

# **Profile on Environmental and Social Considerations in Tanzania**

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## Acronyms and Abbreviations

AfDB	The African Development Bank
C&R	Compensation and Resettlement
CRMU	Compliance Review and Mediation Unit
CRP	Compensation and Resettlement Plan
EBA	Endemic Bird Area
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMA	Environmental Management Act, 2004
EMP	Environmental Management Plan
ESAP	Environmental and Social Assessment Procedures for African Development Bank's Public Sector Operations, June 2001
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FRP	Full Resettlement Plan
IRM	Independent Review Mechanism
IUCN	International Union for Conservation of Nature
LDC	Least Developed Countries
NAPA	National Adaptation Programme of Action
NCA	Ngorongoro Conservation Area
NEMC	National Environment Management Council
NEP	National Environmental Policy
OP	Operational Policy
PAP	Project Affected People
RAP	Resettlement Action Plan
REDD	Reduced Emission from Deforestation and Forest Degradation
SEIA	Strategic Environmental Impact Assessment
TZS	Tanzania Standard
TOR	Terms of Reference
UNFCCC	the United Nations Framework Convention on Climate Change
VEO	Village Executive Officer
VPO	Vice President's Office
WEO	Ward Executive Officer



## **Chapter 1**

# **General Condition of United Republic of Tanzania**



# Chapter 1 General Condition of United Republic of Tanzania

## 1.1 General Condition

### 1.1.1 Location and Topography

The total area of United Republic of Tanzania (hereinafter referred to as Tanzania) is 945,000 km<sup>2</sup> and 2.5 times larger than Japan. There are eight neighboring countries namely Republic of Kenya, Republic of Uganda, Republic of Rwanda, Republic of Burundi, the Democratic Republic of Congo, Republic of Zambia, Malawi Republic, and Republic of Mozambique.

The total population is 42.48 million (World Bank, 2008) and the rate of population increase is 2.9% (World Bank, 2009). Dodoma is the legal capital of the country where the National Assembly is located. The city's population is 1.95 million according to the National Bureau of Statistics (NBS) of Tanzania. Dar es Salaam, on the other hand, is the economic center functioning as the country's virtual capital with the population of 2.88 million.

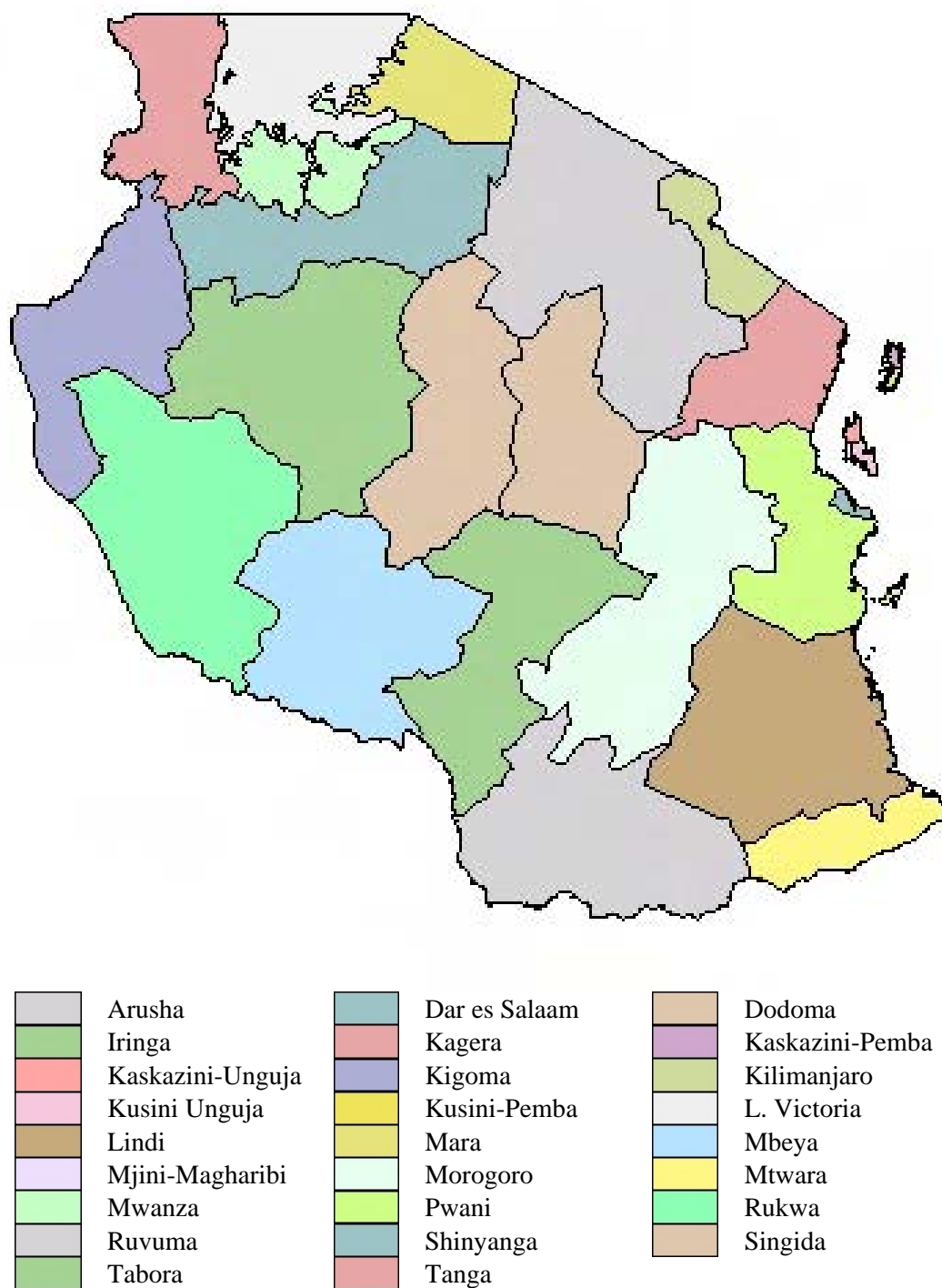
Tanzania is located at latitude from 1 degree to 12 degree south. There are coastal region facing the Indian Ocean, mountain region connected to Kilimanjaro in the northeast, and large lake region with Tanganyika Lake and Victoria Lake in the northwest close to the boarder.



Source: <http://geography.about.com/library/cia/blctanzania.htm>

Figure 1-1 Map of Tanzania

Tanzania is composed of 26 states as shown in Figure 1-2.



Source: <http://www.fao.org/countryprofiles/Maps/TZA/16/ad/index.html>

Figure 1-2 26 States of Tanzania

### 1.1.2 Weather

The country has diverse climate zones: hot and humid tropical climate in the coastal region while heating might be required in the uplands due to the severe difference in temperature. The weather is very different depending on the time and topography with the major rainy season from March to May and the small one from October to December. The temperature of Dar es Salaam in the coastal region reaches close to 30 degrees, but it sometimes falls below 20 degrees in the mountain region.

Table 1.1-1 Temperature and Precipitation of Major City

Month	Dar es Salaam			Dodoma			Tabora		
	Max (°C)	Min (°C)	P (mm)	Max (°C)	Min (°C)	P (mm)	Max (°C)	Min (°C)	P (mm)
Jan	23.5	31.8	76.3	18.6	29.4	133.7	17.6	28.0	17.6
Feb	23.3	32.4	54.9	18.6	29.4	144.5	17.4	28.8	16.0
Mar	22.8	32.1	138.1	18.3	29.0	113.9	17.5	29.3	15.8
Apr	22.4	30.7	254.2	17.9	28.7	57.8	17.2	29.0	10.4
May	21.3	29.8	197.8	16.5	28.0	5.3	15.9	29.3	2.1
Jun	19.2	29.3	42.9	14.4	27.1	0.1	13.9	28.9	0.7
Jul	18.2	28.9	25.6	13.6	26.5	0.03	19.1	28.4	0.08
Aug	18.1	29.4	24.1	14.2	27.3	0.01	16.0	30.6	0.2
Sep	18.4	30.3	22.8	15.3	29.0	0.01	17.8	32.1	0.3
Oct	19.7	30.9	69.3	16.9	30.5	2.1	18.9	32.3	2.7
Nov	21.3	31.4	125.9	18.3	30.1	26.3	18.6	30.1	11.0
Dec	22.8	31.6	117.8	18.8	30.4	123.3	18.1	28.7	17.3

Source: World Weather Information Service, World Metrological Organization (WMO)

P: Precipitation

### 1.1.3 Water Resource

In 2005, the amount of water resource (underground water and surface water) in Tanzania was 82 km<sup>3</sup> that accounts for 0.2% of the entire world. However, the amount of water resource per person is 2,416 m<sup>3</sup> that accounts for 28% of the world average. Moreover, the amount of the water resource is 2.1% and the amount of the water resource per person is 38% compared to Sub-Saharan.

Table 1.1-2 Amount of Water Resource in Tanzania

Area	Water Resource (km <sup>3</sup> )	Water Resource per person (m <sup>3</sup> /person)
World	43,219	8,549
Africa/Sub-Sahara	3,901	6,322
<u>Tanzania</u>	<u>82</u>	<u>2,416</u>
Kenya	20	932
Uganda	39	2,472
Rwanda	5	613
Burundi	4	509
Congo	900	-
Zambia	80	9,630
Malawi	16	1,401
Mozambique	99	11,266

Source: Created off of Freshwater Resources 2005, World Resources Institute (WRI)

### 1.1.4 Political/Legal System and Governmental Organization

Tanzania was British's mandated territory since 1920, but declared independence in 1961 and became Republic in 1962. Tanganyika, the mainland and the Zanzibar islands merged in 1964 and United Republic of Tanzania was born. The president of the United Republic is elected by the direct poll of the voters of the mainland and the Zanzibar islands. On the other hand, the Zanzibar islands have its own judicial, legislative and administrative autonomies with the separate president from the mainland. Therefore, there is no autonomous government only for the mainland, Tanganyika.

At the first election under the multi-party system (introduced in 1992) in 1995, Benjamin William Mkapa was elected as the third President and reelected in 2000. However, the President Mkapa was voluntarily retired due to the constitution prohibiting for the same person to be elected for the third time. Then, Jakaya Mrisho Kikwete was elected as the President in December 2005 with the share of 80% of the votes and was reelected in November 2010. In Zanzibar, Ali Mohamed Shein was elected as the President after the completion of the President Karume's term. The term of the President is 5 years. The assembly has the unicameral system with the term of 5 years.

### 1.2 Policy and Regulation for Environmental and Social Considerations

Table 1.2-1 is the list of policies and regulations in regards to Environmental and Social Considerations.

Table 1.2-1 Environmental and Social Considerations related Policy and Regulation

Category	Name	Year Established	Ministry in charge
Policies	National Environmental Policy (NEP)	1997	Vice-President's Office
	National Forest Policy	1998	Ministry of Natural Resources and Tourism
	Wildlife and Wetland Policy	2007	Ministry of Natural Resources and Tourism
	National Water Policy	2002	Ministry of Water
	Agriculture and Livestock Policy	1997	Ministry of Agriculture and Livestock Development
	National Tourism Policy	1998	Ministry of Natural Resources and Tourism
	National Mineral Policy	1998	Ministry of Energy and Minerals
	National Transport Policy	2003	Ministry of Transport and Communication
	National Energy Policy	1992	Ministry of Energy and Minerals
	Construction Industry Policy	2002	Ministry of Works
	Road Safety Policy	2009	Ministry of Infrastructure Development
	National Human Settlements Development Policy	2000	Ministry of Land, Housing and Human Settlement Development

Category	Name	Year Established	Ministry in charge
	National Land Policy	1995 Revised in 1997	Ministry of Land, Housing and Human Settlement Development
	Women and Gender Development Policy	2000	Ministry of Women, Gender and Children Development
	National Policy on HIV/AIDS	2001	Prime Minister's Office
Legal and Regulatory Framework	Environment Management Act (EMA)	2004	Vice-President's Office
	The Environmental Impact Assessment and Audit Regulations	2005	Vice-President's Office
	The Environmental (Registration of Environmental Experts) Regulations	2005	Vice-President's Office
	Strategic Environmental Assessment Regulations	2008	Vice-President's Office
	National Environmental Standards	2005	Tanzania Bureau of Standards
	Land and Village Land Acts No4 & 5 of 1999	1999	Ministry of Land, Housing and Human Settlement Development
	The Land Regulations	2001	Ministry of Land, Housing and Human Settlement Development
	The Land Use Planning Act No6 of 2007	2007	Ministry of Land, Housing and Human Settlement Development
	The urban Planning Act	2007	
	Local Government Acts No.7 & 8	1982	Prime Minister's Office
	Regional and District Act No.9	1997	Prime Minister's Office
	Forest Act	2002	Ministry of Natural Resources and Tourism
	Wildlife Conservation Act No5	2009	Ministry of Natural Resources and Tourism
	Protected Places and Areas Act	1969	Ministry of Natural Resources and Tourism
	Water Resources Management Act	2009	Ministry of Water and Irrigation
	The Road Act	2007	Ministry of Infrastructure Development
	Surface and Marine Transport regulation Authority (SUMATRA) Act	2001	Ministry of Transport and Communication
The Electricity Act	2008	Ministry of Energy and Minerals	

Category	Name	Year Established	Ministry in charge
	Mining Act (No.5 of 1998)		Ministry of Energy and Minerals
	Mining (Environmental Management and Protection) Regulations	1999	Ministry of Energy and Minerals
	The Petroleum Act	2008	Ministry of Energy and Minerals
	Explosives Act, 538		Ministry of Energy and Minerals
	The Grave (Removal) Act	1969	Ministry of Land, Housing and Human Settlement Development
	Antiquities Act Cap 333 R.E	2002	Ministry of Natural Resources and Tourism
	The HIV and AIDS (Prevention and Control) Act	2008	Prime Minister's Office
	Occupational Health and Safety Act	2003	Ministry of Labor, Employment and Youth Development
	The employment and Labor Relations Act	2004	Ministry of Labor, Employment and Youth Development

### 1.3 Governmental Organization

The governmental organizations related to the Environmental and Social Considerations are shown in Figure 1-3.

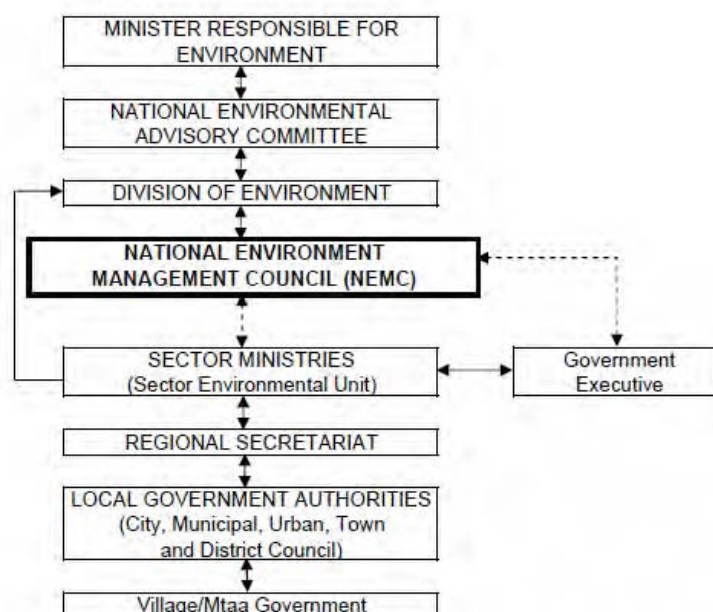


Figure 1-3 Governmental Organization related to Environmental and Social Considerations



## 1.4 Outline of Ratification/Adaptation of International Convention

Wildlife Division is the focal point in implementing ratified international conventions and obligations related to conservation and management of wildlife and wetlands. These include; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Migratory Species (CMS), African Eurasian Migratory Water Bird Agreement (AEWA), Ramsar, Lusaka Agreement, South African Development Commission (SADC) protocol in wildlife conservation and Law enforcement.

International Environmental and Social Conventions Tanzania has ratified are shown in Table 1.4-1.

Table 1.4-1 Ratification of International Environmental and Social Conventions

Type	Name	Year Established
Pollution Prevention Conventions	The Convention on the Prevention of Marine Pollution by Dumping of Waste and other Waste, London	1972
	The Convention on the Prevention of Marine Pollution from Ships (MARPOL)	1973
	The United Nations Convention on the Law of the Sea (UNCLOS), Montego Bay	1982
Biodiversity related Convention	Convention of Biological Diversity (CBD)	1992
	The United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification particularly in Africa (CSD)	1994
	The Cartagena Protocol on Bio Safety	2000
Other Conventions	The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Washington (Ratified in 1979)	1973
	The Convention on the Conservation of Migratory Speices of Wild Animals (CMS), Bonn (Ratified in 1999)	1979
	The Convention Concerning the Protection of World Cultural and Natural Heritage (WHC), Paris (Ratified in 1987)	1972
	The Convention of Wetlands of International Importance especially as Water Fowl Habitat (The Ramsar Convention)	1971
Climate Change Conventions	The United Nations Framework Convention on Climate Change (UNFCCC) (Ratified in 1996)	1992
	Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol)	1997
Chemicals and Ozone protection Convention	Basel Convention on the Control of Trans Boundary Movements of Hazardous Waste and their Disposal (Ratified in 1993)	1989
	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pes	1998
	Stockholm convention on Persistent Organic Pollutants	2001
	Vienna Convention for the Protection of the Ozone Layer	1985
	Montreal Protocol on Substances that Deplete the Ozone Layer	1987

Type	Name	Year Established
	Protocol on Liability and Compensation on Damage resulting from Transboundary Movement of Hazardous Waste and their Disposal	2000
Regional Conventions	The Convention on the Conservation of Nature and Natural Resources, Algiers	1968
	The Bamako Convention on the Ban of the Import into Africa and the Control of Trans Boundary Movement of Hazardous Wastes within Africa	1990
	Nairobi Convention for the Protection, Management and Development of the Marine and Costal Environmental of Eastern African Region, 1985 and the related Protocols	1985
	<u>Lusaka Agreement</u> on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora	1994
	African Eurasian Migratory Water Bird Agreement (AEWA)	
	South African Development Commission ( <u>SADC</u> ) <u>protocol</u> in wildlife conservation and Law enforcement	

Source: Final report for the survey on regulations and framework for environmental and social considerations for Japanese ODA loan operations in the United Republic of Tanzania, March 2010, Four Planners (T) Limited

## 1.5 NGOs acting in the Environmental and Social Considerations field

Example of NGOs that activate in Tanzania is shown in Table 1.5-1.

Table 1.5-1 Example of NGOs acting in Tanzania

No.	Name of NGO	Region	District	Website
1	Kagera Environmental Care Association (KECA)	Bukoba	Bukoba	<a href="http://envaya.org/keca">http://envaya.org/keca</a>
2	Fight Against Poverty in Rural Areas (FAPRA)	Kibaha	N/A	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=16">http://www.tnnc.go.tz/ngodetails.php?applicationid=16</a>
3	Centre for Environmental Economics and Development Research (CEDR)	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=23">http://www.tnnc.go.tz/ngodetails.php?applicationid=23</a>
4	Guluka Kwalala Youth Environment Group	Dar es Salaam	Ilala	<a href="http://envaya.org/guluka">http://envaya.org/guluka</a>
5	Food & Agricultural Research Management (FARM-Africa)	Arusha	N/A	<a href="http://www.farmafrica.org.uk/index.php">http://www.farmafrica.org.uk/index.php</a>
6	Youth Vision of Kigamboni	Dar es Salaam	Ilala	<a href="http://youthvisionkigamboni.blogspot.com/">http://youthvisionkigamboni.blogspot.com/</a>
7	Forest Gardener Group	Tabora	N/A	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=50">http://www.tnnc.go.tz/ngodetails.php?applicationid=50</a>
8	Foundation for Energy, Climate, and Environment (FECE)	Dar es Salaam	Ilala	<a href="http://www.setatwork.eu/database/actors/A336.htm">http://www.setatwork.eu/database/actors/A336.htm</a>
9	The Institute of Health and Environmental Education Tanzania	Mwanza	Nyamagana	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=162">http://www.tnnc.go.tz/ngodetails.php?applicationid=162</a>
10	Urban Environmental Development Association (UEDA)	Arusha	N/A	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=178">http://www.tnnc.go.tz/ngodetails.php?applicationid=178</a>
11	BONGOYO Conservation Group	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=185">http://www.tnnc.go.tz/ngodetails.php?applicationid=185</a>
12	WATETEZI WA HIFADHI ZA PUGU KAZIMZUMBWI	Coast	Kisarawe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=191">http://www.tnnc.go.tz/ngodetails.php?applicationid=191</a>
13	Youth Environmental Rrscue Organization Tanzania	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=193">http://www.tnnc.go.tz/ngodetails.php?applicationid=193</a>
14	Tanzania Fisheries and Aquatic Environment	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=194">http://www.tnnc.go.tz/ngodetails.php?applicationid=194</a>
15	Coastal Zone Environmental Liberation (COZEL)	Tanga	Kilindi	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=201">http://www.tnnc.go.tz/ngodetails.php?applicationid=201</a>

No.	Name of NGO	Region	District	Website
16	Mufindi Environmental Conservation and Health (MECH)	Iringa	Mufindi	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=203">http://www.tnnc.go.tz/ngodetails.php?applicationid=203</a>
17	TUWE PAMOJA	Lindi	Liwale	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=205">http://www.tnnc.go.tz/ngodetails.php?applicationid=205</a>
18	African Wildlife Service of Tanzania	Kigoma	Kigoma Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=214">http://www.tnnc.go.tz/ngodetails.php?applicationid=214</a>
19	MIRANACO	Mbeya	Mbozi	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=220">http://www.tnnc.go.tz/ngodetails.php?applicationid=220</a>
20	Community Services for Sustainable Development Association	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=251">http://www.tnnc.go.tz/ngodetails.php?applicationid=251</a>
21	WATU KAZI	Dar es Salaam	Temeke	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=252">http://www.tnnc.go.tz/ngodetails.php?applicationid=252</a>
22	Quality Life and Environment Destiny Tanzania	Mwanza	Ilemela	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=259">http://www.tnnc.go.tz/ngodetails.php?applicationid=259</a>
23	Africa Partnership on Climate Change Coalition, Tanzania	Dar es Salaam	Ilala	<a href="http://envaya.org/apccc/home">http://envaya.org/apccc/home</a>
24	ECUSINI (Environmental Conservation Initiatives)	Kigoma	Kigoma Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=266">http://www.tnnc.go.tz/ngodetails.php?applicationid=266</a>
25	SHIRIKA LA UTAFITI ELIMU YA MAZINGIRA NA MALEZI BORA (SUEMMA)	Kilimanjaro	Moshi Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=286">http://www.tnnc.go.tz/ngodetails.php?applicationid=286</a>
26	SHIRIKA LA UTUNZAJI WA MAZINGIRA NA MAENDELEO YA WAWAVUVI (SUMAWA)	Dar es Salaam	Temeke	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=318">http://www.tnnc.go.tz/ngodetails.php?applicationid=318</a>
27	ASASI YA UHIFADHI WA MAZINGIRA NA KILIMO (AHUMAKI)	Lindi	Liwale	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=325">http://www.tnnc.go.tz/ngodetails.php?applicationid=325</a>
28	Tanzania Environmental and Tourism Education Organization (TETEO)	Dar es Salaam	Ilala	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=343">http://www.tnnc.go.tz/ngodetails.php?applicationid=343</a>
29	HURUMA Social Development Action	Lindi	Liwale	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=352">http://www.tnnc.go.tz/ngodetails.php?applicationid=352</a>
30	MTANDAO WA JAMII WA KULINDA NA KUTETEA MAZINGIRA KUSINI MWA Tanzania (MSAKUKUMTA)	Lindi	Kilwa	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=358">http://www.tnnc.go.tz/ngodetails.php?applicationid=358</a>
31	Human Ecology Action Organization	Mbeya	Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=365">http://www.tnnc.go.tz/ngodetails.php?applicationid=365</a>
32	ASASI YA MAENDELEO UHIFADHI MAZINGIRA YA MILIMA YA MATOGORO	Ruvuma	Songea Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=384">http://www.tnnc.go.tz/ngodetails.php?applicationid=384</a>

No.	Name of NGO	Region	District	Website
33	TAASISI YA MIKOKO MJIMWEMA	Dar es Salaam	Temeke	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=388">http://www.tnnc.go.tz/ngodetails.php?applicationid=388</a>
34	Africana Community Rehabilitation Organization (ACRO)	Kilimanjaro	Moshi Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=390">http://www.tnnc.go.tz/ngodetails.php?applicationid=390</a>
35	HIFADHI YA MAZINGIRA NA UTALII RUNGWE	Mbeya	Rungwe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=419">http://www.tnnc.go.tz/ngodetails.php?applicationid=419</a>
36	KIVUKONI Environmental Protection Association (KEPA)	Dar es Salaam	Ilala	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=464">http://www.tnnc.go.tz/ngodetails.php?applicationid=464</a>
37	NACHINGWEA Agro Environmental Services Organization	Lindi	Nachingwea	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=470">http://www.tnnc.go.tz/ngodetails.php?applicationid=470</a>
38	MJIMWEMA Environmental Development Organization	Dar es Salaam	Temeke	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=477">http://www.tnnc.go.tz/ngodetails.php?applicationid=477</a>
39	Welfare of Animal and Preservation of Environment	Mwanza	Nyamagana	<a href="http://www.wape-tz.org/">http://www.wape-tz.org/</a>
40	Environmental Concervation Family	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=514">http://www.tnnc.go.tz/ngodetails.php?applicationid=514</a>
41	NJOMBE Environmental Conce. Organization	Iringa	Njombe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=528">http://www.tnnc.go.tz/ngodetails.php?applicationid=528</a>
42	SHIRIKA LA UHAMASISHAJI MAZINGIRA KITANGA	Coast	Kisarawe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=529">http://www.tnnc.go.tz/ngodetails.php?applicationid=529</a>
43	Tanzania Environmental Solution (TESO)	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=585">http://www.tnnc.go.tz/ngodetails.php?applicationid=585</a>
44	SHIRIKA LA MALARIA NA MAZINGIRA MUHEZA	Tanga	Muheza	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=593">http://www.tnnc.go.tz/ngodetails.php?applicationid=593</a>
45	MSINGWA Development Association	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=594">http://www.tnnc.go.tz/ngodetails.php?applicationid=594</a>
46	IGOMBE Ecosystems Conservation and CO Management Organization	Tabora	Uyui	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=634">http://www.tnnc.go.tz/ngodetails.php?applicationid=634</a>
47	KISARAWA Development Foundation	Coast	Kisarawe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=648">http://www.tnnc.go.tz/ngodetails.php?applicationid=648</a>
48	MISSENYI Environmental and Development Organization	Kagera	Bukoba Rural	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=659">http://www.tnnc.go.tz/ngodetails.php?applicationid=659</a>
49	Tanzania Environmental Securities	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=665">http://www.tnnc.go.tz/ngodetails.php?applicationid=665</a>

No.	Name of NGO	Region	District	Website
50	KABWE Environment Conservation and Development Society	Rukwa	Nkasi	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=690">http://www.tnnc.go.tz/ngodetails.php?applicationid=690</a>
51	UHIKI	Coast	Kisarawe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=715">http://www.tnnc.go.tz/ngodetails.php?applicationid=715</a>
52	Livingstone Government Care and Development Organization	Mbeya	Kyela	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=755">http://www.tnnc.go.tz/ngodetails.php?applicationid=755</a>
53	Iringa Environment Projectors	Iringa	Mjini	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=782">http://www.tnnc.go.tz/ngodetails.php?applicationid=782</a>
54	WAHAMASISHAJI UTALII Tanzania (WAUTA)	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=784">http://www.tnnc.go.tz/ngodetails.php?applicationid=784</a>
55	PAMBANA NA UHARIBIFU WA MAZINGIRA	Lindi	Liwale	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=903">http://www.tnnc.go.tz/ngodetails.php?applicationid=903</a>
56	NGUVUMALI Community Development Environment	Tanga	Tanga	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=907">http://www.tnnc.go.tz/ngodetails.php?applicationid=907</a>
57	IGOMBE Ecosystems Conservation and CO Management Organization (IGOECO)	Tabora	Uyui	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=925">http://www.tnnc.go.tz/ngodetails.php?applicationid=925</a>
58	Dodoma Clean Development Services	Dodoma	Dodoma Urban	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=940">http://www.tnnc.go.tz/ngodetails.php?applicationid=940</a>
59	Tanzania Rural Community Based Environmental	Morogoro	Rural	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=949">http://www.tnnc.go.tz/ngodetails.php?applicationid=949</a>
60	Environmental and Agricultural Watch (EWA)	Dar es Salaam	value1	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=950">http://www.tnnc.go.tz/ngodetails.php?applicationid=950</a>
61	Social and Environment Action Tanzania (SEAT)	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=977">http://www.tnnc.go.tz/ngodetails.php?applicationid=977</a>
62	Medicinal Plants Conservation Organization (MEPCO)	Tanga	Tanga	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=995">http://www.tnnc.go.tz/ngodetails.php?applicationid=995</a>
63	BUZA Widow Women Environment Organization	Dar es Salaam	Temeke	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=998">http://www.tnnc.go.tz/ngodetails.php?applicationid=998</a>
64	Tanzania Green Friends (TANGREEF)	Dar es Salaam	Kinondoni	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=1018">http://www.tnnc.go.tz/ngodetails.php?applicationid=1018</a>
65	NKWENDA Environmental Preservation Organization	Kagera	Karagwe	<a href="http://www.tnnc.go.tz/ngodetails.php?applicationid=1019">http://www.tnnc.go.tz/ngodetails.php?applicationid=1019</a>

No.	Name of NGO	Region	District	Website
66	Agenda for Environment and Responsible Development	Dar es Salaam	N/A	<a href="http://www.agenda-tz.org/">http://www.agenda-tz.org/</a>
67	Foundation HELP	Musoma	N/A	<a href="http://www.foundationhelp.org/">http://www.foundationhelp.org/</a>
68	Haki Ardhi	Dar es Salaam	N/A	<a href="http://www.hakiardhi.org/">http://www.hakiardhi.org/</a>
69	Journalist Environmental Association of Tanzania (JET)	Dar es Salaam	N/A	<a href="http://www.unccd.int/ngo/accreditationDB/institutionDetails.php?id=568">http://www.unccd.int/ngo/accreditationDB/institutionDetails.php?id=568</a>
70	Kigoma Vijana Development Association (KIVIDEA)	Kigoma	N/A	<a href="http://www.sauti-zetu.org/community/kigoma-vijana-development-association-kividea-3/">http://www.sauti-zetu.org/community/kigoma-vijana-development-association-kividea-3/</a>
71	Kukaye Worldwide	Arusha	N/A	<a href="http://www.charity-charities.org/Tanzania-charities/Arusha-1559917.html">http://www.charity-charities.org/Tanzania-charities/Arusha-1559917.html</a>
72	Lawyers' Environmental Team (LEAT)	Dar es Salaam	N/A	<a href="http://www.lead.or.tz/">http://www.lead.or.tz/</a>
73	Maasai Challenge	Arusha	N/A	<a href="http://www.uzanu.com/-56/posts/2-classes-training/9--other-classes/71678-Maasai-Challenge.html">http://www.uzanu.com/-56/posts/2-classes-training/9--other-classes/71678-Maasai-Challenge.html</a>
74	National Youth Forum (NYF)	Dar es Salaam	N/A	P.O. Box 9354, Dar es Salaam nyforum@yahoo.com
75	Ngorongoro Indigenous Maasai Organization (NIMO)	Arusha	N/A	<a href="http://nimotanzania.org/maasai_fact.html">http://nimotanzania.org/maasai_fact.html</a>
76	Tanzania Traditional Energy Development and Environment Organisation (TaTEDO)	Dar es Salaam	N/A	<a href="http://www.pciaonline.org/node/243">http://www.pciaonline.org/node/243</a>
77	Together Foundation	Dar es Salaam	N/A	<a href="http://www.kabissa.org/civiorg/426">http://www.kabissa.org/civiorg/426</a>
78	World Wide Fund for Nature (WWF) Tanzania	Dar es Salaam	N/A	<a href="http://wwf.panda.org/who_we_are/wwf_offices/tanzania/">http://wwf.panda.org/who_we_are/wwf_offices/tanzania/</a>
79	Youth Build Future	Mbeya	N/A	<a href="http://www.globalhand.org/en/organisations/28162">http://www.globalhand.org/en/organisations/28162</a>
80	Zoe Skills Developmental Foundation (ASDF)	Dar es Salaam	N/A	<a href="http://www.kabissa.org/civiorg/1119">http://www.kabissa.org/civiorg/1119</a>
81	Agency for Rural Development Action Plan (ARDAP)	Karagwe	N/A	N/A
82	Coast Belt Agricultural General Organisation (CBAGO)	Dar es Salaam	N/A	N/A
83	Eco Programs	Moshi	N/A	N/A
84	Environmental, Human Rights, Care and Gender Organisation (Enviro Care)	N/A	N/A	N/A
85	Foundation for Promoting People's Awareness and Development	Dar es Salaam	N/A	N/A
86	Hands of Mercy Outreach Tanzania (HMOT)	Mwanza	N/A	N/A

No.	Name of NGO	Region	District	Website
87	Inawezekana	Tabora	N/A	N/A
88	Mountains Conservation Society of Tanzania (MCST)	N/A	N/A	N/A
89	Mtandao wa kuelimisha na kuendeleza Jamii (MKUKUJA)	Morogoro	N/A	N/A
90	Progress Association Tanzania (PATA)	Mbeya Region	N/A	N/A
91	Society for Advancement of Humanity	Dar es Salaam	N/A	N/A
92	Sustainable Economic & Environmental Conservation Organization	Njombe	N/A	N/A
93	Tabora Development Foundation Trust (TDFT)	Tabora,	N/A	N/A
94	Tanzania Debate Association; Dar es Salaam, Tanzania ecoVolunteerism	Tanga	N/A	N/A
95	TRACE Capacity Building and OD Facilitation Centre	Dar es Salaam	N/A	N/A
96	Young Entrepreneurs Support Initiative (YESi TANZANIA)	Dar es Salaam	N/A	N/A

## 1.6 Trend of Aid Agency

African Development Bank (AfDB) and World Bank (WB) etc. execute various aid activities such as development of hard infrastructure or software one. As for development of hard infrastructure, development of road and electric grid etc. is executed.



