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**ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT SUMMARY – TANZANIA
MAINLAND ROADS (Tabora Koga Mpanda Road and Mbinga Mbamba Bay)**

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ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

SUMMARY – TANZANIA MAINLAND ROADS

Project Title: Tanzania Transport Sector Support Program – Tabora Koga Mpanda Road and Mbinga – Mbamba Bay Road

Project Number: P-TZ-D00-002

Country: Tanzania

Department: OITC

Division: OITC.2

Project Category: Category 1

1. INTRODUCTION

The Government of the United Republic of Tanzania is intending to upgrade two road sections; the 342.9km Tabora (Pangale)-Koga -Mpanda (TKM) road and 67 km road section from Mbinga to Mbamba Bay to Bitumen standard. The Tabora-Koga-Mpanda project road runs through two regions of Tabora and Katavi while passing through three districts of Sikonge, Mlele and Mpanda whereas Mbinga – Mbamba Bay road is in Ruvuma region, passing through Mbinga and Nyasa Districts. The project roads are un-engineered earth/gravel roads which are in fair/poor condition and are impassable during the rainy season. The traffic on the project roads are suppressed due to the poor condition of the roads but they are envisaged to generate more traffic after the road upgrading.

TANROADS commissioned M/S COWI A/S in association with COWI Tanzania and M/S Apex Engineering Co LTD to carry out Feasibility Study, Environmental & Social Impact Assessment, Detailed Engineering Design and Preparation of Tender Documents for Upgrading of Tabora - Koga - Mpanda Road in 2009. The studies were completed in 2012 and due to limited financing the Government of Tanzania (GOT) commissioned China Chongqing International Construction Corporation to construct the Tabora – Pangale (30Km) road section which is part of Tabora – Koga – Mpanda Road. In 2008, TANROADS embarked upon the upgrading of Peramiho junction – Mbinga – Mbamba Bay road (144 Km) to bitumen standard. TANROADS commissioned the M/S UWP Consulting (Pty) Ltd South Africa in Association with UWP Consulting (T) to carry out Detailed Engineering Design including the environmental and social impact assessments of the 144 km road. In 2009, the MCC showed an interest to fund part of the project road. The road section which was funded for construction was Peramiho junction – Mbinga (78 Km) road to bitumen standard from year 2010 to year 2013.

In September 2014, the Government of the United Republic of Tanzania requested the African Development Bank (AfDB) to finance the upgrading of the remaining 342.9Km road section from Pangale to Mpanda and the remaining 67 km from Mbinga to Mbamba Bay road sections. The ESIA studies were updated by TANROADS to comply with the Bank’s requirements in March 2015.

According to AfDB environmental screening guidelines, projects involving upgrading and rehabilitation of major roads, are classified Category 1, and these require detailed environmental and social impact assessment. Similarly, according to the requirements of Tanzania’s Environmental Management Act No. 20 of 2004, the proposed project is under the list of projects requiring an Environmental Impact Assessment. In compliance with the Environmental Impact Assessment and Audit Regulations 2005, Part III – Regulation 5, a Project Brief was prepared for

each road section to facilitate registration of the project. NEMC's screening decision indicated that the Environmental Impact Assessment is required.

The ESIA studies for each road were therefore carried out in fulfilment of these requirements. The ESIA studies were submitted to the National Environment Management Council in 2011 for review and disclosure to the general public in accordance with the EIA and Audit regulations, 2005. This ESIA Summary has been prepared from the project documents in accordance with AfDB's Environmental and Social Assessment Procedures (ESAP). In addition, over 200 persons will be involuntarily displaced by the project. A full Resettlement Action Plan (RAP) has been prepared and is included as Annex 1.

2. POLICY LEGAL AND ADMINISTRATIVE FRAMEWORK

The construction of Tabora (Pangale) – Koga – Mpanda road section and Mbinga-Mbamba Bay road section comes at the time when Tanzania's many policies, strategies and laws governing environmental management are in place. The relevant national policies and legal framework were reviewed to provide guidance to the planning and implementation of the road project. The Constitution of Tanzania defines the legal context in which all aspects of human development for Tanzanians, including land matters can operate. The Constitution is the Principal Law of the land and, for instance, defines land ownership in Tanzania by placing it under the custodianship of the President. Other matters follow from this main law as defined in specific locations.

As far as management of the environment is concerned, there are the National Environment Policy (NEP) supported by The Environment Management Act No. 20 of 2004 (EMA) which by and large govern the management and conservation of the environment in the country. The NEP promotes the use of EIA's as a planning tool that integrates environmental issues into the planning process. The EMA governs environmental management issues including Environmental Impact Assessment (EIA) requirements in the country. Part VI of the EMA deals with EIA and directs that EIA is mandatory for all development projects. Section 81(2) states that "An Environmental Impact Assessment study shall be carried prior to the commencement or financing of a project or undertaking".

Part III, Section 13(1) states that the Minister responsible for environment shall be the overall in-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 the environment in Tanzania. The functions of NEMC as per the EMA are mentioned in Sections 17 and 18, and include undertaking enforcement, compliance, review and monitoring of environmental impact assessments. NEMC shall specifically review and recommend to the Minister responsible for environment for approval of Environmental Impact Statements. For Occupational Health and Safety matters, the Department of Occupational Health and Safety Services (DOHSS) is the regulatory agency. For Climate Change issues, the Directorate of Environment in the VP Office and NEMC are involved in climate change mainstreaming in projects.

Land Acquisition and Expropriation: The legal framework for resettlement is first and foremost based on the following articles of the Constitution of the United Republic of Tanzania (1977): Article 24 (1): Subject to provisions of the relevant laws of the land, every person is entitled to own

property, and has a right to the protection of his property held in accordance with law. Article 24 (2): It shall be unlawful for any person to be deprived of property for the purposes of nationalization or any other purposes without the authority of law which makes provision for fair and adequate compensation. Therefore, payment of compensation is both a legal and constitutional right under Article 24 of the Constitution.

The Land Acquisition Act N° 47 of 1967, Land Act No 4 of 1999 and Village Land Act N° 5 of 1999, establish among other aspects, the conditions under which expropriation and resettlement for public infrastructure projects will take place. As applicable to this project, expropriation under these legal instruments will be a responsibility of TANROADS that must proceed with valuation of properties eligible for compensation and must establish the value of complementary allowances for affected peoples, making the necessary budgetary allocations.

To-date sectoral policies, strategies, programmes, plans and the legal framework including the management of activities have been framed to take into account the environmental concerns. Overall, the law must ensure that project activities are undertaken in compliance with the policy requirements.

The African Development Bank's Integrated Safeguards System has been reviewed. The roads exceed the Bank threshold of 50Km and there are likely to be significant disturbance and impacts on the traders, businesses and settlements along the road corridor hence Operational Safeguards (OS) 1 on Environmental Assessment and OS2 on Involuntary Resettlement are triggered. The project road will largely follow the existing gravel/earth roads which are regularly maintained by TANROADS. As such, the environment along the corridor shall not be modified hence OS 3 on Biodiversity is not triggered. OS 4 on Pollution Prevention and Hazardous Substances is triggered since construction will involve use of fuels and possibly some hazardous materials. OS 5 on Labour, Working Conditions, Occupational Health and Safety is triggered since the construction will involve a significant number of construction workers. On Climate Change, the project has been classified as Category 2 according to the Bank's Climate Safeguards System. This implies that the proposed project could be at risk from climate change and further review is therefore required to consider broad climate trends and identify practical risk management and adaptation measures that should be integrated into the project design and implementation plans.

3. PROJECT DESCRIPTION AND JUSTIFICATION

Tabora – Koga – Mpanda Road upgrading has generally been designed along the alignment of the existing road with limited improvement of some 40 - 50 substandard horizontal curves. In addition, bypasses are proposed at Inyonga (km 225.0 - 230.0), Sikonge (km 67.5 - 75.0) and Uruwira (km 316 - 320.5). The three proposed bypasses at Sikonge, Inyonga and Uruwila are designed to shorten the distances and avoid demolition of properties located along the road.

The Mbinga – Mbamba Bay road is expected to be bituminized making the road passable throughout the dry and rainy seasons. Certainly it will cut down the distance; improve the accessibility from one place to another and allow transportation of small and big trucks from and to Songea. Alignment of the road sections will virtually follow the existing road with a re-alignment to bypass Mbinga Town proposed to avoid demolition of settlements. In addition, there is a very wide corner at

Lipumba that is proposed to be realigned through Kambi ya ujenzi in order to reduce the distance by about 2km.

During the Construction Phase the following activities will take place: (a) Earthworks will primarily involve construction of embankments including the widening of existing embankments. (b) Rock excavation (only for less than 1 km length of the road). (c) Subbase construction by selected natural gravel from borrow areas on the Tabora - Inyonga section (Lot 1 and Lot 2). (d) Cement improved subbase course on the Inyonga - Mpanda section (Lot 3). (e) Crushed aggregate base course construction on the entire road length. (f) Application of prime coat. (g) Double bituminous surface dressing on the 6.5m wide carriageway for the entire road length. (h) Single bituminous surface dressing on 2.5m wide shoulders in town section (totally about 11.6 km) and 1.5m wide shoulders in rural sections. (i) Construction of about 94 new reinforced concrete box culverts and about 179 new reinforced pipe culverts plus a number of new access culverts. (j) Extension of about 86 existing concrete pipe culverts. (k) Construction of one 15.8m long new bridges across the Utohe Dam spillway. (l) Drainage protection works (grouted stone pitching, gabions etc.). (m) Ancillary road works such as edge marker posts, km posts, guardrails, road signs, road marking, rumble strips, speed humps, landscaping and grassing. (n) Application of water for earthwork and gravel pavement compaction as well as sprinkling of earth/gravel detours and access roads to suppress dust development.

The Tabora (Pangale) – Koga – Mpanda road is one of the major trunk road links connecting the agriculturally rich Mpanda District to the rest of Tanzania, and the northern countries of South Sudan and Kenya. It connects the three regions of Tabora, Rukwa and Katavi and passes through the Tabora Urban and Rural Districts, Sikonge District, and Mpanda District. The road also serves as a link between Tanzania and the neighbouring countries of Zambia and the Democratic Republic of Congo through the Tunduma/Nakonde border and Kasanga port respectively. The road is classified as a trunk road according to the country's road classification system. The Mbinga – Mbamba Bay road is located on the southwest of Tanzania and it is the missing link of the Mtwara Corridor on the Tanzania side and traverses the districts of Mbinga and Nyasa. The Mtwara Corridor road project when completed will link the Indian Ocean at Mtwara with Lake Nyasa at Mbamba Bay on the Tanzania side facilitating trade with neighbouring countries of Zambia, Malawi, and even Mozambique.

