

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) SUMMARY

Project Name: Trunk Road Rehabilitation Project (Blantyre-Zomba Road)
Country: Malawi
Project Number: P-MW-DB0-011

1. Introduction

The Malawi government intends to implement a road rehabilitation programme for the Blantyre-Zomba (M3 Road) which is approximately 60 km long. The road traverses three districts of Blantyre, Chiradzulu and Zomba. The Blantyre-Zomba road is also designated as part of Route 29 of the Southern African Development Commission (SADC) Regional Trunk Road Network (RTRN) linking southern Malawi to the northern part of the country and further north to the border with Tanzania. The existing gravel road running south from Blantyre to Nsanje and the track to the border with Mozambique at Marka completes Route 29 of the RTRN in Malawi. As such the road has been identified by GOM as priority for rehabilitation intervention to improve the quality of transport services for trade, passenger, easy access to inputs, markets, health, education and other social services which will enhance economic activities in the area and improve the living standards of the communities in the zone of influence.

The Malawi Growth and Development Strategy (MGDS), the country's second generation poverty reduction strategy for period 2006-2011, identifies infrastructure development and rehabilitation as one of the five themes for poverty reduction. The biggest percentage of the population, live in rural areas and depend on subsistence agriculture for their livelihood. Currently the inadequacy of road infrastructure has negatively affected the delivery of agricultural inputs to the rural population and the transportation of outputs from these areas.

The envisaged road works will, to a larger extent, be confined to the existing alignment. It suffices to say though that the existing road was constructed during the colonial era (1954) when Zomba was the official administrative capital of Malawi and Blantyre the commercial capital, hence modifications to the geometric and vertical alignments will be expected. In accordance to the Environmental laws of Malawi and consistent with the environmental and social impact assessment procedures of the Bank, a full ESIA and RP were deemed necessary.

2. Project Description and Justification

The project concept is to rehabilitate and upgrade the existing Zomba – Blantyre (M3) road to high class engineered bitumen standard with a 36 m road reserve in rural areas, and less in urban areas. The road will have a carriageway of 6.7 m and 1.5m single sealed shoulders on either side with a maximum design speed of 80 km/hour. Once construction commences it will involve a lot of civil works including clearing, excavation and levelling of soil, mining of gravel and quarry, transportation of materials, water abstraction, compaction of sub-base material, road sealing, construction of road related infrastructure such as bridges and drainage systems, shouldering, road signage and others. The contractor will use different types of equipment during the implementation of this project including heavy excavators, earth moving equipment, compactors and other lighter equipment. Road rehabilitation demands high engineering standards and will therefore necessitate the deployment of qualified civil engineers and other experts including various technicians and a reasonable labour force. In the process of road

rehabilitation, the contractor will build several campsites to accommodate staff and facilitate the storage of materials and equipment.

It is envisaged that these activities will cause significant environmental and social impacts that may be reversible depending on their magnitude and mitigation measures to be put in place. Prevention of such impacts is a priority but where it cannot be achieved appropriate mitigation and pollution abatement measures will be put in place to minimise environmental damage.

The Zomba-Blantyre road upgrading project is a very important undertaking that aims at improving accessibility between two cities of Blantyre and Zomba. These two destinations are important economic hubs which are currently connected by a substandard road that will soon fail to support transportation of goods and services and passengers. This road was built to stimulate development in the southern region of the country between Zomba and Blantyre Cities. The road has been instrumental in facilitating trade, tourism, agriculture, health, education and other sectors of the economy. The shifting of the capital to Lilongwe City and the construction of the link road (M3/M1) between the two towns further enhanced the importance of the road in that the economic engine that helped build the Capital City of Lilongwe was based in Blantyre (industry) and Zomba (public administration /parliament).This road has, therefore, played a key role in the growth of Lilongwe City to its current state.

Project activities will involve the following: -

- Clearing of vegetation along new horizontal alignment and existing road sides to widen the road
- Cut and fill to change vertical road alignment, remove top layer and to facilitate the construction of road related infrastructure including bridges and culverts
- Excavation of gravel sub layers and other fill materials
- Construction of campsites involving construction of temporary shelters, installation of water and electricity, paving or levelling to accommodate equipment and stores, etc.
- Blasting and mining of quarry
- Construction of temporary reservoirs for water abstraction
- Application or drainage of excess water
- Transportation of soil and construction materials
- Construction of road related infrastructure including bridges, culverts, parking spaces, signs, and other drainage systems
- Application and Compaction of base layer and sub base natural laterite gravel and sub grade layer of any classified material to facilitate road paving and sealing
- Road paving and sealing
- Road signage
- Construction of road shoulders and road drainage systems
- Landscaping and rehabilitation of degraded sites including borrow pits and detours
- Re-vegetation
- Decommissioning of project

3. Policy, Legal and Administrative Framework

The ESIA was carried with reference to the key policy, legal and administrative instruments at national. Some of the instruments consulted included the Constitution of the Republic of Malawi, 1995, Fisheries Conservation and Management Act of 1997, Land Act, 1969, Malawi Forestry Act, 1997, Monuments and Relics Act, 1990, National Decentralization Policy, 1998, National Fisheries and Aquaculture Policy, 2001., National Forestry Policy, 1997, National Local Government Act, 1998 and others. Reference was also made to the African Development Bank Environmental policy and Involuntary Resettlement Framework. The relevant conventions to which Malawi is a signatory were also outlined. The Environment Management Act of 1996 provides for the protection and

management of the environment, and the conservation and sustainable utilization of natural resources. It makes EIA mandatory for projects that may have adverse environmental impacts. Guidelines for EIA were published in 1997.

