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PROJECT: BEDELE–METU ROAD UPGRADING

COUNTRY: ETHIOPIA

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT SUMMARY

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ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

SUMMARY

Project Name: Bedele-Metu Road Upgrading
Country: Ethiopia
Project Number: P-ET-DBO-014

1. Introduction

The proposed Project is an upgrading of the Bedele –Metu road which is part of the Nekemte–Bedele–Metu Road Project, and was identified for heavy maintenance under the Road Sector Development Programme III (2007-2010). The estimated road length is 112 km. The project road is located entirely within in Illubabor Zone of the Oromia National Regional State, some 500 km west of Addis. The existing road was originally paved about 20 years ago, but its entire length has now deteriorated considerably. The road traverses areas having significant natural resources, and intensive cultivation of, among others, coffee and cereals. The project road provides a key link in the route from Addis Ababa to Gambela via Nekemte, and is 30 km shorter than the Addis Ababa-Nekemte-Gimbi-Gambela route.

Environmental and social impact assessment has been conducted for the road. The primary purpose of the ESIA was to identify sensitive and valued environmental components that are likely to be significantly affected by the road project, and to ensure that all adverse environmental effects of proposed road upgrading project are adequately and appropriately considered in the design, construction and operation activities, so that the road is deemed environmentally and socially acceptable.

In accordance with the Environmental and Social Impact Assessment Procedures of AfDB, the following summary presents salient issues regarding the road, and attached to it is the summary of the resettlement action plan. The Summary is posted on AfDB’s website and made available at public places at least 120 days prior to presentation of same to its Board for consideration to fund the project. The Summary will begin by giving the project description and justification; provide the policy, legal and administrative framework; description of the project environment; project alternatives; potential impacts and mitigation/enhancement measures; environmental and social management; the monitoring program; public consultations and public disclosure; provide a list of complementary initiatives; make conclusion and provide the references and contacts.

2. Project Description and Justification

The Bedele – Metu road commences at Bedele town at the junction with the Nekemte – Bedele Road, and ends at the edge of Metu town at the Sor River Crossing. The project road serves 11 villages in five woredas (Chora, Yayu, Hurumu, Metu and Bedele). The project area, especially around Metu, is famous for its coffee trade, and the surrounding forest (wild) coffee. The upgrading of the Bedele-Metu Road will provide a key link in the route from Addis Ababa to Gambela via Nekemte, and is 30 km shorter than the Addis Ababa-Nekemte-Gimbi-Gambela route.

The proposed project comprises upgrading the Bedele-Metu Road by widening and improving the

geometric design standard to DS4 Standard of the Ethiopian Roads Authority (ERA) Design Manual. This involves widening the existing carriageway width of the road from its current 5-6 m with no shoulders to 7 m, with 1.5 m sealed shoulders on each side. For the most part the project road will follow the existing alignment, with minor realignments at some locations mainly to improve geometry (vertical and horizontal alignments) and for traffic safety considerations. Drainage structures will be rehabilitated as necessary. The current condition of the project road is very poor, and has hindered socio-economic development within the area that it serves.

Benefits derived from the project road will result from reduced travel time and increased speeds, resulting in the more efficient transport system of people and goods. Anticipated socio-economic benefits include increased access to, and delivery of social services; access to remote areas in the region; immediate access to exports; and increased cultivation of coffee. Reduced transport costs will encourage people to engage in off farm activities such as setting up small scale industrial and agro-based industries which would ultimately contribute to achieving overall development of the local, as well as regional economy, thereby promoting the alleviation of poverty through the provision of sustainable transport services.

3. Policy, Legal and Administrative Framework

The Constitution of Ethiopia (August 1995) embodies the right of the Ethiopian people to development and to live in a clean and healthy environment. The Conservation Strategy of Ethiopia emphasizes the importance of incorporating environmental issues into development activities right at the initial stages of development. The Environmental Policy of Ethiopia (April 1997) aims to “improve and enhance the health and quality of life of all Ethiopians, to promote sustainable social and economic development through sound management and use of natural, human-made and cultural resources and their environment as a whole, so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs”. It further seeks to ensure the empowerment and participation of the people and their organizations at all levels in environmental management activities, and to raise public awareness and promote understanding of the essential linkage between environment and development. The Environmental Policy recognizes the need for environmental impact assessments and environmental audits in development projects.

A number of sectoral environmental policies have been, or are in the process of being, prepared or endorsed. These include policies relating to soil husbandry and sustainable agriculture; forest woodland and tree resources; genetic species and ecosystem biodiversity; water, energy and mineral resources; human settlement, urban environment and environmental health; pollution from industrial waste and hazardous materials; atmospheric pollution and climate change; and cultural and natural heritage. Among the existing sectoral policies, the most relevant ones to this project are Wildlife, Water Resources, Biodiversity, Population, Women, Health, HIV/AIDS and Education.