4. DESCRIPTION OF THE PROJECT ENVIRONMENT

Topography: The topography along the Tabora (Pangale) – Koga – Mpanda road alignment is flat to gently rolling, except for the short sections with hilly to mountainous terrain such as Mkolye hills, Kanono Escarpment, Uruwira Escarpment and Filimule hills. Mbinga-Mbamba Bay road alignment is generally mountainous, rises between 900m and 1350m a.s.l. and there are few areas of Matengo Plateau, which rise to about 2000ma.s.l.

Climate: Tabora and Katavi Regions have warm climate with temperatures reaching their peak in September - October just before the onset of the rainy season. The daily mean temperature is around 23°C. There is a slightly cooler period from May to July, marked by the onset of dry winds which continue until October. Rainfall is seasonal, falling almost from June to October during which

occasional showers can be expected. The annual rainfall in the project area is generally in the range of 800 - 1000mm, except for the Uruwira - Mpanda section where rainfall exceeds 1,000mm.

Ruvuma Region is generally cool all the year round except for those areas along Lake Nyasa which are hot all over the year. Temperatures are between 29°C and 31°C while the lowest range between 19°C and 23°C during the cold season of June to August. The temperature in Matengo Plateau goes as low as 13°C in August. Rainfall starts in December every year and stops in April/May. It receives a general rainfall of 1224 mm per year which falls between six and seven months.

Geology and Soils: Geological zones traversed by the Tabora Koga Mpanda project road include plutonic rocks, sedimentary rocks and Metamorphic Rocks. Soils vary from loamy sands with imperfect drainage on the Tabora - Koga section to sandy loams with moderately good drainage on the Koga - Mpanda section. Soils on the upper slopes are mainly red brown sandy loams underlain by light sandy clays, while soils in the lower slopes are drained dark grey sandy loams with black clays in the depressions. Soils of Mbinga – Mbamba Bay can be divided into three categories namely; the uplands with red clay soils mixed with sand while the Mountainous slopes have clay soils mixed with sandstones and the lowest level with valleys has black clay soils rich in humus.

Forestry: Tabora - Koga - Mpanda Road passes through or near forest reserves and game controlled areas for approximately 200Km. There are six forest reserves namely; Ugunda Forest Reserve, Swangala Forest Reserve, Inyonga Forest Reserve, Mulele Hills Forest Reserve, North East Mpanda Forest Reserve and Msaginia Forest Reserve. The Game controlled areas are three; Ugunda, Inyonga and Mulele Game Controlled Areas. On Mbinga – Mbamba Bay road section there are 12 forests along the road. Of these seven are forest plantations: a combination mainly of eucalyptus but also pines. The five natural forests mainly comprise the miombo woodland but are not well managed.

Population: According to the 2012 Population and Housing Census, the project districts had a total population of 977,262 comprising 481,572 Males and 495,690 Females. The breakdown for each project district is presented in Table 1.

Table 1: Population of Project Districts

District	Total Population	Males	Females
Sikonge	179883	88947	90936
Mlele	138323	68552	69771
Nsimbo	144245	71428	72817
Mbinga	368651	181253	187398
Nyasa	146160	71392	74768
Grand Total	977262	481572	495690

Fisheries: The livelihoods of the majority of Nyasa inhabitants revolve around Lake Nyasa although the main technology in use is traditional canoes, which limits deep sea ventures including fishing thus in turn lowers productivity of fishing effort. Fishing which is mostly practiced in the villages along the shores of Lake Nyasa is found to be the major non-agricultural income generating activity and the major source of protein for villagers along the shores. Nyasa district is endowed with 297,900 ha of Lake Nyasa water with an average of 165, 000tons of 500 different fish species

including; *Diplotaxodon* ssp (vitwi), *Ramphochromis* ssp (hangu), *Copadichromis* ssp (ntaka/mbalule), *Bathyclarias* (kambale), *Engraulicypris sardella* (dagaa/usipa), *Opsaridium-microlepis* (mbasa), *Bagrus* (mbufu). The major setback in the fishing industry in Nyasa district is the use of locally manufactured canoes and the use of seine fishing technique which destructs breeding areas (fish hatcheries) which are normally found on shallow waters.

The fishing industry in Nyasa district improves livelihoods to both men and women in the society. For example, when sardines are caught in large quantities, fishermen do not manage to process them all without external assistance, therefore women are hired to assist in the processing or drying process. Although most of the women do not own fishing gears, by participating in fish drying process they are able to support their families in various aspects of daily life.

Agriculture Production: Agriculture is the dominant economic activity along both project roads. Agriculture is based on small-scale farming with hand hoe (subsistence farming) as the main farm implement and the rest use plough and tractors. The main inputs are labour, land and fertilizers (chemical fertilizers). The major economic activities in Mpanda, Mlele and Mbinga districts are agriculture, livestock keeping, fishing, lumbering and mining. About 85% of the population in the districts depend on agriculture and livestock keeping. Major crops are: maize, cassava, tobacco, beans, ground nuts, sunflower, sugar cane, banana, coffee, rice, finger-millet, sorghum and oil palm.

5. PROJECT ALTERNATIVES

The following alternatives were considered during the design of the project roads;

No Project Alternative: The existing Tabora - Koga - Mpanda Road and Mbinga – Mbamba Bay Road are un-engineered earth/gravel roads in fair to poor condition, impassable during the rainy seasons. The no-action alternative means no upgrading of the roads, and thus the roads will remain as they are. This alternative if selected will retard economic growth for Tabora, Katavi and Ruvuma regions.

Alternative in terms of Geometry: Tabora Koga Mpanda Road has 304 horizontal curves, with 65 curves found to be substandard i.e. having radii less than the absolute minimum for the appropriate design speed according to the Road Manual in relation to type of terrain traversed. The alternatives considered were to upgrade the road to Bitumen standard with the existing geometry or to improve the geometry.

Mbinga – Mbamba Bay road has several sharp corners along the mountains and hilly areas. According to the engineering designs these should be reduced. In reducing corners the ‘new’ road is either going to be shorter or longer and will improve road safety. The project has selected the option to improve the geometry of both road sections following the requirements of the Road Design Manual.

Bypass Routes: For Tabora Koga Mpanda Road, bypasses are proposed at Inyonga (km 225.0 - 230.0), Sikonge (km 67.5 - 75.0) and Uruwira (km 316 - 320.5). The three proposed bypasses at Sikonge, Inyonga and Uruwila are designed to shorten the distances and avoid demolition of

properties located along the road. The bypass option was selected but with the construction of road spurs to connect the trading centres with the new road.

For Mbinga – Mbamba Bay, a re-alignment to bypass Mbinga Town is proposed to avoid demolition of settlements. In addition, there is a very wide corner at Lipumba that is proposed to be realigned through Kambi ya ujenzi in order to reduce the distance by about 2km.

Pavement Alternatives: Project designs considered three pavement alternatives, namely (i) Asphalt Concrete (AC); (ii) Double Bitumen Surface Treatment (DBST); and (iii) gravel rehabilitation with a 150mm gravel wearing course on compacted sub-grade. The pavement structure retained for the Tabora (Pangale) – Koga – Mpanda (342.9km) comprises a 200mm granular (G45) or bound (C1) subbase, 150mm crushed base course (CRS), plus a Double Bituminous Surface Treatment (DBST). For the Mbinga – Mbamba Bay Road (67km), the recommended structure comprises DBST 50mm AC surfacing with sealed shoulders on 150mm cement stabilized granular base (C2) on 200mm natural granular sub-base (G45).

6. POTENTIAL IMPACTS

Positive Impacts

Regional Integration and Cross Border Trade: Construction of the Tabora - Koga - Mpanda road section to bitumen standard will facilitate transportation of agricultural produce, spur economic growth hence reducing poverty in the regions of Tabora and Katavi and connect to neighbouring countries of Democratic Republic of Congo and Zambia through Kasanga port, Kasesya and Tunduma border posts. Whereas the improvement of the Mbinga – Mbamba Bay road will facilitate the movement of people and evacuation of agricultural inputs and products from Mbinga and parts of Songea (Rural) districts to market centres including Songea, Njombe, Makambako, Iringa, Dar es Salaam and other areas. The Mbinga – Mbamba Bay road will facilitate cross border trade with Malawi (through Mbamba Bay Port and Chiwindi in Mbinga district) and Mozambique (through Mitomoni Unity Bridge in Songea District).

Employment Opportunities: The road works will provide employment opportunities for the local population, and will increase income-generating activities. Casual jobs are expected to be readily available for unskilled labourers but the Contractor may also wish to employ community members with additional skills such as truck drivers, carpenters, masons or other semi-skilled workers for the project. It is anticipated that approximately 300 – 400 people may be employed at the peak of construction activities.

Improvement of local economy: It is normal for major construction sites, with many workers, that trading activities expand i.e. supply of foodstuffs and other merchandise to the construction workforce. Also, manufactured goods need to be brought from Tabora, Songea or other bigger towns to the construction site. This is likely to improve the local socio-economy.

Improved Traffic Safety: The road upgrading from earth/gravel to bitumen standard together with improved geometry, wider cross section and various safety enhancing measures will result in improved road safety. Furthermore, the improved road with wider carriageway and right-of-way

will provide better sight distance to drivers and thereby reduce the dangers in particular to the non-vehicular traffic (motorbikes, bicycles and pedestrians).

Reduction of Vehicle Operating Costs and Travel Time: Upgrading from the present rough earth/gravel surface to bituminous surfacing will provide considerable reduction in vehicle operating costs including savings in travel time. Reduced vehicle operation costs will be realized by the upgrading of the road to bitumen surface standard primarily due to the significant reduction in road roughness (the roughness of the existing earth/gravel road is generally varying from IRI: 7 -14 m/km, while a new bitumen surface dressed road has IRI of around 2.5 m/km).

Reduced Road Maintenance Costs: Reduced road maintenance costs will be realized by the upgrading of the road to bitumen surfaced standard. Currently the TANROADS Regional Managers for Tabora, Katavi and Ruvuma Regions have to budget for regular grading and gravelling works especially during and after the rainy seasons. This has led to the opening of a number of borrow sites in the Forest Reserves with more than 40 borrow pits noted along the Tabora Koga Mpanda road section.

