambient air quality standards

Pollutants	Time weighted average	Kenya (residential, rural, and other area)	Kenya (controlled area)	WHO (2005)	USEPA
SPM	24 hours	200 µg/m ³	100 µg/m ³	-	-
	1 year	140 µg/m ³	70 µg/m ³	-	-
RPM(<10µm)	24 hours	100 µg/m ³	75 µg/m ³	50 µg/m ³ (PM 10)	150 µg/m ³ (PM 10)
	1 year	50 µg/m ³	50 µg/m ³	20 µg/m ³ (PM 10)	-
PM 2.5	24 hours	-	-	25 µg/m ³	15 µg/m ³
	1 year	-	-	10 µg/m ³	35 µg/m ³
SO _x (SO ₂)	10 mins	0.191 ppm	-	500 µg/m ³	-
	1 hour	-	-	-	75 ppb
	24 hours	80 µg/m ³	30 µg/m ³	20 µg/m ³	365 (0.14ppm)
	1 year	60 µg/m ³	15 µg/m ³	-	78 (0.03ppm)
NO _x	24 hours	80 µg/m ³	30 µg/m ³	-	-
	1 year	60 µg/m ³	15 µg/m ³	-	-
NO ₂	1 hour	0.2 ppm	-	200 µg/m ³	-
	24 hours	0.1 ppm	-	-	-
	1 month	0.08 ppm	-	-	-
	1 year	0.05 ppm	-	40 µg/m ³	0.053 ppm
Ozone	1 hours	0.12 ppm	-	-	0.12 ppm
	8 hours	1.25 ppm	-	100 µg/m ³	0.075 ppm(2008)
CO/CO ₂	1 hour	4.0 mg/m ³	2.0 mg/m ³	-	40 mg/m ³ (CO)
	8 hours	2.0 mg/m ³	1.0 mg/m ³	-	CO: 10 mg/m ³
Pb	24 hours	1.00 µg/m ³	0.75 µg/m ³	-	-
	3 months	-	-	-	0.15 µg/m ³
	1 year	0.75 µg/m ³	0.50 µg/m ³	-	-

Source: Environmental Management and Co-ordination (Air Quality) Regulations, 2009 (draft), "WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide, Global Update 2005", National Ambient Air Quality Standards (NAAQS), USEPA, 19 April, 2011 updated

The list below shows control facilities to which emission standards are applied (Fourteenth Schedule of the Regulations).

Part I

- (a) Fertiliser manufacturing plants
- (b) Lead recycling plants
- (c) Grain millers
- (d) Hot mix asphalt batching plants

- (e) Incinerators
- (f) Iron and steel mills
- (f) Kraft pulp mills
- (g) Manufacture of soda ash
- (h) Mineral processing plants
- (i) Paint manufacturing plants
- (j) Pesticide formulation and manufacturing plants
- (k) Petroleum refineries and depots
- (l) Pharmaceutical industries
- (m) Phosphate rock processing plants
- (n) Portland cement plants (clinker plants included)
- (o) Sulphur recovery plants
- (p) Sulphuric, or nitric acid plants
- (q) Thermal power plants
- (r) Thermal and Geothermal power plants
- (s) Any other chemical processing industry

Part II

- (a) Iron recycling plants
- (b) Secondary aluminum production plants
- (c) Plastic recycling plants

Part III

Any other facility that the Authority may identify

The Regulations stipulate that no person, operator or owner operating a controlled facility specified in the Fourteenth Schedule shall (a) cause emission of any priority air pollutants listed under the Second Schedule (see Table 3.2-2) from any point sources without a valid emission licence issued in accordance with the provisions of EMCA 1999 and (b) cause emission of any air pollutant listed under the Second Schedule from any point sources in levels exceeding the emission limits set out under the Third Schedule (section 14). Further, it also requires every operator or owner of a mobile emission source including road, rail, air, marine and inland water transport and conveyance equipment, shall control the emission of priority air pollutants set out in the Second Schedule (section 25 (2)).

Table 3.2-2 List of priority air pollutants

Part I: General Source Pollutants
<ul style="list-style-type: none"> a) Particulate matter (Dust, black smoke, smog, aerosols); b) Sulphur oxides (SO_x); c) Nitrogen oxides (NO_x); d) Carbon monoxide (CO) e) Carbon dioxide (CO₂); f) Hydrocarbons (HC); g) Volatile organic Compounds(VOC); h) Hydrogen Sulphide (H₂S); i) Hydrogen Chloride (HCl); j) Lead and its compounds; k) Mercury vapour (Hg) l) Ozone (O₃); m) Dioxins and furans (PCDD and PCDF).
Part II: Mobile Source Pollutants
<ul style="list-style-type: none"> a) Hydrocarbons (HCs)

b) Volatile organic Compounds(VOC); c) Sulphur dioxide (SO _x) d) Nitrogen oxides (NO _x) e) Particulates (PM) f) Carbon Monoxide (CO)
Part III: Greenhouse gases (GHG)
a) Carbon dioxide (CO ₂); b) Methane (CH ₄); c) Nitrous oxides (N ₂ O); d) Hydrofluorocarbons (HCFCs); e) Perfluorocarbons (PFCs); and f) Sulphur hexafluoride (SF ₆);

Source: Second Schedule,
The Environmental Management and Co-ordination (Air Quality) Regulations, 2009 (draft)

3.2.3 Measures taken to prevent air pollution

In 2006, Kenya phased out the sale of leaded petrol in an effort to reduce pollution caused by emissions as part of a global programme, the UNEP Partnership for Clean Fuels and Vehicles. In early 2011, Kenya began to import low-sulphur diesel which would reduce the levels of air pollutants emitted by vehicles - such as sulphur oxides, soot and smoke particles.

3.3 Water pollution

3.3.1 Current situation of water pollution

Degradation of watershed areas in the country is on the increase, resulting in diminished water resources. The main causes of watershed degradation stems from the abuse and poor management of forests and soils, overgrazing, extension of settlements into watershed areas, unsuitable felling of trees for fuel wood (about 70% of rural population depend entirely on fuel wood for energy requirements) and other wood products. This loss has generally impacted negatively on important watersheds.

The water quality in lakes is also under threat. For example, major threats to Lake Nakuru ecosystem include pollution from industrial, municipal and agricultural sources, water level fluctuations due to weather changes. Lake Victoria's ecosystem is being destroyed by poor farming practices which introduce nutrients and pollutants through siltation.

The quality and quantity of groundwater is also under threat. Groundwater is threatened by intrusion of salt water in coastal areas, leachates from garbage dumps in urban areas and infiltration of industrial pollutants, mining wastes, petroleum sector, fertilizer and pesticide residues in the agricultural areas. The high demand for water, encroachment of recharge areas and unregulated use has potential to threaten depletion of the groundwater resources.

Sewage remains the largest source of contamination of water masses due to lack of enforcement by responsible agencies to protect water masses and catchments areas. Kenya's wastewater management is inadequate and contributes significantly to water pollution. For example, the Nairobi River receives industrial and municipal effluent and improperly treated effluents from the Dandora Sewage Treatment Plant, and several drainage channels that gather

storm water from Nairobi City. Development of sewerage systems has, however, been encountering a problem of land availability for sewage treatment plants.

3.3.2 Regulations and Rules on control of water pollution

(a) The Environmental Management and Co-ordination (Water Quality) Regulations, 2006

The Regulations establish water quality standards for sources of domestic water, irrigation water, and recreational water and standards for effluent discharge into the environment and public sewers.

1) Standards for effluent discharge into the environment - Third Schedule

It lists the maximum allowed limits in effluent discharge of 62 parameters into the environment. (Annex 4-a shows whole 62 parameters and their maximum allowable limits.)

Table 3.3-1 shows comparison of standards for effluent discharge into the environment between that of Environmental Management and Co-ordination (Water Quality) Regulations, 2006 and the guideline value of EHS Guidelines.

Table 3.3-1 Comparison of standards for effluent discharge into the environment

Parameter	Unit	Kenya	EHS Guidelines
pH	pH	6.5-8.5	6-9
BOD	mg/l	30	30
COD	mg/l	50	125
Total Nitrogen	mg/l	2 (Guideline value)	10
Total Phosphorous	mg/l	2 (Guideline value)	2
Oil and Grease	mg/l	Nil.	10
Total Suspended Solids	mg/l	30	50
Total Coliform Bacteria	MPN/100ml	30	400

Source: The Environmental Management and Co-ordination (Water Quality) Regulations, 2006, General EHS Guidelines, Wastewater and Ambient Water Quality, IFC

2) Standards for effluent discharge into public sewers - Fifth Schedule

It lists the maximum permissible levels in effluent discharge of 34 parameters into the public sewers. (Annex 4-b shows whole parameters and their maximum permissible levels.)

3) Monitoring guide for discharge into the environment – Fourth Schedule

Every local authority or person operating a sewage system or owner or operator of any trade or industrial undertaking shall be guided by the monitoring guide. It shows a set of parameters to be monitored by each discharging facility (see Annex 4-c).

4) Form for monitoring results of treated effluent into the environment – Sixth Schedule

Every person who generates and discharges effluent into the environment under a license issued under the Act shall carry out effluent discharge quality and quantity monitoring in accordance with methods and procedures of sampling and analysis prescribed by NEMA, and shall submit quarterly records of such monitoring to NEMA or its designated representative. Samples shall be taken at discharge point and upstream and downstream of the discharge point. Monitoring record shall be in the prescribed form as set out in Sixth Schedule. Table 3.3-2 shows parameters to be monitored and their guide value.

Table 3.3-2 Parameters of treated effluent to be monitored and their guide value

Parameter	Guide value
pH	6.5-8.5
Biological Oxygen Demand (5 days at 20 degrees C)	30 (mg/L) max
Chemical Oxygen Demand	50 (mg/L) max
Suspended solids	30 (mg/L) max
Ammonia (NH ₄)+Nitrate (NO ₃)+Nitrite (NO ₂)	100 (mg/L) max
Total Dissolved Solids	1200 (mg/L) max
E.coli	Nil/100ml
Total coliform	1000/100ml

Source: Sixth Schedule, The Environmental Management and Co-ordination (Water Quality) Regulations, 2006

Discharging facilities need to obtain effluent discharge licence. An application for the licence is in Form A of Seventh Schedule, and shall be submitted to NEMA with prescribed fee as set out in Eleventh Schedule²⁸. The decision of NEMA together with the reasons thereof will be communicated to the applicant within thirty working days from the date of submission of the application. Where NEMA approves an application for the grant of an effluent discharge licence it will issue an effluent discharge licence within twenty-one days.

(b) The Water Resources Management Rules, 2007

The Water Resources Management Rules, 2007, under the Water Act, 2002, stipulate the procedures for application of water use permit and water (effluent discharge) permit issued by Water Resources Management Authority (WRMA).

The Rules have “guidelines for effluent discharge into surface water resources” and “guidelines for effluent discharge into surface water resources” as well (see Table 3.3-3 and Table 3.3-4, respectively). WRMA may issue industry-specific guidelines for effluent discharge based on the water quality objectives, the Reserve and dry weather stream flow for

²⁸ Application fee: Kshs. 5,000

Annual licence fee: (i) sewerage service providers – Kshs 500,000, (ii) discharging facility in Sixth Schedule other than (i) – Kshs 100,000, (iii) institutions – Kshs 20,000, (iv) others Kshs 10,000

individual water courses or water bodies.

Table 3.3-3 Guidelines for Effluent Discharge into surface water resources

Parameter	Max Allowable (Limits)
Arsenic as As (mg/1)	0.1
Biochemical Oxygen Demand (BOD 5 days at 20°C)(mg/1)	30
Cadmium as Cd (mg/1)	1
Chemical Oxygen Demand (COD (mg/1)	100
Chromium as Cr (mg/1)	Less than 0.01
Lead as Pb (mg/1)	Less than 0.01
Oil and grease	Absent
pH (Hydrogen ion activity)	5.0-9.0
Phenols, total (mg/1)	0.05
Sulphide as S (mg/1)	2
Total Suspended Solids (mg/1)	30
Temperature (in degrees Celsius) based on ambient	± 5
Cyanides as CN (mg/1)	Less than 0.2
Nickel as Ni (mg/1)	Less than 2.0
Detergents (ABS) (mg/1)	Less than 5.0
Mercury as Hg (mg/1)	Less than 0.01
Total Phosphorus as P (mg/1)	2
Total Nitrogen as N (mg/1)	10
Total pesticide residues	Absent

Source: Third Schedule, The Water Resources Management Rules, 2007

Table 3.3-4 Guidelines for Discharge of Effluent onto Land

Parameter	Maximum Permissible
pH	5.5-9.0
Boron(mg/1)	2
BOD (mg/1)	500
Chloride (mg/1)	600
Total dissolved Solids (mg/1)	2,100
Oils and grease (mg/1)	30
Sulphates (mg/1)	1,000
Sodium (as percentage of total cation concentration)	60

Source: Third Schedule, The Water Resources Management Rules, 2007

(c) Environmental (Prevention of Pollution in Coastal Zone and Other Segments of the Environment) Regulation, 2003

The Regulation stipulates waste management on the sea, especially wastes from ships. No ship or any other person in Kenya shall be allowed to discharge any hazardous substance, chemical, oil or oily mixture into the territorial waters of Kenya or any segment of the environment contrary to the provisions of the Regulations. Further, all ships in the territorial waters of Kenya shall off-load oil or oily mixture, sludge, bilge water, ballast water, waste and

sewage to the certified Port Waste Reception Facility at the Port of Mombasa. All ships shall be required to obtain a certificate issued by a certified Port Waste Reception Facility under Kenya Port Authority in accordance with MARPOL²⁹.

3.3.3 Measures taken to control water pollution

Several mitigation measures have been put in place to protect water catchment areas and water sources, such as terracing, agro-forestry, cut off drains, and check dam. Various initiatives by KWS, WWF, NGOs and government agencies have been put in place, for example awareness creation and tree planting programmes. To protect groundwater, aquifers in Nairobi and the Coast have been made conservation areas, and groundwater abstraction is only permitted under licence.

To reduce the sources of water pollution in the Nairobi River and address some of the impacts on both people and the riverine ecosystem, the Nairobi River Basin Programme (NRBP) was initiated in 1999. NRBP identified five key goals to improve the water quality and environment in the Nairobi River Basin: i) Develop environmental management and planning systems; ii) Rehabilitate and restore the Nairobi Dam; iii) Develop and implement water quantity and quality measuring protocols; iv) Enhance service delivery, environmental conservation, and sustainable use of resources; and v) Sustain public awareness of, and participation in, environmental issues directly affecting the Nairobi River basin.

In 2008, the Government of Kenya produced the Nairobi Metropolitan Development Plan which aims to provide a more integrated, efficient water supply and waste management infrastructure in Nairobi.

3.4 Noise

3.4.1 Current situation of noise

The problem of noise is mainly created by construction works, vehicle movement, factories, and informal industries including workshops. In urban areas, increase of number of vehicles and construction works are the main source of noise. However, periodical monitoring of noise level have not yet been conducted in urban area, such as Nairobi.

3.4.2 Regulations on noise control

Noise regulations are stipulated in the Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009. The Regulations prohibit a noise in loud, annoying, or offensive manner such that the noise interferes with health and safety of public from certain sources such as radio/TV/sound amplifying devices, parties/social events, and hawkers/peddlers/street preachers. It also provides permissible levels of noise and vibrations for noise and excessive vibrations from construction at night and construction/demolition/mining or quarrying sites.

²⁹ International Convention for the Prevention of Pollution from Ships

The Regulations stipulate application procedures to obtain a license to emit noise or vibrations in excess of permissible levels.

1) Maximum permissible intrusive noise levels - First Schedule

The Regulations establish maximum permissible intrusive noise levels (see Table 3.4-1). Table 3.4-2 shows noise levels in EHS Guidelines. Maximum permissible levels in Kenya are very stringent compared to the noise levels in EHS Guidelines. The current standards of noise levels are too strict making the regulations unenforceable since it is envisaged, especially in urban areas, that background noise itself is higher than the permissible level. However, NEMA officials explained that, in the EIA process, they would give priority to the results of baseline survey and appropriate mitigation measures, and flexibly apply the standards.

Table 3.4-1 Maximum permissible intrusive noise levels
MAXIMUM PERMISSIBLE NOISE LEVELS

Zone		Sound Level Limits dB(A)		Noise Rating Level (NR)	
		(Leq, 14 h)		(Leq, 14 h)	
		Day	Night	Day	Night
A.	Silent Zone	40	35	30	25
B.	Places of worship	40	35	30	25
C.	Residential : Indoor	45	35	35	25
	Outdoor	50	35	40	25
D.	Mixed residential (with some commercial and places of entertainment)	55	35	50	25
E.	Commercial	60	35	55	25

Time Frame

Day: 6.01 a.m. – 8.00 p.m. (Leq, 14 h)
Night: 8.01 p.m. – 6.00 a.m. (Leq, 10h)

Source: First Schedule, Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009

Table 3.4-2 Noise level guidelines in EHS Guidelines

Table 1.7.1- Noise Level Guidelines ⁵⁴		
Receptor	One Hour L _{Aeq} (dBA)	
	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00
Residential; institutional; educational ⁵⁵	55	45
Industrial; commercial	70	70

Source: Environmental Noise Management, IFC General EHS Guidelines

2) Maximum permissible noise levels for constructions sites – Second Schedule

No person shall operate construction equipment (including but not limited to any pile driver,

steam shovel, pneumatic hammer, derrick or steam or electric hoist) or perform any outside construction or repair work so as to emit noise in excess of the permissible levels as set out in maximum permissible noise levels for construction sites in the Second Schedule. However, it shall not be deemed to prohibit (a) any work of an emergency nature, (b) work of a domestic nature on buildings, structures or projects being undertaken by a person residing in such premises, or (c) public utility construction, or, with respect to construction of public works, projects exclusively relating to roads, bridges, airports, public schools and sidewalks. Provided that, if any domestic power tool, including but not limited to mechanically powered saws, sanders, grinders and lawn and garden tools used outdoors, is operated during the night-time hours, no person shall operate such machinery so as to cause noise within a residential building or across a residential real property boundary where such noise interferes with the comfort, repose, health or safety of members of the public within any building or, outside of a building, at 30 meters or more from the source of the sound (section 13).

Table 3.4-3 Maximum permissible noise levels for constructions sites

SECOND SCHEDULE

(r. 13(1), 14 (1)(b))

MAXIMUM PERMISSIBLE NOISE LEVELS FOR CONSTRUCTIONS SITES
(Measurement taken within the facility)

Facility		Maximum Noise Level Permitted (Leq) in dB(A)	
		Day	Night
(i)	Health facilities, educational institutions, homes for disabled etc.	60	35
(ii)	Residential	60	35
(iii)	Areas other than those prescribed in (i) and (ii)	75	65

Time Frame:

Day: 6.01 a.m. – 6.00 p.m. (Leq, 14 h)
Night: 6.01 p.m. – 6.00 a.m. (Leq, 14 h)

Source: Second Schedule, Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009

3.5 Wastes

3.5.1 Current situation of waste management

Poor waste management has become one of the most pressing and challenging environmental problems in Kenya. Several issues arise out of this. Firstly, the collection ratio, that is, the proportion of the solid waste generated that is collected, is low, currently estimated to be as low as 25 %. Secondly, garbage collection service is poor and worse in lower income residential areas. Domestic garbage from informal settlements that have no public waste collection which mean their garbage is thrown into rivers, etc. Thirdly, illegal dumping sites abound which are uncontrolled and unhygienic landfills. For example, as the Dandora Municipal Dumping site,

which is Nairobi's only official dumping site, is poorly regulated and inadequate for Nairobi's solid waste generation, many garbage generators of solid wastes use illegal sites to dispose of their waste. They are also increasingly combusting the waste on site, which causes air pollution problems particularly as the bulk of these wastes contain plastics.

3.5.2 Regulations on waste management

Regulations for waste management are stipulated in the Environmental Management and Coordination (Waste Management) Regulations, 2006. The Regulations cover 6 different kinds of waste: i) solid waste; ii) industrial wastes; iii) hazardous wastes; iv) pesticides and other toxic substances; v) biomedical wastes, and vi) radioactive substances.

Waste considered as hazardous shall be any waste specified in the Fourth Schedule or any waste having the characteristics defined in the Fifth Schedule of the Regulations, and any wastes which do not fit the said categories of classification will be treated as non-hazardous waste (section 22). No person shall engage in any activity likely to generate any hazardous waste without a valid EIA license issued by NEMA under the provisions of EMCA 1999 (section 23). In addition, section 24 and 26 of the Regulations stipulate how to securely store the hazardous wastes and how to treat (incineration in the prescribed class of incinerator) the wastes, respectively.

Every trade or industrial undertaking shall install at its premises anti-pollution technology, which is based on the best available technology not entailing excessive costs or other measures as may be prescribed by NEMA, for the treatment of waste emanating from such trade or industrial undertaking (section 17). No owner or operator of a trade or industrial undertaking shall discharge or dispose of any waste in any state into the environment, unless the waste has been treated in a treatment facility and in a manner prescribed by NEMA in consultation with the relevant lead agency (section 18).

3.6 Current situation of soil contamination

In Kenya, soil contamination is prevalent on the land on which pipeline pumping stations, depots and petroleum retail outlets are located. Land under these facilities is often polluted and degraded due to the seepage of petroleum hydrocarbons and chemicals into the soil.

3.7 Other Regulations for pollution control under EMCA 1999

(a) Environmental Management and Co-ordination (Controlled Substances) Regulations, 2007

The Regulations define controlled substances and provide guidance on how to handle them. This regulation mandates NEMA to monitor the activities of persons handling controlled substances, in consultation with relevant line ministries and departments, to ensure compliance with the set requirements. Under the Regulations, NEMA will prepare a list of controlled substances and the quantities of all controlled substances imported or exported within a particular. The list will also indicate all persons holding licenses to import or export controlled substances, with their annual permitted allocations.

(b) Environmental Management and Co-ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006

The Regulations stipulates that NEMA shall, in consultation with the relevant lead agencies, impose bans, restrictions or similar measures on the access and use of any threatened species in order to ensure its regeneration and maximum sustainable yield. In addition, NEMA shall, in consultation with the relevant lead agencies, identify and prepare an inventory of biological diversity of Kenya, monitor the status and the components of biological diversity, and take necessary measures to prevent and control their depletion.

(c) The Environmental Management and Co-Ordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulations, 2009

The key objectives of the Regulations are to provide for the conservation and sustainable use of wetlands and their resources in Kenya and to promote the integration of sustainable use of resources in wetlands into the local and national management of natural resources for socio-economic development. "Wetlands" means areas permanently or seasonally flooded by water where plants and animals have become adapted; and include swamps, areas of marsh, peat land, mountain bogs, bank of rivers, vegetation, areas of impeded drainage or brackish, salt or alkaline. It also incorporates riparian and coastal zones adjacent to the wetlands. EIA and environmental audits as required under EMCA 1999 shall be mandatory for all activities likely to have an adverse impact on the wetland.

Any person who will carry out any activities needs to obtain wetland resource use permit issued by the relevant lead agency and an EIA license issued by NEMA where applicable. Where there is a need to use water for emergency situations pending the availability of alternative sources of supply or a special research project requires the use of the wetland for a specified period of time, temporary permit³⁰ will be issued by the lead agency, after consultation with the Director-General of NEMA.

³⁰ The temporary permit is valid for a maximum period of three months, and may be renewed for a further period of three months upon application by the holder with reasons to the satisfaction of the Director-General of NEMA (section 13(2) of the Environmental Management and Co-Ordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulations, 2009).

Chapter 4 Social Environment

Chapter4 Social Environment

4.1 General condition

4.1.1 General characteristics

Kenya's population is over 41 million, and the annual population growth is estimated at 2.462 % (2011 estimate). The population structure by ages is: 0-14 years constitute 42.2 %, 15-64 years constitute 55.1 %, and more than 64 years constitute 3 %.

Nearly half people are poor, or unable to meet their daily nutritional requirements. The vast majority of poor people live in rural areas. Although in some respects conditions have improved since the early 1980s, the poverty rate has remained steady at about 48 %.

The rural economy depends mainly on smallholder subsistence agriculture, which produces 75 per cent of total agricultural output. Most Kenyans live in areas that have good to high potential for agriculture, comprise about 18 per cent of the country's territory and are located in the centre and west. However population density in high-potential areas is more than six times the country's average and constitutes an overwhelming pressure on resources. The poorest communities are found in the sparsely populated arid zones, mainly in the north.

On the other hand, the rapid urbanisation has placed considerable pressure on available housing, infrastructure and other services, and urban areas, such as Nairobi, experienced a rapid growth of slums and squatter settlements, which suffer from inadequate water and sanitation, health facilities and other basic infrastructure.

The average population density in Kenya is 59 persons per km², but this varies widely within the country. Most people are concentrated in the south-west part of the country (around the cities of Nairobi and Kisumu) with a smaller population centre around Mombasa (in the south-east). As a result, population density varies quite widely which ranges from as low as 2 persons per km² in the ASALs to a high of over 2,000 in high potential areas.

Kenya was the first sub-Saharan African country to adopt a national family planning program and one of a small handful to undergo a demographic transition to much lower fertility. Since the late 1970s, contraceptive prevalence has doubled, and the total fertility rate in Kenya has fallen from 8.0 children per woman to about half that number. Current estimates on fertility range from 3.1 to 5 births per woman (2007 estimate).

4.1.2 Religion

About three-quarters of Kenyans profess some form of Christianity, although fewer are affiliated with a church. About 38 % of Kenyans are Protestant, while 28 % are Roman Catholic. An estimate for the percentage of the population that adheres to indigenous beliefs is 22 %, and to Islam is 6 %. Remaining 6 % of the people believe other religions.

4.1.3 Culture

People of African descent make up about 97 % of the population; they are divided into about

40 ethnic groups belonging to three linguistic families: Bantu, Cushitic, and Nilotic. Bantu-speaking Kenyans comprise three groups: western (Luhya), highlands (including the Kikuyu and the Kamba), and coastal (Mijikenda) Bantu. The major groups of Nilotic speakers are the river-lake (Luo), highlands (Kalenjin), and plains or eastern (Masai). The Cushitic-speaking groups include the Oromo and Somali. The Kikuyu, who make up 22 % of the population, constitute Kenya's largest ethnic group. The next largest groups are the Luhya (14 %), Luo (13 %), Kalenjin (12 %), and Kamba (11 %). Additional groups include the Kisii (6 %), Meru (6 %), and other African (15 %). Small numbers of people of Indian, Pakistani, and European descent live in the interior, and there are some Arabs along the coast. Many indigenous languages from the three language families are spoken in Kenya.

4.2 Major social issues

4.2.1 Poverty

The key development challenge for Kenya today is the high incidence of poverty. The country faces the challenge of maintaining and improving its current performance in order to realize the long-term development objectives as expressed in the vision 2030 and the Millennium Development Goals (MDGs). According to the data from the 2006 Kenya integrated house hold budget survey there has been a drop in the number of people living below the poverty line, from 52.3 % in 1997 to 45.9% in 2005/06. This improvement was experienced to a greater extent by urban dwellers in comparison to rural inhabitants, with the number of inhabitants living in absolute poverty dropping from 49.2 -33.7 % and 52.9 - 49.1 % respectively for the same time period.

4.2.2 Gender

Gender inequalities persist across many areas of development, particularly in employment, poverty, reproductive health, political participation and the fulfilment of human rights. Female students in universities constituted 34 % of total enrolment in 2006; while in leadership positions, only 8 % of parliamentarians, 20 % of High Court Judges and 23 % of permanent secretaries are women. Girls are less likely to have completed secondary school education than boys, and the situation is worse in poorer areas where girls are significantly less likely to be enrolled in schools.

Another gender issue that is important is the increase in violence against women.

Kenya has ratified Convention on the Elimination of All Forms of Discrimination against Women (1979).

4.2.3 Vulnerable social groups

The Constitution, 2010, defines "vulnerable groups" within society as women, older members of society, persons with disabilities, children, youth, members of minority or marginalized communities, and members of particular ethnic, religious or cultural communities. It also stipulates that all State organs and all public officers have the duty to address the needs of

vulnerable groups³¹.

Further, Kenya has ratified following treaties relevant to protection of human rights of vulnerable people.

- ✓ Convention on the Rights of Persons with Disabilities (2006)
- ✓ Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography (2000)
- ✓ African Charter on the Rights and Welfare of the Child (1990)
- ✓ Convention on the Rights of the Child (1989)

4.2.4 Labour

The Ministry of Labour is in charge of establishment of labour acts and regulations, necessary coordination for compliance with international labour standards and codes of practice, review of labour standards and domestication of international conventions and recommendations, and promotion of best practices of occupational safety and health in all workplaces.

Kenya has ratified Discrimination (Employment and Occupation) Convention (1958).

Provisions to protect the rights of labours are included in the following Acts.

- ✓ The Employment Act, 2007: Prohibition against forced labour, discrimination in employment, sexual harassment, and child labour.
- ✓ The Labour Relations Act, 2007: Freedom of association.
- ✓ The Work Injury Benefits Act, 2007: Obligations of employer to compensate injury during work and occupational diseases.

4.2.5 Other social issues

(a) HIV/AIDS

HIV/AIDS prevalence has increased from 4.8% in 1990 to 13% in 2000. Estimates of the incidence of infection differ widely. The United Nations Development Programme (UNDP) claimed in 2006 that more than 16 % of adults in Kenya are HIV-infected, whereas the Joint United Nations Programme on HIV/AIDS (UNAIDS) cites the much lower figure of 6.7 %.

One of the significant negative impacts of the HIV/AIDS pandemic is on the working and productive age group of society that is between the ages of 15 and 50³². This has led to a disproportionately high number of orphans, child-headed, single parent or grandparent headed households with the consequential effects on society, all impacting on poverty levels.

In 2004, the Ministry of Health announced that HIV/AIDS had surpassed malaria and tuberculosis as the leading disease killer in the country. Thanks largely to AIDS, life expectancy in Kenya has dropped by about a decade. Since 1984 more than 1.5 million Kenyans have died because of HIV/AIDS. More than 3 million Kenyans are HIV positive. More than 70 people a day die of HIV-related illnesses. The prevalence rate for women is nearly twice that for men.

³¹ Article 21(3), Chapter Four – The Bill of Rights, the Constitution, 2010

³² Prevalence rate of HIV of population ages 15-49 was estimated as 6.3 % in 2009 (Kenya Country Data Profile, World Bank)

The rate of orphan hood stands at about 11 %. AIDS has contributed significantly to Kenya's dismal ranking in the latest UNDP Human Development Report, whose Human Development Index (HDI) score is an amalgam of gross domestic product per head, figures for life expectancy, adult literacy, and school enrolment.

(b) Infant and maternal mortality

Kenya's maternal mortality rate continues at high level. Estimates for Kenya suggest that approximately 14,700 women and girls die each year due to pregnancy-related complications. Additionally, another 294,000 to 441,000 women and girls will suffer from disabilities caused by complications during pregnancy and childbirth each year.

Infant mortality rates have increased from 63 to 71 deaths per 1,000 live births from 1993 to 1998 respectively. Under five mortality rates have similarly increased from 365 to 590 deaths per 1,000 live births from 1995 to 1998.

The UNDP Human Development Report in 2006 ranked Kenya 152nd out of 177 countries on the HDI and pointed out that Kenya is one of the world's worst performers in infant mortality. Estimates of the infant mortality rate range from 57 to 74 deaths/1,000 live births. The maternal mortality ratio is also among the highest in the world, thanks in part to female genital cutting, illegal since 2001 for girls under 16.

(c) Land issues

The existence of many land laws since independence, some of which are incompatible, has resulted in a complex land management and administration system in Kenya. The land question has manifested itself in many ways such as fragmentation, breakdown in land administration, disparities in land ownership and poverty. This has resulted in environmental, social, economic and political problems including deterioration in land quality, squatting and landlessness, disinheritance of some groups and individuals, urban squalor, under-utilization and abandonment of agricultural land, tenure insecurity and conflict. To address these problems, the GOK embarked on the formulation of a National Land Policy through a widely consultative process.

The land related problems include:

- (i) Rapid population growth in the small farm sector, the systematic breakdown in land administration and land delivery procedures, and inadequate participation by communities in the governance and management of land and natural resources;
- (ii) Rapid urbanization, general disregard for land use planning regulations, and the multiplicity of legal regimes related to land;
- (iii) Gross disparities in land ownership, gender and trans-generational discrimination in succession, transfer of land and the exclusion of women in land decision making processes;
- (iv) Lack of capacity to gain access to clearly defined, enforceable and transferable property rights, general deterioration in land productivity in the large farm sector; and

(v) Inadequate environmental management and conflicts over land and land based resources.

In addition, the impacts of several development activities have been many and ultimately lead to low productivity and poverty. They include among others:

- (i) Severe land pressure and fragmentation of land holdings into sub-economic units;
- (ii) Deterioration in land quality due to poor land use practices;
- (iii) Unproductive and speculative land hoarding;
- (iv) Under-utilization and abandonment of agricultural land;
- (v) Severe tenure insecurity due to overlapping rights;
- (vi) Disinheritance of women and vulnerable members of society, and biased decisions by district tribunals, committees and boards;
- (vii) Landlessness and squatter phenomenon;
- (viii) Uncontrolled development, urban squalor and environmental pollution;
- (ix) Wanton destruction of forests, catchment areas and areas of unique biodiversity;
- (x) Desertification in the arid and semi-arid lands; and
- (xi) Growth of extra legal land administration processes.

4.3 Cultural heritage

4.3.1 Major cultural heritage

Table 4.3-1 shows cultural heritage sites, monuments, and regional museums in Kenya. Figure 4.3-1 shows location of regional and site museums which are established near or adjacent to cultural heritage sites and monuments.

Table 4.3-1 Cultural heritage sites and monuments

	Sites and Monuments	Location	Summary
1	Jumba la mtwana	Kilifi district, Coast province	means in Swahili "the large house of the slave". Four mosques, a tomb and four houses have survived in recognizable condition.
2	Koobi For a Site Museum	near Lake Turkana, in the Rift Valley province	Hominid and numerous animal skulls had been found
3	Mnarani	Kilifi District, Coast province	eventually destroyed by the Galla in the early 17th century and archaeological evidence seems to confirm this.
4	Olorgesailie Pre-historic Site		renown as the "factory of stone tools" and the only place in the world with the largest number.
5	Siyu Fort	Lamu district, Coast province in Pate Island	the only town that built by one of Siyu's leaders, Bwana Mataka in the 19th century
6	Thimlich Ohinga Pre-historic Site	Migori district, Nyanza province	The stone structure enclosure has walls ranging from 1.0 to 4.2 meters in height were built of loose stones and blocks without any dressing or mortar.

	Sites and Monuments	Location	Summary
7	Songhor Pre-historic Site	Nyando District, Nyanza Province	dating back to about 19 million years ago. The fossil hominoids collected.
8	Takwa Ruins	Manda Island Lamu District in Coast province	Takwa ruins are the remains of a thriving 15th and 16th century Swahili trading town before it was abandoned in the seventeenth century
9	Uhuru garden	Nairobi	Kenya's largest memorial park
10	Fort Jesus Museums	located in Mombasa Island which is in the Coast province of Kenya. It lies a distance of about 490-km from Nairobi city	The Portuguese built Fort Jesus in 1593. The site chosen was a coral ridge at the entrance to the harbor. It has had a long history of hostilities of the interested parties that used to live in Mombasa. Perhaps no Fort in Africa has experienced such turbulence as Fort Jesus.
11	Nairobi National Museum	located at the Museum Hill, approximately 10 minutes drive from the Nairobi city centre.	Built in 1929, this is the flagship museum for the National Museums of Kenya, housing celebrated collections of Kenya's History, Nature, Culture and Contemporary Art.
12	Karen Blixen Museum	at the foot of the Ngong Hills	It is associated with the broad historical pattern of European settlement and cultivation of East Africa. The building embodies the distinctive characteristics of its type, period and method of construction.
13	Lamu Museum / Lamu Fort / Lamu-German Post Office	Lamu Archipelago on the N. Coast	The construction of Lamu Fort commenced in 1813 and completed in about 1821. The Post Office building was the first German Post Office ever established along the East African coast.
14	Malindi Museum	Malindi	It is a veranda building, a building type of the 19th century with features identical to the Malindi District Commissioner's Building.
15	Kisumu / Kanam prehistoric site / Simbi Nyaima	located in Kisumu town along the Kisumu - Kericho highway.	Striking features of the museum include a diverse collection of flora and fauna species. A traditional Luo homestead and other traditional Luo artifacts constitute part of the exhibits the museum keeps. Simbi Nyaima means the village that sank. Simbi Nyaima is actually a crater lake a few kilometers from the shores of Lake Victoria. The Luo attach great importance to the site because of the legendary story
16	Kitale	located at (233, 124) on the grid of Top Sheet 75/3. Kitale is in Trans-Nzoia district of the Rift	The Kitale Museum has a lot of ethnographical materials collected from surrounding ethnic groups.

	Sites and Monuments	Location	Summary
		Valley province	
17	Desert Museum	Located on top of a hill, with a backdrop of the picturesque Lake Turkana.	To preserve the unique cultures of the area and present with rich heritage of the eight communities living around Lake Turkana.
18	Gede Ruins	Located in coast province, Kilifi district.	Gede ruins are the remains of a Swahili town, typical of most towns along the East African Coast. It traces its origin in the twelfth century but was rebuilt with new town walls in the fifteenth and sixteenth centuries.
19	Kariandusi archaeological site	Kariandusi lies on the eastern side of the Rift Valley	The Kariandusi archaeological site is amongst the first discoveries of Lower Paleolithic sites in East Africa. Dating back between 700,000 to 1 million years old, Kariandusi is possibly the first Acheulian site to have been found in Situ in East Africa.
20	Kariandusi		The Kapenguria museum was opened in 1993. It is located in Kapenguria town, at the site where the six most influential leaders in the struggle for independence were detained.
21	Meru / Njuuri Ncheke Council of Elders	Meru The Njuuri Ncheke house is located in Nyambene District.	Aspects of the cultural and diverse history of the Meru people are well illustrated by the numerous displays. Two rather unusual amenities of the Meru museum are a garden of indigenous medicinal shrubs and herbs together with a theatre.
22	Hyrax Hill	Located within Nakuru town	Hyrax Hill Museum depicts the lifestyle of seasonal settlement by prehistoric people at least 3,000 years old. The Kenya Government gazetted Hyrax hill as a National Monument in 1943, four years after the first archeological excavation on the hill. Since then Hyrax hill has been a renowned archaeological research area and a reference point for investigations of the prehistory of East Africa.
23	Kabarnet	located in Kabarnet town, Baringo District in Rift Valley province	the exhibits especially on the culture of the Keiyo / Marakwet, Samburu, Pokot, Nandi and Kipsigis.
24	Narok	located in a West-North-West direction 141 km from Nairobi at the entrance of Narok town.	With exhibitions of pictures and artifacts to preserve the beauty and strength of the rich traditional culture of the Maasai and other speakers of

	Sites and Monuments	Location	Summary
			the Maa language.
25	Rabai	situated about 25 km north-west of Mombasa	Built in 1846 as the first Church edifice in Kenya
26	Wajir Museum	Wajir town, Northern Kenya	The main objective of this museum is to give you a glimpse of the rich cultural, historical and natural heritage of Northern Kenya and its interaction with the world.

Source: Sites and Monuments, National Museums of Kenya (<http://www.museums.or.ke/content/section/4/9/>)



Figure 4.3-1 Location of Regional and Site Museums

4.3.2 Laws and administrative framework for cultural heritage conservation

(a) National Museums and Heritage Act (Cap. 216) Revised Edition 2009 (2006)

The National Museums and Heritage Act (Cap. 216) revised edition 2009 (2006) aims at identification, protection, and conservation of national, cultural³³, and natural³⁴ heritage in Kenya. The National Museums of Kenya has been established to enforce this Act.

1) Definitions of “protected area (heritage)” and its designation procedures

After consultation with the National Museums the Minister may, by notice in the Gazette, declare -

- (i) an open space to be a “protected area” within the meaning of the Act,
- (ii) a specified place or immovable structure which the Minister considers to be of historical interest, and a specified area of land under or adjoining it which is in the Minister’s opinion required for maintenance thereof, to be a “monument³⁵” within the meaning of the Act;
- (iii) a specified site on which a buried monument or object or archaeological or paleontological interest exists or is believed to exist, and a specified area of land adjoining it which is in the Minister’s opinion required for maintenance thereof, to be a “protected area” within the meaning of the Act;
- (iv) a specified object or type of object, whether or not part of an immovable structure, which the Minister considers to be of historical, cultural, or scientific interest, to be a “protected object³⁶” within the meaning of the Act;
- (v) a building and specified area of land adjoining it which in the Minister’s opinion is required for the maintenance thereof to be a protected building within the meaning of the Act; or

³³ “cultural heritage”, by definition of the Act, means (a) monuments; (b) architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of universal value from the point of view of history, art or science; (c) groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding value from the point of view of history, art or science; (d) works of humanity or the combined works of nature and humanity, and areas including archaeological sites which are of outstanding value from the historical, aesthetic, ethnological or anthropological point of view; and includes objects of archaeological or palaeontological interest, objects of historical interest and protected objects.

³⁴ “natural heritage”, by definition of the Act, means (a) natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; (b) geological or physiographical formations of special significance, rarity or beauty; (c) precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science, conservation or natural beauty; or (d) areas which are or have been of religious significance, use or veneration and which include but are not limited to Kayas

³⁵ “monument”, by definition of the Act, means - (a) a place or immovable structure of any age which, being of historical, cultural, scientific, architectural, technological or other human interest has been and remains declared by the Minister to be a monument; (b) a rock-painting, carving or inscription made on an immovable object; (c) an ancient earthwork or other immovable object attributable to human activity; (d) a structure which is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attached to it; and has been and remains declared by the Minister to be a monument; (e) a shipwreck more than fifty years old

³⁶ “protected object”, by definition of the Act, means (a) a door or door—frame carved in an African or Oriental style before the year 1946; or (b) any other object or type of object, whether or not part of an immovable structure, which being of historical or cultural interest has been and remains declared by the Minister to be a protected object

(vi) a geopark (area of natural heritage) to be a “protected area” within the meaning of the Act;

and the notice shall state that objections to a declaration made under this section shall be lodged with the Minister within two months from the date of publication of the notice (section 25).