In addition, there are several Proclamations aimed at fostering environmental protection and sustainable use of the Country’s natural as well as man-made resources. These include the Proclamation on Environmental Impact Assessment (EIA) and the Proclamation on Environmental Pollution Control (EPC), both of which came into effect in 2002. The EIA Proclamation makes an EIA mandatory for specified categories of activities undertaken either by the public or private sectors and is the legal tool for environmental planning, management and monitoring. The primary

objective of the EPC Proclamation is to provide the basis from which the relevant ambient environmental standards applicable to Ethiopia can be developed, and to make the violation of these standards a punishable act. Other proclamations of relevance to the ESIA are those on Expropriation of Land Holdings and Payment of Compensation; Rural Land Administration and Land Use; Research and Conservation of Cultural Heritage; Development, Conservation and Utilization of Wildlife; Forest Development, Conservation and Utilization; Water Resources Management; and Public Health.

The National Environmental Protection Authority's EIA Guidelines (2004), Ethiopian Roads Authority's Environmental Procedures Manual and Resettlement/Rehabilitation Policy Framework, African Development Bank (AfDB) Group's Policy on the Environment (2004) and environmental institutions have been reviewed in the ESIA Report.

In terms of the institutional and administrative framework, the Environmental Protection Authority (EPA) was established in 2002 to provide for the protection and conservation of the broad environment, through the formulation of policies, strategies, laws and standards which foster social and economic development in an environmentally sustainable manner. EPA has now been directed to delegate its duties to the sector ministries, who will be responsible for reviewing and giving consent for construction/implementation of respective development projects. EPA's role is essentially to provide training, create awareness and provide support in terms of technical expertise to the sector environmental agencies upon request. With regard to road sector ESIA's, EPA reviews and comments on ESIA Reports, but it does not approve them. Nor is EPA directly involved in monitoring environmental impacts resulting from road projects. The Environmental Protection Unit was created to ensure harmony with respect to the implementation of the environmental proclamations and other environmental protection requirements. The Regional Governments are responsible for planning, directing and developing social and economic programs, and protecting natural resources. The Regions have established sectoral bureaus, commissions and authorities through which their functions are administrated. Thus the Regional Environmental Protection Offices are responsible for the coordination, formulation and implementation of regional conservation strategies and for environmental monitoring, protection and regulation within the regions. There is also a Regional Environmental Coordination Committee which is a forum for raising and addressing environmental concerns in the various sectors.

The Ethiopian Roads Authority (ERA) was established in 1951. ERA's Environmental Monitoring and Safety Branch (EMSB) (now referred to as Environmental and Social Management Team) is responsible for setting and implementing ERA's environmental guidelines. It advises, coordinates and supervises aspects relevant to environmental management in the road sector, and is responsible for reviewing and approving EIAs. The Right of Way Branch is under the Construction and Contract Administration Division, and is responsible for making available the required land for road/highway construction and maintenance, the establishment of materials sources, and construction campsites, and for the implementation of resettlement action plans.

4. Description of the Project Environment

The topography along the project road from Bedele can be described as rolling terrain for the most part, with some rugged hilly and mountainous sections towards Metu. The altitude along the road ranges from 1,300 m asl to 2,500 m asl. Annual mean temperatures in the project woredas range

from a minimum of 9°C to a maximum of 31°C. Mean annual rainfall is bimodal, and varies from 950 mm in Metu Woreda to 2200 mm in Chora Woreda. The soils found along the project road are derived mainly from lower tertiary volcanic basalt: they are predominantly dark brown to reddish silt clay soils. Erosion is evident along many sections of the road, while landslides have been known to occur around Km 90.

The project road has three micro-climatic zones that are determined by altitude: Dega (Cool), Woina Dega (temperate), Kola (hot). Illubabor Zone has two major drainage systems, where 70% of the land drains into the Baro River, and 30% into the Abay River. The project road crosses five major perennial rivers: Dabana, Geba, Dogi, Saki and Sor Rivers all of which drain into the Baro River System. There are also several seasonal streams, marshes and wetlands.

Illubabor Zone contains about 25% of the total forest area in Oromia Region, and 24% of the land in the Zone itself is forest (of which 99% is natural and 1% plantation). Other vegetation types include open grassland, bushland and wetland vegetation. The road traverses the Geba-Dogi Natural Forest Conservation Area (from Km 36 to Km 69) which is among 10 national priority forest areas due it harbouring *in situ* wild coffee genetic resources, and the Dogi-Saki Forest Conservation Area (from Km 69 to Km 93) which is a natural forest.

The total population of the project woredas was estimated to be 245,061 (2007 Census) of which 72% were rural and 28% urban. The average family size in the zone is 5.24.

Agriculture is the main source of livelihood; the major cash crops are coffee and chat, while the chief industrial crops are sugar cane and cotton. According to the Central Statistical Agency, in 2005 Illubabor Zone produced 12.9% of the Region's coffee output and 6.5% of Ethiopia's total coffee output. Food crops grown are cereals (teff, wheat, barley, oats, millet, maize and sorghum), pulses and oilseeds. Livestock is also important, particularly in the more arid areas of the Zone.

5. Project Alternatives

In terms of route options, the existing road from Bedele to Metu is to be followed, so no route alternatives were considered, but rather different surfaces for the road were compared in terms of economic viability. Therefore in environmental and social terms, the project alternatives to be considered are the “no project” and “with project” options.