As regards compensation and resettlement, the Constitution clearly states the processes for the acquisition of land, compensation and means for redress. The Land Act (Cap 57.01) governs customary, public and private land, and regulates the use of land. The Public Roads Act (Cap 69.02) deals with all matters relating to public roads, construction and maintenance, including compensation of land take for road construction, while the Town and Country Planning Act (Cap 23.01) controls development in urban and rural areas, the acquisition of land, and compensation due to use of land.

The Roads Authority was established by the Road Authority Act of 1997. Among its core values is to ensure compliance with environmental and road safety regulations. The Environmental Management Unit was established within the RA with the mandate of integrating environmental issues into road sector activities. To this end, the RA has produced Environmental and Social Management Guidelines in the Road Sector (2007), and Draft Environmental Review Guidelines and Best Practices in the Malawi Road Sector.

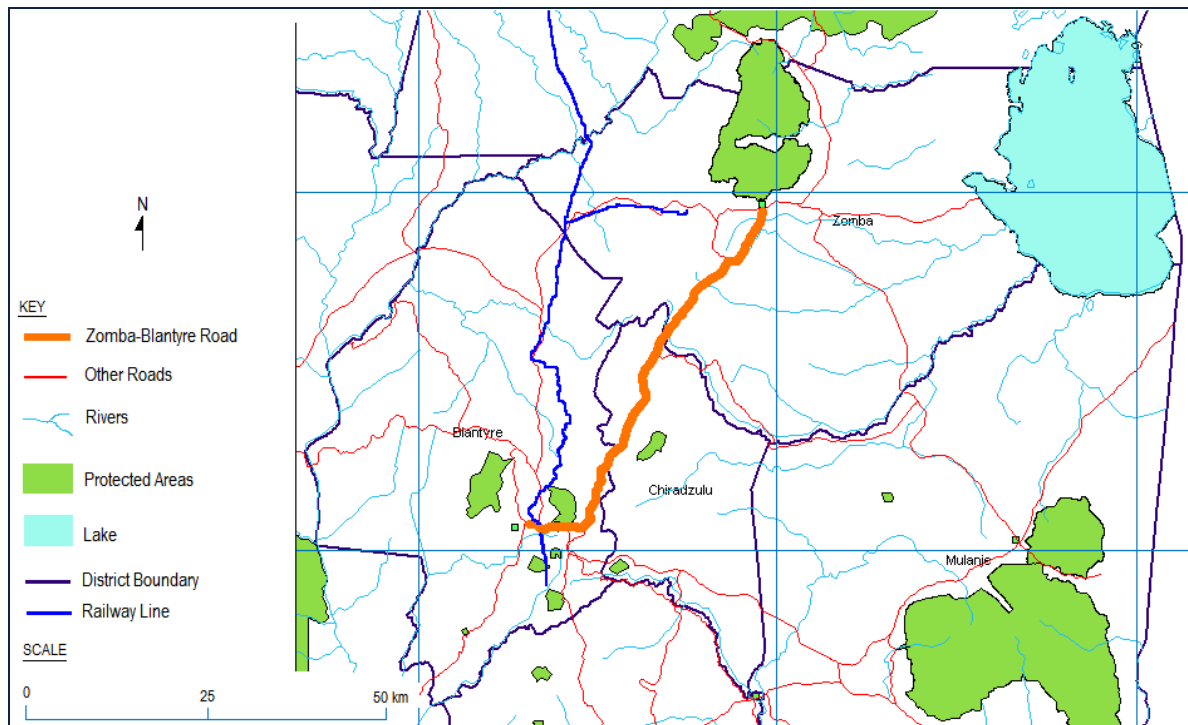
Under the Environment Management Act, the Department of Environmental Affairs (DEA) is responsible for the overall coordination of environmental issues in the country. The EMU of the RA must ensure that environmental and social impact assessments for road projects are adequately carried out, that mitigation measures are incorporated as appropriate, and that the construction process is environmentally and legally compliant. Furthermore, EMU is responsible for monitoring the environmental and social repercussions of the road project after its completion.

4. Description of the Project Environment and Location

The road is located in the Southern Region of Malawi (Malawi is sub-divided into three Regions: South, Central and North). The road commences in Blantyre City and goes through Blantyre District, Chiradzulu District, Zomba District and ends in Zomba City. The road location is also shown in diagram below. The map in this diagram displays the existing road alignment between Zomba and Blantyre and the relationship to other roads. The map also shows location of major rivers and protected areas. It also shows the perimeter of Lake Chilwa. It is important to mention that Zomba City is at the foot of Zomba Plateau which is the third highest mountain in Malawi with approximately 2,130 meters and is believed to have one of the most stunning views in Africa.

The topography of Zomba district varies from mountainous and hilly regions that comprising the ridge dividing the Upper Shire Valley in the Western part of the district to the broad, flat plains of Lake Chilwa in the East. The district elevation varies from 2,130 m asl on Zomba Plateau to 627 metres at Lake Chilwa. The diverse topographical characteristics generate a variety of climatic zones between different areas of the district. This gives the district high potential for agro-economic and social development. The topography of Blantyre district on the other hand can be divided into two distinct categories namely the Phalombe- Thuchila plains and the Shire highlands. The Shire highlands (Blantyre-Thondwe) fall at an altitude ranging between 800-1,200 m asl, and are characterized by undulating or rolling topography. This makes agriculture very unsustainable, as soil erosion is rampant. Blantyre District is located on the eastern

edge of the Great Rift Valley, hence has varied topography ranging from an elevation of below 400m to over 1600 m asl.