## 1.7 Local Knowledgeable Persons (Consultants)

Table 1.7-1 describes the example of local consultants in Tanzania.

Table 1.7-1 Example of Local Consultants

No.	Name of business	Contact Information	Related Field
1	Inter-Consult Limited <a href="http://www.interconsult-tz.com/">http://www.interconsult-tz.com/</a>	Inter House, Ali Hassan Mwinyi Road, Plot 45C, P.O.Box 423, Dar es Salaam Tel:+255-22-772424 Fax:+255-22-2774070	EIA RAP
2	COWI Tanzania Ltd. <a href="http://www.cowi.co.tz/menu/home/Pages/Home.aspx">http://www.cowi.co.tz/menu/home/Pages/Home.aspx</a>	398 Kawawa Road, P P.O.Box 1007, Dar es Salaam Tel:+255 22 2666161 Fax:+255 22 2666094	EIA RAP
3	Institute of Resource Assessment (IRA), University of Dar Es Salam <a href="http://www.ira.udsm.ac.tz/">http://www.ira.udsm.ac.tz/</a>	Mlimani, Dar es Salaam, P.O.Box 35097 Tel:+255-22-2410144 Fax:+255-22-2410393	EIA RAP
4	College of Engineering and Technology (CoET), University of Dar es Salaam <a href="http://coet.udsm.ac.tz/index.php/home">http://coet.udsm.ac.tz/index.php/home</a>	P.O.Box 35131, Dar es Salaam <a href="tel:+255-22-2410753">Tel:+255-22-2410753</a> Fax:+255-2410114/411	EIA
5	Four Planners (T) Limited	P.O.Box 75056, Dar es Salaam Tel:0754-271175	Environmental and Social Considerations



## **Chapter 2**

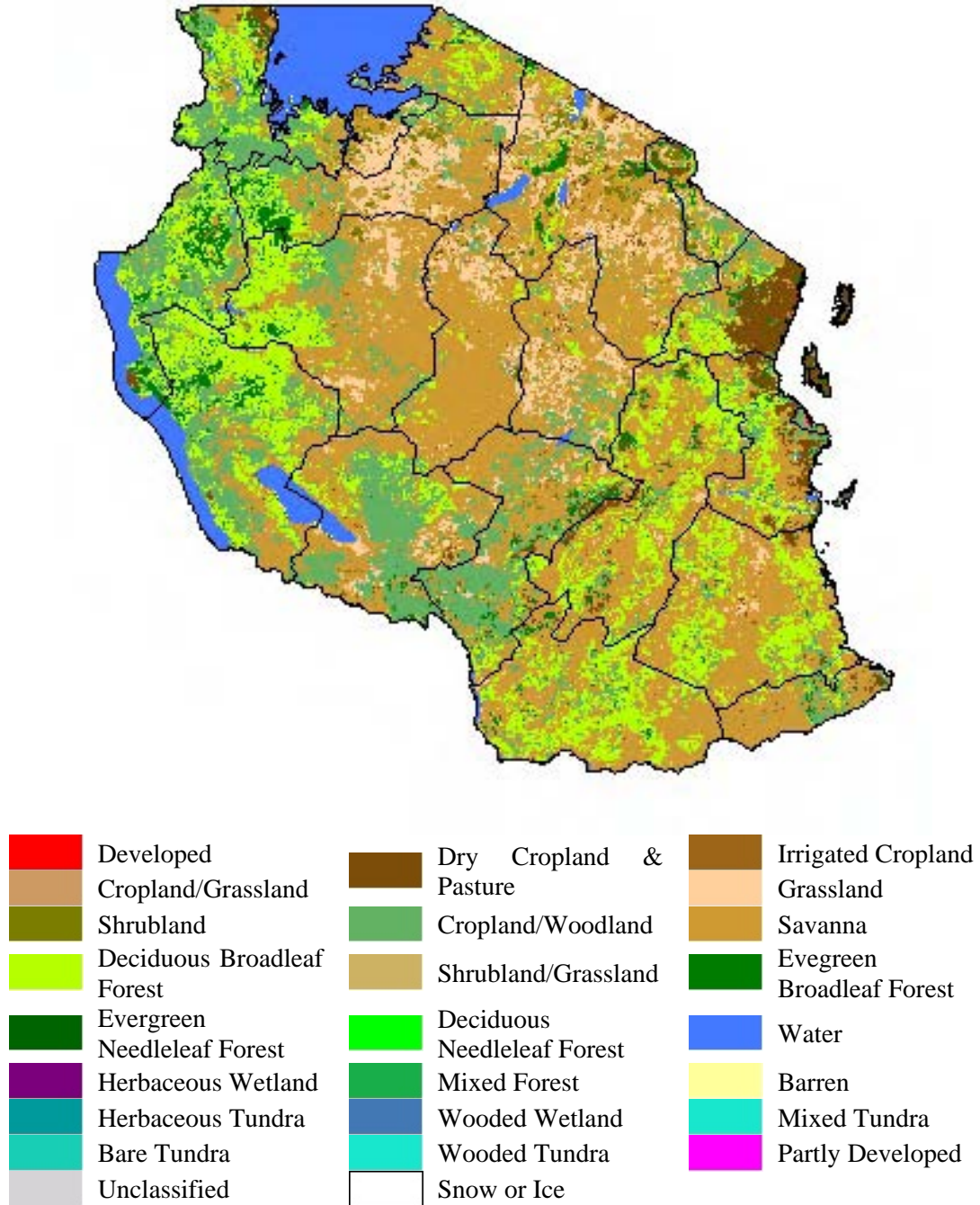
# **Natural Environment**



## Chapter 2 Natural Environment

### 2.1 General Condition

Distribution of vegetation in Tanzania is shown in Figure 2-1. The broadleaf forest stretched out in the western region where Tanzania shares its border with Uganda, Rwanda, Burundi, and Congo. On the other hand, Savanna and grassland spread out in the eastern to central region.



Source: <http://www.fao.org/countryprofiles/Maps/TZA/09/lc/index.html>

Figure 2-1 Distribution of Vegetation in Tanzania

## 2.2 Wildlife Species

### 2.2.1 Endemic Species

Endemic Species are the subspecies or the ones where the distribution is limited to particular regions. There are at least 1,800 endemic species (plants) vegetated in the eastern arc mountains of Tanzania and Kenya and the coastal forest.

### 2.2.2 Endangered Species

International Union for Conservation of Nature (IUCN) publishes the global list of the Red List. This Red List is the helpful tool to set the natural conservation priority among the threatened species. Category Classification of the Red List is show in Table 2.2-1. This classification is the category adopted from IUCN's board of directors off the Red List in 2000. There are three categories for endangered species namely Endangered IA, Endangered IB and Endangered II.

Table 2.2-1 Category Classification of the Red List

Category			Description
Extinct			Ex no reasonable doubt that the last individual has died
Extinct in the Wild			EW only to survive in cultivation, captivity or as a naturalized population
Endangered	IA	Critically Endangered	CR considered to be facing an extremely high risk of extinction in the wild
	IB	Endangered	EN considered to be facing a very high risk of extinction in the wild
	II	Vulnerable	VU considered to be facing a high risk of extinction in the wild
Near Threatened			NT not qualify for CR, EN or VU now, but is close to qualifying for or is likely to qualify for a threatened category in the near future
Least Concern			LC does not qualify for CR, EN, VU or NT
Data Deficient			DD inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status
Not Valuated			NE —

Source: [http://www.iucn.jp/protection/species/redlist\\_category.html](http://www.iucn.jp/protection/species/redlist_category.html)

The numbers of Critically Endangered (Endangered IA), Endangered (Endangered IB), and Vulnerable (Endangered II) species (vertebrates and plants) in Tanzania as of 2011 Jan are shown in Table 2.2-2.

Table 2.2-2 Numbers of Endangered Species in Tanzania

Category	Critically Endangered (CR)	Endangered (EN)	Vulnerable (VU)	Total
Mammal	5	15	15	35
Bird	0	13	25	38
Reptile	2	5	9	16
Amphibian	6	24	20	50
Fish	57	23	92	172
Plant	18	70	210	298

Source: <http://www.iucnredlist.org/apps/redlist/search>

Critically Endangered (Endangered IA), Endangered (Endangered IB), and Vulnerable (Endangered II) vertebrates in Tanzania as of 2011 Jan are listed in Table 2.2-3.

Table 2.2-3 Endangered Species in Tanzania

<b>Mammal</b>			
<b>No.</b>	<b>Scientific Name (Common Name/s)</b>	<b>Category</b>	<b>Status</b>
1	Acinonyx jubatus (Cheetah)	VU	decreasing
2	Balaenoptera musculus (Blue Whale)	EN	increasing
3	Bdeogale omnivora (Sokoke Bushy-tailed Mongoose)	VU	decreasing
4	Cephalophus adersi (Aders' Duiker)	CR	decreasing
5	Cephalophus spadix (Abbott's Duiker)	EN	decreasing
6	Cercocebus sanjei (Sanje Mangabey)	EN	decreasing
7	Congosorex phillipsorum	CR	decreasing
8	Crocidura allex (East African Highland Shrew)	VU	decreasing
9	Crocidura desperata (Desperate Shrew)	EN	decreasing
10	Crocidura tansaniana (Tanzanian Shrew)	EN	decreasing
11	Crocidura telfordi (Telford's Shrew)	EN	decreasing
12	Crocidura usambarae (Usambara Shrew)	EN	decreasing
13	Diceros bicornis (Black Rhinoceros)	CR	increasing
14	Dugong dugon (Dugong)	VU	unknown
15	Galagoides rondoensis (Rondo Dwarf Galago)	CR	decreasing
16	Hippopotamus amphibius (Hippopotamus)	VU	decreasing
17	Kerivoula africana (Tanzanian Woolly Bat)	EN	decreasing
18	Loxodonta africana (African Elephant)	VU	increasing
19	Lycaon pictus (African Wild Dog)	EN	decreasing
20	Myonycteris relicta (East African Little Collared Fruit Bat)	VU	decreasing
21	Myosorex geata (Geata Mouse Shrew)	EN	decreasing
22	Myosorex kihalei (Kihale's Mouse Shrew)	EN	decreasing
23	Myosorex zinki (Kilimanjaro Mouse Shrew)	VU	stable
24	Otomys lacustris (Tanzanian Vlei Rat)	VU	decreasing
25	Pan troglodytes (Robust Chimpanzee)	EN	decreasing
26	Panthera leo (Lion)	VU	decreasing
27	Physeter macrocephalus (Sperm Whale)	VU	unknown
28	Procolobus gordonorum (Udzungwa Red Colobus)	EN	decreasing
29	Procolobus kirkii (Zanzibar Red Colobus)	EN	decreasing
30	Pteropus voeltzkowi (Pemba Flying Fox)	VU	increasing
31	Rhynchocyon petersi (Black And Rufous Elephant Shrew)	VU	unknown
32	Rhynchocyon udzungwensis (Grey-faced Sengi)	VU	unknown
33	Rungwecebus kipunji (Kipunji)	CR	decreasing
34	Sylvisorex howelli (Howell's Forest Shrew)	EN	decreasing
35	Taphozous hildegardeae (Hildegard's Tomb Bat)	VU	decreasing

<b>Bird</b>			
<b>No.</b>	<b>Scientific Name (Common Name/s)</b>	<b>Category</b>	<b>Status</b>
1	Acrocephalus griseldis (Basra Reed-warbler)	EN	decreasing
2	Anthreptes pallidigaster (Amani Sunbird)	EN	decreasing
3	Anthreptes rubritorques (Banded Sunbird)	VU	decreasing
4	Anthus sokokensis (Sokoke Pipit)	EN	decreasing
5	Apalis argentea (Kungwe Apalis)	EN	decreasing

No.	Scientific Name (Common Name/s)	Category	Status
6	<i>Apalis chariessa</i> (White-winged Apalis)	VU	decreasing
7	<i>Apalis karamojae</i> (Karamoja Apalis)	VU	decreasing
8	<i>Aquila clanga</i> (Greater Spotted Eagle)	VU	decreasing
9	<i>Aquila heliaca</i> (Eastern Imperial Eagle)	VU	decreasing
10	<i>Ardeola idae</i> (Madagascar Pond-heron)	EN	decreasing
11	<i>Balaeniceps rex</i> (Shoebill)	VU	decreasing
12	<i>Balearica regulorum</i> (Grey Crowned-crane)	VU	decreasing
13	<i>Bathmocercus winifredae</i> (Mrs Moreau's Warbler)	VU	(needs updating)
14	<i>Bubo vosseleri</i> (Usambara Eagle-owl)	VU	decreasing
15	<i>Chloropeta gracilirostris</i> (Papyrus Yellow Warbler)	VU	decreasing
16	<i>Cinnyricinclus femoralis</i> (Abbott's Starling)	VU	decreasing
17	<i>Falco naumanni</i> (Lesser Kestrel)	VU	decreasing
18	<i>Glareola ocularis</i> (Madagascar Pratincole)	VU	decreasing
19	<i>Grus carunculatus</i> (Wattled Crane)	VU	decreasing
20	<i>Hirundo atrocaerulea</i> (Blue Swallow)	VU	decreasing
21	<i>Hyliota usambara</i> (Usambara Hyliota)	EN	decreasing
22	<i>Modulatrix orostruthus</i> (Dapple-throat)	VU	decreasing
23	<i>Morus capensis</i> (Cape Gannet)	VU	decreasing
24	<i>Nectarinia rufipennis</i> (Rufous-winged Sunbird)	VU	decreasing
25	<i>Neophron percnopterus</i> (Egyptian Vulture)	EN	decreasing
26	<i>Otus ireneae</i> (Sokoke Scops-owl)	EN	decreasing
27	<i>Otus pemaensis</i> (Pemba Scops-owl)	VU	decreasing
28	<i>Ploceus burnieri</i> (Kilombero Weaver)	VU	decreasing
29	<i>Ploceus nicolli</i> (Usambara Weaver)	EN	decreasing
30	<i>Sheppardia aurantiithorax</i> (Rubeho Akalat)	EN	decreasing
31	<i>Sheppardia lowei</i> (Iringa Akalat)	VU	decreasing
32	<i>Sheppardia montana</i> (Usambara Akalat)	EN	decreasing
33	<i>Swynnertonia swynnertoni</i> (Swynnerton's Robin)	VU	decreasing
34	<i>Torgos tracheliotos</i> (Lappet-faced Vulture)	VU	decreasing
35	<i>Treron pemaensis</i> (Pemba Green-pigeon)	VU	decreasing
36	<i>Trigonoceps occipitalis</i> (White-headed Vulture)	VU	decreasing
37	<i>Xenoperdix uzungwensis</i> (Udzungwa Forest-partridge)	EN	stable
38	<i>Zoothera guttata</i> (Spotted Ground-thrush)	EN	decreasing

### Reptile

No.	Scientific Name (Common Name/s)	Category	Status
1	<i>Afrotyphlops gierrai</i> (Usambara Spotted Worm Snake)	EN	unknown
2	<i>Atheris barbouri</i> (Barbour's Short-headed Viper)	VU	unknown
3	<i>Atheris ceratophora</i> (Usambara Eyelash Viper)	VU	unknown
4	<i>Chelonia mydas</i> (Green Turtle)	EN	decreasing
5	<i>Elapsoidea nigra</i> (Usambara Garter Snake)	EN	unknown
6	<i>Eretmochelys imbricata</i> (Hawksbill Turtle)	CR	decreasing
7	<i>Geochelone gigantea</i> (Aldabra Giant Tortoise)	VU	(needs updating)
8	<i>Lepidochelys olivacea</i> (Olive Ridley)	VU	decreasing
9	<i>Lygodactylus gravis</i> (Usambara Dwarf Gecko)	VU	unknown
10	<i>Lygosoma mafianum</i> (Mafia Writhing Skink)	EN	unknown
11	<i>Malacochersus tornieri</i> (Softshell Tortoise)	VU	(needs updating)
12	<i>Prosymna ornatissima</i> (Ornate Shovel-snout)	CR	unknown



No.	Scientific Name (Common Name/s)	Category	Status
13	Rhampholeon spinosus (Rosette-nosed Pygmy Chameleon)	EN	unknown
14	Scolecoseps acontias (Sandy Limbless Skink)	VU	unknown
15	Trioceros incornutus (Poroto Mountain Chameleon)	VU	unknown
16	Trioceros laterispinis (Spiny-flanked Chameleon)	VU	unknown

### Amphibian

No.	Scientific Name (Common Name/s)	Category	Status
1	Afrixalus dorsimaculatus	VU	decreasing
2	Afrixalus morerei	VU	decreasing
3	Afrixalus sylvaticus	EN	decreasing
4	Afrixalus uluguruensis	EN	decreasing
5	Amietophrynus brauni	EN	decreasing
6	Arthroleptis fichika (Hidden Squeaker Frog)	EN	unknown
7	Arthroleptis nikeae	EN	decreasing
8	Arthroleptis tanneri	VU	decreasing
9	Arthroleptis xenodactylus	VU	decreasing
10	Callulina kisiwamsitu	EN	decreasing
11	Churamiti maridadi	CR	decreasing
12	Hoplophryne rogersi (Usambara Blue-bellied Frog)	EN	decreasing
13	Hoplophryne uluguruensis (Uluguru Blue-bellied Frog)	VU	decreasing
14	Hyperolius kihangensis	EN	decreasing
15	Hyperolius minutissimus	VU	decreasing
16	Hyperolius puncticulatus	EN	decreasing
17	Hyperolius tannerorum	EN	decreasing
18	Hyperolius watsonae	CR	decreasing
19	Kassina jozan	EN	decreasing
20	Leptopelis barbouri	VU	decreasing
21	Leptopelis parkeri	VU	decreasing
22	Leptopelis uluguruensis	VU	decreasing
23	Leptopelis vermiculatus	VU	decreasing
24	Mertensophryne howelli	EN	decreasing
25	Mertensophryne usambarae	EN	decreasing
26	Mertensophryne uzunguensis	VU	decreasing
27	Nectophrynoides cryptus	EN	decreasing
28	Nectophrynoides laticeps	EN	decreasing
29	Nectophrynoides minutus	EN	decreasing
30	Nectophrynoides paulae	CR	decreasing
31	Nectophrynoides poyntoni	CR	decreasing
32	Nectophrynoides pseudotornieri	EN	decreasing
33	Nectophrynoides vestergaardi	EN	decreasing
34	Nectophrynoides viviparus	VU	decreasing
35	Nectophrynoides wendyae	CR	decreasing
36	Parhoplophryne usambarica	CR	decreasing
37	Petropedetes martiensseni (Usambara Torrent Frog)	EN	decreasing
38	Petropedetes yakusini	EN	decreasing
39	Phlyctimantis keithae	VU	decreasing
40	Phrynobatrachus krefftii	EN	decreasing
41	Phrynobatrachus pakenhami	EN	decreasing

No.	Scientific Name (Common Name/s)	Category	Status
42	<i>Phrynobatrachus ungujae</i>	EN	decreasing
43	<i>Phrynobatrachus uzungwensis</i>	VU	decreasing
44	<i>Probreviceps durirostris</i>	EN	decreasing
45	<i>Probreviceps loveridgei</i>	VU	decreasing
46	<i>Probreviceps macrodactylus</i>	VU	decreasing
47	<i>Probreviceps rungwensis</i>	VU	decreasing
48	<i>Probreviceps uluguruensis</i>	VU	stable
49	<i>Strongylopus kitumbeine</i>	VU	stable
50	<i>Strongylopus merumontanus</i>	VU	stable

### Fish

No.	Scientific Name (Common Name/s)	Category	Status
1	<i>Alcolapia alcalicus</i>	EN	unknown
2	<i>Alcolapia grahami</i>	VU	unknown
3	<i>Allochromis welcommei</i>	VU	unknown
4	<i>Alopias pelagicus</i> (Pelagic Thresher)	VU	decreasing
5	<i>Alopias vulpinus</i> (Common Thresher Shark)	VU	decreasing
6	<i>Aplocheilichthys lacustris</i> (Kibiti Lampeye)	VU	unknown
7	<i>Aplocheilichthys omocolatus</i> (Ruaha Lampeye)	VU	unknown
8	<i>Aplocheilichthys</i> sp. nov. 'Rovuma' (Rovuma Topminnow)	VU	unknown
9	<i>Aplocheilichthys usanguensis</i> (Usangu Lampeye)	VU	unknown
10	<i>Astatotilapia piceatus</i>	CR	unknown
11	<i>Barbus acuticeps</i>	EN	decreasing
12	<i>Barbus laticeps</i>	VU	unknown
13	<i>Barbus pseudotoppini</i>	VU	unknown
14	<i>Barbus quadrilineatus</i>	EN	decreasing
15	<i>Barbus serengetiensis</i>	VU	unknown
16	<i>Bolbometopon muricatum</i> (Green Humphead Parrotfish)	VU	decreasing
17	<i>Brycinus jacksonii</i> (Victoria Robber)	EN	decreasing
18	<i>Carcharhinus longimanus</i> (Oceanic Whitetip Shark)	VU	decreasing
19	<i>Carcharhinus plumbeus</i> (Sandbar Shark)	VU	decreasing
20	<i>Carcharodon carcharias</i> (Great White Shark)	VU	unknown
21	<i>Cheilinus undulatus</i> (Humphead Wrasse)	EN	decreasing
22	<i>Chelaethiops rukwaensis</i> (Lake Rukwa Sardine)	VU	decreasing
23	<i>Chiloglanis asymmetricaudalis</i>	EN	unknown
24	<i>Chiloglanis kalambo</i> (Kalambo Suckermouth)	VU	unknown
25	<i>Chiloglanis mbozi</i> (Mbozi Suckermouth)	VU	unknown
26	<i>Chiloglanis rukwaensis</i> (Lake Rukwa Suckermouth)	VU	unknown
27	<i>Clariallabes mutsindoziensis</i>	EN	unknown
28	<i>Copadichromis trewavasae</i>	VU	unknown
29	<i>Distichodus petersii</i>	VU	decreasing
30	<i>Epinephelus lanceolatus</i> (Queensland Groper)	VU	decreasing
31	<i>Haplochromis aelocephalus</i>	CR	decreasing
32	<i>Haplochromis antleter</i>	CR	decreasing
33	<i>Haplochromis apogonoides</i>	CR	decreasing
34	<i>Haplochromis barbarae</i>	CR	decreasing
35	<i>Haplochromis bareli</i>	CR	decreasing
36	<i>Haplochromis brownae</i>	CR	decreasing

No.	Scientific Name (Common Name/s)	Category	Status
37	Haplochromis bwathondii	VU	unknown
38	Haplochromis cassius	CR	decreasing
39	Haplochromis chromogynos	VU	increasing
40	Haplochromis cinctus	CR	decreasing
41	Haplochromis cnester	CR	decreasing
42	Haplochromis coprologus	CR	decreasing
43	Haplochromis crassilabris	CR	decreasing
44	Haplochromis crocopeplus	CR	decreasing
45	Haplochromis cyaneus	EN	decreasing
46	Haplochromis dentex	CR	decreasing
47	Haplochromis dichrourus	CR	decreasing
48	Haplochromis fischeri	VU	unknown
49	Haplochromis flavipinnis	CR	decreasing
50	Haplochromis granti	CR	decreasing
51	Haplochromis guiarti	CR	decreasing
52	Haplochromis heusinkveldi	CR	decreasing
53	Haplochromis hiatus	CR	decreasing
54	Haplochromis howesi (Smok)	VU	unknown
55	Haplochromis iris	CR	decreasing
56	Haplochromis ishmaeli	CR	decreasing
57	Haplochromis katavi (Katavi Mouthbrooder)	VU	unknown
58	Haplochromis katunzii	CR	decreasing
59	Haplochromis laprogramma	VU	increasing
60	Haplochromis longirostris	CR	decreasing
61	Haplochromis macrognathus	CR	decreasing
62	Haplochromis martini	CR	decreasing
63	Haplochromis maxillaris	VU	unknown
64	Haplochromis megalops	VU	increasing
65	Haplochromis melanopterus	VU	unknown
66	Haplochromis michaeli	CR	decreasing
67	Haplochromis microdon	CR	decreasing
68	Haplochromis mylergates	CR	decreasing
69	Haplochromis nanoserranus	CR	decreasing
70	Haplochromis obliquidens	VU	unknown
71	Haplochromis pancitrinus	CR	decreasing
72	Haplochromis parvidens	CR	decreasing
73	Haplochromis percoides	CR	decreasing
74	Haplochromis perrieri	CR	decreasing
75	Haplochromis piceatus	VU	unknown
76	Haplochromis plagiodon	VU	increasing
77	Haplochromis plutonius	CR	decreasing
78	Haplochromis ptistes	CR	decreasing
79	Haplochromis pyrropteryx	CR	decreasing
80	Haplochromis sauvagei (Rock Kribensis0)	VU	unknown
81	Haplochromis sphex	CR	decreasing
82	Haplochromis sp. nov. 'argens'	VU	increasing
83	Haplochromis sp. nov. 'Blue Rockpicker'	VU	unknown
84	Haplochromis sp. nov. 'micro-obesus'	CR	decreasing

No.	Scientific Name (Common Name/s)	Category	Status
85	<i>Haplochromis sulphureus</i>	CR	decreasing
86	<i>Haplochromis teegelaari</i>	CR	decreasing
87	<i>Haplochromis teunisrasi</i>	CR	decreasing
88	<i>Haplochromis theliodon</i>	CR	decreasing
89	<i>Haplochromis thereuterion</i> (Double Stripe)	VU	unknown
90	<i>Haplochromis ushindi</i>	CR	decreasing
91	<i>Haplochromis vanoijeni</i>	VU	unknown
92	<i>Haplochromis vonlinnei</i>	CR	decreasing
93	<i>Haplochromis xenostoma</i>	CR	decreasing
94	<i>Hemipristis elongata</i> (Snaggletooth Shark)	VU	decreasing
95	<i>Hoplotilapia retrodens</i>	VU	unknown
96	<i>Isurus oxyrinchus</i> (Shortfin Mako)	VU	decreasing
97	<i>Kneria ruaha</i>	VU	unknown
98	<i>Kneria uluguru</i>	VU	unknown
99	<i>Lamprologus kungweensis</i>	CR	unknown
100	<i>Lates angustifrons</i> (Tanganyika Lates)	EN	decreasing
101	<i>Lates mariae</i> (Bigeye Lates)	VU	decreasing
102	<i>Lates microlepis</i> (Forktail Lates)	EN	decreasing
103	<i>Lipochromis</i> sp. nov. 'black cryptodon'	CR	(needs updating)
104	<i>Lithochromis xanthopteryx</i> (Black Pseudo-nigricans)	VU	unknown
105	<i>Macropleurodus bicolor</i>	VU	unknown
106	<i>Marcusenius victoriae</i> (Victoria Stonebasher)	EN	decreasing
107	<i>Mbipia lutea</i>	VU	unknown
108	<i>Neochromis gigas</i>	VU	unknown
109	<i>Neolamprologus christyi</i>	VU	unknown
110	<i>Neolamprologus devosi</i>	VU	unknown
111	<i>Nothobranchius albimarginatus</i>	VU	unknown
112	<i>Nothobranchius annectens</i>	VU	unknown
113	<i>Nothobranchius flammicomantis</i>	VU	unknown
114	<i>Nothobranchius foerschi</i>	VU	unknown
115	<i>Nothobranchius geminus</i>	VU	unknown
116	<i>Nothobranchius kilomberoensis</i>	VU	unknown
117	<i>Nothobranchius korthausae</i>	VU	unknown
118	<i>Nothobranchius lourensi</i>	VU	unknown
119	<i>Nothobranchius luekei</i>	VU	unknown
120	<i>Nothobranchius rubripinnis</i>	VU	unknown
121	<i>Nothobranchius steinforti</i>	VU	unknown
122	<i>Odontaspis ferox</i> (Small-tooth Sand Tiger Shark)	VU	decreasing
123	<i>Opsaridium microcephalum</i>	VU	decreasing
124	<i>Opsaridium microlepis</i> (Lake Salmon)	EN	decreasing
125	<i>Oreochromis alcalicus</i> (Lake Magadi Tilapia)	EN	decreasing
126	<i>Oreochromis amphimelas</i>	EN	decreasing
127	<i>Oreochromis chunguruensis</i>	CR	decreasing
128	<i>Oreochromis esculentus</i> (Singidia Tilapia)	CR	decreasing
129	<i>Oreochromis jipe</i> (Jipe Tilapia)	CR	decreasing
130	<i>Oreochromis karomo</i> (Karomo)	CR	decreasing
131	<i>Oreochromis karongae</i>	EN	decreasing
132	<i>Oreochromis latilabris</i>	VU	unknown

No.	Scientific Name (Common Name/s)	Category	Status
133	<i>Oreochromis lidole</i>	EN	decreasing
134	<i>Oreochromis ndalalani</i>	VU	unknown
135	<i>Oreochromis pangani</i>	CR	decreasing
136	<i>Oreochromis rukwaensis</i> (Lake Rukwa Tilapia)	VU	decreasing
137	<i>Oreochromis squamipinnis</i>	EN	decreasing
138	<i>Oreochromis variabilis</i>	CR	decreasing
139	<i>Orthochromis kasuluensis</i>	EN	unknown
140	<i>Orthochromis luichensis</i>	VU	unknown
141	<i>Orthochromis malagaraziensis</i>	VU	unknown
142	<i>Orthochromis mazimeroensis</i>	EN	unknown
143	<i>Orthochromis mosoensis</i>	EN	unknown
144	<i>Orthochromis rubrolabialis</i>	EN	unknown
145	<i>Orthochromis rugufuensis</i>	VU	unknown
146	<i>Orthochromis uvinzae</i>	CR	unknown
147	<i>Parakneria tanzaniae</i>	VU	unknown
148	<i>Plectropomus laevis</i> (Blacksaddled Coral Grouper)	VU	decreasing
149	<i>Pseudoginglymostoma brevicaudatum</i> (Shorttail Nurse Shark)	VU	unknown
150	<i>Pseudotropheus demasoni</i>	VU	unknown
151	<i>Pseudotropheus elongatus</i> (Elongate Mbuna)	VU	unknown
152	<i>Pseudotropheus longior</i>	VU	unknown
153	<i>Ptyochromis</i> sp. Nov. 'rainbow sheller'	CR	(needs updating)
154	<i>Pundamilia azurea</i>	VU	stable
155	<i>Pundamilia igneopinnis</i>	EN	unknown
156	<i>Pundamilia macrocephala</i>	VU	unknown
157	<i>Rhabdalestes leleupi</i>	CR	decreasing
158	<i>Rhina ancylostoma</i> (Bowmouth Guitarfish)	VU	decreasing
159	<i>Rhincodon typus</i> (Whale Shark)	VU	decreasing
160	<i>Rhinoptera javanica</i> (Javanese Cownose Ray)	VU	unknown
161	<i>Rhynchobatus djiddensis</i> (Whitespotted Wedgefish)	VU	decreasing
162	<i>Rhynchobatus laevis</i> (Smoothnose Wedgefish)	VU	unknown
163	<i>Simochromis margaretae</i>	VU	unknown
164	<i>Sphyrna mokarran</i> (Squat-headed Hammerhead Shark)	EN	decreasing
165	<i>Stegostoma fasciatum</i> (Leopard Shark)	VU	decreasing
166	<i>Taenirops meyeri</i> (Black-blotched Stingray)	VU	unknown
167	<i>Thunnus obesus</i> (Big Eye Tuna)	VU	(needs updating)
168	<i>Tropheus duboisi</i>	VU	unknown
169	<i>Tropheus polli</i>	VU	unknown
170	<i>Xenotilapia burtoni</i>	VU	unknown
171	<i>Yssichromis fusiformis</i>	VU	unknown
172	<i>Zaireichthys wamiensis</i>	VU	unknown

### 2.2.3 Zanzibar

The Forest Resources Management and Conservation Act No.10 of 1996 in Zanzibar designates protected species.

Table 2.2-4 The number of protected species in Zanzibar (Unguja Island and Pemba Island etc.)