The project is intended to stimulate development, and it is expected that it will facilitate socio-economic growth and promote investment in the project's areas of influence. The potential socio-economic benefits attainable are multifaceted. The most significant environmental impacts on the Bedele-Metu Road would be to the forest coffee conservation areas and resettlement.

The “no project” alternative would result in minimal socio-economic development and would mean that other benefits associated with the provision of an improved road would not be realized.

6. Potential Impacts and Mitigation/Enhancement Measures

The road project is expected to boost socio-economic development in the western part of Oromia Region by increasing access to, and delivery, of social services; providing access to remote areas in

the Region; facilitating immediate access to exports; and stimulating increased cultivation of coffee. Reduced transport costs will encourage people to engage in off-farm activities such as setting up small scale or agro-based industries which would ultimately contribute to achieving overall development of the local, as well as regional economy and poverty reduction. There will be benefits in the form of reduced travel time and increased speeds, resulting in the more efficient transport of people and goods in a safe and reliable manner.

Rehabilitation/replacement of drainage structures will improve drainage across and along the road, thus minimizing erosion and siltation problems during the operation phase. The project will improve horizontal and vertical alignments and offer better riding surfaces.

Traffic conditions will improve for both motorized and non-motorized traffic, vehicle operating costs will be reduced, and there will be savings in travel time. Access to social and economic amenities such as health facilities, schools and markets will be enhanced. Employment opportunities will arise, both as skilled and unskilled labor, some of which will be recruited from communities residing along the road. In this regard, women and youth should be encouraged to apply for work on the project. Small scale and micro ventures will emerge as a result of the demand by workers and transient traffic, for accommodation, food, supply of provisions, etc. The project will facilitate the movement of people and goods to and from the project woredas, zones, and regions. Thus the project is expected to enhance the standard of living and socio-economic welfare of the people living within its zone of influence, as well as the project region.

However, there will be a number of adverse environmental and social impacts resulting from the construction activities and during operation of the rehabilitated road. Soil erosion, compaction and pollution could result from land clearing and grubbing, extraction of construction materials, and compaction by heavy equipment, use of detours and access roads, and spillage of hazardous substances like fuel and oils.

Sediment loading and pollution of water sources may result from excavation and spillage of hazardous substances. Recommended mitigation measures include carrying out cross-drainage works during the dry season, proper storage and handling of hazardous substances, and developing water supply sources for the construction works and the campsite requirements. Where community water sources are used, their consent will be obtained, and if necessary alternative water sources will be provided. Air, dust and noise pollution will be generated during the earth moving activities, hauling of construction materials, and aggregate production. These can be reduced by restricting traffic speeds and regular watering of detours and other active construction sites (where water is available), regular and effective maintenance of construction equipment and vehicles, and locating contractor's site establishments away from sensitive receptors like settlements, water sources, schools, health centers and places of worship. Road workers will be provided with appropriate protective clothing.

Impacts of deforestation and damage to natural vegetation are considered significant especially to the Geba-Dogi and Dogi-Saki Forests along the Bedele-Metu Road. Currently there are forest conservation programs supported by the EU which aim to protect, conserve and help the communities to manage the forests. However, sustained management will be required beyond the period of EU support. It is proposed that no detours be allowed in the forest areas but that half-width construction takes place within the forest areas.

Impacts due to general clearing of vegetation and visual intrusion caused by clearance during widening of the road, construction of detour roads, exploitation of material sources and contractor's site establishments (campsites, aggregate production and asphalt mixing plants) can be minimized by limiting land clearing to the imperative area for the project. Soil erosion can be reduced by adjusting the road construction for the dry season, lining the side and diversion drains, establishing vegetation or grasses on ground surfaces exposed to water or wind erosion, and restoring borrow pits, detours and access roads when construction is completed. Material sources and the contractor's site facilities will be carefully selected, forests and dense woodlands avoided, areas affected by temporary uses like borrow sites, campsites and access roads will be rehabilitated and replanted, and indiscriminate cutting of vegetation by the construction workforce prohibited.

Wildlife may be impacted as a result of disturbance and fragmentation of habitats, and disruption of wildlife movements. The impacts can be mitigated through avoidance of locating quarry and borrow sites and contractor's site facilities in wildlife conservation and fauna-sensitive areas. Warning signs should be erected to create awareness among construction workers as well as road users. Formal structures for protection and management of wildlife by government institutions in this area are extremely limited due to lack of manpower and resources, and accessibility, but these institutions will have to be strengthened in order to contain the potential poaching problem. Enhanced accessibility provided by the road may assist in curbing poaching and enhancing security.

During construction, there will be major delays to traffic along escarpment and mountainous areas towards Metu. Increased traffic and higher driving speeds will increase traffic accidents involving vehicles, pedestrians (particularly children and the elderly) and livestock. During operation, livestock movement along the road will pose a significant hazard and cause also major delays. This shall be addressed through providing alternative tracks parallel to the road where space allows, or by widening the carriageway further to allow for a "cattle lane" for livestock and NMTs. Traffic accidents will be mitigated by developing and implementing traffic management plans, installing bumps at densely populated locations, creating awareness on road safety targeted at all road users, and installing warning sign and hazard markings at appropriate places such as markets, schools, urban centres including Bedele, Chora, Yayu and Hurmu.