Improved Access to Markets and Social Services: The upgrading of the roads will improve access to existing markets, schools, hospitals, and create opportunities for new markets for agricultural produce, fisheries, goods and services to and from the project roads impact area. This will lead to an expansion in the number of buyers, traders and volume of marketed goods. Opportunities for the diversification of sources of income will be created by increased involvement of more people in the small-scale businesses as transport services become cheaper, reliable, regular, available in all seasons and efficient with the upgrading of the road. Therefore these roads will significantly improve the movement of crops and hence trade between Tabora and Mpanda; Mbinga – Mbamba Bay and beyond to include other regions and Malawi.

As part of the complimentary initiatives to enhance the project benefits, TANROADS proposed to explore the possibility of paving or improving the 6 km Litembo Mission Hospital link off the Mbinga - Mbamba Bay road; Magwu Health Center and Magwu Girls secondary school. While on the Mpanda – Koga – Tabora road, the project would improve the 1.2 km spur at Sikonge town and paving the 10 km across Sikonge town and 5 km by-pass section at Inyonga town.

Improved Management of Forest Reserves: Illegal hunting and logging are some of the major huddles to conservation and management efforts in game controlled areas of Ugunda, Inyonga, Mulele and Msaginia and also the forests along both road sections. Road upgrading will enhance physical access to the game controlled areas (in collaboration with local villages). There are joint local forest management programmes in Kamsisi, Mgombe Utende villages which are hindered by poor access and reliable transport facilities into the forests.

Negative Impacts

Land Take: The upgrading of the proposed roads will entail the voluntary sale or compulsory acquisition (expropriation) of homes, property, businesses, farms and other productive resources. Land acquisition especially for realignments (bypasses) and other alignment improvements, increasing of the road width, detours, borrow areas and access roads to these material sources is therefore likely to result in loss of agricultural land. The upgrading of the project roads is planned

to require land acquisition for the following: (i) Limited improvement of some 40 - 50 substandard horizontal curves (about 2 - 4 ha); (ii) Bypasses at Sikonge, Inyonga and Uruwira with total length of 12.4 km (about 55 ha) and Bypass at Mbinga Town and re-alignment at Lipumba; (iii) Temporary land acquisition for extraction of natural construction materials (sand, gravel and stone); (iv) Construction of temporary detours for diversion of existing public traffic if such need to be located beyond the 45m wide road reserve; (v) Sites for construction of Contractor's offices, housing, workshops, garages, stores and yards for stockpiling of materials, concrete batching plant etc. together with facilities for the Engineer (office, housing and possibly a separate laboratory).

Land acquisition shall entail demolition or removal of properties located within the RoW. Such properties include residential houses, grave yards, business premises, farm lands/crops, school buildings, local community clubs, a mosque etc. A total of 886 properties will be affected in Ng'ambo, Itetemia, Sikonge and Mpanda wards.

Impacts of Material Sourcing: Materials needed for road construction will be extracted from borrow areas, thus producing borrow pits. Quarry sites have been identified for extraction of hard rock materials. For example, 36 potential borrow sites and six potential hard stone quarry sites have been identified on the Tabora Koga Mpanda Road. The potential impacts related to borrowing and quarrying activities will cause habitat change, land degradation (due to removal of fertile top soil), landscape impairment (visual intrusion) and soil erosion-which lead to siltation of waterways. Quarrying, excavation and the disposal of spoil material can destroy the economic and aesthetic value of public and/or private property including land. Un-rehabilitated borrow pits and quarries can cause accidental drowning, act as water reservoirs storing water which becomes source of unwanted water borne diseases such as Malaria and Bilharzia.

Impacts on Flora: The proposed project roads will be upgraded basically following the alignment of the existing roads wherefore impacts on the existing natural vegetation and trees along the roads will not be very significant. Nevertheless, the project will require cutting down trees, bushes and shrubs along the realignments (bypasses) - none of which are located in the forest reserves - and other alignment improvements and in relation to clearing of quarry sites and borrow areas as well as clearing for camp sites.

None of the potentially affected plant species is known to be rare or threatened. Nevertheless, the vegetation/trees available in the project area have essential roles in protecting against soil erosion / in soil and water conservation, improving soil fertility through nitrogen fixation like Acacia spp., in maintaining the micro-climate / preventing desertification, and socio-economic functions like provision of fuel and construction materials, media for honey production, etc. Therefore, it is important to mitigate or compensate the unavoidable damages resulting from the road project activities through replanting programme.

Impacts on Fauna: The Tabora – Koga – Mpanda road alignment is within the influence area of Katavi National Park (approx. 36Km) and Rukwa Game Reserve (approx.. 35Km) to the South, and Ugalla River Game Reserve to the North of the alignment approximately 50-70Km. As a result of these ecosystems in the project districts, there are three wildlife crossing areas along the road alignment at Mtambo (Km 67); Msima (Km 90-100) and Koga (Km 192). The Game controlled areas are three; Ugunda, Inyonga and Mulele Game Controlled Areas and Ipole Wildlife Management Area. The Koga Forest Area for example is a wildlife corridor connecting Katavi

National Park to Ipole Wildlife Management Area. A number of wildlife is found at the Park and the Game Reserves. These include, Hippos, Lions, Giraffes, Elephants, Gazelles, monkeys and buffaloes. Mbinga District is also rich in wild animals particularly warthogs, sables, hippopotamus', lions, leopards, monkeys and buffaloes. In terms of wildlife protection Mbinga has only one protected area: the Liparamba Game Reserve which covers an area of 57,050.5ha.

During construction, impacts noise generated by the operation of heavy machinery and construction traffic may disturb wildlife. During operation, increase in vehicle speed may lead to increase in road kills of wildlife crossing the road. Road kills may increase along the road especially during late night when animals' vision are impaired by glaring vehicles head lights.

7. MITIGATION MEASURES AND COMPLIMENTARY INITIATIVES

Mitigation Measures

Mitigation for Land Take: A full Resettlement Action Plan has been prepared for the properties to be affected by the project roads and a summary of the Plan is included as an Annex to this ESIA Summary. TANROADS shall ensure smooth and effective implementation of the RAP by (i) providing prompt, fair and just compensation to Project Affected Persons prior to commencement of civil works; (ii) provide adequate vacation notices to PAPs before construction commences. This will also allow affected property owners to plan appropriately or take any salvageable material from their demolished structures without delaying contractor's work. (iii) Institute a strong grievance committee so that complaints and dissatisfaction about the resettlement/ compensation process do not unduly delay contractors progressing works.

Mitigation for Material Sourcing: All borrow pits and quarry sites should be operated in accordance with a plan to be agreed in writing by the Engineer and the Contractor. Each plan will clearly cover the following operational requirements: (i) Pit or quarry location and area; (ii) Access arrangements; (iii) A working plan giving an outline of the direction, phasing and depth of working; (iv) A reclamation/restoration plan giving details of final grading, drainage and sediment control, resoling and re-vegetation measures and design after use.

Materials not capable of supporting vegetation shall be used as fill and subsequently evenly covered with soft materials. Spoils from road building, excess stockpiled material etc. can only be used for fill in the borrow pit, provided it does not affect the hydrology of the site. If soft material/ top soil is not sufficient, the remaining portions shall be scarified along the contours to avoid erosion. Quarries sites have to be fenced to avoid people and animal falling into the pits. In additions, pits and quarries should preferably be away from the roads so as not to destroy the scenic view along the road. Final restoration should establish a full vegetation cover and restore the site to productive use (e.g. establishment of pasture or wood lots).

Mitigation for Impacts on Flora: Potential impacts can be reduced by considering the location of protected areas, important trees or dense plantations during construction, applying half-width construction method for sections passing through forest reserves and sections having dense trees, avoiding siting of access roads, construction camps and materials processing plants within protected

areas or other areas, which have significant vegetation or trees, and implementing replanting program to compensate for trees removed.

To mitigate the destruction of flora and fauna the Contractor shall; (i) Locate campsites away from areas of dense vegetation cover. Forbid construction workers to cut down trees and encourage camp administrators and workers to plant trees around camp yard. (ii) Camps should be restricted from ecologically-sensitive areas (e.g. vicinity of forest reserves, game controlled areas and wetlands). (iii) Protect big trees along the road project and avoid removal during establishing of detours and material sites; involve villagers in re-vegetation schemes. (iv) Restore vegetation immediately after the end of works. (v) The use of chemicals, herbicides to clear vegetation shall be forbidden due to the heavy pollution they cause to the soils, ground and surface water and that they are toxic to humans and animals. (vi) The contractor shall seek permit from the Division of Forestry or local government before falling of any tree from the forest reserve.

Mitigation for Impacts on Fauna: Impacts on wildlife will be reduced through the following measures: (i) At wildlife and animal crossing points, constructing the road with gentle side-slopes to the extent possible to allow free movements of animals. (ii) Adhering to principles of environmental conservation during the construction period in order to avoid excessive destruction of wildlife habitats and illegal hunting. (iii) The material sources (quarries, borrow sites and sand deposits) should to the extent possible not be located on the wildlife corridors. (iv) The design shall include warning signs for wildlife in Forest Reserves / Game Controlled Areas and especially at any identified migrations crossing points. (v) Strict prohibition of illegal hunting of wild animals by the construction workers. (vi) Provision of training for construction personnel to create awareness regarding environmental conservation in general and wildlife conservation in particular.

Complimentary Initiatives

Training and Capacity Building for Women and Youth Contractors – Breaking the Vicious Circle: This complimentary initiative shall be developed by TANROADS in collaboration with the Ministry of Works (Women Participation Unit). The initiative intends to provide support women and youth owned construction companies who are mainly in contractor categories I – III through training offered by the Appropriate Technologies Institute (ATTI) in Mbeya. The training program would be in two parts, classroom based training (theory and practical) on labor based construction and maintenance techniques; and a hands on Trial Contract module which would be linked to actual road rehabilitation or construction programs in the country either funded by donors such as the LGDP II under the PMO-LGA or funded under the district programs for road maintenance. It is expected that this program will result in enhancing the chances of these categories of contractors to effectively compete in the construction industry. In response to these needs, the project is considering financing a roll-out of the training and capacity building program in 6 regions within the proximity of the project areas namely: Tabora, Katavi, Rukwa, Mbeya, Njombe, and Ruvuma. The program will be executed by the Ministry of Works through the Coordinators of Women Participation in Road Construction and the focal point engineers in each of the respective TANROADS Regional Offices. The training program will benefit at least 240 (50% women, 20% youth and 30% any other women, youth and men).