2) Prohibited activities in protected area

The Minister may, from time to time -

- (i) by notice in the Gazette, prohibit or restrict access thereto or any development thereof, or the use thereof for agriculture or livestock, or activity thereon which in the Minister’s opinion is liable to damage a monument or object of archaeological or paleontological interest therein;
- (ii) place the protected areas under the control of the National Museums, on such terms and with and subject to such powers and duties as he may direct;
- (iii) take, or authorize the National Museums to take, such steps as are in the Minister’s opinion necessary or desirable for the maintenance thereof;
- (iv) make or authorize the National Museums to make by-laws for controlling access thereto, with or without payment, and the conduct therein of visitors thereto (section 34).

A person who -

- (i) enters upon a protected area or does therein any act or thing contrary to a prohibition or restriction of which notice has been given by the Minister under the Act; or
- (ii) commits a breach of any-law made by the Minister or by the National Museums under the Act,

commits an offence and shall on conviction be liable to a fine not exceeding Kshs 1 million or to imprisonment for a term not exceeding twelve months or to both such fine and imprisonment (section 36).

The National Museums and Heritage (Open Spaces and Areas of National Heritage) (Protection and Management) Rules, 2009, which is the bylaw of the Act, stipulates that a person shall not undertake the construction of any infrastructure, including visitors’ amenities, drainage works or car parks, in a protected area, in a manner that endangers the ecological equilibrium or alters the general appearance of the area (section 14).

3) Procedures for newly discovered heritage

Where a person discovers a monument or object of archaeological or paleontological interest, the person shall, within seven days, give notice thereof, indicating the precise site and circumstances of the discovery, to the National Museums, and in the case of an object, shall deliver the object to the National Museums or to the District Commissioner to keep it for any particular purpose or for any particular purpose or for any particular period (section 30).

No person shall move a monument or object of archaeological or paleontological interest

from the place where it has been discovered otherwise than in such manner and to such place as may be allowed by an exploration licence, or by written permit from the Minister after consultation with the National Museums (section 31).

(b) National Museums of Kenya: NMK

NMK is a state corporation, under the Ministry of State for National Heritage and Culture, mandated to identify, protect, conserve, and transmit the cultural and natural heritage of Kenya. It was established by the National Museums and Heritage Act (Cap. 216)³⁷. The key functions of NMK are to serve as national repositories for things of scientific, cultural, technological, and human interest and as places where research and dissemination of knowledge in all fields of scientific, cultural, technological, and human interest may be undertaken. NMK also promotes cultural resources in the context of social and economic development.

The operation and activities of NMK is managed by the Board of Directors of NMK which consists of four persons representing scientific interests appointed by the Minister of whom one shall be nominated by Nature Kenya, one by the University of Nairobi, one from one other university, and one from the National Council for Science and Technology, the permanent secretary in the Ministry responsible for matters relating to national heritage, finance, and defense, persons appointed by the Minister from private sector and the Kenya Tourist Board, not more than three persons to be appointed by the Minister by virtue of their outstanding interest in and contribution to the work of national museums, and a Director-General of NMK. The Director-General shall be appointed by the Minister after consultation with the Board who shall be an ex-officio member.

NMK may conduct EIA study subject to the provisions of EMCA 1999 when negative impacts on existing heritage and monuments are anticipated.

A heritage warden may inspect an antiquity or protected object, and may for that purpose with written authority from the National Museums enter premises, where the antiquity or protected object is or should be, and require the production of the antiquity or protected object or information as to its whereabouts. A police officer or heritage warden may (a) require any person whom the heritage warden has reason to believe has committed an offence to supply his name and address and reasonable evidence of his identity, and may without warrant arrest a person who refuses to comply with those requirements, and (b) upon obtaining a warrant, at any time search any person or the premises occupied by any person whom he reasonably suspects of having acquired ownership or possession of a protected object, or of having bought or taken by way of exchange an antiquity and seize anything which has been so acquired, bought or taken by way of exchange, together with any container thereof³⁸.

NMK charges for admission to a Historic Sites/Monuments and Museums in accordance with

³⁷ Section 3, National Museums and Heritage Act (Cap. 216)

³⁸ Section 58 and 59, National Museums and Heritage Act (Cap. 216)

The National Museums and Heritage (Admission Fees) Regulations, 2009.

4.3.3 Internationally registered cultural heritage

(a) UNESCO World Heritage

There are two cultural heritage and two natural heritage registered as UNESCO World Heritage Sites in Kenya. Table 4.3-2 shows such sites and their brief description, and Table 4.3-3 is a tentative list of World Heritage Sites submitted by GOK.

Table 4.3-2 UNESCO World Heritage Sites

Site	Year inscribed	Property (ha)	Buffer Zone (ha)	Brief Description
Cultural Heritage				
Lamu Old Town	2001	16	1,200	the oldest and best-preserved Swahili settlement in East Africa
Sacred Mijikenda Kaya Forests	2008	1,538	-	consist of 11 separate forest sites spread over some 200 km along the coast containing the remains of numerous fortified villages
Natural Heritage				
Lake Turkana National Parks	1997	161,485	-	The most saline of Africa's large lakes, Turkana is an outstanding laboratory for the study of plant and animal communities.
Mount Kenya National Park/Natural Forest	1997	142,020	-	the second highest peak (5,199m) in Africa. It is an ancient extinct volcano.

Source: Kenya, About World Heritage, World Heritage Convention, UNESCO (<http://whc.unesco.org/en/statesparties/ke>)

Table 4.3-3 Properties submitted on the Tentative List

Site	Year listed
Mombasa Old Town	1997
Fort Jesus	1997
Lake Nakuru National Park	1999
Lake Naivasha	1999
Lake Bogoria National Reserve	1999
The Mijikenda Sacred Kaya Forests and groves	1999
Great Rift Valley Ecosystem	2001
The Historic Town of Gedi	2010
The Mfangano-Rusinga Island Complex	2010
The African Great Rift Valley - The Marakwet Escarpment Furrow Irrigation System	2010
The Thimlich Ohinga Cultural Landscape	2010
The African Great Rift Valley - Olorgesailie Prehistoric Site	2010
Aberdare Mountains	2010
The Eastern Arc Coastal Forests (Arabuko-Sokoke Forest and Shimba Hills National Reserve)	2010
The Kakemega Forest	2010
The Meru Conservation Area	2010
Mount Kenya National Park/ Natural Forest / Lewa Wildlife Conservancy (extension)	2010
The African Great Rift Valley - Hell's Gate National Park	2010
The African Great Rift Valley - The Maasai Mara	2010
The Great Rift Valley - The Kenya Lakes System	2010

Source: Kenya, About World Heritage, World Heritage Convention, UNESCO (<http://whc.unesco.org/en/statesparties/ke>)

(b) Intangible cultural heritage

Convention for the Safeguarding of the Intangible Cultural Heritage 2003 was ratified in 2007 in Kenya. It is stipulated in National Policy on Culture and Heritage 2009 that the Government of Kenya (GOK) shall enhance, support, and assist in the promotion of the intangible cultural heritage of Kenya by encouraging, preserving, sustaining, and disseminating knowledge of traditional and contemporary intangible culture.

Intangible Culture is defined under the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage of 2003 as “the practices, representations, expressions, knowledge and cultural spaces associated therewith that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.... Intangible Culture manifests itself through oral tradition, performing arts, social practices knowledge and practices concerning nature and the universe and traditional craftsmanship”.

“Traditions and practices associated to the Kayas in the sacred forests of the Mijikenda” is inscribed in 2009 on the List of Intangible Cultural Heritage in Need of Urgent Safeguarding.

The Mijikenda include nine Bantu-speaking ethnic groups in the Kaya forests of coastal Kenya. The identity of the Mijikenda is expressed through oral traditions and performing arts related to the sacred forests, which are also sources of valuable medicinal plants. These traditions and practices constitute their codes of ethics and governance systems, and include prayers, oath-taking, burial rites and charms, naming of the newly born, initiations, reconciliations, marriages and coronations. Kayas are fortified settlements whose cultural spaces are indispensable for the enactment of living traditions that underscore the identity, continuity and cohesion of the Mijikenda communities. The use of natural resources within the Kayas is regulated by traditional knowledge and practices that have contributed to the conservation of their biodiversity. The Kambi (Councils of Elders) acts as the custodians of these Kayas and the related cultural expressions.

Today, Mijikenda communities are gradually abandoning the Kayas in favour of informal urban settlements. Due to pressure on land resources, urbanization and social transformations, the traditions and cultural practices associated to the Kaya settlements are fast diminishing, posing great danger to the social fabric and cohesiveness of the Mijikenda communities who venerate and celebrate them as their identity and symbol of continuity.

In addition, UNESCO's Endangered Languages Programme shows that Omotik and Ongamo are critically endangered³⁹ languages, Dahalo is severely endangered⁴⁰, Bong'Om and Boni are definitely endangered⁴¹, Burji and Suba are vulnerable⁴², and Elmolo, Kinare, Kore, Lorkoti, Sogoo, and Yaaku are extinct in Kenya.

³⁹ The youngest speakers are grandparents and older, and they speak the language partially and infrequently.

⁴⁰ Language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves.

⁴¹ Children no longer learn the language as mother tongue in the home/

⁴² Most children speak the language, but it may be restricted to certain domains (e.g., home).

Chapter 5 Climate Change

Chapter5 Climate Change

5.1 Policy on climate change

5.1.1 The National Climate Change Response Strategy (NCCRS)

In April 2010 the Government of Kenya (GOK) published the National Climate Change Response Strategy (NCCRS). This is the first time that the Government had produced a document of this kind dedicated entirely to addressing the threats and opportunities of climate change and therefore constitutes the main government document on the issue of climate change. It is anticipated that future climate change related policies will use this document as a starting point. The document is based on stakeholder-consultations held all over the country and is a thorough and comprehensive assessment of the issues that climate change raises in the country. It presents a detailed implementation and resource mobilization plan which includes the identification of adaptation and mitigation measures at an annual average cost of USD 3 billion over the next 20 years.

5.1.2 Action plan for NCCRS

GOK with support from the Common Market for Eastern and Southern Africa (COMESA), Climate and Development Knowledge Network (CDKN), The UK Department for International Development (DFID), The French Development Agency (AFD) and other development partners is desirous of putting in place mechanisms to enhance the implementation of the NCCRS. In this regard, GOK intends to develop a comprehensive Climate Change Action Plan.

The Action Plan has eight subcomponents which are not only distinct but are also closely linked and interrelated. The subcomponents are:

- (i) **Subcomponent 1: Long-term National Low Carbon Development Pathway.** This is designed to facilitate reflection and/or mainstreaming of climate change aspects in the country's Vision 2030 and its Medium Term Plans (MTP). It also seeks to identify key elements of the country's low-carbon and climate resilient growth.
- (ii) **Subcomponent 2: Enabling Policy and Regulatory Framework.** This aims to review international, regional and national policy and legislative instruments relating to climate change with a view of developing a policy and /or legislative framework that promotes coherence, coordination and cooperative governance of climate change issues at the national and county levels.
- (iii) **Subcomponent 3: National Adaptation Plan.** Recognizing that adaptation is a priority, this sub-component aims to identify priority immediate, medium and long-term adaptation actions in order to develop a National Adaptation Plan.
- (iv) **Subcomponent 4: Nationally Appropriate Mitigations Actions (NAMAs).** On the understanding that NAMAs are to be undertaken in the context of sustainable

development, this sub-component is designed to identify and prioritize NAMAs that need to be internationally supported and enabled through technology development and transfer, financing and capacity building. In addition, the protection of forests is essential for reducing emissions from deforestation, this sub component will also address reduced emissions from deforestation and forest degradation plus (REDD+) readiness activities as well as opportunities presented by compliance and voluntary markets.

- (v) **Subcomponent 5: Research and Development and Technology Transfer.** It is widely recognized that technology development and transfer is essential to support adaptation and mitigation efforts. This subcomponent focuses on facilitating technology needs assessment with a view of developing a National Technology Plan that incorporates setting-up of technology innovation centres.
- (vi) **Subcomponent 6: National Performance and Benefit Measurement.** The target is to develop national climate change monitoring, reporting and verification guidelines and performance indicators.
- (vii) **Subcomponent 7: Knowledge Management and Capacity Development.** Information on climate is critical in informing the design of appropriate adaptation and mitigation actions, support planning and choice of strategies including assessment of risk and early warning systems. Capacity development of institutions involved in the planning and management of responses in vulnerable sectors is one of the most pressing climate change need in the country. This subcomponent will address issues relating to institutional and technical capacity strengths and needs of the various actors ranging from government, private sector, civil society and communities. It also encompasses education, training, public awareness and networking.
- (viii) **Subcomponent 8: Finance.** This subcomponent aims to position the country to access finances from the various sources by developing an innovative financial mechanism that includes a climate fund, investment strategy/framework and carbon trading platform. Also, identify tools and incentives that would enhance private sector investments in opportunities associated with climate change.

5.2 Measures against climate change

5.2.1 Reducing Emissions from Deforestation and Forest Degradation in Developing Countries: REDD

GOK is promoting REDD+ scheme and is an active participant in the UNFCCC discussions, including on REDD. GOK formally expressed its interest in joining the World Bank's Forest Carbon Partnership Facility (FCPF) in January 2008 and started to develop a Readiness Plan Information Note (R-PIN) in accordance with the requirements of the FCPF. Kenya's R-PIN was developed through a consultative process with key stakeholders that included the KFS,

KWS, Department of Remote Sensing, Kenya Forestry Research Institute, and Nature Kenya, among others. Kenya submitted its R-PIN to WB in June 2008, and it was accepted in July. In October, Kenya participated in the FCPF Participants' Committee meeting and soon after signed its partnership agreement to formally become an FCPF participant country.

5.2.2 Mitigation

In Kenya, the sectors associated with high emissions include forestry (due to forests logging and land use change), energy, agriculture and transport. Therefore, the proposed mitigation interventions include projects of the Kenya Forest Service's Forestry Development Plan (FDP); Energy Ministry's Green Energy Development; as well as other interventions in the transport and agricultural sectors.

- (i) The Forestry Development Plan (FDP) aims at growing of 7.6 billion trees during the next 20 years. This will be done by growing of trees by 35,000 schools; 4300 women groups; 16,350 youth groups, and the six Regional Development Authorities. Each school will be supplied with a 10, 000 litre water tank to support harvesting of water for the establishment and management of tree nurseries as well as watering of planted out seedlings. In addition, large scale land owners with at least 50 acres of land will be encouraged to construct dams for water harvesting and storage in order to support establishment of irrigated private forests.
- (ii) The Green Energy Development Programme will seek to take advantage of Kenya's abundant renewable energy resources. The proven geothermal steam reserves are equivalent to 7000 MW. The north-eastern parts of the country are ideal for wind power generation. The arid and semi-arid areas have long hours of sunshine throughout the year, making them conducive for solar energy capture and utilization. Kenya has an ample potential to grow sugarcane, sweet sorghum, Jatropha and other non-food crops suitable for producing biofuels. By maximizing these potentials, Kenya can contribute significantly to reduce global GHGs as well as its unhealthy reliance on imported fossil fuels.
- (iii) Green energy projects have been identified which the Government is prepared to allocate a large amount of budgetary resources, while the same time, is seeking support of bilateral and multilateral financial institutions. It will offer credit and subsidy facilities to private investors to facilitate rapid completion of these projects. The green energy projects are estimated to provide an additional 2790 MW by 2014. Building on the success of this programme, it is envisaged that Kenya will become a Green Economy by 2020. In addition, Kenya will pursue energy efficiency options. Such options include: (a) mandatory energy audits of large commercial and industrial consumers; (b) review of tax policies to encourage the importation of energy efficient motor vehicles; (c) subsidies and other tax incentives to promote and sustain wider adoption of energy efficient electrical gadgets such as compact

fluorescent light (CFL) bulbs and solar hot water heating; and (d) constructing energy efficient buildings, e.g. buildings that use as much sunlight as possible while avoiding direct heating from the Sun in order to minimize energy requirement for cooling purposes.

- (iv) Transport: proposed interventions include promotion of low cost public transport modes such as Bus Rapid Transit (BRT) and other means of mass transport; proper urban and transport planning to facilitate efficient and low GHG modes of transportation, e.g. decongesting roads; encouraging non-motorized modes of transport (NMT) by creating bikeways and pedestrian walkways; creating transport demand management measures that encourage or favour public transport and NMT; establishing a Light Rail Transit (LRT) along with the BRT in major cities and towns to help decongest traffic; and improving the country's railway network to facilitate low-cost and low-carbon long-distance transportation of cargo and passengers.
- (v) Agriculture: proposed mitigation measures include appropriate use of biotechnologies which increase food production per unit area while simultaneously limiting GHG emissions; proper management of agricultural waste e.g. using manure to produce biogas; and promotion of agroforestry especially tree-based intercropping (TBI) adaptation measures for the situation caused by Climate Change such as flood control.

5.2.3 Adaptation

Adaptation measures that have been proposed in key sectors include:

- (i) Health: construction of a large number of nomadic clinics; recruitment of more (about 24,000) technical staff to strengthen public health services across the country; heightened surveillance of new outbreaks with consequent rapid responses; and health education campaigns.
- (ii) Agriculture: provision of downscaled weather information and farm inputs; water harvesting e.g. building of sand dams for irrigation; protection of natural resource base (soil and water conservation techniques); and research and dissemination of superior (drought tolerant, salt-tolerant, pest and disease resistant) crops.
- (iii) Water: construction of dams and water pans; protection of water towers, river banks, and water bodies; de-silting of riverbeds and dams; municipal water recycling facilities; building capacity for water quality improvement, and awareness campaign to promote water efficiency measures. Interventions in the water sector will have to adapt the integrated approach to water resource management and utilization. In Kenya, this is imbedded in the 'Integrated River Basin and Large-Water Bodies-based Natural Resource Management Programme' of the six regional basin-based institutions, e.g. the Tana & Athi River Development Authority (TARDA) and the Lake Basin Development Authority (LBDA), etc.

- (iv) Fisheries: developing country-wide maps that will depict areas that require shore protection measures; developing financing mechanisms using non-consumptive options for supporting marine ecosystem research and development; and encouraging a coastal and watershed-basin management approach linking land-use practices to marine and fisheries resource conservation.

- (v) Tourism/Wildlife: development of a National Wildlife Adaptation Strategy by the Kenya Wildlife Service (KWS) and stakeholders including the World Wildlife Fund (WWF), the tourism industry, etc; development and enforcement of Green Strategy and Code; and branding of Kenya as a Green Destination.

- (vi) Livestock/pastoralism: developing special livestock insurance schemes; breeding of animals that adapt well to climatic vagaries; regular vaccination campaigns; promotion of economic livelihood diversification, e.g. cultivation of drought-tolerant food crops such as millet and bee-keeping for honey production; and awareness campaigns among pastoral communities to underscore the importance of balancing stocking rates with the available land resources as a way of ensuring sustainable pastoralism.

- (vii) Physical Infrastructure including transportation and telecommunication networks: ensuring that the infrastructure is climate-proof over its lifespan, which includes carrying out geotechnical site investigations (GSIs) to determine appropriate sites for infrastructure development; factoring a maintenance component into all infrastructural development funds; and designing infrastructure that can withstand the prevailing climatic conditions, e.g. structures that can withstand strong winds, tides as well as high temperatures.

- (viii) Social Amenities including human settlements: strengthening disaster preparedness; proper planning of urban settlements which takes into consideration the expected high growth rate of urban population due to climate-induced migration from rural areas to urban centres; and establishing insurance schemes to support preparedness in regions susceptible to climatic disasters.

Chapter 6 Legal System and Procedures of Environmental Assessment

Chapter 6 Legal System and Procedures of Environmental Assessment

6.1 Legal system and administrative framework for environmental impact assessment

6.1.1 Laws and regulations and guidelines on Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)

(a) The Environmental Management and Co-ordination Act (EMCA), 1999

EMCA provides a comprehensive legislative framework for the management of the environment in Kenya. Concerning EIA and environmental monitoring (audit) requirements for the project, Part VI (Section 58 to 67) gives the provisions governing the EIA process in Kenya including issuance of EIA licence by NEMA. Environmental audit and monitoring are also legal requirements under Part VII (Section 68 and 69).

The Second Schedule of the Act lists project types that are subjected to submitting a project report to NEMA for its review. NEMA determines whether the proposed project needs to prepare EIA or not based on the project report. NEMA issues an environmental impact assessment licence on such terms and conditions as may be appropriate and necessary to facilitate sustainable development and sound environmental management.

Currently, NEMA is planning to revise EMCA and has prepared a draft which includes following major changes;

- (i) the proposed project will be categorized into Category I, II, III, and IV⁴³ based on the types and scale of the project (revision of the Second Schedule),
- (ii) new procedures will be set for each Category,
- (iii) implementation of SEA will be required for every public policy, plans, and programmes, and
- (iv) audit report will be required and reviewed by NEMA for issuance of environmental compliance certificate.

(b) The Environmental (Impact Assessment and Audit) Regulations, 2003 (EIA/EA 2003)

EIA/EA 2003 provides specific procedures of implementation of EIA and issues need to be assessed and contained in the EIA report. Environmental monitoring and audit is required in EIA/EA 2003 as well.

EIA/EA 2003 is under the process of revision in accordance with revised draft of EMCA.

(c) National Guidelines for Strategic Environmental Assessment in Kenya, Revised February, 2011

The Guidelines provide Ministries in Kenya with an understanding of the general principles of a SEA, the basic steps of SEA application, the tools and techniques to be adopted, the final

⁴³ NEMA requires a full EIA for Category I project, a project report for Category II (EIA may be required after NEMA's review of the project report), a project brief for Category III, and a SEA for Category IV.

output of the SEA process. To address cumulative, synergistic, secondary, and long term impacts anticipated in policies, plans and programmes, NEMA promotes SEA as a useful and alternative tool.

(d) Environmental Impact Assessment Guidelines and Administrative Procedures, 2002 (draft)

Environmental Impact Assessment Guidelines and Administrative Procedures (hereinafter referred to as the “EIA Guidelines”) provide procedural guidelines for implementation of EIA, environmental monitoring and environmental audit, and SEA. It describes procedural steps in EIA studies and environmental audits as well as the contents and format of the study reports to be submitted to NEMA. The EIA study review and decision-making process are also described.

6.1.2 National Environment Management Authority (NEMA)

NEMA, which was established by EMCA as a principal instrument of the Government in the implementation of all policies relating to the environment, is responsible for coordinating the EIA process, issuing environmental impact assessment licenses and managing the monitoring the adherence to the license conditions.

At the Provincial and District levels, NEMA has environmental committees, Provincial Environmental Committees (PECs) and District Environmental Committees (DECs), who review the project reports and EIA study reports of the proposed projects that fall in their jurisdiction.

6.2 Procedures for Strategic Environmental Assessment

6.2.1 SEA procedures under current legislation and SEA guidelines

In the section 42 of EIA/EA 2003, it is stipulated that the lead agencies shall in consultation with NEMA subject all proposals for public policy, plans, and programmes for environmental implementation to a strategic environmental assessment. NEMA has formulated the National Guidelines for SEA to show the basic steps and how to integrate environmental issues into policies, plans, and programmes through a rigorous stakeholder engagement process.

Figure 6.2-1 shows SEA implementation and review procedures for policy and plan/programme. The period for public comment⁴⁴ is much longer than that for EIA.

NEMA may constitute a Technical Advisory Committee (TAC) to review and provide independent technical comments for consideration for plans and programmes and Inter Ministerial Committee on Environment (IMCE) for policies. The final decision for policy will be determined by the National Environment Council (NEC), and NEMA will provide a concise briefing note that ensures that decision makers are fully aware of key environmental issues linked to the policy, plan, and programme with emphasis on the recommended alternatives.

There is only one SEA study report⁴⁵ submitted to NEMA at the time of March, 2011.

⁴⁴ 6 months for policy SEA and 60 days for plan/programme SEA

⁴⁵ Strategic Environmental Assessment (SEA) for: "Reforestation, Sustainable Development and Carbon

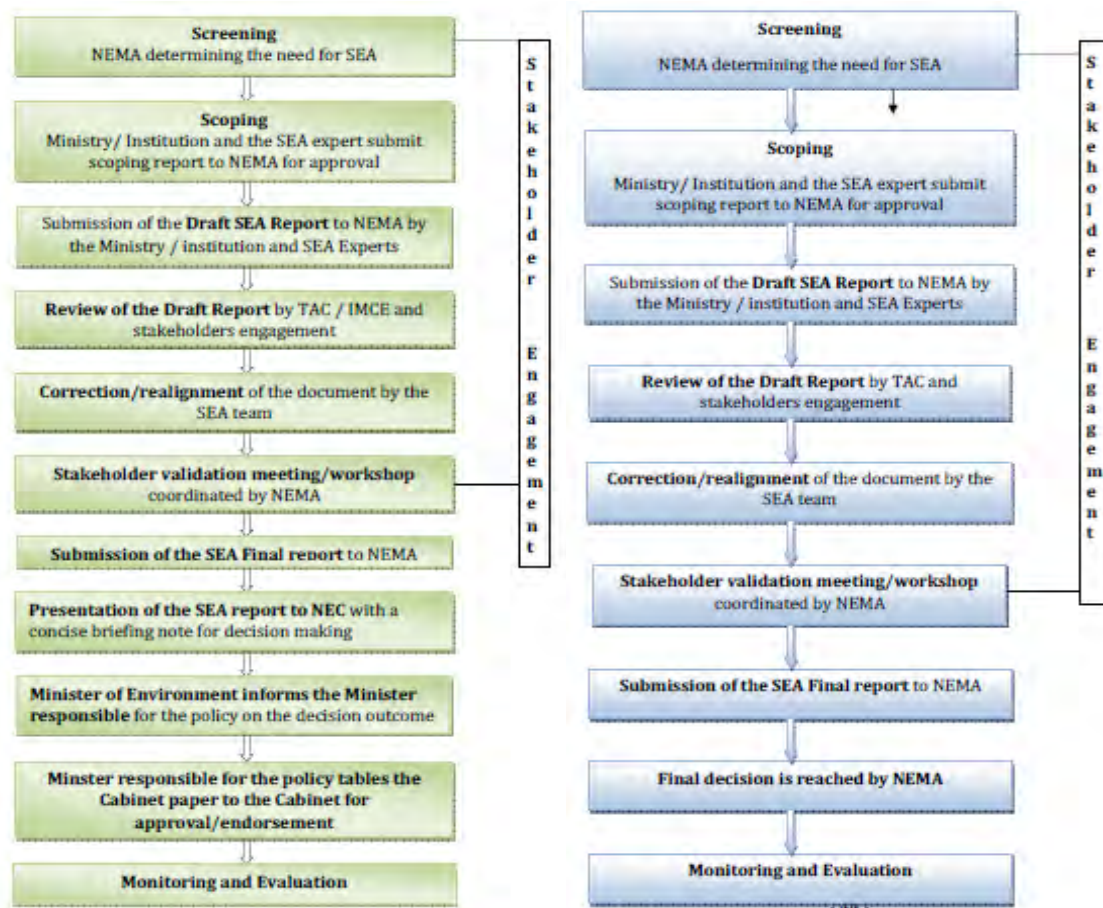


Figure 6.2-1 SEA procedures for Policy (left) and Plan and Programme (right)

6.2.2 SEA procedures under proposed amendments of EMCA and EIA/EA 2003

Part IV, which provides objectives of conducting SEA, specific procedures, and requirements, is added in revised draft of EIA/EA 2003. Following issues are major requirements for SEA IV.

- (i) In carrying out a SEA, a scoping study shall first be undertaken, and SEA shall be commenced upon the approval of the scoping report. ((5) and (6) of section 42, revised EIA/EA 2003)
- (ii) To identify alternatives that may include but not be limited to:
 - a. doing nothing option,
 - b. employing alternatives to achieve the same policy, programme or plan objectives,
 - c. employing alternative technologies,
 - d. demanding the reduction or addition in size of projects envisioned, and
 - e. employing different forms of management.
 ((7)(e) of section 42, revised EIA/EA 2003)
- (iii) During scoping and the actual SEA study, it shall be mandatory to conduct consultation with relevant government authorities, agencies and the public. In carrying out public consultations the lead agency shall:

- a) hold at least two public meetings with the relevant stakeholders and communities to explain the policy, programme or plan and its effects, and to receive their oral, written comments or objections if any,
 - b) ensure that the first meeting is held during the scoping stage, and
 - c) ensure that an appropriate notice is sent out at least 14 days prior to the meeting and that the venue and time of the meeting is convenient.
- ((8) and (9) of section 42, revised EIA/EA 2003)

6.3 Procedure for EIA

6.3.1 Criteria of necessity of EIA for the proposed project

(a) Under current legislation

Second Schedule of EMCA lists project types, and any project proponent shall, before financing, commencing, proceeding with, carried out, executing or conducting any undertaking specified in the Second Schedule, submit a project report to NEMA in the prescribed form with the prescribed fee. NEMA reviews the report and determines whether an EIA study is necessary for the proposed project or not. The project proponent shall undertake EIA study at his own expense, prepare a report, and submit the EIA report to NEMA.

According to the EIA Guidelines, the significance of the project's environmental impacts is considered through the project report, and the significance itself depends on such factors as (i) the sensitivity of the area likely to be affected; (b) public health and safety; (c) the possibility of uncertain, unique or unknown risks; (d) the possibility of having individually insignificant but cumulatively significant impacts; (e) whether the proposed activity affects protected areas, endangered or threatened species and habitats; (f) size, working methods, project activities including their duration and proposals for waste disposal etc.

However, specific criteria used for the determination on the necessity of EIA are not clear.

(b) Under proposed amendments in Second Schedule of EMCA

Second Schedule is supposed to be revised. In the Schedule, the project is categorized into Category I, II, III, and IV based on the types and scale of the project.

Category I: project which needs to undertake and submit an EIA study

Category II: project which needs to submit a project report to NEMA (EIA may be required after NEMA's review of the project report)

Category III: project which needs to submit a project brief (EIA is not necessary)

Category IV: project which needs to undertake and submit a SEA study

Table 6.3-1 shows types of the project under Category I and Table 6.3-2 shows types of the project under Category II. These lists are still under review and consultation so may change.

Current version of the Second Schedule of EMCA is attached as Annex 5 and the whole list of the revised draft of Second Schedule is attached as Annex 6.

Table 6.3-1 Projects for which a full EIA is required in new EMCA

CATEGORY I: Projects requiring a Full EIA		
1	Changes in land use	Including: a) Major changes in land use b) Large scale resettlement schemes
2	Urban developments	Including: a) Establishment of new housing developments exceeding 30 housing units b) Establishment or expansion of recreational areas in national parks, national reserves, forests and nature reserves and any areas designated as environmentally sensitive; c) Shopping centres and complexes.
3	Transportation	Including: a) All paved roads (class A-D) b) Construction of new roads in environmentally sensitive areas; c) Railway lines; d) Airports and airfields; e) Oil and gas pipelines; f) Water transport.
4	Dams, rivers and water resources	Including: a) Any project located within 100 metres from a wetland, river, dam, stream, spring, etc. b) Storage dams, barrages and piers. c) River diversions and water transfer between catchments; d) Large scale flood control schemes; e) Drilling for the purpose of utilizing ground water resources including geothermal energy.
5	Aerial spraying	
6	Mining	including quarrying and open cast extraction of: a) Precious metal; b) Gemstones; c) Metalliferous ores; d) Coal; e) Phosphates; f) Limestone and dolomite; g) Large scale commercial stone and slate; h) Commercial large scale harvesting of aggregates, sand, gravel, soil and clay; i) Exploration for the production of petroleum in any form. j) Extracting alluvial gold with use of mercury k) Geothermal energy exploration and production
7	Forestry related activities	Including: a) Timber harvesting (from indigenous forests); b) Clearance of forest areas; c) Reforestation and afforestation of alien species; d) Introduction of alien species e) Excisions of gazetted forest for whatever purposes f) Any projects located within forest reserves such as construction of dams or other control structures that flood large areas of relatively un-degraded areas
8	Agriculture	Including: a) Large scale agriculture; b) Introduction of new pesticides; c) Pest control programs (large scale) d) Widespread introduction of new crops and animals; e) Widespread introduction of fertilizers; f) Irrigated agriculture exceeding 50 ha

		g) Major developments in biotechnology including the introduction and testing of genetically modified organisms
9	Processing and manufacturing industries	Including: a) Mineral processing, reduction of ores and minerals; b) Smelting and refining of ores and minerals; c) Foundries; d) Large scale brick and earth ware manufacture; e) Cement works and lime processing; f) Glass works; g) Fertilizer manufacture or processing; h) Explosive plants; i) Oil refineries and petrochemical works; j) Large scale tanning and dressing of hides and skins; k) Large scale abattoirs (more than 15 animals/day) and meat processing plants; l) Chemical works and processing plants; m) Large scale brewing and malting; n) Bulk grain processing plants; o) Large scale fish processing plants; p) Pulp and paper mills; q) Large scale food processing plants; r) Plants for manufacture or assembly of motor vehicles; s) Plant for the construction or repair of aircraft or railway equipment; t) Plants for the manufacture or assembly of motor vehicles; u) Plants for the manufacture of tanks, reservoirs and sheet metal containers; v) Plants for manufacture of coal briquettes; w) Plants for manufacturing batteries;
10	Electrical infrastructure	Including: a) Electrical generation stations; b) Electrical transmission lines above 66 KVA; c) Electrical sub-stations; d) Pumped storage schemes; e) Telecommunications masts
11	Management of hydrocarbons	including the bulk storage of natural gas, petroleum and any combustible or explosive fuels.
12	Waste disposal	including: a) Sites for solid waste disposal; b) Sites for toxic, hazardous and dangerous wastes; c) Waste water treatment plants; d) Installations for disposal of industrial wastes e) Works emitting offensive odors.
13	Natural conservation areas	including: a) Establishment of protected areas, buffer zones and wilderness areas; b) Commercial exploitation of natural fauna and flora; c) Introduction of alien species of fauna and flora into ecosystems; d) Creation of national parks, game reserves and buffer zones; e) Actions likely to affect endangered species of flora and fauna; f) Wetlands reclamation and or any projects likely to affect wetlands establishment of wilderness areas; g) Projects located in indigenous forests including those outside gazette forests h) Projects that affect any areas designated as environmentally sensitive areas

Table 6.3-2 Projects for which a project report is required

CATEGORY II: Projects requiring a project report
a) An activity out of character with its surrounding;

- b) Any structure of a scale not in keeping with its surroundings;
- c) Residential houses in zoned areas (bungalows, maisonettes, flats) in zoned areas of not more than 30 units in less than 8 acres
- d) Commercial buildings in zoned areas (of not more than 10 stories)
- e) Small scale community water projects, boreholes and water pans
- f) Cottage industries
- g) Designated jua kali sites other than for metalworks and garages
- h) Car and bus parks
- i) Recreational facilities in areas not designated as environmentally sensitive
- j) Expansion of existing facilities for same use especially the socially uplifting project such as schools and dispensaries where the expansion is less than 50% of existing capacity
- k) Cattle dips
- l) Sand harvesting, quarrying, brick making, clay/soil harvesting
- m) Slaughter houses (handling not more than 15 animals/day and located more than 100 metres away from riparian land
- n) Construction of churches and mosques
- o) Rehabilitation of all minor roads (not more than 9 metres wide)
- p) Power transmission lines of less than 66 KVA
- q) Schools and rural health centres
- r) Minor flood control schemes
- s) Irrigated agriculture of less than 50 hectares
- t) Mini hydropower projects
- u) Small scale fisheries and aquaculture
- v) Projects near gazetted natural heritage sites

6.3.2 Procedures for EIA study and application of EIA license

Procedures for conducting EIA study is summarized below and shown in Figure 6.3-1.

1) Screening

Project proponent needs to submit at least ten copies of the project report to NEMA or District Environment Office (DEO) depending on the scale of the proposed project in the prescribed form accompanied by the prescribed fees⁴⁶.

EIA Guidelines states that information regarding all project activities within the project cycle (planning implementation, decommissioning), materials to be used, products, waste and waste disposal, economic and social benefits should be provided to all persons likely to be affected by the project, and the views of the public should be incorporated in the project report⁴⁷.

NEMA will within seven days upon receipt of the project report, submit a copy of the project report to (a) each of the relevant lead agencies, (b) the relevant DEC, and (c) where more than one district is involved, to the relevant PEC. They need to submit their written comments to NEMA within twenty one days from the date of receipt of the project report, or such other period as NEMA may prescribe. The results of review of the project report need to be communicated to the proponent within forty-five days of the submission of the project report.

Where NEMA is satisfied that the project will have no significant impact on the environment, or that the project report discloses sufficient mitigation measures, NEMA may issue a license. If

⁴⁶ 0.05% of the total cost of the project, to the minimum of Kshs. 10,000 and maximum of Kshs. 1,000,000 payable as follows: (a) 50% of the 0.05% being Processing Fee Payable upon submission of a project report; (b) 50% of the 0.05% being licence fee payable upon collection of the EIA licence. (The Environmental (Impact Assessment and Audit) (Amendment) Regulations, 2009, dated 11th February, 2009)

⁴⁷ 2.4.4, Environmental Impact Assessment Guidelines and Administrative Procedures, 2002 (draft)

NEMA finds that the project will have a significant impact on the environment, and the project report discloses no sufficient mitigation measures, NEMA will require that the proponent undertake an EIA study.

2) Scoping

A project that NEMA considers should be subjected to an EIA study must first undergo a scoping study. An EIA study needs to be conducted in accordance with terms of reference developed during the scoping exercise by the proponent and approved by NEMA. A proponent, on the approval of the terms of reference of EIA study, will submit the names and qualifications of the EIA experts appointed to undertake the study. The approval of the experts to undertake an EIA needs to be communicated to the proponent within fourteen days of receipt of the proponent's application.

3) EIA study

NEMA requires the proponent that an EIA study needs to take into account environmental, social, cultural, economic, and legal considerations. In addition, the proponent in consultation with NEMA, needs to seek the views of persons who may be affected by the project. In seeking the views of the public, the proponent needs to hold at least three public meetings with the affected parties and communities to explain the project and its effects, and to receive their oral or written comments.

4) Review of the EIA study report and issuance of EIA license

The EIA study report needs to be accompanied by a non-technical summary outlining the key findings, conclusions and recommendations of the study and signed by the proponent and EIA experts involved in its preparation. A proponent needs to submit ten copies and an electronic copy of EIA study report to NEMA accompanied by the prescribed fees.

NEMA will within fourteen days of the receipt of the EIA study report, submit a copy of the report to any relevant lead agencies for their comments and invite the public to make oral or written comments on the report.

In addition, NEMA will, at the expense of the proponent, publish for two successive weeks in the Gazette and in a newspaper with a nation-wide circulation and in particular with a wide circulation in the area of the proposed project, a public notice once a week inviting the public to submit oral or written comments on the EIA study report and make an announcement of the notice in both official and local languages at least once a week for two consecutive weeks in a radio with a nation-wide coverage . Upon receipt of both oral and written comments, NEMA may hold a public hearing.

NEMA will give its decision on an EIA study report within three months of the receipt of the report. Where NEMA approves an EIA study report, it will issue an EIA license on such terms and conditions as it may deem necessary.

In Kenya, EIA process including preparation of project report needs to be conducted by registered EIA/EA expert. EIA/EA experts are required to follow the Code of Practice and Profession Ethics for EIA/EA Experts of NEMA. Where the expert is found to have committed professional misconduct, the Director General of NEMA may take disciplinary actions such as striking-off the name of the expert from the Register of Experts, suspension from practicing for a period, not exceeding 12 months, or payment of a reasonable fine not exceeding Kshs.100,000.

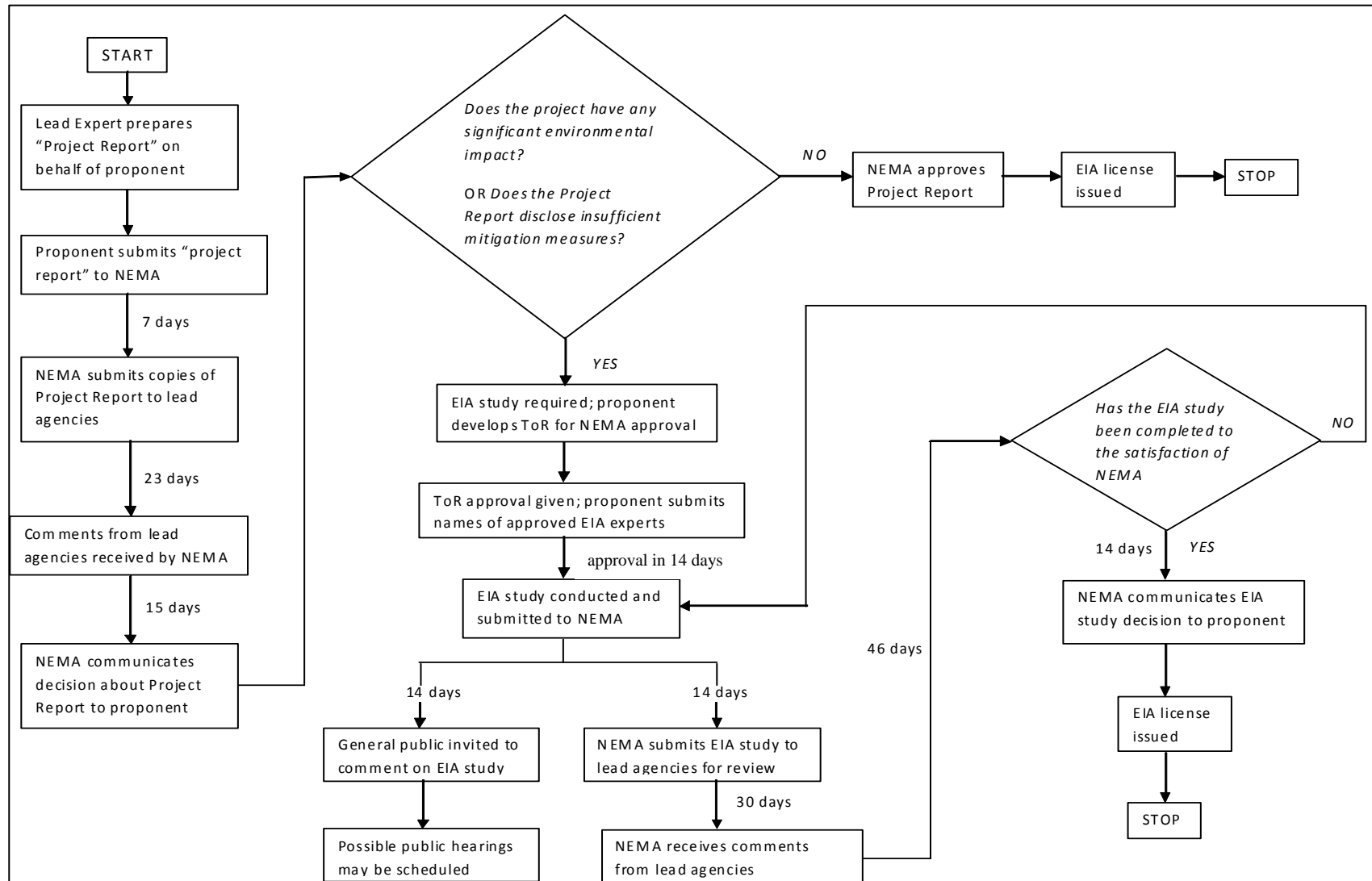


Figure 6.3-1 Procedures for EIA

6.3.3 Issues, items, and environmental/effluent standards to be assessed in EIA

1) Screening Stage

A project report shall contain following items.