		First	Second	Third	Excluded protection	Total numbers
		Protection regardless of season	Protection efforts regardless of season	Protection based on season		
Animal	Mammals	11	25	3	10	49
	Birds	58	169	0	3	230
	Reptiles	16	28	0	5	49
	Amphibian	1	26	0	0	27
Insects		13	81	0	0	94
Plants (Trees)		79				

Source: Preparation Study for the Local Distribution Network Enhancement Project (Power Plan) in Zanzibar, Tanzania (2011)

## 2.3 Important Ecosystem and Habitat

### 2.3.1 Protected Area

#### (1) Protected Area

The Wildlife Conservation Act, 2009, stipulates the protected area in Tanzania. The Ministry in charge is the Ministry of Natural Resources and Tourism. “Wildlife Protected Area” stipulated by this act includes national parks, game reserves, game controlled areas and Ngorongoro Conservation Area (NCA); where the Maasai settles.

The Wildlife Conservation Act, 2009 stipulates designation of managed areas by the government, formulation of management plan for each managed area by the government, EIA implementation by developer and environmental monitoring by the government etc.

The National Parks Act, 1959, provides for designation of national parks. Chapter 4 of this Act regulates the restrictions in national parks. (Refer to 2.5)

The Game Parks Law (Miscellaneous Amendments) Act No. 14 of 1975 regulates NCA. The act stipulates that which Ngorongoro Conservation Area Authority (NCAA) manages NCA, and describes regulations on utilization of resources in this area.

Wildlife Protected Areas account for 28 % of the whole country of Tanzania (945,000km<sup>2</sup>).

These wildlife protected areas include 33 Game Reserves (restriction of access, prohibit of hunting without permission), 38 Game Controlled Areas (prohibit of hunting without permission) and 16 national parks, Ngorongoro Conservation Area (NCA where Maasai resides and 0.9% of Tanzania).

Table 2.3-1 National Parks

No.	Name	Area (km <sup>2</sup> )
1	Arusha National Park	552
2	Gombe Stream National Park	52
3	Katavi National Park	4,471
4	Mount Kilimanjaro National Park	1668
5	Kitulo National Park	12.9
6	Mahale Mountains National Park	1,613
7	Lake Manyara National Park	330

No.	Name	Area (km <sup>2</sup> )
8	Mikumi National Park	3,230
9	Mkomazi National Park	3,245
10	Ruaha National Park	10,300
11	Rubondo Island National Park	457
12	Saadani National Park	1,100
13	Serengeti National Park	14,763
14	Tarangire National Park	2850
15	Udzungwa Mountains National Park	1,990
16	Mkomazi National Park	-



Source: [http://www.tanzaniaparks.com/tanzania\\_map.html](http://www.tanzaniaparks.com/tanzania_map.html)

Figure 2-2 Map of National Parks in Tanzania

Table 2.3-2 Conservation Area

No.	Name	Area (km <sup>2</sup> )
1	Ngorongoro Conservation Area (NCA)	8,292

Table 2.3-3 Examples of Game Reserve Areas

No.	Name	Area (km <sup>2</sup> )
1	Biharamulo Game Reserve	1,300
2	Burigi Game Reserve	N/A
3	Grumeti Game Reserve	2,000
4	Ibanda / Rumanyika Game Reserve	200
5	Ikorongo /Grumet Game Reserve	3,000
6	Kigosi Game Reserve	7,000
7	Kisigo Game Reserve	N/A
8	Luwika Game Reserve	N/A
9	Lumesule Game Reserve	N/A
10	Maswa Game Reserve	N/A
11	Mkungunero Game Reserve	N/A
12	Moyowosi Game Reserve	6,000
13	Kipengele Game Reserve	N/A
14	Mpanga Game Reserve	N/A
15	Muhesi Game Reserve	N/A
16	Pande Game Reserve	N/A
17	Rukwa Game Reserve	N/A
18	Rukwati Game Reserve	N/A
19	Rumanyika Orugundu Game Reserve	N/A
20	Rungwa Game Reserve	N/A
21	Selous Game Reserve	N/A
22	Swagaswaga Game Reserve	N/A
23	Ugalla Game Reserve	5,000
24	Uwanda Game Reserve	5,000

## (2) Ngorongoro Conservation Area (NCA)<sup>1</sup>

An immense concentration of wild animals live in the huge and perfect crater of Ngorongoro. It is home to a small relict population of black rhinoceros and some 25,000 other large animals, largely ungulates, alongside the highest density of mammalian predators in Africa. Lake-filled Empakaai crater and the active volcano of Oldonyo Lengua are nearby. Excavations in the Oldupai Gorge and Laetoli to the west, have resulted in discoveries such as *Homo habilis* and 3.5 million-year old human footprints which have made the area one of the world's most important for research on the evolution of the human species.

Threats to the site: The greatly increased pressures of tourism and high numbers of Maasi pastoralists and settlers have begun to degrade the quality of the site.

### 1) Mixed Natural and Cultural World Heritage Site

1979: Inscribed on the World Heritage List

1984-1988: Listed as World Heritage in danger owing to conflict with the Maasai

2010: Inscribed on the World Heritage List as a Cultural Landscape

### 2) Geographical Location

In the far north of Tanzania 90 km west of Arusha, adjoining the southeastern edge of Serengeti National Park between 2°30' to 3°30'S and 34°50' to 35°55'E.

### 3) Dates and History of Establishment

1928: Hunting in the area prohibited

<sup>1</sup> <http://www.unep-wcmc.org/medialibrary/2011/06/28/a1e08823/Ngorongoro.pdf>



- 1929: Serengeti Game Reserve created  
 1951: Ngorongoro Reserve made part of the new Serengeti National Park  
 1959: NCA established by Ordinance 413 as a multiple land use area to accommodate the existing Maasai pastoralists  
 1975: The Ordinance redefined by the Game Parks Law Act 14 to prohibit cultivation in the crater, removing its natural guardians, resulting in an increase of poaching  
 1981: Recognized as a part of Serengeti-Ngorongoro United Nations Educational, Scientific and Cultural Organization UNESCO<sup>2</sup> Biosphere Reserve  
 1984-88: Listed as endangered by conflict between the Maasai and the guards with consequent loss of wildlife  
 2010: Inscribed on the World Heritage List as a Cultural Landscape
- 4) Land Tenure  
 State, in Arusha province  
 Administered by the Ngorongoro Conservation Area Authority (NCAA)
- 5) Area  
 809,440 ha within the 828,800 ha NCA which is contiguous with Serengeti National Park (1,476,300 ha) and Maswa Game Reserve on the west (220,000 ha) and Loliondo Game Controlled Area (400,000 ha) on the north; it is 15 km northwest of Lake Manyara National Park (32,500 ha).
- 6) Altitude  
 ± 960m to 3,648m (Mt. Loolmalasin)
- 7) Local Human Population  
 The Maasai, nomadic cattle herders, entered the crater around 1840. Since the multi-use protection of the area was proposed in 1959, the population of the area exploded beyond the numbers of cattle able to support it without farming, aggravating tensions with the conservation-oriented administration. In 1966, there were 8,700 people in the NCA. After their eviction by the NCAA in 1974, there were no permanent inhabitants in Ngorongoro and Empakaai Craters or the forest. In 1994, the Maasai population was estimated at about 40,000 (one quarter of those living in Tanzania), with some 300,000 head of livestock which grazed approximately 70-75% of the conservation area. In 2007, resident Maasai were estimated at 64,000 with 300,000 cattle, plus 1,725 immigrants, to whom in 2009, farming was banned and voluntary relocation was offered. In general, livestock numbers are declining and the Maasai are growing poorer; many are now dependent on agriculture but may profit from greater participation in the prosperity brought by tourism (IUCN, 2008; UNESCO, 2010).
- 8) Visitors and Visitor Facilities  
 The spectacular wildlife, geology and archaeology of Ngorongoro-Serengeti are major tourist attractions spread across an area the size of Rwanda or Sicily. About 24% of all tourists visiting the parks of northern Tanzania stop at Ngorongoro. These totaled 35,130 in 1983, 140,000 in 1989 in at least 30,000 vehicles (Fosbrooke, 1990), 210,257 in 2002, 40% being local, and in 2006 there were 359,000 (70% foreign). There are four lodges in the crater and one at Lake Ndutu on the edge of Serengeti, with a total of 620 beds; Rhino Lodge is to be enlarged by 20 beds. Vehicles and guides can be hired from the Conservation Authority to enter the crater. There is an interpretive center at the Lodoare entrance and another at Oldupai, which focuses on the interpretation of the Gorge and its excavations. An information center to promote wildlife tourism to Tanzanians opened in Arusha in 2002. Measures are being taken to lessen the damage caused by the high

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<sup>2</sup> United Nations Educational, Scientific and Cultural Organization

numbers of tourists and tourist vehicles (IUCN, 2008).

9) Scientific Research and Facilities

The area, with Serengeti, is one of the best studied areas in Africa. Work in the contiguous Serengeti National Park, based at Seronera Wildlife Research Centre (SWRC, formerly the Serengeti Research Institute) includes the monitoring of climate, vegetation and animal populations. The level of research into human and range ecology is low. Long-term studies in the crater have been on lion, serval rhinoceros and elephant behavioural ecology (SWRC, 1993). From 1988, the Ngorongoro Ecological Monitoring Programme has been individually identifying black rhinoceros, and monitoring breeding and movement patterns (Moehlman et al., 1996). Seronera Research Centre provides a research station and accommodation for scientists. There is a small research cabin within the crater. The IUCN/SSC Antelope Specialist Group has just reported on the decline of the crater's antelope species and increase in buffaloes (IUCN/SSC). Management programs are regularly based on scientific ecological studies. The livestock and wildlife carrying capacities were assessed by a California State University team and a similar assessment is planned with input from the Maasai Pastoral Council. (UNESCO, 2007).

10) Conservation Value

Ngorongoro is the largest intact, inactive unflooded caldera in the world and the conservation area has one of Africa's largest aggregations of wildlife. It is home to a small and isolated relict of the black rhino population, and discoveries in the area round Oldupai gorge have made it one of the most important in the world for research on human evolution. The Area lies within a WWF Global 200 Freshwater Eco region, is in one of the world's EBAs and also overlaps a UNESCO Biosphere Reserve

11) Conservation Management

Ngorongoro was originally established as a multiple-use conservation area, which would accommodate both the existing Maasai as well as tourists. This has created some conflict. The Ordinance of 1959 established NCAA. Its objectives were to conserve and develop the NCA's natural resources, promote tourism, and safeguard and promote the interests of the Maasai. By 1960 a draft management plan was prepared. On Independence in 1961 Prime Minister Julius Nyerere issued the Arusha Manifesto of support for the preservation of the country's wildlife. The government conducted a pioneer experiment in multiple land use (one of few such in Africa) which attempted to reconcile the interests of wildlife conservation and Maasai pastoralism. It failed through a lack of rapport between government officials and the tribesmen who were seen as degrading the land and competing with the wildlife for the crater's resources. In 1974, tribesmen farmers living in the craters were summarily evicted. The 1975 NCA Ordinance was redefined and in 1976 cultivation was banned as incompatible with conservation. The removal of these natural (and lowcost) guardians resulted in an increase of poaching and the subsequent near extinction of the rhinoceros population. An IUCN/WWF project was set up in 1981 and 2 vehicles and radios were provided to combat rhinoceros poaching in the Lake Eyasi area. Between 1984 and 1989, the property was on the WHC danger list as a result of these conflicts.

In 1985, following the Serengeti Workshop, convened by the Ministry of Natural Resources and Tourism, the Government of Tanzania and IUCN initiated the Ngorongoro Conservation and Development Project. Its main objectives were to identify the requirements for long-term conservation of the area by assessing land use pressures in and adjacent to the conservation area; to determine the development needs of resident pastoralists; to review and evaluate management options; to formulate conservation and development policies to fulfill the needs of both in-migrating Maasai locals and conservation priorities; and to develop proposals for follow-up activities (IUCN, 1987).

Zones were defined for scenic and archaeological quality, wildlife forest, pastureland and infrastructural development. Priorities identified by the community included food security, livestock health and infrastructure such as better water supply, housing, clinics and schools. Some of these have been provided in an attempt to lessen conflicts (Leader-Williams et al., 1996). Since the problems were identified, the NCAA has set more funds aside for appropriate solutions: veterinary services and water have been provided and the relationship between the tribesmen and the NCAA has been improved by the establishment of a Community Development Department and a joint Management-Resident Representative Council (Leader-Williams et al., 1996). In 1995 the Maasai Pastoral Council was set up to involve the Maasai community in the planning and management decisions, especially on community development, education and food security though their involvement in capacity building and income sharing is not yet enough (UNESCO, 2007). In 2002 the NCAA was reported to have set up an NGO, ERETO, to support local communities with free services (Kangera, 2002).

The contiguous and nearby protected areas provide key feeding grounds for a number of species such as buffalo, wildebeest, zebra and Thomson's gazelle that migrate out of the crater during periods of drought, and much effort is made to prevent migration routes from being encroached on by settlements and agricultural developments. Efforts to control poaching have been made with the aid of the Frankfurt Zoological Society, the African Wildlife Foundation, the Tanzania Wildlife Protection Fund, WWF and the police. In an attempt to reduce pressure on the natural forest for fuel wood the NCAA produce up to 40,000 tree seedlings annually. Proposals for a first NCA Management Plan were rejected by the Chief Conservator, but in 2000 a General Management Plan was approved. Main measures included demarcation of boundaries, regulation of water flows, controlled burning to banish invasive species, closing roads to rehabilitate worn areas and assessment of the problem of vehicle congestion. Despite nominal participation in management of the resident communities through the Pastoral Council, tensions remain. The voluntary relocation of immigrants was to be done by 2008 by providing land and facilities with an access road, 70 km north. The shops and 360 staff families (3,000 people) and lodge staff (2,000) now inside the crater were to be located to a nearby site by 2012, but progress is slow. Improved cooperation with the Serengeti National Park staff to co-manage the two areas is being considered in the 'Serengeti Ecosystem Form'.

## 12) Management Constraints

Threats to the site include the increase in the numbers of Maasai, their cattle and more recent cultivation, immigration, agricultural encroachment, poaching, invasive species, soil erosion by cattle some 500 of which may enter daily, forest destruction, a growing lack of water and an increase in peripheral developments. Clear policies from the state are needed on monitoring the numbers and condition of the fauna and on other issues, especially tourism. A strategy to guide the fast expanding tourist development, the pressure of high tourist numbers, the heavy traffic which overstresses the infrastructure of roads and water supplies and lodge development on the crater rim.

The most serious land-use conflict in the area is the persistent cultivation caused by immigrant and local populations as the Maasai have become more numerous and turned to cultivation to supplement their previously cattle-based diet. The assumed carrying capacity of the Area is 25,000 people with their cattle. The number was nearer 65,000 in 2010 when grazing and widespread agriculture although banned were still tolerated (UNESCO, 2010). The Authority hopes to voluntarily relocate 200 families in the near future. The past decline in numbers of livestock was aggravated by inadequate veterinary services, which the NCAA had difficulties providing as income from tourism decreased (Leader-Williams et al., 1996): in the 1960s each man had 12 cattle to sustain him; by 1989 this had become

five (Fosbrooke, 1990). In response to the scarcity of food, residents were allowed to practise cultivation temporarily. More than 2,200 ha were estimated to be under cultivation in 1993 (TWCM, 1993). Much of this was on areas too steep for agriculture, causing erosion. Encroachment on the slopes of Empakaai and Kapenjiro has been so extensive that they may be excised from the Conservation Area. This has had serious impacts on the vegetation which protects water catchments, and on wildlife corridors (J. Thorsell, pers.comm., 1993). In addition, disease followed by a plague of flies killed at least 600 animals in 2000 (Nuhu, 2001).

Overgrazing also causes problems. Access by livestock is supposed to be by permit but this is ignored. Rights exists for ten nearby villagers for access to salt licks and to pools in the crater for 500 cattle daily, which has caused erosion. Grasslands are degrading with the extensive spread of the unpalatable grass *Eleusine jaegeri*, and other weeds which compete aggressively with palatable grasses, invade overgrazed land, crowding out both crops and the native plants which sustain the existing wildlife. Mauritius thorn *Caesalpinia decapetala*, black wattle *Acacia mearnsii*, Eucalyptus species, thorn apple *Datura stramonium* and, in pools, red water fern *Azolla filiculoides* are persistent pests, but the worst, the poisonous Mexican poppy *Argemone mexicana*, is reported to be eradicated (UNESCO, 2007). The invasions also may be partly due to the prevention of fire because of drought which may contribute as much as emigration, disease or disturbance by tourists to the change in the animal populations. The forests to the north-east are increasingly threatened by illegal logging, fuelwood gathering, grazing and cultivation by people living in the Conservation Area and in villages in the Karatu and Kitete areas along the eastern boundary. A number of poorer Maasai from the area make a living collecting honey from wild bee colonies in the forest, frequently burning trees in the process. About five percent of the area has been degraded by trampling and overgrazing, and vehicle-tracks become excessively enlarged, mainly by tourist activity.

There has been continued poaching of black rhinoceros and leopard which is difficult to suppress due to the lack of equipment and fuel, the rough terrain and low staff morale. The rhinoceros population, owing to its small size, is extremely vulnerable to poaching, and faces genetic threats from inbreeding and loss of genetic variation (Moehlman et al. 1996). The spread of malignant catarrh fever which kills cattle, although it has little effect on wildebeest, has been reduced since wildebeest numbers (and those of other antelopes) have markedly declined. There is a problem with securing water, caused by the neglect of the dams, boreholes and pipelines installed during the 1950s and 1960s, by the commandeering by tourist lodges of local supplies, and by road widening and canals which have blocked and diverted streams, the Gorigor swamp and Lake Makat. The crater no longer floods the during the rains (IUCN, 2002).

The disadvantages suffered by the Maa-speaking Maasai are slowly being addressed by NGOs who are providing primary education in Kiswahili. There has been improvement in management and more commitment to human development on a similar level to the conservation of the wildlife. The uncertainty caused by this has led to under-investment in the area, which the employment and empowerment of local people would begin to improve. But in 2001 the World Heritage Committee urged a moratorium on further development until an assessment of environmental impacts, and a hydrological survey of water resources had been completed. It also recommended a scientific overseeing committee, ecologically based burning, mitigation of road works, an improved road plan, and limiting the effect of tourist numbers (IUCN,2002). However, the ever increasing tourist numbers bringing overcrowding and heavy traffic congestion, off-road driving and proliferating tracks and the pressures have forced the NCAA to propose limitations on the traffic.

The high numbers of tourists and their vehicles are degrading the property, especially through their demands on the limited water supply and the wear and tear of its traffic which can become very congested. A suite of measures taken to lessen tourist pressures and diversify their activities is beginning to succeed. The NCAA has been forced to propose limitations on traffic, including larger less frequent tourist buses limited to 100 a day, 30 kph speed limits, a 3km distance between vehicles, cementing the main 7 km ascent and 4 km descent and improving road surfaces. Also proposed are a tour booking system, shorter half-day tours, increased visitor fees, development of a crater rim viewing platform, a visitor information centre, walking safaris, and promotion of wildlife viewing in Olmoti and Empakaai Craters (IUCN,2008; UNESCO, 2005). Lodges and tourism facilities are developed with no out an overall tourism strategy: in 2007 a new five-star 120 bed hotel on the rim, the Kempinski Lodge, was advertised although the NCAA did not approve or recommend it because of visual disruption, the lack of water and other hotel-related impacts, already bad enough (UNESCO,2007).

13) Local Addresses

The Director-General, Tanzania National Parks Authority, P.O.Box 3134, Arusha, Tanzania.  
 The Chief Conservator, NCAA, P.O.Box 1, Ngorongoro Crater, Tanzania.  
 Director General, Serengeti Wildlife Research Institute, P.O.Box 661, Arusha, Tanzania.

2.3.2 Epidemic Bird Area and Important Bird Area

Birdlife International that headquarters in Britain selected 218 areas as the Epidemic Bird Areas (EBAs) from all over the world. Tanzania has 9 EBAs as shown in Table 2.3-4. Table 2.3-5 to 2.3-13 are lists of epidemic birds for which the following areas are chosen as EBAs.

Table 2.3-4 EBAs in Tanzania

No.	Name	Outline
1	Malawi mountains	Mountainous area covering Tanzania, Kenya, Malawi, Mozambique, Zambia with altitude of 200-3,000m
2	Albertine Rift mountains	Mountainous area covering Tanzania, Burundi, the Democratic Republic of Congo, Rwanda, Uganda with altitude of 1,000-4,300m
3	Serengeti plains	Area covering Tanzania and Kenya with altitude of 1,000-2,200m
4	Kenyan mountains	Mountainous area covering Tanzania, Kenya, Uganda with altitude 900-4,400m
5	Pemba	Lying 40km north-east of Zanzibar and 50 km offshore from the African continent
6	East African coastal forests	Coastal lowland and fluvial lowland covering Tanzania, Kenya and Somalia
7	South-west Tanzanian swamps	A part of Tanzania Masked Weaver <i>Ploceus reichardi</i> covering Tanzania and Zambia
8	Kilombero floodplain	A part of Kilombero Weaver <i>Ploceus burnieri</i> , separated wetland
9	Dry woodlands west of Lake Victoria	Forest area covering Tanzania, Rwanda and Uganda

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-5 Epidemic Birds in Albertine Rift mountains

No.	Scientific Name (Common Name/s)
1	Handsome Francolin ( <i>Francolinus nobilis</i> )
2	Ruwenzori Turaco ( <i>Ruwenzorornis johnstoni</i> )
3	Congo Bay-owl ( <i>Phodilus prigoginei</i> )
4	Albertine Owlet ( <i>Glaucidium albertinum</i> )
5	Itombwe Nightjar ( <i>Caprimulgus prigoginei</i> )
6	Ruwenzori Nightjar ( <i>Caprimulgus ruwenzorii</i> )
7	Dwarf Honeyguide ( <i>Indicator pumilio</i> )
8	African Green Broadbill ( <i>Pseudocalyptomena graueri</i> )
9	Ruwenzori Batis ( <i>Batis diops</i> )
10	Yellow-crested Helmet-shrike ( <i>Prionops alberti</i> )
11	Grauer's Cuckooshrike ( <i>Coracina graueri</i> )
12	Stripe-breasted Tit ( <i>Parus fasciiventer</i> )
13	Collared Apalis ( <i>Oreolais ruwenzorii</i> )
14	Black-faced Apalis ( <i>Apalis personata</i> )
15	Kungwe Apalis ( <i>Apalis argentea</i> )
16	( <i>Apalis kaboboensis</i> )
17	Prigogine's Greenbul ( <i>Chlorocichla prigoginei</i> )
18	Neumann's Warbler ( <i>Hemitesia neumanni</i> )
19	Grauer's Swamp-warbler ( <i>Bradypterus graueri</i> )
20	Red-faced Woodland-warbler ( <i>Phylloscopus laetus</i> )
21	Grauer's Warbler ( <i>Graueria vittata</i> )
22	( <i>Sylvietta chapini</i> )
23	Red-collared Mountain-babbler ( <i>Kupeornis rufocinctus</i> )
24	Chapin's Mountain-babbler ( <i>Kupeornis chapini</i> )
25	Kivu Ground-thrush ( <i>Zoothera tanganjicae</i> )
26	Red-throated Alethe ( <i>Alethe poliophrys</i> )
27	Archer's Robin-chat ( <i>Cossypha archeri</i> )
28	Yellow-eyed Black Flycatcher ( <i>Melaenornis ardesiacus</i> )
29	Chapin's Flycatcher ( <i>Muscicapa lendu</i> )
30	Blue-headed Sunbird ( <i>Nectarinia alinae</i> )
31	( <i>Nectarinia stuhlmanni</i> )
32	Regal Sunbird ( <i>Nectarinia regia</i> )
33	Rockefeller's Sunbird ( <i>Nectarinia rockefelleri</i> )
34	Purple-breasted Sunbird ( <i>Nectarinia purpureiventris</i> )
35	Strange Weaver ( <i>Ploceus alienus</i> )
36	Dusky Crimson-wing ( <i>Cryptospiza jacksoni</i> )
37	Shelley's Crimson-wing ( <i>Cryptospiza shelleyi</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-6 Epidemic Birds in Dry woodland west lake of Victoria

No.	Scientific Name (Common Name/s)
1	Red-faced Barbet ( <i>Lybius rubrifacies</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-7 Epidemic Birds in East African coastal forests

No.	Scientific Name (Common Name/s)
1	Fischer's Turaco ( <i>Tauraco fischeri</i> )
2	Sokoke Scops-owl ( <i>Otus irenae</i> )
3	Tana River Cisticola ( <i>Cisticola restrictus</i> )

No.	Scientific Name (Common Name/s)
4	White-winged Apalis ( <i>Apalis chariessa</i> )
5	Amani Sunbird ( <i>Anthreptes pallidigaster</i> )
6	Clarke's Weaver ( <i>Ploceus golandi</i> )
7	Sokoke Pipit ( <i>Anthus sokokensis</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-8 Epidemic Birds in Kenyan mountains

No.	Scientific Name (Common Name/s)
1	Jackson's Francolin ( <i>Francolinus jacksoni</i> )
2	Hunter's Cisticola ( <i>Cisticola hunteri</i> )
3	Aberdare Cisticola ( <i>Cisticola aberdare</i> )
4	Hinde's Pied-babbler ( <i>Turdoides hindei</i> )
5	( <i>Zosterops winifredae</i> )
6	Abbott's Starling ( <i>Cinnyricinclus femoralis</i> )
7	Kenrick's Starling ( <i>Poeoptera kenricki</i> )
8	Jackson's Widowbird ( <i>Euplectes jacksoni</i> )
9	Sharpe's Longclaw ( <i>Macronyx sharpei</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-9 Epidemic Birds in Kilombero floodplain

No.	Scientific Name (Common Name/s)
1	Kilombero Weaver ( <i>Ploceus burnieri</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-10 Epidemic Birds in Pemba

No.	Scientific Name (Common Name/s)
1	Pemba Green-pigeon ( <i>Treron pembaensis</i> )
2	Pemba Scops-owl ( <i>Otus pembaensis</i> )
3	Pemba White-eye ( <i>Zosterops vaughani</i> )
4	Pemba Sunbird ( <i>Nectarinia pembae</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-11 Epidemic Birds in Serengeti plains

No.	Scientific Name (Common Name/s)
1	Grey-breasted Spurfowl ( <i>Francolinus rufopictus</i> )
2	Fischer's Lovebird ( <i>Agapornis fischeri</i> )
3	Usambiro Barbet ( <i>Trachyphonus usambiro</i> )
4	Grey-crested Helmet-shrike ( <i>Prionops poliophus</i> )
5	Karamoja Apalis ( <i>Apalis karamojae</i> )
6	Rufous-tailed Weaver ( <i>Histurgops ruficaudus</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-12 Epidemic Birds in South-west Tanzanian swamps

No.	Scientific Name (Common Name/s)
1	Tanzania Masked-weaver ( <i>Ploceus reichardi</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

Table 2.3-13 Epidemic Birds in Tanzania-Malawi mountains

No.	Scientific Name (Common Name/s)
1	Udzungwa Forest-partridge ( <i>Xenoperdix udzungwensis</i> )
2	Fischer's Turaco ( <i>Tauraco fischeri</i> )
3	Sokoke Scops-owl ( <i>Otus irenae</i> )

No.	Scientific Name (Common Name/s)
4	Usambara Eagle-owl ( <i>Bubo vosseleri</i> )
5	Uluguru Bush-shrike ( <i>Malaconotus alius</i> )
6	Fuelleborn's Boubou ( <i>Laniarius fuelleborni</i> )
7	Uhehe Fiscal ( <i>Lanius marwitzi</i> )
8	Black-lored Cisticola ( <i>Cisticola nigriloris</i> )
9	Churring Cisticola ( <i>Cisticola njombe</i> )
10	Taita Apalis ( <i>Apalis fuscigularis</i> )
11	Namuli Apalis ( <i>Apalis lynesii</i> )
12	White-winged Apalis ( <i>Apalis chariessa</i> )
13	Chapin's Apalis ( <i>Apalis chapini</i> )
14	( <i>Andropadus chlorigula</i> )
15	( <i>Phyllastrephus alfredi</i> )
16	Long-billed Tailorbird ( <i>Artisornis moreaui</i> )
17	African Tailorbird ( <i>Artisornis metopias</i> )
18	Mrs Moreau's Warbler ( <i>Bathmocercus winifredae</i> )
19	( <i>Zosterops silvanus</i> )
20	Kenrick's Starling ( <i>Poeyoptera kenricki</i> )
21	Taita Thrush ( <i>Turdus helleri</i> )
22	Thyolo Alethe ( <i>Alethe choloensis</i> )
23	Spot-throat ( <i>Modulatrix stictigula</i> )
24	Dapple-throat ( <i>Modulatrix orostruthus</i> )
25	Swynnerton's Robin ( <i>Swynnertonia swynnertoni</i> )
26	Sharpe's Akalat ( <i>Sheppardia sharpei</i> )
27	Usambara Akalat ( <i>Sheppardia montana</i> )
28	Iringa Akalat ( <i>Sheppardia lowei</i> )
29	Amani Sunbird ( <i>Anthreptes pallidigaster</i> )
30	Banded Sunbird ( <i>Anthreptes rubritorques</i> )
31	Loveridge's Sunbird ( <i>Nectarinia loveridgei</i> )
32	Moreau's Sunbird ( <i>Nectarinia moreaui</i> )
33	Rufous-winged Sunbird ( <i>Nectarinia rufipennis</i> )
34	Usambara Weaver ( <i>Ploceus nicolli</i> )
35	Buff-shouldered Widowbird ( <i>Euplectes psammocromius</i> )
36	Yellow-browed Seedeater ( <i>Serinus whytii</i> )
37	Kipengere Seedeater ( <i>Serinus melanochrous</i> )

Source: <http://www.birdlife.org/datazone/ebaadvsearch.php>

### 2.3.3 Coral Reef

The total area of the coral reef in Tanzania reaches 3,580km<sup>2</sup> that is three times as much of the total area of the mangrove with 1,155 km<sup>2</sup>. The protected areas with coral reef in Tanzania are shown in Table 2.3-14. There are 11 designated sites specified after 1975. The Marine Parks and Reservation Act, 1994 provides for the establishment, management and monitoring of marine parks and reserves. The act restricts access or residence in these protected areas for conservation.

Table 2.3-14 Protected Area with Coral Reef

No.	Site Name	Designation	IUCN Category	Size (km <sup>2</sup> )	Year
1	Bongoyo Island	Marine Reserve	II	N/A	1975
2	Chumbe Island Coral Park	Marine Sanctuary	II	0.30	1994



No.	Site Name	Designation	IUCN Category	Size (km <sup>2</sup> )	Year
3	Fungu Yasini	Marine Reserve	II	N/A	1975
4	Mafia Island	Marine Park	VI	822	1995
5	Maziwi Island	Marine Reserve	II	N/A	1981
6	Mbudya	Marine Reserve	II	N/A	1975
7	Menai Bay	Conservation Area	VI	470	1997
8	Misali Island	Conservation Area	VI	21.58	1998
9	Mnazi Bay	Marine Park	VI	650	2000
10	Mnemba	Conservation Area	VI	0.15	1997
11	Pangavini	Marine Reserve	II	N/A	1975

Source: <http://www.unep-wcmc.org/marine/coralatlas/Tanzania.pdf>

IUCN Category:

- Ia : Strict Nature Reserve: Category Ia are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphical features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values.
- Ib : Wilderness Area: Category Ib protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.
- II : National Park: Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.
- III : Natural Monument or Feature: Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.
- IV : Habitat/Species Management Area: Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many Category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.
- V : Protected Landscape/ Seascape: A protected area where the interaction of people and nature over time has produced an area of distinct character with significant, ecological, biological, cultural and scenic value; and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.
- VI : Protected area with sustainable use of natural resources : Category VI protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

### 2.3.4 Mangrove

Mangrove is the plant community formed in the tidal zone (coastal area where the water level changes by filling pull of tide) in the tropics and subtropics. Mangrove forest mainly forms in the area (brackish water region) vicinity of the mouth of the river where the fresh water mixes with the seawater. Mangrove forest protects the land from the wind/wave from the ocean, and buffers sediment and sewage runoffs from the land. Moreover, mangrove forest itself is the habitat for the diverse form of life.

The leaf and branch that the mangrove produced with sunlight and mineral nutrition are supplied to the forest floor as organic compounds. These organic compounds are then resolved to be the food for many organisms. Because the space among maze-like roots can ease the influence from the wave, it became the sacred place as the spawning ground for fish and the habitat for juvenile fish.

The total area of mangrove in the world is about 18.1 million ha. In the recent years, the area of mangrove forests is reduced due to the conversion into shrimp cultivation grounds and agricultural grounds as well as deforestation.

Mangrove in Eastern Africa can be seen in Mozambique, Tanzania, Kenya, and Somalia. Mangrove in these regions is 2,555 km<sup>2</sup> to 7,211 km<sup>2</sup> and roughly classified into mangrove around the coastal line and the one around the mouth of the river.

Two of the largest mangroves are located Rufiji river mouth in Tanzania and Zambezi river mouth in Mozambique. There are important creatures listed in Table 2.3-15 inhabit in Rufiji Mangrove. In Tanzania, there are protected areas including Mangrove namely Mafia Island Marine Park, Jozani National Park, and Sadaani Game Reserve.