Support to fishing communities: Mbamba Bay being at the shore of Lake Nyasa, it is estimated that 30% of income is from fishing activities which include drying and selling. The majority of women

are engaged in fish drying and selling. However these groups face big challenges in drying the fish and handling. Most of the sun drying facilities are rudimentary and result in significant losses and are unsustainable. The drying racks are traditional, made of reeds and sticks which don't last long and have to be re-constructed at a cost. The racks have large porous spaces that allow significant amount of fish to be wasted. The project will therefore purchase and construct wire mesh fish drying racks in collaboration with the Department of Fisheries. The mesh will be more durable and shall provide storage space under each one of them in so doing saving the women resources for reconstructing the racks. In addition, the improved racks will minimize loss and increase sale volumes of good quality fish.

Support to Communities in Alternative Livelihood Sources: The project areas of Katavi and Tabora are known for wide miombo forest reserves. It is apparent that the forests are under pressure from commercial and non-commercial human activities. Among the activities which negatively affect the trees is bee-keeping, which ironically depends on forests to flourish. The project will, therefore, support communities in the project area in modern bee keeping technologies and production of bee wax for candle making. The new technologies for bee keeping have encouraged more women to participate in the business and hence shall be among the beneficiaries of this intervention. In developing the sub-component, the project shall collaborate with the UNDP supported Miombo Project which capitalizes on community Participatory Forestry Management (PFM) in fostering high value non-timber forest products (NTFP). The activities will be implemented with support and advice from the Beekeeping Training Institute in Tabora who will recommend on apiary establishment, beekeeping equipment, honey products and environmental conservation. Tanzania already has a certification protocol in place for honey sold outside the country. It is expected that 200 bee keepers (50% women and youth) will benefit from this training and capacity building support.

Roadside Markets and Parking Bays: The project shall include in its designs designated areas for roadside markets such as the one at the Inyoni Junction on the Mbinga – Mbamba Bay road. Such areas do provide improved environments for road side market operations including safety, potable water, latrines and solid waste dumping pits. TANROADS Regional Offices shall provide specific sites where such markets shall be established. In addition, the road design shall include road-side parking areas and bus bays for goods and passengers in collaboration with TANROADS Regional Offices.

Tree Planting/Forestry and Conservation Interventions: The project proposes a tree planting program for each road section. Miombo forests along the Tabora Koga Mpanda Road and Mbinga – Mbamba Bay re-generates itself, therefore the tree planting program under the project shall assist in the establishment of community woodlots for sourcing firewood. 20,000 tree seedlings shall be provided to the local communities to support the establishment of community woodlots in degraded areas.

Boreholes along the project road: Construction water may be a challenge along the Tabora – Koga - Mpanda road section. The project proposes that construction of boreholes and water pans shall be included in the Bill of Quantities. The project shall also consider providing at least two boreholes to Katavi National Park for use to provide water to animals during the dry seasons.

HIV/AIDS, STI and TB Awareness: The project has included on the design implementation of awareness, prevention and treatment programs. TANROADS has had experience over the years in dealing with this aspect of interventions. Working with TACAIDS both at national and regional level, TANROADS Regional Office will be supported by the Regional Aids Team whose secretariat is TACAIDS Regional Coordinator. The preferred approach has been where a separate (independent) service provider is hired to implement this activity for both contractor's workers and for communities around the project area. The role of CSO (Civil Society Organizations) is critical in strengthening local capacities and sustainability of the program during operations. These organizations would also be instrumental in identifying key drivers of the epidemic and tailor made interventions befitting each locality. Resources shall be put in TANROADS to hire the service provider ahead of construction works. The activities will be guided by the National Multi-sectoral Strategic Framework (NMSF) and the Regional HIV Strategies.

8. RESIDUAL IMPACTS AND ENVIRONMENTAL HAZARD MANAGEMENT

During the operation phase, adverse impacts similar to the environmental problems observed on the existing project roads will continue to manifest if mitigation measures are not implemented and work camps and sites are not reinstated after completion of the construction and defects liability period. These impacts include: (i) Soil erosion on slopes and embankments cut and built up during construction phase; (ii) Landscape scars at un-rehabilitated quarries and borrow sites.

The construction of the project roads could also entail occupational hazards/ risks and accidents especially involving motorised road construction equipment, asphalt plant and stone quarries. The following measures are proposed to control this risk:

Accidents from equipment: Only trained/ certified operators will operate motorised equipment. Should accidents occur on the construction sites or on the road during construction, the accident shall be immediately reported, recorded, investigated and measures to prevent recurrence shall be implemented.

Blasting / Explosives safety: the contractor will ensure the following: (i) Stone blasting is only done by licensed blasters; (ii) All explosives are delivered to quarry sites (under security escort) on the day of blasting and any remnants returned into security custody after blasting. (iii) After each blast, site inspection will be conducted for un-detonated explosives. (iv) Advance warning is given to local communities near quarry sites before a blasting episode. (v) After each blasting incident, inspection is conducted in communities around quarry sites to identify any offsite damage to private property, which shall be duly and equitably compensated. (vi) All workers shall be adequately protected from risk of fly rock and blasting noise.

Fire safety: Fire safety equipment and personnel will be provided in the workers' camp. Warning signs will be provided at areas of potential fire source, e.g. at fuel storage areas. Risk of burns/ scald at asphalt plant will be averted by contractors using only licensed operators following stringent safety guidelines and operation procedures. Operations involving hot bitumen shall be limited to daytime in adequate natural light.

Emergency Response Plan: The contractor will develop and maintain an Emergency Response Plan. This shall include provision of a medical clinic and a standby vehicle to immediately transport any accident victims to a nearby hospital. First Aid facilities will be provided on construction sites, equipment yards and in camps.

Oil/ fuel spills: Accidental oil and/ or fuel spills would occur when the contractor's trucks or vehicles are involved in road accidents or negligence of staff while on duty. Accidents may be caused by improper use of equipment, mechanical faults in equipment or vehicles among others. Spills or leakages would result in contamination of soils and water resources with hydrocarbons. Hydrocarbons and particulate matter if released into the soil will affect its productivity and pose a health risk to the community, animals and plants around. In water resources, it would affect the aquatic vegetation and fauna in addition to disrupting water supply to the community that rely on these water resources. No vehicle or equipment shall be allowed to be used if any oil or fuel leak is observed. The contractor shall have spill control equipment on standby both at the workers camp and the road construction site to ensure that any leakage or spill is contained and cleaned on time.

9. ESMP IMPLEMENTATION AND MONITORING PROGRAM

The primary oversight to ensure environmental mitigation actions and the overall ESMP are implemented will rest with the TANROADS Project Engineer working with the Environmental and Social Unit (ESU) under the Directorate of Planning. The National Environmental Management Council of Tanzania (NEMC) from Head Office has regulatory supervisory and monitoring roles.

TANROADS shall require contractors to comply with the ESMP and assign a fulltime staff (Environmental Officer) to undertake environmental supervision during construction. TANROADS confers full mandate to the supervising engineering consultant to supervise the road project on a day-to-day basis. The Supervising Engineer oversees the work of the contractor by recruiting an environmental specialist, this specialist shall guide the contractor's fulltime Environmental Officer in undertaking his/her own responsibilities, including reporting.

Monitoring procedures will comprise; (i) Institution of a qualified environmentalist and social expert by the contractor and supervision consultant. (ii) Formulation of enforceable contractual terms to ensure that contractors implement the ESMP. (iii) Ensuring a project completion and handover process that will necessitate TANROADS and NEMC approval for environmental and social aspects such as site restoration and removal of road construction waste.

Contractor(s): Upon project commencement, the contractor will prepare a site-specific Construction ESMP (CESMP) based on requirements of the ESIA and NEMC approval. These include securing quarry licenses, permits for borrow sites, permits for tree felling and water abstraction permits. The CESMP will be reviewed and approved by the supervising consulting engineer and TANROADS. At project completion, the Contractors will prepare a final environmental completion and decommissioning report to be approved by the supervising consultant, TANROADS and NEMC.

The Supervising Consulting Engineer: Before construction, the supervising engineer will review the works contract and document environmental and social requirements, road safety, and quality

assurance systems and plan the supervision functions to ensure that works are implemented while protecting the social and environment aspects. During the construction phase, the supervising engineer: (a) Monitors implementation of the CESMP and (b) prepares monthly and quarterly environment and social compliance reports, which are submitted for TANROADS consideration, as well as annual environment and social audit reports submitted to NEMC. The Quarterly Reports and the Annual Report certified by NEMC shall be made available to the Bank for review.

NEMC: During the construction phase, depending on the implementation status of environmentally and socially sensitive project activities, NEMC shall a) commit and review annual or biannual environmental monitoring reports and b) give its opinion and recommendation in which environmental concern raised by the project reviewed alongside project implementation.

Compensation: For the compensation, TANROADS will monitor implementation with assistance of TANROADS Regional Managers and the District Administrators. Progress of land acquisition will be monitored by TANROADS. An independent consultant will undertake quarterly review of implementation activities and submit bi-annual reports to TANROADS who will review the reports and through supervision verify milestones, livelihood restoration until compensation implementation is completed.

Internal Monitoring: Monitoring will verify if predicted impacts have actually occurred and check that mitigation actions recommended in the ESIA are implemented and check their effectiveness. Monitoring will also identify any unforeseen impacts that might arise from road project implementation. Monitoring will be undertaken by both the Independent Consultant and TANROADS (ESU).

External Monitoring: External monitoring shall be done by NEMC according to their regulatory mandate prescribed in the Environmental Management Act of 2010. The Occupational Health & Safety (OHS) Department in Ministry of Labour & Social Services shall also undertake external monitoring of labour issues and Occupational Health and Safety compliance. The OHS Department has authority to inspect any facility for compliance with national requirements on safety in workplaces. Monitoring will be done through site inspection, review of grievances logged by stakeholders and ad hoc discussions with potentially affected persons. Monitoring will be undertaken monthly over the construction period.

Reporting: Detailed monthly and quarterly monitoring reports shall be compiled by the contractor's environmental officer under oversight of the supervising engineer. The reports will be based on records kept as per requirements of the contract to be signed. These detailed reports with evidence of compliance shall be prepared and appended to summary monthly reports. An Annual Monitoring and Audit Report shall be prepared, verified by NEMC and submitted to the Bank for review.

10. PUBLIC CONSULTATION AND DISCLOSURE

Consultations through public meetings for selected villages, interviews and direct field observations were the main methods followed during the ESIA processes. Consultations with stakeholders for both Tabora - Koga - Mpanda road project and Mbinga – Mbamba Bay road were conducted to obtain views and opinions with regards to expected future impacts of constructing the road sections.

Important informants were consulted involving policy and decision makers and leaders, local leaders, opinion leaders, elderly persons and residents along the road.