Due to their mobility and access to cash, immigrant road construction workers and truck drivers are notorious for encouraging the spread of STIs/HIV/AIDS. Girls and the very poor are particularly vulnerable in this respect. STIs/HIV/AIDS awareness campaigns will be implemented, targeted at the local communities, the workforce, road users, and school children. Condoms will be distributed to the communities and project workers, HIV/AIDS testing and support to the infected groups will be provided. The contractor(s) will work together with the woreda and kebele administration offices, HIV/AIDS prevention and control offices, and NGOs operating in the project area.

Malaria is one of the most prevalent causes of morbidity in the project area. Stagnant water in borrow pits, quarries and at campsites will encourage breeding of mosquitoes. Water will be drained from all such places, and borrow pits and quarries rehabilitated.

The socio-economic census indicated that a total of 654 households and institutions will be impacted by the Bedele-Metu Road. Out of these, 162 are female headed while 492 are male headed, and 16 of the affected buildings belong to public and government institutions. In the rural sections, 82.8 ha of farmland will be permanently lost, while 243.87 ha will be impacted

temporarily (including land for deviations and the contractor's camp). In total, 102 structures will be fully affected (94 urban and 8 rural) and 610 partially affected (566 urban and 41 rural). In addition, affected trees include eucalyptus (2,415), juniper (1,185), coffee plants (18,511), enset (37), banana (218) and various trees with medicinal and ceremonial value that are difficult to quantify. A compensation and resettlement plan has been prepared in line with AfDB guidelines.

As per the preliminary findings, the loss of farmland by households would not force them to be permanently dispossessed from their farmland in the project road corridor. The loss of strip of land by households would not also require for full resettlement because the impact will be minimal for each household. Hence, there will not be households who may require resettlement as an option because of expropriation of their land by the project road construction works.

The affected households who will lose strip of their land could continue their livelihood in the remaining plot of land; however they need to be compensated as per the law for losing their crops, trees, and some other perennial crops.

7. Environmental and Social Management

The Environmental and Social Impact Assessment has included Environmental Management and Monitoring Plan (EMP) that addresses mitigation, monitoring and institutional actions to be taken during the detailed design, pre-construction (clauses to be included in contract documentation), and construction and operation stages of the project to eliminate, reduce or offset the adverse environmental and social impacts. It proposes that the Supervising Consultant must also produce a Site Environmental Management Plan, and takes on environmental inspector and sociologist to ensure that mitigation and management measures are implemented.

During construction, incorporation and implementation of environmental mitigation measures into the road project will be the responsibility of the contractor, who will be supervised by, the Supervising Consultant, and the EMSB.

After completion of works, the responsibility for environmental management along the project road will lie with the EMSB, mainly through the district road officers. In addition, for some of the proposed mitigation measures, local authorities and government organizations with specific mandates will have to be involved in supervision during and after construction – for example, the departments responsible for forests, health authorities, traffic police, with respect to impacts on forests, HIV/AIDS prevention and awareness, and road safety, respectively.

The estimated mitigation and management costs are given below:

Description of Mitigation/Management/Monitoring Activity	ETB	USD	Notes
Environmental / Social			
Erosion control measures	3,100,000	229,630	
Relocation for cemeteries	200,000	14,815	
Site restoration and landscaping	-		Included in Engineer's Estimate
Road safety awareness campaign	-		Costs associated with road design and furniture included in Engineer's Estimate
Environmental monitoring	370,000	27,407	
Capacity building	800,000	59,259	
STI/HIV/AIDS awareness campaign	1,700,000	125,926	
Contingencies @ 10%	617,000	45,704	
Total Cost of Environmental Management and Monitoring	6,787,000	502,,741	Included in Engineer's Estimates
Resettlement Action Plan (including costs of relocating utilities)	84,339,855	6,247,397	
Total costs for Environmental Management and Monitoring and RAP	91,126,855	6,750,138	

RoE 1USD = 13.5 ETB

8. Monitoring Program

Environmental monitoring will be required both during the construction and operation phases of the project to ensure that recommendations made in the ESIA Reports are incorporated and implemented. Monitoring of environmental parameters will identify potential problems from the road development activities and will allow for prompt implementation of effective corrective measures.

The major issues that need to be monitored during and after construction include impacts on the forest coffee and natural forest conservation areas; land acquisition, resettlement and compensation; restoration after completion of works; location and operation of material sources and hauling condition; establishment and operation of contractor's site facilities; soil erosion and siltation; drainage; water pollution and impacts on water supply of existing users/competition for water; replacement/repair of irrigation water supply; waste management/disposal; and road safety issues (including accidents involving livestock).