The geology of Zomba district is varied with a base complex composed of metamorphic rocks derived from sedimentary and igneous rocks of Precambrian origin. These contain limestone, sand and gemstones. Lake Chilwa Plain surfaces are largely sandy, and the underground rocks show some stratification. Generally, these rocks can be used in construction of building foundations. The geology of Blantyre district depicts a sandy basement complex rocks, fluvial and colluvial deposits, with common additions of lacustrine materials. The highlands have been formed on Basement Complex rocks (gneiss, granulites and syenites). Inselbergs are frequently found. The soils are predominantly deep, well drained and medium or fine textured.

The most conspicuous and dominant physical feature of the district is the numerous hills, which are found in all parts of the district. The main hills are the headwaters of several rivers and streams, which form a natural drainage system with nine district catchment areas namely Likhubula, Lunzu, Mombezi, Khombwe, Mudi, Chisombezi, Limbe, Luchenza and Mwamphanzi. Most of the rivers are directed towards the lake Chilwa (a sensitive wetland ecosystem) in the eastern side of Zomba District others are directed towards the Shire River to the west of Blantyre.

The project road mostly passes through the chromic luvisols and haplic lixisols. These soils are alluvial in nature and have some laterite in mountain areas. In general, Malawi's soils are predominated by three major soil types: the Eutric leptisols, the Chromic levisols and the Haplic lixisols of variable morphology with localized areas of Acrisols, Cambisols, Gleysols, Phaezems, Planosols and Vertisols.

The climate of the project area is cool to hot with annual average temperature ranging from 15-25 degrees Celsius. Zomba experiences a Tropical Climate with three main seasons – cold-dry, hot-dry and hot-wet, ranging, respectively, from April to July, August to October and November to March. The hottest months are September, October and November, with temperatures ranging from 28 to 30 degrees Celsius. June and July are

the coldest months, with temperatures as low as 10 to 12 degrees Celsius. Zomba receives annual rainfall of between 600mm and 1500mm. The climate of Blantyre is greatly influenced by its location within the tropical zone and altitude. The district experiences the Tropical Continental climate with two distinct seasons in the year. The district is generally cool with mean annual temperatures ranging from 13 degrees centigrade during cold season to 21 degrees centigrade during the hot season. There are particularly two spells of uncomfortable weather: the hottest season associated with high humidity (end October to November), and the frost along rivers, mist and chilly showers and winds characteristic of cold season in June and July.

Mean annual rainfall ranges from 900- 1100 mm. On average, February is the wettest month. More rainfall tends to fall on the windward (eastern) side of Zomba Mountain. Areas to the west of Zomba Plateau experience little rainfall throughout the year, as they are located on the leeward side. The rainy season is from November to April, with a continuation in form of light cold showers locally known as "Chiperoni" from end May to July. The dry season is from May to October. The mean annual rainfall is 1122 mm of which 80% falls within 3 ½ months between November and March.

With regard to land use, Zomba district has a total area of 2,541 square kilometers most of it under customary land tenure system. The Municipality of Zomba covers total land area of 22,800 ha. Of this land, 10,242 ha (44.9%) is used for urban development, followed by forest reserves and plantations covering 5406 ha (23.7%); and 7152 ha (31.4%). Much of the undeveloped/undetermined land used for crop production mainly maize. Approximately 79 % of the land in Zomba is under cultivation. Forests cover 8 % and human settlements and other uses cover the remaining 13%. Major land use in Chiradzulu District is agriculture covering 54,475 ha from land capacity of 76,000ha. The total available arable land is 33,000 ha. This shows the pressure that is exerted on land. More than 20,000ha of land cultivated in Chiradzulu is marginal land prone to a lot of environmental problems e.g. soil erosion. The remaining land is covered by forests, human settlements and other uses. Land in Blantyre is mainly used for agriculture, settlement, natural and planted forests, and animal grazing.

Agricultural activities determine the appearance of the project area. Main food crops include maize, cassava, beans, peas ground nuts, sweet potatoes, banana, avocado pears, tomatoes, and rice which is cultivated on the edge of the wetlands. Most farmers are smallholders, but a number of large tobacco, tea and coffee estates are also operating in the area. Upper catchments degradation and poor agricultural practices, such as steep slope cultivation results in an increase in both the frequency and severity of flash floods. This causes heavy erosion and a higher silt load of rivers as well as infrastructure breakdown. The loss of topsoil leads to poor agricultural yields in the catchment.

The vegetation of Zomba is primarily Savannah and is classified into two distinct biotic communities semi-evergreen forest, and wetlands. 'Miombo' Woodlands comprise forestlands in the plateaux, hills and escarpments that have medium to high rainfall. 'Mopane' Woodlands, which are largely dominated by *Colophospermum mopane* with open glades, cover the fringes of the district. Woodlands of this type tend to be associated with mopanosols and compact alkaline soils with unstable structural characteristics that, as a result, are usually left uncultivated. Wetland vegetation consisting of perennial wet fringes is found around Lake Chilwa. Woodlands consisting of natural tree species like *brachystegia stipulata*, *brachystegia manga*, *brachystegia speciformis* and *jusbemadia globifora* exist in a few protected forest reserves (particularly on plateaus, hills and escarpments). However, most of the natural vegetation has been greatly reduced and has been replaced by exotic bluegum, pine, gmelina and other tree species. These tend to be major sources of firewood, timber and

charcoal burning. Distinct feature of Blantyre district is the heavy depletion of vegetation due to clearance for the construction of buildings and urban infrastructure, crop cultivation and exploitation for firewood and charcoal making. The little natural vegetation remaining consists of *Brachystegia* hill or plateau woodland found mainly within graveyards/heritage sites. The Chiradzulu Mountain contains a lot of rare species of dicots, monocots and pteridophytes.