Courtesy visits right from regional to hamlet levels and TANROADS regional office helped to establish the right target audiences in the project area. Consultations were done at regional, level, each project district, village/local level, national institutions, NGOs in the project area and civic organizations. Focused-group discussions (FGDs) were held with members who were drawn from all the project areas. The groups were composed of ward leadership, women, influential and ordinary people, members of NGOs and employed people. Also included were income-generating groups, livestock keepers, farmers, disabled, bar owners, shopkeepers and traders. On average all sections of the project area people were reasonably represented.

Table 2: Major Issues raised by Stakeholders during Consultations

S/N	Issue	Description
E.1	Loss of Agricultural Lands due to Project Activities/implementation	Land may be annexed to project activities to pave the way for road expansion however compensation will be paid to all affected individuals and properties according to the laws of the land.
E.2	Borrow Pits and Quarry areas	Some construction materials will be excavated from borrow pits and quarries. This process usually creates unwanted pits which may have environmental and health effects to the communities located in the vicinity. Thus, communities may express intention to the contractor to retain such pits for water storage (if necessary).
E.3	Availability of water for construction and expected impacts to communities	The contractor is required to drill his own water for construction without interference with other water sources which are widely used by communities.
E.4	Acceleration of Illegal Hunting and lumbering within the game reserve areas such as of Koga and Ipole.	The road will facilitate effective and quick response to illegal activities conducted within the controlled areas of game reserves, nevertheless responsibility of controlling illegal activities lies within Natural Resources Department of the project Districts.
E.5	Destruction of vegetation during construction phase	The contractor will try to avoid unnecessary tree cutting by following existing alignment as much as possible. Camps will be constructed away from ecologically sensitive areas.
E.6	Air Quality	Upgrading of the road will improve ambient air quality as a result of bitumen surface.
E.7	Soil Erosion	Construction activities may exacerbate soil erosion however proper mitigation measures will be applied to prevent the problem.
E.8	Deforestation	Human population may increase at some areas along the project road which may exacerbates deforestation problem due to demand for agricultural lands, source of energy (charcoal wood) and other building materials from wood products.
E.9	Noise and Vibration	Noise and vibration will be generated due to increase in traffic movements, construction activities and blasting of rocks at quarry sites to produce gravel and stones. Nevertheless, proper mitigation measures will be instituted to combat the problem.
S.1	Public utilities	Construction activities such as road expansion and access roads may lead to relocation of public utilities such as water wells, water distribution lines, power utilities etc.

S/N	Issue	Description
S.2	Displacement of People due to Project Implementation	All affected people will be compensated following proper government procedures and in accordance with the Resettlement Action Plan (RAP). Compensation will be exercised in close collaboration between local leaders, TANROADS officials, contractors and Ministry of Housing and Human Settlements Development.
S.3	Employment Opportunities	The contractor is not bound by law to avail jobs to local people but in many cases, non-skilled labourers will be drawn from local population during construction phase especially the youth.
S.4	Influx of immigrants and HIV/AIDS concerns	In response to the influx and increasing number of immigrant workers, the contractor will institute prevention programs such as education campaigns and provision of condoms at affordable prices to local people and workers at large.
S.5	Increasing car accidents during construction and operation phases	During operation time, the contractor will take all necessary precaution measures to ensure that accidents are reduced by providing warning signs, road humps and zebra crossings to drivers and pedestrians. During construction time non-project personnel will not be allowed to come close to the vicinity of construction site
S.6	Improved Transport	The upgrading of Tabora-Koga-Mpanda road and Mbinga – Mbamba Bay road to bitumen standard will lead to increase in traffic, passenger and freight services. It will tremendously increase mobility and interaction of the people within and beyond the road impact area. At the moment transport service along the road is limited by poor road condition.
S.7	Improved Trade	Upgrading of the roads will improve access to existing markets and create opportunities for new markets for goods and services to and from the road impact area. This will lead to an expansion in the number of buyers, traders and volume of marketed goods.
S.8	Improved Social Services	Upgrading of the roads will positively affect access to quality social services including access to health, educational and extension services
S.9	Relocation of graves / Destruction of cultural sites	It envisaged that some graves may be removed at some sections to pave the way for road expansion. Along Tabora Koga Mpanda road, some grave such as those at Itetemia village are located close to the road alignment.

11. CONCLUSION

The ESIA for upgrading of the Tabora - Koga - Mpanda road to bitumen surfaced standard found no risk or impacts that would preclude project implementation, provided that mitigation measures are implemented for certain negative impacts. The proposed road will mostly follow existing alignment except for the few sections where bypasses have been proposed at Sikonge, Inyonga and Uruwira.

Major impacts identified for the project focused on the proposed three bypasses at Sikonge, Inyonga and Uruwira, deforestation, resettlement and impacts related to other civil works such as exploitation of construction materials (quarries, borrow pits and water sources) and construction camps. Mitigation measures and monitoring plans have been proposed to mitigate potential

environmental and social impacts of the project. Good engineering practices including design and construction methods have also been suggested to provide sound environmental management. The ESMP includes environmental monitoring. The costs for implementation of ESMP is estimated at Tshs 9,400,035,800 while the cost for monitoring is Tshs 100,000,000.

For the Mbinga – Mbamba Bay road, although the proposed upgrading to bituminous standard has some limited negative environmental and social implications, the road will have high socio-economic benefits to the people in the villages along the proposed road as well as the neighboring countries of Malawi and Mozambique. Among others, the road will promote accessibility to agricultural markets, fisheries and forest products. Specific mitigation measures have been suggested to offset the inherent adverse impacts. The implementation of the proposed mitigation measures would increase environmental soundness of the project road. The total cost for implementation of ESMP is estimated at Tshs 1,309,101,393 while the cost for monitoring the implementation of ESMP is Tshs 90,000,000.

Project Title: Tanzania Transport Sector Support (Mpinga – Mbamba Bay; and Tabora – Koga – Mpanda Roads Upgrading)
Project Number: P-TZ-D00-002
Country: Tanzania **Department:** OITC
Division: OITC.2 **Project Category:** 1

1. Description of the project, project area and area of influence

This Resettlement Action Plan (RAP) summary represents two full RAP reports prepared under this project for two roads on the Tanzania mainland, namely upgrading of the Mbinga – Mbamba Bay road, 67 km, to bitumen standard; and the Tabora – Koga – Mpanda road, 356 km, also to bitumen standard. Since the project implementing agency shall be TANROADS for the two projects, hence the summary combines most of the general functions and attributes for a successful RAP implementation. The Mbinga – Mbamba Bay road passes through the districts of Mbinga and Nyasa (where Mbamba Bay is located). The project road starts from Mbinga town to Mbamba Bay township traversing Mbinga town, Kihulila, Ndengu, Lumeme, Nyoni, Mtanga, Mtawa, Buruma, Chunya, Nangombo, Kilosa finally Mbamba Bay at the north-east on the shores of Lake Nyasa linking it with Malawi across the lake. Mbinga - Mbamba Bay Road is wholly located in Ruvuma Region in south-western part of Tanzania. The Mbinga-Mbamba Bay road forms part of the planned Mtwara Corridor (Mtwara – Tunduru – Songea – Mbinga – Mbamba Bay) and will link with Njombe – Makambako – Dar es Salaam/or Mbeya highway. The other road, the Tabora - Koga - Mpanda starts from within the Tabora Municipality traversing through the urban area and through Sikonge, Mlele and Mpanda Districts. The Tabora -Koga -Mpanda road is located in Tabora and Katavi regions, with the first 163.5 km in Tabora region and the remaining 192.5 km in Katavi region. The Koga River is the regional boundary. Bypasses have been proposed at Sikonge, Inyonga and at Uruwira.

2. Potential impacts

The roads upgrading and creation of bypasses and link road will result in loss of land and properties to the communities living within the vicinity of the road right of way (RoW) which is a total of 45 m. From the surveys done, the loss of asset will include: loss of land, residential structures, other structures like fences, loss of business structures, loss of profit and loss of business; and loss of trees and crops. There will also be losses to public and communal structures such as prayer houses and water electricity supply. While the community infrastructure will be directly compensated under the project, utilities such as water and power lines shall be replaced by the contractors during project implementation. More specifically, on the Mbinga – Mbamba Bay road an estimated 715 households will be affected in one way or another with 70 households having their residential houses affected, 4 combined residential and business structures affected, and another 641 households having either crops or trees or both affected. On the Tabora – Koga – Mpanda road, a total of 426 households will be impacted through loss of residential structures (863), 153 losing land, 4 mosques, 3 churches, 1 water well, 2 graves, 326

crop and tree owners, and 2 government institutions. As a requirement a final compensation schedule will be produced approved by the Chief Government Valuer before construction begins.

3. Organizational responsibility

A number of organizations and institutions will be involved with development and implementation process of the RAP at different levels as has been explained in the RAP reports. Among the organizations which will play a role are the following:

(a) Tanzania National Roads Agency (TANROADS): Following the clearance and finalization of the RAP, TANROADS is responsible for formally disclosing it in the country and among the affected people. For this purpose, TANROADS organizes sessions for the affected PAPs and community at large. The sessions are chaired by the RAP specialist from TANROADS and attended by the both Mbinga and Nyasa district Council and Ward / Village Government representatives.

(b) The Ministry of Finance: The Ministry of Finance through TANROADS will disburse the compensation funds to TANROADS Regional office to pay the PAPs and Public Institutions eligible for compensation. The Ministry of Finance will make follow-ups to ensure the funds have been accounted for.

(c) Ministry of Lands, Housing and Human Settlements and Urban Development: This Ministry is responsible for policy, regulation and coordination of matters pertaining to land in Tanzania. The Ministry administers the various Land Acts: Land Acquisition Act, the Land Act and the Village Land Act. The Ministry conducts Land use planning, management and land delivery activities. The Commissioner of Lands administers most issues dealing with land allocation, acquisition, and registration and land management. Also involved is the Prime Minister's Office Regional Administration and Local Government (PMO-RALG).

(d) Local Government (District Councils of Mbinga, Nyasa, Sikonge, Mlele and Mpanda) in collaboration with TANROADS will dispatch the dislocation notices to the concerned road sections.

(e) Ward and Village Level: Through the Decentralization Policy as enshrined in the Local Government (District Authorities) Act No.7, 1982, the Local Government (Urban Authorities) Act No. 8, 1982, and the Regional Administration Act (1997). Local Government at Village and Ward will be main focal points of the whole RAP implementation activities. This includes identification of PAPs as well as familiarity with the actual loss of the PAPs; and participating in the Village Grievance Redress Committee (VGRM).

(f) Independent local NGO: A local independent NGO will be involved to assist in raising public awareness on resettlement and facilitate local community participation in RAP implementation. This NGO will be involved to witness the fairness and appropriateness of the whole process. It will also be involved in the monitoring of the resettlement process, establishing direct communication with the affected population and community leaders.