Table 2.3-15 Major Creature in Mangrove

Migratory wetland birds	Curlew sandpiper
	Little stint
	Crab plover
	Roseate tern
	Caspian tern
Nile crocodiles	
Hippopotamus	
Sykes monkey	
Otter	

Source: [http://www.worldwildlife.org/wildworld/profiles/terrestrial/at/at1402\\_full.html](http://www.worldwildlife.org/wildworld/profiles/terrestrial/at/at1402_full.html)

### 2.3.5 Ramsar Registered Wetland

“The Convention on Wetlands of International Importance especially as Waterfowl Habitat” (Ramsar Convention) was adopted at the international conference held in Ramsar, Iran in 1971 and was taken effect on December 21, 1975. This convention aims to promote the conservation of internationally important wetlands and flora and fauna inhabit in such wetlands, especially waterfowl’s habitat. Each party to the Convention specifies one or more locations within their territories and registered with the secretariat of the Convention. The Convention provides measures to be taken by each party to promote the conservation of wetlands and their flora and fauna, especially waterfowl. As of February 2011, there are 160 countries as the party to the Conventions with 1,912 registered wetlands. The total area of the registered wetlands is 186,963,216 ha.

The wetlands in Tanzania registered with Ramsar are shown in Table 2.3-16. Four wetlands are currently registered and the total area is 4,868,424 ha.

Table 2.3-16 Ramsar Registered Wetland in Tanzania

Wetland	Area (ha)	Location
Malagarasi-Muyovozi Wetlands	3,250,000	Management area in the northwest region of Tanzania namely Kigoma, Shinyaga, and Tabora
Lake Natron Basin	224,781	Arusha region next to Kenyan boarder in the northern Tanzania namely Ngorongoro and Monduli
Kilombero Valley Floodplain	796,735	Morogoro region in the southcentral Tanzania namely Kilombero and Ulanga
Rufiji-Mafia-Kilwa Marine Ramsar Site	596,908	Rufiji region in the southeast Tanzania namely Mafia, Kilwa and Lindi



Source: <http://www.wetlands.org/reports/rammap/mapper.cfm>

Figure 2-3 Map of Ramsar Registered Wetland in Tanzania

## 2.4 Forest

### 2.4.1 Forest Area

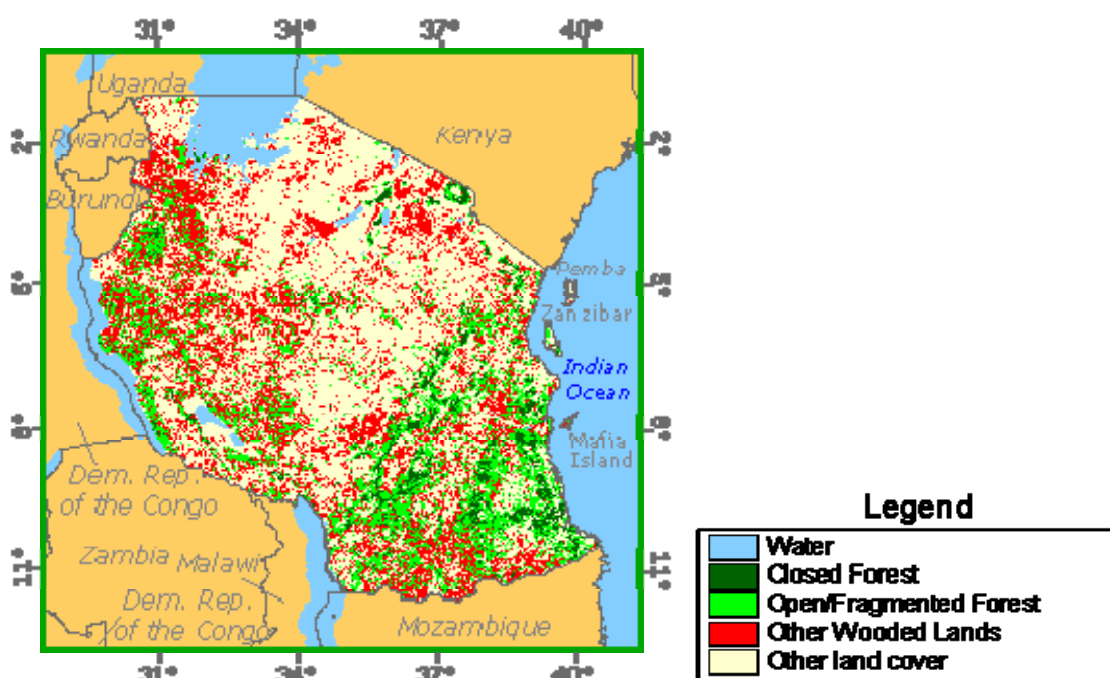
The change in the total forest area in Tanzania is shown in Table 2.4-1. The ratio of the total

forest area occupying is in decreasing tendency. It was about 72% in 1990, but decreased to 45% in 2005. The main product of these areas is firewood and the amount of production is increased each year. The contribution to GDP of these products such as wood and firewood is 3-4%. This field of forest creates the annual employment opportunities for more than 700,000 people. Distribution of Forest and Ecological Zone in Tanzania are shown in Figure 2-4 and in Figure 2-5 respectively.

Table 2.4-1 Change in Frest Area in Tanzania

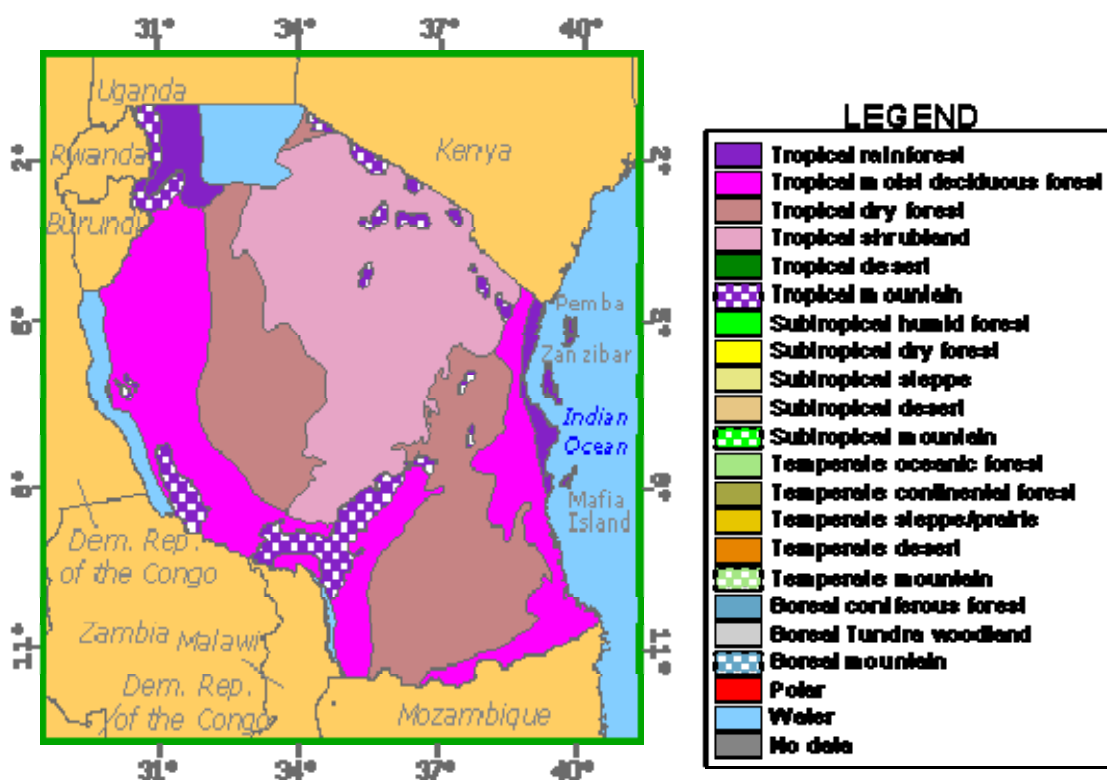
FRA 2005 Categories		Area (1000 hectares)		
		1990	2000	2005
Forest	Primary	0	0	0
	Modified Natural	41,291	37,168	35,107
	Productive Plantation	150	150	150
	Sub-total	41,441	37,318	35,257
Other Wooded land	Primary	0	0	0
	Modified Natural	22,374	10,628	4,756
	Productive Plantation	0	0	0
	Sub-total	22,374	10,628	4,756
Forest and Wooded land		63,815	47,947	40,013
Other land		24,544	40,412	48,386
Total land area		88,359	88,359	88,359
Inland Water bodies		6,150	6,150	6,150
Total area of country		94,509	94,509	94,509

Source: Created off of <http://www.fao.org/forestry/country/18315/en/tza/>



Source: <http://www.fao.org/forestry/country/18314/en/tza/>

Figure 2-4 Distribution of Forest in Tanzania



Source: <http://www.fao.org/forestry/country/19971/en/tza/>

Figure 2-5 Distribution of Ecological Zone in Tanzania

#### 2.4.2 Forest Reserve

Total Forest Reserve is 388,000 km<sup>2</sup> and 130,000 km<sup>2</sup> out of those areas is Protected Area.

The Forest Act, 2002 provides for the management of forests. The ministry in charge is the Ministry of Natural Resources and Tourism. Forest reserves are mainly comprised of the following 3 categories:

- Production Forest Reserve: Reserved or used principally for purposes of sustainable production of timber and other forest
- Protection Forest Reserve: Reserved or used principally for the purposes of protection of water sheds, soil conservation and the protection of wild plants
- Nature Forest Reserve: Used principally to protect nature and scenic areas of national or international significance and to maintain and enhance bio-diversity and genetic resources

Table 2.4-2 Forest Type

Forest type	1,000 ha
Forest (other than mangrove forests)	1,141
Mangrove forests	115
Woodlands	32,299
Total	33,555

Use of forest land	1,000 ha
Production forest area	23,810
Protection forests area (Mostly catchment areas)	9,745
Total	33,555

<b>Legal status</b>	<b>1,000 ha</b>
Forest reserves	12,517
Forest/ woodlands within National Parks, etc.	2,000
Non-reserved forest land	19,038
Total	33,555

Source: National forest policy, 1998

## 2.5 Development Potential of National Park etc.

Currently, there is a movement against the construction of the new road through Serengeti National Park located in the northern part of Tanzania. The plan by Tanzanian government is to run two-lane of unpaved roads to connect western district and eastern district, the both sides of the national park. Opponents claim that the adverse effect on ecosystem is inevitable due to the increased traffic.

According to the Tanzanian Government, it is possible to build the road within the national park if the sustainability and the mitigation measures are admitted (judged case by case depending on the project).

“Investment Opportunities in the Tourism Sector, March 2001” is useful as reference about investment opportunities in national parks etc. (refer to Table 2.5-1).

The Tourist Hunting Regulations, 2003, Wildlife Utilization Regulations, 2007 and Wildlife Management Areas Regulations, 2005, stipulate conditions, land allocation, decision of project operator for investment in Game Reserves, Wildlife Management Areas (where are utilized by local communities nearby the protected areas).

Business fields with investment opportunities in national parks etc. are described in Table 2.5-1.

Table 2.5-1 Investment Opportunities in National Parks etc.

<b>Categories</b>	<b>Business field with investment opportunities</b>
National Parks	Accommodation facility, Operation of various services
Ngorongoro Conservation Area (NCA)	<ul style="list-style-type: none"> <li>▪ Lodge, tent camp</li> <li>▪ At the periphery of NCA some 5 kilometers from the main entrance gate in Karatu District, there is a land of 435 acres where staff quarters construction is in progressive. The other half of this land will be available for investment such as for hotel, hostels and shopping space developments, apartment blocks for renting and conference centre, parking bays, restaurants, recreation such as theme parks and golf-courses and entertainment and theatre facilities.</li> </ul>
Game reserves	Accommodation facilities, eco-tourism
Marine parks	Accommodation facilities such as luxury hotels or tent camps which may increase tourists (who are especially interested in marine sports)
Forest reserves	Accommodation facilities, eco-tourism, motor-cycling
Cultural Heritage Sites	Activities related to operation and protection of cultural heritage sites. Planning of cultural tour.

Source: Investment Opportunities in the Tourism Sector, March 2010

## 2.6 Analysis of Accordance and Gaps between Current Relevant Regulations in Tanzania and JICA Guidelines for Environmental and Social Considerations as well as Safeguard Polices in the World Bank

The Government of Tanzania protects important wildlife based on international treaties as indicated in 2.2, designates protected areas based on domestic laws, and protects important ecosystem and habit as described in 2.3. Moreover, investment activities are restricted in these protected areas etc. as indicated in section 2.5. There is not a gap with JICA guidelines for environmental and social considerations in this regard. However, there is a gap in that it is not prescribed as for comparing economic benefits and environmental cost for decision-making about projects in important habitats. It is necessary to pay attention to that projects may be permitted even within national parks depending on the EIA result.

Table 2.6-1 Comparison between Guidelines for Environmental and Social Considerations, the World Bank's Safeguard Policy (OP4.04 and 4.36) and Relevant Legal System in Tanzania.

<b>Response policy including JICA's guideline and the World Bank's Safeguard Policy</b>	<b>Relevant Domestic laws in Tanzania</b>	<b>Main gaps</b>
<p>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.</p>	<p>The Forest Act, 2002 stipulates that no person other than a right-holder are prohibited from cutting down, digging up, residing and constructing any roads, bridges, railways and waterways. (Article 26)</p>	<p>The Forest Act, 2002 prohibits illegal logging and there is not a gap.</p>
<p>Projects must not involve significant conversion or significant degradation of critical natural habitats and critical forests.</p> <p>Whenever feasible, projects are sited on lands already converted (excluding any lands considered to have been converted in anticipation of the project). JICA 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 JICA. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g., strategic habitat retention and post-development restoration) and establishing and</p>	<p>The Environmental Management Act 2004 stipulates that the Minister responsible for Environmental Protected Areas by considering flora and fauna, special feature, the interests of the local communities and accordance with international society. (Article 47)</p> <p>Under the National Policies for National Parks in Tanzania, 1994, although, the primary objectives are the protection and inheritance of natural resources (Article3.1), permission of all projects in National Parks is granted based on Environmental Impact Assessment, which</p>	<p>Under the domestic law in Tanzania, even within National Parks, project permission can be granted depending on the EIA result. It is not prescribed as for the necessity of analyzing if the economic benefits outweigh environmental costs.</p>

<b>Response policy including JICA's guideline and the World Bank's Safeguard Policy</b>	<b>Relevant Domestic laws in Tanzania</b>	<b>Main gaps</b>
maintaining an ecologically similar protected area. JICA accepts other forms of mitigation measures only when they are technically justified.	clarify positive and negative impacts.	
<p>Appropriate conservation and mitigation measures</p> <p>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. For example, complete land protection through project formulation, strategic habitat conservation, restriction of conversion or modification, reintroduction of seeds, mitigation measures to minimize ecological loss, restoration after development, restoration of deteriorated habitat, construction and conservation of ecologically similar protected areas in appropriate dimension and proximity.</p> <p>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.</p>	Under the Environmental Management Act 2004, for each national protected area, environmental management plan shall be prepared, which includes zoning, access restrictions, use restrictions and benefit sharing in order to conserve areas.	Environmental Management Plan formulated for each protected area includes conservation and mitigation measures that JICA Guidelines require. Therefore when reviewing projects requested, it is necessary to confirm if the content of Environmental Management Acts meet the requirements of JICA Guidelines and the projects required are in accordance with them.



**Chapter 3**  
**Pollution/Environmental Contamination**



## Chapter 3 Pollution/Environmental Contamination

### 3.1 General Condition

Environmental Management Act, 2004 (EMA) regulates air, water, soil and wastes. Unfortunately, these regulations are not well-respected and in Dar es Salaam for example, sewage is flowing out to sea due to the lack of proper sewage treatment resulting the seawater to be polluted.

### 3.2 Current Status and Measures for Air Pollution

#### 3.2.1 Regulation on Air Pollution

Ambient air quality standards and air quality emission limits stipulated by National Environmental Standards Compendium, 2005 are as described in Tables 3.2-1 and 3.2-2. The guideline's standard is based on that of WHO. Limit level values have a binding force as regulation and short-term calculated values are applied.

Table 3.2-1 Ambient Air Quality Standards

Pollutant	Guideline	Limit Level	Calculation method	WHO (2005)
SO <sub>x</sub>	Annual mean of 40 - 60µg/Nm <sup>3</sup> (0.05 - 0.08 mg/kg) or 24 hour average 100µg/Nm <sup>3</sup> (0.129 mg/kg)	Daily average of hourly values shall not exceed 0.1mg/kg, 0.5 mg/Nm <sup>3</sup> for 10 minutes	TZS 837 Part 1, 2, and 4	500µg /Nm <sup>3</sup> : 10 minutes 20µg /Nm <sup>3</sup> : 24 hours
CO	Aims at preventing carboxyhaemoglobin levels exceeding 2.5 - 3% in nonsmoking people	A maximum permitted exposure of 100 mg/Nm <sup>3</sup> for periods not exceeding 15 minutes. Time-weighted exposure at the following levels: • 100mg/Nm <sup>3</sup> for 15 minutes • 60 mg/Nm <sup>3</sup> for 30 minutes • 10 mg/Nm <sup>3</sup> for 8 hrs or Daily average of hourly values	TZS 837 Part 1, 2, and 6	30,000µg /Nm <sup>3</sup> : 1 hour 10,000µg /Nm <sup>3</sup> : 8 hours
Black Smoke	40 - 60µg/Nm <sup>3</sup> (0.05 - 0.08mg/kg)	Daily average of hourly values shall not	TZS 837 Part 1, 2, and 3	

Pollutant	Guideline	Limit Level	Calculation method	WHO (2005)
		exceed 0.10µg/Nm <sup>3</sup> and hourly values shall not exceed 0.20µg/Nm <sup>3</sup>		
PM10	60 - 90µg/Nm <sup>3</sup> (0.05 - 0.116 mg/kg)	Daily average of hourly values shall not exceed 0.10µg/Nm <sup>3</sup> and hourly values shall not exceed 0.20µg/Nm <sup>3</sup>		50µg /Nm <sup>3</sup> : 24 hours
NOx	Annual mean 0.1µg/Nm <sup>3</sup>	150µg/Nm <sup>3</sup> for 24 hours average value 120µg/Nm <sup>3</sup> for 8 hours	TZS 837 Part 1, 2 and 5	200µg /Nm <sup>3</sup> : 1 hour 40µg /Nm <sup>3</sup> : 1year
Pb	Annual mean 0.5 - 1.0µg/Nm <sup>3</sup>	1.5µg/Nm <sup>3</sup> for 24-hours average value	ISO9985 (1993)	0.5µg /Nm <sup>3</sup> : 1year
O <sub>3</sub>	Annual mean 10 - 100µg/Nm <sup>3</sup>	120µg/Nm <sup>3</sup> for 8 hours average value	—	100µg /Nm <sup>3</sup> : 8hours

Source: National Environmental Standards Compendium, 2005

Table 3.2-2 Air Quality Emission Limits

Pollutant	Guideline	Limit level	Calculation method
SO <sub>x</sub>	Large Consumption Plants using solid fuel with thermal effect of: 50 -100 MWth	Yearly average 850mg/Nm <sup>3</sup>	TZS 837 Part 4
	100 to 300 MWth	200mg/Nm <sup>3</sup>	
	>300 MWth	200mg/Nm <sup>3</sup>	
	Large Consumption Plants using liquid fuel with thermal effect of: 50 - 100 MWth	850mg/Nm <sup>3</sup>	
	100 - 300 MWth	400 - 200mg/Nm <sup>3</sup>	
	>300MWth	200mg/Nm <sup>3</sup>	
	Large Consumption Plants using gaseous fuel	35mg/Nm <sup>3</sup>	
	Large Consumption Plants using gases from gasification of refinery residues, coke oven gas, blast-furnace gas	800mg/Nm <sup>3</sup>	
CO	Liquid fuel combustion with the heat output exceeding 5MW	175mg/Nm <sup>3</sup>	TZS 837 Part 6
	Solid fuel combustion with the heat output exceeding 5 MW	250mg/Nm <sup>3</sup>	

Pollutant	Guideline	Limit level	Calculation method
Hydrocarbon (as Total Organic Carbon)	—	20mg/Nm <sup>3</sup>	TZS 837 Part 7
Dust	Inert dust, including cement	Daily average 250mg/Nm <sup>3</sup>	TZS 837 Part 3
NO <sub>x</sub>	Large Consumption Plants using solid fuel with thermal effect of: 50 - 500 MWth	Yearly average 60 mg/Nm <sup>3</sup>	TZS 837 Part 1,2, and 5
	>500MWth	50 mg/Nm <sup>3</sup>	
	Large Consumption Plants using solid fuel with thermal effect of 50 - 500 MWth	45 mg/Nm <sup>3</sup>	
	>500MWth	40 mg/Nm <sup>3</sup>	
Pb	Not to exceed 5 ton/year of lead or lead compounds (measured as elemental lead) by a stationary source	200mg/Nm <sup>3</sup>	ISO9985 (1993)

Source: National Environmental Standards Compendium, 2005

### 3.2.2 Current Status and Measures for Air Pollution

Pollution of air is the most widespread form of pollution that impacts at local, national and global levels affecting human health and well-being, vegetation, crops, wildlife, buildings and other materials, and world's climate. In Africa, as the rate of urbanization, motorization and economic activities increase air quality in cities is progressively more deteriorating.

Tanzania, like many developing countries, has been facing air pollution problems especially in the urban settings. For instance, Dar es Salaam city has a population of close to 5million people and hosts 80% of the industries in Tanzania. This makes air pollution in Dar es Salaam to be very high comparing to other semi urban and rural areas.

The common causes of urban air impairment in Tanzania are; open waste burning, biomass burning, dust, particulate matter, high noise, vehicular emissions and industrial emissions. Others include natural methane emissions from wetlands.

There have been some initiatives to eradicate the problem by the Tanzanian government. EMA provides for stronger emphasis on Local Government Authorities to participate in management of air quality. It also stipulates necessary steps to be taken which include development of Air Quality Standards, Control of imported old cars and research initiatives that could scale down air pollution.

However, there are some gaps which make the country lag behind and these include lack of laboratory analytical instruments, shortage of enough experts on the field, inadequate programs on experience sharing, lack of proper and efficient equipment to monitor CO, inadequate time to establish health effects caused by air pollution and poor financial muscle to support and facilitate researches and initiatives geared towards addressing air pollution issues.

### 3.3 Current Status and Measures for Water Pollution

#### 3.3.1 Regulation on Water Pollution

The regulation on water quality is as follows.

Table 3.3-1 Regulation on Water Quality

Parameter	Unit	Effluent		Receiving waters			
		TL	MPC	TL	MPC-1	MPC-2	MPC-3
PH	Mg/l	-	6.5-8.5	-	6.5-8.5	6.5-8.5	6.5-9.0
TDS	Mg/l	2500	3000	1700	2000	2000	2000
TSS	US/cm <sup>3</sup>	60	100	-	-	-	-
Conductivity	Mg/l	400	-	-	-	-	-
BOD <sup>5</sup> <sub>20°C</sub>	Mg/l	25	30	3.5	5	5	10
COD	Mg/l	45	60	-	-	-	-
Chloride-Cl	Mg/l	650	800	170	200	200	400
Sulphate-SO <sup>4</sup>	Mg/l	600	600	500	200	200	200
Ammonia-N	Mg/l	7.5	10	0.35	0.5	0.5	0.5
Nitrate-N	Mg/l	50	80	35	50	50	100
Nirate-N	Mg/l	1.0	10	-	-	-	-
Phosphate-PO <sub>4</sub>	Mg/l	6.0	0.5	-	-	-	-
Cyaride-total	Mg/l	0.1	0.01	0.035	0.5	0.5	0.1
Oil & grease	Mg/l	1.0	5	0.35	0.5	0.5	5
Phenols	Mg/l	0.2	0.1	0.0015	0.002	0.002	0.1
Total hydrocarbons (dissolved & emulsified)	Mg/l	-	-	-	-	-	-
As	Mg/l	0.10	0.1	0.04	0.5	0.05	0.1
Cd	Mg/l	0.10	0.1	0.04	0.5	0.05	0.2
Cd (total)	Mg/l	0.10	0.1	-	-	-	-
Cr <sup>+6</sup>	Mg/l	0.10	2.0	0.04	0.05	0.05	0.1
Cu	Mg/l	1.0	1	2.5	3	3	4
Fe(total)	Mg/l	3	5.0	0.75	1	1	1.5
Pb	Mg/l	0.02	0.2	0.75	1	1	1.5
Hg	Mg/l	0.005	0.005	0.00075	0.001	0.001	0.002
Ni	Mg/l	0.2	0.5	0.4	0.05	0.05	0.1
Zn	Mg/l	1.0	0	0.15	0.2	0.2	0.5

Notes:

TL = Trigger Level, which, if exceeded, requires investigation of a potential problem and action if necessary: this level acts as a warning.

MPC = Maximum Permissible Concentration, for receiving water as given in the Water Utilization (Control and Regulation) (Amendment) Act, 1981: for effluent discharge as given in the Tanzania Standard (TZS) General Tolerance Limits for Municipal and Industrial Wastewaters.

MPC-1, 2 and 3 = Maximum Permissible Concentration for categories 1, 2 and 3 of receiving water:

Category 1: Water suitable for drinking water supplies, swimming pools, food and beverage

manufacturing industries, pharmaceuticals manufacturing industries requiring water of similar quality.

Category 2: Water suitable for use in feeding domestic animals; in fisheries, shell cultures, recreation and water contact sports.

Category 3: Water suitable for irrigation and other industrial activities requiring water of standards lower than those of water in categories 1 or 2.

### 3.3.2 Current Status and Measures for Water Pollution

Water pollution is one of the most widespread problems in Tanzania.

Of recent times, it is reported that the citizens in Mara region were severely affected by drinking water, which was polluted from Northern Mara gold mine. Pollution of water bodies with industrial effluents occurs in rivers, lakes and estuaries in the industrialized areas.

Among areas, which are highly affected by water-pollution in Tanzania, include; urban centers, areas close to large polluting industries, such as sisal processing, areas where mining is a major means of income generation and areas where pesticide application is extensive.

## 3.4 Current Status and Measures for Waste

### 3.4.1 Regulation on Waste

EMA, Section 110 (1) prohibits discharge of hazardous substances, chemicals and materials whereas Section 111 (1) stipulates about duty to keep abreast of technological changes and Section 112 (1) duty to discharge information to prevent pollution.

Part 9 of EMA is all about waste management. The Act empowers the local authorities to manage wastes properly in their areas of jurisdiction.

The principal provisions are as follows:

- The local government authorities shall manage solid waste generated in accordance with sustainable plans produced by respective local government authority. (EMA, article 114 )
- Appropriate Environmental Management Assessment shall be conducted for all new major activities leading to proper management of solid waste. (EMA, article 114)
- Each local government authority shall undertake periodic studies to optimize waste disposal and improve disposal facility and disposal plan waste disposal (EMA, articles 115 and 117)
- The Minister responsible for the environment shall, after consultation with the relevant Ministers and the local government authorities prescribe rules on solid wastes to be complied with the local government. (EMA, article 116)
- An Environment Inspectors assigned by the Minister responsible for the environment has a role of managing wastes in a public place. (EMA, article 121 and 122)
- The local government may prescribe and issue guidelines on how liquid waste is to be disposed. (EMA, article 123)
- The local government shall build or prepare storm water drains.(EMA, article 129) • The local government shall prescribe procedures so that gas emissions produced from the industry should not affect residential areas. (EMA Article 131)
- The local government shall prescribe the environmental standards on air. Where national standards have been prescribed, the local government shall adopt the national exhaust emissions standards. (EMA article 132)
- Where hazardous waste is to be imported into or exported from Tanzania, a permit granted from the Minister responsible for the environment is required. Also, the Ministry responsible

for the environment shall make regulations regarding disposal procedures of hazardous waste, information management, and items to be reported. (EMA Article 133)

- The local government shall dispose hazardous waste based on the standards prescribed by the Minister responsible for the environment. (EMA article 134)
- Disposal of any hazardous wastes shall be done in an environmentally sound manner. (EMA article 136)
- The Minister responsible for the environment, in collaboration with relevant ministers and institutions, prescribe the best, possible methods for disposing of hazardous wastes.

### 3.4.2 Current Status and Measures for Waste

Solid wastes constitute one of the most obvious pollution problems in Tanzanian urban centers. Wastage generation rate is increasing with increase of population, technological development and changes of people's lifestyle. Systems for collecting domestic, institutional and industrial solid wastes exist in all the towns but these systems are operating at very low efficiencies. For the major part of the cities, only 13% of the waste is removed; in areas which are not served at all, wastes are usually buried or burned. The collection efficiency of the central Dar es Salaam is about 64%. As a result, solid waste is collected in a mixed state, and dumped in unplanned and environmentally sensitive areas.

The solid wastes accumulating at such dumpsites are a source of pollution of the soil, and surface and ground water. Without proper waste management, diseases such as dysentery, diarrhoea, scabies, eye infections, typhoid, cholera and intestinal parasites have periodically spread quickly among persons and communities. Each year, it is estimated that 100,000 people die from malaria in Tanzania, 90% of which are mothers and young children.



# **Chapter 4**

## **Social Environment**



## Chapter 4 Social Environment

### 4.1 General Condition

#### 4.1.1 General Characteristics

According to the Population and Housing Census in 2002, Tanzania has 34,569,232 people: 33,584,607 in mainland Tanzania and 984,652 in Zanzibar, with an annual average inter-censal growth rate of 2.9%. The average household size is 4.9 overall and 4.9 and 5.3 in mainland Tanzania and Zanzibar respectively. The population density is 39 persons per km<sup>2</sup> overall and 38 and 40 persons per km<sup>2</sup> in mainland Tanzania and Zanzibar respectively.

The current population of Tanzania is 42.48 million (World Bank, 2008) with the growth rate of 2.9% (World Bank, 2009).

#### 4.1.2 Religion

In Tanzania, about 40% of the population is Muslim, 40% Christian and 20% indigenous religion.

### 4.2 Major Social Issues

#### 4.2.1 Poverty

Tanzania is one of the 39 LDCs (Least Developed Countries) and the poverty is the one of the serious problems.

“Women and Gender Development Policy, 2000” stipulates the following as poverty eradication strategies.

In order for the poverty eradication plans to succeed, there is need for reviving people’s commitment by involving them in the design and implementation of their development plans and programs, rather than depending on the Government. The major stakeholders are the people themselves.

The Government’s role is to empower them in:

- Understanding the underlying causes of poverty in the society
- Creating awareness for proper utilization of available resources, e.g. time, land, livestock, forests, rivers, expertise, etc. and imports, such as farm implements, industrial machinery, etc.
- Improving low interest credit schemes to raise women’s and poor men’s incomes

#### 4.2.2 Gender/Child Labor

##### (1) Women’s Rights

Tanzania signed and ratified the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, 1987) and recognizes that women’s rights are human rights. Despite the fact that the country’s Constitution recognizes the rights of all citizens, most women, as is the case with many men, do not know their rights and how to get them. This is because laws tend to be in foreign and legal language, therefore inaccessible to most people.

Consequently, they cannot monitor such laws and procedures, e.g. the Law of Marriage Act of

1971 and Inheritance Act. Some customary laws, which have gone into force recently, tend to discriminate and oppress women. Unfortunately, there is some confusion in application of statutory and customary laws on one hand, and customs and traditions on the other. In this confusion, women become victims of discrimination and oppression.

## (2) Women and Gender Development Policy

“Women and Gender Development Policy, 2000” stipulates the following as women and gender development policy.

The main objective of the Women and Gender Development Policy is to provide guidelines that will ensure plans, strategies and operations in leadership and developmental activities in all sectors and institutions observe gender balance.

The specific objectives of the Policy are:

- (a) To provide guidelines that will ensure development plans observe gender balance.
- (b) To give a clear definition of Women and Gender Development and how it relates to Community Development.
- (c) To ensure deliberate and sustainable collaboration between all the authorities associated with the development, operation and supervision of community development in:
  - Planning and implementation of gender based plans.
  - Preparing and managing the recurrent expenditure and development plans to ensure that they aim at alleviating women’s poverty.
  - Ensuring that the economic policies address women’s and men’s specific problems, as well as the general societal problems.
- (d) To create awareness and understanding in the society that gender equality can only be realized if it starts from family and household levels.
- (e) To create a conducive legal environment to ensure elimination of gender discriminative laws, in both statutory and customary law systems.
- (f) To create awareness and understanding that environmental degradation is the major cause for increased women’s workload, especially in fetching firewood and water; and the importance of involving women in environment management programs.
- (g) To create awareness on the importance of proper child upbringing as a basis for eliminating gender discrimination in the future.
- (h) To indicate clearly women’s and men’s roles so that both sexes can participate fully in development activities for the benefit of all.
- (i) To develop clear indicators for the nation’s efforts in instituting gender balance.
- (j) To establish and improve gender and women focal points in all sectors in the country.
- (k) To establish a women’s body to co-ordinate women’s associations, organizations and communities and which would advise the government accordingly.

## (3) Strategy for Implementation of Women’s Rights

The following strategies are crucial in remedying the situation:

- Review of gender discriminative laws, e.g. Inheritance Act and the Law of Marriage Act, 1971.
- Promote and ensure women’s participation at all levels of leadership.
- Sensitize women and men on their legal rights.
- Sensitize the society on the importance of sharing domestic chores between girls and boys, to give girls adequate time for self-study.
- Motivate the society to invest in small-scale food processing industries in rural areas, to create employment opportunities for women who usually lack capital for self-employment.

- Provide training and counseling services to enable women to acquire skills to run efficient and profitable businesses in the informal sector.
- Condemn corruption to enhance professional ethics and efficiency.