- (a) the nature of the project
- (b) the location of the project including the physical area that may be affected by the project's activities
- (c) the activities that shall be undertaken during the project construction, operation and decommissioning phases
- (d) the design of the project
- (e) the materials to be used, products and by-products, including waste to be generated by the project and the methods of their disposal
- (f) the potential environmental impacts of the project and the mitigation measures to be taken during and after implementation of the project
- (g) an action plan for the prevention and management of possible accidents during the project cycle
- (h) a plan to ensure the health and safety of the workers and neighbouring communities
- (i) the economic and socio-cultural impacts to the local community and the nation in general
- (j) the project budget
- (k) any other information the Authority may require

NEMA reviews the project report to ensure that following major aspects have been adequately addressed in the report:

- Impact identification
- Impact assessment
- Adequacy of proposed mitigation measures
- Adequate consideration of project alternatives
- Evidence and adequacy of consultation and public participation
- Implementation process and procedures
- Comprehensiveness of the environmental management plan

In addition, criteria for screening of project report include the sensitivity of the area likely to be affected; public health and safety; the possibility of uncertain, unique or unknown risks; the possibility of having individually insignificant but cumulatively significant impacts; whether the proposed activity affects protected areas, endangered or threatened species and habitats; size, working methods, project activities including their duration and proposals for waste disposal etc.

2) EIA Study Stage

Ecological considerations, Social considerations, Landscape, Land uses, and Water are issues to be considered in the EIA study. Details are shown in Table 6.3-3.

Table 6.3-3 Issues to be considered in the EIA study

Ecological considerations	(a) Biological diversity	(i) effect of proposal on number, diversity, breeding habits, etc. of wild animals and vegetation
		(ii) gene pool of domesticated plants and animals e.g. monoculture as opposed to wild types
	(b) Sustainable use-	(i) effect of proposal on soil fertility
		(ii) breeding populations of fish, game or wild animals
		(iii) natural regeneration of woodland and sustainable yield
		(iv) wetland resource degrading or wise use of wetlands.
	(c) Ecosystem maintenance	(i) effect of proposal on food chains
		(ii) nutrient cycles
		(iii) aquifer recharge, water run-off rates etc
		(iv) a real extent of habitants
(v) fragile ecosystems		
Social considerations	(a) economic impacts	
	(b) social cohesion or disruption	
	(c) effect on human health	
	(d) immigration or emigration	
	(e) communication - roads opened up, closed, rerouted	
	(f) effects on culture and objects of culture value	
Landscape	(a) views opened up or closed	
	(b) visual impacts (features, removal of vegetation, etc	
	(c) compatibility with surrounding area;	
	(d) amenity opened up or closed, e.g recreation possibilities.	
Land uses	(a) effects of proposal on current land uses and land use potentials in the project area	
	(b) possibility of multiple use.	
Water	(a) water sources (quantity and quality)	(i) rivers;
		(ii) springs;
		(iii) lakes (natural and man-made);
		(iv) underground water;
		(v) oceans;
	(b) drainage patterns / drainage systems	

Source: *Second Schedule*, The Environmental (Impact Assessment and Audit) Regulations, 2003

It is stated in Section 18(1) of EIA/EA 2003 that an EIA study report shall include the items shown in Table 6.3-4.

Table 6.3-4 Items to be stated in the EIA report

(a)	a proposed location of the project;
(b)	a concise description of the national environmental legislative and regulatory framework, baseline information, and any other relevant information related to the project;
(c)	the objectives of the project;
(d)	the technology and processes to be used, in the implementation of the project;
(e)	the materials to be used in the construction and implementation of the project;
(f)	the products, by products and waste generated by the project;
(g)	a description of the potentially affected environment;
(h)	the environmental effects of the project including the social and cultural effects and the direct,

	indirect, cumulative irreversible, short-term and long-term effects anticipated;
(i)	alternative technologies and processes available and reasons for preferring the chosen technology and processes;
(j)	analysis of alternatives including project site, design and technologies and reasons for preferring the proposed site, design and technologies.
(k)	an environmental management plan proposing the measures for eliminating, minimizing or mitigating adverse impacts on the environment; including the cost, time frame and responsibility to implement the measures;
(l)	provision of an action plan for the prevention and management of foreseeable accidents and hazardous activities in the cause of carrying out activities or major industrial and other development projects;
(m)	the measures to prevent health hazards and to ensure security in the working environment for the employees and for the management of emergencies;
(n)	an identification of gaps in knowledge and uncertainties which were encountered in compiling the information;
(o)	An economic analysis of the project;
(p)	An indication of whether the environment of any other state is likely to be affected and the available alternatives and mitigating measures; and such other matters as the Authority may require.
(q)	such other matters as the Authority may require

Source: 18(1), EIA/EA 2003

According to the EIA Guidelines, NEMA will review the EIA study reports focusing on the following issues -

- (a) Extent to which the EIA study report covers the Terms of Reference presented at the beginning of the study
- (b) Whether the EIA study report concurs with the national EIA guidelines
- (c) Extent to which key environmental issues of interest to decision makers have been addressed
- (d) Whether the findings of the report are scientifically and technically sound and organized in a manner that can easily be understood by the decision makers and the general public
- (e) Whether the study properly identified all likely significant adverse environmental impacts of the project as well as mitigation measures for the impacts
- (f) The adequacy of description of the methodology used, techniques applied, assumptions made, and limitations encountered
- (g) Whether the study has suggested reasonable alternatives to the proposed action
- (h) The relevance of sources of information cited in the report
- (i) Evidence and adequacy of Consultation and Public Participation

6.3.4 Social consideration covered in EIA process

Although Social Impact Assessment (SIA) and documents such as land acquisition and resettlement action plan (RAP) are not required under relevant legislation in Kenya, NEMA requests the project proponent to prepare RAP with EIA in response to donor's requirement based on their safeguard policies. However, specific contents to be considered in RAP and the criteria for reviewing the documents are not clearly mentioned.

Proposed revision of EIA/EA 2003 includes preparation of relocation plan by the project proponent as a part of EMP within the project report.

6.3.5 Information disclosure, public consultations, and participation of project affected people
 Table 6.3-5 explains procedures of information disclosure, stakeholder consultations, and participation of project affected people to the proposed project.

Table 6.3-5 Information disclosure and public consultation/participation stipulated in EMCA and EIA/EA 2003

	EIA process	Stakeholders to be consulted	Issues to be noted and/or explained	Notice of the Meeting	Responsibility	Referred legislation
Disclosure of Project Information	During EIA study, after approval of project report by NEMA	persons who may be affected by the project	the project and its anticipated effects and benefits	- posting posters in strategic public places in the vicinity of the site of the proposed project - a notice on the proposed project for two successive weeks in a newspaper that has a nation-wide circulation - an announcement of the notice in both official and local languages in a radio with a nation-wide coverage for at least once a week for two consecutive weeks	Project proponent	EIA/EA 2003, 17(2)(a)
public meeting	During EIA study, at least three public meetings	the affected parties and communities of the proposed project	the project and its anticipated effects and benefits	- appropriate notices are sent out through following methods at least one week prior to the meetings a) posting posters in strategic public places in the vicinity of the site of the proposed project, b) publishing a notice for two successive weeks in a newspaper that has a nation-wide circulation, and c) making an announcement of the notice in both official and local languages in a radio with a nation-wide coverage for at least once a week - the venue and times of the meetings are convenient for the affected communities and the other concerned parties	Project proponent	EIA/EA 2003, 17(2)(a) (b)(c)

	EIA process	Stakeholders to be consulted	Issues to be noted and/or explained	Notice of the Meeting	Responsibility	Referred legislation
Public Comment	within fourteen days of receiving the EIA report	All interested stakeholders	(a)the nature of the project; (b)the location of the project; (c)the anticipated impacts of the project and the proposed mitigation measures to respond to the impacts; (d)the times and place where the full report can be inspected; (e)the period within which the Authority shall receive comments	- publish for two successive weeks in the Gazette and in a newspaper with a nation-wide circulation and in particular with a wide circulation in the area of the proposed project - an announcement of the notice in both official and local languages at least once a week for two consecutive weeks in a radio with a nation-wide coverage	NEMA (at the expense of the proponent)	EMCA, 59(1) EIA/EA 2003, 21(2)
Public Hearing	After public comment	the affected parties and communities of the proposed project	Presentation by project proponent	- notice in at least one daily newspaper of national circulation and one newspaper of local circulation - at least two announcements in the local language of the community and the national language through radio with a nation-wide coverage	NEMA	EIA/EA 2003, 22

Proposed amendment of EIA/EA 2003 requires the project proponent to conduct public meetings at scoping stage, during EIA study after approval of project report (at least two meetings), and at the final draft of EIA.

6.3.6 Disclosure of EIA report and EIA license

Section 29 of EIA/EA 2003 covers access to information by the public and stipulates that any information, documents submitted to NEMA and NEMA's decisions are available to the public as prescribed by NEMA.

6.3.7 Requirements for Environmental Management Plan (EMP)

EIA/EA 2003 stipulates Environmental Management Plan as document which contains all details of project activities, impacts, mitigation measures, time schedule, costs, responsibilities

and commitments proposed to minimize environmental impacts of activities, including monitoring and environmental audits during implementation and decommissioning phases of a project.

In addition, proposed amendment of EIA/EA 2003 requires that EMP shall include a) an action plan for the prevention and management of possible accidents during the project cycle, b) a plan to ensure the health and safety of the workers and neighbouring communities, and c) a plan to ensure the relocation or resettlement of persons affected by the project.

6.4 Environmental monitoring

6.4.1 Environmental monitoring required under current legislation

(a) Environmental (self) audit

Section 68 of EMCA stipulates that the operator of a project for which an EIA study report has been made shall keep accurate records and make annual reports to NEMA describing how far the project conforms in operation with the statements made in the EIA report. In addition, the operator of a project shall take all reasonable measures to mitigate any undesirable effects not contemplated in the EIA report and shall prepare and submit an environmental audit report on those measures to NEMA annually.

Environmental audit report, which shall be prepared by EIA/EA Experts, needs to contain following issues.

- (a) a presentation of the type of activity being audited;
- (b) an indication of the various materials, including non-manufactured materials, the final products, and by products, and waste generated;
- (c) a description of the different technical activities, processes and operations of the project;
- (d) A description of the national environmental legislative and regulatory frameworks on ecological and socio-economic matters;
- (e) A description of the potentially affected environment on ecological and socio- economic matters;
- (f) A prioritization of all past and on-going concerns of the project;
- (g) An identification of all environmental and occupational health and safety concerns of the project;
- (h) An opinion on the efficacy and adequacy of the environmental management plan of the project;
- (i) Detailed recommendations for corrective activities, their cost, timetable and mechanism for implementation;
- (j) An indication of the measures taken under the environmental management plan to ensure implementation is of acceptable environmental standards;
- (k) A non-technical summary outlining the key findings, conclusions and recommendations of the auditor.

(b) Control Audit

A control audit shall be carried out by NEMA auditing, whenever NEMA deems it necessary to check compliance with the environmental parameters set for the project or to verify self-auditing reports. (33(1), EIA/EA 2003)

6.4.2 Disclosure of monitoring results

Requirement regarding disclosure of the results of monitoring and/or audit is not specifically mentioned in the EMCA or in EIA/EA 2003. However, Section 29 of EIA/EA 2003 covers access to public information and stipulates that any information, documents submitted to NEMA and NEMA's decisions are available to the public as prescribed by NEMA.

Additionally, the EMCA, Section 67 (3), states that NEMA shall maintain a publicly accessible registry of all awarded licenses.

6.4.3 Corrective measures to be taken when serious problems are identified

Section 37 of EIA/EA 2003 stipulates that NEMA will issue an improvement order to the proponent stipulating the corrective measures required when serious violation of EMP or unexpected impacts are found during audit process.

Section 28 of EIA/EA 2003 stipulates that NEMA can suspend, revoke or cancel a license if the licensee contravene the conditions set out in the license, if there is a major change in the implementation of the project, if the project is having an environmental impact that was not foreseen, or if NEMA identifies that the information given by the proponent during the license application was incorrect or misleading.

EMCA, Section 137(h), describes any person who fails, neglects or refuses to carry out an improvement order issued by NEMA shall be liable to imprisonment for a term not exceeding twenty four months, or to a fine of not more than Kshs 500,000, or both.

**Chapter 7 Legal System and Procedures of
Land Acquisition and Involuntary Resettlement**

Chapter7 Legal System and Procedures of Land Acquisition and Involuntary Resettlement

7.5 Legal system on land

7.5.1 Revision of land legislation

Kenya has not had a single and clearly defined National Land Policy since independence. This, together with the existence of many land laws, some of which are incompatible, has resulted in a complex land management and administration system. The deficiencies of old land policy have resulted in the following problems -; (i) centralization of state responsibility over land matters, with the effect that governmental decisions have not been responsive to the citizenry, especially at the local level, (ii) lack of governmental accountability in land governance leading to irregular allocations of public land; (iii) constitutional protection of private property rights even where they are acquired in an illegitimate manner; (iv) mass disinheritance of communities and individuals of their land; (v) inequitable distribution of land in Kenya. In particular, women, children, minority groups and persons with disabilities have been denied access to land rights; and (vi) ineffective governmental regulation of private property rights, as a result of which unplanned settlements and environmental degradation have become commonplace.

To provide an overall framework and define the key measures required to address the critical issues of land administration, access to land, land use planning, restitution of historical injustices, environmental degradation, conflicts, unplanned proliferation of informal urban settlements, outdated legal framework, institutional framework and information management, GOK embarked on the formulation of a National Land Policy.

Draft National Land Policy was prepared in April 2007 and approved by the Cabinet in June, 2009. Then, the draft policy was presented to the Parliament as the Sessional Paper and approved in December, 2009.

In Kenya, interests in land broadly fall into two groups. Rights and that are held through traditional African systems, and rights that derive from the English system introduced and maintained through laws enacted by colonial and then the national parliament. The former is loosely known as “customary land tenure” bound through traditional rules (customary law). The latter body of law is referred to as “statutory land tenure”, secured and expressed through national law, in various Act of parliament. The thrust of previous laws and policies has been to individualize all modes of tenure, especially customary tenure. Some of the consequences of the policy of individualization of tenure are the deprivation of many Kenyans of access to land and the disruption of indigenous culture and conservation systems.

In the aim of retrieving past in justice and problems, new land policy recognizes the values of economic productivity, equity, environmental sustainability and the conservation of culture, and

seeks to facilitate their protection. It adopts a plural approach, in which individual tenure and customary tenure should co-exist and benefit from equal guarantees of tenure security. Especially, following land related issues deserve special attention:

- (i) Historical injustices;
- (ii) Pastoral land issues;
- (iii) Coastal region land issues;
- (iv) Land rights of minority and marginalized groups;
- (v) Land rights of women;
- (vi) Land rights in informal settlements and for informal activities;
- (vii) Land rights of children; and
- (viii) The impact of the HIV and AIDS pandemic on agricultural production and access to land rights.

Land in Kenya is currently designated as government land, trust land, and private land. The new land policy designates all land in Kenya as Public Land, Community Land, and Private Land.

According to the Constitution 2010, public land comprises all land that is not private land or community land, and the land lawfully held, used or occupied by any State organ, except any such land that is occupied by the State organ as lessee under a private lease⁴⁸. Community land is newly introduced land tenure, which admits collective land rights by community. Community land consists of land lawfully registered in the name of group representatives under the provisions of any law, land lawfully transferred to a specific community by any process of law, any other land declared to be community land by an Act of Parliament, and land that is (i) lawfully held, managed or used by specific communities as community forests, grazing areas or shrines; (ii) ancestral lands and lands traditionally occupied by hunter-gatherer communities; or (iii) lawfully held as trust land by the county governments, but not including any public land held in trust by the county government. Private land consists of registered land held by any person under any freehold tenure⁴⁹, land held by any person under leasehold tenure⁵⁰, and any other land declared private land under an Act of Parliament.

⁴⁸ Other type of Public Land includes; land transferred to the State by way of sale, reversion or surrender; land in respect of which no individual or community ownership can be established by any legal process; land in respect of which no heir can be identified by any legal process; all minerals and mineral oils as defined by law; government forests other than forests on community land, government game reserves, water catchment areas, national parks, government animal sanctuaries, and specially protected areas; all roads and thoroughfares provided for by an Act of Parliament; all rivers, lakes and other water bodies as defined by an Act of Parliament; the territorial sea, the exclusive economic zone and the sea bed; the continental shelf; all land between the high and low water marks; and any land not classified as private or community land under this Constitution.

⁴⁹ Freehold connotes the largest quantity of land rights which the State can grant to an individual. While it confers unlimited rights of use, abuse and disposition, it is subject to the regulatory powers of the State. In Kenya, such interests are held under the Registration of Titles Act (Cap 281), the Land Titles Act (Cap 282) or the Government Lands Act (Cap 280). A similar quantity of land rights is conferred by the "absolute proprietorship," which was introduced by the Registered Land Act (Cap 300) to extinguish customary tenure and replace it with rights that would be individually and exclusively held.

⁵⁰ Leasehold tenure is the right to use land for a defined period of time in exchange for the performance of certain obligations such as the payment of rent. Lease period is 99 years for urban area and 999 years for agricultural land.

New legislation (Land Act) is supposed to be enacted to give effects to the new land tenure system.

In addition, GOK will set up three key land management institutions: the National Land Commission (NLC), the District Land Boards (DLBs) and Community Land Boards (CLBs).

National Land Commission (NLC)

NLC's functions will be:

- (i) To hold title to and manage public land on behalf of the Government;
- (ii) Establishing and maintaining a register of all public, private and community land in the country;
- (iii) To coordinate the realization of the multiple values of land, namely, economic productivity, equity, environmental sustainability and conservation of indigenous culture;
- (iv) To exercise the powers of compulsory acquisition and development control on behalf of the State and local authorities or governments;
- (v) To levy, collect and manage all land tax revenues except rates which shall be collected by district-based authorities;
- (vi) To develop the capacity of both DLBs and CLBs;
- (vii) To provide technical services and coordinate the work of DLBs and CLBs through establishment of NLC district offices;
- (viii) To install and operate an electronic land registry and also advise DLBs and CLBs on establishing computerized land registries at their respective levels;
- (ix) To establish a Land Policy Research Centre (LPRC) in partnership with universities and research institutions to coordinate land policy research; and
- (x) To establish and manage a National Land Trust Fund (NLTF) to mobilize and pool financial resources for implementing this Policy. The NLTF shall be administered by the Board of the NLC.

District Land Boards (DLBs)

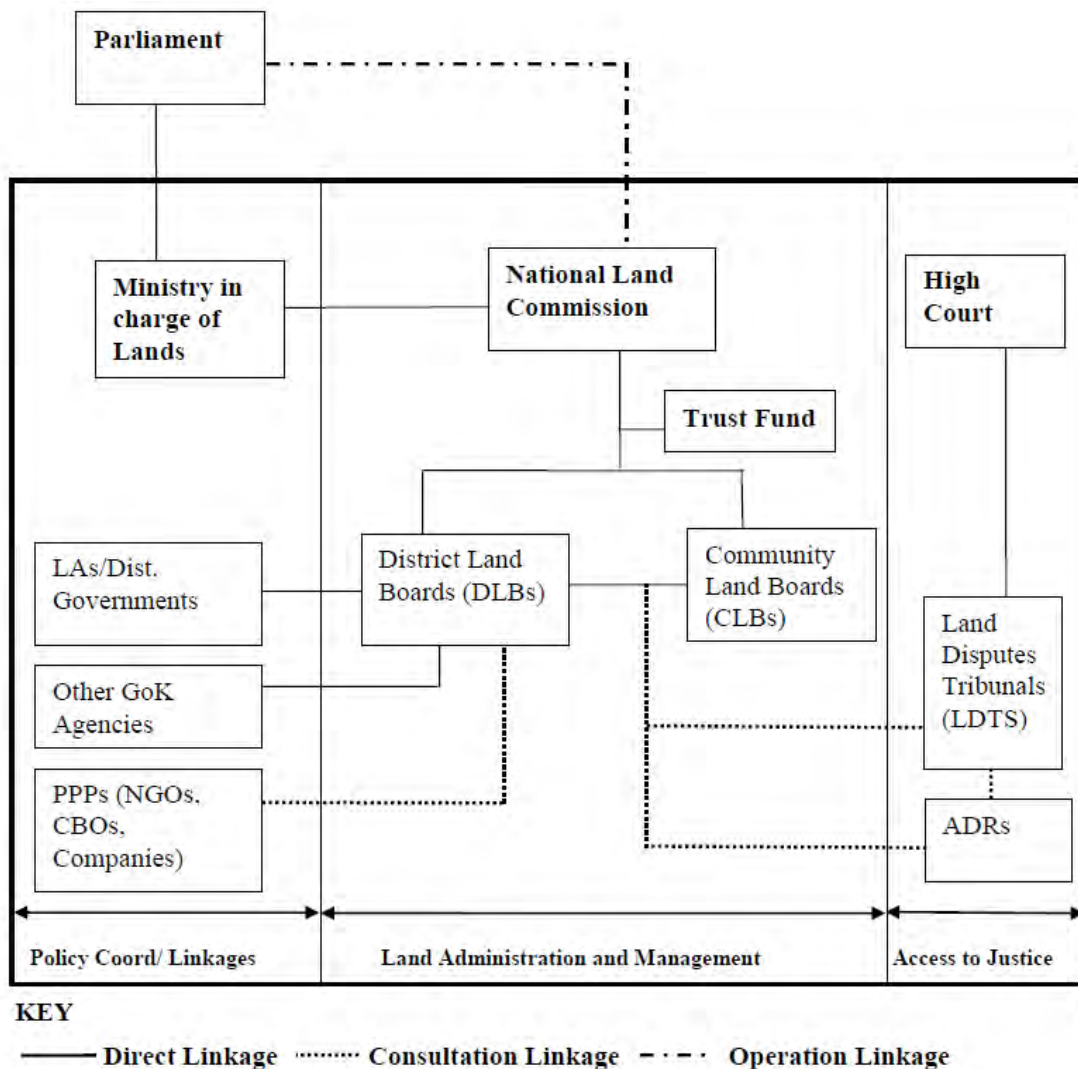
DLBs will act as agents of the NLC at the district level and are accountable to NLC in the performance of their functions. DLBs will be composed of democratically elected community representatives. DLBs will have mandate of promoting equitable access to land, conservation of cultural sites, protecting minority land rights and redressing historical injustices. DLBs will administer public and private land on behalf of the NLC. Its other functions will be (i) to facilitate efficient operation of land markets at the district level and (ii) to monitor and evaluate land reform programmes at the district level.

Community Land Boards (CLBs)

CLBs will constitute the third institution of the devolved land administration and management system for community land. Membership of the CLB needs to comprise of elected

representatives of people ordinarily resident in an area as determined by DLB in consultation with the affected communities. Membership criteria have to respect ethnic diversity, gender, socio-political dynamics, and environmental sustainability. CLB's functions will be (i) to hold and manage community land, (ii) to document all community lands, (iii) to regulate all transactions relating to community land, and (d) to facilitate the recording and issuance of title by DLBs.

The new land policy states that DLBs and CLBs shall as far as possible use Alternative Dispute Resolution (ADR) mechanisms such as negotiation, mediation and arbitration to facilitate fair and accessible justice on land matters. On the other hand, District Land Tribunals will also be established.



Source: *Sessional Paper No. 3 of 2009 on National Land Policy*, Ministry of Lands

Figure 7.1-1 New land administration and management system

7.5.2 Current land legislation

Table 7.1-1 shows current Acts in Kenya relevant to land issues.

Table 7.1-1 List of Land Acts

	Title of the Act	To be revised or repealed by new land policy
Land Acquisition		
(a)	Land Acquisition Act (Cap. 295) Revised Edition 2010 (1983)	-
Land Tenure and Registration		
(b)	Government Lands Act (Cap. 280) Revised Edition 2010 (1984)	To be repealed
(c)	Trust Land Act (Cap. 288) Revised Edition 2010 (1970)	To be repealed
(d)	Registration of Titles Act (Cap. 281) Revised Edition 2010 (1982)	To be repealed (registration clauses only)
(e)	Registered Land Act (Cap. 300) Revised Edition 2010 (1989)	To be repealed (registration clauses only)
(f)	Land (Group Representatives) Act (Cap 287) Revised Edition 2010 (1970)	To be revised
Land Adjudication		
(g)	Land Adjudication Act (Cap 284) Revised Edition 2010 (1977)	To be repealed
(h)	Land Consolidation Act (Cap 283) Revised Edition 2009 (1977)	To be repealed
(i)	Land Titles Act (Cap. 282) Revised Edition 2010 (1982)	To be repealed (registration clauses only)
(j)	Land Disputes Tribunals Act (Cap303A) Revised Edition 2010 (1990)	To be repealed
(k)	Landlord and Tenant (Shops, Hotels and Catering Establishments) Act (Cap 301) Revised Edition 2010 (1984)	-
Agricultural Land		
(l)	Land Control Act (Cap. 302) Revised Edition 2010 (1989)	-
Land Valuation		
(m)	Valuers Act (Cap.532) Revised Edition 2010 (1985)	-
Other Acts relevant to land issues		
(n)	Physical Planning Act (Cap 286) Revised Edition 2009 (1996)	-
(o)	The Local Government Act (Cap. 265) Revised Edition 2010 (1998)	-
(p)	The Traffic Act (Cap. 403) Revised Edition 2010 (2009)	-
(q)	The Energy Act, 2006	-
(r)	Wayleaves Act	-

Source: *Sessional Paper No.3 of 2009 on National Land Policy*, Ministry of Lands and land related Acts

(a) Land Acquisition Act (Cap. 295) Revised Edition 2010 (1983)

Land Acquisition Act stipulates the legal framework for the compulsory acquisition of land for the public benefit. Subsidiary legislations of this Act included in the Schedule of the Act are the Land Acquisition (Compensation Tribunal) Rules and the Land Acquisition (appeals to the

High Court) Rules.

(b) Energy Act and Wayleaves Act

Necessary procedures for acquiring wayleaves under transmission lines and entering to and usage of land for installation of public utilities such as sewer, pipelines, and cables are stipulated in the Wayleaves Act and the Energy Act.

The prior permission of the owner of the land is necessary for survey and use of such land to lay electric supply lines upon being paid such compensation as may be agreed⁵¹. For the purpose of the conveyance, transmission, or supply of electrical energy, an electrical power company may erect, fix, install or lay any poles, wires, electric supply lines, power or other apparatus in, upon, under, over or across any public streets, road, railways, tramways, rivers, canals, harbours or government property with the prior notice in writing to the owner not less than thirty days before commencement of the construction work⁵².

The Wayleaves Act stipulates that when the Government shall, at least one month before carrying any sewer, drain or pipeline into, through, over or under any private land without the consent of the owner of the land, give notice of the intended work, either by notice in the Gazette. The Government shall make good all damage done, and shall pay compensation to the owner of any tree or crops destroyed or damaged⁵³.

7.6 Land acquisition and involuntary resettlement process

7.6.1 Procedures of land acquisition and involuntary resettlement

In the Land Acquisition Act, “land” includes all land, whether covered with water or not, and things attached to the land, or permanently fastened to anything attached to the land, and (where the meaning may be inferred) any estate, term, easement, right or interest in or arising out of land. “Person interested”, in relation to land or a building, means a person who has an interest in or right over the land or building⁵⁴.

(a) Compulsory acquisition

The procedure for compulsory acquisition of land is stipulated in Section 3 to 23 of the Land Acquisition Act and is summarized below.

1) Preliminary Notice

On the Minister of Lands determining that compulsory acquisition is necessary, the Commissioner of Lands (COL) shall put a notice in the Gazette and will serve a copy of the notice on every person who appears to him to have a right to, or an interest in, the land⁵⁵.

COL may in writing authorize any person to enter upon any land specified in a notice and to

⁵¹ Section 46 and 47, The Energy Act, 2006

⁵² Section 53, The Energy Act, 2006

⁵³ Section 4 and 6, The Wayleaves Act

⁵⁴ Section 2, The Land Acquisition Act

⁵⁵ Section 3, The Land Acquisition Act

survey the land and to do all things which may be reasonably necessary to ascertain whether the land is suitable for the purpose for which it may be required⁵⁶. As soon as practicable after entry has been made, COL shall make good or pay full compensation for any damage resulting from the entry⁵⁷.

2) Notice of Acquisition

The Minister must first determine that (a) the acquisition of the land is necessary in the interests of defense, public safety, public order, public morality, public health, town and country planning or the development or utilization of any property to promote the public benefit and (b) the necessity is such as to afford reasonable justification for the causing of any hardship that may result to any person interested in the land. Then, the Minister may in writing direct the Commissioner to acquire the land compulsorily. On receiving a direction from the Minister, COL will cause a notice that the Government intends to acquire the land to be published in the Gazette, and shall serve a copy of the notice on every person who appears to him to be interested in the land⁵⁸.

Notwithstanding that plant and machinery are attached to land or permanently fastened to the land, the person interested in such plant and machinery may, after receipt by him of the notice of intention to acquire the land and not later than fifteen days before the inquiry for the hearing of claims to compensation, serve on COL a notice in writing that he desires to sever and remove the plant and machinery and COL shall within fifteen days, in writing, notify the person interested whether the plant and machinery may be severed and removed or whether they are required for the purpose for which the land is intended to be compulsorily acquired. The plant and machinery severed and removed by the person interested at his own expense shall not be included in the computation of the compensation⁵⁹.

3) Measurement and marking of the land to be acquired

COL may cause the land which is to be acquired to be marked out and measured and shall cause a plan of the land to be prepared⁶⁰.

4) Inquiry for the hearing of claims and determination of compensation

To determine compensation, COL holds an inquiry no earlier than thirty days and no later than twelve months after the publication of the notice of intention to acquire in order to hear claims to compensation by persons identified as interested or persons wishing to claim interest. The notice of the inquiry must be published in the Gazette at least fifteen days before the inquiry. Anyone already identified as interested in the land will also be served a copy of this notice.

⁵⁶ Section 4, The Land Acquisition Act

⁵⁷ Section 5, The Land Acquisition Act

⁵⁸ Section 6, The Land Acquisition Act

⁵⁹ Section 6A, The Land Acquisition Act

⁶⁰ Section 7, The Land Acquisition Act

Anyone wishing to claim at the inquiry must submit a written claim prior to the inquiry⁶¹.

At the inquiry, COL shall (a) make full inquiry into and determine who are the persons interested in the land, (b) make full inquiry into the value of the land, and determine that value in accordance with the principles set out in the Schedule, and (c) determine, in accordance with the principles set out in the Schedule of the Land Acquisition Act, what compensation is payable to each of the persons whom he has determined to be interested in the land⁶².

COL may postpone or adjourn the inquiry but not beyond twenty-four months from the original inquiry date. If an inquiry is not held within the required time, the Minister forfeits acquiring of land⁶³.

5) Award of compensation

Upon the conclusion of the inquiry, COL shall prepare a written award, in which he shall make a separate award of compensation to each person whom he has determined to be interested in the land. Every award shall be filed in the office of COL and shall be final and conclusive evidence of (a) the area of the land to be acquired, (b) the value, in the opinion of COL, of the land, and (c) the amount of the compensation payable. Where an interest in land is held by two or more persons as tenants in common, the award shall state (a) the amount of compensation awarded in respect of that interest and (b) the shares in which it is payable to those persons⁶⁴.

On making an award, COL shall serve on each person whom he has determined to be interested in the land a notice of the award and offer of compensation⁶⁵.

Notwithstanding anything contained in the Government Lands Act, where the land is acquired for the Government COL may agree with the person whom he has determined to be the proprietor of the land that that person, instead of receiving an award, shall receive a grant of land, not exceeding in value the amount of compensation which COL considers would have been awarded, and upon the conclusion of the agreement that person shall be deemed conclusively to have been awarded and to have received all the compensation to which he is entitled in respect of his interest. Such agreement shall be recorded in the award⁶⁶.

6) Payment of compensation

After notice of an award has been served on all the persons determined to be interested in the land, COL shall, as soon as practicable, pay compensation in accordance with the award to the persons entitled thereunder, except in a case where -

- (a) there is no person competent to receive payment; or
- (b) the person entitled does not consent to receive the amount awarded; or
- (c) there is a dispute as to the right of the persons entitled to receive the compensation or as to

⁶¹ Section 9 (1)(2), The Land Acquisition Act

⁶² Section 9 (3), The Land Acquisition Act

⁶³ Section 9 (4)(4A), The Land Acquisition Act

⁶⁴ Section 10 (2)(4), The Land Acquisition Act

⁶⁵ Section 11, The Land Acquisition Act

⁶⁶ Section 12, The Land Acquisition Act

the shares in which it is to be paid.

In any of above mentioned cases, COL may at any time pay the amount of the compensation into Court, notifying any persons interested accordingly⁶⁷.

Where the amount of any compensation awarded is not paid or paid into Court on or before the taking of possession of the land, COL needs to pay interest on the amount awarded at such rate as may be prescribed which is not less than six per cent per annum from the time of taking possession until the time of payment or payment into Court⁶⁸.

7) Taking of possession of the land

After the award has been made, COL will take possession of the land by serving on every person interested in the land a notice that on a specified day, which is not later than sixty days after the award has been made, possession of the land and the title to the land will vest in the Government⁶⁹.

In cases of urgency, the Minister may direct COL to take possession of uncultivated or pasture or arable land upon the expiration of thirty days from the date of publication of the notice of intention to acquire, and on the expiration of that time COL, notwithstanding that no award has been made, will take possession⁷⁰.

(b) Temporary possession of land

Sections 24 to 27 of the Land Acquisition Act deal with the temporary acquisition of land where the possession of land is required by a public body for not more than five years.

1) Notice of temporary possession

Where the Minister is satisfied that the temporary possession of any land is required, and that (a) the possession is necessary in the interests of defense, public safety, public order, public morality, public health, town and country planning or the development or utilization of any property to promote the public benefit and (b) the necessity is such as to afford reasonable justification for the causing of any hardship that may result to any person interested in or right over the property, he may direct COL to take possession of the land⁷¹.

On receiving the direction, COL will serve on every person interested or who claims to be interested in the land, or on such of them as after reasonable inquiry are known to him, a notice that he has been directed to take possession of the land⁷².

2) Temporary possession of land

At the end of seven days after the notice of temporary possession, COL may take possession

⁶⁷ Section 13, The Land Acquisition Act

⁶⁸ Section 16(1), The Land Acquisition Act

⁶⁹ Section 19(1), The Land Acquisition Act

⁷⁰ Section 19(2), The Land Acquisition Act

⁷¹ Section 24(1), The Land Acquisition Act

⁷² Section 24(2), The Land Acquisition Act

of the land by entering, personally or by his officers or agents, on the land and positing on the land a notice in the prescribed form that possession has been taken of the land, and needs to serve a copy of the notice on the occupier⁷³.

3) Payment of compensation

Where possession is taken, full compensation needs to be paid promptly to all persons interested in the land. As soon as practicable after entry on land, COL shall serve a notice in writing on the persons who is interested in the land, and shall make such offer of compensation as is fair in all the circumstances of the case. The compensation may be in the form of a single sum of money or in the form of periodical payments of money, or in such other form as may be agreed⁷⁴.

Whenever the land is needed solely as a means of access to other land, then (a) the use of the land shall extend to the passage of vehicles of all kinds, including heavy machinery, whether owned or operated by the public body occupying or using the land or by any contractor or servant employed by that body; and (b) the compensation is limited to the damage done to trees, plants, growing crops and permanent improvements on the land, together with a periodical sum for diminution in the profits of the land and of adjoining land by reason of that use⁷⁵.

4) Restoration of land

On the expiration of the period or upon the land being sooner vacated, the land needs to be restored by COL to the condition it was in before that occupation or use and, failing restoration, additional compensation shall be paid for any damage done to the land, or for the reduction in the value of the land by reason of the occupation or use⁷⁶.

7.6.2 Eligible person

Eligible person under the Land Acquisition Act is a person who has an interest in or right over the land or building, and he is determined through the inquiry for the hearing of claims by COL. COL may refer to the Court for the decision regarding the persons who are interested in the land concerned, the extent or nature of their interest, the persons to whom compensation is payable, and the shares in which compensation is to be paid to tenants in common⁷⁷.

Although illegal occupiers without title to the land and squatters are not entitled to any compensation under current Acts and regulations in Kenya, the Constitution, 2010 stipulates that the provision may be made for compensation to be paid to occupants in good faith of the land acquired who may not hold title to the land⁷⁸.

⁷³ Section 24(3), The Land Acquisition Act

⁷⁴ Section 25, The Land Acquisition Act

⁷⁵ Section 27, The Land Acquisition Act

⁷⁶ Section 26, The Land Acquisition Act

⁷⁷ Section 28(1), The Land Acquisition Act

⁷⁸ Article 40(4), The Constitution, 2010

7.6.3 Valuation of compensation

Calculation of compensation is done using the “Principles on which compensation is to be determined” in the Schedule of the Land Acquisition Act. The compensation is based on the concept of “market value” which is defined as the market value of the land at the date of publication in the Gazette of the notice of intention to acquire the land. However, if the market value of land has been increased, or is currently increased, in either of the following ways, the increase will be disregarded.

- (i) An increase by reason of an improvement made by the owner or his predecessor in title within two years before the date of publication in the Gazette of the notice of intention to acquire the land, unless it is proved that the improvement was made bona fide and not in contemplation of proceedings for the acquisition of the land.
- (ii) An increase by reason of the use of the land or premises thereon in a manner which could be restrained by a court or is contrary to the law, or is detrimental to the health of the occupiers of the premises or to the public health.

Table 7.2-1 shows matters to be and not to be taken into consideration for valuation of compensation.

Table 7.2-1 Matters to be considered for valuation of compensation

	Matters to be taken into consideration	Matters NOT to be taken into consideration
Market value of the land	Damage sustained or likely to be sustained by persons interested by reason of severing the land from his other land	Damage sustained by the person interested which, if caused by a private person, would not be a good cause of action
	Damage sustained or likely to be sustained by persons interested by reason of the acquisition injuriously affecting his other property, whether movable or immovable, in any other manner or his actual earnings	Damage which is likely to be caused to the land after the date of publication of intention to acquire the land or in consequence of the use to which the land will be put
	-	Any increase in the actual value of the land as at the date of publication of intention to acquire likely to accrue from the use to which the land will be put when acquired
	-	Any outlay on additions or improvements to the land, incurred after the date of publication of intention to acquire the land, unless the additions or improvements were necessary for the maintenance of any building in a proper state of repair
Reasonable expenses incidental to the change of his residence or place of business		
Damage genuinely resulting from diminution of the profits of the land between the date of publication in the Gazette of the notice of intention to acquire the land and the date COL takes possession of	-	

the land.	
A sum equal to fifteen per cent of the market value by way of compensation for disturbance.	-

Source: Schedule, The Land Acquisition Act

In addition, no award or agreement made under the Land Acquisition Act shall be chargeable with stamp duty, and no person claiming under any such award or agreement shall be liable to pay a fee for a copy thereof⁷⁹.

7.6.4 Rehabilitation assistance

Rehabilitation assistance such as additional compensation for loss of livelihood or job training, especially for illegal dwellers, is not required under current legislation in Kenya.

7.6.5 Entities who pay compensation

COL is responsible for payment of the compensation awards in accordance with the Land Acquisition Act.

7.6.6 Grievance redress mechanism

The Land Acquisition Compensation Tribunal is established in accordance with the Land Acquisition Act⁸⁰, and it consists of five members appointed by the Minister by notice in the Gazette of whom -

- (i) one shall be an advocate of not less than ten years' standing, who shall be the chairman,
- (ii) two shall be registered valuers of not less than ten years' standing, .
- (iii) one shall be a prominent businessman of not less than thirteen years standing, and
- (iv) one shall be a prominent farmer of not less than ten years standing.

A person interested who is dissatisfied with the award of COL may apply to the Tribunal for the determination of his interest or right in or over the land or the amount of compensation awarded to him⁸¹. If the sum which in the opinion of the Tribunal ought to have been awarded as compensation is greater than the sum which COL did award as compensation, the Tribunal may direct that COL shall pay interest on the excess at such rate as may be prescribed which shall not be less than six per cent per annum from the date on which COL took possession of the land to the date of payment of the excess into court or to the person entitled⁸².

Procedures of application to the Tribunal and detailed process until determination by the Tribunal are stipulated in subsidiary legislation of the Land Acquisition Act, "The Land Acquisition (Compensation Tribunal) Rules, 2010"

1) The applicant needs to deliver six copies of the notice of application to the Tribunal so as to

⁷⁹ Section 34, The Land Acquisition Act

⁸⁰ Section 29(2), The Land Acquisition Act

⁸¹ Section 29(7), The Land Acquisition Act

⁸² Section 29(9), The Land Acquisition Act

reach it not later than sixty days after the date on which the disputed decision was served upon him⁸³. Upon filing the notice of application with the Tribunal, the applicant needs to serve a copy of the notice of application on the respondent within thirty days from the date of filing the notice⁸⁴.