Details of the proposed environmental monitoring plans are presented in the ESIA Report. The plans include environmental issues and mitigation measures, indicators to be monitored, the responsibilities for monitoring, a schedule for monitoring. Cost estimates for monitoring activities are provided. Some monitoring indicators are given below:

Monitoring Aspects / Impacts	Indicators
Implementation of RAP – compensation and resettlement	No. of PAPs compensated and/or resettled No. of complaints from PAPs
Environmental clauses included in contract documents	Clauses included in contract documentation
Water quality	Test results showing compliance/non-compliance of parameters with national/international standards
Rehabilitation of materials sites and disturbed areas	Area of land not rehabilitated
Soil erosion	No. of gullies appearing due to road runoff
Drainage	No. of culverts silted up
Public health/occupational health and safety (incl HIV/AIDS prevalence)	First aid kits are provided on site Records from local health institutions Results of voluntary testing Workers health complaints
Forest clearance, loss of trees	No. of trees planted (and surviving) to replace fallen trees
Forest coffee reserve encroachment/degradation	Changes in area of forest covered by wild coffee
Replacement/repair of irrigation canals	No. and length of canal structures replaced
Provision for livestock movement	No. of accidents with and without involving livestock

Responsibilities for monitoring during construction have been assigned to the contractor, the Supervising Consultant, and ERA's EMSB. After construction, the responsibility for monitoring will rest primarily with the ERA's district offices, supported by regional bureaus, the woreda environmental protection offices, and traffic police. The monitoring plans assume that resources will be made available to the various government institutions involved in order to carry out effective monitoring.

9. Public Consultations and Public Disclosure

Public consultations have been carried out during the ESIA and RAP, from the national to kebele levels, and with project affected persons (PAPs). All relevant ministries and bureaus dealing with environment and resettlement action plans were also consulted, as well as NGOs, CBOs and FBOs. Concerns and opinions of the stakeholders were incorporated in the project design.

All affected people and other stakeholders consulted confirmed the need for the road project, and placed high priority on the project as they were fully aware of the potential benefits to be derived from a better road. They have experienced many difficulties, in terms of goods and services (including transport services) and have felt somewhat neglected. They confirmed they would assist the local administrations wherever they could in relation to the project. Some of the benefits cited by the stakeholders included relief from dust pollution, better access to transport facilities, and better movement of goods and agricultural products. The project road is seen as a link with the

outside world which would boost the movement of people and cultural exchanges, and would facilitate investment activities in the project area.

10. Complementary Initiatives

Relocation/Compensation

A Resettlement Action Plan has been prepared for the road project. A summary of the RAP has been provided in the Annex attached here. The Bedele-Metu Road will affect a total of 712 households (3,974 people) will be affected, either through losing building structures, crops and/or trees. Some farmland and trees on public land will also be affected. The total cost for the implementation and monitoring of the resettlement plan, including relocation of infrastructure is ETB 84,339,855 (approximately USD 6.247 million).

Road Safety Awareness Campaign

Road safety was raised as a concern during the public consultations along the entire project roads. In the ESIA Reports, a number of recommendations have been made for inclusion into the design. In addition, road safety awareness campaigns will also be implemented. Costs for the road safety awareness campaign have been included the Engineer's Estimate.

HIV/AIDS Awareness and Prevention

An independent service provider will be engaged by the contractor to carry out carry out STI/HIV/AIDS awareness raising campaigns, which will target the workforce as well as the local communities and school children. Costs of implementation for the HIV/AIDS awareness and prevention campaign have been included in the environmental mitigation and management costs in the ESIA Report for the project. The Supervising Consultant will also engage sociologists to support the HIV/AIDS prevention/awareness activities.

Tree Planting

There will be an intensive tree anting program to replace trees cut and also to serve as a carbon sink to mitigate emissions that will increase with increased traffic. Local authorities, community groups will be involved in implementing the program.

11. Conclusion

It is anticipated that the upgrading of the Bedele-Metu Road will result in a number of benefits to the socio-economic development of Illubabor Zone as well as Oromia Region. The Bedele-Metu Road will shorten the route from Addis Ababa to Gambela by about 30 km. It serves a major coffee producing area, and also other areas having high agricultural potential.

Negative environmental impacts arising from the construction and operation of the project road include soil erosion, competition for and pollution of water sources, air and noise pollution, loss of natural vegetation, destruction of forests and forest coffee, disruption of irrigation water supplies, and traffic safety problems to the local communities, vehicles and livestock. Means for mitigation

have been proposed in all cases, and environmental management plans prepared. Furthermore, details of physical/engineering mitigation measures have been quantified and included in the Bills of Materials, and specified in the conditions of contract and the technical specifications respectively.

The most significant social impact would be the need to acquire land for the widening of the carriageway and road reserve, and the associated destruction of buildings, structures, trees and crops. This has been addressed through Resettlement Action Plan for the road.

References and Contacts

Contacts

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**ESIA SUMMARY ANNEX
SUMMARY RESETTLEMENT PLAN
FOR COMPENSATION AND RESETTLEMENT**

Project Name: Bedele-Metu Road Upgrading Project
Country: Ethiopia
Project Number: PET-DBO-014

Description of the Project and Project Area

The project covers Bedele - Metu road section running for approximately 112 km and at most traverses in East Wellega zone of the Oromia regional state except the 19km from Dedesa Bridge to the town of Bedele which is found in Ilu Ababora zone of the aforementioned regional state. The Bedele –Metu section connects the towns of Bedele, Yayoo, Hurumu, Chora and Metu. The project ends up at Sore River Bridge. Currently an upgrading project is under construction from this focal point to the town of Gore and covers almost 25km. The project road is a major artery from Gambela regional state via Gore to the north western and central part of the country

Potential Impact

Regarding the Bedele – Metu road, community members along the project road give high priority and value to the road project and are fully aware of the benefits that the upgrading of the gravel road to asphalt level would bring to the development of the towns and the Weredas in Ilu Ababora Zone. Some of the benefits of the project they cited are relief from the dust pollution, better access to transport facilities, reduction of transport tariffs, better movement of goods and services including agricultural products. Reduction in vehicle operating costs, transport and time costs for passengers and freight, and improvement in the availability of motorized transport services will be among the benefits. Improve local trade and market facilities, improve social services and population movement, to stimulate small business and enterprises and provide the employment to the locals during the project construction particularly women and youth.