#### (4) Alleviation in Women's Heavy Workload

In Tanzania, women, particularly rural women, do not have time to rest or engage in development activities due to their heavy workload and responsibilities. This greatly affects their health. The heavy workload includes reproductive and productive responsibilities, such as child upbringing, family care, housework, farming and income generation.

The heavy workload and sex-based division of labor at household level is influenced by customs and traditions, and is further aggravated by lack of appropriate technology to facilitate women's work. Factors which hinder effective use of appropriate technology include: lack of information on the availability of such technology in the country, high distribution costs, the high costs of technologies, lack of skilled manpower in maintenance and repair, lack of user-friendly technologies, shortage of some technologies.

The following are the strategies for alleviating women's workload:

- Develop national plans to alleviate women's heavy workload.
- Inform the society on availability of different technologies in the country.
- Establish suitable procedures for accessibility, distribution and training in maintenance, operation and repair of such technologies.
- Design and promote user-friendly technologies.
- Improve social services, day care center and health care.
- Adopt and distribute appropriate technology to facilitate availability and storage of water, such as hand pumps, water wells, low-cost water tanks, etc. to ensure availability of clean and safe water.
- Encourage men and women to share in performing chores that are considered predominantly women's tasks, in order to eliminate gender stereotype division of labor.
- Promote and encourage use of low-cost and renewable energy, such as biogas, coal, electricity, etc. apart from using firewood and charcoal saving stoves in rural areas, in order to reduce the amount of women's work in fetching firewood.

#### (5) Women's Situation in Education, Training and Employment

Legally, there is no discrimination in the provision of education. This is evident in the equal ration of girls and boys at primary school level. The 1997 National Economic Statistics show that between 1990 and 1997, the number of girls in secondary schools had increased from 41.52% to 44.41% of the total enrollment. In addition, the same statistics reveal that there are more girls than boys in private secondary schools. For example, in 1990, girls constituted 57.36% of the total private secondary school enrollment. Contrary to claims that parents do not value girls' education, statistics reveal that although girls have less opportunity to join Government secondary schools, parents provide them with access to education through private and community secondary schools, as well as those under non-governmental organizations.

Girls' ratio is lower in Government secondary schools because of their lower pass rate. This is attributed to several factors, including lack of adequate time for study particularly for day school girls, who have to perform household chores; and they can also be deceived by men who shower them with luxurious gifts and other indulgences, hence they end up involving themselves in love affairs; lack of adequate parental guidance and lack of basic needs, such as school uniforms, etc.

Girls' ratio in higher learning institutions is worse. The 1997 National Economic Statistics show that in 1993/94 and 1997/98 women constituted as follows.

Table 4.2-1 Girls' ratio in Higher Learning

Name of University	1993/94	1997/98
Sokoine University of Agriculture: SUA	21.2 %	26.8 %
University of Dar es Salaam: UDSM	14.5 %	17.8 %
Muhimbili University Collage of Health and Allied Sciences: MUCHS	33.8 %	30.0 %
Open University of Tanzania: OUT	10.1 %	11.6 %

Source: Women and Gender Development Policy, 2000

#### (6) Education Strategies

In improving the existing situation, education should be used to eliminate all forms of discrimination in the society. The Education Policy should ensure that girls are not only given equal opportunities, but enabled to fully utilize the available opportunities. Therefore, the policy should consider girls' special needs by setting out criteria on the following:

- The number of girls in secondary schools and institutions of higher learning should be increased so as to admit more girls.
- Concrete steps should be taken to decrease the number of girls dropping out of the education system by addressing the underlying causal factors, which include pregnancy, early marriage, lack of school fees, lack of access to boarding schools, long walking distance to school, lack of safety and security in schools or poor performance in class. Priority should be given to construction of girls' dormitories.
- Need to develop Syllabi that will not only encourage girls to take various subjects, but which will impart the necessary skills which will enable them to generate income and become productive.
- To increase the number of girls who take these subjects and to assist them to like and manage the subjects, as they are essential for development in the new millennium.
- To sensitize the society, especially parents, that giving girls equal opportunity in education is not adequate if it does not start from the home.
- To establish trust funds to assist talented girls to continue with higher education.
- The relevant sectors should improve adult education programs to enable the society to acquire different skills, e.g. through Folk Development Colleges (FDCs).
- To mobilize the society in construction and renovation of school buildings, as well as safeguarding school property.
- To mobilize non-governmental organizations, e.g. religious institutions, to establish educational facilities and provide education at all levels.
- To motivate women and girls to pursue university education.

#### (7) Women's Status in Decision Making

For many years, Tanzania was a one-party political state. Even though women played a major role in people's mobilization, they had very limited opportunity to participate in political decision-making process. Gender equality will improve women's and men's relationship and will increase women's chances for self-employment and full participation in all socio-economic development activities.

However, very few women contest for leadership positions in Parliament and other decision-making organs. Available statistics reveal that women constitute only 16% of Members of Parliament and 11% of Cabinet Ministers (1999).

There are many factors which contribute to this situation, for example, women's lack of experience in political tactics, lack of confidence, society's negative attitude towards women and their contribution in political leadership, etc. In view of this, in 1992, the Government introduced special seats for women in Parliament, District and Town Councils, Municipalities and Village Governments. Women constitute 25% of the Local Government representation, and 15% of the

National Assembly. Furthermore, following the United Republic of Tanzania's Constitutional amendments of year 2000, the number of special seats for women was increased to 20% and 33% in the Parliament and Local Government, respectively. These percentages still fall short of the 30% target of women's participation at all levels of decision-making, set for 2005.

#### (8) Strategies for Women's Participation

In such a situation, women's and men's participation in development activities should incorporate the following:

- Ensure the recognition and appreciation of women's contribution in national development.
- Ensure that women and men contribute fully to development endeavors.
- Motivate collection of gender disaggregated data at all leadership and professional levels so as to have a clear picture of the situation and as a basis for gender based resource allocation.
- Motivate women's and men's participation in budget planning and management to ensure that both sexes benefit.

### 4.2.3 Trend and Measures related to Protection of Worker's rights

The Occupation Health and Society Act, 2003 provides for safety, health and welfare of workers.

## 4.3 Cultural Heritage

### 4.3.1 The Main Domestic Cultural Heritage

#### (1) Definition of Cultural Heritage

According to the UNESCO's Convention concerning the Protection of the World Cultural and Natural Heritage, 1972, the definition of the Cultural Heritage is as follows:

Table 4.3-1 Definition of Cultural Heritage

Category	Definition
Monuments	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 outstanding universal value from the point of view of history, art or science
Groups of Buildings	Groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science
Sites	Works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view

Source: UNESCO's Convention concerning the Protection of the World Cultural and Natural Heritage

#### (2) Definition of Natural Heritage

The definition of the Natural Heritage under the same convention above is as follows:

- 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;
- Geological and physiographical formations and 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 or conservation;
- Natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty

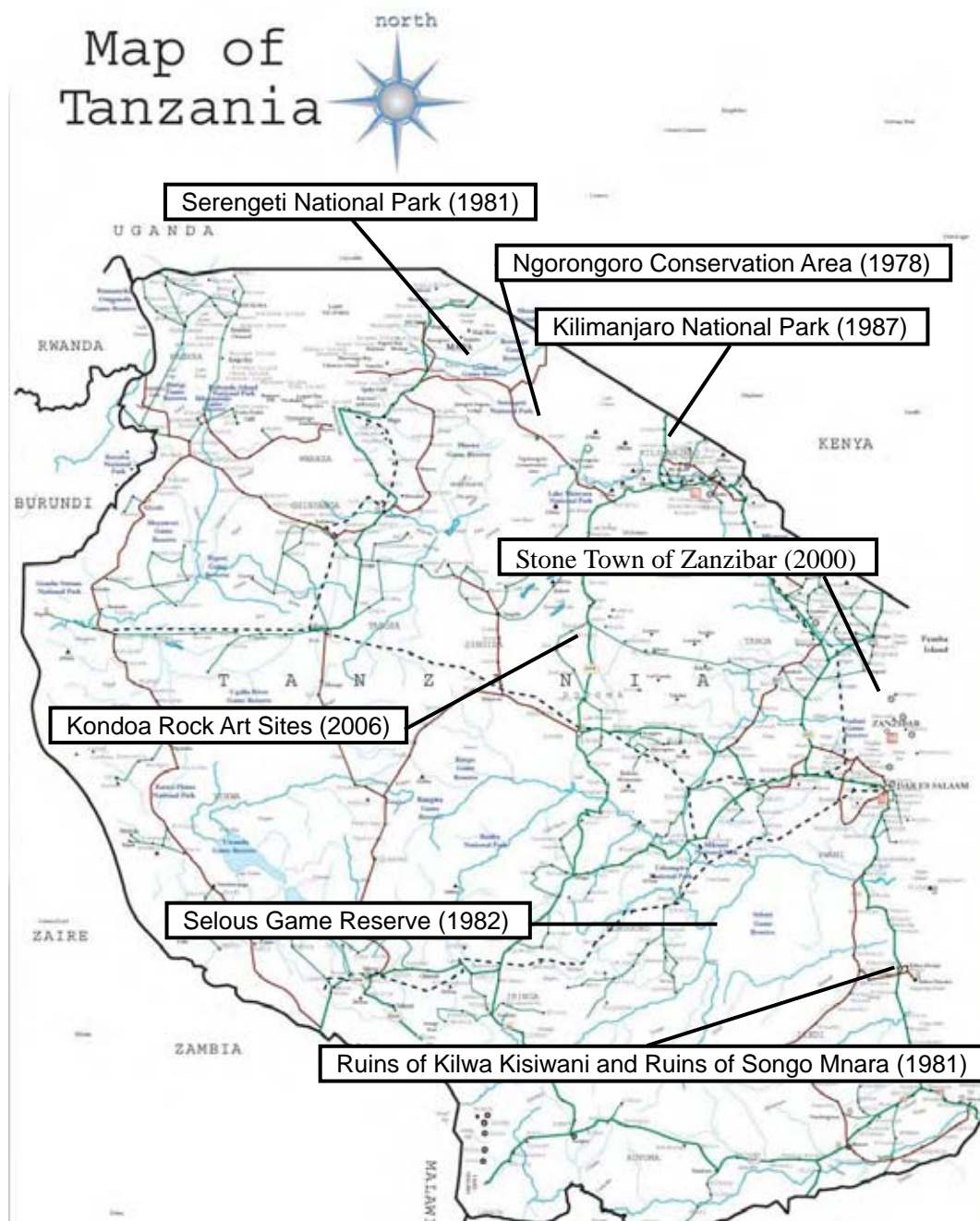
#### (3) World Heritage in Tanzania

There are seven World Heritages in Tanzania as shown in Table 4.3-2.

Table 4.3-2 World Heritages in Tanzania

Category	Name
Cultural Heritage	Kondoa Rock-Art Sites (2006)
	Ruins of Kilwa Kisiwani and Ruins of Songo Mnara (1981)
	Stone Town of Zanzibar (2000)
Natural Heritage	Kilimanjaro National Park (1987)
	Selous Game Reserve (SGR) (1982)
	Serengeti National Park (1981)
Mixed	Ngorongoro Conservation Area (NCA) (1978)





Source: <http://whc.unesco.org/en/statesparties/tz>

Figure 4-1 Map of World Heritages in Tanzania

Tentative list is shown in Table 4.3-3.

Table 4.3-3 Tentative List of World Heritage in Tanzania

No.	Name of the Site
1	Oldonyo Murwak (1997)
2	Gombe National Park (1997)
3	Jozani - Chwaka Bay Conservation Area (1997)
4	Kondo Irangi Rock Paintings (2000)
5	Eastern Arc Mountains Forests of Tanzania (2006)
6	The Central Slave and Ivory Trade Route (2006)

#### (4) Deletion from UNESCO's World Heritage List

It is very rare that the world heritage is deleted from UNESCO's list. The World Heritage Committee has deleted only two registrations from the list by present. The description of these two cases is shown in Table 4.3-4.

Table 4.3-4 Deleted Cases from UNESCO's World Heritage

World Heritage	Year	Reason
Arabian Oryx Sanctuary (Oman)	2007	Because of the Oman's decision to reduce the size of the protected area by 90% destroying the outstanding universal value of the site. The population of the Arabian Oryx in the site was at 450 but dwindled to 65 at the time of deletion due to poaching and habitat degradation.
Dresden Elbe Valley (Germany)	2009	Because that the building of a four-lane bridge in the heart of the cultural landscape which meant that the property failed to keep its "outstanding universal value as inscribed".

Source: <http://whc.unesco.org/en/news>

#### 4.3.2 Relevant Legal System and Ministry

##### (1) Relevant Legal System

The following displays the relevant legal system.

Table 4.3-5 Relevant Legal System

No.	Name	Year Established	Outline
1	Antiquities Policy	2008	There is not an English version.
2	Antiquities Act	1964	It provides for the Preservation and Protection of sites and articles of Paleontological, Archaeological, Historical, or Natural Interest. Also, it stipulates the national property of relics discovered in Tanganyika, category of relics, restriction of import/export of relics etc.
3	Antiquities (Amendment) Act	1979	It has amended the above Antiquities Act of 1964. The range of protected objects has become wider and more detailed regulations have been prescribed. For example, the objects that were made after the year 1863 have become the objects covered by the act.

##### (2) Relevant Ministry

The ministry in charge is Division of Antiquities/Ministry of Natural Resources and Tourism.

# **Chapter 5**

## **Climate Change**



## Chapter 5 Climate Change

### 5.1 Impact by Climate Change

The following is the excerpt from “Climate Change and Poverty in Tanzania; Realities and Response Options for CARE”.

As the largest, most populous, and poorest country in East Africa, Tanzania is likely to feel the impacts of climate change more than most. According to a study commissioned by the Government of Tanzania, climate change is expected to raise mean annual temperatures by 3-5°C, and average daily temperatures by 2-4°C by 2075 (Tanzanian Initial National Communication, Vice-President’s Office, 2003: 28). A report by the OECD is somewhat more conservative, predicting an average annual increase of 2.2°C by 2100 (Agrawala et al. 2003: 13). Both studies agree, however, that the rise in temperature will be greater during cooler months (June to August) than warmer ones (December to February). The Tanzanian research also points out that increases will be most marked in central and western regions, where temperatures may rise by up to 4°C, and less striking in north-eastern areas, where there may be a warming of up to 2.1°C.

The most iconic indication of climate change is, arguably, the glacial retreat being observed on Mount Kilimanjaro (Agrawala et al. 2003: 29). The decline in the volume of ice at the mountain’s summit between 1912 and 2002, and projects that if current trends persist, the glacier may disappear entirely by 2020. Aside from the symbolic significance for a mountain whose Swahili name – Kilima Njaro or “shining mountain” – is derived from its ice cap, there will be considerable implications for the local ecosystem, which provides critical water services and supports the livelihoods of over a million local inhabitants (ibid.) (Ehrhat and Twena, 2006:4)

Source: Climate Change and Poverty in Tanzania; Realities and Response Options for CARE

### 5.2 Relevant Legal System

#### 5.2.1 Participation in International Convention

Tanzania is a signatory to the following international treaties on environment: Climate Change (1996), Ozone Layer (1993), Kyoto Protocol (2002), and Climate Change Detection (CCD, 1997) (World Development Indicators, 2009:191).

Participating in all these international treaties and conventions shows high government’s commitment to healthy environment. However, implementation of the environmental policies and international treaties is to be improved.

#### 5.2.2 United Nation Framework Convention on Climate Change (UNFCCC )

Tanzania is one of the 39 Least Developed Countries (LDCs) to have submitted its National Adaptation Programme of Action (NAPA) to UNFCCC (IIED, 2009).

#### 5.2.3 Environmental Management Act, 2004 (EMA)

The regulations in regards to Climate Change in EMA are as follows:

The Minister shall, in consultation with relevant sector Ministries:

- Take measures to address climate change, particularly the impacts of climate change and

adaptation measures;

- Issue guidelines periodically to ministries and any other institutions in order to address climate change and its impacts as a result of global warming;
- Require Ministries, independent department to put in place strategies and action plans to deal with climate changes as well as schools and higher learning institution in their curriculum;
- Review and approve any measures undertaken to address climate change by any institution, firm sector or individuals be it foreign or local, including those related to the use of land, water, forests or any other ecosystems within the United Republic to sequester greenhouse gases;
- Project national positions at global level on how to deal with the problem of climate change in the context of the United Nations Framework Convention on Climate Change, and its related Protocol (s).

### 5.3 Measures against Climate Change

#### 5.3.1 Tanzania's position in UNFCCC

Tanzania is one of LDCs and Non-Annex countries, so target to reduce greenhouse gas emissions or its reporting duty are not imposed to Tanzania.

#### 5.3.2 Mitigation Measure

Development of National Reduced Emission from Deforestation and Forest Degradation (REDD) Strategy is a continuous process involving series of consultations, stakeholders' engagement, and research and knowledge dissemination. The first REDD stakeholders workshop held in Kibaha in January 2009 developed National REDD Framework which will guide the formulation of National REDD Strategy.

#### 5.3.3 Adaptation Measure

Tanzania has submitted its NAPA to the UNFCCC, but no measure has been taken yet.

**Chapter 6**  
**Legal System and Procedure of EIA**





## Chapter 6 Legal System and Procedure of EIA

### 6.1 Relevant Legal System

#### 6.1.1 Relevant Legal System

The legal system relevant to the EIA in Tanzania is shown in Table 6.1-1.

Table 6.1-1 Legal System relevant to EIA in Tanzania

<b>Policies</b>	National Environmental Policy, 1997 (NEP)
	National Forest Policy, 1998
	Water Policy, 2002
	The Wildlife and Wetland Policy of Tanzania, 2007
	Agriculture and Livestock Policy, 1997
	National Land Policy, 1995 (Revised in 1997)
	Tanzania Development Vision, 2000
	National Strategy for Growth and Reduction Poverty
<b>Legal Framework</b>	Environmental Management Act, 2004 (EMA)
	Environmental Impact Assessment and Audit Regulations, 2005
	Forest Act, 2002
	Water utilization and Control Act, 1974
	Wildlife Conservation Act, 1974
	National Land Use Planning Commission Act, 1984
	Rural Land Use (Planning and Utilization) Act, 1973
	Land Act, 1999
	Village Land Act, 1999
	Land Regulation, 2001
	Land Disputes and Courts Act, 2002
	Local Government Act, 1982
	Occupational Health and Safety Act, 2003

#### 6.1.2 National Environmental Policy, 1997 (NEP)

The Vice President's Office (VPO) established NEP in 1997. NEP aims at achieving sustainable development through rational use of natural resources and incorporating measures in any development activities in order to safeguard the environment. The environmental policy document seeks to provide the framework for making fundamental changes that are needed to bring environment consideration into the mainstream of decision-making in the country.

For Tanzania, therefore, the role of Environmental policy lies in providing for the execution of a range of strategic functions, notably:

- Development of consensual agreement at all levels for the challenge of making trade-offs and the right choices between immediate economic benefits to meet short-term and urgent development needs, and long-term sustainability benefits;
- Development of a unifying set of principles and objectives for integrated multispectral approaches necessary in addressing the totality of the environment;
- Fostering Government-wide commitment to the integration of environmental concerns in the sectorial policies, strategies and investment decisions, and to the development and use of relevant policy instruments which can do the most to achieve this objective; and
- Creating the context for planning and coordination at a multi-sectorial level, to ensure a more systematic approach, focus and consistency, for the ever-increasing variety of players

and intensify of environmental activity.

Since environmental policy involves many sectors and interest groups, its scope is necessarily broad, and the logistical demand for overseeing its implementation and ensuring coordinated attention to interconnected challenges is complex. The challenge is to ensure that all concerned take priority actions on all the main fronts; and that their actions are mutually supportive, reflecting a mission commonly subscribed to, by all. This means that the environmental and social must be subject to greater accountability and control, with more effective instruments having clear objectives to be pursued.

### 6.1.3 Environmental Management Act, 2004 (EMA)

EMA provides the legal and institutional framework for the management of the environment and implementation of the nation's Environment Policy. Institutionally it provides for the continuation of the National Environment Management Council (NEMC) and the National Environmental Advisory Committee.

The NEMC is charged with the enforcement, compliance, review, monitoring of EIA and the facilitation of public participation in environmental decision making and supervision of all matters relating to the environment assigned to the Council. Amongst its functions NEMC (1) reviews EIAs and recommends the (or not) for approval, and (2) identifies projects, programs for which environmental audit or monitoring must be conducted.

### 6.1.4 Environmental Impact Assessment and Audit Regulations (2005)

The VPO developed the Environmental Impact Assessment and Audit regulations in 2005. This regulation provides how the EIA shall be conducted in Tanzania. It also provides Environmental Impacts Assessment steps and the format of Environmental Impact Statement (EIS). The regulation stipulates the procedures for undertaking EIA as well as list of projects to be subjected to EIA. The contents are described in 6.3 "Procedure of EIA Implementation and Environmental Permits".

## 6.2 Implementation Procedure of Strategic Environmental Impact Assessment (SEIA)

The procedure in regards to the SEIA is regulated under EMA as described below. Moreover, Strategic Environmental Assessment Regulations, 2008 was enacted based on this Act.

### 6.2.1 SEIA of Bills, regulations, policies, strategies, programs and plans

- (1) It shall be a requirement when preparing a Bill for enactment of any law that is likely to have effect on
  - the management, conservation and enhancement of the environment; or
  - sustainable management of natural resources, to conduct and submit to the Minister a detailed statement regarding SEIA of the effect likely to be caused on the environment in the implementation of the provisions of that law.
- (2) When promulgating regulations, Public Policies, programs and development plans shall include a SEIA statement on the likely effects of such regulations, public policies, programs or development plans may have on the environment.
- (3) Every SEIA statement shall include
  - a full description of the policy Bill, legislation, strategy, program, plan and the objectives it

- intends to achieve;
- an identification, description and assessment of the positive and adverse effects that implementation of the proposed strategy, program, plan or legislation is likely to have on the environment add to the sustainable management of natural resources;
  - an identification, description and assessment of likely effects of alternative means to achieve the objective of the policy, Bill, legislation, strategy, program and plan;
  - an identification, description and assessment of a range of practicable measures that could be taken to avoid, mitigate or remedy and adverse effect that may occur as a result of the implementation of the policy, Bill, legislation, strategy, program, or plan; and
  - any other information that the Minister may by regulations prescribe.
- (4) Where a person responsible for the Bill, regulation, public policy, strategy, program, or plan, does not require a SEIA under this section, he shall submit a draft of the relevant document to the Minister who shall, as soon as practicable, determine whether or not an assessment is required and shall furnish his decision and the reasons for it.
- (5) Upon receipt of the SEIA report, the Minister shall direct the Director of Environment to review the policy, Bill, legislation, strategy, programme or plan strategy and furnish his opinion to the Minister who shall thereafter give his opinion to the person concerned.
- (6) A person to whom the Minister has given opinion shall be required to comply with recommendations made and shall be required to submit a fresh report to him indicating:
- the revisions that have been made to the original document in order to promote environmental management and the sustainable management of natural resources or to avoid mitigate or remedy any adverse effects which implementation of the original legislation, policy, program or plan may have had;
  - any other measures that have to be taken to avoid, mitigate or remedy any adverse effects on the environment and when these were or will be taken, and if any measures recommended by the assessment report have or will not be taken, the reasons for not doing so; and
  - a revised version of the policy, Bill, legislation, strategy, program or plan.
- (7) Where the Minister is of the opinion that the environmental concerns raised during the SEIA process are not adequately addressed by the revised Bill, regulation, policy, strategy, program or plan, and that additional cost-effective measures to avoid or mitigate against these adverse effects should be taken, he shall within thirty days of receipt of the documents referred to in subsection (5), lodge an objection with the person concerned with a view to reaching agreement on the amendments to be made to the revised policy, Bill, legislation, strategy, program or plan in order to give effect to the purpose and principles of this Act.
- (8) Where, upon direction by the Minister, the Director of Environment and the person concerned are unable to reach agreement on the amendments to be made to the revised policy, Bill, legislation, strategy, program or plan on the measures to be taken, the Director of Environment or the person concerned may lodge a notice of objection to the Minister.
- (9) The Minister may, upon receipt of the notice of objection, order the documents referred to in subsection (6) to be subject to public review or to a public hearing before making a final determination.

### 6.2.2 SEIA for mineral, petroleum, hydro-electric power and major water project plans

- (1) Where a mineral or petroleum resource is identified before specific details are planned or a hydro-electric power station is planned or major water project is planned, the Ministry responsible for mining, energy or water shall carry out a SEIA.
- (2) The SEIA shall assess the area marked for development including the following:
  - baseline environmental conditions and status of natural resources;
  - identification of ecologically sensitive and protected areas;
  - identification and description of communities around the area;
  - existing socio-economic status;
  - existing economic activities and infrastructure;
  - proposed developments, including longer-term scenarios and the cumulative development of a number of different mine or oil and gas site or hydro-electric power stations;
  - infrastructure and resources required to service these development;
  - potential environmental and social impacts of mining or petroleum development or hydro-electric power or any major water projects; and
  - recommendations for land reclamation and limitations on development in different areas.
- (3) The Minister shall direct the Director of Environment to review the SEIA statement and prepare a report on adequacy or inadequacy of the statement and areas which need to be improved and make recommendations to the Minister accordingly.
- (4) The Director of Environment shall submit a review report to the Minister for approval.
- (5) On receipt of recommendations, the Minister shall approve the report and make recommendations to the Ministry responsible for mining, energy or water regarding the best way environment can be preserved within the context of the project that is to be undertaken.
- (6) The Ministry responsible for mining, energy or water project shall be required to comply with recommendations made by the Minister.

## 6.3 Procedure of EIA Implementation and Environmental Permits

### 6.3.1 Project subject to EIA

#### (1) Category

The projects subject to carry out EIA are described in the following. (The Environmental Impact Assessment and Audit Regulations, 2005)

Table 6.3-1 Project subject to EIA

Category	Description
Category A: Project where EIA is mandatory	Project is likely to have significant adverse environmental impacts and that in-depth study is required to determine the scale, extent and significance of the impacts and to identify appropriate mitigation measures
Category B: Project where preliminary environmental assessment is required	Project is likely to have some significant adverse environmental impacts but that the magnitude of the impacts are not well-known, a preliminary environmental assessment is required to decide whether the project can proceed without a full environmental impact assessment.

Source: The Environmental Impact Assessment and Audit Regulations, 2005

#### (2) Category A: Project where EIA is mandatory

Table 6.3-2 Detail of Category A Project

Category	Description
Agriculture	Large scale cultivation
	Water resources development projects (dams, water supply, flood control, irrigation, drainage)
	Large scale mono-culture (cash and food crops including floriculture)
	Biological Pest Control
	Agricultural projects necessitating the resettlement of communities
	Introduction of new breeds of crops
	Introduction of Genetically Modified Organisms (GMOs)
Livestock and Range Management	Large Scale livestock movement
	Introduction of new breeds of livestock including Genetically Modified breeds
	Introduction of new or alien foreign species
Forestry	Intensive livestock rearing areas
	Timber logging and processing
	Introduction of new tree species and development of forest plantations
	Selective removal of single tree species
	Biological pest control
	Afforestation and reforestation for purpose of carbon sequestration
	Construction of roads inside forest reserve
Commercial charcoal, firewood and other forest harvest operations	
Fisheries	Establishment of commercial logging or conversion of forested land uses within catchments areas
	Medium to large scale fisheries
	Artificial fisheries (aqua-culture for fish, algae, crustaceans shrimps, lobster or crabs)
	Introduction of new species in water bodies

<b>Category</b>	<b>Description</b>
	Large scale fish farming including prawn farming
	Industrial fish processing and storage
	Introduction of Genetically Modified fish species and other aquatic species
Wildlife	Introduction of new species
	Wildlife catching and trading
	Establishment of hunting blocks or areas, especially involving resettlement of communities
	Translocation of wildlife
	New protected areas especially involving resettlement of communities
	Wildlife ranching and farming
	Zoo and sanctuaries
Tourism and Recreational Development	Construction of resort facilities or hotels along the shorelines of lakes, river, islands and ocean
	Hill top resort or hotel development
	Development of tourism or recreational facilities
	Hunting and capturing
	Camping activities walk ways and trails etc.
	Major construction works for sporting purposes
Energy	Production and distribution of electricity, gas, steam and geo thermal energy
	Storage of natural gas
	Thermal power development (i.e. coal, nuclear)
	Hydro-electric power
	Development of other large scale renewable and non-renewable sources of energy
Petroleum industry	Oil and gas filed exploration and development
	Construction of offshore and onshore pipelines
	Construction of oil and gas separation, processing, handling and storage facilities
	Construction of oil refineries
	Construction and/or expansion of product depots for the storage of petrol, gas, diesel, tar and other products within commercial, industrial or residential areas
	Transportation of petroleum products
Transport and infrastructure	Construction, expansion or rehabilitation of new trunk roads
	Construction, expansion or rehabilitation of airports and airstrips and their ancillary facilities
	Construction of new, or expansion to existing railway lines
	Construction of new, or expansion to existing shipyards or harbour facilities
	Installation and expansion of communication towers
Food and beverage industries	Manufacture of vegetable and animal oils and fats
	Oil refinery and ginneries
	Manufacture of dairy products
	Brewing distilling and malting
	Fish meal factories
	Slaughter – houses
	Soft drinks
	Tobacco processing
	Canned fruits, and sources
Sugar factories	

Category	Description
	Other agro-processing industries
Textile industry	cotton and synthetic fibers
	dye for cloth
	ginneries
Leather Industry	Tanning
	Tanneries
	Dressing factories
	Other cloth factories
Wood, Pulp and Paper Industries	Large scale manufacture of veneer and plywood
	Large scale manufacture of fiber board and of particle – board
	Large scale manufacture of Pulp, Paper, sand-board cellulose – mills
Building and Civil Engineering Industries	Industrial and housing Estate
	Major urban projects (multi-story building, motor terminals, markets etc.)
	Construction and expansion/upgrading of roads, harbors, ship yards, fishing harbors, air fields and ports, railways and pipelines
	Developments on beach fronts
Chemical industries	Manufacture, transportation, use and storage and disposal of pesticide or other hazardous and or toxic chemicals
	Manufacture of pharmaceutical products
	Storage facilities for petroleum, petrochemical and other chemical products (i.e. filling stations)
	Production of paints, vanishes, etc.
	Soap and detergent plants
	Manufacture of fertilizers
Extractive industry	Extraction of petroleum
	Extraction and purification of natural gas
	Other deep drilling – bore-holes and wells
	Mining
Non-metallic industries (Products)	Manufacture of cement, asbestos, glass, glass-fiber
	Manufacture of plastic materials
	Lime manufacturing, tiles, ceramics
Metal and Engineering industries	Manufacturing and assembly of motorized and non-motorized transport facilities
	Body – building
	Boiler – making and manufacture of reservoirs, tanks and other sheet containers
	Foundry and Forging
	Manufacture of non-ferrous products
	Manufacture of iron and steel
electrical and electronic industries	Electroplating
	Battery manufacturing
Toxic and Hazardous waste	Electronic equipment manufacturing and assembly
	Construction of Incineration plants
	Construction of recovery plant (off-site)
	Construction of waste water treatment plant (off-site)
	Construction of secure landfills facility
Municipal	Construction of storage facility (off-site)
	Construction of incineration plant

Category	Description
Solid Waste	Construction of composting plant
	Construction of recover/re-cycling plant
	Construction of Municipal Solid Waste landfill facility
Municipal Sewage	Construction of waste water treatment plant
	Construction of marine out fall
	Night soil collection, transportation and treatment
	Construction of sewage system
Water Supply	Canalisation of water courses
	Diversion of normal flow of water
	Water transfer scheme
	Abstraction or utilisation of ground and surface water for bulk supply
	Water treatment plants
Land planning and development, land reclamation, housing and human settlements	Resettlement/relocation of people and animals e.g. establishment of refugee camps
	Development of expansion of industrial estates
	Establishment of estates for residential/commercial purposes
	Major urban projects (multi-story building, motor terminals, markets etc.)
	Land reclamation including land under water bodies
	Construction or expansion of hospitals with large bed capacity
	Development of residential and commercial estates on ecologically sensitive areas including beach fronts
Dredging of bars, greyones, dykes and estuaries	

Source: The Environmental Impact Assessment and Audit Regulations, 2005

(3) Category B: Project where preliminary environmental assessment is required

Table 6.3-3 Detail of Category B Project

	Description
1	Fish culture
2	Small animal husbandry and urban livestock keeping
3	Horticulture and floriculture
4	Wildlife catching and trading
5	Charcoal production
6	Bark for tanning processing
7	Brewing and distilleries
8	Bird catching and trading
9	Hunting
10	Wildlife ranching
11	Zoo and sanctuaries
12	Tie and dye making
13	Salt pans
14	Urban agriculture
15	Hospitals and dispensaries, Schools, Community center and Social halls, play grounds
16	Market places (livestock and commodities)
17	Blacksmiths
18	Garages
19	Tile manufacturing
20	Kaolin manufacturing
21	Livestock stock routes
22	Tobacco curing



	Description
23	Sugar refineries
24	Tanneries
25	Pulp plant
26	Oil refineries and ginneries

Source: The Environmental Impact Assessment and Audit Regulations, 2005

### 6.3.2 Implementation Procedure of EIA

#### (1) Relevant Organization

The international arrangement for environmental management in Tanzania is well spelt out in the EMA (2004). As stipulated in the Act, the VPO is therefore responsible for overall policy guidance and advice on the development of strategic environmental vision, including formulation, analysis and appraisal of broad environmental policy, as well as formulation and review of broad environmental goals, in conformity with such vision. The VP's office provides a basis for a broad political legitimacy for the administration of strategic policy decisions on a routine and continuous basis for coordinated environmental management.