- 2) Upon receipt of a copy of a notice of application setting forth the grounds of application or a separate statement of grounds of application, COL needs to deliver to the Tribunal a written reply which shall state -
 - (i) whether or not COL intends to oppose the application;
 - (ii) where COL intends to oppose the application, the grounds on which he relies on in opposing the application;
 - (iii) the name and address of any other person who, in the opinion of COL, has a direct interest in the subject matter of the application⁸⁵.
- 3) A hearing notice may be issued by the Tribunal on its own motion or by any party to the hearing and served on all other parties to the proceedings not less than twenty one days before the date of hearing⁸⁶. The Tribunal may, if it considers fit, visit any site, and may conduct a hearing at the site on the day of the visit⁸⁷.
- 4) A decision of Tribunal may be taken by a majority of the members present. The decision of the Tribunal is valid if the dispute is heard and decided by three members of the Tribunal, one of whom needs to be a valuer⁸⁸. Where a final decision has been made by the Tribunal, the Tribunal will, within thirty days thereafter, cause to be published in the Gazette, and where the matter is of public importance, in at least one newspaper of national circulation, a summary stating the names of the parties, the nature of the application and the date and place of the decision⁸⁹.

7.6.7 Information disclosure, public consultations, and participation of project affected people

According to the Land Acquisition Act, person interested to the land to be acquired is informed through Gazette and its copy sent to him at the timing of preliminary notice, notice of intention of acquisition, award of compensation and its offer, and taking possession of the land. Inquiry for the hearing of claims held by COL after preliminary notice is the legal process of public consultation.

Since NEMA requests the project proponent to prepare Resettlement Action Plan (RAP) with EIA in response to donor's requirement based on their safeguard policies, issues regarding land acquisition and resettlement may be explained and disclosed in the public meetings required to be held during EIA study process by EIA/EA 2003. However, neither preparation of RAP nor

⁸³ Section 4(2), The Land Acquisition (Compensation Tribunal) Rules, 2010

⁸⁴ Section 7(1), The Land Acquisition (Compensation Tribunal) Rules, 2010

⁸⁵ Section 13(1), The Land Acquisition (Compensation Tribunal) Rules, 2010

⁸⁶ Section 21(2), The Land Acquisition (Compensation Tribunal) Rules, 2010

⁸⁷ Section 21(6), The Land Acquisition (Compensation Tribunal) Rules, 2010

⁸⁸ Section 35(1)(2), The Land Acquisition (Compensation Tribunal) Rules, 2010

⁸⁹ Section 35(9), The Land Acquisition (Compensation Tribunal) Rules, 2010

public meetings/consultation with project affected people is legal requirement.

7.7 Monitoring of land acquisition and resettlement

Monitoring of the progress of land acquisition and resettlement and post-resettlement monitoring are not required under current legislation in Kenya.

However, NEMA requests the project proponent to prepare RAP with EIA in response to donor's requirement based on their safeguard policies, and compliance with RAP is required as a condition of EIA license. In such case, the project proponent needs to conduct land acquisition and resettlement monitoring in accordance with the monitoring plan in the RAP.

**Chapter 8 Legal System and Procedures of
Indigenous People Considerations**

Chapter 8 Legal System and Procedures of Indigenous People Considerations

Kenya does not have an official definition of either “ethnic minority” or “indigenous people”. The common response by policymakers to the lack of a definition for “indigenous people” is that “all Kenyans are indigenous”, basing their response on the fact that all Kenyans were present at the time of colonial settlement. To illustrate this, the last two population census in 1989 and 1999 did not reveal the size of ethnic communities out of fear that such information is abused by politician.

8.1 Distribution of ethnic minorities and indigenous people

8.1.1 International definition of indigenous people

African Charter on Human and Peoples’ Rights, a framework provided by the African Charter, is a landmark human rights treaty which came into force in 1986 after its adoption in Nairobi in 1981 by the Assembly of Heads of State and Government of the Organization of African Unity (OAU). Kenya ratified the Charter in 1992.

By the Charter, the African Commission on Human and Peoples’ Rights (ACHPR) was established to ensure promotion and protection of human and peoples’ rights throughout the African Continent. In 2001, ACHPR set up a Working Group on Indigenous Populations/Communities with the participation of members of the ACHPR as well as expert representatives of indigenous communities and an independent expert in response to the request by the representatives of indigenous populations and communities in Africa. The report prepared by the Working Group, “Report of the African Commission's Working Group of Experts on Indigenous Populations/Communities⁹⁰”, summarized the human rights situation of indigenous populations and communities in Africa and provided the definition of indigenous people. However, the definition does not aim to give a clear-cut definition of indigenous peoples as there is no global consensus on a single universal definition. Instead it outlines the major characteristics that can help identify who the indigenous peoples and communities in Africa are.

The overall characteristics of groups identifying themselves as indigenous peoples are that:

- (i) their cultures and ways of life differ considerably from the dominant society;
- (ii) their cultures are under threat, in some cases to the point of extinction;
- (iii) the survival of their particular way of life depends on access and rights to their traditional lands and the natural resources thereon;
- (iv) they suffer from discrimination as they are regarded as less developed and less advanced than other more dominant sectors of society;

⁹⁰ The report was adopted by the ACHPR in November 2003, and published in book format in 2005. The report is the ACHPR’s official conceptualisation of, and framework for, the issue of the human rights of indigenous populations and as such it is a highly important instrument for the advancement of indigenous populations’ human rights situation. (“*Indigenous Peoples in Africa: The Forgotten Peoples?*”, 2006, ACHPR and International Work Group for Indigenous Affairs (IWGIA))

- (v) they often live in inaccessible regions, often geographically isolated, and suffer from various forms of marginalization, both politically and socially;
- (vi) they are subjected to domination and exploitation within national political and economic structures that are commonly designed to reflect the interests and activities of the national majority, and
- (vii) this discrimination, domination and marginalization violates their human rights as peoples/communities, threatens the continuation of their cultures and ways of life and prevents them from being able to genuinely participate in decisions regarding their own future and forms of development.

Based on the report and the discussion of the Working Group, ACHPR has adopted the criteria of *marginalization, discrimination, cultural difference, and self-identification* for the identification of indigenous people. Especially, the ACHPR definition considers the question of aboriginality or of ‘who came first’ as not a significant characteristic by which to identify indigenous peoples. Instead, the principle of self-identification is a key criterion for identifying indigenous peoples. Other organizations, such as ILO⁹¹ and the United Nations Working Group on Indigenous Populations and the Indigenous Peoples of Africa Coordinating Committee, have proposed characteristics for identifying indigenous peoples that are very similar to those adopted by the ACHPR.

8.1.2 Indigenous people in Kenya based on international definition

The number of tribes in Kenya is supposed to be over 40. However, no definitive list of indigenous people in Kenya exists.

According to ACHPR, there are about 14 groups in Kenya who self-identify as indigenous peoples. Table 8.1-1 shows identification of Indigenous Peoples in Kenya by ACHPR and UN Special Rapporteur on Indigenous Peoples, who similarly identifies indigenous peoples in Kenya as pastoralist communities and hunter-gatherer communities.

Table 8.1-1 Indigenous Peoples in Kenya by ACHPR and UN Special Rapporteur on Indigenous Peoples

Tribe	Identification by African Commission	Identification by UN Special Rapporteur on Indigenous Peoples	Type of livelihood H: Hunter-Gatherer P: Pastoralist
Awer		✓	H
Borana	✓	✓	P
Elmolo	✓		
Endorois	✓	✓	P
Gabra	✓	✓	P
Maasai	✓	✓	P
Ogiek	✓	✓	H

⁹¹ Article 1 of the ILO's Indigenous and Tribal Peoples Convention 169 of 1989

Pokot	✓	✓	P
Rendille	✓		
Samburu	✓	✓	P
Sengwer	✓	✓	H
Somali	✓	✓	P
Turkana	✓	✓	P
Watta	✓		
Yaaku	✓	✓	H
Total	14	12	-

Source: "Indigenous Peoples in Africa: The Forgotten Peoples?", ACHPR, 2006
Report of the UN Special Rapporteur on Indigenous Peoples in Kenya

Table 8.1-2 shows major Indigenous People in Kenya and their characteristics.

Table 8.1-2 Major Indigenous People in Kenya and their Characteristics

Indigenous People/Community	Location	Characteristics
Hunter-Gatherer		
Ogiek (or Okiek)	The eastern side of the Mau Escarpment in the Rift Valley Province	The Ogiek (or Okiek) are living under very difficult circumstances. They number approximately 15,000 to 20,000 Some of the Ogiek's traditional forests include Tinet Forest in Nakuru district, Narok Forest and Mt Elgon Forest within Narok and Mt Elgon districts respectively.
Pastoralists and Agro-pastoralists		
Endorois	In the Lake Bogoria area of Baringo and Koibatek districts, as well as in Laikipia and Nakuru districts in the Rift Valley province	The Endorois are an agro-pastoralist community. While the Endorois are demographically dispersed, the landmass around Lake Bogoria, including Langa'ata Ngaria', Muchongoi and Saracho Hills, contains their sacred places. Bogoria is said to be sacred and used for prayers and rituals. One such ritual is the ndasim-blessing ritual performed by men and karertapaik or karebei performed by women. In 1973, Lake Bogoria, which is in Baringo, was declared a game park. This necessitated the removal of the Endorois from this area. This loss of their land was confirmed by the re-gazettement of the Lake Bogoria Reserve in 1978. The Endorois community was not consulted over this.
Maasai	Found in Kajiado, Narok, Transmara, Laikipia and parts of Baringo district. Southern Kenya and stretch to northern Tanzania	They are also cousins of the Samburu (since they speak the same language).
Pokot	North-western Kenya	Although they share the same language as the mainstream Kalenjin, their respective histories have been different owing to their politico-economic situations
Samburu	In Samburu, Marsabit	-

	and Isiolo districts.	
Turkana	Lives in Kenya's Turkana district	They are a nomadic pastoralist community with about 65 per cent of the population, male and female, engaged in economic activities that concern livestock. The Turkana have common cultural practices with regard to dance, initiation ceremonies, marriage, and pastoralism as an economic activity.

Table 8.1-3 is the list of Counties where indigenous people are identified. The list is based on the information provided by Centre for Minority Rights Development (CEMIRIDE), Kenyan NGO whose activity is to protect indigenous people's rights. Geographically, 16 of the 47 counties in Kenya will have indigenous people.

Table 8.1-3 List of County where indigenous people identified

	Province	County	Existence of Indigenous People
1	Coast	Mombasa	
2		Kwale	
3		Kilifi	
4		Tana River	
5		Lamu	
6		Taita Taveta	
7	North Eastern	Garissa	✓ (Borana)
8		Wajir	✓ no info
9		Mandera	✓ no info
10	Eastern	Marsabit	✓ (Borana, Rendille)
11		Isiolo	✓ (Borana, Rendille)
12		Meru	
13		Tharaka Nithi	
14		Embu	
15		Kitui	
16		Machakos	
17		Makueni	
18	Central	Nyandarua	
19		Nyeri	
20		Kirinyaga	
21		Murang'a	
22		Kiambu	
23	Rift Valley	Turkana	✓ (Elmoro, Turkana)
24		West Pokot	✓ (Polot, Sengwer)
25		Samburu	✓ (Samburu)
26		Trans Nzoia	
27		Uasin Gishu	
28		Elgeyo/Marakwet	✓ (Sengwer)
29		Nandi	✓ no info
30		Baringo	✓ (Endorois, Pokot,)
31		Laikipia	✓ (Yaaku)
32		Nakuru	✓ (Ogiek)
33		Narok	✓ (Massai, Ogiek)
34		Kajiado	✓ no info
35		Kericho	
36	Bomet		
37	Western	Kakamega	
38		Vihiga	

39		Bung'oma	
40		Busia	✓ no info
41	Nyanza	Siaya	
42		Kisumu	
43		Homa Bay	
44		Migori	
45		Kisii	
46		Nyamira	
47		Nairobi	Nairobi City

Source: Centre for Minority Rights Development (CEMIRIDE)

8.2 Socio-economic conditions of ethnic minorities and indigenous people

Kenya National Commission on Human Rights (KNCHR) in collaboration with the CEMIRIDE organized a roundtable meeting of experts on minorities and indigenous people's rights and nominated the following criteria that could be used by Kenya to identify indigenous peoples for the purposes of addressing their human rights issues:

- ✓ Having a sense of collectivity / solidarity/belonging;
- ✓ Claiming rights to ancestral land in collectivity / common originality;
- ✓ Practicing and retaining cultural lifestyle;
- ✓ Retaining traditional institutions and social organisation;
- ✓ Depending on natural resources in their respective territories;
- ✓ Suffering exclusion and discrimination from and by the mainstream systems;
- ✓ Possessing unique or common religion and spirituality; and
- ✓ Utilising unique means of livelihood and traditional occupation.

Indigenous peoples in Kenya are mainly pastoralists and hunter-gatherers and as such on their traditional lands and territories for their economic sustenance. Most of them live in the arid and semi-arid lands (ASALs). ASAL areas are predominantly pastoralist and agro-pastoralist, mainly suitable for livestock grazing due to low and erratic rainfall. These areas present the highest incidences of poverty and the lowest level of access to basic services in the country. Over 60 per cent of the population lives below the poverty line, which is above the average of 50 per cent nationwide. For example, North Eastern Province, the province which has the highest concentration of indigenous peoples, is also the poorest of the 8 provinces. The distance of ASALs from Nairobi, the capital city, makes their development difficult and their low literacy rates keep them out of national level leadership which means they have no advocates for them at the policy and planning table⁹².

The hunter-gatherers traditionally inhabit forests and rely on hunting, gathering wild fruits and bee-keeping for survival. However, due to severe land alienation and a reduction of the traditional territories of most indigenous peoples, some have resorted to small scale farming.

⁹² Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous peoples, R Stavenhagen, Mission to Kenya, A/HRC/4/32/Add3, 26 February 2007 (*Report of the UN Special Rapporteur on Indigenous Peoples in Kenya*)

The economic livelihood of indigenous peoples in Kenya is severely affected by the lack of an adequate legal framework protecting their traditional lands and resources, as well as policies that mainly favour the dominant economic paradigms. In Kenya, like in most other African countries, settled agriculture, mining, and modern development schemes are seen as the preferred way to development. As a result, certain types of indigenous peoples' means of livelihood, such as nomadic pastoralism, hunting and gathering, are looked down upon, putting their future survival and development in serious jeopardy. The sustainability and development potential of their cultural systems are also ignored and are wrongly perceived as being primitive, uneconomic, environmentally-destructive and incompatible with modernisation. The state continues to systematically marginalize indigenous peoples 'on the basis of their economic, social and cultural characteristics, which are inextricably connected to the use of land and natural resources'. It also promotes westernised ideals of development, calling upon these communities to discard their rich cultures and ways of life and instead adopt "modernity". This is usually done in total disregard of the communities' strengths, needs and preferences and is often without adequate consultation and participation of the community.

8.3 Trend of indigenous people considerations in Kenya

8.3.1 Indigenous people defined as “marginalized people”

Kenya does not officially recognize the term “indigenous peoples” and there is no specific legislation designed to protect indigenous peoples. However, in the Bill of Rights (Chapter Four) of the Constitution, 2010, it is stipulated that all State organs and all public officers have the duty to address the needs of vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalized communities, and members of particular ethnic, religious or cultural communities⁹³. Further, it also states that the State shall enact and implement legislation to fulfill its international obligations in respect of human rights and fundamental freedoms⁹⁴.

While the Constitution, 2010 does not define the term “minority” or “indigenous”, it does define the terms “marginalized community” and “marginalized group”. Though the term “marginalized” is amorphous, it is clear that the interpretation of “marginalized community” offered under the Constitution is reconcilable with international norms and standards established in respect of indigenous communities.

In the Constitution, 2010, the precise definitions of “marginalized community” are⁹⁵:

- (i) a community that, because of its relatively small population or for any other reason, has been unable to fully participate in the integrated social and economic life of Kenya as a whole;
- (ii) a traditional community that, out of a need or desire to preserve its unique culture and

⁹³ Article 21 (3), the Constitution, 2010

⁹⁴ Article 21 (4), the Constitution, 2010

⁹⁵ Article 260, the Constitution, 2010

- identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole;
- (iii) an indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy; or
 - (iv) pastoral persons and communities, whether they are -
 - (a) nomadic; or
 - (b) a settled community that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole.

“Marginalized group” covers all types of discrimination and means a group of people who were or are disadvantaged by discrimination on one or more of the grounds such as race, sex, pregnancy, marital status, health status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, dress, language or birth⁹⁶.

The Constitution, 2010, also makes reference throughout its length to “marginalized groups”. For example, Article 100 of Chapter Eight makes reference to the promotion of the representation in Parliament of “marginalized communities” and “ethnic and other minorities”.

In addition, National Land Policy, 2007 refers to minority communities (such as hunter-gatherers, forest-dwellers, and pastoralists) and vulnerable groups as issues of land rights which require special intervention. It states that the rights of these groups will be recognized and protected, and measures will be initiated to identify such groups and ensure their access to land and participation in decision making over land and land based resources to restore historical injustices.

8.3.2 Indigenous people’s rights and advocacy organization

(a) Kenya National Commission on Human Rights: KNCHR⁹⁷

It is an independent national human rights institution established by The Kenya National Commission on Human Rights Act 2002 and is mandated with the responsibility of “harnessing national efforts towards the creation of a human rights state”. KNCHR monitors government actions and policies to ensure human rights principles are adhered to. When human rights violations occur, KNCHR is empowered to take action against those responsible and to provide a remedy to the affected. Also, KNCHR advises the government on measures to enhance human rights protection.

(b) Centre for Minority Rights Development: CEMIRIDE

CEMIRIDE is a research and advocacy national organization working with and across Kenyan indigenous and minority communities to enable respect and protection of their rights, so as to achieve sustainable development as well as peaceful coexistence.

⁹⁶ Article 260 and 27 (4), the Constitution, 2010

⁹⁷ Website of KNCHR (<http://www.knchr.org/>)

(c) Indigenous Peoples African Coordinating Committee: IPACC

IPACC is a network of 150 indigenous peoples' organizations in 20 African countries. IPACC was born out of the African caucus of indigenous peoples at the UN Working Group on Indigenous Populations of the Commission of Human Rights, held annually in Geneva. Its main aims include the promotion and strengthening of: recognition of and respect for indigenous peoples in Africa; participation of indigenous African peoples in United Nations' events and other international forums; leadership and organizational capacity of indigenous civil society in Africa in particular strengthening sub-regional networks of indigenous peoples.

(d) Minority Rights Group International: MRG

MRG is a NGO working to secure the rights of ethnic, religious and linguistic minorities and indigenous peoples worldwide, and to promote cooperation and understanding between communities. MRG's activities are focused on international advocacy, training, publishing and outreach. MRG works with over 150 organizations in nearly 50 countries and has consultative status with the United Nations Economic and Social Council (ECOSOC) and observer status with the African Commission on Human and People's Rights (ACHPR).

(e) African Commission on Human and Peoples' Rights: ACHPR

It is established by the African Charter on Human and Peoples' Rights which came into force on 21 October 1986. ACHPR is charged with ensuring the promotion and protection of human and peoples' rights throughout the African Continent. Its headquarters is located in Banjul, The Gambia. ACHPR is composed of eleven members serving in their personal and independent capacity and not as representatives of their countries.

The functions of ACHPR are: to collect documents, undertake studies and researches on African problems in the field of human and peoples' rights, organize seminars, symposium and conferences, disseminate information, encourage national and local institutions concerned with human and peoples' rights and should the case arise, give its views or make recommendations to Governments; to formulate and lay down principles and rules aimed at solving legal problems relating to human and peoples' rights and fundamental freedoms upon which African Governments may base their legislation; to cooperate with other African or, International institutions concerned with the promotion and protection of human and peoples' rights; to consider the periodic reports of States on the legislative or other measures adopted to give effect to the rights and freedoms recognized and guaranteed in the African Charter.

(f) African Court on Human and Peoples' Rights

The African Court on Human and Peoples' Rights was established by a Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights⁹⁸ in June 1998. The African Court started its operations in Addis

⁹⁸ The Protocol entered into force in January 2004. Following 26 African Union Member States ratified the Protocol: Algeria, Burkina Faso, Burundi, Cote d'Ivoire, Comoros, Congo, Gabon, Gambia, Ghana, Kenya, Libya, Lesotho,

Ababa, Ethiopia in November 2006, and then moved to its seat in Arusha, Tanzania in 2007.

The African Court complements the protective mandate of ACHPR and has the competence to take final and binding decisions on human rights violations. With the completion of Rules of Court, it was ready to receive cases since June 2008. The African Court has rendered decisions and judgments in 7 cases, and is holding 8 pending cases.

8.4 Considerations on indigenous people in development project

8.4.1 Protection of indigenous people's rights

Due to the absence of legislation to protect indigenous peoples' rights to their land, indigenous peoples often face issues in development projects such as forceful eviction without compensation or due consideration, non-consultation by the Government and losing access to their land once it has been confiscated. This dispossession is caused by a number of factors, such as dominant development paradigms favouring settled agriculture over other modes of production such as pastoralism and subsistence hunting/gathering; the establishment of national parks and conservation areas, and large-scale commercial enterprises such as mining, logging, commercial plantations, oil exploration, dam construction etc.

(a) Endorois⁹⁹ Case

Human rights groups in Kenya have resorted to using international mechanisms to fight for the indigenous peoples' rights to their land. A recent example that was a success was the case brought against the Government of Kenya by the Endorois for forceful eviction off their land in the 1970s and 80s for a tourism project at Lake Baringo. The case was initially heard in the Kenya judiciary system but the ruling was in favor of the Government by refusing to recognize collective ownership of land. The case was taken to ACHPR, which monitors the implementation of the African Charter on Human and Peoples' Rights, by CEMIRIDE and MRG on behalf of Endorois community. ACHPR ruled in favour of the Endorois in February, 2010 providing five recommendations for GOK to implement as compensation for the loss of their land.

Followings are the five recommendations to GOK.

- (i) Restitution of Endorois ancestral land.
- (ii) Unrestricted access to Lake Bogoria and surrounding sites for religious and cultural rites in addition to grazing for their cattle.
- (iii) Payment of adequate compensation to the community for all losses incurred.
- (iv) Payment of royalties to the Endorois from existing activities and ensuring that they benefit from employment possibilities within the Reserve.
- (v) Registration of the Endorois Welfare Committee.

Mali, Malawi, Mozambique, Mauritania, Mauritius, Nigeria, Niger, Rwanda, South Africa, Senegal, Tanzania, Togo, Tunisia and Uganda.

⁹⁹ Endorois is a Kelenjin sub-tribe living in Baringo County around Lake Bogoria area and to the West of Laikipia County.

In addition, ACHPR recommended that the state engages in dialogue with the complainants for the effective implementation of these recommendations, and reports on the implementation of these recommendations within three months from the date of notification.

(b) Collective land rights stipulated in the Constitution, 2010

As can be seen from the initial ruling against the Endorois, changes to land ownership in the Constitution, 2010 such that communal land ownership is now recognized is crucial. The ability to claim communal ownership will put indigenous peoples in a better position to protect their land.

The category of community land is stated under Article 63(1) of the Constitution to “...*vest in and be held by communities identified on the basis of ethnicity, culture or similar community of interest.*” This provision is consistent with the inalienable and collective land ownership systems practiced by the indigenous communities in Kenya who are mainly pastoralists and hunter gatherers. This is reinforced by Article 63(2) (d) which denotes community land to consist of: land that is lawfully held and utilized by a community as a community forest, grazing area or shrine; the ancestral lands and lands traditionally occupied by hunter gatherer communities; and land that is lawfully held by county governments as trust land. The disposal of community land is also adequately regulated in Article 63 (4) with the requirement of the adherence to legislation that specifies, “...*the nature and extent of the rights of members of each community individually and collectively*”.

This is a major advancement from the trust land system whose setting apart provisions had been consistently abused to the detriment of marginalized communities as was witnessed in the case of the Endorois community¹⁰⁰. The ability to transfer land directly to communities is an affirmative step towards self-determination and self-management as espoused in international norms.

8.4.2 Information disclosure, public consultations, and participation of project affected indigenous peoples

Since legislation which deals with various issues relevant to indigenous peoples has not been drafted and enacted, information disclosure to, public consultations with, and participation in the project planning of project affected indigenous peoples are not required in Kenya.

8.4.3 Preparation of document for project affected indigenous people

Since legislation which deals with various issues relevant to indigenous peoples has not been drafted and enacted, documents such as Indigenous Peoples Framework (IPF) and Indigenous Peoples Plan (IPP) are not required in Kenya.

¹⁰⁰ At the centre of the Endorois complaint in Communication 276/2003 was the gazetting of their ancestral land around Lake Bogoria into a game reserve.

8.4.4 Monitoring of the impact on indigenous people

Since legislation which deals with various issues relevant to indigenous peoples has not been drafted and enacted, monitoring of the impact on indigenous people by the project are not required in Kenya.

8.5 Affirmative action for indigenous people

Article 56 of the Constitution, 2010 stipulates that the Government will put into place affirmative action programmes which ensure that minorities and marginalized groups:

- (i) participate and are represented in governance and other spheres of life;
- (ii) are provided special opportunities in educational and economic fields;
- (iii) are provided special opportunities for access to employment;
- (iv) develop their cultural values, languages and practices; and
- (v) have reasonable access to water, health services and infrastructure.

8.6 Policy and laws and regulations for ethnic minorities

The definition for “marginalized groups” in the Constitution, 2010 includes the concept of ethnic minorities (see 8.3.1).

According to the report¹⁰¹ of MRG and CEMIRIDE, there are four types of minorities in Kenya, religious minorities, ethnic minorities, linguistic minorities, and indigenous peoples.

- ✓ Religious minorities: Having been colonized by a Christian nation, most Kenyans today profess to be Christians, although there is no state religion. This has made followers of non-Christian religions religious minorities. Thus, Muslims are a religious minority in Kenya, along with Buddhists, Hindus, and those Kenyans who practice traditional African religions.
- ✓ Ethnic minorities: An ethnic group is a tribalistic grouping. It has a sense of common historic origins and frequently develops a sense of common destiny. Kenya’s population is a composite of ethnic communities. According to the population census, Kenya has three big homogenous communities – the Kamba, Kikuyu and Luo. Ethnic minorities here are distinguished by the small size of their populations. These include the Dorobo, Elmolo, Malakote, Ogiek, Sanye and Waata.
- ✓ Linguistic minorities: Since ethnic groups invariably speak their own language, most ethnic minorities are similarly linguistic minorities.
- ✓ Indigenous people

The nature of the types of rights ascribed to indigenous peoples and minorities in international law differs considerably and this has major implications. The crucial difference between minority rights and indigenous rights is that minority rights are formulated as individual rights whereas indigenous rights are collective rights. The specific rights of persons

¹⁰¹ “Kenya: Minorities, Indigenous Peoples and Ethnic Diversity”, MRG and CEMIRIDE, 2005

belonging to national or ethnic, religious or linguistic minorities include the right to enjoy their own culture, to practice their own religion, to use their own language, to establish their own associations, to participate in national affairs etc. These rights may be exercised by persons belonging to minorities individually as well as in community with other members of their group. Indigenous rights are collective rights, even though they also recognize the foundation of individual human rights. Some of the most central elements in the indigenous rights regime are the collective rights to land, territory and natural resources.

**Chapter 9 Environmental and Social Considerations
in Other Donors Project**

Chapter9 Environmental and Social Considerations in Other Donors Project

9.1 World Bank (WB)

According to Country Partnership Strategy for Kenya 2010-13¹⁰², WB Group will contribute to achieving more inclusive growth by supporting activities aiming to (i) unleash Kenya's growth potential, (ii) reduce inequality and social exclusion, and (iii) address resource constraints and environmental challenges.

Unleashing Kenya's growth potential will involve efforts to improve the business environment; expand core infrastructure, especially in roads, water and electricity (with a view to deepening regional integration); enhance agricultural productivity, with a focus on food security; and strengthen public sector management and sub-national governance.

Reducing inequality and social exclusion will involve increasing the access of the poor to basic education, health services and water and sanitation, and improving social safety nets, given Kenya's history of unequally shared development.

In addition, WB Group will help the Government to improve the management of land and water resources, especially in key water catchment areas, and to address climate-change risks and opportunities, given Kenya's high dependence on rain fed agriculture and its vulnerability to climate change.

In line with the Bank's governance and anti-corruption framework, WB will promote good governance as a cross cutting theme by helping to build more capable and accountable Government at the national, local and agency level and to strengthen core governance systems in procurement and public financial management.

Number of on-going projects in Kenya is 24 and 6 projects are currently under review process (May, 2011)¹⁰³. Transport and energy sector are the priority area of WB support in Kenya, accordance with the development plan of Kenya (Kenya Vision 2030). WB also supports management of natural resources especially on water resources.

9.1.1 Current situations and emerging issues on EIA

They do not face any major problems regarding compliance to OP 4.01 Environmental Assessment and recognize any severe gaps between OP 4.01 and relevant legislations in Kenya¹⁰⁴.

9.1.2 Current situations and emerging issues on land acquisition and involuntary resettlement

In spite resettlement planning document such as Resettlement Action Plan (RAP) and

¹⁰² World Bank Group's "Country Partnership Strategy for the Republic of Kenya for the Period FY2010-13", World Bank, IFC, and MIGA, March 23, 2010

¹⁰³ Kenya – Country Portfolio, WB website (<http://go.worldbank.org/IS6BIYW3H0>) (accessed in May, 2011)

¹⁰⁴ Based on the interview conducted at WB Kenya office on 13 April, 2011.

Abbreviated Resettlement Plan are not required under Kenyan legislation, RAP is prepared in parallel with EIA study in conformity with the requests by WB, AfDB, and JICA.

However, in land acquisition and involuntary resettlement and indigenous people issues, WB has developed “equivalency matrix” which compares WB safeguard policy and local legislations and institutional and legal arrangement dealing with all aspects of resettlement and indigenous people policy. This matrix is a legal agreement between WB and GOK, and this means that the agreement for the project cannot be effected until accomplishment of safeguard requirements. Since it is often found that land acquisition procedures and compensation standard are differ according to the Ministries in Kenya, such legal agreement is very important.

9.1.3 Current situations and emerging issues on indigenous people

WB has developed “equivalency matrix” for indigenous people issues as well. Based on the official recognition that “all Kenyan citizens are indigenous”, there is a definitive gap between WB safeguard policy and local legislation in Kenya. However, the Constitution, 2010 introduced the idea of “marginalized community”, and the policy toward indigenous people is under the process of reform. WB will continue discussion on this matter with GOK including update of equivalency matrix¹⁰⁵.

In actual implementation of the project, WB first conducts social impact assessment and confirms whether the certain community which has four characteristics of indigenous people mentioned in OP 4.10 exists in the project area. Indigenous People Plan Framework (IPPF) was prepared for 14 projects out of 15 implemented in 2010. Only one project, Kenya Agricultural Productivity and Sustainable Land Management Project (KAP-SLM)¹⁰⁶, needed IPP.

KAP-SLM seeks to promote the sustainable use of land and natural resources to achieve higher productivity and incomes for the rural populations of Kenya and the maintenance of critical ecosystem functions in fragile areas. During project preparation it became clear that the project might impact on indigenous peoples’ rights, lands, livelihoods and culture. To qualify for funding from WB and following best practice documented in WB’s policy on indigenous people (OP 4.10), GOK has commissioned through the Kenya Agricultural Research Institute (KARI) the elaboration of the IPP to ensure that the development process fully respects the dignity, human rights, economies, and culture of indigenous peoples and that the project and its IPP has a broad community support from the affected indigenous peoples. To achieve this, the IPP develops measures to avoid potentially adverse effects on the indigenous peoples' communities; or when avoidance is not feasible, minimize, mitigate, or compensate for such effects. The IPP aims also to ensure that the indigenous peoples receive social and economic benefits that are culturally appropriate and gender as well as intergenerationally inclusive.

The IPP is based on free, prior and informed consultations (FPIC) with indigenous peoples

¹⁰⁵ Based on the interview conducted at WB Kenya office on 13 April, 2011.

¹⁰⁶ The environmental category of KAP-SLM was B, and it is approved on 30 September, 2010.

undertaken in five phases:

- (i) baseline survey and in-depth consultations with seven representative indigenous peoples' communities, with some indigenous peoples' organizations and other NGOs;
- (ii) elaboration of a draft IPP on the basis of this information;
- (iii) distribution of the draft IPP to indigenous peoples' communities and indigenous peoples' organizations;
- (iv) internal discussion of the draft IPP among the indigenous peoples; and
- (v) feedback workshop to discuss and finalize the IPP of the KAP-SLM.

The GOK will carry out through KAP-SLM the following mitigation measures for Sengwer, Ogiek and Ilchamus in the operational area of the KAP-SLM project:

- ✓ Provide Ogiek, Sengwer and Ilchamus with technical capacities to participate actively in sustainable land and natural resource management;
- ✓ Provide the relevant GOK staff and other stakeholders with the technical capacities to cooperate successfully and in a culturally appropriate manner with the indigenous peoples;
- ✓ Facilitate priority access of indigenous peoples to KAP-SLM related jobs;
- ✓ Establish for the Ogiek, Sengwer and Ilchamus an equal access to decision making processes in the domain of sustainable land and natural resource management;
- ✓ Establish a participatory impact monitoring for KAP-SLM in indigenous peoples' areas.
- ✓ Establish a national policy on indigenous peoples;
- ✓ Assist the indigenous peoples' organisations in capacity building to preserve the loss of traditional knowledge, culture and livelihood patterns.
- ✓ Foster the creation of forums for communication and exchange between IP and other ethnic groups and accompany this process of mutual understanding.

Annex 7 shows specific activities, necessary budget, and schedule for implementation of above mentioned mitigation measures.

9.1.4 Information disclosure at the stage of project formation, appraisal, and implementation and monitoring of the project

They do not face any major problems regarding information disclosure and environmental monitoring and recognize severe gaps between OP 4.01 and relevant legislations in Kenya¹⁰⁷.

Monitoring of the project needs to be conducted by implementing agency, and WB reviews the results of monitoring submitted by implementing agency. However, WB recognize the Bank needs to address long-term impact (including after completion of the project) caused by the project. Sustainability and every risk of the project including political issues and concerns in safeguard are summarized in the operational risk assessment framework, and the framework is

¹⁰⁷ Based on the interview conducted at WB Kenya office on 13 April, 2011.

embedded in the board document to be confirmed that the potential risk could be handled properly before approval of the project.

9.2 African Development Bank (AfDB)

AfDB's support in Kenya is focused on infrastructure including transport (mainly road sector), energy, water and sanitation, agriculture, and social development.

In April, 2008, AfDB established Climate Risk Management and Adaptation Strategy (CRMA), and it is mentioned that *“Through its focus on gender mainstreaming and women's economic empowerment, the Bank is increasingly paying attention to mitigating the effects of climate change on gender equality.”* Further, AfDB is in the process of developing a policy on Gender and Climate change. Currently a Concept Note on Gender and Climate Change has been developed whose objective is to: a) inform the Bank and Regional Member Countries (RMCs) about the challenges and opportunities of gender and climate change agenda; b) encourage reflection on the comparative advantage of the Bank to contribute to this agenda effectively and, c) identify the areas and priorities of intervention on Gender and Climate change in the Bank. Following the Strategy, climate change mitigation/adaptation components has been incorporated in the Bank financed projects in Kenya¹⁰⁸.

9.2.1 Safeguard policy of AfDB

The Safeguard Policy of AfDB consists of following documents.

- (i) African Development Bank Group's Policy on the Environment (February, 2004)
- (ii) Involuntary Resettlement Policy (November, 2003)

As implementation tool of the Policies, following guidelines are used.

- (i) Environmental and Social Assessment Procedures for African Development Bank's Public Sector Operations (June, 2001) (ESAP 2001)
- (ii) Integrated Environmental and Social Impact Assessment Guidelines (October, 2003)
- (iii) Cooperation with Civil Society Organizations Policy and Guidelines (September, 2001)
- (iv) Handbook on Stakeholder Consultation and Participation in ADB Operations (2001)

In addition, information disclosure requirements for environmental assessment studies are specified in AfDB's Disclosure of Information Policy (October, 2005).

AfDB introduced Environmental & Social Assessment Procedures Basics (For public sector operations) in March, 2011. This document explains how to comply with the ESAP 2001 and clarifies principal safeguard procedures, such as Environmental and Social Management Plans (ESMPs), Strategic Environmental and Social Assessments (SESAs), Environmental and Social Impact Assessments (ESIAs), and Resettlement Action Plans (RAPs). To ensure successful compliance with safeguard policies, it is recommended that capacity building of AfDB staff and

¹⁰⁸ Based on the answers to the questionnaire sent to the AfDB staff who is in charge of safeguard issues.

borrowers, public consultations including with Civil Society Organizations (CSOs) and NGOs, disclosure of information, and compliance review and mediation are critical¹⁰⁹.

According to African Development Bank Group's Policy on the Environment (February, 2004) (hereinafter referred to as "AfDB Environment Policy"), AfDB places their focus on: reversing land degradation and desertification; protecting the coastal zone; protecting global public goods; improving public health; enhancing disaster management capabilities; promoting sustainable industry; mining and energy resources; improving urban environmental management; environmental governance; institution and capacity building; increasing awareness; and stakeholder participation.

The proposed project is categorized into Category 1, 2, 3, and 4 after screening of the project.

Category 1: Requires a full Environmental and Social Impact Assessment (ESIA), including the preparation of an ESMP. Before the review by AfDB, ESIA needs to be disclosed at some public place in the project area accessible to potential beneficiaries, affected groups and local CSOs. Once the ESIA is released locally and submitted officially to the Bank, summaries of ESIA, which are prepared by Bank staff with the project sponsor's consent and include the staff's conclusions and recommendations regarding environmental impacts and preventive or mitigatory measures, need to be made available to the public through the Project Information Center (PIC) before 120 days prior to presentation to the Boards.

Category 2: Requires the development of an Environmental and Social Management Plan (ESMP). A summary of the ESMP will be released to the public through the PIC at least 30 days prior to Board Presentation.

Category 3: Requires no impact assessment.

Category 4: Financial Intermediaries. It needs to be ensured that the sub-projects that require ESIA's undergo the same information disclosure process as Category 1 projects funded by the Bank. The Executive Summary of the ESIA Report will be made available in the borrowing country at a public place readily accessible to potential beneficiaries, affected groups and local CSOs.

Figure 9.2-1 shows the process flow of environmental and social considerations of AfDB.

¹⁰⁹ "Implementing the Bank's Environmental & Social Safeguards Policies" dated March 1, 2010, presentation by AfDB

ESA PROCESS	MAIN STEPS				PROJECT CYCLE
Assessment Background	Development and update of country specific documents, addressing crosscutting issues				Country Programming
Screening	Project Brief and IESS				Identification
	Category 1	Category 2	Category 3	Category 4	
Scoping	ESS ESSM	ESS ESSM	No further action	See Annex 6	Preparation
ESA Studies Preparation	ESIA TOR preparation TOR review ESIA preparation Selected Pre-approval Audits	ESMP TOR preparation TOR review ESMP preparation Selected Pre-approval Audits			
ESA Studies Review and Approval	ESIA Report review ESMP preparation ESIA Summary preparation, clearance and release	ESMP review ESMP Summary preparation and release			Appraisal
Loan Conditions and Covenants	Preparation of loan conditions and covenants Integration of ESMP in loan agreements	Preparation of loan conditions and covenants Integration of ESMP in loan agreements			Loan Negotiations Board Presentation Loan Signature
Monitoring	ESMP implementation monitoring Supervision through missions	ESMP implementation monitoring Supervision through missions			Implementation and Supervision
Reporting	Reporting on ESMP implementation Modification to ESMP if necessary Clearance	Reporting on ESMP implementation Modification to ESMP if necessary Clearance			
Compliance Auditing	Selected Compliance Audits	Selected Compliance Audits		Selected Compliance Audits	Completion
Compliance Auditing	Selected Compliance Audits	Selected Compliance Audits		Selected Compliance Audits	
Post-evaluation	Post-evaluation	Post-evaluation		Post-evaluation	

Source: Environmental and Social Assessment Procedures for African Development Bank's Public Sector Operations (June, 2001), AfDB

Figure 9.2-1 Environmental and social considerations procedures of AfDB

9.2.2 Current situations and emerging issues on EIA

They do not face any major problems regarding implementation of EIA study and recognize any severe gaps between OP 4.01 and relevant legislations in Kenya¹¹⁰. However, it was mentioned that insufficient implementation of EMP and environmental monitoring were the problems needs to be handled.

9.2.3 Current situations and emerging issues on land acquisition and involuntary resettlement

In spite resettlement planning document is not required under Kenyan legislation, RAP is prepared in parallel with EIA study in conformity with the requests by WB, AfDB, and JICA. In this regard, they do not recognize any severe gaps between AfDB's safeguard policy and relevant legislations in Kenya.

However, it was mentioned that some problems during implementation of RAP such as delay of compensation payment have been frequently found, and such delays discouraged the progress of the project¹¹¹.

9.2.4 Current situations and emerging issues on indigenous people

AfDB does not have safeguard policy regarding considerations for indigenous people, and thus does not require preparation of IPP. However, following social issues are considered during AfDB's screening of the proposed project.

- ✓ Impact on particular historic, archaeological or spiritual sites
- ✓ Loss of customs or traditions (reducing social diversity)
- ✓ Loss of productive assets (land, credit, etc.) for certain socio-economic groups in particular for women, poor or vulnerable groups

When loss of land or other assets of indigenous people are caused by the proposed project, such issues are dealt with RAP.

9.2.5 Monitoring of the project

(a) Monitoring by borrower and AfDB

AfDB reviews and confirms that appropriate monitoring plan with necessary budget is established as a part of EIA and RAP. Further, AfDB ensures external monitoring by independent consultant for the project with RAP. Then, any outstanding environmental and social concerns that need follow-up during project implementation are covered in the loan conditions and covenants to ensure an effective compliance with AfDB's environmental and social policies (e.g. submission of resettlement plans, creation of monitoring units, stakeholder consultations, etc.). For Categories 1 and 2 projects, ESMP is incorporated in the loan agreements.