Despite all the mentioned benefits derived from the project, there are downsides to it. The following are some of these negative impacts of the road; the potential increase of the sexual transmitted diseases especially HIV/ AIDS and sexual related diseases. Moreover, uncontrollable increase in shanty houses due to new settlement, demolition of current commercial and religious institution facilities such as churches, plus demolition of

residential houses, land take, destruction of perennial crops including trees of economic value, fruits, crops, loss of livelihood, road accidents during construction and operations, increased pressure on natural resources including firewood and water sources, destruction of natural environment especially vegetation and potential increase in dumping of hazardous wastes on farmland and settlement area.

Loss of Houses and Assets

The Bedele – Metu road project will result in potential loss of various assets namely a total of 102 structures will be fully affected (94 urban and 8 rural) and 610 partially affected (566 urban and 44 rural). Overall 712 households will be affected in one way or the other. The project shall further affect 16 public buildings belonging to government institutions that include wereda administration blocks, a mosque, Commercial Bank of Ethiopia, Kebele administrations which are within the ROW. In the rural section of the upgrading project, 82.8 hectares of farmlands will permanently be affected and 243.87 hectares of farmlands will be impacted temporarily; crops and fruit-trees will also be affected in the process. In addition to these assets will be relocation of utilities such as power lines, telephone lines and boxes, and water pipes.

As per the preliminary findings, the loss of farmland by households would not force PAP's to be permanently dispossessed from their farmland. The loss of strip of land by households would not also require full resettlement because the impact will be minimal for each household. Hence, there will not be households who may require resettlement as an option because of expropriation of their land by the project road construction works. The affected households who will lose strip of their land could continue their livelihood in the remaining plot of land; however they need to be compensation of the affected properties. Never-the-less, PAPs shall also be re-assured through continued consultations of support, where needed, for other effects such as those pertaining to education for their children, health facilities, fight against HIV/AIDS and psycho-social support.

Organizational Responsibility and Implementation of RAP

The RAP will be implemented by the Contract and Planning Division of ERA through the Right of Way Team (formerly Right of Way Branch and EMB) and the Environmental and Social Management Team in consultations with federal, regional and local government authorities (Wereda, municipality and Kebele administrations) and road project contractors. Day to day supervision and monitoring will be conducted by the road project Engineers. Periodic supervision and monitoring will be arranged by ERA and EPA and local NGOs and CBOs. As it has been indicated above, ERA will be responsible for the

implementation of the compensation process and relocation of PAPs, after new sites are selected and prepared for resettlement. Zone, Wereda, Municipalities, urban and rural kebele administration officials of the project area shall be consulted. For the whole process, in addition to the aforementioned government and public institutions, the participation of representatives of PAPs, community elders and other stakeholders will highly be demanded.

Consultations with the Public and Local Authorities

During the field assessment by the consultant team, the following governmental institutions and community representatives were consulted. Zone administration offices, Municipalities of the towns affected, Wereda level administration offices, Zone water resource offices, Zone telecommunication offices, Zone E.P.C offices, Wereda level water resource offices, Zone statistical desks, Wereda level agricultural desks, Rural and urban Kebele administration offices, Community elders and the affected persons including women. The consultation was carried out formally and informally with the above mentioned stakeholders. In order to capture the concerns and interest of the vulnerable groups, small group discussions with women, youths, elderly people, HIV infected groups, orphans were organization. The stakeholders' interests and concerns were incorporated in the project designs as well as RAP.

The consultations revealed, in the Bedele – Metu road, that the upgrading of the road is seen as catalyst to socio economic development. It will facilitate transportation of people and goods, easy access to markets and social services and promoting trade with other neighboring countries. However most concerns raised by the communities were regarding destruction to existing buildings and business activities, and mitigation and compensation measures were therefore necessary.

The results of the public consultations and consensus reached included (i) that all the woredas, traversed by the project road have agreed to provide support and assistance for people who will lose their land (farmland or residential land) for the construction of the right of way, detour and other construction purposes, although aware of some inconveniences the community welcomed the construction of the project road; and (ii) commitment by communities to facilitate the smooth implementation of the construction works and provide other routine administrative supports if need be. In general, in all the locations where public consultations are held the public are highly supportive and positive about the construction of the project road and are happy about the plan; and are looking forewords to the immediate commencement of the construction works.