4. Community participation

Comprehensive consultation meetings with various stakeholders were carried out before and during the development of Resettlement Action Plan. These consultations were aimed to involve the stakeholders and seek their views on various aspects in particular the resettlement issues arising from the upgrading of Mbinga – Mbamba Bay road; and the Tabora – Koga – Mpanda road.

General consultations (on the Mbinga – Mbamba Bay road) were held with Government Officials (including Ministry of Lands, Housing and Human Settlements Development), and other interested parties before conducting census and socio-economic survey of the Project Affected Persons (PAPs). Several meetings were held with TANROADS’ Officials (Head Quarters & Ruvuma Region), Officials from Ruvuma Regional Authority, Mbinga and Nyasa District Councils, Ruvuma Municipal Council and village government Officials. Consultations were also made in the 13 villages and one street along the proposed road. In the villages, consultative meetings were conducted at Mhekela, Kitelea, Sepukila, Kuhulila, Kihereketi, Likwela, Mitanga, Mitawa, Buruma and Chunya. Other villages include Mkalole, Nangombo and Kilosa village as well as Mbamba Bay Street.

Similar consultations (on the Tabora – Koga – Mpanda road) were held with Government Officials before conducting census and socio-economic survey of the Project Affected Persons (PAPs). Several meetings were held with TANROADS’ Officials (Head Quarters, Tabora & Katavi Regions), Officials from Tabora and Katavi Regional Authority, Sikonge, Nsimbo and Mpanda District Councils, Tabora Municipal Council and Katavi Town Council and village government Officials. Consultations were also made in the 19 villages along the proposed road. In the villages, consultative meetings were conducted at Chabutwa, Udongo, Ipole, Koga, Kamsisi, Inyonga, Utende, Uruwira, Isangala, Ikondamoyo, Nzaga, Msaginya, Isanjanduga A, Isanjanduga B, Songambebe, Mtakuja. Other villages include Mtakumbuka, Nsemubwa na Kashashi village as well as Mpanda Street.

The issues and concerns raised by the stakeholders and communities that were consulted raised included:

- Land acquisition for the road and for Contractor’s camp
- Land and property compensation
- Fair and timely payment of compensation
- Spread of communicable diseases such as HV/AIDS
- Employment
- Time of project implementation
- Cost for relocation of utilities
- Space for relocation of utilities

At village level, consultations were with communities, Ward/Village Chairperson, Village Executive Officers (VEO) and committee members

5. Integration with host communities

The consultations were conducted between the consultant and local community regarding the relocation. The entire communities potentially to be relocated prefer to be relocated within the existing community in each place. This will, hence, minimize the disturbance to implement the resettlement by moving people away from their original village who may require providing them with new services despite the fact that the displaced population is relatively small. The PAPs will, therefore, be relocated within their respective villages. From interviews conducted in the villages it was very clear that land availability was not considered to be a problem. PAPs can, in principle, acquire new plots in the same or other neighboring village. In addition, relocating people in the same villages has the following advantages:-

- o The displaced population can continue to utilize the existing social facilities such as schools, hospitals, mosques, churches and other religious and traditionally significant sites;
- o It maintains social and cultural relations. This is likely to sustain people's economic system, ways of production and other means of income generation and trading. Their productive skills remain applicable since no significance geographical and social change has occurred;

- o Neighborhood is being maintained. For any traditional society, neighborhood is a very important element of social life. People value and respect social integration within their communities. Helping each other during funerals, wedding and other socio-cultural ceremonies. More significantly the neighborhood includes kingship groups. It is upon these social facets, a simple society is maintained. Their immediate concern of the community was to be assured that they will be compensated as some of the interviewees, said that there is plenty of un-used village land. The village government should agree with those to be relocated depending on the available area.

6. Socio-economic studies

The preparation of the RAP reports, a population census covering current occupants of the affected area, including the description of the production systems, household organization, and baseline information on the environment was carried out. This included assessments of livelihoods and standards of living of the displaced population; an inventory of assets of displaced households; the magnitude of the expected loss (total or partial) for individual or group assets, and the extent of physical and economic displacement; information on disadvantaged groups or persons for whom special provisions may have to be made; provisions to update information on the displaced people's livelihoods and standards of living at regular intervals so that the latest information is available at the time of their displacement; description of land tenure systems, including common property and non-title based land ownership or allocation system recognized locally and related issues; public infrastructure and social services that will be affected; and social and cultural characteristics of displaced communities.

On the Mbinga – Mbamba Bay road, there are two districts of Mbinga and Nyasa. Mbinga district has 6 divisions, 43 wards, 166 villages and 1,086 hamlets. The district has 59,927 households with an average number of 5.8 persons per household. The population density was estimated at 44 persons per sq. km.; and the population was 368,651 of which male was 181,253 and female was 187,398. On the other hand, Nyasa District headquarters is in Kilosa/Mbamba Bay. Administratively, Nyasa district comprises 354 hamlets, 73 villages, 15 wards and 3 divisions. The 2012 population census put the population estimates at 146,160 people with 71,392 being males and 74,768 were females. The district

has 24,772 households with an average population of 4.8 persons per household. The population density is estimated to be 35.9 persons per square km.

With regard to education status, Mbinga District Council has a total of 227 primary schools and has a total of 79,473 pupils of whom 39,033 are boys and 40,440 are girls. The district has 55 Secondary schools (39 Government and 16 Religious Organizations and private). The schools have a total of 16,516 students (7,749 boys and 8,767 girls). While Nyasa district has a total of 98 primary schools with 35,616 pupils (17,899 girls and 17,717 boys). The district has 15 secondary schools (14 being government and 1 is privately owned) with 5,337 students (2,797 boys and 2,540 girls).

On health matters, Mbinga – Mpanda area has a district hospital at Mbinga and 68 health delivery points. Of these 3 are hospitals, and 7 health centers; and 58 dispensaries. The district also has some family planning services in 89.5% of all the health delivery points offer Family planning services. Some of the methods include pills, IUCD, injectable, condoms and voluntary surgical contraception. Among the health problems is HIV/AIDS related diseases mostly among young people. The district council has put this as its major priorities in making sure that people are knowledgeable and are able to take preventive strategies in fighting against HIV/AIDS, and has incorporated this in the Development Plan. On the other hand, Nyasa district has 27 health delivery points; 3 health centres and 22 dispensaries.

Regarding water supply and the transportation network, the Water Department collaborates with different stakeholders in providing clean and safe drinking water using the set National Standards of 400m radius. By the year 2014 the districts had accessed water to 186,138 people out of 353,683 people equivalent to 52.6 per cent of total population in Mbinga district. Mbinga district has a road network covering about 2,043 km the District Council managing community roads and paths and TANROADS managing the trunk and regional roads are under the management of TANROADS. On the other hand, Nyasa district has both road and marine transportation systems and has also two Aerodromes at Kilosa and Liuli wards, respectively. The road network is made up of 1,086 km of which only 61% are passable throughout the year.

Agriculture and livestock keeping are among the main sources of income in the project areas for 95% of the population. Mbinga district has over 475,893 ha of land suitable for agriculture and livestock keeping equivalent. However the area under cultivation is only 166,045 ha. Among the cash crops grown are coffee, cashew nut, simsim, sunflower etc., and food crops grown include maize, paddy, beans, cassava, bananas and wheat. On the other hand, Nyasa district has a total number of 71,082 of farmers of which 31,987 are men and 39,095 are women. Fishing is a major activity in Nyasa and also agriculture. Main crops include cassava, millet, sweet potatoes, wheat, maize and paddy as food crops; and cash crops include coffee and cashew nuts. The average farm size per household ranges between 0.5 to 2 acres. Nyasa has over 150,600 hectares of land suitable for agriculture with only 75,000 hectares under cultivation (2013/2014). In addition, Nyasa district has about 10,600 hectares suitable for but only 4,030 hectares is utilized. Nyasa district is endowed with 297,900 ha of Lake Nyasa water with an estimated 165, 000 tons of 500 different fish species.

Regarding sources of energy, Nyasa district being a newly established district is not yet connected to the national grid. The Government through Rural Electrification Agency is constructing transmission

lines from Mbinga to Nyasa, which will benefit at least 53. Meanwhile, there are a few small petrol and diesel powered generators at Mbamba bay mainly owned by individuals. The main energy sources are biomass (particularly charcoal and wood fuel), kerosene, disposable batteries and photovoltaic solar panels. The major population depends mainly upon biomass- firewood, charcoal and to some extent crop residue to meet their basic daily needs for cooking and heating water. With regard to housing in Nyasa district, most houses are built with wooden poles/mud walls, earth floor matted with scalable special grass, and roofed with corrugated iron sheets. Upscale houses are built with burnt bricks, with cement floors and roofed with corrugated iron sheets.

On the Tabora – Koga – Mpanda road, the situations in most cases with regard to socio-economic status of the people is the same. A review of the demographics and administrative structures shows that Sikonge district had a population of 179,883 according to the 2012 census with 88,947 and 90,936 being male and female, respectively. Nsimbo district has a population of 144,245 where 71,428 is male and 72,817 female.

On agricultural, it is estimated that about 85% of the population in Katavi region depend on agriculture and livestock for their livelihood while about 87% of the population in Mpanda and Mlele district is engaged in agricultural production. The climate and environment of Sikonge and Mlele districts favour livestock production.

As regards education services, Sikonge district has 83 pre- primary schools with 4,473 pupils, among these, 1292 are boys and 2,281 are girls. There are 91 primary schools with a total of 34,786, out of these 16,817 are boys and 17,769 are girls in the district. There are 19 Secondary Schools 45 vocational training institutions. On the other hand, Mlele district council has 38 primary schools (2013) with 20,020 pupils of which 10,241 were boys and 9,779 were girls. The district has 7 secondary schools. In Nsimbo district, the every primary school has pre-primary education facility and has 51 (2013) primary schools and 10 secondary schools. The district has 2 teacher resource centers; one Folk Development college; and a Special Education primary school for the deaf, disabled and mentally retarded children. As regards water supply and health facilities, Sikonge district has over 90% of households with no access to piped water supply system, with a few depending on shallow and deep wells, and the majority on ponds and other sources. However, over 134,897 people have access to safe and clean water. Of the 138,323 inhabitants of Mlele district council, 51,250 people have access to clean and safe water. From the health point of view, Sikonge district has a Hospital, 3 health Centres and 30 dispensaries. The ten predominant diseases include: malaria, Acute Respiratory Infections (ARI), worms, diarrhoea, pneumonia, Urinary Tract Infection (UTI), eye diseases, skin diseases, pelvic inflammatory diseases, and other HIV/AIDS related complications. Sikonde district had (2008) an HIV/AIDS prevalence rate of 5.6%. On the other hand, Mlele district council has also one hospital, three health centers and twelve dispensaries; and 6 privately run dispensaries. Nsimbo district council has 3 health Centers and 15 dispensaries. On the other hand Mpanda district hospital is the major hospital that covers a radius of about 150km. In addition, Mpanda has 8 health centers and 41 dispensaries.