As mentioned in 9.2.2, insufficient implementation of EMP and environmental monitoring were the problems. When the situation is not improved, AfDB will hire the consultant to support

¹¹⁰ Based on the interview conducted at Kenya Country Office (KEFO) on 11 April, 2011.

¹¹¹ Based on the interview conducted at Kenya Country Office (KEFO) on 11 April, 2011.

updates of ESMP and the implementation of monitoring plan.

(b) Independent Review Mechanism (IRM)

AfDB set up IRM, whose purpose is to provide people adversely affected by a project financed by the Bank Group with an independent mechanism through which they can request the Bank Group to comply with its own policies and procedures.

In case of mediation, the Compliance Review and Mediation Unit (CRMU) invites all relevant parties, e.g. the Requestors, Management's representatives, and other interested persons to participate in the exercise. The objective of the problem-solving exercise is to restore an effective dialogue between the Requestors and any interested persons with a view to resolving the issue or issues underlying a Request, without seeking to attribute blame or fault to any such party.

1) Functions of IRM

The IRM undertakes Compliance Review and Mediation (problem solving) for Public and Private Sector projects. For Public Sector, IRM can review compliance with all Bank Group operational policies and procedures. For the Private Sector compliance reviews shall only be undertaken for social and environment policies.

2) Compliance Review/Mediation Request

Requests that complain of a violation of the Bank Group's policies and procedures from the following people or entities are received:

- (i) any group of two or more people in the country or countries where the Bank Group-financed project is located who believe that as a result of the Bank Group's violation, their rights or interests have been, or are likely to be, adversely affected in a direct and material way. They may be an organization, association, society or other grouping of individuals;
- (ii) a duly appointed local representative acting on explicit instructions as the agent of adversely affected people,
- (iii) in exceptional cases, referred to in paragraph 13 below, a foreign representative acting as agent of adversely affected people, or
- (iv) the Boards of Directors of the Bank Group.

All Requests must be submitted in writing, dated and signed by the Requestors and contain their names, contact addresses and an address to which correspondence shall be sent.

Complaints filed more than 12 months after the physical completion of the project concerned or more than 12 months after the final disbursement under the loan or grant agreement or the date of cancellation of the undisbursed amount are not accepted.

3) Successful problem-solving exercise

CRMU informs the Boards of Directors, the President, the Requestors and other interested

parties, a Problem-Solving Report which shall include the solution agreed upon by the parties involved.

4) Unsuccessful problem-solving exercise

If the problem solving efforts are not successful within 3 months from the commencement of the mediation exercise, CRMU shall write and submit a Report to this effect to the Boards of Directors, the President, Bank Management, the Requestor and other interested parties. The Report shall make recommendations on steps the Bank Group could take to deal with the unresolved issue (e.g. to refer the case to a Compliance Review).

5) Compliance Review

If a compliance Review is recommended, the Report prepared by CRMU shall include:

- ✓ Draft Terms of Reference for the Compliance Review Panel, setting out the scope and time frame for compliance review ;
- ✓ Estimated Budget;
- ✓ Description of additional resources required for the Compliance Review.

Three IRM Experts shall constitute the Compliance Review Panels to undertake compliance reviews with administrative and technical support from CRMU. The Compliance Review Panel shall conduct the Compliance Review in accordance with the authorized Terms of Reference and time frame and prepare the Compliance Review Report. The report shall be submitted to the President or the Boards of Directors¹¹². Upon the receipt of the Report, the Bank's Management¹¹³ prepares a Response and an Action Plan based on the findings of the Compliance Review Report and submits it to the President, the Boards of Directors, CRMU, and the Requestors within 90 days.

9.2.6 Information disclosure at the stage of project formation, appraisal, and implementation

In accordance with AfDB Environment Policy and Involuntary Resettlement Policy, before the review by AfDB, ESIA needs to be disclosed at some public place in the project area, and summaries of ESIA, which are prepared by Bank staff and include the staff's conclusions and recommendations regarding environmental impacts and preventive or mitigatory measures, with RAP as the case may be, need to be made available to the public through PIC and AfDB website for Category 1 project. Summaries of ESMP, which are prepared by Bank staff with abbreviated RAP as the case may be, need to be made available to the public through PIC and AfDB website for Category 2 project.

¹¹² The Compliance Review Report is submitted to the President, with a copy to the Boards for information, if the relevant Bank Group-financed project has not been approved by the Boards at the time the Compliance Review Report is ready for submission, or the Boards, if the Boards have approved the relevant Bank Group-financed project at the time the Compliance Review Report is ready for submission.

¹¹³ It means the President if the Compliance Review Report has been submitted to the President, or the Boards, if the Report has been submitted to the Boards.

Annexure

Annex 1-1 Legal gaps between WB OP4.01 (Environmental Assessment), JICA Guidelines, and legislation in Kenya

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.01	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Objective and Basic Approach					
Objectives	To ensure transparency, predictability, and accountability in its support for and examination of environmental and social considerations.	Environmental Assessment (EA) of projects proposed is required for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.	To ensure transparency, predictability, and accountability in its support for and examination of environmental and social considerations.	- (The State shall. (a) ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits; (d) encourage public participation in the management, protection and conservation of the environment; (f) establish systems of environmental impact assessment; environmental audit and monitoring of the environment; (g) eliminate processes and activities that are likely to endanger the environment; and (h) utilise the environment and natural resources for the benefit of the people of Kenya. (Section 69(1)(a)(d)(g)(h), The Constitution, 2010)	The obligation of the State in respect of the environmental considerations stated in the Constitution ensures transparency, predictability, and accountability. Specific requirements for social considerations and the need of transparency, predictability, and accountability in the process are not mentioned in the relevant Acts.
Procedure of EA	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts.(1.4)	EA evaluates a project's potential environmental risks and impacts for preventive measures over mitigatory or compensatory measures, whenever feasible.	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts	No proponent shall implement a project - (a) likely to have a negative environmental impact; or (b) for which an environmental impact assessment is required under the Act (EMCA) or these Regulations; unless an environmental impact assessment has been concluded and approved in accordance with these Regulations. (Section 4(1), EIA/EA 2003))	Basically, there is no gap between harmonized policy and GOK legislations regarding the needs of appropriate environmental considerations by project proponents since the State has obligations to ensure sustainable exploitation, utilisation, management, and conservation of the environment and natural resources and eliminate processes and activities that are likely to endanger the environment. In addition, no project proponent shall implement a project without appropriate EIA and its approval in accordance with related regulations and guidelines. However, there is no clear requirement for social considerations including social impact assessment and proposal of mitigation measures for such impacts by project proponents.
Criteria of EA	–Environmental and social considerations” means considering environmental impacts including air, water, soil, ecosystem, flora, and fauna, as well as social impacts including involuntary resettlement, respect for the human rights of indigenous people, and so on.(1.3.1) JICA confirms that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments’ policies and plans on the environment and local communities. (2.6.2) JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate. (2.6.3)	EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects. EA considers natural and social aspects in an integrated way. It also takes into account environmental action plans; the country’s overall policy framework, national legislation, and institutional capabilities related to the environment and social aspects; and obligations of the country, pertaining to project activities, under relevant international environmental treaties and agreements.	–Environmental and social considerations” means considering environmental impacts including air, water, soil, ecosystem, flora, and fauna, as well as social impacts including involuntary resettlement, respect for the human rights of indigenous people, and so on. JICA confirms that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments’ policies and plans on the environment and local communities. (2.6.2) JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate.	“Environment” includes the physical factors of the surroundings of human beings including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and the social factor of aesthetics and includes both the natural and the built environment; “Environmental impact assessment” means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment; (Section 2, EIA/EA 2003) The following issues may, among others, be considered in the making of environmental impact assessments - I. Ecological Considerations - (a) Biological diversity including (i) effect of proposal on number, diversity, breeding habits, etc. of wild animals and vegetation; (ii) gene pool of domesticated plants and animals e.g. monoculture as opposed to wild types. (b) Sustainable use including (i) effect of proposal on soil fertility; (ii) breeding populations of fish, game or wild animals; (iii) natural regeneration of woodland and	Basically, there is no gap between harmonized policy and GOK legislations regarding the definition of environmental considerations and the criteria of EIA. However, considerations on involuntary resettlement and indigenous people are not specifically mentioned in the relevant Acts.

				<p>sustainable yield; (iv) wetland resource degrading or wise use of wetlands.</p> <p>(c) Ecosystem maintenance including (i) effect of proposal on food chains; (ii) nutrient cycles; (iii) aquifer recharge, water run-off rates etc; (iv) a real extent of habitats; (v) fragile ecosystems.</p> <p>2. Social considerations including (a) economic impacts; (b) social cohesion or disruption; (c) effect on human health; (d) immigration or emigration; (e) communication - roads opened up, closed, rerouted; (f) effects on culture and objects of culture value</p> <p>3. Landscape including (a) views opened up or closed; (b) visual impacts (features, removal of vegetation, etc); (c) compatibility with surrounding area; (d) amenity opened up or closed, e.g recreation possibilities.</p> <p>4. Land uses including (a) effects of proposal on current land uses and land use potentials in the project area; (b) possibility of multiple use; (c) effects of proposal on surrounding land uses and land use potentials.</p> <p>5. Water: Important aspects to consider are the effects of the proposal on (a) water sources (quantity and quality) such as (i) rivers; (ii) springs; (iii) lakes (natural and man-made); (iv) underground water; (v) oceans;</p> <p>(b) drainage patterns / drainage systems; (Second Schedule, EIA/EA 2003)</p> <p>An environmental impact assessment study shall include the following:</p> <p>6. Environmental Guidelines and Standards (National Legislation, International guidelines. International Conventions and Treaties) (Third Schedule, EIA/EA 2003)</p>
<p>Core Principles</p>				
<p>EA Instruments</p>	<p>JICA conducts an environmental review in accordance with the project category, and refers to the corresponding environmental checklists for each sector when conducting that review as appropriate.</p> <p>Category A: A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. For a Category A project, the borrower is responsible for preparing a report, normally an EIA (or suitably comprehensive regional or sectoral EA).</p> <p>Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other national habitats – are less adverse than those of Category A projects. The findings and results of Category B EA are described in the project documentation (Project Appraisal Document and Project Information Document).</p> <p>Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening,</p>	<p>A range of instruments can be environmental impact assessment (EIA), regional or sectoral EA, environmental audit, hazard or risk assessment, and environmental management plan (EMP).</p> <p>Category A: A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. For a Category A project, the borrower is responsible for preparing a report, normally an EIA (or suitably comprehensive regional or sectoral EA).</p> <p>Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other national habitats – are less adverse than those of Category A projects. The findings and results of Category B EA are described in the project documentation (Project Appraisal Document and Project Information Document).</p> <p>Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening,</p>	<p>JICA conducts an environmental review in accordance with the project category, and refers to the corresponding environmental checklists for each sector when conducting that review as appropriate.</p> <p>Category A: Project proponents etc. must submit EIA reports. JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will result in large-scale involuntary resettlement, and (3) IPPs for projects that address issues of indigenous people. Specifically, JICA discloses EIA reports 120 days prior to concluding agreement documents. JICA undertakes its environmental reviews based on the EIA and other documents submitted by project proponents etc.</p> <p>Category B: The scope of environmental reviews for Category B projects may vary from project to project, but it is narrower than that of Category A projects. JICA discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will require measures for indigenous people, when these documents</p>	<p>No legislation and/or official guidelines exists regarding donor's responsibility.</p> <p>Basic environmental review process of the project is same except:</p> <p>a) that the criteria for categorization (necessity of EIA) are not clearly mentioned in the relevant legislations,</p> <p>b) that no legislation and/or official guidelines exists requiring preparation of RAP and IPPF and/or IPP,</p> <p>c) that EIA submitted to NEMA is disclosed for around 2.5 to 3 months (75 to 90 days) by NEMA,</p> <p>d) that the disclosure of project report (IEE of the project for which EIA is not required) to public is not clearly mentioned in the relevant legislations.</p> <p>The projects EIA is required by the Authority. If the Authority finds that the project will have a significant impact on the environment, and the project report discloses no sufficient mitigation measures, the Authority shall require that the proponent undertake an environmental impact assessment study in accordance with these Regulations. (Section 10(3), EIA/EA 2003)</p> <p>The Authority shall, within fourteen days of receiving the environmental impact assessment study report, invite the public to make oral or written comments on the report. (Section 21(1), EIA/EA 2003)</p>
<p>Environmental Screening</p>	<p>JICA conducts an environmental review in accordance with the project category, and refers to the corresponding environmental checklists for each sector when conducting that review as appropriate.</p> <p>Category A: Project proponents etc. must submit EIA reports. JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will result in large-scale involuntary resettlement, and (3) IPPs for projects that address issues of indigenous people. Specifically, JICA discloses EIA reports 120 days prior to concluding agreement documents. JICA undertakes its environmental reviews based on the EIA and other documents submitted by project proponents etc.</p> <p>Category B: The scope of environmental reviews for Category B projects may vary from project to project, but it is narrower than that of Category A projects. JICA discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will require measures for indigenous people, when these documents</p>	<p>A range of instruments can be environmental impact assessment (EIA), regional or sectoral EA, environmental audit, hazard or risk assessment, and environmental management plan (EMP).</p> <p>Category A: A proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. For a Category A project, the borrower is responsible for preparing a report, normally an EIA (or suitably comprehensive regional or sectoral EA).</p> <p>Category B: A proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other national habitats – are less adverse than those of Category A projects. The findings and results of Category B EA are described in the project documentation (Project Appraisal Document and Project Information Document).</p> <p>Category C: A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening,</p>	<p>JICA conducts an environmental review in accordance with the project category, and refers to the corresponding environmental checklists for each sector when conducting that review as appropriate.</p> <p>Category A: Project proponents etc. must submit EIA reports. JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will result in large-scale involuntary resettlement, and (3) IPPs for projects that address issues of indigenous people. Specifically, JICA discloses EIA reports 120 days prior to concluding agreement documents. JICA undertakes its environmental reviews based on the EIA and other documents submitted by project proponents etc.</p> <p>Category B: The scope of environmental reviews for Category B projects may vary from project to project, but it is narrower than that of Category A projects. JICA discloses the following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects that will require measures for indigenous people, when these documents</p>	<p>No legislation and/or official guidelines exists regarding donor's responsibility.</p> <p>Basic environmental review process of the project is same except:</p> <p>a) that the criteria for categorization (necessity of EIA) are not clearly mentioned in the relevant legislations,</p> <p>b) that no legislation and/or official guidelines exists requiring preparation of RAP and IPPF and/or IPP,</p> <p>c) that EIA submitted to NEMA is disclosed for around 2.5 to 3 months (75 to 90 days) by NEMA,</p> <p>d) that the disclosure of project report (IEE of the project for which EIA is not required) to public is not clearly mentioned in the relevant legislations.</p> <p>The projects EIA is required by the Authority. If the Authority finds that the project will have a significant impact on the environment, and the project report discloses no sufficient mitigation measures, the Authority shall require that the proponent undertake an environmental impact assessment study in accordance with these Regulations. (Section 10(3), EIA/EA 2003)</p> <p>The Authority shall, within fourteen days of receiving the environmental impact assessment study report, invite the public to make oral or written comments on the report. (Section 21(1), EIA/EA 2003)</p>

<p>EA for Special Project Types</p>	<p>following: (1) EIA reports and environmental permit certifications, (2) RAPs for projects, and (3) IPPs for projects that will require measures for indigenous people, when these documents are submitted by project proponents etc.</p> <p>Category C: For projects in this category, environmental review will not proceed after categorization.</p> <p>Category FI: JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category.</p>	<p>no further EA action is required for a Category C project.</p> <p>Category FI: A proposed is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.</p>	<p>are submitted by project proponents etc.</p> <p>Category C: For projects in this category, environmental review will not proceed after categorization.</p> <p>Category FI: JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category.</p>	<p>Upon receipt of both oral and written comments ~, the Authority may hold a public hearing. (Section 22(1), EIA/EA 2003)</p> <p>The Authority shall give its decision on an Decision of environmental impact assessment study report within three months of receiving an environmental impact assessment study report. (Section 23(1), EIA/EA 2003)</p> <p>Where the Authority approves an environmental impact assessment study report ~, it shall issue an environmental impact assessment licence in Form 3 set out in the First Schedule ~ on such terms and conditions as it may deem necessary. (Section 24, EIA/EA 2003)</p> <p>The projects EIA is not required by the Authority. Where the Authority is satisfied that the project will have no significant impact on the environment, or that the project report discloses sufficient mitigation measures, the Authority may issue a licence in Form 3 set out in the First Schedule to these Regulations. (Section 10(2), EIA/EA 2003)</p>	<p>No legislation and/or official guidelines exists regarding environmental and social considerations on FI projects and stipulating environmental and social considerations in an emergency.</p>
<p>EA for Special Project Types</p>	<p>Category FI projects JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category. JICA also examines institutional capacity in order to confirm environmental and social considerations of the financial intermediary or executing agency, and, if necessary, requires that adequate measures be taken to strengthen capacity.</p> <p>The financial intermediary or executing agency examines the potential positive and negative environmental impacts of sub-projects and takes the necessary measures to avoid, minimize, mitigate, or compensate for potential negative impacts, as well as measures to promote positive impacts if any such measures are available. (3.2.1(4))</p> <p>Measures Taken in an Emergency In an emergency—which means a case that must be dealt with immediately, such as restoration after natural disasters or post-conflict restoration—when it is clear that there is no time to follow the procedures of environmental and social considerations mentioned in the guidelines, JICA reports at an early stage to the Advisory Committee for Environmental and Social Considerations on categorization, judgment of emergency, and procedures to follow, and discloses a result.</p>	<p><i>Sector Investment Lending (SIL)</i></p> <p>During the preparation of each proposed subproject, the project coordinating entity or implementing institution carries out appropriate EA according to country requirements and the requirements of this policy. The Bank's judging criteria are as follows:</p> <ul style="list-style-type: none"> (a) screen subprojects (b) obtain the necessary expertise to carry out EA (c) review all findings and results of EA for individual subprojects (d) ensure implementation of mitigation measures (including, where applicable, an EMP) (e) monitor environmental conditions during project implementation <p><i>Financial Intermediary Lending (FI)</i></p> <p>The Bank requires that each FI screen proposed subprojects and ensure that subborrowers carry out appropriate EA for each subproject.</p> <p>In appraising a proposed FI operation, the Bank reviews the adequacy of country environmental requirements relevant to the project and the proposed EA arrangements for subprojects, including the mechanisms and responsibilities for environmental screening and review of EA results.</p> <p><i>Emergency Operations under OP8.00</i></p> <p>The policy set out in OP 4.01 normally applies to emergency operations processed under OP/BP 8.00, <i>Rapid Response to Crises and Emergencies</i>. The Bank requires at a minimum that</p> <ul style="list-style-type: none"> (a) the extent to which the emergency was precipitated or exacerbated by inappropriate environmental practices be determined as part of the 	<p>Category FI projects JICA examines the related financial intermediary or executing agency to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category. JICA also examines institutional capacity in order to confirm environmental and social considerations of the financial intermediary or executing agency, and, if necessary, requires that adequate measures be taken to strengthen capacity.</p> <p>The financial intermediary or executing agency examines the potential positive and negative environmental impacts of sub-projects and takes the necessary measures to avoid, minimize, mitigate, or compensate for potential negative impacts, as well as measures to promote positive impacts if any such measures are available.</p> <p>Measures Taken in an Emergency In an emergency—which means a case that must be dealt with immediately, such as restoration after natural disasters or post-conflict restoration—when it is clear that there is no time to follow the procedures of environmental and social considerations mentioned in the guidelines, JICA reports at an early stage to the Advisory Committee for Environmental and Social Considerations on categorization, judgment of emergency, and procedures to follow, and discloses a result. JICA asks advice from the Advisory Committee when it is necessary.</p>	<p>The projects EIA is not required by the Authority. Where the Authority is satisfied that the project will have no significant impact on the environment, or that the project report discloses sufficient mitigation measures, the Authority may issue a licence in Form 3 set out in the First Schedule to these Regulations. (Section 10(2), EIA/EA 2003)</p>	<p>No legislation and/or official guidelines exists regarding environmental and social considerations on FI projects and stipulating environmental and social considerations in an emergency.</p>

	<p>JICA asks advice from the Advisory Committee when it is necessary.</p>	<p>preparation of such projects (b) any necessary corrective measures be built into either the emergency operation or a future lending</p> <p>When the borrower has inadequate legal or technical capacity to carry out key EA related functions (such as review of EA, environmental monitoring, inspections, or management of mitigatory measures) for a proposed project, the project includes components to strengthen that capacity.</p>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the JICA guidelines, depending on the nature of cooperation projects. (1.5)</p>	<p>-</p>	<p>No legislation and/or official guidelines exists regarding donor's responsibility.</p> <p>All the EIA process shall be conducted by registered EIA Experts, and NEMA stipulates the requirement of EIA Experts and their codes of conduct.</p>
<p>Institutional Capacity</p>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the guidelines, depending on the nature of cooperation projects. (1.5)</p>	<p>For all Category A and B projects proposed for IBRD or IDA financing, during the EA process, the borrower consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and takes their views into account.</p> <p>The borrower initiates such consultations as early as possible. For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them</p>	<p>JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the JICA guidelines, depending on the nature of cooperation projects.</p>	<p>(1) During the process of conducting an environmental impact assessment study ~, the proponent shall ~ seek the views of persons who may be affected by the project. (2) In seeking the views of the public, after the approval of the project report by the Authority, the proponent shall - (a) publicize the project and its anticipated effects and benefits by - (i) posting posters in strategic public places in the vicinity of the site of the proposed project informing the affected parties and communities of the proposed project; (ii) publishing a notice on the proposed project for two successive weeks in a newspaper that has a nation-wide circulation; and (iii) making an announcement of the notice in both official and local languages in a radio with a nation-wide coverage for at least once a week for two consecutive weeks; (b) hold at least three public meetings with the affected parties and communities to explain the project and its effects, and to receive their oral or written comments; (Section 17(1)(2), EIA/EA 2003)</p> <p>Consultations and Public Participation (CPP) should be undertaken mainly during project planning, in implementation and decommissioning phases. It should involve the affected persons, lead agencies, private sector, among others. The methodology for CPP may include: meetings and technical workshops with affected communities; interpersonal contacts; Dialogue with user groups and local leaders; Questionnaire/survey/ interview; and participatory rural appraisal or rapid rural appraisal (PRA/RRRA) techniques.</p> <p>It is the responsibility of the project proponent to adequately ensure effective distribution of the EI/ASR information to the affected persons ~.</p> <p>(2.9, Draft EIA Guidelines and Administrative Procedures)</p>	<p>Although JICA requires holding two consultations especially when the items to be considered in the EIA are being selected, and when the draft report is being prepared, three public meetings (first meeting shall be held after the approval of the project report by NEMA) with the affected parties and communities are required in Kenya.</p> <p>Necessity of public consultations for the projects only a project report is prepared is not specifically mentioned in the relevant legislations.</p>
<p>Public Consultation</p>	<p>In principle, project proponents etc. disclose information about the environmental and social considerations of their projects.</p> <p>JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.</p> <p>Project proponents etc. disclose information well in advance when they have meetings with local stakeholders in cooperation with JICA.</p> <p>On these occasions, JICA supports project proponents etc. in the preparation of documents in an official or widely used language and in a form understandable by local people. (2.1/1, 6.7)</p>	<p>For meaningful consultations between the borrower and project-affected groups and local NGOs on all Category A and B projects proposed for IBRD or IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.</p> <p>For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts. In addition, for a Category A project, the borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs.</p>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus.</p> <p>JICA encourages project proponents etc. to publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings.</p> <p>In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed. (2.4)</p> <p>Consultations with relevant stakeholders, such as local residents, should take place if necessary throughout the preparation and implementation stages of a project. Holding consultations is highly desirable, especially when the items to be considered in the EIA are being selected, and when the draft report is being prepared. (Appendix 2)</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary. (2.4)</p>	<p>The Authority shall, at the expense of the proponent publish ~ a public notice once a week inviting the public to submit oral or written comments on the environmental impact assessment study report.</p> <p>The invitation for public comments under this regulation shall state - (a) the nature of the project; (b) the location of the project; (c) the anticipated impacts of the project and the proposed mitigation measures to respond to the impacts; (d) the times and place where the full report can be inspected; and (e) the period within which the Authority shall receive comments. (Section 21(2)(3), EIA/EA 2003)</p>	<p>Although JICA Guidelines and WB OP require disclosure of information about the environmental and social considerations of the projects by project proponents, disclosure of EIA by the project proponents is not clearly stipulated in the relevant legislations in Kenya. (Disclosure of EIA is conducted by NEMA in accordance with EIA/EA 2003.)</p> <p>However, EIA Guidelines (draft) recommend the project proponents disclose information about the environmental and social considerations (except RAP and IPP/PPF) of their projects through the process of CPP.</p>
<p>Disclosure</p>	<p>In principle, project proponents etc. disclose information about the environmental and social considerations of their projects.</p> <p>JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.</p> <p>Project proponents etc. disclose information well in advance when they have meetings with local stakeholders in cooperation with JICA.</p> <p>On these occasions, JICA supports project proponents etc. in the preparation of documents in an official or widely used language and in a form understandable by local people. (2.1/1, 6.7)</p>	<p>For meaningful consultations between the borrower and project-affected groups and local NGOs on all Category A and B projects proposed for IBRD or IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.</p> <p>For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts. In addition, for a Category A project, the borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs.</p>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus.</p> <p>JICA encourages project proponents etc. to publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings.</p> <p>In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed. (2.4)</p> <p>Consultations with relevant stakeholders, such as local residents, should take place if necessary throughout the preparation and implementation stages of a project. Holding consultations is highly desirable, especially when the items to be considered in the EIA are being selected, and when the draft report is being prepared. (Appendix 2)</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary. (2.4)</p>	<p>The Authority shall, at the expense of the proponent publish ~ a public notice once a week inviting the public to submit oral or written comments on the environmental impact assessment study report.</p> <p>The invitation for public comments under this regulation shall state - (a) the nature of the project; (b) the location of the project; (c) the anticipated impacts of the project and the proposed mitigation measures to respond to the impacts; (d) the times and place where the full report can be inspected; and (e) the period within which the Authority shall receive comments. (Section 21(2)(3), EIA/EA 2003)</p>	<p>Although JICA Guidelines and WB OP require disclosure of information about the environmental and social considerations of the projects by project proponents, disclosure of EIA by the project proponents is not clearly stipulated in the relevant legislations in Kenya. (Disclosure of EIA is conducted by NEMA in accordance with EIA/EA 2003.)</p> <p>However, EIA Guidelines (draft) recommend the project proponents disclose information about the environmental and social considerations (except RAP and IPP/PPF) of their projects through the process of CPP.</p>

	<p>For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc. (Sec.3/3.2/3.2.1(1), (2))</p>	<p>Any separate Category B report for a project proposed for IDA financing is made available to project-affected groups and local NGOs.</p>	<p>Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc.</p>	<p>Consultations and Public Participation (CPP) should be undertaken mainly during project planning, in implementation and decommissioning phases.</p> <p>It is the responsibility of the project proponent to adequately ensure effective distribution of the EIA study report information to the affected persons ~ (2.9, Draft EIA Guidelines and Administrative Procedures)</p>	<p>No legislation and/or official guidelines exists regarding donor's responsibility.</p>
<p>Implementation</p>	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p> <p>The information necessary for monitoring project proponents etc. by appropriate means, including in writing, JICA may also conduct its own investigations.</p> <p>JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc. (3.2.2/1,2, 7)</p>	<p>The borrower reports on</p> <p>(a) compliance with measures agreed with the Bank on the basis of the findings and results of the EA, including implementation of any EMP</p> <p>(b) the status of mitigatory measures</p> <p>(c) the findings of monitoring programs</p> <p>The Bank bases measures set out in the legal agreements, any EMP, and other project documents.</p>	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p> <p>The information necessary for monitoring project proponents etc. by appropriate means, including in writing. When necessary, JICA may also conduct its own investigations.</p> <p>JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc.</p>	<p>In executing a project, after the environmental impact assessment study report has been approved by the Authority, ~, the proponent shall take all practical measures to ensure the implementation of the environmental management plan by -</p> <p>(a) carrying out a self-auditing study on a regular basis;</p> <p>(b) preparing an environmental audit report after each audit and submitting the report to the Authority annually or as may be prescribed by the Authority; and</p> <p>(c) ensuring that the criteria used for the audit is based on the environmental management plan developed during the environmental impact assessment process or after the initial audit. (Section 34, EIA/EA 2003)</p> <p>In carrying out an environmental audit study, the with standards, environmental auditor shall comply with any existing national environmental regulations and standards prescribed by the Authority, and in the absence of such national environmental regulations and standards shall use such other international standards as shall be prescribed by the Authority. (Section 32, EIA/EA 2003)</p> <p>The Authority shall be responsible for carrying out environmental audit of all activities that are likely to have significant effect on the environment. An environmental inspector ~ may enter any land or premises for the purposes of determining how far the activities carried out on that land or premises conform with the statements made in the environmental impact assessment study report ~. (Section 68(1), EMCA 1999)</p>	<p>Basically, there is no gap between harmonized policy and GOK legislations regarding monitoring procedure of the project for which EIA has completed.</p> <p>Although JICA requires monitoring of environmental impacts of the projects categorized as B and FI as well, necessity of environmental (self) audit for the projects EIA is not required is not clearly mentioned in the relevant legislations.</p> <p>Disclosure of monitoring results (audit report) is not specifically mentioned in relevant legislations.</p> <p>No legislation and/or official guidelines exists regarding donor's responsibility.</p>

Annex 1-2 Legal gaps between WB OP4.04 (Natural Habitats)/OP4.36 (Forests), JICA Guidelines, and legislation in Kenya

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Definition of critical natural habitat and critical forest area		<p>(i) existing protected areas and areas officially proposed by governments as protected areas, areas initially recognized as protected by traditional local communities, and sites that maintain conditions vital for the viability of these protected areas; or</p> <p>(ii) sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit. Such sites may include areas recognized by traditional local communities; areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, migratory, or endangered species. (OP4.04)</p> <p>Critical forest areas are the forest areas that qualify as critical natural habitats under OP 4.04, Natural Habitats. (OP4.36)</p>	<p>(i) existing protected areas and areas officially proposed by governments as protected areas, areas initially recognized as protected by traditional local communities, and sites that maintain conditions vital for the viability of these protected areas; or</p> <p>(ii) sites identified on supplementary lists prepared by JICA or an authoritative source determined by the Regional environment sector unit. Such sites may include areas recognized by traditional local communities; areas with known high suitability for bio-diversity conservation; and sites that are critical for rare, vulnerable, migratory, or endangered species. Critical forest areas are the forest areas that qualify as critical natural habitats under OP 4.04, Natural Habitats.</p>	<p>The protected areas conserve a spectacular range of terrestrial and marine species, habitats and ecosystems including biodiversity hotspots. These ecosystems, besides conserving wildlife species of conservation importance for the country's sustainable development and people's well being, they also provide critical environmental services such as watershed protection, carbon sequestration, pollination, nutrient cycling and soil regeneration.</p> <p>(5.1.1, Draft Wildlife Policy, 2007)</p> <p>The Minister shall declare any land under the jurisdiction of a local authority to be a local authority forest where:</p> <p>(a) the land is an important catchment area, a source of water springs, or is a fragile environment;</p> <p>(b) the land is rich in biodiversity or contains rare, threatened or endangered species;</p> <p>(c) the forest is of cultural or scientific significance; or</p> <p>(d) the forest supports an important industry and is a major source of livelihood for the local community.</p> <p>(Section 24, Forest Act)</p> <p>The Minister may, by notice in the Gazette declare any forest area, or woodland or any part thereof, which has a particular environmental, cultural, scientific, or other special significance, to be a nature reserve for the purpose of preserving its biodiversity and natural amenities thereof.</p> <p>(Section 32(1), Forest Act)</p> <p>“sacred grove” means a grove with religious or cultural significance to a forest community.</p> <p>(Section 3, Forest Act)</p> <p>“natural heritage” means</p> <p>(c) precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science, conservation or natural beauty; or</p> <p>(d) areas which are or have been of religious significance, use or veneration and which include but are not limited to Kayas;</p> <p>(Section 2, National Museums and Heritage Act)</p>	<p>Basically, there is no distinct gap concerning the definition of “critical natural habitats” and “critical forest” between harmonized policy and GOK legislations regarding critical natural habitat and critical forest area.</p> <p>“Critical natural habitats” and “critical forest” under Kenyan legislation include national park, national reserve, local sanctuary, nature reserve, sacred groves, natural heritage, and local authority forest if it is declared as local authority forest where the land is an important catchment area, a source of water springs, fragile environment, or rich in biodiversity, or contains rare, threatened or endangered species, and the forest is of cultural or scientific significance.</p>
Definition of significant conversion		<p>Significant conversion is the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Significant conversion may include, for example, land clearing; replacement of natural vegetation; drainage, dredging, filling, or channelization of wetlands; or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution. (OP4.04)</p>	<p>Significant conversion is the elimination or severe diminution of the integrity of a critical or other natural habitat caused by a major, long-term change in land or water use. Significant conversion may include, for example, land clearing; replacement of natural vegetation; permanent flooding; drainage, dredging, filling, or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution.</p>		<p>Significant conversion of national parks, national reserves, sanctuaries, nature reserves, sacred groves, natural heritage, and local authority forests is not specifically defined in the relevant Acts.</p>
Definition of degradation		<p>Degradation is modification of a critical or other natural habitat that substantially reduces the habitat's ability to maintain viable populations of its native species. (OP4.04)</p>	<p>Degradation is modification of a critical or other natural habitat that substantially reduces the habitat's ability to maintain viable populations of its native species.</p>		<p>Meaning of degradation of national parks, national reserves, sanctuaries, nature reserves, sacred groves, natural heritage, and local authority forests forest area is not specifically defined in the relevant Act.</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Definition of appropriate conservation and mitigation measures	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts. The impacts to be assessed with regard to environmental and social considerations include impacts on the natural environment, ecosystems, fauna and flora, including trans-boundary or global scale impacts.	Appropriate conservation and mitigation measures remove or reduce adverse impacts on natural habitats or their functions, keeping such impacts within socially defined limits of acceptable environmental change. Specific measures depend on the ecological characteristics of the given site. Such measures should always include provision for monitoring and evaluation to provide feedback on conservation outcomes and to provide guidance for developing or refining appropriate corrective actions. (OP4.04)	Appropriate conservation and mitigation measures remove or reduce adverse impacts on natural habitats or their functions, keeping such impacts within socially defined limits of acceptable environmental change. Specific measures depend on the ecological characteristics of the given site. Such measures should always include provision for monitoring and evaluation to provide feedback on conservation outcomes and to provide guidance for developing or refining appropriate corrective actions.	The functions of the KWS shall be to prepare and implement management plans for National Parks and National Reserves and the display of fauna and flora in their natural state for the promotion of tourism and for the benefit and education of the inhabitants of Kenya. (3A(d), The Wildlife (Conservation and Management) Act) (1) Every state forest, local authority forest and provisional forest shall be managed in accordance with a management plan that complies with the requirements prescribed by rules made under this Act. (5) In preparing and adopting a management plan, the Service or the local authority shall consult with the local forest conservation committee. (Section 35(1)(5), Forest Act) All indigenous forests and woodlands shall be managed on a sustainable basis for purposes of - (a) conservation of water, soil and biodiversity; (b) river-line and shoreline protection; (c) cultural use and heritage; (d) recreation and tourism; (e) sustainable production of wood and non-wood products; (f) carbon sequestration and other environmental services; (g) education and research purposes. (h) habitat for wildlife in terrestrial forests and fisheries in mangrove forests (Section 41(1), Forest Act)	Specific definition and requirements for conservation and mitigation measures, which include provision for monitoring and evaluation for national parks, national reserves, sanctuaries, nature reserves, sacred groves, natural heritage, and local authority forests are not stipulated in the relevant Acts. However, national parks, national reserves, state forests including sacred groves, local authority forests, and provisional forests shall be managed in accordance with management plans, which aims sustainable use of natural resources.
Core principle					
Impacts to be Assessed	JICA supports and examines appropriate environmental and social considerations undertaken by project proponents etc. to avoid or minimize development projects' impacts on the environment and local communities, and to prevent the occurrence of unacceptable adverse impacts. The impacts to be assessed with regard to environmental and social considerations include impacts on the natural environment, ecosystems, fauna and flora, including trans-boundary or global scale impacts.	In accordance with OP/BP 4.01, Environmental Assessment, the investment project addresses the potential impact of the project on forests and/or the rights and welfare of local communities. (OP4.04) In accordance with OP/BP 4.01, Environmental Assessment, the investment project addresses the potential impact of the project on forests and/or the rights and welfare of local communities. (OP4.36)	Impacts on the natural environment, ecosystems, fauna and flora, including trans-boundary or global scale impacts and on forests and/or the rights and welfare of local communities will be assessed.	A proponent shall prepare a project report stating the economic and socio-cultural impacts to the local community and the nation in general. (Section 7(1)(i), EIA/EA 2003) The following issues may, among others, be considered in the making of environmental impact assessments. 1. Ecological Considerations - (a) Biological diversity including (i) effect of proposal on number, diversity, breeding habits, etc. of wild animals and vegetation; (ii) gene pool of domesticated plants and animals e.g. monoculture as opposed to wild types. (b) Sustainable use including (i) effect of proposal on soil fertility; (ii) breeding populations of fish, game or wild animals; (iii) natural regeneration of woodland and sustainable yield; (iv) wetland resource degrading or wise use of wetlands. (c) Ecosystem maintenance including (i) effect of proposal on food chains; (ii) nutrient cycles; (iii) aquifer recharge, water run-off rates etc; (iv) a real extent of habitats; (v) fragile ecosystems. (Second Schedule, EIA/EA 2003)	Basically, there is no gap between harmonized policy and GOK legislations regarding the impacts to be assessed in EIA since it is required to consider ecological issues and social issues including socio-cultural impacts to the local community.
Compliance with relevant Laws, Standards, and Plans	Projects must comply with the laws, ordinances, and standards related to environmental and social considerations established by the governments that have jurisdiction over project sites (including both national and local governments). Illegal logging of forests must be avoided. Project proponents etc. are encouraged to obtain certification by forest certification systems as a way to ensure the prevention of illegal logging.	The Bank does not finance projects that contravene applicable international environmental agreements. (OP4.36)	JICA does not support projects that contravene the laws, ordinances, standards related to environmental and social considerations established by the governments, and applicable international environmental agreements.	An environmental impact assessment study shall include the following: 6. Environmental Guidelines and Standards (National Legislation, International guidelines, International Conventions and Treaties) (Third Schedule, EIA/EA 2003)	Basically, there is no gap between harmonized policy and GOK legislations regarding compliance with relevant laws, standards, and plans.