Legal and Institution Framework

There are a number of legal documents at Federal and Regional levels in relation to compensation payments and resettlement issues. The major documents include the Ethiopian Constitution, Proclamation No. 455/2005 on Expropriation of Land holdings for Public Purposes and Payments of Compensation and Proclamation 456/2005 on Rural Land Administration and land Use. In this manual an attempt has been made to summarize some of the provisions in these legal documents which are found to be relevant to the present task. Moreover, previous legal documents which are consistent with the provisions of the Federal Democratic Republic of Ethiopia (FDRE) constitution are also used. These major documents include:-

- Proclamation No. 1/ 1995 of the Ethiopian Constitution;
- 1997 Environment Policy;
- Environmental Impact Assessment Proclamation No. 299/2002;
- Environmental Impact Assessment Guideline Document (July 2000);
- Proclamation No. 455/2005 on Expropriation of Land holdings for Public Purposes and Payments of Compensations; and
- Proclamation No. 456 / 2005 on Rural Land Administration and Land use,

When it comes to compensation, all documents clearly state that individuals have the right to be compensated for the works on land created by the labour and capital. In line with these basic premises major resettlement and compensation issues are summarized from various legal documents as follows.

The constitution of Federal Democratic Republic of Ethiopia governs all issues related to the resettlement and compensation in most legal matters. It provides the provisions regarding land expropriation, compensation, public consultation, gender and environmental issues. Furthermore, other legal documents pertaining to the compensation include:

(a) Proclamation number 455/2005 compensation for expropriation of landholdings for public purposes or impacts of projects has to be calculated at replacement cost approach which is the method of valuation of assets that helps to determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account". Hence, in determining the replacement cost, depreciation of assets and salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of affected assets.

(b) Proclamation No 455/2005 for compensation for expropriation of landholdings for public purposes gives a replacement cost approach. In applying this method of valuation, depreciation of structures and assets should not be taken into account". Hence, in determining the replacement cost, depreciation of assets and salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of affected assets. In addition, ERA's Resettlement / Rehabilitation Policy Framework, which was issued before proclamation 455/2005, also take the gross current replacement cost as the basis for calculation for compensation.

Grievance Redress Mechanism

The procedures for handling grievances will be as follows if not resolved amicably:

- The affected person shall file his/her discontents in writing to committee chairperson. The grievance needs to be signed and dated by the aggrieved person. Where the affected person is unable to write, he/she shall obtain assistance to write the note and emboss the letter with his thumb print;
- Committee shall respond within fifteen days after they discussed the matter with the aggrieved person. If the grievance relates to valuation of assets, experts may need to be requested to revalue the assets, and this may necessitate a longer period of time. In this case, the aggrieved person must be notified by the committee that his/her complaint is being considered;
- If the aggrieved person does not receive a response or is not satisfied with the outcome he/she may lodge the case to the local court;
- Decisions of local courts shall be the final.

Nevertheless, the preferred option for dispute settlement is amicable settlement and arbitration among aggrieved parties. Project affected people; also have a right to appeal their cases to ERA's Right-Of-Way Branch, to the resident engineer or to the contractor before taking their appeals to court.

Asset Valuation and Compensation

According to the proclamation, ERA's framework and established practices, the following considerations and assumptions were applied in assessing the amount of compensation for loss of houses and businesses:

Compensation and entitlements provided to PAPs are adequate to at least maintain or

improve their pre-project standard of living, Compensation for replacement of houses and buildings is calculated at the current construction cost (based on the floor area and type of construction material) without allowing for depreciation of the assets to be replaced, urban landholders who will be completely displaced from their locations are entitled to a displacement compensation equivalent to the estimated annual rent of the house to be demolished, partially affected houses are considered as fully affected if impacted 25% or above and are entitled to compensation for the entire house. The entire project affected persons, irrespective of whether they have formal legal title to land or not, are considered for compensation. For losses that cannot easily be valued or compensated for in monetary terms e.g. access to public services, grazing lands, customers and suppliers etc., attempts shall be made to establish access to equivalent and culturally acceptable resources and earning opportunities.

Compensation for houses and other buildings are worked out on the bases of full compensation payments for the part of the house affected 25% and above and for the part only if less than 25% is affected multiplied by its floor area. For valuation of impacted properties materials used for constructions are taken into consideration.

Dislocations of businesses have far more significant negative impacts on the incomes and livelihoods of the owners than would be relocated residences. The impact will even get higher when the businesses are relocated away from the main road or the centres of the towns. Therefore, business owners shall be paid compensations for loss of earnings in addition to compensations for the structures/ houses and other transaction costs. Compensation for business shall be inclusive of additional payments for disruption periods. Four-to-six months will be elapsed for the restoration of business installations. For this reason multiplying an average monthly income of business (Birr 2200) to disruption and transition periods for restoration of livelihoods will mitigate the problem, including payments for transportation costs for non-fixed assets.

Compensation for Farmland

Proclamation 455/2005, Article 8(1) states that a rural landholder whose holding has been expropriated permanently shall be paid for the loss equivalent to ten times the average annual income he/she secured during the five years preceding the expropriation of the land. Hence, for valuing compensation for loss of farmlands or in determining the unit rate/ value per hectare of farmland, average yield and the unit price of the major crops grown in the area are taken into consideration and the weighted average is calculated to gain the amount of money collected per hectare / annum. The preferred option for loss of farmlands permanently is land based or land to land compensation with similar productive potential, location advantages and other factors at least equivalent to the occupied one. If this option

is not matched or land to land compensation is not attainable, a non-land option has to be implemented that includes employment or self employment and other assistance in addition to cash compensation for the land and other assets lost.