Many lower plants are unknown to the people due to lack of expertise to thoroughly study them. Indigenous plant species dominate most rural areas. Some rare species of plants found include: *Chlorophytum sparsiflorum*, *Kniphofia splendida*, *Panicum brevifolium*, *Tripogon modestus*, *Urginia mandalensis*. Unthreatened plant species include: *Aloe christianii*, *Aloe duckeri*, *Aloe swynnertonii*, *Scadoxus multiflorus*, *Gonatopus boivinii*, *Asparagus africanus*, *gonatopus boivinii* and *Asparagus setaceus*.

5. Project Alternatives

The main Project Alternatives include the 'no project' option and the change in the project starting point and provision of dual carriage way as the road approaches both Cities of Blantyre and Zomba.

The zero option means that the project will be abandoned and the road will be left as it is. Under this option the Malawi nation will lose out and there will be an ensuing economic disruption between major trading centres in the Southern Region of the country. The road will continue to deteriorate and government expenditure on maintenance will accumulate. This is not a suitable option.

Under the second option, the road will maintain its alignment albeit with minor changes and terminate at Zomba-Zero. Consideration is being pursued to provide a dual carriage way at both ends of the project, i.e. at the departure from Blantyre and at the entry into Zomba City Center. This is the chosen option and is subject for the ESAI/RAP assessment. With regard to the minor changes being proposed, the project proponent is to finalize the detailed designs and review any potential consequences regarding resettlement and compensation in accordance with this ARP and Bank policies and guidelines.

The third option which has not been studied in detail but is being pursued by Zomba City Authorities is to change the road starting point from Zomba-Zero to Matawale junction of the Zomba-Jali newly constructed road. The argument is that the city of Zomba is currently shifting eastwards and construction of a new road in an old area is seen to be misplacement. In addition, there is ample land on the eastern part of the City where compensations would be minimal. This would also make it possible for a dual carriageway in future without meeting large compensation payments. The large number of indigenous trees along the existing road towards Zomba-Zero is another deterrent and a push for the change. This option, however, has additional costs since it adds up to the total length.

6. Potential Impacts and Mitigation/Enhancement Measures

The main environmental and social impacts resulting from the construction activities, earthworks and movement of heavy vehicles will include dust, soil erosion, noise, loss of vegetation, air pollution, water pollution and depletion, loss of property and land, limited displacement of persons, some potential damage to the sensitive ecosystem around Lake Chilwa, destruction of catchment areas and habitats, and other cumulative impacts such as increased population due to influx of tourists and business people in general due to

better access to the area; increased pressure on land and natural resources such as trees and wildlife; increased health risks (including STI/HIV/AIDS); increased frequency and severity of vehicle accidents; some improvement in poverty reduction.

There will be potential Impacts on climate change caused by equipment, machine and vehicular exhaust emissions both during construction and especially during operation. Air pollution will increase due to increase in traffic brought by improvements in the road condition. Never-the-less mitigation measures are being contemplated which will include control over type and condition of machines and equipment during construction to ensure that machines are well maintained. Furthermore, the control over purchase and importation of over-age vehicles will have to be enforced. In addition, there will have to be vehicle operator education which will emphasis on limiting vehicle idling, over-speeding and sound vehicle maintenance. Monitoring and inspection mechanisms will have to be implemented in collaboration with the Road Traffic Department and Traffic Police in addition to RA's ensuring that contractor's plant and equipment is in good condition.

Among the negative social impacts will be those resulting from land grabbing and property destruction. It is estimated that approximately 56 houses (both in thatch and mad and in concrete and iron roofing) will be destroyed to give way for the road construction works. These will result in at least 38 households being relocated or stepped-back. Among the assets that will be lost are agricultural land, crops, trees (both fruit bearing and timber), grave yards and space for road-side vending including open-air markets. Since the road traverses urban and peri-urban centers, utilities (power lines, water, telephones) will also be disrupted.

Among the positive impacts emanating from the road project are the creation of job opportunities both during construction and maintenance. Improvement in the transportation system itself will be a major benefit to the people living in the three districts. As indicated, Zomba and Blantyre share a long history of interaction among traders, students, and commuters to work in either Blantyre and Zomba. The large estates would benefit from reduced transportation costs for the products especially tobacco, tea and coffee. The majority of the small holder farmers and subsistence farmers will benefit from improved extension services, better access routes from farms to markets, hence increasing farm-gate prices, and better access to farm inputs such as fertilizer, pesticides and improved seed varieties.

Impacts on gender (especially in favor of women) shall include deliberate policy to increase employment chances for women. This will be achieved by introducing a quota system to be included in the special clauses in the bidding documents. In addition to the increased employment opportunities, will be increased income generated from emerging demand for services such as restaurants, small shops and allied activities which tend to favor women. There will also be opportunities for trading with salaried project workers, and provisions in roadside services to subsequent road users -- activities dominated by women.

There will be improved safety for road users through widening of the carriage way and paved shoulders for cyclists, provision of paved bus bays, pedestrian crossing in built up areas, road markings, directional and other warning signs. The menace of destroying road signs will have to be dealt with through community sensitization and education, among others.

In most cases, mitigation measures are being proposed and will be incorporated in the project design and budgets. Erosion will be mitigated by carrying out large works during the dry spells, ensuring prompt re-grassing and hedging. Tree planting will stabilize less

steep slopes and re-vegetation will be done where bare soil is created due to construction works. Degradation of water quality in the streams will be minimized by good catchment management (including drainage systems) to protect the streams from sedimentation. Impacts from solid waste, waste water and erosion will be mitigated through the inclusion of specific environmental clauses in the contract documents to be complied with during construction. In order to retain the natural vegetation cover, sensitization would be undertaken on the use of firewood for cooking by the work force and temptation to go hunting. Department of Forestry and local communities (village forestry management committees) will be consulted regularly on sustainable forest management and use. The use of other alternative sources of energy will need to be explored. An abbreviated resettlement plan in line with ADB Policy on Involuntary Resettlement has been prepared which provides full details on how the project will deal with resettlement and compensation matters.