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
<p>Projects involving significant conversion or significant degradation of critical natural habitats and critical forests</p>	<p>Projects must not involve significant conversion or significant degradation of critical natural habitats and critical forests.</p>	<p>The Bank does not support projects that, in Bank's opinion, involve the significant conversion or degradation of critical natural habitats.(OP4.04) The Bank does not finance projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical natural habitats. (OP4.36)</p>	<p>Projects must not involve significant conversion or degradation of critical natural habitats and critical forests.</p>	<p>- (No proponent shall implement a project - (a) likely to have a negative environmental impact; or (b) for which an environmental impact assessment is required under the Act (EMCA) or these Regulations; unless an environmental impact assessment has been concluded and approved in accordance with these Regulations. (Section 4(1), EIA/EA 2003))</p>	<p>Prohibition of development activities which involve significant conversion or degradation of critical natural habitats and critical forests is not clearly stipulated in the relevant Acts. However, EIA/EA 2003 prohibits a project likely to have a negative environmental impact unless an environmental impact assessment has been concluded and approved in accordance with the Regulation.</p>
<p>Projects involving significant conversion or significant degradation of natural habitats and forests (not critical)</p>	<p>Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature. Projects are also not to impose significant adverse impacts on designated conservation areas.</p> <p>Wherever feasible, JICA-supported projects are sited on lands already converted (excluding any lands that in the Bank's opinion were converted in anticipation of the project). The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits outweigh environmental costs. (OP4.04)</p>	<p>The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g., strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified. (OP4.04)</p>	<p>If a project involves the significant conversion or degradation of natural forests or related natural habitats that JICA determines are not critical, and JICA determines that there are no feasible alternatives to the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs, JICA may support the project provided that it incorporates appropriate mitigation measures. Such mitigation measures include, as appropriate, minimizing habitat loss and establishing and maintaining an ecologically similar protected area. JICA accepts other forms of mitigation measures only when they are technically justified.</p>	<p>- (No proponent shall implement a project - (a) likely to have a negative environmental impact; or (b) for which an environmental impact assessment is required under the Act (EMCA) or these Regulations; unless an environmental impact assessment has been concluded and approved in accordance with these Regulations. (Section 4(1), EIA/EA 2003))</p>	<p>Specific requirements for development activities which involve significant conversion or degradation of natural habitats and forests are not clearly stipulated in the relevant Acts. However, EIA/EA 2003 prohibits a project likely to have a negative environmental impact unless an environmental impact assessment has been concluded and approved in accordance with these Regulations.</p>
<p>Site selection</p>	<p>Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature or cultural heritage (excluding projects whose primary objectives are to promote the protection or restoration of such areas). Projects are also not to impose significant adverse impacts on designated conservation areas. (Appendix I. 4-2)</p>	<p>Wherever feasible, Bank-financed projects are sited on lands already converted (excluding any lands that in the Bank's opinion were converted in anticipation of the project). The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh environmental costs. (OP4.04)</p>	<p>Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature. Projects are also not to impose significant adverse impacts on designated conservation areas.</p> <p>Wherever feasible, JICA-supported projects are sited on lands already converted (excluding any lands that in the JICA's opinion were converted in anticipation of the project).</p>	<p>Any person who, without authorization- (b) cuts, injures or sets fire to any vegetation in a National Park, or allows any fire lighted by himself or his servants to enter a National Park; (d) willfully damages any object of geological, prehistoric, archaeological, historic, marine or other scientific interest within a National Park, or knowingly removes or attempts to remove any such object or any portion thereof from a National Park; (13(3)(b)(d), The Wildlife (Conservation and Management) Act)</p> <p>Except under a licence or permit or a management agreement issued or entered into under this Act, no person shall, in a state, local authority or provisional forest— (a) fell, cut, take, burn, injure or remove any forest produce; (b) be or remain therein between the hours of 7 p.m. and 6 a.m. unless he is</p>	<p>Basically, there is no distinct gap between harmonized policy and GOK legislations regarding prohibited activities within designated areas such as national parks, national reserves, and state, local authority, and provisional forests. Without a licence or permit, no person shall conduct any development activities in National Park, National Reserve and Local Sanctuary, Without a licence, permit, or a management agreement, no person shall stay and conduct any development activities in state, local authority, and provisional forests</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Expertise	In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures. (OP4.04)	In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures. (OP4.04)	In projects with natural habitat components, project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures.	using a recognised road or footpath, or is in occupation of a building authorised by the Director, or is taking part in cultural, scientific or recreational activities; (c) erect any building or livestock enclosure, except where the same is allowed for a prescribed fee; (i) construct any road or path; (Section 52(1), Forest Act) Every environmental impact assessment study shall be carried out by a lead expert qualified in accordance with the criteria of listing of experts specified in the Fourth Schedule to these Regulations. (Section 13(2), EIA/EA 2003)	Basically, there is no distinct gap between harmonized policy and GOK legislations since EIA needs to be conducted by registered EIA experts.
Project Environmental Review					
Plantation	The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When the Bank finances plantations, it gives preference to siting such projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats. (OP4.36)	The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When the Bank finances plantations, it gives preference to siting such projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats. (OP4.36)	JICA does not support plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When JICA supports plantations, it gives preference to siting such projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the project). In view of the potential for plantation projects to introduce invasive species and threaten biodiversity, such projects must be designed to prevent and mitigate these potential threats to natural habitats.	All plantation forests owned by the state shall be managed by the Service on a sustainable basis with the primary objective being the production of wood and other forest products and services for commercial purposes. No part of a state forest which contains rare, threatened or endangered species, or which has particular environmental, cultural or scientific significance, or which has been declared a nature reserve under this Act, shall be included in management agreements (with other entity). (Section 37(1)(7), Forest Act)	Basically, there is no distinct gap between harmonized policy and GOK legislations.
Commercial harvesting	The Bank may finance commercial harvesting operations only when the Bank has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats To be eligible for Bank financing, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to the Bank as meeting standards of responsible forest management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph a), adhere to a time-bound phased action plan acceptable to the Bank for achieving certification to such standards.(OP4.36)	The Bank may finance commercial harvesting operations only when JICA has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats To be eligible for JICA's support, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to JICA as meeting standards of responsible forest management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph a), adhere to a time-bound phased action plan acceptable to JICA for achieving certification to such standards.	JICA may support commercial harvesting operations only when JICA has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats To be eligible for JICA's support, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to JICA as meeting standards of responsible forest management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph a), adhere to a time-bound phased action plan acceptable to JICA for achieving certification to such standards.	(1) ~, any person, being a proponent of a project, shall, before financing, commencing, proceeding with, carried out, executing or conducting or causing to be financed, commenced, proceeded with, carried out, executed or conducted by another person any undertaking specified in the Second Schedule to this Act, submit a project report to the Authority. (2) The proponent of a project shall undertake or cause to be undertaken at his own expense and environmental impact assessment study and prepare a report thereof where the Authority, being satisfied, after studying the project report submitted under subsection (1), that the intended project may or is likely to have or will have a significant impact on the environment, so directs. (Section 58, EMCA 1999) Forestry related activities including – (a) timber harvesting; (b) clearance of forest areas; (c) reforestation and afforestation. (Second Schedule, EMCA 1999) All plantation forests owned by the state shall be managed by the Service on a sustainable basis with the primary objective being the production of wood and other forest products and services for commercial purposes. No part of a state forest which contains rare, threatened or endangered species, or which has particular environmental, cultural or scientific significance, or which has been declared a nature reserve under this Act, shall be included in management agreements (with other entity). (Section 37(1)(7), Forest Act)	Basically, there is no distinct gap between harmonized policy and GOK legislations since the proponent of forestry related activities including timber harvesting shall undertake EIA and prepare a report satisfactory to NEMA. All plantation forests/activities for commercial purposes within state forests are managed by KFS. No part of a state forest which contains rare, threatened or endangered species, or which has particular environmental, cultural or scientific significance, or which has been declared a nature reserve under the relevant Acts,
Requirements for forest certificate	Illegal logging of forests must be avoided. Project proponents etc. are encouraged to obtain certification by forest certification	To be acceptable to the Bank, a forest certification system must require: a) compliance with relevant laws;	Project proponents etc. are encouraged to obtain certification by forest certification systems as a way to ensure the prevention of illegal logging.	-	Forest certification system for prevention of illegal logging does not exist in Kenya

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
	<p>systems as a way to ensure the prevention of illegal logging. (Appendix 1. 6-2)</p>	<p>b) recognition of and respect for any legally documented or customary land tenure and use rights as well as the rights of indigenous peoples and workers; c) measures to maintain or enhance sound and effective community relations; d) conservation of biological diversity and ecological functions; e) measures to maintain or enhance environmentally sound multiple benefits accruing from the forest; f) prevention or minimization of the adverse environmental impacts from forest use; g) effective forest management planning; h) active monitoring and assessment of relevant forest management areas; and i) the maintenance of critical forest areas and other critical natural habitats affected by the operation.</p> <p>In addition to the requirements in paragraph above, a forest certification system must be independent, cost-effective, and based on objective and measurable performance standards that are defined at the national level and are compatible with internationally accepted principles and criteria of sustainable forest management. The system must require assessment of forest management performance. In addition, the system's standards must be developed with the meaningful participation of local people and communities; indigenous peoples; non-governmental organizations representing consumer, producer, and conservation interests; and other members of civil society, including the private sector. The decision-making procedures of the certification system must be fair, transparent, independent, and designed to avoid conflicts of interest. (OP4.36)</p>	<p>To be acceptable to JICA, a forest certification system must require:</p> <ol style="list-style-type: none"> compliance with relevant laws; recognition of and respect for any legally documented or customary land tenure and use rights as well as the rights of indigenous peoples and workers; measures to maintain or enhance sound and effective community relations; conservation of biological diversity and ecological functions; measures to maintain or enhance environmentally sound multiple benefits accruing from the forest; prevention or minimization of the adverse environmental impacts from forest use; effective forest management planning; active monitoring and assessment of relevant forest management areas; and the maintenance of critical forest areas and other critical natural habitats affected by the operation. <p>In addition to the requirements in paragraph above, a forest certification system must be independent, cost-effective, and based on objective and measurable performance standards that are defined at the national level and are compatible with internationally accepted principles and criteria of sustainable forest management. The system must require independent, third-party assessment of forest management performance. In addition, the system's standards must be developed with the meaningful participation of local people and communities; indigenous peoples; non-governmental organizations representing consumer, producer, and conservation interests; and other members of civil society, including the private sector. The decision-making procedures of the certification system must be fair, transparent, independent, and designed to avoid conflicts of interest.</p>	<p>A member of a forest community may, together with other members or persons resident in the same area, register a community forest association under the Societies Act.</p> <p>An association registered ~ may apply to the Director for permission to participate in the conservation and management of a state forest or local authority forest in accordance with the provisions of this Act.</p> <p>The application ~ shall be in the prescribed form and shall contain .</p> <ol style="list-style-type: none"> a list of the members of the association and its address; the Constitution of the association; the association's financial regulations; the area of forest for which the association proposes to undertake 	<p>Basically, there is no distinct gap between harmonized policy and GOK legislations.</p>
<p>Harvesting by small-scale landholders</p>		<p>The Bank may finance harvesting operations conducted by small-scale landholders, by local communities under community forest management, or by such entities under joint forest management arrangements, if these operations:</p> <ol style="list-style-type: none"> have achieved a standard of forest management developed with the meaningful participation of locally affected communities, consistent with the principles and criteria of responsible forest management outlined in paragraph 10; or 	<p>JICA may support harvesting operations conducted by small-scale landholders, by local communities under community forest management, or by such entities under joint forest management arrangements, if these operations:</p> <ol style="list-style-type: none"> have achieved a standard of forest management developed with the meaningful participation of locally affected communities, consistent with the principles and criteria of responsible forest management outlined in paragraph 10; or 	<p>A member of a forest community may, together with other members or persons resident in the same area, register a community forest association under the Societies Act.</p> <p>An association registered ~ may apply to the Director for permission to participate in the conservation and management of a state forest or local authority forest in accordance with the provisions of this Act.</p> <p>The application ~ shall be in the prescribed form and shall contain .</p> <ol style="list-style-type: none"> a list of the members of the association and its address; the Constitution of the association; the association's financial regulations; the area of forest for which the association proposes to undertake 	<p>Basically, there is no distinct gap between harmonized policy and GOK legislations.</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.04/4.36	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
		<p>(b) adhere to a time-bound phased action plan to achieve such a standard. The action plan must be developed with the meaningful participation of locally-affected communities and be acceptable to the Bank.</p> <p>The borrower monitors all such operations with the meaningful participation of locally-affected communities.</p>	<p>(b) adhere to a time-bound phased action plan to achieve such a standard. The action plan must be developed with the meaningful participation of locally-affected communities and be acceptable to JICA.</p> <p>The recipient country monitors all such operations with the meaningful participation of locally-affected communities.</p>	<p>conservation and management;</p> <p>(e) the association's proposals concerning .</p> <p>(i) use of forest resources;</p> <p>(ii) methods of conservation of biodiversity;</p> <p>(iii) methods of monitoring and protecting wildlife and plant populations and enforcing such protection; and</p> <p>(f) such other information as the Director may require.</p> <p>An association approved by the Director under section 46 to participate in the management or conservation of such a forest or part of a forest shall -</p> <p>(a) protect, conserve and manage such forest or part thereof pursuant to an approved management agreement entered into under this Act and the provisions of the management plan for the forest;</p> <p>(b) formulate and implement forest programmes consistent with the traditional forest user rights of the community concerned in accordance with sustainable use criteria;</p> <p>(c) protect sacred groves and protected trees;</p> <p>(d) assist the Service in enforcing the provisions of this Act and any rules and regulations made pursuant thereto, in particular in relation to illegal harvesting of forest produce;</p> <p>(e) with the approval of the Board enter into partnerships with other persons for the purposes of ensuring the efficient and sustainable conservation and management of forests;</p> <p>(f) keep the Service informed of any developments, changes and occurrences within the forest which are critical for the conservation of biodiversity;</p> <p>(g) help in fire fighting; and</p> <p>(h) do any other act that is necessary for the efficient conservation and management of the forest</p> <p>The Management Agreement between the Director and the association shall confer on the association all or any of the following forest user rights-</p> <p>(a) collection of medicinal herbs;</p> <p>(b) harvesting of honey;</p> <p>(c) harvesting of timber or fuel wood;</p> <p>(d) grass harvesting and grazing;</p> <p>(e) collection of forest produce for community based industries;</p> <p>(f) ecotourism and recreational activities;</p> <p>(g) scientific and education activities;</p> <p>(h) plantation establishment through non-resident cultivation;</p> <p>(i) contracts to assist in carrying out specified silvicultural operations;</p> <p>(j) development of community wood and non-wood forest based industries; and.</p> <p>(k) other benefits which may from time to time be agreed upon between an association and the Service:</p> <p>Provided that:</p> <p>(i) none of the activities specified in this subsection shall be carried out so as to conflict with the conservation of biodiversity; and</p> <p>(ii) the Director may, in consultation with the association, make rules regulating the performance thereof.</p> <p>(iii) in case of establishment of plantations under the non resident cultivation, the cultivator shall be allowed to cultivate in the forest for a period not exceeding three years.</p> <p>(Section 46(1)(2)(3), 47(1)(2), Forest Act)</p>	

Annex 1-3 Legal gaps between WB OP4.10 (Indigenous People), JICA Guidelines, and legislation in Kenya

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws
Objective and Basic Approach					
Term		Indigenous Peoples may be referred to in different countries by such terms as "indigenous ethnic minorities," "aboriginals," "hill tribes," "minority nationalities," "scheduled tribes," or "tribal groups."	Indigenous Peoples may be referred to in different countries by such terms as "indigenous ethnic minorities," "aboriginals," "hill tribes," "minority nationalities," "scheduled tribes," or "tribal groups."	"marginalised community" means – (b) a traditional community that, out of a need or desire to preserve its unique culture and identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole; (c) an indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy; or (d) pastoral persons and communities, whether they are. (i) nomadic; or (ii) a settled community that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole; (Section 260, The Constitution 2010)	Indigenous community is referred as "marginalised community" in Kenya.
Characteristics of Indigenous Peoples	"Indigenous Peoples" is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (d) an indigenous language, often different from the official language of the country or region.	"Indigenous Peoples" is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (d) an indigenous language, often different from the official language of the country or region.	"Indigenous Peoples" is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (d) an indigenous language, often different from the official language of the country or region.	"marginalised community" means - (b) a traditional community that, out of a need or desire to preserve its unique culture and identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole; (c) an indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy; or (d) pastoral persons and communities, whether they are. (i) nomadic; or (ii) a settled community that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole; (Section 260, The Constitution 2010)	Characteristics such as (a) Self-identification, (b) collective attachment to geographically distinct habitats and to the natural resources in these habitats and territories, and (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture are included in the definition of "marginalized community" in Kenya. However, use of indigenous language is not clearly mentioned in the Constitution, 2010.
Objective	Any adverse impacts that a project may have on indigenous peoples are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is provided unfeasible, effective measures must be taken to minimize impacts and to compensate indigenous peoples for their losses.	To include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, or compensate for such effects.	Any adverse impacts that a project may have on indigenous peoples are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is provided unfeasible, effective measures must be taken to minimize impacts and to compensate indigenous peoples for their losses.	- (The State shall not deprive a person of property of any description, or of any interest in, or right over, property of any description, unless the deprivation is for a public purpose or in the public interest and is carried out in accordance with this Constitution and any Act of Parliament that requires prompt payment in full, of just compensation to the person. (Section 40(3), The Constitution, 2010)) (To secure access to land based natural resources the Government shall recognize and protect the rights of forest, water dependent or other natural resources dependent communities and facilitate their access, co-management and derivation of benefits from the resources. (Section 95, National Land Policy 2007))	No legislation and/or official guidelines exists specifically concerning adverse impacts on indigenous people ("marginalized community") in Kenya. However, the National Land Policy and the Constitution stipulate that the GOK shall protect the rights of natural resources dependent communities and facilitate their access, co-management, and derivation of benefits from the resources and promptly pay full and just compensation for lost assets.
Project Preparation					
Screening	Early in project preparation, the Bank undertakes a screening to determine whether Indigenous Peoples are present in, or have collective attachment to, the project area. The Bank may follow the borrower's framework for identification of Indigenous Peoples during project screening, when that framework is consistent with this policy.	Early in project preparation, the Bank undertakes a screening to determine whether Indigenous Peoples are present in, or have collective attachment to, the project area. The Bank may follow the borrower's framework for identification of Indigenous Peoples during project screening, when that framework is consistent with this policy.	Early in project preparation, JICA undertakes a screening to determine whether Indigenous Peoples are present in, or have collective attachment to, the project area. JICA may follow the borrower's framework for identification of Indigenous Peoples during project screening, when that framework is consistent with this policy.	-	No legislation and/or official guidelines exists to identify indigenous people ("marginalized community") potentially affected by the proposed projects in Kenya.

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws
Categorization	<p>Projects that are likely to have a significant adverse impact on the environment and society are categorized as "Category A" even if they are not included in the sectors, characteristic, or areas on the list.</p> <p>Sensitive Areas</p> <p>b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value</p> <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p>	<p>No categorization system</p>	<p>Projects that are likely to have a significant adverse impact on the environment and society are categorized as "Category A" even if they are not included in the sectors, characteristic, or areas on the list.</p> <p>Sensitive Areas</p> <p>b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value</p> <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p>	-	<p>No legislation and/or official guidelines exists concerning categorization of the project based on the existence of indigenous people ("marginalized community") within project area and expected impacts on them in Kenya.</p>
Indigenous Peoples Plan	<p>For some Category A projects that will require the measures for indigenous people, an IPP must be submitted.</p> <p>It is desirable that the IPP include the elements laid out in the World Bank Safeguard Policy, OP4.10, Annex B.</p> <p>JICA's funding of projects is provided to a financial intermediary or executing agency; the selection and appraisal of the sub-projects is substantially undertaken by such an institution only after JICA's approval of the funding. In such cases, JICA examines the related financial intermediary to see whether appropriate environmental and social considerations as stated in the guidelines are ensured for projects in this category. JICA also examines institutional capacity in order to confirm environmental and social considerations of the financial intermediary.</p>	<p>The borrower prepares an Indigenous Peoples Plan (IPP) that sets out the measures through which the borrower will ensure (a) Indigenous Peoples affected by the project receive culturally appropriate social and economic benefits; and (b) where potential adverse effects on Indigenous Peoples are identified, those adverse effects are avoided, minimized, mitigated, or compensated for.</p> <p>Some projects involve the preparation and implementation of annual investment programs or multiple subprojects. In such cases, the borrower prepares an IPPF. The IPPF provides for the screening and review of these programs or subprojects in a manner consistent with this policy.</p>	<p>For all interventions which may have potential adverse effects on Indigenous Peoples, an IPP will be prepared which will identify the potential adverse effects and avoid, minimize, mitigate, or compensate for the effects.</p> <p>IPP should include the elements laid out in the World Bank Safeguard Policy, OP4.10, Annex B.</p> <p>Some projects involve the preparation and implementation of annual investment programs or multiple subprojects. In such cases, the borrower prepares an IPPF. The IPPF provides for the screening and review of these programs or subprojects in a manner consistent with this policy.</p>	-	<p>No legislation and/or official guidelines exists requiring preparation of IPPF and/or IPP in Kenya.</p>
Social Assessment		<p>The borrower undertakes a social assessment to evaluate the project's potential positive and adverse effect on the Indigenous Peoples, and to examine project alternatives where adverse effects may be significant.</p> <p>To carry out the social assessment and prepare the IPP/IPPF, the borrower pays particular attention to:</p> <p>(a) the customary rights of the Indigenous Peoples, both individual and collective;</p> <p>(b) the need to protect such lands and resources against illegal intrusion or encroachment;</p> <p>(c) the cultural and spiritual values; and</p> <p>(d) Indigenous Peoples' natural resources management practices and the long-term sustainability if such practices.</p>	<p>The borrower undertakes a social assessment to evaluate the project's potential positive and adverse effect on the Indigenous Peoples, and to examine project alternatives where adverse effects may be significant.</p> <p>To carry out the social assessment and prepare the IPP/IPPF, the borrower pays particular attention to:</p> <p>(a) the customary rights of the Indigenous Peoples, both individual and collective;</p> <p>(b) the need to protect such lands and resources against illegal intrusion or encroachment;</p> <p>(c) the cultural and spiritual values; and</p> <p>(d) Indigenous Peoples' natural resources management practices and the long-term sustainability if such practices.</p>	-	<p>Impacts of the proposed project on social aspects including impacts to the local community are taken into consideration during first phase of project preparation within the process of EIA as required in JICA Guidelines and WB OP.</p> <p>However, requirement of social assessment and IPPF and/or IPP is not specifically mentioned in relevant legislations.</p>
Free, prior, and informed consultation.	<p>When the projects may have adverse impacts on indigenous peoples, efforts must be made to obtain the consent of indigenous peoples in a process of free, prior, and informed</p>	<p>Where the project affects Indigenous People, the borrower engages in free, prior, and informed consultation with them.</p> <p>To ensure such consultation, the borrower: (a)</p>	<p>When the projects may have adverse impacts on indigenous peoples, efforts must be made to obtain the consent of indigenous peoples in a process of free, prior, and informed consultation.</p>	-	<p>In case any land will be acquired, the Government shall devise and implement participatory mechanisms for determination of compensation and ensure the management and utilization process involves all resources and facilitate benefit sharing, the Government shall:</p>

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws
	<p>consultation.</p>	<p>establishes an appropriate gender and intergenerationally inclusive framework; (b) uses consultation methods appropriate to the social and cultural values of the affected Indigenous Peoples' communities and their local conditions; and (c) provides the affected Indigenous Peoples' communities with all relevant information about the project in a culturally appropriate manner at each stage of project preparation and implementation.</p> <p>Where the affected Indigenous Peoples' communities provide their broad support to the project, the borrower prepares a detailed report.</p>	<p>To ensure such consultation, the borrower: (a) establishes an appropriate gender and intergenerationally inclusive framework; (b) uses consultation methods appropriate to the social and cultural values of the affected Indigenous Peoples' communities and their local conditions; and (c) provides the affected Indigenous Peoples' communities with all relevant information about the project in a culturally appropriate manner at each stage of project preparation and implementation.</p> <p>Where the affected Indigenous Peoples' communities provide their broad support to the project, the borrower prepares a detailed report.</p> <p>For Category A sub-projects, end-users shall carry out a social assessment and prepare IPP prior to their implementation</p>	<p>(b) Devise and implement participatory mechanisms for compensation for: i. Loss of land and related non-renewable natural resources; ii. Loss of land where this is deemed imperative in the public interest for the sustainable management of renewable natural resources; and iii. Damage occasioned by wild animals; (e) Ensure the management and utilization of land-based natural resources involves all stakeholders. (Section 99(b)(e), National Land Policy 2007))</p>	<p>stakeholders. No legislation and/or official guidelines exists specifically concerning the other adverse impacts of the project on indigenous people ("marginalized community") and requiring free, prior, and informed consultation with them in Kenya.</p>
Preparation of Program and Subproject IPPs	<p>In principle, JICA undertakes environmental reviews for the sub-projects prior to their implementation in a same manner as specified for Category A projects, if those sub-projects are likely to be under the cooperation projects.</p>	<p>The borrower ensures that, before the individual program or subproject is implemented, a social assessment is carried out and IPP is prepared in accordance with the requirement of this policy.</p>	<p>Disclose the IPPs including documentation of the consultation process, in a form and language(s) accessible to key stakeholders, civil society, particularly affected groups and the general public in an accessible place for a reasonable minimum period.</p>	<p>No legislation and/or official guidelines exists requiring preparation of IPPF and/or IPP in Kenya.</p>	<p>No legislation and/or official guidelines exists requiring preparation of IPPF and/or IPP in Kenya.</p>
Disclosure	<p>Prior to its environmental review, JICA disclose IPPs for projects that address issues of indigenous people. Measures for the affected indigenous peoples must be prepared as an IPP and must be made public in compliance with the relevant laws and ordinances of the host country.</p>	<p>The borrower makes the social assessment report and draft IPP/IPPF available to the affected Indigenous Peoples' communities in an appropriate form, manner, and language.</p>	<p>(The Authority shall, at the expense of the proponent publish ~ a public notice once a week inviting the public to submit oral or written comments on the environmental impact assessment study report. The invitation for public comments under this regulation shall state - (a) the nature of the project; (b) the location of the project; (c) the anticipated impacts of the project and the proposed mitigation measures to respond to the impacts; (d) the times and place where the full report can be inspected; and (e) the period within which the Authority shall receive comments. (Section 21(2)(3), EIA/EA 2003))</p> <p>In preparing a project report and EIA, the proponent shall pay particular attention to social issues including - (a) economic impacts; (b) social cohesion or disruption; (c) effect on human health; (d) immigration or emigration (e) communication - roads opened up, closed, rerouted (f) effects on culture and objects of culture value (Second Schedule, EIA/EA 2003))</p>	<p>No legislation and/or official guidelines exists requiring preparation of IPPF and/or IPP in Kenya. Disclosure of EIA including potential economic and social impacts is conducted by NEMA in accordance with EIA/EA 2003. Accessibility of such information by key stakeholders, civil society, particularly affected groups, and the general public are secured, and period of information disclosure and inviting public comments is reasonable as required in JICA Guidelines and WB OP.</p>	<p>No legislation and/or official guidelines exists requiring preparation of IPPF and/or IPP in Kenya. Disclosure of EIA including potential economic and social impacts is conducted by NEMA in accordance with EIA/EA 2003. Accessibility of such information by key stakeholders, civil society, particularly affected groups, and the general public are secured, and period of information disclosure and inviting public comments is reasonable as required in JICA Guidelines and WB OP.</p>
Grievance procedures	<p>Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.</p>	<p>Accessible procedures appropriate to the project to address grievances by the affected Indigenous Peoples' communities arising from project implementation. When designing the grievance procedures, the borrower takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous Peoples.</p>	<p>Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. When designing the grievance procedures, the borrower takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous Peoples.</p>	<p>(There shall be established a Tribunal to be known as the Land Acquisition Compensation Tribunal. (Section 29(2) of Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010)- (Any person who is aggrieved by an award of the Commissioner as specified in section 29 (7) and (8) of the Act may apply to the Tribunal in accordance with these Rules. (Section 3, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010) (1) The language of the Tribunal shall be English or Kiswahili. (2) The Tribunal may, at its discretion, allow an application lodged in</p>	<p>When the adverse impacts on indigenous people include land acquisition, the tribunal process stipulated in the Land Acquisition (Compensation Tribunal) Rules, 2010 is functioned, and it ensures accessibility, affordability, and accountability as defined in JICA Guidelines and WB OP. However, the tribunal mechanism based on the Rules is not simple since the applicant needs to follow every steps stipulated in the Rules and prepare the written forms and their copies.</p>

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws
Monitoring	After projects begin, project proponents etc. monitor whether any unforeseeable situations occur and whether the performance and effectiveness of mitigation measures are consistent with the assessment's prediction. They then take appropriate measures based on the results of such monitoring.	Free, prior, and informed consultation with and participation by Indigenous Peoples' communities during monitoring is recommended.	After projects begin, project proponents etc. monitor whether any unforeseeable situations occur and whether the performance and effectiveness of mitigation measures are consistent with the assessment's prediction. They then take appropriate measures based on the results of such monitoring. Free, prior, and informed consultation with and participation by Indigenous Peoples' communities during monitoring is recommended.	<p>any local language spoken in Kenya by persons or a community directly affected by the subject matter of the application, if those persons or community cannot immediately obtain a translation but undertake to do so within a reasonable time.</p> <p>(3) The Tribunal shall, taking into account all the circumstances, grant the assistance of a competent interpreter free of charge to a party or witness who does not understand or speak the language used at the hearing or who is deaf.</p> <p>(4) The rulings of the Tribunal shall be prepared in the English language but may be translated, on request by a party, into the Kiswahili language.</p> <p>(Section 42, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010)</p> <p>(1) There shall be paid to the Tribunal such filing and other fees, including fees for service by the Tribunal of any notice or process, as shall be prescribed by the Minister.</p> <p>(2) The Tribunal may, if it considers it to be in the interest of justice, or on grounds of financial hardship on the part of the applicant, waive all or part of the filing fees payable in any application.</p> <p>(Section 43, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010)</p> <p>The Tribunal may from time to time prescribe and issue free of charge forms as it may consider necessary for the purposes of filing applications or replies and for any interlocutory matters.</p> <p>(Section 44, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010))</p>	No legislation and/or official guidelines exists specifically requiring impact assessment of the project on indigenous people ("marginalized community") and monitoring of its results in Kenya.
Special Considerations					
Commercial Development of Natural and Cultural Resources		If the project involves the commercial development of natural resources, the borrower includes in the IPP arrangements to enable the Indigenous Peoples to share equitably in the benefits to be derived from such commercial development. The project of the commercial development of Indigenous Peoples' cultural resources and knowledge is conditional upon their prior agreement to such development.	If the project involves the commercial development of natural resources, the borrower includes in the IPP arrangements to enable the Indigenous Peoples to share equitably in the benefits to be derived from such commercial development. The project of the commercial development of Indigenous Peoples' cultural resources and knowledge is conditional upon their prior agreement to such development.	<p>(To secure access to land based natural resources the Government shall recognize and protect the rights of forest, water dependent or other natural resources dependent communities and facilitate their access, co-management and derivation of benefits from the resources. (Section 95, National Land Policy 2007))</p> <p>(To protect community and individual interests over land based resources and facilitate benefit sharing, the Government shall:</p> <p>(a) Establish legal frameworks to recognise community and private rights over renewable and non-renewable land-based natural resources and incorporate procedures for access to and sustainable use of these resources by communities and private entities;</p> <p>(b) Devise and implement participatory mechanisms for compensation for:</p> <ol style="list-style-type: none"> i. Loss of land and related non-renewable natural resources; ii. Loss of land where this is deemed imperative in the public interest for the sustainable management of renewable natural resources; and iii. Damage occasioned by wild animals; <p>(c) Put in place legislative and administrative mechanisms for</p>	<p>No legislation and/or official guidelines exists specifically concerning adverse impacts of the commercial development of natural resources on indigenous people ("marginalized community") and requiring preparation of IPPF and/or IPP in Kenya.</p> <p>However, it is stated that the Government shall recognize and protect the rights of natural resources dependent communities and facilitate their access, co-management and derivation of benefits from the resources and establish necessary legal framework in National Land Policy 2007.</p>

Aspect	JICA Guidelines for Environmental and Social Consideration (April 2010)	World Bank OP4.10	Harmonized Policy	Government Laws	Gaps between Harmonized Policy and Government Laws
Physical Relocation of Indigenous Peoples	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is proved unfeasible, affected people must be sufficiently compensated and supported by project proponents etc. in a timely manner. Prior compensation, at full replacement cost, must be provided as much as possible.	When it is not feasible to avoid relocation, the borrower prepares a resettlement plan in accordance with the requirement of OP 4.12, Involuntary Resettlement. Involuntary restrictions on Indigenous Peoples' access to legally designated parks and protected areas, in particular access to their sacred sites, should be avoided. Where it is not feasible to avoid restricting access, the borrower prepares a process framework in accordance with the provisions of OP 4.12.	When it is not feasible to avoid relocation, the borrower prepares a resettlement plan in accordance with the requirement of OP 4.12, Involuntary Resettlement. Involuntary restrictions on Indigenous Peoples' access to legally designated parks and protected areas, in particular access to their sacred sites, should be avoided. Where it is not feasible to avoid restricting access, the borrower prepares a process framework in accordance with the provisions of OP 4.12.	<p>determining and sharing of benefits emanating from land based natural resources by communities and individuals where applicable; (Section 99(a)(b)(c), National Land Policy 2007))</p> <p>- The State shall not deprive a person of property of any description, or of any interest in, or right over, property of any description, unless the deprivation is for a public purpose or in the public interest and is carried out in accordance with this Constitution and any Act of Parliament that requires prompt payment in full, of just compensation to the person. (Section 40(3), The Constitution, 2010)</p> <p>(To secure access to land based natural resources the Government shall recognize and protect the rights of forest, water dependent or other natural resources dependent communities and facilitate their access, co-management and derivation of benefits from the resources. (Section 95, National Land Policy 2007))</p>	Although avoiding physical relocation of indigenous people is not specifically mentioned in relevant legislations, the principles, which are to avoid adverse impacts on people, between JICA Guidelines and WB OP and Kenyan legislations are same. No legislation and/or official guidelines exists requiring preparation of resettlement plan or process framework in Kenya.
Indigenous Peoples and Development	JICA makes efforts to enhance the comprehensive capacity of organizations and operations in order for project proponents etc., to have consideration for environmental and social factors, appropriately and effectively, at all times	In furtherance if the project of this policy, the Bank may, at a member country's request, support the country in its development planning and poverty reduction strategies by providing financial assistance for a variety of initiatives.	Assist in building capacity of the borrowers on best practice on consideration on indigenous peoples during both planning and implementation Financing of technical assistance to strengthen the capacities of agencies responsible for consideration on indigenous peoples, or of affected people to participate more effectively in project operations.	-	-

Annex 1-4 Legal gaps between WB OP4.11 (Physical Cultural Resources), JICA Guidelines, and legislation in Kenya

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
<p>Objective</p> <p>Avoid or mitigate adverse impact on physical cultural resources</p>	<p>Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature or cultural heritage (excluding projects whose primary objectives are to promote the protection or restoration of such areas). Projects are also not to impose significant adverse impacts on designated conservation areas. (Appendix 1. 4-2)</p>	<p>The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects. (3)</p>	<p>Projects must, in principle, be undertaken outside of protected areas that are specifically designated by laws or ordinances for the conservation of nature or cultural heritage (excluding projects whose primary objectives are to promote the protection or restoration of such areas). Projects are also not to impose significant adverse impacts on designated conservation areas.</p>	<p>“Protected area” means a site which has been and remains declared by the Minister under section 25 (1) (a) or (c) or (f) to be a protected area. “Protected building” means a building of special architectural or historical interest declared by the Minister to be a protected building under section 25 (1) (e) and includes any object or structure fixed to the building; “protected object” means: (a) a door or door frame carved in an African or Oriental style before the year 1946; or (b) any other object or type of object, whether or not part of an immovable structure, which being of historical or cultural interest has been and remains declared by the Minister under section 25 (1) (d) to be a protected object; 25(1) After consultation with the National Museums the Minister may by notice in the Gazette declare: (a) an open space to be a protected area within the meaning of this Act, (c) a specified site on which a buried monument or object or archaeological or palaeontological interest exists or is believed to exist, and a specified area of land adjoining it which is in the Minister’s opinion required for maintenance thereof, to be a protected area within the meaning of this Act, (d) a specified object or type of object, whether or not part of an immovable structure, which the Minister considers to be of historical, cultural, or scientific interest, to be a protected object within the meaning of this Act; (e) a building and specified area of land adjoining it which in the Minister’s opinion is required for the maintenance thereof to be a protected building within the meaning of this Act; or (f) a geopark to be a protected area within the meaning of this Act; (Section 2 and 25(1), National Museums and Heritage Act)</p> <p>A person shall not undertake the construction of any infrastructure, including visitors’ amenities, drainage works or car parks, in a protected area, in a manner that endangers the ecological equilibrium or alters the general appearance of the area. (Section 14, The National Museums and Heritage (Open Spaces and Areas of National Heritage) (Protection and Management) Rules)</p> <p>The Minister may, in respect of a protected area, from time to time. (a) by notice in the Gazette, prohibit or restrict access thereto or any development thereof, or the use thereof for agriculture or livestock, or activity thereon which in the Minister’s opinion is liable to damage a monument or object of archaeological or palaeontological interest therein; (Section 34(a), National Museums and Heritage Act)</p>	<p>Basically, there is no distinct gap between harmonized policy and GOK legislations regarding considerations on protected areas for national heritage.</p>
<p>Compliance with national legislations and international treaties</p>	<p>JICA confirms that projects comply with the laws or standards related to the environment and local communities in the central and local governments of host countries; it also confirms that projects conform to those governments’ policies and plans on the environment and local communities.</p>	<p>The impacts on physical cultural resources resulting from project activity, not contravene either the borrower’s national legislation, or its international treaties and agreements, such as the Convention concerning the Protection of the World Cultural and Natural Heritage, 1972 (UNESCO</p>	<p>The impacts on physical cultural resources resulting from project activity, not contravene either the borrower’s national legislation, or its obligations under relevant international environmental treaties and agreements, such as the Convention concerning the Protection of the World Cultural and Natural Heritage, 1972 (UNESCO</p>	<p>An environmental impact assessment study shall include the following: 6. Environmental Guidelines and Standards (National Legislation, International guidelines, International Conventions and Treaties) (Third Schedule, EIA/EA 2003)</p>	<p>Basically, there is no gap between harmonized policy and GOK legislations regarding compliance with relevant laws, standards, and plans.</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
	<p>JICA confirms that projects do not deviate significantly from the World Bank's Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate. (Sec.2/2.6/2, 3)</p>	<p>Cultural and Natural Heritage, 1972 (UNESCO World Heritage Convention). (3)</p> <p>The physical cultural resources management plan is consistent with the country's overall policy framework and national legislation and takes into account institutional capabilities with regard to physical cultural resources. (9)</p>	<p>World Heritage Convention)</p> <p>Physical cultural resources, which are also known as „cultural heritage“, „cultural patrimony“, „cultural assets“ or „cultural property“, are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance.</p>		
<p>Definition of physical cultural resources</p>		<p>Also known as „cultural heritage“, „cultural patrimony“, „cultural assets“ or „cultural property“ and defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. (1)</p>	<p>Physical cultural resources, which are also known as „cultural heritage“, „cultural patrimony“, „cultural assets“ or „cultural property“, are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance.</p>	<p>„cultural heritage“ means.</p> <p>(a) monuments;</p> <p>(b) architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of universal value from the point of view of history, art or science;</p> <p>(c) groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding value from the point of view of history, art or science;</p> <p>(d) works of humanity or the combined works of nature and humanity, and areas including archaeological sites which are of outstanding value from the historical, aesthetic, ethnological or anthropological point of view;</p> <p>and includes objects of archaeological or palaeontological interest, objects of historical interest and protected objects.</p> <p>„monument“ means.</p> <p>(a) a place or immovable structure of any age which, being of historical, cultural, scientific, architectural, technological or other human interest has been and remains declared by the Minister under section 25 (1) (b) to be a monument;</p> <p>(b) a rock-painting, carving or inscription made on an immovable object;</p> <p>(c) an ancient earthwork or other immovable object attributable to human activity;</p> <p>(d) a structure which is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attached to it; and has been and remains declared by the Minister under section 25 (1) (b) to be a monument;</p> <p>(e) a shipwreck more than fifty years old; and such adjoining land as may be required for maintenance thereof.</p> <p>„natural heritage“ means.</p> <p>(a) natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;</p> <p>(b) geological or physiographical formations of special significance, rarity or beauty;</p> <p>(c) precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science, conservation or natural beauty; or</p> <p>(d) areas which are or have been of religious significance, use or veneration and which include but are not limited to Kayas;</p> <p>„antiquity“ means any movable object other than a book or document made in or imported into Kenya before the year 1895, or any human, faunal or floral remains of similar minimum age which may exist in</p>	<p>Basically, there is no gap between harmonized policy and GOK legislations regarding definition of physical cultural resources.</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws covering eminent domain and resettlement (Section 2, National Museums and Heritage Act)	Gaps between Harmonized Policy and Government laws
Core Principles				Kenya.	
Categorization	<p>Projects that are likely to have a significant adverse impact on the environment and society, and the projects with complicated or unprecedented impacts that are difficult to assess, or projects with a wide range of impacts or irreversible impacts, are classified as Category A. Category A includes projects in sensitive sectors, projects that have characteristics that are liable to cause adverse environmental impacts, and projects located in or near sensitive areas.</p> <p><u>Sensitive Characteristics</u></p> <ol style="list-style-type: none"> (1) Large-scale involuntary resettlement (2) Large-scale groundwater pumping (3) Large-scale land reclamation, land development, and land clearing (4) Large-scale logging <p><u>Sensitive Areas</u></p> <p>Projects in the following areas or their vicinity:</p> <ol style="list-style-type: none"> (1) National parks, nationally-designated protected areas (coastal areas, wetlands, areas for ethnic peoples or indigenous peoples and cultural heritage, etc. designated by national governments) (2) Areas that are thought to require careful consideration by the country or locality <p><u>Social Environment</u></p> <ol style="list-style-type: none"> a) Areas with unique archeological, historical, or cultural value b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p> <p>(Sec.2/2.2/2, Sec.2/2.2/3, Appendix 3)</p>	<p>Following projects are classified as Category A or B, and are subject to the provisions of this policy:</p> <ol style="list-style-type: none"> (a) any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and (b) any project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower. <p>Projects specifically designed to support the management or conservation of physical cultural resources are individually reviewed, and are normally classified as Category A or B. (5)</p>	<p>Projects that are likely to have a significant adverse impact on the environment and society, and the projects with complicated or unprecedented impacts that are difficult to assess, or projects with a wide range of impacts or irreversible impacts, are classified as Category A. Category A includes projects in sensitive sectors, projects that have characteristics that are liable to cause adverse environmental impacts, and projects located in or near sensitive areas.</p> <p><u>Sensitive Characteristics</u></p> <ol style="list-style-type: none"> (1) Large-scale involuntary resettlement (2) Large-scale groundwater pumping (3) Large-scale land reclamation, land development, and land clearing (4) Large-scale logging <p><u>Sensitive Areas</u></p> <p>Projects in the following areas or their vicinity:</p> <ol style="list-style-type: none"> (1) National parks, nationally-designated protected areas (coastal areas, wetlands, areas for ethnic minorities or indigenous peoples and cultural heritage, etc. designated by national governments) (2) Areas that are thought to require careful consideration by the country or locality <p><u>Social Environment</u></p> <ol style="list-style-type: none"> a) Areas with unique archeological, historical, or cultural value b) Areas inhabited by ethnic minorities, indigenous peoples, or nomadic peoples with traditional ways of life, and other areas with special social value <p>Projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.</p>	<p>Kenya.</p> <p>(Section 2, National Museums and Heritage Act)</p>	<p>No legislation and/or official guidelines exist concerning categorization of the project based on the significance of the impacts of the project and its characteristics and location in Kenya.</p> <p>NEMA reviews projects submitted by the project proponents and assess the significance of the projects. EIA is required when NEMA finds that the proposed project will have a significant adverse environmental and social impact on cultural heritage after reviewing submitted project reports which are considered as an IEE.</p> <p>Since there is no criteria which determine significance of adverse environmental and social impact on cultural heritage in Kenya, gaps between harmonized policy and GOK legislations regarding categorization of the project need to be assessed on a project-by-project basis.</p>
Environmental Assessment	<p>The impacts to be assessed with regard to environmental and social considerations include social impacts, such as cultural heritage.</p> <p>(Sec. 2.2.3-1, Appendix 1.3-1)</p>	<p>The borrower addresses impacts on physical cultural resources in projects as an integral part of the environmental assessment (EA) process. (4)</p> <p>To develop the TORs for the EA, the borrower, in consultation with the Bank, relevant experts, and project-affected groups, identifies the likely</p>	<p>The impacts to be assessed with regard to environmental and social considerations include social impacts, such as cultural heritage.</p> <p>To develop the TORs for the environmental and social considerations, the borrower, in consultation with JICA, relevant experts, and project-affected groups, identifies the likely physical cultural resources issues, if any, to be</p>	<p>The following issues may, among others, be considered in the making of environmental impact assessments.</p> <ol style="list-style-type: none"> 2. Social considerations including (a) economic impacts; (b) social cohesion or disruption; (c) effect on human health; (d) immigration or emigration; (e) communication - roads opened up, closed, rerouted; (f) effects on culture and objects of cultural value (Second Schedule, EIA/EA 2003) <p>"environmental impact assessment" means a systematic examination</p>	<p>Basically, there is no distinct gap between harmonized policy and GOK legislations regarding scope of EIA.</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
physical cultural resources management plan	<p><u>Illustrative Environmental Impact Assessment Report for Category A Projects</u> The EIA report should include the following items</p> <p>- Environmental Management Plan (EMP): This describes mitigation, monitoring, and institutional measures to be taken during construction and operation in order to eliminate adverse impacts, offset them, or reduce them to acceptable levels. (Appendix 2)</p>	<p>The borrower develops a physical cultural resources management plan that includes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, any necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities. (9) It may be incorporated in an Environmental Management Plan.</p>	<p>The EIA report for category A project should include Environmental Management Plan (EMP) which describes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, any necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities.</p>	<p>An environmental impact assessment study shall be conducted in accordance with the general environmental impact assessment guidelines and administrative procedures issued by the Authority. An environmental impact assessment study shall include the following:</p> <p>7. Mitigation Measures 8. Environmental Management Plan (Third Schedule, EIA/EA 2003)</p>	<p>Basically, there is no distinct gap between harmonized policy and GOK legislations regarding requirements for EMP.</p>
Involvement of stakeholders (Consultations)	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus. JICA encourages project proponents etc. to</p>	<p>The consultative process for the physical cultural resources component normally includes relevant project-affected groups, concerned government authorities, and relevant nongovernmental organizations in documenting the presence and significance of physical cultural resources, assessing potential impacts, and exploring avoidance and mitigation options. (11)</p>	<p>Project proponents etc. consult with local stakeholders through means that induce broad public participation to a reasonable extent, in order to take into consideration the environmental and social factors in a way that is most suitable to local situations, and in order to reach an appropriate consensus. JICA encourages project proponents etc. to publicize in advance that they plan to consult with</p>	<p>(1) During the process of conducting an environmental impact assessment study ~, the proponent shall ~ seek the views of persons who may be affected by the project. (2) In seeking the views of the public, after the approval of the project report by the Authority, the proponent shall - (a) publicize the project and its anticipated effects and benefits by - (i) posting posters in strategic public places in the vicinity of the site of the proposed project informing the affected parties and communities of the proposed project;</p>	<p>Basically, there is no gap between harmonized policy and GOK legislations regarding public consultations. The EIA/EA 2003 stipulates that the proponent shall seek the views of persons who may be affected by the project during the process of EIA, especially at the early stage of the process (after approval of project report). It is also required to hold at least three public meetings with the affected parties and communities to explain the project</p>