Compensation for Trees and Perennial Crops

Within the ROW of the existing road and on the realigned sections trees having commercial values and perennial crops will be affected. The compensation sum has been calculated by summing the stream of discounted incomes each plant can give over years until a similar new tree comes to maturity. As indicated, there will be trees and bushes such as coffee that have both commercial and nutritional values that will be impacted. These, however, exclude trees that do have medical and ceremonial values for reason of impossible to estimate their values in monetary terms. The best solution for such cases is consultation with local people especially with elders and community leaders for compensations.

Special Assistance for Vulnerable Persons

In accordance with the Ethiopian and AfDB's policies and guidelines, vulnerable PAPs require special attention and support. During implementation of this RAP, therefore, special attention and support shall be given to vulnerable families, identified as female, child and elderly headed households. The socio-economic survey result identified a total of 61 vulnerable PAPs who requested assisted with resettlement. Out of these, 30 of them are female headed households, 29 are elderly males and 2 are child headed households. Assistance and support that shall be given to this group of people include rebuilding their houses, transferring and transporting their household items and materials to new sites. In addition the vulnerable PAPs shall receive an extra 10% of their total remuneration as additional provision.

Eligibility Criteria

Ethiopian Road Authority has clearly set the eligibility criteria for resettlement/relocation in its Resettlement Policy Framework, and also in its Environmental Procedures Manual. Eligibility criteria contained in both documents are in line with the Constitution of Ethiopia, which are consistent with the African Development Bank's Involuntary Resettlement Policy (2003). Accordingly, PAPs that are eligible for relocation/resettlement and to receive compensation are:

- Those who have formal legal rights to land (including customary and traditional rights recognized by law of the country);

- Those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets - provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan; and
- Those who have no recognizable legal right or claim to the land they are occupying
- Vulnerable households that may have different needs unrelated to the amount of land available to them.

For the Bedele – Metu road upgrading, September 9, 2010 has been designated as the cut off date, any construction within the 30m or 50m in rural and 20m in urban area after this date is not subject to any kind of compensation. Proper notification was done during property inventory period.

Cost and Budget

According to Ethiopian Roads Authority resettlement/rehabilitation policy framework, a budget requirement for the implementation of a RAP is inclusive of compensation costs for the relocations of project affected households, restoration of assets and properties, replacement of dwellings, crops, trees, working places and restorations of social amenities and services (electric and telephone poles, and water pipes), compensation of loss of income. The budget also include monitoring (internal and external) and training of the compensation/implementing committee, HIV/AIDS prevention and control activities during resettlement, and administrative costs. It also includes a budget for vulnerable PAPs who may need assistance, the cost for the implementation and monitoring of the RAP. The total RAP costs for the road is estimated at ETB84,339,855 (equivalent to USD6.247 million).

Monitoring and Evaluation

The Resettlement Implementation Committee will be formed at the woreda level comprising Woreda administrator, PAP representatives, women association/groups and an influential person in the community. The committee will take on the responsibility for the coordination, management and monitoring of the practical day to day implementation of resettlement activities, including the disbursement of compensation. This Committee will report directly to the Woreda Administration offices, to Municipalities in town sections and to ERA. ERA's EMSB will be the overall in-charge of planning, administering, and monitoring the entire resettlement process. The ad-hoc compensation committee has a responsibility to ensure proper assessment and timely disbursement of compensation to PAPs. A one day training program for all compensation committee members at Wereda

level has to be given by dispatched Environmental Monitoring and Safety Branch members. The committee shall provide a progress report to the regional government office, zone, Wereda administrations, municipalities (city councils) and to the client (ERA).

Monitoring will hence be internal and external where the Environmental Monitoring and Safety Branch will conduct an internal monitor, and municipality and local administration representatives, the external monitoring. ERA will hire and/or consult local NGOs or consultants for this purpose. The participation of project affected people in monitoring and evaluation processes is crucial. Evaluation will be used as a planning instrument to correct pending issues and suggest a post project monitoring period in the aim to ensure that PAP's have not been subject to impoverishment after the project.

Impact Monitoring of the RAP

Impact evaluation commissioned by ERA will be conducted by an independent third party to assess compliance of the outcome of the RAP with the involuntary resettlement policy, in other words, to determine the overall impact of the RAP. The key objective of the external evaluation will be to determine whether efforts to restore the living standards of the affected population have been properly executed. Evaluation will also verify the results of performance monitoring, and identify adjustments to the RAP if required. The evaluation will assess, inter alia:

- The appropriateness of the relocation sites;
- The appropriateness of the implementation schedule;
- The appropriateness of the grievance mechanism;
- Mechanism for assisting vulnerable groups.

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

PAPs and local communities shall be actively involved in impact monitoring, particularly in the identification of indicators. Participatory meetings with PAPs and local community members are necessary. Working with compensation committee is important during these evaluations.