Part III, Section 13 (1) of EMA (2004) states that the Minister responsible for environment shall be in overall charge of all matters relating to the environment and shall in that respect be responsible for articulation of policy guidelines necessary for the promotion, protection and sustainable management of environment in Tanzania. There are seven (7) institutions mentioned by the act, of which the Minister Responsible for the Environment is the overall in-charge for administration of all matters relating to the environment.

- Minister responsible for Environment
- National Environmental Advisory Committee
- Director of Environment
- NEMC
- Sector Ministries
- Regional Secretariat
- Local Government Authorities (City, Municipal, District, Township, Ward, Village, Sub-Village, Kitongogi)

#### (2) Environmental Category

The appropriate assignment of the Environmental Category is based on the World Bank's Operational Policy (OP 4.01). Based on the Environmental and Social Screening of the proposed sub project, the project is classified into Category A, B, or C with the thorough consideration of location, sensitivity, size of the project as well as the essential characteristics and magnitude of the potential Environmental and Social Impacts.

Table 6.3-4 Environmental Category

Category	Description
Category A	Any project which is likely to have significant adverse environmental and social impacts that are sensitive, diverse or unprecedented. The impacts under this category affect broader area than the sites or facilities subjected to physical works.
Category B	Any project which is likely to have significant adverse impact on human populations or environmentally important areas including wetlands, forests, grasslands and any other natural habitat. Generally they are less adverse than those of category A projects, the impacts are sites specific and few or any of them are irreversible and most of them are mitigable rapidly than category A.

Category C	Any project which is likely to have minimal or any adverse environmental and social impact. Beyond screening, no further EA action is required.
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### (3) Implemental Procedure of EIA

Each step of the procedure to carry out EIA is described in Table 6.3-5.

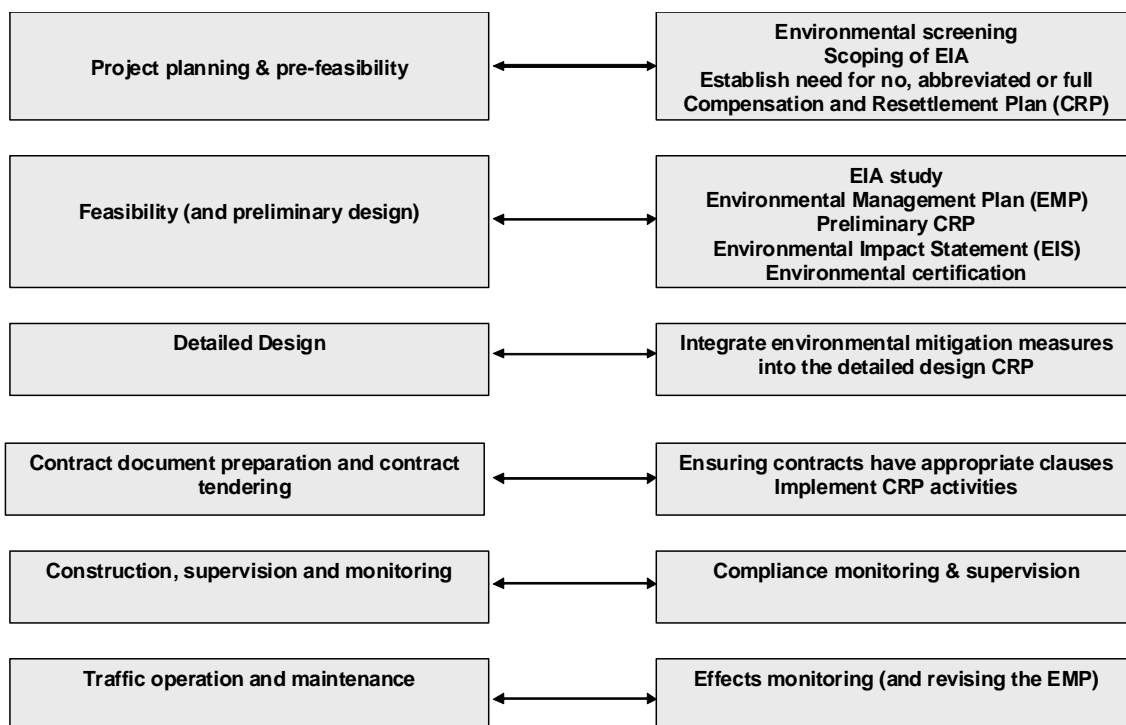
Table 6.3-5 Description of Each Step of EIA Procedure

Step	Procedure	Activity	Time Limit
First	Registration	Register the proposed project with NEMC by submitting an application for the EIA certificate, where you will be required to fill in a 'Preliminary Environmental Assessment Registration Form' for your project. The Application Fee is Tshs 20,000/=only	
Second	Screening	Return to NEMC two copies of a dully filled Registration Form attached with a Project Brief for screening by NEMC. The contents of the Project Brief for screening should be as directed in the EIA and Audit Regulations of 2005;	To be approved by the council within 45 days from the date of submission of the brief as per Regulation 10 (1)
Third	Scoping	Contract an Environmental Expert/EIA Consultant to prepare a Scoping Report and Terms of Reference (TORs) for conducting the EIA and submit them to NEMC for review and approval before the commencement of the EIA study. At NEMC there is a list of EIA Consultants which you can negotiate with;	The Approval of TOR should be done by the Council within 14 days as per Regulation 13 (2)
Fourth	Environmental Assessment	Conduct EIA study (by the consultant) according to the approved TOR and adhere to the EMA Cap. 191 and Environmental Impact Assessment and Audit Regulations of 2005;	
Fifth	Review	Submit an EIS (also called EIA Report) to NEMC for review by a Cross-sectoral Technical Advisory Committee (TAC);	The Council shall within 60 days following submission of EIS carry out its review as per Section 87 (1) of EMA, Cap. 191
Sixth	Facilitation	Facilitate the review process by paying the review costs to NEMC as required;	
Seventh	Incorporate Tac Comments	Make corrections and improvements of the draft EIS according to the comments and recommendations raised by the TAC.	
Eighth	Approval of EIS	Submit the improved (final) version of the EIS to NEMC for final scrutiny and prepare recommendation to the Minister Environment for EIS Certificate issuance consideration	The Minister may approve or disapprove the EIS within 30 days as per Section 92 (1) of EMA, Cap. 191

Source: NEMC Documents

#### (4) Relationship between EIA and Resettlement

The relationship between EIA and Resettlement is described in Figure 6-1. Environmental Management Plan (EMP) includes Compensation and Resettlement Plan (CRP).



Source: Road Sector Compensation and Resettlement Guidelines, February 2009

Figure 6-1 EIA and Resettlement

### 6.3.3 Screening Criteria of EIA

#### (1) Screening Criteria

The following shall be screening criteria

- The project will not substantially use a natural resources
- Potential residual impacts on the environment are likely to be minor, of little significance and easily mitigated
- The type of project, its environmental impacts and measures for managing them are well understood in Tanzania
- Reliable means exist for ensuring that impact management measures can and will be adequately planned and implemented
- The project will not displace significant numbers of people, families or communities
- The project is not located in, and will not affect, any environmentally sensitive areas such as;
  - (a) national parks;
  - (b) wetlands;
  - (c) Productive agricultural land;
  - (d) important archaeological, historical and cultural sites;
  - (e) areas protected under legislation;
  - (f) areas containing rare or endangered flora or fauna;
  - (g) areas containing unique or outstanding scenery;
  - (h) mountains or developments on or near steep hill-slopes;

- (i) dry tropical forests (e.g. Brachystegia woodlands);
  - (j) development near Lakes or its beaches;
  - (k) development providing important resources for vulnerable groups such as fishing communities along the lake-shore;
  - (l) development near high population concentrations or industrial activities where further development could create significant environmental problems; and
  - (m) prime ground-water re-charge areas or areas of importance for surface run off of water.
- The project type will not result in:
    - (a) policy initiatives which may affect the environment such as changes in agricultural pricing subsidies or the tobacco liberation;
    - (b) major changes in land tenure; or
    - (c) changes in water use though irrigation, drainage promotion or dams, changes in fishing practices.
  - The project will not cause:
    - (a) adverse socio economic impact;
    - (b) land degradation water pollution;
    - (c) water pollution;
    - (d) air pollution;
    - (e) damage to wildlife and habitat;
    - (f) adverse impact on climate and hydrological cycle; and
    - (g) creation of by-products, residual or waste materials which require handling and disposal in a manner that is not regulated by existing authorities.
  - The project will not cause significant public concern because of potential environmental changes. The following are guiding principles:
    - (a) is the impact positive, mainly begin or harmful;
    - (b) what is the scale of the impact in terms of area affected numbers of people or wildlife;
    - (c) what is the intensity of the impact;
    - (d) what will be the duration of the impact;
    - (e) will there be cumulative effects from the impact;
    - (f) are the effects politically controversial;
    - (g) have the main economic, ecological and social costs been quantified;
    - (h) will the impact vary by social group or gender; and
    - (i) is there any international impact due to the proposal projects.
  - The project will not necessitate further development, which is likely to have a significant impact on the environment.

## (2) Examination Stage of EIS

According to the section 24, PART VI of Environmental Impact Assessment and Audit Regulations, 2005, the following is NEMC's screening criteria during the examination stage of EIS.

Table 6.3-6 Screening Criteria of EIS

<b>Review Area 1</b>	Description of the Development Local Environmental and Baseline Conditions <ul style="list-style-type: none"><li>• Description of the development</li><li>• Local environmental and baseline conditions</li></ul>
<b>Review Area 2</b>	Identification and evaluation of key impacts <ul style="list-style-type: none"><li>• Residual impacts</li><li>• Cumulative impacts</li><li>• Prediction of impact magnitude</li><li>• Assessment of impact significance</li></ul>
<b>Review Area 3</b>	Alternatives, mitigations, EMP, and commitment
<b>Review Area 4</b>	Stakeholder participation and communication of results <ul style="list-style-type: none"><li>• Stakeholder participation</li><li>• Presentation</li><li>• Balance</li><li>• Non-technical summary</li></ul>

Source: Environmental Impact Assessment and Audit Regulations, 2005

### 6.3.4 Procedure of Environmental Permits

It is prescribed that hazardous waste shall not be imported into or exported from Tanzania without a permit granted by the Minister responsible for Environment. In addition, licenses by the Minister responsible for Environment are required for disposal facilities for hazardous wastes. (EMA Article 133) Environmental permits related to air, water are not regulated by EMA and other laws as of August 2011.

### 6.3.5 Public Participation Procedure and Actual Participation such as Information Sharing and Public Consultation

#### (1) Public Consultation

Consultation throughout EIA preparation is required, particularly for projects that might involve land acquisition and thus negatively affecting people's livelihoods. Public consultation should be undertaken during screening, scoping and the preparation of TOR, of the EIS, review of the EIS by NEMC and other stakeholders, and during the preparation of terms and conditions for EIA acceptance or approval.

#### (2) Content in the EMA

Public Participation is referred in Section 178, PART 14 of EMA as follows.

<p>PART XIV PUBLIC PARTICIPATION IN ENVIRONMENTAL DECISION MAKING</p> <p>178. (1) The public shall have the right to be timely informed of the intention of public authorities to make executive or legislative decisions affecting the environment and of available opportunities to participate in such decisions.</p>
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- (2) The public shall have the right to participate in decisions concerning the design of environmental policies, strategies, plans and programs and to participate in the preparation of laws and regulations relating to the environment.
- (3) Information relating to decisions affecting the environment may be made available to the public before the date on which the decision is to be made.
- (4) Public involvement in environmental decision-making shall be made through:
  - (a) early and accessible notice of the intention to make the decision, such as, formulation of policies, plans, and programs relating to the environment;
  - (b) indication of opportunities for the public to present oral and written comments on proposed policies, plans and programs; and
  - (c) access to environmental information subject to this Act or any other written law.
- (5) The Council and other relevant authorities shall establish mechanisms to collect and respond to public comments, concerns and questions related to the environment including
  - (a) public debates and hearing; and
  - (b) environmental information, registries and complaints desks in all public institutions.

Source: The Environmental Management Act, 2004

### 6.3.6 Information Disclosure of EIA and Environmental Permits

EMA provides for the right of the public to participate during the decisions concerning the design of environmental policies, strategies, plans and programs and to participate in the preparation of laws and regulations relating to the environment (EMA Para 178- (2)). It calls for early and accessible notification of intentions, access to related information and opportunities for the public to make oral and written presentations on the matter and decisions (Para 178- (4)). The first step is to hold public consultations with the local communities and all other interested/affected parties during the screening process and in the course of preparing the EIA. These consultations should identify key issues and determine how the concerns of all parties will be addressed in the TOR for the EIA to be carried out for projects. To facilitate meaningful consultations, the local governments and/or water authorities through their implementers will provide all relevant material and information concerning the projects in a timely manner prior to the consultation, in a form and language that are understandable and accessible to the groups being consulted. Depending on the public interest in the potential impacts of the projects, a public hearing may be requested to better convey concerns.

As project proposal is finalized, the complete proposal shall include the environmental category of the project. For category B and A projects requiring an EIA, the proposal shall include the EIS and proof of its approval by NEMC and World Bank and any interested Development Partner or Financing Agency. For category C projects that did not require the preparation of a separate EIA, the completed environmental and social checklist will be attached to the project proposal.

The EISs of projects will be disclosed to the public by presenting the findings and recommendations to the village assembly or sub-ward/Mtaa assembly, disclosing the document at the offices of the District/Municipal Executive Director in each District/Municipality. NGO's and other civil society organizations in the villages and sub-wards/Mtaas will be informed of the meeting, and copies of EIS will be made available before the meeting, in a language that is understood by the recipients.

On completion of an EIA, the NEMC must (a) circulate it for written comments from the various agencies and government agencies (b) notify the public of the place and time for its review and (c) solicit oral or written comments from those affected. NEMC will decide whether the EIA review is to be conducted through public hearing. Where the Council decides or its requested to convene a public hearing, it will display and make available for inspection and

copying all relevant reports, documents and written submissions made during and after the period of review until the first public hearing is finalized.

Beneficiaries or any affected/interested parties, have the right to appeal. If dissatisfied with the decision reached at any stage in the EIA process, the affected party has the right of appeal to the Minister responsible for Environment.

### 6.3.7 Requirement of Environmental Management Plan (EMP)

The EIS should include an Environmental and Social Management Plan (ESMP). This ESMP should be a practical, action-oriented plan specifying measures to be taken to address the negative environmental impacts. It should also specify the actions, resources and responsibilities required to implement the agreed actions and details on key social and environmental management, monitoring, and monitoring indicators. Further, the ESMP should ensure that the costs of implementing the recommendations of the EIS are budgeted into the total project costs. Responsibility for the preparation of the ESMP will be with project planners under the guidance of the District/Municipal Environmental Management Officer and, to the extent necessary, in consultation with NEMC.

The ESMP should be formulated in such a way that it is easy to use. The ESMP should cover the following aspects: Summary of environmental and social impacts, description of the mitigation measures, description of the impacts of the mitigation measures, description of the monitoring plan and monitoring indicators, institutional arrangements and capacity building needs to ensure effective implementation of these measures, implementation schedule and reporting procedures and cost estimates.

## 6.4 Monitoring

### 6.4.1 Legal System and Procedure of Monitoring

#### (1) Regulation in EMA

Regulations in EMA are described as follows.

- NEMC shall, in consultation with the relevant sector Ministry or government agency, monitor
  - (a) all environmental criteria and phenomena with a view to making an assessment of any possible changes in the environment and their possible impact
  - (b) the operation of any project or undertaking with a view to determining its immediate and long term effects on the environment
- An environmental inspector or any other authorized officer may, upon giving due notice, enter upon any land or premises for the purposes of monitoring the effects upon the environment of any activities carried out on that land or premises

#### (2) Regulation in the Environmental Impact Assessment and Audit Regulations, 2005

Regulations in the Environmental Impact Assessment and Audit Regulations, 2005 are described as follows.

- NEMC shall in consultation with sector Ministry, Government Department, agency or institutions.
  - (a) monitor environmental phenomena with a view to making an assessment of possible changes in the environment and their possible impacts
  - (b) monitor the operations of any industry, project or activity with a view to determining its immediate and long term effect on the environment
  - (c) except where a baseline survey has been carried out, cause the proponent to carry out

- a baseline survey to identify basic environmental parameters in the project area before implementation
  - (d) determine the parameters and measurable indicators to be used in monitoring of projects
  - (e) conduct measurement of environmental changes that have occurred during implementation
- NEMC shall, in consultation with the relevant sector Ministry, government Department, agency or institution monitor ongoing projects on a continuous basis using parameters and indicators as may be prescribed in the guidelines made by the Minister in that respect.
- NEMC shall, upon detection of non-compliance with the conditions of approval of an EIA certificate immediately, institute remedial action
- Where a Sector Ministry, Government Department, agency or institution has undertaken monitoring, it shall submit a report to the Council, which report shall include the following
  - (a) the name and address of proponent;
  - (b) the name of the proposed project;
  - (c) date of implementation of the proposed project;
  - (d) the date of the last monitoring report, including the report findings, action taken and its result;
  - (e) details of the environmental parameters to be monitored;
  - (f) results of the actual monitoring exercise;
  - (g) new actions to be implemented including the criteria for the next evaluation; and
  - (h) a non-technical summary of findings, conclusions and recommendations.
- An environmental inspector may enter upon any land or premises for the purposes of monitoring the effects of any activities carried out on that land or premises upon the environment.

#### 6.4.2 Information Disclosure of Monitoring Results

There is not a regulation on information disclosure of monitoring results.

#### 6.4.3 Measures and Procedure for Identified Issues

##### (1) Regulation in EMA

Below is the regulations described in EMA.

- Where the results of monitoring indicate non-compliance with the EIA, the holder of the EIA certificate may be required:
  - (a) to take a reasonable measure to mitigate the impact of such noncompliance and report such measures to the NEMC
  - (b) to pay a fine imposed by way of administrative measure by the NEMC for such non compliance
- NEMC may recommend to the Minister for revocation of an EIA certificate if the results of an additional monitoring indicate persistent non-compliance with the conditions stipulated in the EIS certificate and may institute proceedings in a court of law for damages for any injury that may have occurred as a result of such non-compliance.



## 6.5 Legal system related to the environment in Zanzibar

### 6.5.1 Law related to the environment

Zanzibar constitutes the federal states with Tanganyika (Tanzania Mainland), however it has autonomy except for diplomacy and national defense and has its legal system different from the Mainland. Therefore, Zanzibar does not receive restriction from the Mainland regulations. Laws related to the environment in Zanzibar are shown in Table 6.5-1.

Table 6.5-1 Laws related to the environment

No.	Name	Year established	Outline
1	National Environmental Policy for Zanzibar	1992	Necessity of EIS certificate Procedure of EIS certificate acquisition
2	Zanzibar Environmental Management for Sustainable Development Act	1996	
3	National Forest Policy	1999	Designation of protected species Designation of protected forests
4	Zanzibar Forest Reserve Management and Conservation Act No.10	1996	
5	Zanzibar Fishery Policy	1985	Regulation on coast development
6	Zanzibar Fisheries Act	1968	
7	Zanzibar Fisheries Regulation	2003	

Source: Preparation Study for the Local Distribution Network Enhancement Project (Power Plan) in Zanzibar, Tanzania (2011)

### 6.5.2 Organization of the Department of Environment

Department of Environment is under the Government of Zanzibar. The organization of the Department of Environment is described in Figure 6-2. EIA Section judges necessity of EIA, reviews capacity of expert executing EIA, reviews EIS and issues EIA certificate.

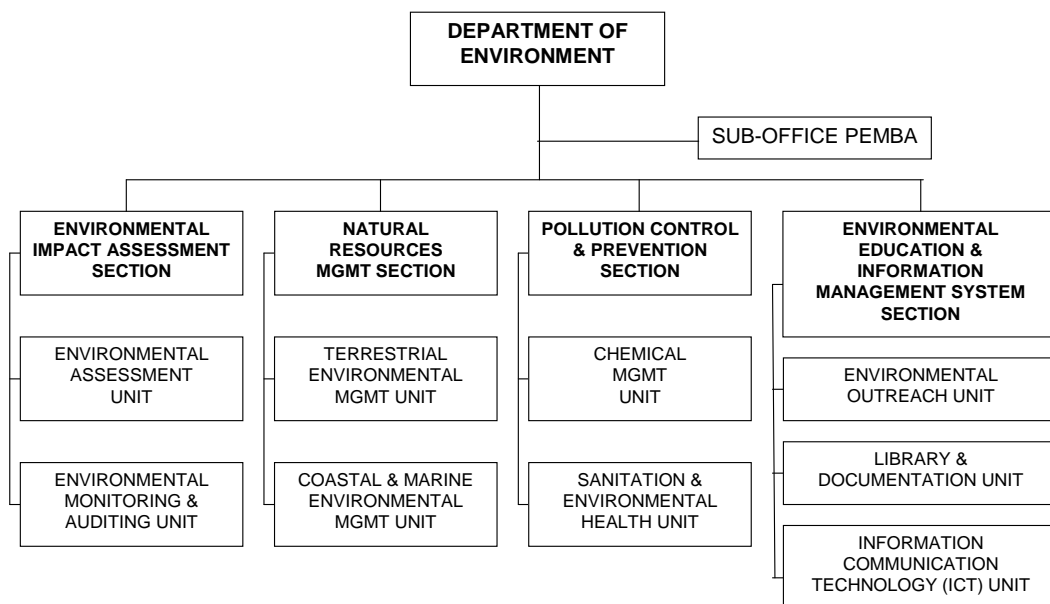


Figure 6-2 Organization of the Department of Environment

### 6.5.3 Procedures of acquiring EIS Certificate

According to Zanzibar Environmental Management for sustainable Development Act, 1996, it is not permitted to implement project that is likely to have a significant impact on the environment without an EIA Certificate. Criteria of projects which are likely to have a significant impact on the environment and requested an EIA certificate is shown in Table 6.5-2. Projects that are always required an EIA Certificate based on this criteria shown in Table 6.5-3. Projects that are not requested an EIA Certificate are shown in Table 6.5-4.

In Zanzibar, projects which are requested an EIA Certificate, are not regulated in detail than in Tanzania Mainland.

Table 6.5-2 Criteria of projects which are required an EIA Certificate

1	Use major amounts of resources, either living or nonliving
2	Result in the production of waste which would be in major quantities or of a hazardous nature
3	Modify the environment, especially the coastal area, on major scale
4	Influence population shifts in major ways
5	Affect environmentally sensitive areas

Table 6.5-3 Projects that are always required an EIA Certificate

1	Large scale development of residence land
2	Industry producing hazardous secondary product
3	Operation of power plant
4	Operation of oil plant
5	Operation of sewage plant
6	Operation of clean water
7	Operation of waste disposal
8	Development of ports and marina etc.
9	Residential development
10	Development of hotels with more than 100 beds
11	Irrigation agriculture with more than 20ha
12	Aqua farming
13	Projects in environmentally sensitive areas including forests, mangroves and small islands
14	Lift of protected areas

Table 6.5-4 Projects that are not required an EIA Certificate

1	Small-scale economic activities such as home handicraft industry etc.
2	Operation of retail stores
3	Business activities with below 10 employees
4	Tour business (not involving diving)
5	Agriculture with below 10ha
6	Projects storing harmless substance
7	Cleaning and garbage transport
8	Office for rent
9	Flight/Charter business
10	Road mend other than improvement/widening

The necessity of EIA when issuing EIA Certificate is judged by the Department of Environment as indicated in Table 6.5-5. The Department of Environment formulates TOR as necessary and orders execution of EIA to applicants. The Department of Environment judges issuance of EIA Certificate based on the results of EIA. In some cases, conditions are given for issuance of EIA Certificate.

When applicants disagree with the results of the Department of Environment, they are able to ask the Minister of Agriculture, Natural Resources, Environment and Cooperative to re-review. If the applicants disagree with the decisions of the Minister, they are able to ask other institution (court) to re-review.

The schedule of EIA execution in EIA Guidelines and Procedures, 2010 version is shown in Table 6.5-5. The necessary period of formulating to approving of EIA is 10 months.

- Preparation phase: within 30 days
- Formulation phase: within 6 months
- Decision-making phase: within 3 months

Table 6.5-5 EIA implementation schedule

No.	Phase	Time-line	Responsible institution
1	Registration	EIA implementation launch	Execution institution
2	Screening	Within 10 days after EIA registration	EIA Section
3	Screening assessment	Within 10 days after screening	Same as above
4	Development of TOR plan if EIA is necessary after screening	Within 6 months after screening approval	Same as above
5	Fixation of TOR	Within a few days after TOR submission	Same as above
6	Submission of CV of consultant firm and specialist	Within 10 days after receiving TOR	Execution institution
7	Appraisal by specialist	Within 10 days after CV submission	EIA Section
8	EIS submission	Within 6 months	Execution institution
9	EIS disclosure	Within 5 days after EIS submission	EIA Section
10	Comment	Within 20-30 days after EIS submission	Same as above
11	EIS review	Within 30 days after comment	Same as above
12	Additional information to be requested	Within 5 days after review	Same as above
13	Submission of additional information requested	Within 20 days after requested	Execution institution
14	Decision-making of EIA certificate approval	Within 10 days after review	EIA Section

Source: Preparation Study for the Local Distribution Network Enhancement Project (Power Plan) in Zanzibar, Tanzania (2011)

Flow chart of EIA Certificate procedure is shown in Figure 6-3.

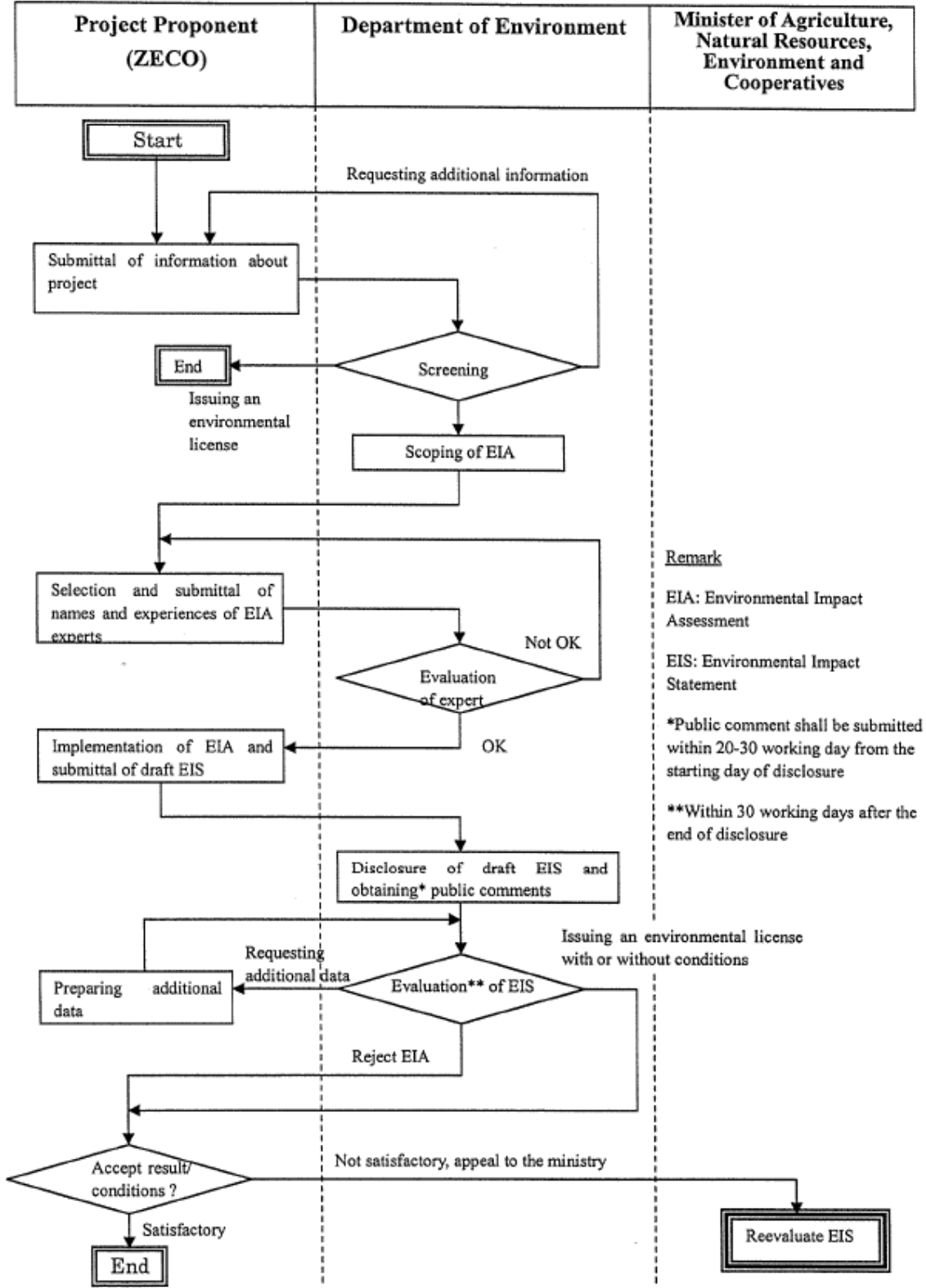


Figure 6-3 EIA Certificate Procedure

## 6.6 Analysis of consistency/gap among local legal system, new environmental guideline and World Bank's Safeguard Policy

The Environmental Category in Tanganyika (mainland, Tanzania) has been formulated based on the World Bank's Operational Policy (OP 4.01) as it is indicated in First Schedule of the Environmental Impact Assessment and Audit Regulations, 2005 and they are consistent with JICA's guidelines for environmental and social considerations. Also, there are regulations regarding participation of residents, information disclosure and monitoring. However, there is not a regulation regarding disclosure of monitoring results.

Table 6.6-1 Comparison between JICA Guidelines for Environmental and Social Considerations, the World Bank's Safeguard Policy (OP4.01) and Relevant Laws of Tanzania

<b>Response policy integrating JICA Guidelines for Environmental and Social Considerations and World Bank Safeguard Policies</b>	<b>EIA related laws in Tanzania</b>	<b>Main difference</b>
<p>Confirm 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>Also, confirm that projects do not deviate significantly from the World Bank's Safeguard Policies.</p>	<p>There is Environmental Impact Assessment System provided by EMP.</p>	<p>There is not a difference in particular.</p>
<p>EIA reports (which may be referred to differently in different systems) must be written in the official language or in a language widely used in the country in which the project is to be implemented. For explanations, documents must be formulated in a language and manner, and that are understandable to the affected local people.</p>	<p>EISs (EIA reports) etc. should be formulated in languages understandable to stakeholders.</p>	<p>There is not a difference in particular.</p>

<b>Response policy integrating JICA Guidelines for Environmental and Social Considerations and World Bank Safeguard Policies</b>	<b>EIA related laws in Tanzania</b>	<b>Main difference</b>
<p>In principle, host countries etc. disclose information about the environmental and social considerations of their projects. Assist project proponents etc.as needed.</p> <p>Encourage host countries etc. to disclose and present information about environmental and social considerations to local stakeholders.</p> <p>EIA reports are required to be made available to the local residents of the country in which the project is to be implemented. The EISs are required to be available at all times for perusal by project stakeholders such as local residents and copying must be permitted.</p> <p>In principle, host countries etc. consult with local stakeholders to a reasonable extent. Assist host countries as needed.</p> <p>In the case of Category A projects, encourage host countries 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 host countries as needed.</p>	<p>From screening step of project, participation opportunities are provided. During EIS review period, public consultation is held and EIS is made public and comments are received verbally and in writing. Also, EIS is stored as official document by NEMC and available for perusal when needed.</p>	<p>There is not a difference in particular.</p>
<p>Confirm monitoring results through host countries etc. to verify environmental and social considerations are implemented surely. The information necessary for monitoring confirmation must be supplied by host countries etc. by appropriate means, including in writing.</p> <p>Also, disclose the results of monitoring conducted by host countries etc. on its website to the extent that they are made public in host countries etc.</p>	<p>NEMC shall conduct environmental assessment. Project proponents should store monitoring data and formulate annual report and report actual result compared with original plan to NEMC. When negative impacts were occurred, appropriate mitigation measures shall be planned and implemented.</p>	<p>There is not a regulation regarding monitoring result.</p>

## **Chapter 7**

# **Legal System and Procedure of Land Acquisition and Involuntary Resettlement**





## Chapter 7 Legal System and Procedure of Land Acquisition and Involuntary Resettlement

### 7.1 Relevant Legal System

Relevant legal system of land acquisition and involuntary resettlement is described in Table 7.1-1.