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
	publicize in advance that they plan to consult with local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings. In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed. In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary. JICA encourages project proponents etc. to prepare minutes of their meetings after such consultations occur. (Sec.2.2.4/1, 4, 5, 6)		local stakeholders, with particular attention to directly affected people, in order to have meaningful meetings. In the case of Category A projects, JICA encourages project proponents etc. to consult with local stakeholders about their understanding of development needs, the likely adverse impacts on the environment and society, and the analysis of alternatives at an early stage of the project, and assists project proponents as needed. In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary. JICA encourages project proponents etc. to prepare minutes of their meetings after such consultations occur.	(ii) publishing a notice on the proposed project for two successive weeks in a newspaper that has a nation-wide circulation; and (iii) making an announcement of the notice in both official and local languages in a radio with a nation-wide coverage for at least once a week for two consecutive weeks; (b) hold at least three public meetings with the affected parties and communities to explain the project and its effects, and to receive their oral or written comments; (Section 17(1)(2), EIA/EA 2003) Consultations and Public Participation (CPP) should be undertaken mainly during project planning, in implementation and decommissioning phases. It should involve the affected persons, lead agencies, private sector, among others. The methodology for CPP may include: meetings and technical workshops with affected communities; interpersonal contacts; Dialogue with user groups and local leaders; Questionnaire/survey/ interview; and participatory rural appraisal or rapid rural appraisal (PRA/RRA) techniques. It is the responsibility of the project proponent to adequately ensure effective distribution of the ELASR information to the affected persons	and its effects, and to receive their oral or written comments during EIA process. In addition, it is mentioned that CPP should be undertaken during project planning, in implementation and decommissioning phases and involve the affected persons, lead agencies, private sector, among others in the draft EIA Guidelines. It also states that effective distribution of the EIA study report information to the affected persons is proponent's responsibility.
Capacity Building	JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the guidelines, depending on the nature of cooperation projects. (Sec.1/1.5)	When the borrower's capacity is inadequate to manage physical cultural resources that may be affected by a Bank-financed project, the project may include components to strengthen that capacity. (16) Given that the borrower's responsibility for physical cultural resources management extends beyond individual projects, the Bank may consider broader capacity building activities as part of its overall country assistance program. (17) The findings of the physical cultural resources component of the EA are disclosed as part of, and in the same manner as, the EA report. (12) (For a Category A project, the borrower provides for the initial consultation a summary of the proposed project's objectives, description, and potential impacts; for consultation after the draft EA report is prepared, the borrower provides a summary of the EA's conclusions. The borrower makes the draft EA report available at a public place accessible to project-affected groups and local NGOs. Any separate Category B report for a project is made available to project-affected groups and local NGOs. Public availability in the borrowing country and official receipt by the Bank of Category A reports and of any Category B EA report are prerequisites to Bank appraisal of these projects. (OP4.01 16, 17)	JICA provides support for and examinations of the environmental and social considerations that project proponents etc. implement in accordance with Sections 2 and 3 of the JICA guidelines, depending on the nature of cooperation projects.	-	-
Information Disclosure	For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc. For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc. (Sec.3/3.2/3.2.1/(1), (2)) In principle, project proponents etc. disclose information about the environmental and social considerations of their projects. JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders. (Sec.2/2.1/1, 6)		For Category A project, JICA publishes the status of host countries' submission of major documents on environmental and social considerations on its website. Prior to its environmental review, JICA also discloses EIA reports and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EIA reports, subject to approval by project proponents etc. For Category B project, JICA discloses EIA reports and environmental permit certifications, when these documents are submitted by project proponents etc. In principle, project proponents etc. disclose information about the environmental and social considerations of their projects. JICA encourages project proponents etc. to disclose and present information about environmental and social considerations to local stakeholders.	The Authority shall, at the expense of the proponent publish - a public notice once a week inviting the public to submit oral or written comments on the environmental impact assessment study report. The invitation for public comments under this regulation shall state - (a) the nature of the project; (b) the location of the project; (c) the anticipated impacts of the project and the proposed mitigation measures to respond to the impacts; (d) the times and place where the full report can be inspected; and (e) the period within which the Authority shall receive comments. (Section 21(2)(3), EIA/EA 2003) Information or documents submitted to the Authority by any person in connection with an environmental impact assessment together with the Authority's decision and the reasons thereof shall be made available to the public on such terms and conditions as the Authority may prescribe. (Section 29, EIA/EA 2003)	The project proponents disclose information about the environmental and social considerations (except RAP and IPP/PPF) of their projects through the process of CPP. However, disclosure of EIA by the project proponents is not clearly stipulated in the relevant Acts. (Disclosure of EIA is conducted by NEMA in accordance with EIA/EA 2003.) No legislation and/or official guidelines exists regarding donor's responsibility.

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.11	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Monitoring	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p> <p>JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc. (Sec.3/3.2/3.2.2/1, 7)</p>	-	<p>JICA confirms with project proponents etc. the results of monitoring the items that have significant environmental impacts. This is done in order to confirm that project proponents etc. are undertaking environmental and social considerations for projects that fall under Categories A, B, and FI.</p> <p>JICA discloses the results of monitoring conducted by project proponents etc. on its website to the extent that they are made public in project proponents etc.</p>	<p>In executing a project, after the environmental impact assessment study report has been approved by the Authority, the proponent shall take all practical measures to ensure the implementation of the environmental management plan by -</p> <p>(a) carrying out a self-auditing study on a regular basis;</p> <p>(b) preparing an environmental audit report after each audit and submitting the report to the Authority annually or as may be prescribed by the Authority; and</p> <p>(c) ensuring that the criteria used for the audit is based on the environmental management plan developed during the environmental impact assessment process or after the initial audit.</p> <p>(Section 34, EIA/EA 2003)</p> <p>In carrying out an environmental audit study, the with standards, environmental auditor shall comply with any existing national environmental regulations and standards prescribed by the Authority, and in the absence of such national environmental regulations and standards shall use such other international standards as shall be prescribed by the Authority.</p> <p>(Section 32, EIA/EA 2003)</p> <p>The Authority shall be responsible for carrying out environmental audit of all activities that are likely to have significant effect on the environment. An environmental inspector ~ may enter any land or premises for the purposes of determining how far the activities carried out on that land or premises conform with the statements made in the environmental impact assessment study report ~.</p> <p>(Section 68(1), EMCA 1999)</p> <p>Information or documents submitted to the Authority by any person in connection with an environmental impact assessment together with the Authority's decision and the reasons thereof shall be made available to the public on such terms and conditions as the Authority may prescribe.</p> <p>(Section 29, EIA/EA 2003)</p>	<p>Basically, there is no gap between harmonized policy and GOK legislations regarding monitoring procedure of the project for which EIA has completed.</p> <p>The proponent shall conduct environmental audit based on the EMP in the EIA and prepare audit report and submit it to NEMA annually.</p> <p>However, monitoring (environmental audit) for the project approved by NEMA based on the project report is not required.</p> <p>No legislation and/or official guidelines exists regarding donor's responsibility.</p>

Annex 1-5 Legal gaps between WB OP4.12 (Involuntary Resettlement), JICA Guidelines, and legislation in Kenya

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Objective					
Avoid involuntary resettlement	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.	Involuntary resettlement should be avoided where feasible.	Avoid involuntary resettlement and adverse impacts on people and communities, wherever feasible.	The State shall not deprive a person of property of any description, or of any interest in, or right over, property of any description. (Section 40(3), The Constitution, 2010)	Although avoiding involuntary resettlement is not specifically mentioned, the principles, which are to avoid adverse impacts on people, between JICA Guidelines and WB OP and Kenyan legislations are same.
Minimize involuntary resettlement	When, after such an examination, avoidance is proved unfeasible, effective measures to minimize impact and to compensate for losses must be agreed upon with the people who will be affected.	Minimize involuntary resettlement by exploring all viable alternative project designs	If displacement is unavoidable, minimize involuntary resettlement by: (i) exploring alternative project designs; (ii) Effective measures to minimize impact in consultation with the people who are affected.	-	No legislation and/or official guidelines exists concerning involuntary resettlement in Kenya.
Mitigate adverse social impacts	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project proponents etc. in a timely manner.	Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits.	Where IR is unavoidable, effective measures to mitigate adverse social and economic impacts on affected persons by: (a) providing compensation for loss of assets at replacement cost; (b) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected (c) improve or at least restore the livelihoods and standards of living of displaced persons, and (d) improve living conditions among displaced persons through provision of adequate housing with security of tenure at resettlement sites.	The State shall not deprive a person of property of any description, or of any interest in, or right over, property of any description, unless the deprivation is for a public purpose or in the public interest and is carried out in accordance with this Constitution and any Act of Parliament that requires prompt payment in full, of just compensation to the person. (Section 40(3), The Constitution, 2010)	Prompt payment of full and just compensation is required in Kenya as required in JICA Guidelines and WB OP. However, improvement or restoration of livelihood and living conditions is not specifically mentioned in relevant legislations in Kenya. In addition, no legislation and/or official guidelines exists requiring preparation of RAP and IPPF and/or IPP, nor implementation of resettlement activities with appropriate information disclosure, consultations, and the informed participation of those affected.
Core principle					
Screening	JICA classifies projects into four categories according to the extent of environmental and social impacts, taking into account an outline of project, scale, site condition, etc. JICA requests that Project proponents etc. fill in the screening form found in Appendix 4; the information in this form will be a reference for the categorization of proposed projects.	-	Every development intervention will be screened, as early as possible in the project cycle, to identify the people who may be beneficially and adversely affected, and to determine the scope of a social assessment to assess those affects and impacts.	A proponent shall prepare a project report stating the economic and socio-cultural impacts to the local community and the nation in general. (Section 7(1)(i), EIA/EA 2003) In preparing a project report and EIA, the proponent shall pay particular attention to social issues including - (a) economic impacts; (b) social cohesion or disruption; (c) effect on human health; (d) immigration or emigration (e) communication - roads opened up, closed, rerouted (f) effects on culture and objects of culture value (Second Schedule, EIA/EA 2003)	Impacts of the proposed project on social aspects including impacts to the local community are taken into consideration during the first phase of project preparation within the process of EIA as required in JICA Guidelines and WB OP. However, requirement of social assessment is not specifically mentioned in relevant legislations.
Categorization	Projects that are likely to have a significant adverse impact on the environment and society are categorized as “Category A” even if they are not included in the sectors, characteristic, or areas on the list. Sensitive Characteristics (1) Large-scale involuntary resettlement	Project displaces fewer than 200 people & entails Minor Resettlement impacts namely - a) all the DPs lose less than 10% of their land, regardless of the number of APs b) the remainder of their land is economically viable; c) they have no need for physical relocation Project that displace more than 200 people and entail major impacts	Categorize impacts by “significance” and define the scale of impacts – both direct and indirect – with particular attention to economic and livelihood impacts Plan mitigations for all types of losses in the RP	-	No legislation and/or official guidelines exists concerning categorization of the project based on the significance (number of displaced persons) and preparation of mitigation plan for PAPs in Kenya.

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Resettlement Plan	For projects that will result in large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.	To cover the direct social and economic impacts that are caused by the involuntary taking of land and/or the involuntary restriction of access to legally designated parks and protected areas, the borrower will prepare a Resettlement plan or resettlement policy framework. The RP or framework will include measures to ensure that the displaced persons are provided assistance during relocation; provided with residential housing, or housing sites, or as required agricultural sites; offered transitional support; provided with development assistance in addition to compensation.	For all interventions that involve resettlement or physical or economic displacement, a resettlement plan will be prepared which will establish the entitlements of all categories of affected persons (including host communities), with particular attention paid to the needs of the poor and the vulnerable. The RP will lay down appropriate time-bound actions and budgets, and the full costs of resettlement, compensation, and rehabilitation will be included in the presentation of the costs and benefits of the development intervention.	-	No legislation and/or official guidelines exists requiring preparation of resettlement plan in Kenya.
Alternatives	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.	Assess all viable alternative project designs to avoid, where feasible, or minimize involuntary resettlement.	Multiple alternative proposals must be examined to avoid or minimize involuntary resettlement and physical, or economic displacement and to choose a better project option while balancing environmental social and financial costs and benefits.	An environmental impact assessment study shall take into account environmental, social, cultural, economic, and legal considerations, and shall identify and analyze alternatives to the proposed project. (Section 16(b), EIA/EA 2003)	Social impact is assessed and alternatives are identified and analyzed in the EIA process in Kenya as required in JICA Guidelines and WB OP, though the objective to avoid or minimize involuntary resettlement and physical or economic displacement is not clearly mentioned.
Social Assessment	The impacts to be assessed with regard to environmental and social considerations. These also include social impacts, including migration of population and involuntary resettlement, local economy such as employment and livelihood, utilization of land and local resources, social institutions such as social capital and local decision-making institutions, existing social infrastructures and services, vulnerable social groups such as poor and indigenous peoples, equality of benefits and losses and equality in the development process, gender, children's rights, cultural heritage, local conflicts of interest, infectious diseases such as HIV/AIDS, and working conditions including occupational safety.	Through census and socio-economic surveys of the affected population, identify, assess, and address the potential economic and social impacts of the project that are caused by involuntary taking of land (e.g. relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected person must move to another location), whether or not the affected person must move to another location) or involuntary restriction of access to legally designated parks and protected areas and to determine who will be eligible for compensation and assistance.	Assess at an early stage of the project cycle the potential social and economic impacts caused by involuntary taking of land (e.g. relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected person must move to another location) or involuntary restriction of access to legally designated parks and protected areas and to determine who will be eligible for compensation and assistance.	-	No legislation and/or official guidelines exists requiring assessment of social and economic impacts specifically caused by involuntary taking of land or involuntary restriction of access to legally designated parks and protected areas in Kenya.
Involvement of stakeholders	Appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of resettlement action plans and measures to prevent the loss of their means of livelihood.	Consult project-affected persons, host communities and local nongovernmental organizations, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for establishing appropriate and accessible grievance mechanisms. Pay particular attention to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, Indigenous Peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.	Consult project-affected persons, host communities and local nongovernmental organizations, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for establishing appropriate and accessible grievance mechanisms. Pay particular attention to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, Indigenous Peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.	-	No legislation and/or official guidelines exists requiring preparation of resettlement plan nor stakeholders involvement in planning process in Kenya. Particular attention to vulnerable groups within society including women, older members, persons with disabilities, children, youth, members of minority or marginalised communities, and members of particular ethnic, religious or cultural communities is required in accordance with the Constitution in Kenya as required in JICA Guidelines and WB OP.

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Existing social and cultural institutions	The impacts to be assessed with regard to environmental and social considerations. These also include social impacts, including social institutions such as social capital and local decision-making institutions, existing social infrastructures and services, vulnerable social groups such as poor and indigenous peoples.	To the extent possible, the existing social and cultural institutions of resettlers and any host communities are preserved and resettlers' preferences with respect to relocating in pre-existing communities and groups are honoured.	Ensure that the existing social and cultural institutions of the resettlers and any host communities are supported and used to the extent possible, including legal, policy and institutional framework of the country to the extent that the intent and spirit of the IR policy is maintained. Projects must be adequately coordinated so that they are accepted in manner that is socially appropriate to the country and locality in which the Project is planned.	-	No legislation and/or official guidelines exists requiring assessment of impacts on existing social institutions, infrastructures, and services caused by the proposed projects and encouraging maximum use of them.
Definition of displaced persons	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project components etc. in a timely manner.	1) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country); 2) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets—provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan 3) those who have no recognizable legal right or claim to the land they are occupying.	1) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country); 2) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets—provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan 3) those who have no recognizable legal right or claim to the land they are occupying.	"person interested", in relation to land or a building, means a person who has an interest in or right over the land or building. (Section 2, Land Acquisition Act) Provision may be made for compensation to be paid to occupants in good faith of land acquired who may not hold title to the land. (Section 40(4), The Constitution 2010)	The person who has an interest in or right (formal legal rights) over the land or building is considered as eligible persons in Kenya as defined in JICA Guidelines and WB OP. However, the property rights of those who have customary tenure of the land are not clearly mentioned and secured in the current legislations in Kenya. Though it is stipulated that occupants in good faith of land acquired who do not hold title to the land are also considered to be eligible to receiving compensation in the Constitution, relevant legislation is not yet drafted.
Vulnerable group	Appropriate consideration must be given to vulnerable social groups, such as women, children, the elderly, the poor, and ethnic minorities, all members of which are susceptible to environmental and social impacts and may have little access to decision-making processes within society.	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.	All State organs and all public officers have the duty to address the needs of vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalised communities, and members of particular ethnic, religious or cultural communities. (Section 21 (3), The Constitution, 2010)	Basically, there is no gap between harmonized policy and GOK legislations regarding special attention to the needs of vulnerable groups.
Replacement Cost	Prior compensation, at full replacement cost, must be provided as much as possible.	The methodology to be used in valuing losses to determine their replacement cost	The methodology to be used in valuing losses to determine their replacement cost	In determining the amount of compensation to be awarded for land acquired, the following matters, and no others, shall be taken into consideration. (a) the market value; (b) damage sustained or likely to be sustained by persons interested at the time of the Commissioner's taking possession of the land by reason of severing the land from his other land; (c) damage sustained or likely to be sustained by persons interested at the time of the Commissioner's taking possession of the land by reason of the acquisition injuriously affecting his other property, whether movable or immovable, in any other manner or his actual earnings; (d) if, in consequence of the acquisition, any of the persons interested is or will be compelled to change his residence or place of business, reasonable expenses incidental to the change; (e) damage genuinely resulting from diminution of the profits of the land between the date of publication in the Gazette of the notice of intention to acquire the land and the date the Commissioner takes possession of the land. (Schedule, Land Acquisition Act)	Compensation under the Land Acquisition Act is determined based on the market value of the land and stamp duty is not charged. However, it is not clearly mentioned whether depreciation of the asset is considered or not.
			No award or agreement made under this Act shall be chargeable with stamp duty, and no person claiming under any such award or agreement shall be liable to pay a fee for a copy thereof. (Section 34, Land Acquisition Act)		

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Capacity Building	JICA makes efforts to enhance the comprehensive capacity of organizations and operations in order for project proponents etc., to have consideration for environmental and social factors, appropriately and effectively, at all times	Financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations.	Assist in building capacity of DMCs on best practice on involuntary resettlement planning and implementation Financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations.	-	No legislation and/or official guidelines exists regarding donor's responsibility.
Grievance procedures	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.	A grievance redress mechanisms for simplicity, accessibility, affordability, and accountability	A grievance redress mechanisms for simplicity, accessibility, affordability, and accountability	There shall be established a Tribunal to be known as the Land Acquisition Compensation Tribunal. (Section 29(2), Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010) Any person who is aggrieved by an award of the Commissioner as specified in section 29 (7) and (8) of the Act may apply to the Tribunal in accordance with these Rules. (Section 3, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010) (1) The language of the Tribunal shall be English or Kiswahili. (2) The Tribunal may, at its discretion, allow an application lodged in any local language spoken in Kenya by persons or a community directly affected by the subject matter of the application, if those persons or community cannot immediately obtain a translation but undertake to do so within a reasonable time. (3) The Tribunal shall, taking into account all the circumstances, grant the assistance of a competent interpreter free of charge to a party or witness who does not understand or speak the language used at the hearing or who is deaf. (4) The rulings of the Tribunal shall be prepared in the English language but may be translated, on request by a party, into the Kiswahili language. (Section 42, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010) (1) There shall be paid to the Tribunal such filing and other fees, including fees for service by the Tribunal of any notice or process, as shall be prescribed by the Minister. (2) The Tribunal may, if it considers it to be in the interest of justice, or on grounds of financial hardship on the part of the applicant, waive all or part of the filing fees payable in any application. (Section 43, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010) The Tribunal may from time to time prescribe and issue free of charge forms as it may consider necessary for the purposes of filing applications or replies and for any interlocutory matters. (Section 44, Land Acquisition Act and The Land Acquisition (Compensation Tribunal) Rules, 2010)	The Tribunal process stipulated in the Land Acquisition (Compensation Tribunal) Rules, 2010, ensures affordability and accountability as defined in JICA Guidelines and WB OP. However, the Tribunal mechanism based on the Rules is not simple and easy to access since the applicant needs to follow every steps stipulated in the Rules and prepare the written forms and their copies.
Information Disclosure	For projects that will result in large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.	Disclose draft resettlement plans, including documentation of the consultation process, in a timely manner, before appraisal formally begin, in an accessible place and in a form and language that are understandable to key stakeholders.	Disclose the resettlement plan including documentation of the consultation process, in a form and language(s) accessible to key stakeholders, civil society, particularly affected groups and the general public in an accessible place for a reasonable minimum period.	-	No legislation and/or official guidelines exists requiring preparation of resettlement plan nor disclosure of such plan in Kenya.

Aspect	JICA Guidelines for Environmental and Social Considerations (April 2010)	World Bank OP4.12	Harmonized Policy	Government laws covering eminent domain and resettlement	Gaps between Harmonized Policy and Government laws
Monitoring	After projects begin, project proponents etc. monitor whether any unforeseeable situations occur and whether the performance and effectiveness of mitigation measures are consistent with the assessment's prediction. They then take appropriate measures based on the results of such monitoring.	The borrower is responsible for adequate monitoring & evaluation of the activities set forth in the resettlement instrument.	The borrower is responsible for adequate monitoring & evaluation of the activities set forth in the resettlement instrument. It is desirable that the project proponents monitor: (i) whether any situations that were unforeseeable before the project began have arisen; (ii) the implementation situation and the effectiveness of the mitigation measures prepared in advance, and that they then take appropriate measures based on the results of such monitoring (iii) involve independent external experts for resettlement monitoring (iv) monitoring reports must be made public and additional steps to be taken, if required.	-	No legislation and/or official guidelines exists requiring preparation of resettlement plan nor monitoring and evaluation of the resettlement activities in accordance with such plan in Kenya.

Annex 2 List of State Forest

NO.	Forest Block	Area (ha)	County
1	ABERDARE	48,155.5	NYANDARUA
2	ABERDARE	33,058.6	NYERI
3	ABERDARE	21,810.8	MURANGA
4	ARABUKO	41,763.5	KILIFI
5	BAHATI	10,186.7	NAKURU
6	BUDA	667.7	KWALE
7	BUNYALA	825.6	KAKAMEGA
8	BONJOGE	2,150.0	NANDI
9	CHEBARTIGON	103.2	BARINGO
10	CHEBOYIT	2,488.8	ELGEYO-MARAKWET
11	CHEMOROGOK	1,346.8	BARINGO
12	CHEMUROKOI	3,965.9	ELGEYO-MARAKWET
13	CHEPALUNGU	4,976.6	BOMET
14	CHEPKUCHUMO	319.7	BARINGO
15	CHERIAL	42.5	BARINGO
16	CHOKE	73.5	TAITA-TAVETA
17	CHONYI (KAYA)	194.5	KILIFI
18	DAGORETTI	764.0	KIAMBU
19	EAST NGAMBA	1,070.4	KITUI
20	EASTERN MAU	29669.7	NAKURU
21	ELDOROT 1 & 11	147.99	UASIN GISHU
22	EMBAKASI	573.0	KAJIADO
23	EMBOBUT	21,933.9	ELGEYO-MARAKWET
24	ESCARPMENT	73.7	KIAMBU
25	ENDAU	6,717.8	KITUI
26	FIGI	0.4	TAITA-TAVETA
27	FURURU	14.12	TAITA-TAVETA
28	GAIKUYU	3,075.6	KITUI
29	GIRIBE	43.5	MIGORI
30	GOGONI	824.3	KWALE
31	GONJA	841.7	KWALE
32	GOYE	8.23	TAITA-TAVETA
33	GOD KWACH	5.0	HOMABAY
34	GOD AGULU	12.4	MIGORI
35	EBURU	8,715.3	NAKURU
36	GWASSI HILL	4,835.7	HOMABAY
37	IKILISA	78.5	MAKUENI
38	IVETI	347.6	MACHAKOS
39	IMBA/CHAKUYU	732.1	KITUI
40	JOMBO	906.5	KWALE
41	JIBANA (KAYA)	140.0	KILIFI
42	KABARAK	1,392.1	BARINGO
43	KABIOK	14.2	BARINGO
44	KAISUNGOR	1,085.8	ELGEYO-MARAKWET
45	KAKAMEGA	19,792.4	KAKAMEGA/VIHIGA
46	KALIMANI	179.7	MACHACKOS
47	KAMITI	169.6	KIAMBU
48	KANGURE	188.2	MURANGA
49	KAPCHEMUTWA	7017.65	ELGEYO-MARAKWET
50	KAPCHORUA 1 &	287.3	ELGEYO-MARAKWET
51	KAPKANYAR	6,037.4	WEST POKOT
52	KAPOLET	1551.6	TRANS-NZOIA
53	KAPSARET	1194.2	UASIN GISHU
54	KAPTAGAT	12,801.1	ELGEYO-MARAKWET
55	KAPTAROI	327.8	NANDI
56	KAPTIMOM	4,749	BARINGO
57	KARUA A,B & C	210.0	MURANGA
58	KARURA	956.091	NAIROBI
59	KASIGAU	202.3	TAITA-TAVETA
60	KATENDE	949.0	MAKUENI
61	KATIMOK	2,056.04	BARINGO
62	KEMETO	210.4	BARINGO
63	KENZE	187.8	MAKUENI
64	KERERR	2,160.2	ELGEYO-MARAKWET
65	KESSOP	2347.2	ELGEYO-MARAKWET
66	KETNWAN	46.5	BARINGO
67	KIAGU	1,366.2	MERU
68	KIAMBICHO	376.4	MURANGA
69	KIAMBU	79.32	KIAMBU
70	KIAMUTI	182.1	MURANGA
71	KIBITHEWA	206.4	MERU
72	KIBWEZI	5,849.6	MAKUENI
73	KIEIGA	546.3	MERU
74	KIERERA	793.2	MERU
75	KIGANJO	302.2	NYERI
76	KIJABE HILL	706.4	NAKURU
77	KIJEGGE	3296.2	MERU
78	KIKINGO	1,234.3	MERU
79	KIKUYU	38,311.7	KIAMBU
80	KILALA	150.9	MAKUENI
81	KILOMBE HILL	1,554.3	UASIN-GISHU
82	KILULUNYI	0.25	TAITA-TAVETA
83	KILUNGU	148.43	MAKUENI
84	KIMOJOCH	567.71	BARINGO
85	KINYESHA MVUA	49.5	TAITA
86	KINYO	323.7	BARINGO
87	KIONGWANI	33.6	MAKUENI
88	KIOO	45.3	MAKUENI
89	KIPIPIRI	5,019.3	NYANDURUA
90	KIPKABUS	5,827.41	ELGEYO-MARAKWET
91	KIPKUNURR	15,175.7	ELGEYO-MARAKWET
92	KIPTABERR	12,886.4	ELGEYO-MARAKWET
93	KITALALE	1,848.1	TRANS – NZOIA
94	KITALE	401.0	TRANS – NZOIA
95	KITETA HILL	3.0	MACHAKOS
96	KITHENDU	218.9	MAKUENI
97	KITONDU	1,085.4	MAKUENI
98	KITOO	37.2	MAKUENI
99	KITUMBUUNI	76.1	MAKUENI
100	KIU(NGUNGU)	83.4	MAKUENI
101	KULUNDU	0.08	TAITA-TAVETA
102	KYAI	106.0	MAKUENI
103	KYEMUNDU	140.0	MAKUENI
104	KWA HILL	2.4	MIGORI
105	KARAINI	24.28	KIRINYAGA
106	KAMBE (KAYA)	56.5	KILIFI
107	KEGONGA	36.0	MIGORI
108	LARIAK	4,998.2	LAIKIPIA
109	LELAN	98.517	WEST POKOT
110	LEMBUS	64.690	BARINGO
111	LEROGHI	15.057	SAMBURU

112	LOITOKITOK	18.704	KAJIADO
113	LONDIANI	5.488	KERICHO
114	LUGARI	22.331	KAKAMEGA
115	LUSOI	6.425	LAIKIPIA
116	MAETA	36.0	MIGORI
117	MAATHA	639.4	MERU
118	MACHA	14.57	TAITA
119	MAILUGANJI	1,714.7	KWALE
120	MAGUMO NORTH	241.5	NYANDARUA
121	MAGUMO SOUTH	368.9	NYANDARUA
122	MANGROVE SWAMP	45,068.1	LAMU, TANA RIVER, MOMBASA KWALE
123	MAJI-MAZURI	6,937.0	UASIN GISHU
124	MAKONGO	3,431.7	KITUI
125	MAKONGO	166.3	MAKUENI
126	MAKULI-NGUUTA	1,653.1	MAKUENI
127	MALABA	718.8	KAKAMEGA
128	MARABU	25.0	MIGORI
129	MARAGOLI	469.5	KAKAMEGA
130	MARENJI	1,528.5	KWALE
131	MARMANET	22,455.4	LAIKIPIA
132	MAROP	214.72	BARINGO
133	MARSABIT	15,280.9	MARSABIT
134	MATAA	42.9	MAKUENI
135	MATHEWS	93,765.5	SAMBURU
136	MAU NAROK	772.03	NAKURU
137	MBILI	10.23	TAITA-TAVETA
138	MCHUNGUNYI	8.0	TAITA-TAVETA
139	MDENGU	0.36	TAITA-TAVETA
140	MENENGAI	5,989.9	NAKURU
141	MERU(LOWER	2,462.1	MERU
142	MERU(UPPER	10,375.8	MERU
143	METKEI	1987.0	ELGEYO-MARAKWET
144	MKONGANI	1,113.3	KWALE
145	MKONGANI	1,365.8	KWALE
146	MODAGACHE (WENI-TOLE)	3.4	TAITA-TAVETA
147	MOLO EAST	0000	NAKURU
148	MUMANDU	139.2	MACHAKOS
149	MOSEGEM	203.9	BARINGO
150	MT. ELGON	49,382.9	BUGOMA
151	MT. KENYA	60,402.0	NYERI
152	MT. KENYA	92,860.6	MERU
153	MT. KENYA	18,393.0	EMBU
154	MT. KENYA	29,215.2	KIRINYAGA
155	MT. LONDIANI	23,629.7	BARINGO
156	MT. LONDIANI	835.2	NAKURU
157	MT. LONDIANI	5,217.5	KERICHO
158	MT. NYIRU	45,931.7	SAMBURU
159	MRIMA	376.8	KWALE
160	MTARAKWA	112.1	BARINGO
161	MTEGE	0.28	TAITA-TAVETA
162	MUGUGA	225.3	KIAMBU
163	MUKOBE	748.7	BARINGO
164	MUKOGODO	30,189.5	LAIKIPIA
165	MUMBAKA	478.5	BUSIA
166	MADUNGUNI	951.8	KILIFI
167	MUNGUNI	194.2	MERU
168	MURINGATO	25.1	NYERI
169	MUTEJWA	1,375.9	MERU
170	MUTHARANGA	299.5	MERU
171	MUTITO HILL	1,958.7	KITUI
172	MUTULA	566.6	MAKUENI
173	MWACHI	417.2	KWALE
174	MWACHORA	6.4	TAITA-TAVETA
175	MWAKAMU	1.5	TAITA-TAVETA
176	MWANDONGO	688.0	TAITA-TAVETA
177	MUMONI	10,440.9	KITUI
178	MOLINDUKO	194.2	KIRINYAGA
179	NGANGAO	123.4	TAITA-TAVETA
180	NABKOI	3,014.5	UASIN GISHU
181	NAIROBI	30.4	NAIROBI
182	NAKURU	618.9	NAKURU
183	NAMANGA HILL	11,784.0	KAJIADO
184	NAMULUKU	8.2	BUSIA
185	NANYUNGU	16.0	BUSIA
186	NDARE	832.0	LAIKIPIA
187	NDARE	4,722.3	MERU
188	NDATAI	13.8	MAKUENI
189	NDIWENYI	5.6	TAITA-TAVETA
190	NDOTOS RANGE	97,164.9	SAMBURU
191	NDULUNI – KALANI	110.1	MAKUENI
192	NGAIA	4,139.9	MERU
193	NGAMBA	1,070.4	KITUI
194	NGOMENYI	0.2	TAITA-TAVETA
195	NGONG HILLS	3,077.0	KAJIADO
196	NGONG ROAD	1,189.52	NAIROBI
197	NJUNGUNI	2,003.2	MERU
198	NORTH MBOONI	39.7	MAKUENI
199	NORTH NANDI	10,500.7	NANDI
200	NORTHERN	26,096.6	UASIN GISHU
201	NTHANGU	843.8	MAKUENI
202	NTUGI	1,378.8	MERU
203	NUU	3,532.9	KITUI
204	NYAMBENI	5,391.2	MERU
205	NYAMWERU	797.2	KIAMBU
206	NYERI	1,135.43	NYERI
207	NYERI HILL	192.1	NYERI
208	NYERI	7.88	NYERI
209	NZAU	967.2	MAKUENI
210	NJUKINI WEST	570.2	KIRINYAGA
211	NYASUMBI	9.2	HOMABAY
212	NYAITARA	11.2	MIGORI
213	OL ARABEL	9,364.6	LAIKIPIA
214	OL BOLOSSAT	3,326.9	BARINGO
215	OLOLUA	667.7	KAJIADO
216	OL PUSIMORU	36,947.7	NAROK
217	OTACHO	117.7	MIGORI
218	ONOO WATER POINT	0.11	HOMABAY
219	PEMWAI	135.23	BARINGO
220	PERKERRA CATCHMENT	4,358.5	BARINGO

221	RABOUR	5.0	MIGORI
222	RUMURUTI	6,366.9	LAIKIPIA
223	RIBE (KAYA)	36.0	KILIFI
224	SAGEGI HILL	8.0	MIGORI
225	SAIMO	750.7	BARINGO
226	SANAO	274.5	BARINGO
227	SEKENWO	862.0	BARINGO
228	SHIMBA HILLS	19,242.8	KWALE
229	SOGOTIO	3,561.2	ELGEYO-MARAKWET
230	SOKTA HILL	163.5	BARINGO
231	SOUTH LAIKIPIA	3,472.2	NYERI
232	SOUTERN MAU	136.0	NAROK
233	SOUTH WESTERN MAU	29,722.6 1	KERICHO
234	SOUTH WESTERN MAU	40,375.0	BOMET
235	SOUTH WESTERN MAU	00000	NAKURU
236	SOUTH MBOONI	207.6	MAKUENI
237	SOUTH NANDI	17,960.5	NANDI
238	SEKHENDU	804.1	TRANS-NZOIA
239	SUSU	1.7	TAITA-TAVETA
240	TARAMBAS HILL	417.61	BARINGO
241	TARESSIA	384.5	NANDI
242	THUNGURU HILL	631.3	MERU
243	THUURI	734.5	MERU
244	TIMAU	295.4	MERU
245	TIMBOROA	5,891.0	UASIN GISHU
246	TINDERET	20,325.8	KERICHO
247	TINDERET	56.1	UASIN GISHU
248	TINDERET	7,488.0	NANDI
249	TINGWA HILL	914.6	ELGEYO-MARAKWET
250	TOROPKET	117.4	ELGEYO-MARAKWET
251	TRANS-MARA	35,270.3	NAROK
252	TULIMANI	325.8	MACHAKOS
253	TUMEYA	366.2	ELGEYO-MARAKWET
254	TUMEYA	215.3	UASIN GISHU
255	TURBO	1,254.0	UASIN GISHU
256	TURBO	9,534.0	KAKAMEGA
257	TUTWOIN	12.1	BARINGO
258	UASO NAROK	2040.96	LAIKIPIA
259	URURU	433.4	NANDI
260	UTANGWA	55.4	MAKUENI
261	UTUNENE	165.9	MAKUENI
262	UUNI	92.7	MACHAKOS
263	WANGA	76.1	BUSIA
264	WAIYA	263.0	MAKUENI
265	WENI-MBOGHO	2.0	TAITA-TAVETA
266	WENI-MWANA	5.26	TAITA-TAVETA
267	WESTERN MAU	21,735.2	KERICHO
268	WESTERN MAU	1,150.0	NAKURU
269	WEST MOLO	275.2	NAKURU
270	WITU	4,606.1	LAMU
271	WITU	33.0	TANA RIVER
272	YALE	22.33	TAITA-TAVETA

Annex 3

a) Ambient Air Quality Tolerance Limits – First Schedule

AMBIENT AIR QUALITY TOLERANCE LIMITS

Table 1: Ambient Air Quality Tolerance Limits

	Pollutant	Time weighted Average	Industrial area	Residential, Rural & Other area	Controlled areas***
1.	Sulphur oxides (SO _x);	Annual Average*	80 µg/m ³	60 µg/m ³	15 µg/m ³
		24 hours**	125 µg/m ³	80 µg/m ³	30 µg/m ³
		Annual Average		0.019 ppm/50µg/m ³	
		Month Average			
		24 Hours		0.048ppm /125µg/m ³	
		One Hour			
		Instant Peak		500 µg/m ³	
		Instant Peak (10 min)		0.191 ppm	
2.	Oxides of Nitrogen (NO _x);	Annual Average*	80 µg/m ³	60 µg/m ³	15 µg/m ³
		24 hours**	150 µg/m ³	80 µg/m ³	30 µg/m ³
		8 hours			
		Annual Average		0.2 ppm	
		Month Average		0.3 ppm	
		24 Hours		0.4 ppm	
		One Hour		0.8 ppm	
		Instant Peak		1.4 ppm	
3.	Nitrogen Dioxide	Annual Average	150 µg/m ³	0.05 ppm	
		Month Average		0.08 ppm	
		24 Hours	100 µg/m ³	0.1 ppm	
		One Hour		0.2 ppm	
		Instant Peak		0.5 ppm	
4.	Suspended particulate	Annual Average*	360 µg/m ³	140 µg/m ³	70 µg/m ³

	Pollutant	Time weighted Average			
	matter (SPM)				
		24 hours**	500 µg/m ³	200 µg/m ³	100 µg/m ³
			Industrial area	Residential, Rural & Other area	Controlled areas***
		mg/Kg			
		Annual Average****		100 µg/m ³	
		24 hours***		180 µg/m ³	
5.	Respirable particulate matter (<10µm) (RPM)	Annual Average*	70 µg/m ³	50 µg/m ³	50 µg/m ³
		24 hours**	150 µg/Nm ³	100 µg/Nm ³	75 µg/Nm ³
6.	PM _{2.5}	Annual Average	35 µg/m ³		
		24 hours	75 µg/m ³		
7.	Lead (Pb)	Annual Average*	1.0 µg/Nm ³	0.75 µg/Nm ³	0.50 µg/m ³
		24 hours**	1.5 µg/m ³	1.00 µg/m ³	0.75 µg/m ³
		Month Average		2.5	
8.	Carbon monoxide (CO)/ carbon dioxide (CO ₂)	8 hours**	5.0 mg/m ³	2.0 mg/m ³	1.0 mg/m ³
		1 hour	10.0 mg/m ³	4.0 mg/m ³	2.0 mg/m ³
		mg/Kg			
		24 hours**			
9.	Hydrogen Sulphide	24 hours**	150µg/m ³		
10.	Non-methane hydrocarbons				
		instant Peak	700ppb		
11.	Total VOC	24 hours**	600 µg/m ³		
12.	Ozone	1-Hour	200 µg/m ³	0.12 ppm	
		8 hour (instant Peak)	120 µg/m ³	1.25 ppm	

And any other parameter as may be prescribed by the Authority from time to time

Legend

a) µg- microgram

b) m³ . cubic metre

c) ppm . parts per million

d) ppb . parts per billion

e) Values at Standard Temperature and Pressure (STP)

f) Conversion factors from ppm to mg/m³ and mg/m³ to ppm are stipulated under the Eleventh Schedule

g) * Annual Arithmetic mean of minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval.

h) ** 24 hourly/8 hourly values should be met 98% of the time in a year. However, 2% of the time, it may exceed but

not on two consecutive days.

i) Whenever and wherever two consecutive values exceeds the limit specified above for the respective category, it would be considered adequate reason to institute regular/continuous monitoring and further investigations.

j) the 24-hour limit may not be exceeded more than three times in one year;

k) ** 24-hour limit may not be exceeded more than three times in one year micrograms/m³

l) *** Not to be exceeded more than once per year average concentration

m)***In conversion of units from ppm to mg/m³ and vice versa shall use guidelines set out under Part II of the Fifth Schedule.

b) Table 2: Ambient Air Quality at Property Boundary for General Pollutants

	Pollutant	Time weighted Average	Property Boundary
1	Particulate matter (PM)	Annual Average*	50 µg/m ³
		24 hours**	70 µg/m ³
2.	Oxides of Nitrogen (NO _x);	Annual Average*	80 µg/m ³
		24 hours**	150 µg/m ³
3.	Sulphur oxides (SO _x);	Annual Average*	50 µg/m ³
		24 hours**	125 µg/m ³
4.	Hydrogen Sulphide	24 hours**	50 µg/m ³
5.	Ammonia	24 hours**	100 µg/m ³

Note.

a) For residential premises in designated industrial areas, the above standards do not apply.

b) For industries in designated residential areas, standards for residential areas shall apply.