7. Legal framework, including mechanisms for conflict resolution and appeal

This section discusses the applicable legal and administrative procedures relevant for the RAP including a description of the remedies available to displaced persons in the judicial process including dealing with disputes. Currently there is no specific policy as “Resettlement Policy” in Tanzania. However, the resettlement in the country is guided by the National Policies and Laws related to land issues. In addition, the Ministry of Works has prepared the Road Sector Compensation and Resettlement Guidelines, which are adhered to during the implementation of road projects. Prior to the enactment of a framework legislation to govern land issues in Tanzania, there existed various statutes that dealt with land matters as follows:

The National Land Policy (1995): The National Land Policy (1995) provided for a dual system of tenure, which recognizes both customary and statutory right of occupancy as being equal in law be established. The policy further establishes that the land has value, and that land rights and interests of citizens owning land shall not be taken without due process of law and with full, fair and prompt compensation once land is acquired.

National Human Settlements Development Policy (2000): The overall goal of the policy is to promote development of sustainable human settlement and to facilitate provision of adequate affordable shelter to all people, including the poor. The policy outlines a number of objectives including the environmental protection within human settlement and protect natural ecosystem against pollution, degradation and destruction with the aim of attaining sustainable development.

African Development Bank: The Integrated Safeguard System of the African Development Bank (AfDB) guides the operationalization of a set of environmental/social policies, requirements and recommendations that apply to its projects which are important for consideration. A number of documents are of relevance:

- o Integrated Safeguards System (2013)
- o Involuntary Resettlement Policy (November 2003);
- o AfDB Group’s Policy on the Environment (February 2004);
- o The Bank’s procedures delineate how to proceed to integrate environmental/social issues in the project cycle, including resettlement and the development of a resettlement plan when/if appropriate;
- o Environmental and Social Assessment Procedures for AfDB’s Public Sector Operations (June 2014);
- o The Bank’s Guidelines detail requirements for any specific project, and when delineating potential beneficial/adverse impacts and corresponding enhancement/mitigation measures, outlines a component on migration and resettlement;
- o Integrated Environmental and Social Impact Assessment Guidelines (October 2003).

Land Act [1999]: The land Act, No 4 of 1999 regulates the urban land. For the Tanzania Mainland, the Land Act (1999), Land Regulations of 2001 and government standing Order on expropriation for public utilities prescribes that holders of occupancy rights on land pre-empted for the public works must be compensated and assisted in relocating their assets to the nearest suitable place. The compulsory resettlement of buildings, farms and businesses premises must ensure at least equal compensation values.

Land Acquisition Act No. 47 of 1967: The Land Acquisition Act of 1967 stipulates the power and the procedures for acquiring land and the required degree of compensation. Section 3 & 4 of the acts provide that, the president may acquire land from any estate or term provided such land is required for public purposes such as for exclusive government use, general public use, any government scheme, development of social services or commercial development of any kind including declamation.

Compensation Disputes Section 13(1): This deals with issues where land is acquired and dispute over compensation arises in any of the following matters: the amount of compensation; the right to acquire the land; the identity of persons entitled to compensation; the application of section 12 to the Act; and any right, privilege or liability conferred or imposed by this Act.

Urban Planning Act, 2007: The urban Planning Act, 2007, has repealed the Town and Country Planning Act, Cap 378. Under Section 67, the Urban Planning Act, 2007, states that, compensation shall be paid as provided under the Land Act, Cap 113 and Village Land Act, Cap 114.

Land Use Planning Act, 2007: The provisions on compensation in this Act are to a large extent similar to those of the Urban Planning Act, 2007. Section 39 of the Act provides that the compensation to land required will be determined and paid according to the Land Act, Cap 113 and Village Land Act, Cap 114.

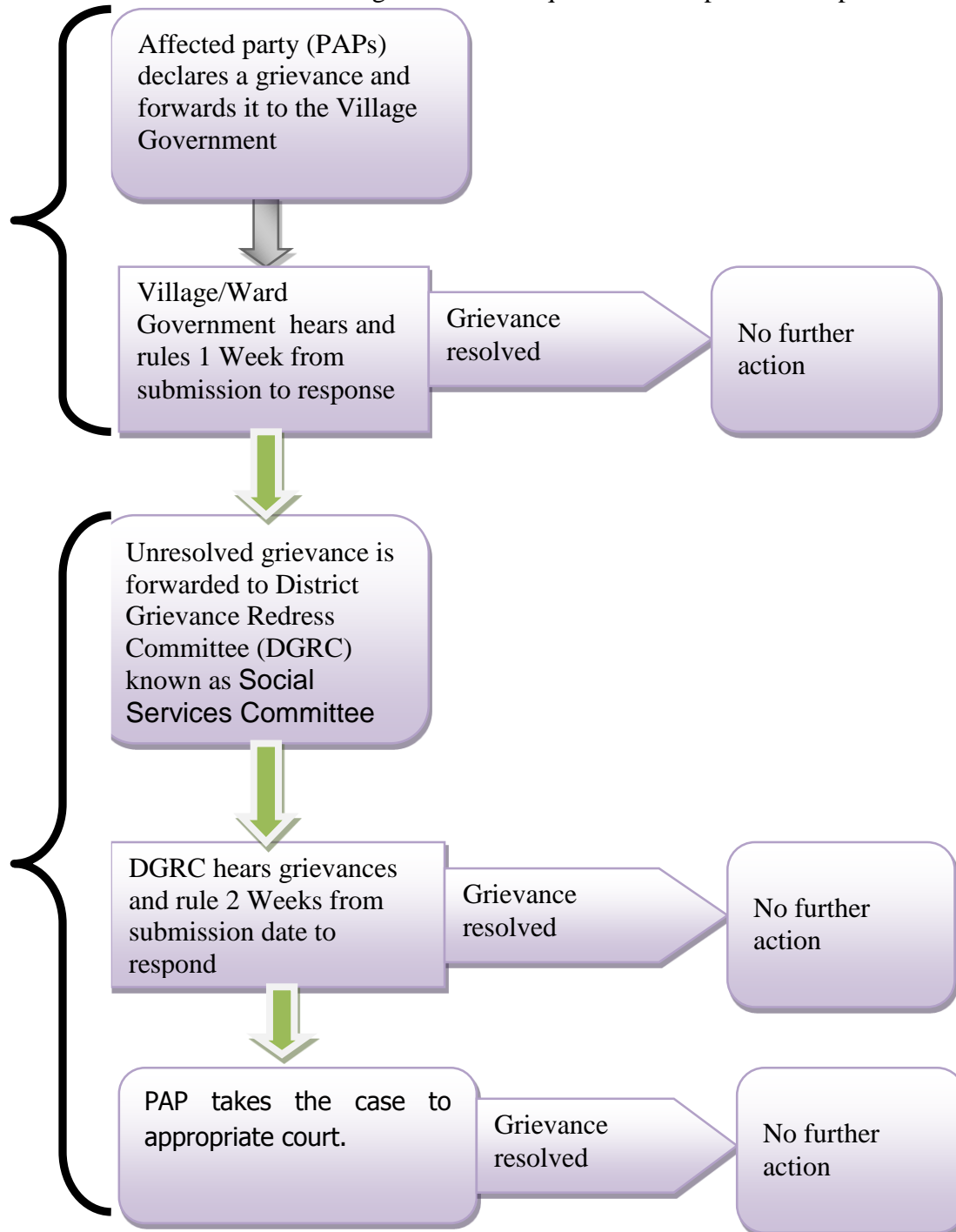
The Road Act 2007: Part III, Section 16 of the Act addressed the issue of compensation for acquired land for road development. The Section emphasized that, where it becomes necessary for the road authority to acquire land owned by any person for the purpose of this act, the owners of such land shall be entitled to compensation for any development on such land in accordance with the Land Acquisition Act (1967), Land and Village Land Acts (1999) and any other written law.

Road Sector Compensation and Resettlement Guidelines: Road construction projects often necessitate the acquisition of land for the purposes of the road corridor and the road reserve. This may result into the encroachment of land and property, damage to the sites of cultural or personal importance, disruption of sources of income and in the displacement of people. In most cases, the disruption occurs against the wishes of those affected or without their informed consent, despite their status as project beneficiaries.

8. Grievance Redress Mechanism

The RAP will be made available to the public, the appeal structures at various levels, specifying the responsible parties charged with responsibility of dealing with complaints and grievances. It is recommended that the aggrieved parties should attempt to get their complaints solved at the community or traditional meetings for dispute resolution. If need arises, the local NGOs will be contracted and involved to hear complaints and attempt to affect a resolution before they enter the legal and administrative appeals hierarchy. The aggrieved PAP shall have to submit the dispute to the village government. The Village government has one week to resolve the dispute. If a given dispute is not resolved in one week it will go to the District Grievance Redress Committee (DGRC), which has two

weeks to resolve the dispute. Unresolved disputes can be referred to appropriate level of land courts established by law and in extreme cases go to the High Court of Appeal of Tanzania. The flow chart below summarizes the various stages and time required at each point in the process.



9. Institutional framework

Several agencies responsible for resettlement activities and NGOs that may have a role in project implementation have been identified; and assessed for their institutional capacity. A number of organizations and institutions will be involved with RAP implementation processes at different levels and times. This section provides a list of all agencies and institutions involved in each step of the resettlement process (preparation, appeals, implementation and monitoring). The experience of the majority of the actors involved are deemed adequate to the tasks to be carried out and therefore no particular capacity building measures have been recommended. Following RAP clearance for payment by Chief Government Valuer, TANROADS will formally disclose the RAP and payment amounts to the affected people. For this purpose, TANROADS will organize a number of sessions with PAPs. The sessions will be chaired by the RAP specialist of TANROADS and attended by representatives of the higher territorial hierarchies (Districts and Ward/Village); and adequate display materials will be utilized.