Table 7.1-1 Relevant Legal System of Land Acquisition and Involuntary Resettlement

<b>National Policies</b>	National Land Policy, 1997
	National Human Settlement Development Policy, 2007
<b>Legal Framework</b>	The Land Act, 1999
	Village Land Act, 1999
	The Land Acquisition Act, 1967
	The National Land Use Planning Commission Act, (No. 3), 1984
	Land (Assessment of the Value of Land for Compensation) Regulations, 2001
	Land (Compensation Claims) Regulations, 2001
	The Village Land Regulations, 2001

#### (1) The Land Act, (No. 6), 1999

The major function of this land act is to promote the fundamentals of the “National Land Policy” through giving clear classification and tenure of land, land administration procedures, rights and incidents of land occupation, granted rights of occupancy, conversion of interests in land, dispositions affecting land, land leases, mortgaging of land, easements and analogous rights, co-occupation and partitioning and, settlement of land disputes. One of the pertinent issues when dealing with land is the right of occupancy. According to the Land Act, 1999, the right of occupancy is given in two categories that separate citizens and non-citizens rights to occupy land.

- (i) For a citizen or in a group of two or more formed in association, partnership or corporate body will enjoy the right of being granted the right of occupancy or derivative of a granted right of occupancy.
- (ii) For a non-citizen, or in a group whether formed into a corporate body under the Companies Ordinance or otherwise, (including corporate bodies whose majority shareholders or owners are non-citizens) may only obtain a right of occupancy or derivative right for purposes of investment prescribed under the Tanzania investment act 1997.

#### (2) Village Land Act (No. 7), 1999

The Village Land Act, (No. 7), 1999 was enacted specifically for the administration and management of land in villages. Under the provisions of this act, the village council is responsible for the management of the village land and is empowered to do so in accordance to the principles of a trustee managing property on behalf of a beneficiary. In addition, the village council is required to manage land by upholding the principles of sustainable development, relationship between land uses, other natural resources and the environment.

#### (3) The National Land Use Planning Commission Act, (No. 3), 1984

The National Land Use Planning Commission Act, (No. 3), 1984, established the national land Use Planning Commission. The Commission is the principal advisory organ of the government on all matters, related to land use. The villages surrounding the project area may find themselves in land conflicts that may be a result of lack of land use planning.

#### (4) Land (Assessment of the Value of Land for Compensation) Regulations, 2001

- The basis for assessment of the value of any land and unexhausted improvement for purposes of compensation, under the Act shall be the market value of such land.
- The market value of any land and unexhausted improvement shall be arrived at by use of comparative method evidenced by actual recent, sales of similar properties or by use of income approach or replacement cost method
- Every assessment of the value of land and unexhausted improvement for the purposes of payment of compensation by Government or Local Government Authority shall be verified by the Chief Valuer of the Government or his representative.
- Compensation for loss of any interest in land shall include value of unexhausted improvement disturbance allowance, transport allowance, accommodation allowance and loss of profits.
- The market rent for the building shall be assessed and multiplied by thirty-six months in order to arrive at the accommodation allowance payable.
- The net monthly profit of the business carried out on the land shall be assessed, evidenced by audited counts where necessary and applicable, and multiplied by thirty-six months in order to arrive at the loss of profits payable.
- The disturbance allowance shall be calculated by multiplying value of the land by average percentage rate of interest offered by commercial banks on fixed deposits for twelve months at the time of loss of interest in land.
- Transport Allowance shall be the actual costs of transporting twelve tons of luggage by rail or road (whichever is cheaper) within twenty kilometers from the point of displacement.
- The elements of transport allowance, accommodation allowance and loss of profits shall not be payable for unoccupied land at the date of loss of interest in land.
- The interest upon any compensation shall be paid by the Government or the local government authority only where there is no prompt payment of compensation made.
- For the purpose of computing interest payable upon compensation “prompt payment of compensation” means payment of compensation within six months after the subject land has been acquired or revoked.
- Where amount of compensation remains unpaid for six months after acquisition or revocation, interest at the average percentage rate of interest offered by commercial banks on fixed deposits shall be recoverable until such compensation is paid.

#### (5) Land (Compensation Claims) Regulations, 2001

- These Regulations shall apply to all applications or claims for compensation against the Government or local government authority or any public body or institution under the Act who may claim compensation.
- The following may claim compensation:
  - (a) The holder of a granted right of occupancy in respect of general or reserved land which is transferred to village land under Section 5 of the Act or in respect of land the subject of a right of occupancy which is compulsorily acquired by the President for public purposes under Section 22 of the Act or in respect of a right of occupancy which has been revoked under Section 49 of the Act;
  - (b) The holder of a granted customary right of occupancy in respect of land which is declared to be hazardous land under section 7 of the Act;
  - (c) The holder of a customary right of occupancy where the land becomes the subject of a granted right of occupancy in favor of another person and such holder is moved or relocated under section 34 of the Act.
  - (d) The occupier of land which he has obtained under or as a consequence of a disposition by a holder of a granted or customary right of occupancy where such occupier is refused a

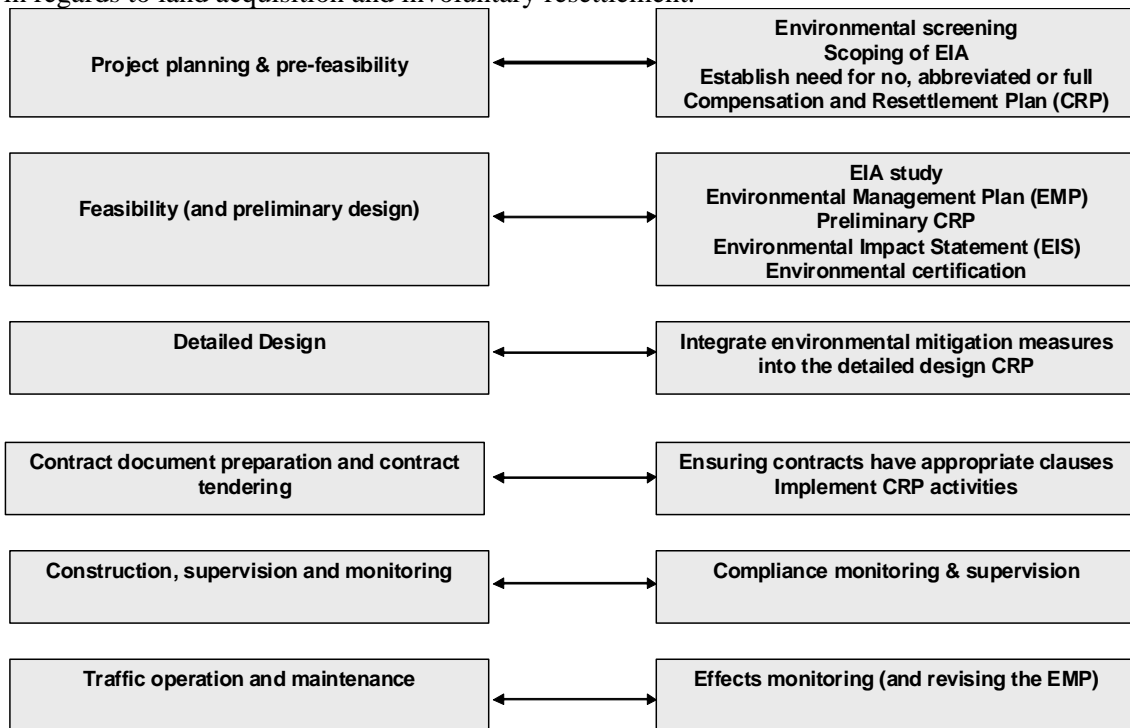
- right of occupancy under section 54 of the Act;
- (e) The occupier of land in any urban or peri urban area where such land is acquired by the President under section 60 of the Act.
- (1) The Land (Assessment of Value for compensation) Regulation 2001 shall apply to any application or claim for compensation by any person occupying land.
  - (2) Without prejudice to the generality of the above, the compensation that may be claimed by any person occupying land shall be the value of unexhausted improvements on the land he is occupying and grazing land.
  - The Commissioner or the authorized officer shall cause a notice to be published on a public notice board and serve a notice in a prescribed form on every occupier
    - (a) notifying the occupier of the land which is the subject of compensation;
    - (b) requiring the occupier to submit his claim for compensation;
    - (c) requiring the occupier to appear physically on such date, time and place where assessment shall be done.
  - The Commissioner or the authorized officer shall cause the valuation for compensation purposes to be undertaken.
  - The Commissioner or the authorized officer shall prepare a compensation schedule and submit to the Fund, together with the claim for compensation
  - (1) The Fund shall, within not more than thirty days from the date (missing) for compensation and compensation schedule from the Commissioner or authorized officer make verification and accept or reject payment.
  - (2) This regulation shall apply to all applications or claims for compensation against the Government or local government authority or any public body or institution under the Act.
  - (3) The compensation under section 156 of the Act shall apply against a non-government corporate body, association or group of persons in whose favor a public right of way is created.
  - (1) Compensation shall take the form of monetary compensation.
  - (2) Without prejudice to the generality of the above, compensation may, at the option of the government, take the form of all or a combination of or any of the following
    - (a) a plot of land of comparable quality, extent and productive potential to the land lost;
    - (b) a building or buildings of comparable quality extent and use comparable to the building or buildings lost;
    - (c) Plants and seedlings;
    - (d) regular supplies of grain and other basic foodstuff for a specified time.

## 7.2 Legal System and Procedure of Land Acquisition and Involuntary Resettlement

### 7.2.1 Procedure to implement Land Acquisition and Involuntary Resettlement

#### (1) Relationship between EIA and Resettlement Plan

Figure 7-1 displays the relationship between EIA and Resettlement. EIA includes the contents in regards to land acquisition and involuntary resettlement.



Source: Road Sector Compensation and Resettlement Guidelines, February 2009

Figure 7-1 Relationship between EIA and Resettlement

(2) Procedure to implement Land Acquisition and Involuntary Resettlement

Procedure to implement land acquisition and involuntary resettlement is shown in Table 7.2-1.

Table 7.2-1 Procedure to implement Land Acquisition and Involuntary Resettlement

1	Specify People Affected by Project (PAPs)
2	Development of Environmental and Social Profile of PAPs <ul style="list-style-type: none"> <li>• PAPs Census</li> <li>• Investigation of Land Occupancy</li> <li>• Household Survey</li> <li>• Mapping</li> </ul>
3	Setting up Cut-off Date
4	Calculation/Assessment of Compensation
5	Payment of Compensation and Resettlement
6	Monitoring/Assessment/Reporting

In addition, the outline to prepare CRP is shown in Figure 7-2. CRP is prepared during Design and Development. Relevant ministry to approve CRP is Ministry of Land and no other permit from other ministries is necessary. Approval can be obtained in about a week if there is no problem.

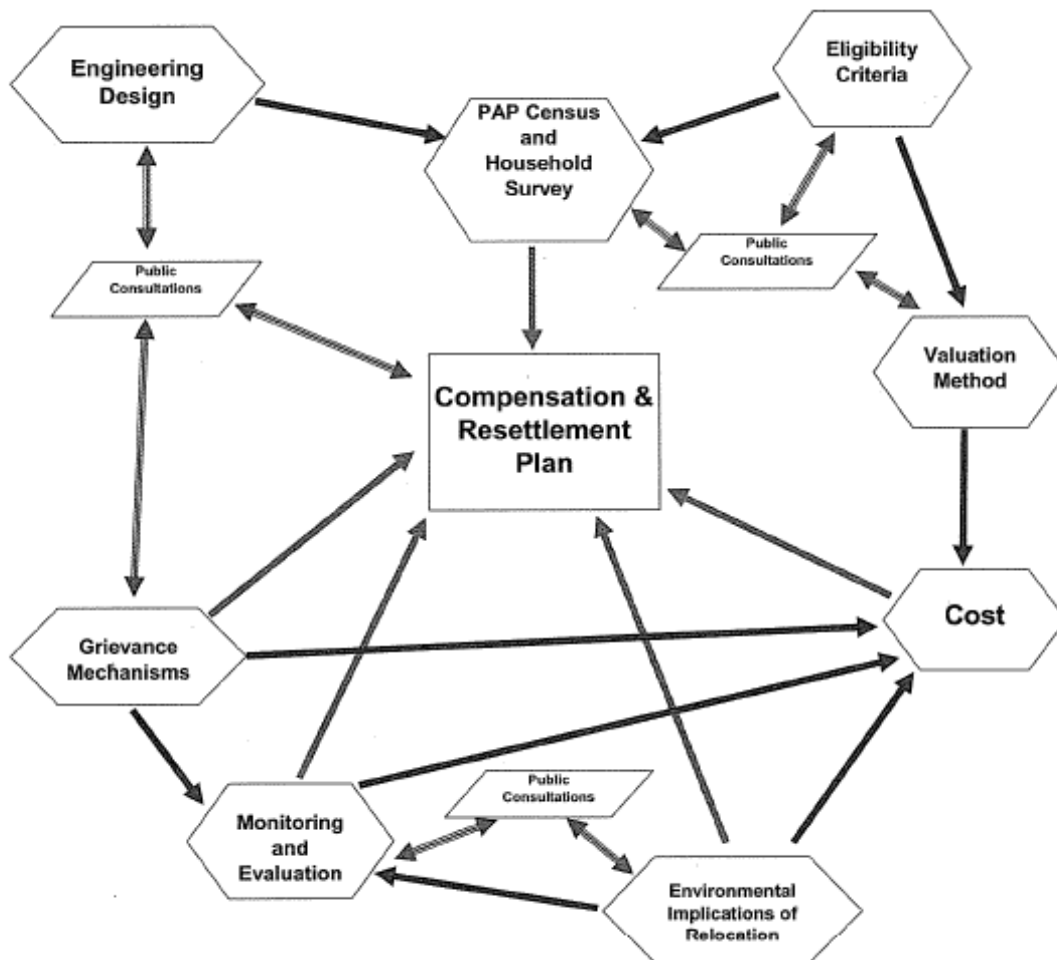


Figure 7-2 Preparation of Compensation & Resettlement Plan

## 7.2.2 Project Affected Person (PAP) and Compensation

PAP and the content of the compensation are described in Table 7.2-2.

Table 7.2-2 Project Affected Person and Compensation

CATEGORY OF PROJECT AFFECTED PERSON (PAP)	TYPE OF LOSS	ENTITLEMENTS				
		Compensation for Loss of Structures	Compensation for Loss of Assets	Compensation for Loss of Income	Relocation Allowance	Other Assistance
Property owner	Loss of Land (agricultural, commercial, residential, institutional)	----	Land replacement at new site, plus land clearing by project	Crops at market prices	None	Labour/food during preparation of new site
	Loss of structure (residential, commercial, institutional)	Compensation at full replacement value not depreciated	Replacement cost for fences (wire or wood), hand dug wells, hand-dug wells	For loss of rental income lump sum cash payment for 36 months rent per tenant	Relocation to be done at project cost	Disturbance allowance at prevailing bank lending rates. Labour for construction
Residential tenant	Loss of rental accommodation	No loss of structure, no entitlement to housing at new site	Replacement cost for non-movable asset if installation was agreed with owner	Crops at market price	Relocation to be done at project cost if notification before deadline	36 months rent equivalent
Business tenant	Loss of premises	No loss	Replacement cost for facilities that cannot be moved	For loss of business income, payment of half of turnover for 36 months	Relocation to be done at project cost if notification before deadline	
Encroacher (using land)	Loss of structure/crops	----	Relocation to resettlement site of choice, with payment of rental fee for land. For crops, fences and wells, as above or owners	----	----	Labour/food during preparation of new site
Squatter (living on site)	Loss of shelter	Compensation for full replacement value for structure, relocation to resettlement site, with payment of site rent	None	Payment in lieu of wages while rebuilding	----	Disturbance allowance at prevailing bank lending rates. Labour for construction

Source: Road Sector Compensation and Resettlement Guidelines, February

### 7.2.3 Income Restoration

There is no regulation in Tanzania regarding income restoration for PAPs.

### 7.2.4 Organizations responsible for compensations

Organization responsible for compensations is Land Compensation Fund, which article 173 of Land Act, Cap.113 R.E.2002 stipulates. The objective of the Fund is to pay compensation to people who lost rights related to land because of the government or public authority.

### 7.2.5 Grievance Mechanism

As for grievance resolution related to involuntary resettlement, it is generally left to the parties to opt for any procedure they want to follow, the options being to follow the formal procedures as provided in the Land Act and Courts (Land Disputes Settlement) Act, 2002, or to adopt an informal process.

Grievances of PAPs on involuntary resettlement arise mainly due to the rates of compensation paid, eligibility criteria and location of resettlement sites.

#### (1) Formal Process

The Village Land Act, 1999, Section 5 establishes the Village Land Council while the Land Act, 1999, Section 4 establishes the Land Division of the High Court.

The Land Act, 1999 lists the following to be judicial organs for land dispute resolution:

- The Village Land Council
- The Ward Tribunal
- The District Land and Housing Tribunal
- The High Court (Land Division)
- The Court of Appeal of Tanzania.

The Village Land Council is empowered under Section 7 of the Act to:

- receive complaints from parties in respect of land;
- convene meetings for hearing of disputes from parties;
- mediate between and assist parties to arrive at a mutually acceptable settlement of disputes on any matter concerning land within its area of jurisdiction.

The Ward Tribunal receives appeals and references from the Village Land Council. When carrying out mediation, it is required to take consideration of:

- any customary principles of mediation;
- natural justice in so far as any customary principles of mediation do not apply;
- any principles and practices of mediation.

#### (2) Informal Process through Dispute Resolution Groups

The nature of grievances that arise in complaints or claims with regard to compensation require a mechanism that is affordable and timely.

In Tanzania, as for conflicts or disputes resolutions on compensation and resettlement, practice and experience does exist. For example, in one project, grievances were handled by a Disputes Resolution Group including an independent valuer, lawyer and a sociologist involving the local leadership. Where PAPs were not satisfied with the decision of the Disputes Resolution Group, the matter was referred to the Commissioner for Lands. In other projects affected persons were required to lodge their complaints to the Village Executive Officer. The project proponent in the presence of local leaders verified these complaints.

What is urgently needed in Tanzania so as to have an efficacious mechanism of redressing grievances and conflict resolution generally is to put in place and institutionalizing a Grievance Redress Framework which will cover the following:

- Institutional arrangement;
- Procedures for recording and processing grievances;
- Mechanisms of adjudicating grievances and appeals process;
- Schedules with deadlines for all steps in the grievance redress process.



Figure 7-3 explains the mechanism of grievance.

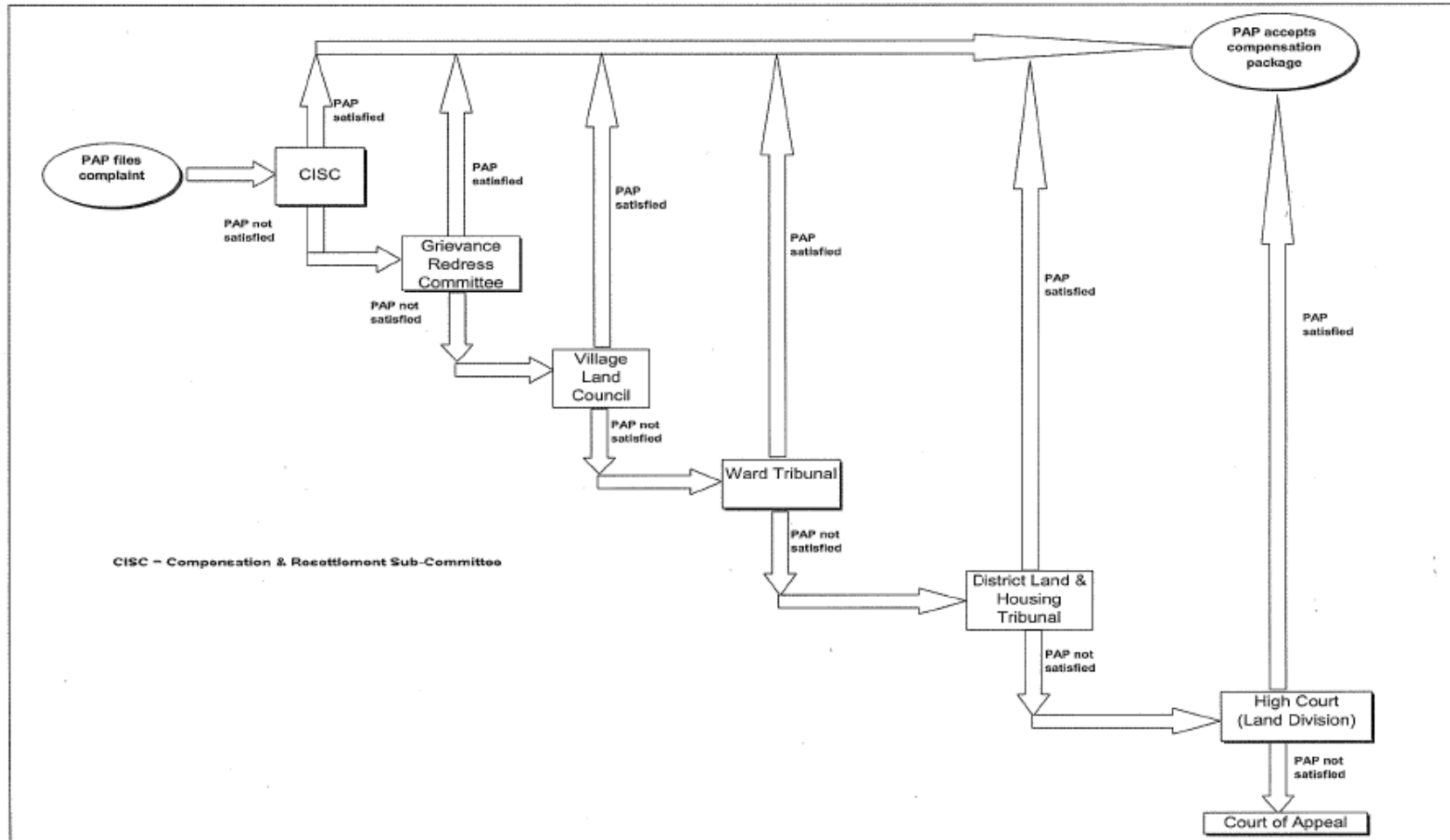


Figure 7-3 Grievance Mechanisms

## 7.2.6 Information Disclosure

There is not a regulation on information disclosure.

## 7.3 Monitoring

### 7.3.1 Procedures related to monitoring of land acquisition and involuntary resettlement

The below is the abstraction of Road Sector Compensation and Resettlement Guideline.

#### (1) Performance Monitoring

The purpose of monitoring is to assess performance of the implementation of the CRP, in terms of the disbursement of compensation monies, the physical progress of resettlement and rehabilitation activities, and the public consultation process. Payment of compensation is the most sensitive, and therefore the most important, of these.

Performance monitoring will have to be done by the Compensation and Resettlement (C&R) Implementation Sub-Committees on a continual basis.

These Committees should be responsible for monitoring the construction of the PAP structures and houses etc. They must also ensure that the PAPs are using the compensation payments for rebuilding the affected structures or property, or for livelihood restoration, rather than squandering it.

Performance monitoring can be done by measuring progress against a list of required actions and milestones. For example, each month the Ward Executive Officers (WEOs) or Village Executive Officers (VEOs) could document the following indicators:

- The number of meetings held with the PAPs;
- The number of complaints lodged, how many complaints are being addressed;
- The number of compensation payments made, and the number of pending payments;
- The number of houses/structures constructed, and the number pending;
- The number of PAPs relocated to their new houses/structures, and the number that still have to be relocated;
- The number of vulnerable people assisted.

#### (2) Evaluation

The overall effectiveness of the CRP with respect to meeting the needs of the PAPs must be evaluated. This should be done by an independent third party commissioned by the road authority.

The evaluation should establish whether efforts to restore the living standards of the affected population have been properly executed. It should also verify the results of performance monitoring, and identify adjustments to the C&R implementation process as required.

The evaluation must therefore assess the procedures, appropriateness and functionality of:

- Compensation procedures and amounts;
- The relocation sites;
- The C&R implementation schedule;
- Grievance mechanisms that have been set up;
- Mechanisms for assisting vulnerable groups.

The evaluation team (s) will have to review all the monitoring data that is collected. They will have to hold consultations with the PAPs, to gather information such as:

- Content of the discussions of the meetings held between the PAPs and the C&R Implementation Sub-Committee, and agreements reached;
- How the grievance redress mechanisms are functioning; and
- Whether vulnerable PAPs are being / were assisted, the kind of assistance sought by them and how it was given.

Evaluations may be carried out on a quarterly or biannual basis.

### (3) Completion Audit

The completion audit should be undertaken by an independent third party auditor. The purpose of this audit is to measure and verify the success of C&R against baseline data collected during the PAP socio-economic surveys.

A social survey may therefore have to be conducted. The information collected on the socioeconomic conditions of the affected population at the beginning of the project, before displacement (the baseline information) will be compared with that collected during the audit. Thus, any adverse or beneficial socio-economic impacts due to the resettlement process (and also due to the road project) may be determined, such as the impact on income levels, school attendance, health status, changes in land use, changes in occupation patterns, changes in settlement patterns, etc.

There are two main outcomes of such an audit: firstly it allows for lessons to be learnt, and secondly it identifies areas where further action may be needed.

The audit should be carried out at the end of the C&R process, and subsequently after five years or so.

### (4) Community Participation in Monitoring and Evaluation

The participation of PAPs in performance monitoring is also necessary. The PAPs must elect their representative to participate in the monitoring of the implementation of the CRP. They should also be involved in the identification of indicators for monitoring purposes and for the collection of relevant monitoring data.

During the evaluations, participatory meetings with the PAPs will aid in eliciting the required information in order to appraise the success of the process to date. The cooperation of the VEOs and WEOs is crucial during these evaluations.

#### 7.3.2 Disclosure of the result of monitoring

There is not a regulation on information disclosure on monitoring result.

#### 7.3.3 Procedures of measures to problems

There is not a regulation on measures and procedures when problems are identified.

## 7.4 Legal System and Procedures related to Land Acquisition and Involuntary Resettlement in Zanzibar

### 7.4.1 System of Involuntary Resettlement and Land Acquisition

Tale 7.4-1 describes laws related to land acquisition and compensation in Zanzibar.

Table 7.4-1 Laws related to Land Acquisition and Compensation in Zanzibar

No.	Name	Year established	Outline
1	Land Acquisition Decree Cap 95	Colonial period	Compensation procedures and complains ruling in regard to land acquisition
2	The Registered Land	1989	Land registration
3	The Survey Act	1989	Land survey, compensation for fruit tree
4	Land Tenure Act, No.12	1992	Compulsory acquisition, compensation at full replacement cost
5	The Land Transfer Act No.8, Amended	1994	Regulation on coastal development, etc.
6	The Land Transfer Act No.10, Amended	2007	Land transfer and long term (more than 3 years) lease
7	The Land Tribunal Act No.7	1994	Land dispute
8	The Land Tribunal Act No.1, Amended	2008	Filing a complaint to high court

## 7.4.2 Procedures of Land Acquisition and Compensation

Projects developers notify PAPs and other stakeholders about residential meetings in writing and meetings for local residents are held. Compensation on land and house are assessed. Evaluation of compensation amount for land and housing are executed by officers of evaluation section of Land and Registration Department and compensation evaluator for agricultural products of committee of research and enhancement of agricultural products in presence of projects developer, district director, officer of district office (agricultural department or land department), PAPs.

Table 7.4-2 describes roles of each department for formal contract and compensation payment in land registration department.

Table 7.4-2 Roles of each department in Zanzibar Land and Registration Department

Department		Roles
Land and Registration Department	Evaluation section	Evaluation of compensation value for land and building
	Investment section	Investment management of tourism and hotel construction etc.
	Title deed and registration section	Land registration
	Land Ranger section	Investigation of constructed housing
Land Administration and Correspondence Department	Board of Land transfer section	Supervision of land transfer
	Land tribute section	Land dispute arbitrage
Survey and Urban Planning Department		Land survey and city plan

## 7.4.3 Problems in Social and Environmental Considerations

- Compensation policy in Zanzibar is not in position to have to save PAPs adversely affected by project implementation.
- Compensation rates are unified and fixed, moreover, rates are fairly low than full replacement cost.
- Reception of complaints and their arbitrage are done by the governmental institution and independent third party is not involved, so fairness of judgment is a problem
- There is not a restoration program of livelihood.

## 7.5 Analysis of Accordance and Gaps between Current Relevant Regulations in Tanzania and JICA Guidelines for Environmental and Social Considerations as well as Safeguard Policies in the World Bank

Table 7.5-1 indicates gaps for Land Acquisition/Involuntary Resettlement between Current Relevant Regulations in Tanzania and JICA Guidelines for Environmental and Social Considerations as well as Safeguard Policies in the World Bank.

Table 7.5-1 Analysis of Gaps for Land Acquisition/Involuntary Resettlement between Current Relevant Regulations in Tanzania and JICA Guidelines for Environmental and Social Considerations as well as Safeguard Polices in the World Bank

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
<b>Land ownership</b>	<p>There are 3 laws regarding land ownership as follows:</p> <p>(1) The Land Acquisition Act, 1967: stipulates land acquisition procedures for public project</p> <p>(2) The Land Act (No.6), 1999: stipulates rights and procedures for land ownership, disposal etc.</p> <p>(3) Village Land Act (No.7), 1999: stipulates land ownership and management procedures of land which is registered as Village under Local Government (District Authorities) Act, 1982.</p>	N/A	N/A	N/A
<b>Land Owners</b>	<p>The Land Acquisition Act Article 11 stipulates that land owners are entitled to full, fair and prompt compensation. The lost asset is compensated based on present value.</p> <p>On the other hand, the law does not cover economic and social impacts of relocation</p>	N/A	<p>Para.15 Displaced persons are classified into three groups:</p> <p>(a) those who have formal legal rights including customary and traditional rights;</p> <p>(b) those who do not have formal legal rights to the land but have a claim to</p>	<p>There is no gap between Tanzania and OP4.12 as far as those with formal legal rights and those without formal legal rights are concerned. However, the lost assets in Tanzania are restricted to land and developments on land, and where srelevant, loss of profits.</p>

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
	and as such socio-economic surveys are not part of the land acquisition process.		such land or assets provided that such claims are recognized under the law of the country (c) those who have no legal rights to the land they are occupying. Land owners under categories (a) and (b) above, are among PAPs who are entitled to full, fair and prompt compensation as well as other relocation assistance. Socio-economic impacts to PAPs are taken into consideration in preparing the RAP (Resettlement Action Plan).	The loss of assets under OP4.12 are much wider than land and include loss of access to livelihoods and standard of living and seeks to improve them or at least to restore them to pre-displacement levels.
<b>Land Tenants</b>	Tanzanian law does not prescribe for compensation to tenants and does not recognize tenants as being entitled to compensation.	N/A	Tenants would be under category (b) above and are among the PAPs who are entitled to full, fair and prompt compensation and other relocation assistance.	The Tanzania spectrum is limited to those who can prove proprietary rights. It does not include tenants. WB OP 4.12 recognizes a wider spectrum of PAPs.
<b>Squatters</b>	There is not a legal regulation regarding compensation for Squatters.	N/A	Para.16 Category (c) above and are provided resettlement assistance in lieu of compensation for the land they occupy as well as other relocation assistance.	WB OP 4.12 includes squatters among the PAPs who are entitled to resettlement assistance in lieu of the land they occupy, as well as other assistance. This is different from the

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
				Tanzanian situation where such people are not entitled to any assistance.
<b>Land Users</b>	Under the Land Acquisition Act ,Article 26 ,compensation entitlement is limited to those who have legal right to land or who are able to prove to be land owner practically. Land users are not entitled to compensation.	Loss related to business is not compensated.	Para.15 (b) WB OP 4.12 includes displaced persons who have no recognizable legal right or claim the land they are occupying.	N/A
<b>Compensation based on proprietary of buildings</b>	The Land Acquisition Act, article 10 makes no differentiation between owners of permanent and non-permanent buildings. As long as ownership can be proved compensation is payable. Under the Land Acquisition Act, article 14, determination of compensation is based on the market value of the property. In practice though, the depreciated replacement cost approach is used, meaning that PAPs do not get the full replacement cost of the lost assets.	<ul style="list-style-type: none"> <li>▪ In principle, holders of formal legal right are compensated by money based on governmental official rate.</li> <li>▪ Squatters are not compensated.</li> <li>▪ Payment of costs for temporary accommodation and food incurred by displacement</li> </ul>	Under the WB OP4.12, permanent and non-permanent buildings need to be compensated. Where however, the displaced persons have no recognizable legal rights they are to be provided with resettlement assistance in lieu of compensation for the land they occupy, as well as other assistance. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.	The gap between Tanzania and WB OP 4.12 is about eligibility, which is hinged upon formal or informal ownership. While, in Tanzania, compensation is based on market value, determined using the depreciated replacement cost approach for developments on land, WB OP 4.12 requires that compensation should be sufficient to replace the lost land and other assets at full replacement cost.