Annex 3

b) Emissions Limits for Controlled and Non-Controlled Facilities – Third Schedule

EMISSION LIMITS FOR CONTROLLED AND NON-CONTROLLED FACILITIES

Air Pollutant	Industry	Opacity	Particulate (Dust) (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans
	Aluminium recycling plants	10 – 30						20		*		*
	Asphalt mixing batch plants	< 100 t: g/kg 100 to 300 t: 22g/kg 300 to 500 t: 31g/kg > 500 t: 33 g/kg		2000	460	*	*	20				
	Boilers		50	*	*	*	*	*	*			*
	Cement plants		50	400	1500	*	500	300				0.5ng/N m ³
	Ceramics manufacture		400		180- 250 ppm							
	Coke & coal plants		*	*	*	*	*	*	*	*		
	Dairy		50									
	Fertilizer plant		50	*	500			20	30			50

Air Pollutant	Industry	Opacity	Particulate (Dust) P _{M10} (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans
	Iron Foundry		50	560		*	*				5	
	Brass bronze Foundry		50	20 50								
	Glass Manufacture		20 - 50	Oil fired: 1,800 Gas fired: 700	1000 2000					50	5	
	Galvanizing operations	*	50			*						
	Incinerators	*	< 10 t: 4g/kg 10 to 30 t: 10g/kg 30 to 50 t: 10g/kg > 50 t: 17.5 g/kg	500	Exist ing:1 30- 600 ppm	*		*				2.0 - 80 ng TEQ/N m ³

Air Pollutant	Industry	Opacity	Particulate (Dust) PM ₁₀ (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans 0.1 – 5 ng TEQ/N m ³
				New : 60-400 ppm								
	Municipal waste		100		300	*	*					
	Medical waste		20 (PM _{2.5})	500	300	*	*	*		*		*
	Industrial waste	*	50	150	460	*	*	*	*	*		*
	Kraft pulp mills		100-150	500	600	*	*	20	15	*	*	*
	Lead Recycling plants		20 (PM _{2.5})	400								*
	Mineral Processing		50									
	Mining & Quarry	20%	400									
	Non-ferrous secondary smelters		50	20	*	*	*	*	*			
	Non-ferrous secondary smelters	*	< 10 t: 7.5 g/kg (PM _{2.5}) 10 to 30 t: 22.5 g/kg (PM _{2.5})	800	*	*	*	20	15			*

Air Pollutant	Industry	Opacity	Particulate (Dust) PM_{10} (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans
			30 to 50 t: 37.5 g/kg (PM _{2.5}) > 50 t: 52.5 g/kg (PM _{2.5})									
	Paint and varnish manufacturing		50 (PM _{2.5})					20	15	10		
	Pesticides formulation		20 (PM _{2.5})					20		5		
	Pesticide manufacturing		20					20				
	Petroleum Refineries		50	Sulphur recovery: 150 Combustion units: 500	460	*		20	152			*
	Pharmaceuticals manufacturing plants		20							10		
	Printing industry							20		10		

Air Pollutant		Opacity	Particulate (Dust) PM ₁₀ (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans
Industry		*	Existing-240 (PM _{2.5}) New-120 (PM _{2.5})	500	200	*						
Sulphuric acid Plants			50	SO ₂ : 2 kg/t acid SO ₃ : 0.15 kg/t acid ≤ 100 t. 3.75 g/kg 100 to 300 t. 10.5 g/kg	180							

Air Pollutant Industry	Opacity	Particulate (Dust) PM ₁₀ (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans
Sugar Manufacture		(< 8.7 mw input boiler): 150 (>8.7 mw input boiler): 100									
Soda ash Manufacture		50									
Tanneries		50	1000	1500		20		15	*		*
Textiles		50									
Geothermal Power plants			*	*							

Air Pollutant Industry Thermal Power Plants	Opacity			
	Particulate (Dust) PM ₁₀ (mg/Nm ³)		Oil:- 50	
	Coal:-50			
	Sulphur oxide (SO_x) (mg/Nm ³)			
	(50-100 MWt h): 850		(100 to 300 MWt h): 200	
	△ 300 MWt h): 200		(50-100 MWt h): 850	
	Nitrogen oxides (NO _x) (mg/Nm ³)			
	750		460	
	Carbon monoxide (mg/Nm ³)			
	*			
	Carbon dioxide (mg/Nm ³)			
	*			
	Hydrocarbons (mg/Nm ³)			
	*			
Hydrogen Sulphide (mg/Nm ³)				
*				
Hydrogen Chloride (mg/Nm ³)				
*				
Hydrogen Fluoride (mg/Nm ³)				
*				
Dioxins/Furans				
*				

<p style="text-align: center;">Air Pollutant</p> <hr style="border: 1px solid black;"/> <p style="text-align: center;">Industry</p>	Opacity			
	Particulate (Dust) PM ₁₀ (mg/Nm ³)		Gas: - 50	
	Sulphur oxide (SO _x) (mg/Nm ³)	(100 to 300 MWt h): 400 to 200; linear decrease	△ 300 MWt h): 200	120
	Nitrogen oxides (NO _x) (mg/Nm ³)			
	Carbon monoxide (mg/Nm ³)			
	Carbon dioxide (mg/Nm ³)			
	Hydrocarbons (mg/Nm ³)			
	Hydrogen Sulphide (mg/Nm ³)			
	Hydrogen Chloride (mg/Nm ³)			
	Hydrogen Fluoride (mg/Nm ³)			
	Dioxins/Furans			

	Air Pollutant Industry	Opacity	Particulate (Dust) PM ₁₀ (mg/Nm ³)	Sulphur oxide (SO _x) (mg/Nm ³)	Nitrogen oxides (NO _x) (mg/Nm ³)	Carbon monoxide (mg/Nm ³)	Carbon dioxide (mg/Nm ³)	Hydrocarbons (mg/Nm ³)	Hydrogen Sulphide (mg/Nm ³)	Hydrogen Chloride (mg/Nm ³)	Hydrogen Fluoride (mg/Nm ³)	Dioxins/Furans
				(100 to 300 MWt h): 35 ∨ 300 MWt h): 35	NH ₃ (100- 400)			400- 2,000	50-200			
	Waste water treatment plants											

And any other parameter as may be prescribed by the Authority from time to time

The chimney or stack should have a minimum height of 10 metres above ground level and clear the highest of the building by not less than 3 metres for all roofs. The topography and height of adjacent buildings within 50 metres radius should be taken into account.

Legend

Toxic Equivalent (TEQ) is the sum of the toxic equivalent factors (TEF) of a mixture congeners contained in a compound. The compound 2,3,7,8-tetrachlorodibenzo-p-dioxin(TCDD) was assigned a TEF of 1 after being identified, by International Association of Radiology and Cancer (IARC) and World Health Organisation (WHO), as the most toxic of all compounds, and as carcinogenic to humans, based mainly on studies of cases involving accidental or occupational heavy exposure. Therefore the TEF is a weighting factor.

g – gram, µg- microgram, kg – kilogram (1,000g), mg – milligram, µg- microgram, m³ – cubic metre, ppm – parts per million, t – tone

Annex 3

c) Guideline on Air Pollution Monitoring Parameters from Stationary Sources – Fourth Schedule

GUIDELINE ON AIR POLLUTION MONITORING PARAMETERS FROM STATIONARY SOURCES

Industry	Air Pollutant	Opacity	Particulate (Dust)	Sulphur oxide (SO _x)	Nitrogen oxides (NO _x)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H ₂ S)	Hydrogen Chloride	Dioxins/Furan ^s
Aluminium recycling plants			*					*		*	*
Asphalt batch plants			*	*	*	*	*	*			
Boilers	*		*	*	*	*	*	*			*
Cement plants			*	*	*	*	*	*			*
Ceramics manufacturing plants			*		*						
Coke & coal plants			*	*	*	*	*	*	*	*	
Fertilizer plant			*	*	*	*	*	*	*	*	
Galvanizing plants			*			*	*				
Glass manufacturing plants			*	*	*	*	*	*	*	*	
Iron Foundry plant			*	*	*	*	*	*	*	*	
Kraft pulp mills			*	*	*	*	*	*	*	*	
Lead Recycling plant			*	*							*
Mineral Processing plants			*								
Mining & Quarry	*		*								
Municipal and Industrial incinerators	*		*	*	*	*	*	*	*	*	*
Non-ferrous smelters, secondary	*		*	*	*	*	*	*	*	*	*
Paint and varnish			*					*	*	*	

Industry	Air Pollutant	Opacity	Particulate (Dust)	Sulphur oxide (SO _x)	Nitrogen oxides (NO _x)	Carbon monoxide	Carbon dioxide	Hydrocarbons	Hydrogen Sulphide (H ₂ S)	Hydrogen Chloride	Dioxins/Furans
	manufacturing										
	Pesticides formulation		*					*		*	
	Pesticide		*					*			
	Manufacturing plants										
	Petroleum Refineries			*		*		*			*
	Pharmaceuticals manufacturing plants		*					*		*	
	Printing industry							*		*	
	Steel mills	*	*	*	*	*					
	Sugar manufacturing plants		*	*	*						
	Sulphuric acid Plants		*	*							
	Salt & Soda ash processing plants		*							*	
	Thermal Power Plants		*	*	*	*	*				*
	Geothermal Power Plants			*	*			*	*		
	Tanneries		*	*	*			*	*	*	*
	Textile		*					*	*		
	Waste water Treatment Plants			*	*			*	*		

And any other parameter as may be prescribed by the Authority from time to time

Legend

- a) * - parameters to be monitored
- b) Frequency – dependent on parameter and reported on a quarterly basis

Annex 4

a) Standards for Effluent Discharge into the Environment – Third Schedule

(r. 11)

THIRD SCHEDULE

STANDARDS FOR EFFLUENT DISCHARGE INTO THE ENVIRONMENT

Parameter	Max Allowable(Limits)
1,1,1-trichloroethane (mg/l)	3
1,1,2-trichloroethane (mg/l)	0.06
1,1-dichloroethylene	0.2
1,2-dichloroethane	0.04
1,3-dichloropropene (mg/l)	0.02
Alkyl Mercury compounds	Nd
Ammonia, ammonium compounds, NO ₃ compounds and NO ₂ compounds (Sum total of ammonia-N times 4 plus nitrate-N and Nitrite-N) (mg/l)	100
Arsenic (mg/l)	0.02
Arsenic and its compounds (mg/l)	0.1
Benzene (mg/l)	0.1
Biochemical Oxygen Demand (BOD 5days at 20 °C) (mg/l)	30
Boron (mg/l)	1.0
Boron and its compounds – non marine (mg/l)	10
Boron and its compounds –marine (mg/l)	30
Cadmium (mg/l)	0.01
Cadmium and its compounds (mg/l)	0.1
Carbon tetrachloride	0.02
Chemical Oxygen Demand (COD) (mg/l)	50
Chromium VI (mg/l)	0.05
Chloride (mg/l)	250
Chlorine free residue	0.10
Chromium total	2
cis -1,2- dichloro ethylene	0.4
Copper (mg/l)	1.0
Dichloromethane (mg/l)	0.2
Dissolved iron (mg/l)	10
Dissolved Manganese(mg/l)	10
E.coli (Counts / 100 ml)	Nil
Fluoride (mg/l)	1.5
Fluoride and its compounds (marine and non-marine) (mg/l)	8
Lead (mg/l)	0.01
Lead and its compounds (mg/l)	0.1
n-Hexane extracts (animal and vegetable fats) (mg/l)	30
n-Hexane extracts (mineral oil) (mg/l)	5
Oil and grease	Nil
Organo-Phosphorus compounds (parathion,methyl parathion,methyl demeton and Ethyl parantropheryl phenylphosphorothroate, EPN only) (mg/l)	1.0
Polychlorinated biphenyls, PCBs (mg/l)	0.003
pH (Hydrogen ion activity---marine)	5.0-9.0
pH (Hydrogen ion activity--non marine)	6.5-8.5
Phenols (mg/l)	0.001
Selenium (mg/l)	0.01
Selenium and its compounds (mg/l)	0.1
Hexavalent Chromium VI compounds (mg/l)	0.5
Sulphide (mg/l)	0.1
Simazine (mg/l)	0.03
Total Suspended Solids, (mg/l)	30
Tetrachloroethylene (mg/l)	0.1
Thiobencarb (mg/l)	0.1
Temperature (in degrees celious) based on ambient temperature	± 3
Thiram (mg/l)	0.06
Total coliforms (counts /100 ml)	30
Total Cyanogen (mg/l)	Nd
Total Nickel (mg/l)	0.3
Total Dissolved solids (mg/l)	1200
Colour in Hazen Units (H.U)	15
Detergents (mg/l)	Nil
Total mercury (mg/l)	0.005
Trichloroethylene (mg/l)	0.3
Zinc (mg/l)	0.5
Whole effluent toxicity	
Total Phosphorus (mg/l)	2 Guideline value
Total Nitrogen	2 Guideline value

And any other parameters as may be prescribed by the Authority from time to time

Remarks

Standard values are daily/monthly average discharge values. Not detectable (nd) means that the pollution status is below the detectable level by the measurement methods established by the Authority

Annex 4

b) Standards for Effluent Discharge into Public Sewers – Fifth Schedule

FIFTH SCHEDULE

STANDARDS FOR EFFLUENT DISCHARGE INTO PUBLIC SEWERS

1 PARAMETER	Maximum levels permissible
Suspended solids (mg/L)	250
Total dissolved solids (mg/L)	2000
Temperature °C	20 - 35
pH	6-9
Oil and Grease (mg/L) -where conventional treatment shall be used	10
Oil and Grease (mg/L)- where ponds is a final treatment method	5
Ammonia Nitrogen (mg/L)	20
Substances with an obnoxious smell	Shall not be discharged into the sewers
Biological Oxygen Demand BOD ₅ days at 20 °C (mg/L)	500
Chemical Oxygen Demand COD (mg/L)	1000
Arsenic (mg/L)	0.02
Mercury (mg/L)	0.05
Lead (mg/L)	1.0
Cadmium (mg/L)	0.5
Chromium VI (mg/L)	0.05
Chromium (Total) (mg/L)	2.0
Copper (mg/L)	1.0
Zinc (mg/L)	5.0
Selenium (mg/L)	0.2
Nickel (mg/L)	3.0
Nitrates (mg/L)	20
Phosphates (mg/L)	30
Cyanide Total (mg/L)	2
Sulphide (mg/L)	2
Phenols (mg/L)	10
Detergents (mg/L)	15
Colour	Less than 40 Hazen units
Alkyl Mercury	Not Detectable (nd)
Free and saline Ammonia as N (mg/L)	4.0
Calcium Carbide	Nil
Chloroform	Nil
Inflammable solvents	Nil
Radioactive residues	Nil
Degreasing solvents of mono-di-trichloroethylene type	Nil

And any other parameter as the Authority and the sewerage service provider may prescribe.

Annex 4

c) Monitoring Guide for Discharge into the Environment – Fourth Schedule

FOURTH SCHEDULE

MONITORING GUIDE FOR DISCHARGE INTO THE ENVIRONMENT (r.12 (2))

DISCHARGING FACILITY	Gas and Oil	Dairy Products	Grain Mills	Canned Fruits & Vegetables	Canned & Preserved Sea Foods	Sugar Processing	Textiles	Cement	Feedlots	Electroplating	Organic Chemicals	Inorganic Chemicals	Plastics & Synthetics	Soap & Detergents	Fertiliser Manufacturing	Petroleum Refining	Iron & Steel Manufacturing	Non Ferrous	Phosphate Manufacturing	Steam Electric Power Generating	
Water quality parameters																					
Biochemical Oxygen Demand, BOD	x	x	x	x	x	x	x		x		x	x	x	x	x	x					
Total Suspended Solids	x	x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x
pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Faecal Coliforms	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Oil & Grease	x			x			x				x			x		x	x	x	x	x	x
Temperature	x	x	x	x	x	x	x	x	x		x	x	x	x		x	x	x	x	x	x
Chemical Oxygen Demand, COD						x	x				x	x	x	x		x		x			
Colour/Dye/Pigment	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Elemental Phosphorus																					x
Total Phosphorus						x				x					x						x
Ammonia (as N)												x			x	x	x	x			
Organic Nitrogen as N						x									x						
Nitrate						x									x			x			
Flow	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenols							x				x		x				x	x			
Sulphide							x										x	x			
Total Chromium							x			x		x					x				
Chromium VI										x		x					x				x
Chrome																					
Copper										x		x	x								x
Nickel										x		x									
Zinc										x			x					x			x
Zinc												x									
Cn total										x		x									
Cyanide A										x		x									
Fluorine										x		x	x						x	x	
Free Available Chlorine																					
Residual Chlorine	x																				x
Cadmium										x		x						x			
Lead										x		x						x	x		
Iron										x											
Tin										x		x									x
Silver										x											
Gold										x											
Iridium										x											
Palladium										x											
Rhodium										x											
Ruthenium										x											
Mercury (total)												x									
Total Organic Carbon												x							x		
Aluminium												x							x		
Arsenic												x							x		x
Selenium												x									
Barium																					
Manganese																					x
Tannin																					
Oil																					
Settleable Solids																					
Surfactants																					

FOURTH SCHEDULE MONITORING GUIDE FOR DISCHARGE INTO THE ENVIRONMENT

DISCHARGING FACILITY	Fero Alloy manufacturing	Leather tanning & finishing	Glass	Asbestos manufacturing	Rubber processing	Timber products	Pulp, Paper & paperboard	Builders paper & paperboard mills	Meat products	Paving and roofing materials	Intensive chemical agriculture farm	Edible vegetable oils and fats	Hotels, Restaurants and Game Lodges
Water quality parameters													
BOD		x	x		x	x	x	x	x	x		x	x
TSS	x	x	x	x	x	x	x	x	x	x			x
pH	x	x	x	x	x	x	x	x	x	x	X	x	x
Faecal Coliforms	x	x	x	x	x	x	x	x	x	x	x	x	x
Oil & Grease		x			x	x	x	x	x	x		x	x
Temperature	x	x	x	x	x	x	x	x	x	x		x	x
COD			x	x	x							x	
Colour/Dye/Pigment	x	x	x	x	x	x	x	x	x	x	x	x	x
Elemental Phosphorus							x				x		
Total Phosphorus			x								x		x
Ammonia (as N)	x		x						x		x		x
Organic Nitrogen as N											x		x
Nitrate													
Flow	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenols	x		x			x							
Sulphide													
Total Chromium	x	x			x								
Chromium VI	x												
Chrome		x											
Copper													
Nickel													
Zinc					x								
Zinc													
Cyanide total	x												
Cn													
Fluorine			x		x								
Free Available Chlorine							x	x					
Residual Chlorine													
Cadmium													
Lead													
Iron			x										
Tm													
Silver													
Gold													
Iridium													
Palladium													
Rhodium													
Ruthenium													
Mercury (total)													
Total Organic Carbon													
Aluminium													
Arsenic													
Selenium													
Barium													
Manganese	x												
Tannin		x											
Oil		x											
Settleable Solids								x					
Surfactants										x		x	

FOURTH SCHEDULE (Contd) MONITORING GUIDE FOR DISCHARGE INTO THE ENVIRONMENT

Water quality parameters	DISCHARGING FACILITY															
	Bakeries & wheat confectioneries	Breweries (malt)	Soy drinks and carbonated waters	Sugar confectionery	Tobacco processing	Distilling & blending of spirits	Motor vehicle assembly	Paints, varnishes & lacquers	Batteries manufacture	Cosmetics	Printing, publishing & allied industries	Domestic sewage system	Pharmaceutical industries	Tea/Coffee Industries	Slaughter Houses	Combined sewage (Domestic+ and Industrial effluent)
BOD	x	x	x	x	x	x	x	x			x	x	x	x	x	x
TSS	x	x	x	x				x	x			x	x	x	x	x
pH	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Faecal Coliforms/Ecoli.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Oil & Grease					x		x	x			x	x			x	x
Temperature	x	x	x	x	x	x	x	x	x	x	x				x	
COD		x	x	x		x	x	x	x	x	x	x	x	x	x	x
Colour/Dye/Pigment	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Elemental Phosphorus																
Total Phosphorus				x								x			x	x
Ammonia (as N)								x				x			x	x
Organic Nitrogen as N				x										x	x	x
Nitrate																x
Flow	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenols																x
Sulphide/Sulphur				x							x					x
Total Chromium								x								x
Chromium VI																x
Chrome																x
Copper												x		x		x
Nickel													x			x
Zinc								x	x				x	x		x
Zinc A																
Cn total																x
Cn A																
Fluorine																x
Free Available Chlorine									x		x	x				x
Cadmium													x			x
Lead								x	x	x			x			x
Iron								x	x	x						x
Tin																x
Silver																x
Gold								x				x				x
Iridium																x
Palladium																x
Rhodium																x
Ruthenium																x
Mercury								x			x					x
Total Organic Carbon, TOC																
Aluminium																x
Arsenic																x
Selenium																x
Barium																x
Manganese																x
Tannin																x
Oil											x					x
Settleable Solids								x			x					
Surfactants									x						x	x

X Means parameters to be monitored

And any other parameters and/or discharging facilities as may be prescribed by the Authority from time to time.

Annex 5 Second Schedule of EMCA 1999

1	General	a) an activity out of character with its surrounding; b) any structure of a scale not in keeping with its surroundings; c) major changes in land use.
2	Urban developments	Including: a) designation of new townships; b) establishment of industrial estates; c) establishment or expansion of recreational areas; d) establishment or expansion of recreational townships in mountain areas, national parks and game reserves; e) shopping centers and complexes.
3	Transportation	Including: a) all major roads; b) all roads in scenic, wooded or mountainous areas and wetlands; c) railway lines; d) airports and airfields; e) oil and gas pipelines; f) water transport.
4	Dams, rivers and water resources	Including: a) storage dams, barrages and piers. b) River diversions and water transfer between catchments; c) Flood control schemes; d) Drilling for the purpose of utilizing ground water resources including geothermal energy.
5	Aerial spraying	
6	Mining	including quarrying and open cast extraction of: a) Precious metal; b) Gemstones; c) Metalliferous ores; d) Coal; e) Phosphates; f) Limestone and dolomite; g) Stone and slate; h) Aggregates, sand and gravel; i) Clay; j) Exploration for the production of petroleum in any form. k) Extracting alluvial gold with use of mercury
7	Forestry related activities	Including: a) Timber harvesting; b) Clearance of forest areas; c) Reforestation and afforestation;
8	Agriculture	Including: a) Large scale agriculture; b) Use of pesticide; c) Introduction of new crops and animals; d) Use of fertilizers; e) Irrigation.
9	Processing and manufacturing industries	Including: a) Mineral processing, reduction of ores and minerals;

		<ul style="list-style-type: none"> b) Smelting and refining of ores and minerals; c) Foundries; d) Brick and earth wear manufacture; e) Cement works and lime processing; f) Glass works; g) Fertilizer manufacture or processing; h) Explosive plants; i) Oil refineries and petrochemical works; j) Tanning and dressing of hides and skins; k) Abattoirs and meat processing plants; l) Chemical works and processing plants; m) Brewing and malting; n) Bulk grain processing plants; o) Fish processing plants; p) Pulp and paper mills; q) Food processing plants; r) Plants for manufacture or assembly of motor vehicles; s) Plant for the construction or repair of aircraft or railway equipment; t) plants for the manufacture or assembly of motor vehicles; u) plants for the manufacture of tanks, reservoirs and sheet metal containers; v) plants for manufacture of coal briquettes; w) plants for manufacturing batteries;
10	Electrical infrastructure	<p>Including:</p> <ul style="list-style-type: none"> a) electrical generation stations; b) electrical transmission lines; c) electrical sub-stations; d) pumped storage schemes;
11	Management of hydrocarbons	including the storage of natural gas and combustible or explosive fuels.
12	Waste disposal	<p>including:</p> <ul style="list-style-type: none"> a) sites for solid waste disposal; b) sites for hazardous waste disposal; c) sewage disposal works; d) works involving major atmospheric emissions; e) works emitting offensive odours.
13	Natural conservation areas	<p>including:</p> <ul style="list-style-type: none"> a) creation of national parks, game reserves and buffer zones; b) establishment of wilderness areas; c) formulation or modification of forest management policies; d) formulation of modification of water catchment management policies; e) policies for the management of ecosystems , especially by use of fire; f) commercial exploitation of natural fauna and flora; g) introduction of alien species of fauna and flora; h) introduction of alien species of fauna and flora into ecosystems;
14	Nuclear Reactors	
15	Major developments in biotechnology	including the introduction and testing of genetically modified organisms

Annex 6 Second Schedule of proposed draft of revised EMCA 1999

CATEGORY I: Projects requiring a Full EIA		
1	Changes in land use	Including: a) Major changes in land use b) Large scale resettlement schemes
2	Urban developments	Including: a) Establishment of new housing developments exceeding 30 housing units b) Establishment or expansion of recreational areas in national parks, national reserves, forests and nature reserves and any areas designated as environmentally sensitive; c) Shopping centres and complexes.
3	Transportation	Including: a) All paved roads (class A-D) b) Construction of new roads in environmentally sensitive areas; c) Railway lines; d) Airports and airfields; e) Oil and gas pipelines; f) Water transport.
4	Dams, rivers and water resources	Including: a) Any project located within 100 metres from a wetland, river, dam, stream, spring, etc. b) Storage dams, barrages and piers. c) River diversions and water transfer between catchments; d) Large scale flood control schemes; e) Drilling for the purpose of utilizing ground water resources including geothermal energy.
5	Aerial spraying	
6	Mining	including quarrying and open cast extraction of: a) Precious metal; b) Gemstones; c) Metalliferous ores; d) Coal; e) Phosphates; f) Limestone and dolomite; g) Large scale commercial stone and slate; h) Commercial large scale harvesting of aggregates, sand, gravel, soil and clay; i) Exploration for the production of petroleum in any form. j) Extracting alluvial gold with use of mercury k) Geothermal energy exploration and production
7	Forestry related activities	Including: a) Timber harvesting (from indigenous forests); b) Clearance of forest areas; c) Reforestation and afforestation of alien species; d) Introduction of alien species e) Excisions of gazetted forest for whatever purposes f) Any projects located within forest reserves such as construction of dams or other control structures that flood large areas of relatively

		un-degraded areas
8	Agriculture	Including: a) Large scale agriculture; b) Introduction of new pesticides; c) Pest control programs (large scale) d) Widespread introduction of new crops and animals; e) Widespread introduction of fertilizers; f) Irrigated agriculture exceeding 50 ha g) Major developments in biotechnology including the introduction and testing of genetically modified organisms
9	Processing and manufacturing industries	Including: a) Mineral processing, reduction of ores and minerals; b) Smelting and refining of ores and minerals; c) Foundries; d) Large scale brick and earth ware manufacture; e) Cement works and lime processing; f) Glass works; g) Fertilizer manufacture or processing; h) Explosive plants; i) Oil refineries and petrochemical works; j) Large scale tanning and dressing of hides and skins; k) Large scale abattoirs (more than 15 animals/day) and meat processing plants; l) Chemical works and processing plants; m) Large scale brewing and malting; n) Bulk grain processing plants; o) Large scale fish processing plants; p) Pulp and paper mills; q) Large scale food processing plants; r) Plants for manufacture or assembly of motor vehicles; s) Plant for the construction or repair of aircraft or railway equipment; t) Plants for the manufacture or assembly of motor vehicles; u) Plants for the manufacture of tanks, reservoirs and sheet metal containers; v) Plants for manufacture of coal briquettes; w) Plants for manufacturing batteries;
10	Electrical infrastructure	Including: a) Electrical generation stations; b) Electrical transmission lines above 66 KVA; c) Electrical sub-stations; d) Pumped storage schemes; e) Telecommunications masts
11	Management of hydrocarbons	including the bulk storage of natural gas, petroleum and any combustible or explosive fuels.
12	Waste disposal	including: a) Sites for solid waste disposal; b) Sites for toxic, hazardous and dangerous wastes; c) Waste water treatment plants; d) Installations for disposal of industrial wastes e) Works emitting offensive odors.

13	Natural conservation areas	including: a) Establishment of protected areas, buffer zones and wilderness areas; b) Commercial exploitation of natural fauna and flora; c) Introduction of alien species of fauna and flora into ecosystems; d) Creation of national parks, game reserves and buffer zones; e) Actions likely to affect endangered species of flora and fauna; f) Wetlands reclamation and or any projects likely to affect wetlands establishment of wilderness areas; g) Projects located in indigenous forests including those outside gazette forests h) Projects that affect any areas designated as environmentally sensitive areas
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CATEGORY II: Projects requiring a project report	
a) An activity out of character with its surrounding; b) Any structure of a scale not in keeping with its surroundings; c) Residential houses in zoned areas (bungalows, maisonettes, flats) in zoned areas of not more than 30 units in less than 8 acres d) Commercial buildings in zoned areas (of not more than 10 stories) e) Small scale community water projects, boreholes and water pans f) Cottage industries g) Designated jua kali sites other than for metalworks and garages h) Car and bus parks i) Recreational facilities in areas not designated as environmentally sensitive j) Expansion of existing facilities for same use especially the socially uplifting project such as schools and dispensaries where the expansion is less than 50% of existing capacity k) Cattle dips l) Sand harvesting, quarrying, brick making, clay/soil harvesting m) Slaughter houses (handling not more than 15 animals/day and located more than 100 metres away from riparian land n) Construction of churches and mosques o) Rehabilitation of all minor roads (not more than 9 metres wide) p) Power transmission lines of less than 66 KVA q) Schools and rural health centres r) Minor flood control schemes s) Irrigated agriculture of less than 50 hectares t) Mini hydropower projects u) Small scale fisheries and aquaculture v) Projects near gazetted natural heritage sites	

CATEGORY III: Projects not requiring any EIA (But require a Project Brief)	
Education	a) Educational facilities (small-scale) b) Teaching facilities and equipment c) Scholarships and conferences d) Teaching staff and resource personnel e) Audio-visual productions f) Training
Health	a) Medical centres (small-scale) b) Medical supplies and equipment

	c) Medical staff and community health workers d) Training e) Nutrition
Population	a) Family planning
Production Sector	a) Trade (except trade in tropical hardwoods, endangered species, hazardous materials)
Food Aid	
Financial Assistance	a) Program assistance b) Non-project/special country support
Emergency Operations	a) Emergency assistance b) Assistance to refugees, returnees and displaced persons
Technical Assistance	a) Studies, including evaluations b) Technical assistance for project implementation c) Technical assistance for policy formulation d) Work supervision e) Institution building at the government/local level

CATEGORY IV: Projects for which SEA is required include all Policies, Programmes and Plans such as those listed below

- a) Designation of new townships;
- b) Strategic urban development plans
- c) Establishment of industrial estates;
- d) Formulation of modification of water catchment management policies;
- e) Policies for the management of ecosystems
- f) Formulation or modification of forest management policies;
- g) Urban renewal/rehabilitation/redevelopment
- h) Large scale reforestation projects/degraded water catchment areas
- i) Post conflict reconstruction
- j) Policies and strategies on health and development
- k) Transboundary environmental issues
- l) Large scale settlement upgrading

Annex 7 Indigenous Peoples Plan of the Kenya Agricultural Productivity and Sustainable Land Management project

Indigenous peoples plan of the Kenya Agricultural Productivity and sustainable land management (KAP-SLM) project					
Issue	Activity	Responsibility	By When	Cost in US\$	Indicators
Establish an environment that enables sustainable land and resource management					
1. Establish the capacities necessary to implement the IPP.	<ul style="list-style-type: none"> Training of staff from KAP-SLM, the relevant governmental structures and Ministries (see page 47) and IP Organisation (IPO) 	KAP-SLM	8/2006	10,000	<ul style="list-style-type: none"> The beneficiaries of this training are able to implement the IPP
2. Establish an equal access to land and natural resources	<ul style="list-style-type: none"> Establish detailed information on land and natural resources used by the IP in the operational areas (OA) Evaluate the claims and find mutual solutions Assist all IP communities to create CBO Create community forests for all suitable IP communities in or near forests in the OA Kick-start income generating activities (bee-keeping, herbal medicine, fishing, etc.) in all IP settlements 	<p>KAP-SLM, ML, IPO</p> <p>KAP-SLM, ML, KNCHR, IPO</p> <p>KAP-SLM, MGSCSS</p> <p>KAP-SLM, MENR</p> <p>KAP-SLM</p>	<p>10/2006</p> <p>12/2006</p> <p>9/2006</p> <p>1/2007</p> <p>1/2007</p>	<p>50,000</p> <p>5,000</p> <p>Comp 1</p> <p>Comp 1</p> <p>Comp 2</p>	<ul style="list-style-type: none"> The results are published and perceived by the IP as accurate By 6/2007 > 75% of the suitable IP settlements have community forest titles By 6/2007 in more than 50% of the suitable IP settlements income generating activities have been implemented by KAP-SLM
3. Establish an equal access to security, to social infrastructure and technical services	<ul style="list-style-type: none"> Establish detailed information of security problems and development disadvantages of the IP in the OA (together with activity 2.1.) Evaluate the claims and find mutual solutions Implement the solution on security (mediation, conflict resolution, etc.) Implement the solution on development Ensure sustainability with local governments on the development activities 	<p>KAP-SLM, OP, IPO, Organisations of affected neighbours of the IP settlements (ON)</p> <p>OP, KAP-SLM, IPO, ON</p> <p>OP, KAP-SLM, IPO, ON</p> <p>MPND; KAP-SLM, IPO</p> <p>MPND; KAP-SLM, IPO, local governments</p>	<p>10/2006</p> <p>11/2006</p> <p>12/2006</p> <p>6/2007</p> <p>Ongoing</p>	<p>(see 2)</p> <p>5,000</p> <p>Comp 3</p> <p>Comp 2</p> <p>Comp 2</p>	<ul style="list-style-type: none"> By 12/2007 the reported cases of killing, looting and cattle rustling in IP settlements has reduced significantly and the IP feel better protected By 12/2007 no IP settlement reports that pupils are not allowed to enter school By 12/2007 in 50% of the IP settlements at least one development activity has been implemented

Indigenous peoples plan of the Kenya Agricultural Productivity and sustainable land management (KAP-SLM) project					
Issue	Activity	Responsibility	By When	Cost in US\$	Indicators
Establish equal technical opportunities					
4. Provide the IP with technical capacities to participate actively in sustainable land and natural resource management.	<ul style="list-style-type: none"> Sensitise IP in OA Elaborate or update training curricula for the specific needs of the IP Develop training materials in indigenous languages Carry out training and provide backstopping 	IPO KAP-SLM & IPO IPO IPO & Service provider	12/2006 12/2006 12/2006 Ongoing	5,000 5,000 10,000 80,000 ³	<ul style="list-style-type: none"> The curricula is perceived by international experts as suitable The IP are perceived by the extension officers as more interested and better qualified and are participating more actively in activities and meetings
5. Provide the relevant GoK staff and other stakeholders with the technical capacities to cooperate successfully and in a culturally appropriate manner with the IP	<ul style="list-style-type: none"> Carry out sensitisations for all governmental staff, NGO, service providers at district level in those districts in the OA with IP settlements Develop and include components on intercultural communication, indigenous peoples and human rights into training curricula for governmental staff Carry out training in intercultural communication. 	KAP-SLM MGSCSS & relevant Ministries MGSCSS	12/2006 6/2007 Ongoing	16,000 ⁴ 0 0	<ul style="list-style-type: none"> By 12/2007 the number and extent of justified IP complains about social discrimination etc. from governmental staff, extension personnel and KAP-SLM service providers have reduced by more than 50%.
6. Facilitate priority access of IP to KAP-SLM related jobs.	<ul style="list-style-type: none"> Carry out assessment on relevant job opportunities and the capacities of the IP Assist IP in the application process Provide on the job-training for IP staff 	KAP-SLM, IPO IPO KAP-SLM & IPO	12/2006 1/2007 Ongoing	5,000 16,000 ⁵ Camp 5	<ul style="list-style-type: none"> The number of IP newly employed in relevant jobs is equal or higher their share in the overall population in the area of intervention.
7. Establish for the IP an equal access to decision making processes in the domain of sustainable land and resource management.	<ul style="list-style-type: none"> Sensitization of all stakeholders Election of representatives at all relevant levels Provide places for IP in all relevant committees etc. at national, water catchment and district level Encourage IP to participate actively Carry out bi-annual steering meetings on IPP implementation at district level Carry out annual steering meeting at national level Provide the IP the possibility to address grievances 	See 1, 4 & 5 IPO KAP-SLM IPO KAP-SLM KAP-SLM KAP-SLM	See 1,4 & 5 12/2006 12/2006 Ongoing Ongoing Ongoing Ongoing	See 1,4,5 See 4 0 0 25,000 25,000 25,000	<ul style="list-style-type: none"> IP representatives are playing an increasingly active role The share of IP among the members of decision making bodies is equal or higher than their share among the affected population The PIM documents that the IP are satisfied with the IPP implementation and KAP-SLM

3 From year 2-6 USD 16,000 per year, which is USD 2,000 per OA district with IP for training of personnel, transport, material etc.

4 USD 2,000 for each of the OA districts with IP to hold sensitisation workshop.

5 USD 2,000 for each of the districts to train an IPO member in the elaboration of job applications etc.

Indigenous peoples plan of the Kenya Agricultural Productivity and sustainable land management (KAP-SLM) project					
Issue	Activity	Responsibility	By When	Cost in US\$	Indicators
8. Establish a participatory impact monitoring for KAP-SLM in OAs with indigenous peoples.	<ul style="list-style-type: none"> Sensitization of the IP Training on methodology, quantitative research and database management Carry out an annual participatory impact monitoring starting from 1/2008 Carry out an external evaluation of IPP implementation and the PIM 	<p>See 5 KAP-SLM, IPO</p> <p>IPO</p> <p>KAP-SLM</p>	<p>See 5 6/2007</p> <p>Ongoing</p> <p>2008,2011</p>	<p>See 5 20,000</p> <p>Comp 5⁶</p> <p>Com 5⁷</p>	<ul style="list-style-type: none"> The database is accessible and perceived by the KAP-SLM M&E unit as useful instrument and by the IP as accurate description of their reality The PIM reports are used for fine-tuning and document a poverty reduction rate of IP villages equal or higher than the average
Establish equal cultural opportunities					
9. Establish a national policy on indigenous peoples.	<ul style="list-style-type: none"> Create commission on IP policy Consult with IP Establish draft policy National workshop on draft policy Implement the policy 	<p>IPP Steering committee Commission & other IPO Commission & MP All stakeholders GoK</p>	<p>3/2007</p> <p>6/2007</p> <p>9/2007</p> <p>12/2007</p> <p>1/2008</p>	<p>5,000</p> <p>10,000</p> <p>10,000</p> <p>20,000</p> <p>0</p>	<ul style="list-style-type: none"> All stakeholders are represented in all meetings The document is discussed in each IP settlement and perceived by experts as in accordance with the OP 4,10.
10. Assist the IP association in capacity building to reduce the loss of traditional knowledge, culture and livelihood patterns	<ul style="list-style-type: none"> Identify IPO in the OA Provide training to increase organizational, technical and financial capacities of IP Associations Carry out sensitization campaigns in IP villages Promote IP culture Promote the protection and valorisation of indigenous traditional knowledge 	<p>KAP-SLM KAP-SLM IPO, MGSCSS IPO, National Museums</p>	<p>12/2006</p> <p>11/2005</p> <p>see 4</p>	<p>4,000</p> <p>10,000</p> <p>See 4 See 4 See 4</p>	<ul style="list-style-type: none"> The IP associations are perceived as representatives of the IP and become increasingly active on all levels
11. Foster the creation of forums for communication and exchange between IP and other groups and accompany this process of mutual understanding.	<ul style="list-style-type: none"> Sensitization of the IP and other people living in the region Facilitate the creation of forums Facilitate discussions and exchange visits 	<p>KAP-SLM, MGSCSS, IPO KAP-SLM, MGSCSS KAP-SLM, MGSCSS</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	<p>10,000</p> <p>10,000</p> <p>10,000</p>	<ul style="list-style-type: none"> The PIM and other reports document an increasing cooperation between the IP and their neighbours in view of joint activities in the direction of poverty reduction, biodiversity conservation and strengthening the multicultural society

6 The KAP-SLM M&E unit (component 5) will provide USD 1,000 per year and district in the OA with IP settlements = USD 32,000 in total.

7 The KAP-SLM component 5 will commission this in the context of the general social safeguard supervision missions. It is expected that each mission will cost around USD 10,000 = USD 20,000 in total.