Working with local representatives, TANROADS will identify a local NGO or a CBO which will assist in raising public awareness on resettlement and facilitate local community participation in RAP implementation. The overall coordination of RAP activities will be under TANROADS and other institutions and organizations that have the legal obligations to carry out functions related to resettlement and or compensation including various local authorities, hence:

- o TANROADS will support sensitization of stakeholders on RAP, preparation and monitoring of RAP;
- o Local Government Authorities will sensitize communities on RAP, provide technical support in preparation of RAP, screen and appraise and monitor the implementation of RAP;
- o Communities, from Villages, Wards, affected groups as the final owner of land, landed properties and assets to be acquired or affected will be the participants in the process;
- o Independent NGOs /CBOs and other stakeholders will be engaged to witness the fairness and appropriateness of the whole process. The NGOs will be involved in the monitoring of the resettlement process, establishing direct communication with the affected population, community leaders, TANROADS to facilitate the completion of RAP;
- o External Audits shall include the evaluation of the implementation of the resettlement action plans in routine annual audits.

TANROADS shall facilitate the setting up of various committees that will have input to the implementation and monitoring of the RAP. Notably there will be the following:

- o Resettlement Committee chaired by the District Commissioners with membership from TANROADS regional office, TANROADS headquarters, Ministry of Lands, the Consultant, a representative of a local NGO, and representatives of PAPs.

- o Compensation Committee Chaired by TANROADS headquarters, with members from Ministry of Lands, the Consultant, representatives of PAPs, and the Valuer.

o Dispute Resolution Committee to be chaired by the District Commissioners, and members from TANROADS regional office, TANROADS headquarters, Ministry of Lands, Valuer, a representative of a local NGO, and representatives of PAPs.

10. Eligibility

Project affected persons are defined as those who are directly affected socially and economically through the road project caused by:

- a) The compulsory taking of land and other assets resulting in the following:
 - i) Relocation or loss of shelter;
 - ii) Loss of assets or access to assets; and
 - iii) Loss of income sources or means of livelihood whether or not the affected persons must move to another location or not; and

- b) The forceful denial to access legally designated social economic services, with adverse impacts on livelihood of the displaced individuals

The eligibility cut-off date refers to the time when the assessment of persons and their properties in the area was carried out. For the Mbinga – Mbamba Bay road, the cut-off date was 28 February, 2015 while that for the Tabora – Koga – Mpanda was 31st January, 2015. Assets that are eligible for compensation are land and developments there-on such as buildings, facilities, trees, crops; affected public social services such as utilities, communal assets such as cemeteries, water sources, cultural and historical properties, public facilities such as prayer houses, schools and markets will all be eligible for compensation under this RAP. Eligibility for compensation and relocation assistance, in accordance with Tanzania Laws and African Development Bank Guidelines will take into account only those who existed before the enumeration of properties and assets in the project area. These are categorized as follows:

- a) Those who have formal legal rights (including customary and traditional rights) recognized under the laws of Government of Tanzania;
- b) Those who do not have formal legal rights to land at the time of conducting census, but have a claim to such land or assets provided that such claims are recognized under the laws of Government of Tanzania; and c) Those who have no recognized legal rights or claims to land they are occupying but were occupying the land at the time of the enumeration.

11. Entitlement Matrix

The principle adopted from the Tanzania Laws establishes the eligibility and provisions for all types of losses (land, structures, businesses, loss of accommodation, disturbance, crops, trees, and transport costs resulting from displacement). All affected persons will be compensated at full replacement costs and other allowances. Following the apparent gap in Tanzania laws on involuntary policy and that of

the AfDB, this RAP will be aligned with the AfDB Guidelines which indicate best practices for rehabilitation of livelihoods of people affected by the implementation of the project. The AfDB Guidelines will be applicable because:

- (i) They are involved in the funding of the project, and
- (ii) Its policy best fulfil the pro-poor objectives of the projects, ensuring that the conditions of PAPs are preferably improved or at least restored to pre-displacement levels as well as offers special considerations for vulnerable and landless PAPs.

S/ N	Type of loss	Entitled person	Entitlements
1	Land	Owners of land through customary or legal acquisitions	Cash compensation for the area of land affected at prevailing market rates
2	Main Structure totally affected (residence/ commercial)	Owners of structures in the project area	<input type="checkbox"/> Cash compensation for the entire structure at replacement cost <input type="checkbox"/> Disturbances allowances <input type="checkbox"/> Cash compensation for loss of profit <input type="checkbox"/> Transport allowance <input type="checkbox"/> Accommodation allowance
3	Prayer house (Church or mosque)		
4	Crops/Trees affected	Owners of crops/trees	Cash compensation of the crops and trees affected at prevailing market rates

12. Valuation of, and compensation for losses

Based on the results of the census, the valuation of all the expected losses total or partial, permanent or temporary and of their replacement cost was calculated. All the unit costs and coefficients used are guided by the local regulations as approved by the Chief Government Valuer. Additional support in a form of allowances is paid to affected families and individuals as part of the total compensation. Particular support goes to the PAPs through assistance and allowances calculated as follows:

- (i) Disturbance Allowance: Disturbance allowance is payable as a percentage of real property value as percentage based on the average commercial bank rates offered on fixed deposits from the various financial institutions in Tanzania which is currently at 4% per annum.

(ii) Transport Cost: Transport allowance is computed based on the average cost of transporting 12 tons over a distance of 20km which is estimated at Tshs 200,000/=.

(iii) Loss of Accommodation: Laws of Tanzania require an accommodation allowance equal to the amount payable for a similar property of the same value to support the PAPs in paying rent for an alternative accommodation during the period of construction of an alternative accommodation. In accordance with the law accommodation allowance is calculated on the basis of monthly rent of the acquired property per month over a 36 month period.

13. Implementation schedules

The RAP report has described the different steps and activities that shall be conducted to carry out the abbreviated resettlement plan from preparation through implementation. The following measures shall be taken and are also presented in the Gantt chart below:

- If necessary, updating of the census and identifying absentees land owners;
- Disclosure and validation of the list of persons deemed eligible for compensation;
- Disclosure of the valuation of individual and community losses and compensations;
- Identification of land and clearing;
- Negotiation for each individual record with the affected person or household;
- Negotiation for community compensations;
- Payment of cash compensation;
- Construction of new houses/structure allowances has been provided maximum 3 months;
- Assistance to DPs notably to vulnerable groups.

Implementation Schedule for the RAP

Task	Months of Year 2015												2016	
	Jan	Feb	Mar	Apr	May	Jun	July	Ag	Sep	Oct	Nov	Dec	Jan	Feb
Identification of affected land and other assets.														
Preparation and conducting of household surveys of PAP s and Establishment of cut-off-date.														
Consultations with PAPS communities and stakeholders														
Identification of categories of affected assets, ownership/use status.														
Finalization of draft RAP report														
Response to feedback to draft RAP and RAP finalization														
Submission of final RAP and budget														
Approval of budget for implementing RAP														
RAP disclosure and circulation														

Task	Months of Year 2015												2016	
	Jan	Feb	Mar	Apr	May	Jun	July	Ag	Sep	Oct	Nov	Dec	Jan	Feb
Establishment of Grievance Redress mechanism														
Revision and approvals of compensation schedules														
Mobilization of Compensation Money- Ministry of Finance														
Opening Bank Accounts with Bank														
Certified List of names with Bank Accounts sent to TANROADS by Bank														
Compensation to PAPs-payment through banks (for those getting or equal to 400,000 Tsh)														
PAPs informed by TANROADS/or consultant that funds have been deposited into their accounts														
TANROADS prepares open checks for PAPs getting less than TShs 400,000														
TANROADS prepares record form for PAPs to sign upon receiving the check														
Land acquisition-Notice of COI clearance														
Monitoring and Evaluation														

14. Costs and budget

RAP Implementation costs have been evaluated and these are provided in the table below. The total amount for the two roads is TSh. 4,920,099,149.9 and is split between the two roads as shown below. The costs include implementation, support allowances, contingency but do not include costs for relocation of utilities as this will be covered under the contractor's bills of quantities. The RAP costs will be met by the Government of Tanzania as part of its counterpart funding for the project.

Summary of Costs for RAP Implementation

SN	Type of Asset	Tabora-Koga-Mpanda		Mbinga-Mbamba Bay	
		Quantity	Amount TSh.	Quantity	Amount TSh.
1	Residential Structures		1,694,538,543.00	57	455,114,848
	Business Structure		1,285,411,646.00	13	48,7741,033
2	Crops		123,546,400.00	414	385,050,346
3	Land		82,516,650.00	2	95,040
	Religious structures		192,802,903.00		
5	RAP Implementation and Monitoring		123,000,000		82,000,000
6	Sub – Total		3,501,816,142		971,001,267
7	Contingency 10%		350,181,614.20		97,100,126.7
8	GRAND TOTAL		3,851,997,756.20		1,068,101,393.7

15. Monitoring and evaluation

The monitoring and evaluation procedures have been elaborated and will include external and internal monitoring and evaluation of the compliance of the actual implementation with objectives and methods as agreed on, and monitoring of specific situations as they arise. Internal monitoring will be the prerogative of the Project implementation unit within TANROADS and an NGO/Consultant to be sub-contracted. External monitoring shall be carried out by various stakeholders including the ward and district personnel, representatives of NGOs/CBOs (often representing PAPs) on the ground, and TANROADS itself. The Ministry of Lands and Works shall also play a role in monitoring and where necessary, NEMC shall also be involved.

The evaluation shall focus on general assessment of the compliance of the implementation of the Resettlement Action Plan with general objectives and methods as set in this document; assess the compliance of the implementation of the Resettlement Action Plan with laws, regulations and safeguard policies; assess the consultation procedures that took place at individual and community level, together with the Central Government and Local Government levels in Tanzania; assess the fairness, adequacy and prompt compensation as they have been implemented. This would also look at the impact of the compensation on income and standard of living; and identification of actions as part of the on-going monitoring to improve the positive impact of the program and mitigate its possible negative impacts, if any. Below are the core indicators to be monitored, overall.

Core Indicators for Monitoring & Evaluation of RAP Implementation

	Issue /Impact	Monitoring Indicator
1	Physical loss of building, land, plot, crops	<ul style="list-style-type: none"> - Number of PAPs compensated - Number of Bank Accounts opened - Number of Buildings demolished - Number of PAPs able to establish pre-displacement activities, land, crops - Number of community properties relocated - Number of trees cleared
2	Loss of social services	<ul style="list-style-type: none"> - Number of community properties relocated
3	Psychological loss	<ul style="list-style-type: none"> - Number of PAPs paid relevant allowances
4	Sociological loss	<ul style="list-style-type: none"> - Number of vulnerable individuals supported
5	Grievances	<ul style="list-style-type: none"> - Number of grievances received - Number of grievance resolved
6	Consultation	<ul style="list-style-type: none"> - Number of consultations held