	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
<b>Timing of compensation payments</b>	The Land Acquisition Act, Article 15, requires that compensation should be paid fully before proprietary right is transferred. Under National Land policy, 1997, 4.2.20, if compensation is not paid before proprietary right is transferred, paying interest rates is required with compensation requirement.	The article 56 (b) of The Land Tenure Act of 1992 stipulates that when the government repossesses land for the profits of the country, the government pay market value compensation for the land and any unexhausted improvement before occupancy right is terminated.	Para.6 (a) (iii) stipulates that displaced persons are provided prompt and effective compensation at full replacement cost for losses of assets directly attributable to the project.	In terms of timing, both Tanzanian laws and WB OP 4.12 require that compensation be paid promptly. This however, rarely happens in practice as can be testified from many projects that have involved large scale land acquisition.
<b>Calculation of compensation and valuation</b>	National Land policy, 1997, 4.2.20, stipulates that compensation for lost assets shall include the value of unexhausted improvements, disturbance allowance, transport allowance, accommodation allowance, and loss of profits. In addition, according to 4.2.19 of the policy, the basis for assessment of any land and unexhausted improvement for purposes of compensation is the market value of such land. The market value is arrived at by the use of comparative method evidence by actual recent sales of similar	The article 5 (4) of The Land Tenure Act of 1992 stipulates that compensation for easement in right of way with infrastructure for profit of the country, compensation should be paid to people concerned and community concerned based on market value equal to land and improvements lost. Also, the article 56 (b) stipulates that when the government repossesses right of occupancy for the profits of the country, compensation equal to land and development market value shall be paid before	Para.6 (a) (iii) requires that displaced persons be provided with prompt and effective compensation at full replacement cost for losses of assets attributable direct to the project. Replacement cost is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. Depreciation is not to be taken into account when applying this method. For losses that cannot be easily be valued or compensated in monetary	Tanzanian law provides for the calculation of compensation based on the market value of the land and unexhausted improvements, plus a disturbance, accommodation, and accommodation allowance, and loss of profits where applicable. Since depreciation is applied, the amount paid does not in most cases amount to that required to replace the lost assets. Besides, other types of assets (besides land) are not taken into consideration.

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
	<p>properties; or by the use of the income approach, or replacement cost method, where the property is of special nature and not saleable.</p> <p>In practice, with land an attempt is made to establish market value from recent sales, but these are usually not transparent. As for unexhausted improvements in terms of buildings and other civil infrastructure, the depreciated replacement cost approach is used.</p>	occupancy right is taken.	terms (e.g. access to public services, customers and suppliers, or to fishing, grazing or forest areas) attempts are made to establish access to equivalent and culturally acceptable resources and earning opportunities.	
<b>Relocation and Resettlement</b>	<p>Tanzanian laws do not provide for relocation and resettlement. However, there are a few cases where the government has provided both compensation and alternative land, but this has been done at its discretion. In general however, the government feels that it has discharged its duty once compensation is paid, and it is up to the displaced persons to resettle and reestablish</p>	<p>In Zanzibar, there is not a regulation about relocation or resettlement.</p>	<p>Para.6 (b)</p> <p>When project impacts include physical relocation, measures should be taken to ensure that the displaced persons are:</p> <p>(i) provided with assistance (such as moving allowance) during relocation; and</p> <p>(ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a</p>	<p>Tanzanian law provides for transport allowance for 12 tons of luggage for up to 20 km from the acquired land, provided the displaced person was living on that land. In lieu of housing accommodation allowance is made in the form of rent for 36 months. Occasionally, in a discretionary manner alternative land is awarded.</p>

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
	themselves elsewhere.		combination of productive potential, locational advantages and other factors is at least equivalent to the advantages lost.	
<b>Completion of resettlement and compensation</b>	Under the Land Acquisition Act, Article 25, the government can take possession of the acquired land at the end of the notice to acquire period (6 weeks), before paying compensation. However, there are some times that as general administrative response, proprietary right is transferred after compensation is paid.	N/A	Para.10 stipulates that it is necessary to ensure that displacement or restriction to access does not take place before necessary measures for resettlement are in place. In particular, taking of land and related assets may take place only after compensation has been paid, and where applicable, resettlement sites and moving allowance have been provided to the displaced persons.	In Tanzania, the Land Acquisition Act, 1967 allows the government to take possession of the acquired land before paying compensation. Current practice, endeavors to pay compensation before taking possession of the land.
<b>Livelihood restoration and assistance</b>	There are no legal provisions requiring the government to restore livelihood or to provide assistance towards the restoration of such livelihoods. Moreover there are no provisions that require the government to pay special attention to vulnerable groups or indigenous peoples.	There is not a legal regulation concerning governmental assistance for livelihood restoration.	Para.6 (c) provides that resettlement plan or policy include measures to ensure that the displaced persons are (i) offered support after displacement for a transitional period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standard of living; and,	In Tanzania, there are no provisions for compensation as a result of restrictions to access to livelihood. The Tanzanian law does not make provisions requiring the government to pay special attention to vulnerable groups in the administration of compensation.

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
			(ii) provided with development assistance in addition to compensation measures, such as land preparation, credit facilities, training or job opportunities.	
<b>Consultation and disclosure</b>	<p>Tanzanian laws do not stipulate clearly consultation or disclosure.</p> <p>Under the Land Acquisition Act, Article 3, the President has the right to acquire land for public purposes. Also, under the Under the article 6 of the act, public notice is issued until 6 weeks before land acquisition. Under the article 9 of the act, proprietary has right to refute.(However, the article 10-2 of the act, does not approve the right stipulated by the article 9 in urban area.)Also, the article 11-2 stipulates that the amount of compensation shall be accorded with proprietary. However, resettlement sites are not provided legally, and</p>	<p>There is not a legal regulation concerning residential consultation about selection of resettlement sites in Zanzibar.</p>	<p>Para.6 (a) (i) (ii) requires that displaced persons are (i) informed about their options and rights pertaining to resettlement; and, (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives.</p>	<p>The provisions in WB OP4.12 requiring consultation and disclosure have no equivalent in Tanzanian law and practice.</p>

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
	consultation or disclosure in this regard are not stipulated.			
<b>Grievance mechanism and dispute resolution</b>	<p>Under article 13 of the Land Acquisition Act, where any land is acquired under the Act and there is a dispute or disagreement relating to any of the following (a) - (f), and such dispute or disagreement is not settled by the parties concerned within six weeks from the date of the publication of notice that the land is required for a public purpose, the Minister or any person holding or claiming any interest in the land may institute a suit in the Court for the determination of the dispute.</p> <p>Suits shall be appealed according to Civil Procedure Code 1966, the courts shall rule the suits.</p> <p>(a) the amount of compensation  (b) the right to acquire the land  (c) the identity of persons entitled to compensation</p>	<p>The final decision is made by land dispute division (excluding courts).</p> <p>The article 6 of the Land Tenure Act No.12 of 1999 stipulates that Disputes about easement is resolved by the Land Tribunal (The Land Tribunal Act NO7 of 1994) and other relevant laws.</p> <p>As for land disputes such as easement, not resolved by the above procedure are proceeded by the procedures based on the Land Adjudication Act.</p>	<p>Para.13 (a) provides that displaced persons and their communities, and any host communities receiving them, are provided with timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning implementing and monitoring resettlement. Appropriate and accessible grievance mechanisms must be established for these groups.</p>	<p>The law in Tanzania does not provide for the establishment of grievance resolution mechanisms specific to particular resettlement cases.</p>

	<b>Tanzanian Law</b>	<b>Laws in Zanzibar</b>	<b>World bank OP 4.12</b>	<b>Comparison/Gaps between Tanzanian Law and World Bank OP 4.12</b>
	(d) the application of the article 12 ( which regulates restriction on compensation ) to the land (e) any right privilege or liability conferred or imposed by this Act			

Source: World Bank Resettlement Policy Framework Template, Tanzania

## **Chapter 8**

# **Legal System and Procedure of Indigenous People Consideration**





## Chapter 8 Legal System and Procedure of Indigenous People Consideration

In Tanzania, there is no concept of “Indigenous People” although a concept of “tribe” does exist. Currently, it is estimated that there are more than 120 tribes. Because it could lead to discrimination, no national census has been conducted on tribes since 1970’s when the last census was conducted. Therefore, there is no up-to-date information available on the exact number of people who belong to the each tribe. Some examples are shown in Table 8.1-1. In Ngorongoro Conservation Area (NCA), the fundamental livelihood of Maasai is considered.

Table 7.5-1 Example of Tribe in Tanzania

Name	Characteristics
Hadzabe	The Hadzabe (Hadza, sing.) number approximately 1,200 to 1,500 people and inhabit an area of northern Tanzania commonly referred to as the Lake Eyasi Basin, an area that covers 1,500 sq km. They pursue a seminomadic hunting-gathering lifestyle but, in recent years, some Hadzabe have taken up small-scale agriculture and trading with neighbours
Barabaig	The Barabaig is found in Hanang District of northern Tanzania whose headquarters is Katesh. Many have been displaced and since no plans were made for resettlement, the Barabaig were forced to move southwards
Maasai	The Maasai are found in southern Kenya and stretch to northern Tanzania. In Tanzania, they are essentially found in 4 districts of Arusha region: Monduli, Simanjiro, Kiteto and Ngorongoro. The Baraguyu (Iparakuyio), who are a sub-section of the Maasai, were originally in Handeni but are also scattered in 9 other districts outside the region.

Source: AfDB’s “Report of the African Commission’s Working Group of Experts on Indigenous Populations/Communities”



## **Chapter 9**

# **Environmental and Social Considerations of the Project supported by Other Donors**



## Chapter 9 Environmental and Social Considerations of the Project supported by Other Donors

### 9.1 World Bank

#### 9.1.1 Policy and Legal Framework

The legal and policy framework requires all donors to take into consideration environmental and social considerations during the implementation of their projects. For example, World Bank and other bilateral organizations have taken these issues very seriously in their various development projects. For example, the World Bank in its “Regional Health Systems Strengthening and TB Support Project” in Tanzania, Kenya and Uganda (2009) prepared a detailed Environmental and Social Management Framework (ESMF) to ensure proper assessment and mitigation of potential adverse environmental and social impacts, for the construction and rehabilitation of the laboratories. It included issues related to operation of the laboratories and those which need to be addressed for laboratory waste management. Among other things, the ESMF outlined an environmental and social screening process, focusing on the completion of the Environmental and Social Screening Form. It included an Environmental and Social Management Plan (ESMP), guidelines for monitoring and development of appropriate monitoring indicators, capacity building measures for environmental management and cost estimates for the environmental work. It also included Environmental Guidelines for Contractors, a summary of the Bank’s Safeguard Policies, an Environmental and Social Checklist and Generic EIA TOR.

#### 9.1.2 Actual States and Problems concerning EIA Implementation

Useful information was not acquired at the current time after the World Bank’s homepage investigation and interview with the World Bank’s Tanzania office.

#### 9.1.3 Actual States and Problems concerning Land Acquisition and Involuntary Resettlement

Refer to 7.5.

#### 9.1.4 Monitoring

Useful information is not acquired at the current time after the World Bank’s homepage investigation and interview with the World Bank’s Tanzania office

#### 9.1.5 Actual states of information disclosure during formulation, review and execution of projects

Monitoring of the implemented project is carried out under the responsibilities of project actors based on the monitoring plan included in EIA or RAP etc. In addition, the World Bank verifies its results. The World Bank considers the long-term influence after the project accomplishment as their problem as well and makes efforts to solve these problems. As general procedure, operational risk assessment framework (all risks and sustainability including political problem or safeguards) is included in the project document, which is submitted to the board of the World Bank, and the risks and their countermeasures are confirmed before approving projects.

## 9.2 The African Development Bank (AfDB)

### 9.2.1 AfDB's Safeguard Policy and Guidelines

#### (1) AfDB's Safeguard Policy

The two policy documents are applied in Bank work regarding Environmental and Social safeguard. The Bank has no Indigenous People's (IP) Policy.

- (a) AfDB Group's Policy on the Environment (February, 2004)
- (b) Involuntary Resettlement Policy (November, 2003)

#### (2) AfDB's Guidelines on Safeguard Issues

AfDB used the various policies and guidelines. Under (c) the Annex 1 of Environmental and Social Assessment Procedures for African Development Bank's Public Sector Operations, June 2001 (ESAP) refers to SESA not necessarily SIA.

- (a) ESAP
- (b) Integrated Environmental and Social Impact Assessment Guidelines (October, 2003)
- (c) Bank Group's Guidelines for Strategic Impact Assessment (2003) (Annex 1 of ESAP 2001)
- (d) Cooperation with Civil Society Organizations Policy and Guidelines (September, 2001)
- (e) Handbook on Stakeholder Consultation and Participation in ADB Operations (2001)

AfDB currently focuses on Environment and resettlement.

#### (3) Critical Safeguard Issues

The current and emerging critical issues and/or difficulties on environmental and social safeguard in the stage of formation and implementation of assistance projects in Tanzania are as follows.

- (a) Areas related to climate change,
- (b) Issues dealing carbon emissions (standards and measurements),
- (c) Capacity for implementation and monitoring of safeguards,
- (d) Meeting the resettlement and compensation budgets on a timely manner,
- (e) Ensuring sustainable livelihoods of resettled communities.

#### (4) AfDB's Practices to fill the gaps between Safeguard Policy and Local Legislations

AfDB's practices on how to fill the gap are as follows.

- (a) The criteria adopted for social screening is embedded in Annex 7 (Environmental and Social Screening).
- (b) It is a requirement that an annex on public consultations be presented to the ESIA and RAP reports carried out in line with the ESAP Guidelines (Annex 16).
- (c) The Bank policy does not exclude those who may have no legal rights to property. Secondly, the Bank requires that full replacement cost be applied during compensation without depreciation.
- (d) The Bank policy requires that the Project Affected People (PAP) be assisted with relocation including providing psycho-social support. In Tanzania, compensation includes some allowances for settling in, transportation and opportunity cost on businesses or rents. Those without legal titles will be compensated not for land but for assets and may also be assisted in resettling.

## 9.2.2 Independent Review Mechanism (IRM)

### (1) Purpose and Mandate

The purpose of the IRM 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. The IRM undertakes Compliance Review and Mediation (problem solving) for Public and Private Sector projects. For Public Sector, the mechanism 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

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.

### (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 shall include:

- Draft Terms of Reference (TOR) 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 TOR and timeframe. Upon receipt of the Compliance Review Report by the President or the Boards of Directors, the Bank's Management 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.

### 9.2.3 Procedure of Information Disclosure regarding projects

The Bank requires that both the project sponsors and the Bank disclose information about the project during preparation. As for the Bank, the Policy states that for all category 1 projects, the ESIA Executive Summary with the RAP should be disclosed for 120 days before the project is presented to the Board; for category 2 projects the requirement is that an Executive Summary of the ESMP and RAP or Abbreviated RAP be disclosed for 30 days; while for projects falling under the private sector window be disclosed for 60 days. The disclosure is through the Bank's website, Bank's Public Information Center (PIC) and the Field Office in the country where the project will be implemented. Disclosure in Kenya and Tanzania is a requirement by NEMA and the National Environment Management Council (NEMC) to announce the intended project in the press and provide information where the documents would be accessed. This may, if required be accompanied by public hearing especially in cases of Full Resettlement Plan (FRP).

### 9.2.4 Procedure of Monitoring and Supervision on Compliance with EMP and FRP

The Bank requires that for each ESIA and FRP be a monitoring program arranged and budgeted for. The guidelines for the ESMP are presented in Annex 15 of ESAP. The ESMP and FRP be monitored throughout period of implementation by firstly the project sponsor who should, with the assistance of the Consultants implementing the ESMP and the FRP, produce quarterly reports which will have monitoring indicators. In case of FRP, the Bank requires that an independent entity be recruited to conduct an evaluation of the resettlement and compensation activities. The Bank conducts regular supervision missions to monitor and validate what the quarterly reports have presented.

### 9.2.5 Gender and Climate Change

#### (1) Concept Note on Gender and Climate Change

The Bank is in the process of developing a policy on Gender and Climate change. Currently a Concept Note has been developed whose objective is to:

- 1) inform the Bank and RMC's about the challenges and opportunities of gender and climate change agenda;
- 2) encourage reflection on the comparative advantage of the Bank to contribute to this agenda effectively and,
- 3) identify the areas and priorities of intervention on Gender and Climate change in the Bank.

The interventions shall look at both adaptation and mitigation measures.

#### (2) Gender and Climate Change

The recognition of gender vulnerabilities, both by the third report 2007 of the Intergovernmental Panel on Climate Change (IPCC) and the Human Development Report of UNDP in 2007 is an indication that the international dialogue on climate change has begun to respond to the gender dimensions associated with climate change.



## Appendix

Table Appendix-1 Gaps between Relevant Regulations in Tanzania and JICA Guidelines as well as Safeguard Policies in the World Bank – Natural Habitat

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	The mechanisms to bridge gaps
<b>Definition</b>						
<b>Definition of critical natural habitat and critical forest area</b>	N/A	<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, vulnerable, 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.</p> <p>Critical forest areas are the forest areas that qualify as critical natural habitats under OP 4.04, Natural Habitats.</p>	<p>(1) A national forest reserve may be</p> <p>(a) an area of land covered by forest, reserved or used principally for purposes of sustainable production of timber and other forest products known as production forest reserve;</p> <p>(b) an area of land covered by forest, reserved or used principally for the purposes of protection of water sheds, soil conservation and the protection of wild plants, known as protection forest reserve; or</p> <p>(c) an area of land covered by forest reserved used principally to protect nature and scenic areas of national or international significance and to maintain and enhance bio-diversity and genetic resources in an undisturbed, dynamic and evolutionary state known as a nature forest reserve.</p> <p>(2) A national forest reserve may consist of a production forest reserve, a protection forest reserve, and a nature forest reserve for the purpose of production, protection and a nature forest reserve.</p> <p>(3) A local authority forest reserve shall be an area of land covered by forest reserved or used principally for purpose of the</p> <p>(a) sustainable production of timber and other forest products;</p> <p>(b) protection of watersheds soil conservation and the protection of wild plants, known as a local authority protection of forest reserve; or</p> <p>(c) an area of land covered by forest reserved for the local authority.</p>	N/A	N/A
<b>Definition of significant conversion</b>	N/A	<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 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 channelization of wetlands; or surface mining. In both terrestrial and aquatic ecosystems, conversion of natural habitats can occur as the result of severe pollution.</p>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Definition of degradation</b>	N/A	<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>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
<b>Definition of appropriate conservation and mitigation measures</b>	N/A	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Core principle</b>						
<b>Impacts to be Assessed</b>	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 environmental assessment (EA) for an 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 environmental assessment (EA) for an 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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Compliance with relevant Laws, Standards, and Plans</b>	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.	No permit shall be granted unless the activity in respect of which the permit is applied for is in compliance with any other written laws pertaining to the environment or land which are applicable to that forest reserve.	N/A	N/A
<b>Projects involving significant conversion or significant degradation of critical natural habitats and critical forests</b>	Projects must not involve significant conversion or significant degradation of critical natural habitats and critical forests.	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)	Projects must not involve significant conversion or degradation of critical natural habitats and critical forests.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
<b>Projects involving significant conversion or significant degradation of natural habitats and forests (not critical)</b>	N/A	<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 the Bank determines are not critical, and the Bank 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, the Bank may finance the project provided that it incorporates appropriate mitigation measures. (OP4.36)</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.</p> <p>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>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Site selection</b>	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)	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 the environmental costs. (OP4.04)	<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 JICA's opinion were converted in anticipation of the project).</p>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Expertise</b>	N/A	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
<b>Project Environmental Review</b>						
<b>Plantation</b>	N/A	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Commercial harvesting</b>	N/A	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)	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Requirements for forest certificate</b>	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. (Appendix 1. 6-2)	To be acceptable to the Bank, a forest certification system must require: a) compliance with relevant laws; 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. In addition to the requirements in paragraph above, a forest certification system must be	Project proponents etc. are encouraged to obtain certification by forest certification systems as a way to ensure the prevention of illegal logging. To be acceptable to JICA, a forest certification system must require: a) compliance with relevant laws; 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	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
		<p>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. (OP4.36)</p>	<p>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 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><b>Harvesting by small-scale landholders</b></p>	<p>N/A</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> <p>(a) 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> <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>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> <p>(a) 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> <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>N/A</p>	<p>There are gaps described in harmonized policy.</p>	<p>Consultation with governmental policymakers</p>

Table Appendix-2 Gaps between Relevant Regulations in Tanzania and JICA Guidelines as well as Safeguard Policies in the World Bank – Physical Cultural Resources

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	The mechanisms to bridge gaps
<b>Objective</b>						
<b>Avoid or mitigate adverse impact on physical cultural resources</b>	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)	The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects. (3)	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Compliance with national legislations and international treaties</b>	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. 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)	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 World Heritage Convention). (3) 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)	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 World Heritage Convention)	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Definition of physical cultural resources</b>	N/A	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)	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Core Principles</b>						
<b>Categorization</b>	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. <u>Sensitive Characteristics</u> (1) Large-scale involuntary resettlement (2) Large-scale groundwater pumping (3) Large-scale land reclamation, land development, and land clearing (4) Large-scale logging <u>Sensitive Areas</u>	Following projects are classified as Category A or B, and are subject to the provisions of this policy: (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. 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)	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. <u>Sensitive Characteristics</u> (1) Large-scale involuntary resettlement (2) Large-scale groundwater pumping (3) Large-scale land reclamation, land development, and land clearing (4) Large-scale logging <u>Sensitive Areas</u>	Categories are based on world bank OP4.01.	N/A	N/A

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	The mechanisms to bridge gaps
	<p>Projects in the following areas or their vicinity:</p> <p>(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)</p> <p>(2) Areas that are thought to require careful consideration by the country or locality</p> <p><u>Social Environment</u></p> <p>a) Areas with unique archeological, historical, or cultural value</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. (Sec.2/2.2/2, Sec.2/2.2/3, Appendix 3)</p>		<p>Projects in the following areas or their vicinity:</p> <p>(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)</p> <p>(2) Areas that are thought to require careful consideration by the country or locality</p> <p><u>Social Environment</u></p> <p>a) Areas with unique archeological, historical, or cultural value</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>			
<b>Environmental Assessment</b>	<p>The impacts to be assessed with regard to environmental and social considerations include social impacts, such as cultural heritage. (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 relevant project-affected groups, identifies the likely physical cultural resources issues, if any, to be taken into account by the EA. The TORs normally specify that physical cultural resources be included in the baseline data collection phase of the EA. (6)</p> <p>The borrower assesses the project's potential impacts on likely affected physical cultural resources as an integral part of the EA process, in accordance with the Bank's EA requirements. (7)</p> <p>The borrower identifies appropriate measures for avoiding or mitigating these impacts as part of the EA process. These measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost. (8)</p> <p>The Bank reviews, and discusses with the borrower, the findings and recommendations related to the physical cultural resources aspects of the EA, and determines whether they provide an adequate basis for processing the project. (10)</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 relevant project-affected groups, identifies the likely physical cultural resources issues, if any, to be taken into account by the environmental and social considerations. The TORs normally specify that physical cultural resources be included in the baseline data collection phase of the environmental and social considerations.</p> <p>The project proponents etc. assess the project's potential impacts on likely affected physical cultural resources as an integral part of the EA process, in accordance with the Bank's EA requirements. (7)</p> <p>The project proponents etc. identify appropriate measures for avoiding or mitigating these impacts as part of the environmental and social considerations process. These measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.</p> <p>JICA reviews, and discusses with the project proponents etc., the findings and recommendations related to the physical cultural resources aspects of the EA, and determines whether they provide an adequate basis for processing the project. (10)</p>	<p>The objective of any EIA shall be to establish before a decision is taken by any person, authority, corporate body or unincorporated body including the government and local government authorities intending to undertake or authorities the undertaking of any activity impacts that may likely or to a significant extent affect the environment or have environment effects on those activities.</p>	N/A	N/A



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	The mechanisms to bridge gaps
<b>physical cultural resources management plan</b>	<p><u>Illustrative EIA Report for Category A Projects</u></p> <p>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 EMP.</p>	<p>The EIS (EIA report) for category A project should include 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>The EIS includes EMP.</p>	N/A	N/A
<b>Involvement of stakeholders (Consultations)</b>	<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.</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary.</p> <p>JICA encourages project proponents etc. to prepare minutes of their meetings after such consultations occur. (Sec.2/2.4/1, 4, 5, 6)</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.</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.</p> <p>In the case of Category B projects, JICA encourages project proponents etc. to consult with local stakeholders when necessary.</p> <p>JICA encourages project proponents etc. to prepare minutes of their meetings after such consultations occur.</p>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Capacity Building</b>	<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. (Sec.1/1.5)</p>	<p>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)</p> <p>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)</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 JICA guidelines, depending on the nature of cooperation projects.</p>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
<b>Information Disclosure</b>	<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>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. (Sec.2/2.1/1, 6)</p>	<p>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)</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; 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.</p> <p>Any separate Category B report for a project is made available to project-affected groups and local NGOs.</p> <p>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)</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 EISs and environmental permit certifications 120 days prior to concluding agreement documents. JICA discloses a translated version of EISs, subject to approval by project proponents etc.</p> <p>For Category B project, JICA discloses EISs and environmental permit certifications, when these documents are submitted by project proponents etc.</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>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Monitoring</b>	<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>	N/A	<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>	The NEMC shall, in consultation with the relevant sector Ministry of government agency, monitor all environmental criteria and phenomena with a view to making an assessment of any possible changes in the environment and their possible impact.	N/A	N/A

Table Appendix-3 Gaps between Relevant Regulations in Tanzania and JICA Guidelines as well as Safeguard Policies in the World Bank – Indigenous Peoples

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	The mechanisms to bridge gaps
<b>Objective</b>						
<b>Term</b>	N/A	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."	N/A	N/A	N/A
<b>Characteristics of Indigenous Peoples</b>	N/A	<p>“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:</p> <p>(a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;</p> <p>(b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories</p> <p>(c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and</p> <p>(d) an indigenous language, often different from the official language of the country or region.</p>	<p>“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:</p> <p>(a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;</p> <p>(b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories</p> <p>(c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and</p> <p>(d) an indigenous language, often different from the official language of the country or region.</p>	N/A	N/A	N/A
<b>Objective</b>	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.	N/A	N/A	N/A
<b>Project Preparation</b>						
<b>Screening</b>	N/A	<p>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.</p>	<p>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.</p>	N/A	N/A	N/A

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	The mechanisms to bridge gaps
<b>Categorization</b>	<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>	No categorization system	<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>	N/A	N/A	N/A
<b>Indigenous Peoples Plan</b>	<p>For some Category A projects that will require the measures for indigenous people, an IPP must be submitted. 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 Indigenous Peoples Planning Framework (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>	N/A	N/A	N/A
<b>Social Assessment</b>	N/A	<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> <ul style="list-style-type: none"> <li>(a) the customary rights of the Indigenous Peoples, both individual and collective;</li> <li>(b) the need to protect such lands and resources against illegal intrusion or encroachment;</li> <li>(c) the cultural and spiritual values; and</li> <li>(d) Indigenous Peoples’ natural resources management practices and the long-term sustainability if such practices.</li> </ul>	<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> <ul style="list-style-type: none"> <li>(a) the customary rights of the Indigenous Peoples, both individual and collective;</li> <li>(b) the need to protect such lands and resources against illegal intrusion or encroachment;</li> <li>(c) the cultural and spiritual values; and</li> <li>(d) Indigenous Peoples’ natural resources management practices and the long-term sustainability if such practices.</li> </ul>	N/A	N/A	N/A

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	The mechanisms to bridge gaps
<b>Free, prior, and informed consultation.</b>	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.	Where the project affects Indigenous People, the borrower engages in free, prior, and informed consultation with them. 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. Where the affected Indigenous Peoples' communities provide their broad support to the project, the borrower prepares a detailed report.	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. 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. Where the affected Indigenous Peoples' communities provide their broad support to the project, the borrower prepares a detailed report.	N/A	N/A	N/A
<b>Preparation of Program and Subproject IPPs</b>	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.	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.	For Category A sub-projects, end-users shall carry out a social assessment and prepare IPP prior to their implementation	N/A	N/A	N/A
<b>Disclosure</b>	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.	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.	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.	N/A	N/A	N/A
<b>Grievance procedures</b>	Appropriate and accessible grievance mechanisms must be established for PAPS and their communities.	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.	Appropriate and accessible grievance mechanisms must be established for PAPS 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.	N/A	N/A	N/A
<b>Monitoring</b>	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.	N/A	N/A	N/A

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	The mechanisms to bridge gaps
<b>Special Considerations</b>						
<b>Commercial Development of Natural and Cultural Resources</b>	N/A	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.	N/A	N/A	N/A
<b>Physical Relocation of Indigenous Peoples</b>	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, PAPs 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.	N/A	N/A	N/A
<b>Indigenous Peoples and Development</b>	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 if 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 PAPs to participate more effectively in project operations.	N/A	N/A	N/A

Table Appendix-4 Gaps between Relevant Regulations in Tanzania and JICA Guidelines as well as Safeguard Policies in the World Bank – Involuntary Resettlement

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	The mechanisms to bridge gaps
<b>Objective</b>						
<b>Avoid involuntary resettlement</b>	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Minimize involuntary resettlement</b>	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Mitigate adverse social impacts</b>	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 Land Acquisition Act, the Land Act 1999 and the Village Land Act 1999 have it clearly that land owners, with or without formal legal rights, are entitled to full, fair and prompt compensation. They also get disturbance allowance, transport allowance, accommodation allowance and loss of profit if they were in actual occupation of the acquired property. Lost assets are limited to “unexhausted improvements”, that is the land and developments on the land. There are no legal provisions requiring the government to restore livelihood or to provide assistance towards the restoration of such livelihoods.	There are no legal provisions requiring the government to restore livelihood or to provide assistance towards the restoration of such livelihoods.	Consultation with governmental policymakers
<b>Core principle</b>						
<b>Screening</b>	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.	N/A	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Categorization</b>	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	Categorize impacts by “significance”	N/A	N/A
<b>Resettlement Plan</b>	For projects that will result in large-scale involuntary resettlement, RAPs must be prepared and made available to the public. In preparing a RAP, consultations must be held with PAPs 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	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 resettlement plan (CRP) will be prepared.	N/A	N/A

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	The mechanisms to bridge gaps
		residential housing, or housing sites, or as required agricultural sites; offered transitional support; provided with development assistance in addition to compensation.	compensation, and rehabilitation will be included in the presentation of the costs and benefits of the development intervention.			
<b>Alternatives</b>	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Social Assessment</b>	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) or involuntary restriction of access to legally designated parks and protected areas.	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Involvement of stakeholders</b>	Appropriate participation by PAPs and their communities must be promoted in the planning, implementation, and monitoring of RAPs 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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Existing social and cultural institutions</b>	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers



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	The mechanisms to bridge gaps
<b>Definition of displaced persons</b>	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.	<p>1) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);</p> <p>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</p> <p>3) those who have no recognizable legal right or claim to the land they are occupying.</p>	<p>1) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);</p> <p>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</p> <p>3) those who have no recognizable legal right or claim to the land they are occupying.</p>	<p>Squatters may be paid compensation on the whims of the government.</p> <p>In some cases however they are not paid. This include those who construct on road reserves</p>	<p>Squatters may be paid compensation on the whims of the government.</p> <p>In some cases however they are not paid. This include those who construct on road reserves</p>	Consultation with governmental policymakers
<b>Vulnerable group</b>	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers
<b>Replacement Cost</b>	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	<p>According to the Land Assessment of the value of Land for Compensation) Regulations, 2001, as well as the Village Land Regulations, 2001, compensation for loss of any interest inland shall include the value of unexhausted improvements, disturbance allowance, transport allowance, accommodation allowance, and loss of profits.</p> <p>The basis for assessment any land and unexhausted improvement for purposes of compensation is the market value of such land.</p> <p>The market value is arrived at by the use of comparative method evidenced by actual recent sales of similar properties; or by the use of the income approach, or replacement cost method, where the property is of special nature and not saleable.</p>	N/A	N/A
<b>Capacity Building</b>	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 PAPs to participate more effectively in resettlement operations.	<p>Assist in building capacity of DMCs on best practice on involuntary resettlement planning and implementation</p> <p>Financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of PAPs to participate more effectively in resettlement operations.</p>	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
<b>Grievance procedures</b>	Appropriate and accessible grievance mechanisms must be established for PAPs and their communities.	A grievance redress mechanisms for simplicity, accessibility, affordability, and accountability	A grievance redress mechanisms for simplicity, accessibility, affordability, and accountability	Under s. 13 of the Land Acquisition Act, where there is a dispute or disagreement relating to any of the following matters: (d) the amount of compensation; (e) the right to acquire the land; (f) the identity of persons entitled to compensation; (g) the application of section 12 to the land; (h) any right privilege or liability conferred or imposed by this Act; (i) the apportionment of compensation between the persons entitled to the same and such dispute or disagreement is not settled by the parties concerned within six weeks from the date of the publication of notice that the land is required for a public purpose the Minister or any person holding or claiming any interest in the land may institute a suit in the High Court of Tanzania for the determination of the dispute.  In practice the government tries to resolve grievances through public meetings of the affected persons.	N/A	N/A
<b>Information Disclosure</b>	For projects that will result in large-scale involuntary resettlement, RAPs must be prepared and made available to the public. In preparing a RAP, consultations must be held with PAPs 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.	There scanty provisions related to consultation and disclosure in Tanzanian law.  The notice, under the Land Acquisition Act, informs land owners about the President's need to acquire their land, and their right to give objections. The Land Act allows displaced persons to fill in forms requiring that their land be valued, and giving their own opinion as to what their assets are worth.  Since resettlement is not provided for legally, there are no provisions about informing the displaced persons about their options and rights; nor are they offered choice among feasible resettlement alternatives.	There scanty provisions related to consultation and disclosure in Tanzanian law.	Consultation with governmental policymakers

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	The mechanisms to bridge gaps
<b>Monitoring</b>	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.	N/A	There are gaps described in harmonized policy.	Consultation with governmental policymakers