7. Environmental and Social Management Planning

An Environmental and Social Management Plan (ESMP) has been prepared to ensure that all the identified negative **impacts are minimised, mitigated or reversed**. The contractor will use a number of interventions to control negative impacts of the project. Some of the mitigation measure includes use of standard equipment, appropriate environmental designs being incorporated into the project, use of water to control dust, Good catchment management (including drainage systems) to protect the streams from sedimentation, inclusion of specific environmental clauses in the contract documents to be complied with during construction. Supervision of implementation of mitigating measures is by various authorities; provision of clear and proper diversions to enable people reach their intended destinations, provision of alternative livelihood systems combined with conservation for inhabitants, sensitization to the local communities and workers on the importance of conserving natural resources, afforestation programmes with the local communities, stabilization of road sides and other areas to reduce erosion and others.

The ESMP will also include measures to deal with communicable diseases such as STI/HIV/AIDS among project workers and through interaction with the communities in the project area. This will be dealt with in collaboration with the National Aids Council, district and city assemblies, and relevant NGOs and CBOs operating in the project's zone of influence.

The key organizations responsible for implementation of the EMP are the Environmental Planning Office of the Roads Authority (RA) and the Environmental Affairs Department (EAD) under the Ministry of Lands and Natural Resources of the Malawi Government. The Environmental Planning Office is responsible for technical planning, implementation, and monitoring of all environmental mitigation under the contractor's responsibility. It is also responsible for ensuring that the contractor fully meets its contractual and environmental management obligations. The Environmental Planning Office of the RA will report to EAD and work in close cooperation with EAD and other government departments as necessary. The contractor will be responsible for implementing measures to avoid or minimize environmental, social and health impacts during construction. The contractor will also be required to apply international standard quality assurance procedures and an environmental management system in full compliance with International Organization of Standardization.

The following budgetary allocations have been included in the project costs as provisional sums broken down as follows:

Table: ESMP Estimated Costs

Item	Description	Amount (Euro)
1.	Environmental Inspection	17,600
2.	Environmental Training	6,700
3.	Occupation, Health and Safety	17,800
4.	Dwelling units	22,000
5.	Trees and crops	8,500
6.	Land	15,500
7.	Utilities	37,000
8.	Public Infrastructure	5,500
9.	Business shelters	2,000
	Total	68,500

8. Monitoring Program

According to the ESMP aspects to be monitored include:

- Changes in hydrology
- Soil Erosion
- Air quality
- Noise pollution
- Water quality
- Disposal of solid waste
- Oil pollution
- Gravel sites
- Hard stone sources
- Water sources
- Deviations
- Vegetation, flora, forests
- Worker's camp
- Visual enhancement
- Demobilization
- Settlement
- Loss of land/property
- Loss of crops
- Employment creation
- Public Health & Occupational Safety
- Sites of cultural, historical & traditional value
- Socio-economic status
- Land use

The institutionally, the monitoring programme will be done at three levels: (i) At community level the key staff to be involved in monitoring will be key extension staff of the concerned sectors including forestry, water, parks and wildlife, health, agriculture, public works, fisheries and others; (ii) At district level, the District Environmental Subcommittee will lead the monitoring process in liaison with the Monitoring and Evaluation Officer; and (iii) At national level, the key departments will include Environmental Affairs, Lands and Roads Authority. These will work closely in monitoring the project in liaison with district and community level stakeholders. The Environmental Affairs Department will be responsible for overseeing the implementation of the Environment management and social action plan. The Lands Department in collaboration with the District Assemblies will monitor the compensation process while

the Roads Authority will monitor the technical and environmental design aspects of the road and ancillary works. The national Level Stakeholders will provide accurate feedback to the AfDB on the overall project implementation and environmental accountability. The overall responsibility for supervision of implementation of mitigating measures is by a consultant appointed by Roads Authority. Monitoring of compliance with mitigation measures will be carried out by RA and Environmental Affairs Department (EAD).

Regular reports will be prepared by the contractor, resident engineer and will be circulated to the following institutions:

- a. Ministry of Lands and Natural Resources
- b. Environmental Affairs Department
- c. Ministry of Transport and Public Works
- d. Roads Authority
- e. District Assemblies
- f. City Assemblies

9. Public Consultations

Various stakeholders were consulted during the preparation of the ESIA. These included local communities (men, women, elders and elected persons), city authorities, Environmental Affairs Department, Roads Authority, district authorities and others. Key concerns included compensation issues, employment and road design changes.

The project received high degree of acceptability in that rehabilitation of the road will boost local economy due to increased usage of the road hence more exposure and increased benefits as more people would be passing through the road and in a way increase trading opportunities. Communities also indicated that transportation problems will be eased including road safety as the current road has no road markings, no paved bus bays, no room for cyclists and people have tendency of settling or vending too close to the road.

Some concerns were however raised, and these included the following:

- Government should compensate those who will lose property and land including business shelters
- Road accidents should be prevented during construction by use of signs and public sensitizations
- The contractor should employ people from surrounding villages
- The contractor should consider replacing trees which will be destroyed during construction
- Land acquisition procedures should be followed
- Drains should not be directed towards peoples gardens
- The road alignment should change at certain points e.g. from Chipande to Njuli Quarry due to sharp bend.
- Detours should not pass through gardens but should follow existing routes as much as possible

10. Conclusion

- The Blantyre to Zomba road project would benefit the population in the project area by having an improved road network which will reduce time of travel and hence cost of travel, it will also improve and address road safety issues. The

project will also help Malawi's economy as these two roads are mainly used by tourists as they go to the Lake Side and Zomba Plateau. This road will add to the stock of good roads in the Southern Region of Malawi as a whole. This road will also facilitate market integration of the project area's zone of influence with the rest of the country and foreign markets for export produce of agricultural products and contribute to the goal of improving the efficiency and capacity of the transport system to support economic growth and social development. There would be increased hazards related to the road like increased accident occurrences due to increased traffic, high population growth leading to increased demand for land and its resources, high prevalence rate of STI/HIV/AIDS. The project therefore is very important and with necessary positive outcomes which outweigh the negative impacts.

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ESIA SUMMARY ANNEX
SUMMARY ABBREVIATED RESETTLEMENT PLAN

Project Name: Trunk Road Rehabilitation Project (Blantyre-Zomba Road)
Country: Malawi
Project Number: P-MW-DB0-011

1.0 DESCRIPTION OF PROJECT AND AREA OF INFLUENCE

The existing Zomba-Blantyre Road is located in the Southern Region of Malawi. Its zone of influence extends into the three districts of Zomba, Chiradzulu and Blantyre. The proposed project road starts from Blantyre City at Maselema Roundabout where Chainage 0+00 km is positioned and ends in Zomba City at Zomba Zero situated at the junction to Chancellor College. The total proposed road length is 60 km.

As the road progresses from Maselema Roundabout in Blantyre it passes through a densely populated area with a number of industrial, residential and commercial infrastructures on both sides of the road. The road then enters into a sparsely populated area and passes through Kachere residential area before leaving Blantyre City in Mapanga Ward and proceeding through Chiradzulu and Zomba Districts. Most of the areas between Blantyre and Zomba Cities are under customary land tenure system. The road passes through three major trading centres of Mbulumbuzi, Namadzi and Thondwe. At these centres are public and private infrastructure and other property. As the road approaches Zomba City it enters into a stretch of unplanned residential areas before reaching the city centre and Zomba Zero. Most of the structures along the proposed road alignment are located outside the designated road reserve.

The road is designed for an average speed of 80km per hour and 50 km per hour in extreme cases dictated by steep topography and settlements. Changes in road alignment are likely to occur in some places to comply with design speed, visibility and carriageway width specifications. The design carriageway width for the Blantyre to Zomba (M3) road will be 6.7m with 1.5m wide shoulders. Both the carriageway and shoulders will be paved. The design proposed a 200mm base of crushed stone and a 150mm sub base which will largely come from milling and reprocessing existing tar to come up with an upgraded sub base. Surfacing for the Blantyre to Zomba (M3) road will be 9.7m wide and are proposed as a double bituminous surface treatment. In this area which is largely rural, a right of way of 18m will be adopted on either side.

2.0 POTENTIAL IMPACTS

It is envisaged that the rehabilitation of this road will have significant impacts on the biophysical and social environments within the zone of influence. Potential negative social impacts will include possession of 10 ha of natural trees, 125 ha of agricultural land (mostly under customary land tenure), 15 ha of fruit trees, 5 ha of privately leased land, destruction of some public infrastructure (telephones lines, water pipes, electricity poles and transformer, fences, sign posts, and buildings), 16 grass thatched houses (belonging to 7 households), 40 metal sheet roofed houses (belonging to 31 households). In total 38 households will have to be resettled and 15 business shelters (kiosks). Some negative impacts will be those of a health nature including the spread of STI/HIV/AIDS and other communicable diseases.

The project, however, does not envisage large numbers of households to be re-located and integrated in new villages or communities. The first instance of affected persons are those residing in urban areas where land is public hold hence will be compensated and assisted by local authorities to occupy and/or purchase alternative plots. In such cases, local leadership of the host community will be involved in settling in the new comers and ensuring that they are availed with all necessary basic services such as water, schools, etc. The situation in rural areas is different. Most cases will involve households residing on own agricultural land where by, any relocation shall realistically mean stepping back on own land. In this case effort shall be made for adequate compensation and identification of additional alternative land for farming especially in Chiradzulu district where land pressure is greatest.

The road will also have positive impacts such as providing employment opportunities to local people, boosting trade and other economic prospects within the zone of influence, reduction in traveling times, easy access to public services such education and health, improvement in public transport networks, increase in volume of tradable goods and services, reduction in air pollution and traffic congestion in the cities of Zomba and Blantyre, facilitating development of the two cities and other trading centres along this route, improvements in the general standards of living for the surrounding communities and adding to the scenic beauty of the area. Included in the RP are benefit enhancement measures which have to be sustained and safeguarded especially for the vulnerable groups.

3.0 LEGAL FRAMEWORK

The Constitution of the Republic of Malawi provides the basis for and against land acquisition. Section 28 (2) states that “No person shall be arbitrarily deprived of property” and section 44 (4) states that “Expropriation of property shall be permissible only when done for public utility and only when there has been adequate notification and appropriate compensation, provided that there shall always be a right to appeal to a court of law for redress. The National Land Policy specifies the need for having provisions in the land law that allows Government to acquire any piece of land required for public services by: clearly specifying the purposes for which Government may acquire land; revocation of leasehold rights granted on Government land; payment of compensation in the event of the repossession of a leasehold interest on Government land; and no compensation to be paid for the land when the private user rights granted as a result of the lease is terminated. The policy further states that compensation valuation for customary land, at the time of acquisition by the Government, should be based on the open market value of the land and all improvements on the land. The policy points out two main reasons for under-compensation which should be avoided including exclusion of certain items or qualities during property valuation and delays in payment of compensation resulting in depreciation of monetary values.

The other main pieces of legislation that guide the resettlement and compensation process are:

- Town and Country Planning Act, cap. 23:01, controls development in urban and rural areas, the acquisition of land, and compensation due to use of land. It states that no general right to compensation shall accrue in respect of any action, decision or plan taken or made under the Act that does not involve or amount to a taking or deprivation of property. It also states that compensation shall be assessed by the Minister in accordance with the Second Schedule 1 to the Act, and that an assessment of compensation by the Minister shall be final and shall not be subject to any appeal or review by any court. Sections of this law are currently under review by the Special Law Commission.

- Land Act Cap. 57:01 governs customary, public and private land, and regulates the use of land. It provides that lessees are entitled to compensation in respect of the improvements effected upon the premises. The act gives the Minister power to convert customary land into public land by a declaration in the Gazette where the land is needed for public purpose. The Act provides that any person who suffers any disturbance of, or loss or damage to any interest which he/she had shall be paid compensation for such disturbance, loss or damage reasonably.
- Public Roads Act Cap. 69:02 contains a detailed compensation scheme, and provides for the assessment of compensation payable under the Act regarding the land or surface rights of an owner or occupier, outlines matters to be taken into consideration or to be disregarded in assessing compensation, and provides procedures to be followed when pursuing claims for compensation, as well as for appeals to the compensation boards and to the High Court.
- Lands Acquisition Act, Cap. 58:04 deals generally with matters relating to acquisition of land, and gives the Minister wide powers to acquire land, compulsorily or by agreement. The Act also makes provision for preliminary investigations, and for serving notices to yield up possession of within a specified period which should not be less than two months from date of service of the notice. The Act also outlines the process for payment of compensation and assessment of compensation, and matters relating to the effect of payment of compensation.

The ARP is also guided by the African Development Bank's Involuntary Resettlement Policy, 2003.

4.0 INSTITUTIONAL RESPONSIBIITY FOR IMPLEMENTATION AND MONITORING OF ARP

The actual property valuation, relocation, compensations and official communications with the project affected persons (PAPs) outside the cities of Zomba and Blantyre are being handled by District Commissioners from Zomba, Chiradzulu and Blantyre districts. Within the cities, Chief Executives of the City Assemblies will handle compensation and resettlement issues. The ARP will be finalized once the relevant district and city assemblies have conducted property valuations and come up with comprehensive resettlement strategies. The ARP will then be forwarded to the Ministry of Lands and Natural Resources through the project client (the RA) for review and approvals. Once approved, the ARP will be sent to the Office of President and Cabinet for funding.

The overall responsibility for the implementation and monitoring of the final ARP rests with the Roads Authority being the project proponent under the Ministry of Public Works and Housing. The Roads Authority will be assisted by the above city and district assemblies, the Ministry of Local Government and Rural Development, Ministry of Lands and Natural Resources, the Office of President and Cabinet and the Ministry of Finance in various matters of compensation and resettlement ranging from reviews to authorization of funding. The Roads Authority will ensure that the ARP is widely publicized and that the relevant project personnel have the required skills and knowledge for implementation and monitoring of the ARP.

5.0 CONSULTATIONS WITH THE GENERAL PUBLIC AND LOCAL AUTHORITIES

Full consultations were held with the Zomba and Blantyre District and City Assemblies verified the extent of displacement and possible compensations. The two city assemblies highlighted the need for proper consideration of project alternatives to minimize project impacts and maximize benefits. They also requested the RA to consider designing a dual carriage way within the City boundaries to reduce traffic

congestions and air pollution. The two City Assemblies also emphasized on care to be taken in dealing with public utilities such as the numerous water pipes, electricity poles and phone cables that may need to be relocated. Some community representatives felt that the project should exercise caution in land take especially for the detours and campsites adding that land taken for such purposes should not only be compensated but also be rehabilitated and returned to the rightful owners upon completion of the project.

Most community members in the three districts traversed by the road (i.e. Blantyre, Chiradzulu and Zomba) welcomed the project and are willing to give up their land and property for this development as long as they will be fully compensated. This should include fully compensating small businesses and business shelters that operate along the road sides. Mechanisms will be put in place for follow up consultations throughout the process to assess the effectiveness and efficiency of the process and highlight any unresolved issues and potential conflicts for the attention of the project administrators. At national level consultations were done with the RA and the Environmental Affairs to capture their concerns and suggestions. The two highlighted the need for a coordinated approach in addressing compensation and resettlement issues and also recommending full participation of all interested and affected parties especially the local communities.

6.0 NOTIFICATION PROCEDURES FOR LAND ACQUISITION

The Ministry shall, by public notice, publish in the Daily Newspapers to notify the public of its intention to acquire land for the purpose of rehabilitating the Blantyre-Zomba road. A copy of such notice shall be served to each owner, occupier and person having an interest in the land or agent thereof, whose name and address are readily ascertainable.

The notice shall state: -

- Government's Proposal to acquire the land;
- The public purpose for which the land is wanted;
- That the proposal or plan may be inspected at the Ministry or in the Office of Lands during working hours;
- That any person affected may by written notice object to the transaction with reasons to the Principal Secretary of the Ministry within 30 days of the first publication of the Notice; and
- That only objections other than those relating to the amount and method of payment of compensation shall be admissible.

7.0 ELIGIBILITY CRITERIA AND ENTITLEMENTS

The procedures, for determining eligibility to compensation, resettlement assistance and rehabilitation assistance measures, and the actual displaced persons shall consider the following factors:-

- (a) Those that have formal legal rights to land, including customary and traditional rights recognized under the laws of Malawi. This class of people includes those holding leasehold land, freehold land and land held within the family or passed through generations.
- (b) Those who have no formal legal rights to land at the time the census begins but have a claim to such land or assets provided that such claims are recognized under the laws of Malawi. This class of people includes those that come from outside and given land by the local chief to settle.

(c) Those who have no legal right or claim to the land they are occupying. This class of people includes those that settle at a place on semi-permanent basis, or those settling at a place without any formal grant or authority.

(d) Vulnerable groups

Payment of compensation shall strictly be based on results of the census and shall be recorded in the register at the District office and a copy to be with TA for record purposes and future reference. Displaced Persons who encroach on the Project area after the Cut-off date shall not be entitled to Compensation, or any Resettlement Assistance or any other form of Rehabilitation Assistance.

8.0 PROPERTY VALUATION METHODS

The existing methods of valuation for compensation are based on the Malawi Legislation. The Public Roads Act Cap 69: 12 is the most comprehensive of all the acts that deal with the compensation for assets such as physical buildings, bare land, crops, vegetables, fruit/plantation, trees and forest trees. The current valuation methods have several problems, and as a result PAPs are unfairly compensated for loss of their assets due to issues like old prices and consideration for other pertinent issues. As such, for cash payments, compensation will be calculated in Malawi Kwacha adjusted for inflation. For compensation in kind; items such as land, houses, other structures, building materials, seedlings, agricultural inputs and financial credits for equipment should be included. Assistance will include allowances for transfer, transportation and labor.

The Ministry of Lands and Natural Resources uses compensation schedules to determine values for loss of assets due to implementation of projects for construction of roads and other infrastructure. The compensation schedule currently in use by the Ministry of Lands and Natural Resources was compiled in 1994. The schedules were compiled with the assistance from the Ministry of Agriculture (for field crops and fruit/plantation trees) and the Department of Forestry (for forest trees (indigenous and planted tree species)). Currently there are three types of compensation schedules based on type of assets affected. These schedules are used to determine compensation for:

- a) Physical assets (buildings, bare land and other structures;
- b) Crops, fruit/plantation crops;
- c) Indigenous and exotic forest trees;
- d) Income earning activities.

Valuation of physical assets is the responsibility of the Ministry of Lands. The owner is identified with the help of the Traditional Authority or village headman; or title documents are used as evidence or proof of ownership for leased physical assets. Values for affected buildings and bare lands are determined by taking into account the construction materials used, floor /surface area covered, age and location of building or property. The market value of a similar building, in the same location is used to calculate the compensation value based on 'Open Market Value'. Valuation of field crops and fruit/plantation trees is based on pre-determined produce unit prices. Valuation for indigenous and exotic forest trees shall be guided by Forestry Department and current market price (MK/ per cubic meter).

9.0 COMPLAINTS AND GRIEVANCES REDRESS MECHANISMS

The Constitution and various other pieces of legislation provide for grievance redress mechanism through the formal court system. The grievance redress mechanisms is designed with the objective of solving disputes at the earliest possible time, which will be

in the interest of all parties concerned and therefore, it implicitly discourages referring such matters to the court for resolution.

All grievances concerning non-fulfillment of contracts, levels of compensation, or seizure of assets without compensation should be addressed to a local grievance redress committee comprising traditional leaders of the affected area and representatives of the District Assembly. The local grievance redress committee will inform and consult with the implementing agency and the District Commissioner to determine validity of claims. If valid, the local committee will notify the complainant who will be assisted as appropriate. If the complainant's claim is rejected, the matter shall be brought before the Roads Authority. Should grievances still remain unresolved, then the complaint can be referred to a court of law.

Compensation and resettlement plans will be legally binding, and will recognize that customary law is the law that governs land administration and tenure in the rural/village areas. This is the law that most Malawians living in these areas, are used to and understand. All objections to land acquisition shall be made in writing, to the implementing agency with copies to the Ministry of Lands and Natural Resources within 20 days after the public notice; or through a formal complaint lodged via the Traditional Authority and District Assembly. The traditional leaders and the local grievance redress committee shall maintain records where grievances and complaints, including minutes of discussions, recommendations and resolutions made.

10.0 COSTS AND BUDGET

The costs of compensation along the Zomba-Blantyre Road will be accrued to various types of land and property. All compensation activities and those related to other forms of assistance including disturbance allowance, and any other associated activities that may be necessary will be appropriately costed in accordance with government procedures and requirements. Funds for implementing inventory assessments as well as land acquisition and resettlement action plans will be provided by the Implementing Agency. Preliminary valuation of compensation costs (excluding supervision and monitoring costs) are estimated at MK97, 884,600.00 (approximately US\$ 670,500). Due to the continued fluctuation of the Malawi Kwacha, the calculated values of assets will be implemented as soon as possible. The period for compensating PAPs will not exceed six months from date of valuation.

11.0 MONITORING AND EVALUATION

A monitoring mechanism will be required to assess whether the goals of the resettlement and compensation plan are met, covering issues such as physical resettlement, disbursement of compensation, effectiveness of public consultation, and grievance redress processes. This monitoring plan will have indicators and milestones and will also indicate the required resources including responsible persons or institutions, necessary to carry out the monitoring activities. Project affected persons or their representatives will play a role in monitoring, and will local NGOs and CBOs operating in the area. City and District assembly representatives will also play a part in monitoring and reporting. In this case, a number of objectively verifiable indicators (OVI's) shall be used to monitor the performance, impacts and outcomes of the compensation and resettlement activities. These indicators will be targeted at measuring the physical and socio-economic status of the PAPs, to determine and guide improvement in their social wellbeing.

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- 2 African Development Bank (2004), African Development Bank Group's Policy on the Environment, PSDU.
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5. Roads Authority (2009). Draft ARAP for the Lilongwe Western Bypass Road Project. Lilongwe.