

Consultancy Services for “People Centered Road Safety Audits of Selected Regional Roads in Lindi, Geita and Tanga regions”

Terms of Reference

1. Background and Context

Tanzania is a geographically large, diverse and strategically important lower middle-income country (LMIC). Out of 54 African countries, Tanzania is the 5th largest in terms of population, the 9th largest in terms of the size of economy, and the 13th largest in terms of geographical area. Road crash incidence in Tanzania has been ranked as the third highest cause of death in the country after HIV/AIDS and Malaria and has an important economic and social impact in the country.

The road safety situation in Tanzania is among the worst in Sub-Sahara Africa. Crashes are known to increase on newly constructed roads, this is due to the fact that vehicles travel at higher speeds as a result of the improved riding quality thereby increasing the likelihood of accidents. Furthermore, new roads attract increase in the number of vehicles and people movements which increase the risk of road catastrophes.

In terms of urbanization growth, Tanzania is no different and has shown expeditious urbanization. However, regardless of rapid urbanization, approximately 70 percent of the population of Tanzania still lives in rural areas, where poverty is deeper when compared with the population in urban areas. Furthermore, population keeps growing fast, adding approximately 1.5 million people annually, which poses pressure on the economy, transport infrastructure, urban planning, job creation, etc.

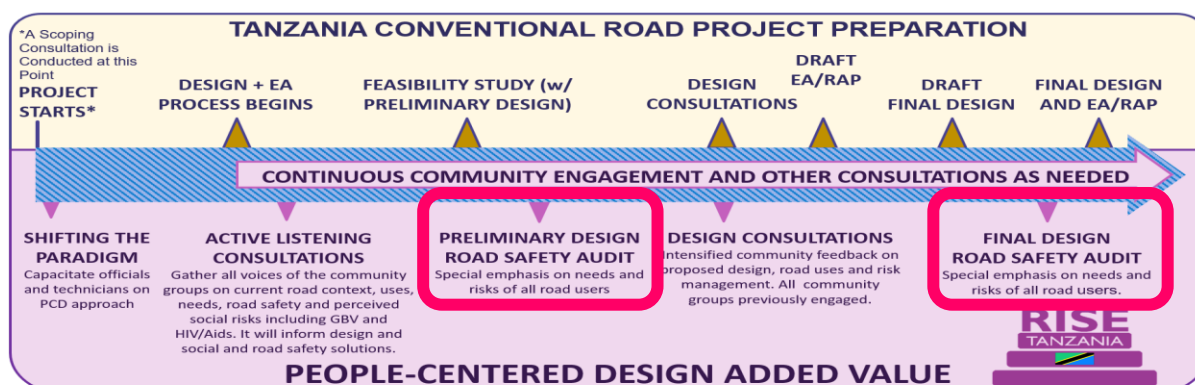
Road accessibility is one of the necessary conditions for inclusion and socioeconomic opportunities. In Tanzania, rural development relies heavily on low volume roads (such as regional roads and district roads) that serve the mobility needs of all members of the community. In most cases, these rural roads were designed with a bias for vehicular traffic whereas, ironically, most of the road-users in these areas do not own a vehicle. As a result, the design criteria often neglect important day-to-day road-users, such as pupils walking to school, patients trying to get to the hospital, or farmers transporting goods on bicycles and motorbikes. Together, these groups and other not using cars or lorries represent the majority of rural road-users and the primary stakeholders of Tanzania's rural economy. They are also the ones at greatest risk of falling victim of a vehicle design philosophy that did not sufficiently cater for their needs and safety. Thus, vulnerable road-users are the most impacted on low volume roads in rural areas. As such, a focus on people should not be an afterthought in road design, but a core principle.

Against this background, the Government of Tanzania is implementing the “Roads to Inclusion and Socioeconomic Opportunities (RISE)” Project through the Tanzania National Roads Agency (TANROADS) and Tanzania Rural and Urban Roads Agency (TARURA) with the support of the World Bank. The objective of the project is to improve rural road access for population in selected rural areas and build capacity in the sustainable management of rural roads incorporating community engagement approaches. With RISE, Tanzania will rollout road development ensuring that regional and district roads are designed with a participatory philosophy that caters for all road-users. As such, roads to be improved through the RISE Project will be designed with a “people-centered approach” to engage, include and protect rural communities.

People-Centered Approach for Road Development

This approach entails working with communities continuously throughout the design process to achieve safer and inclusive roads. In addition to the improvement in road infrastructure, the design approach will consider the mobility needs of all road users and will place special emphasis on avoiding the social and road safety risks that are inherent to roads and that may increase during road construction and operation. The people-centered design approach places special emphasis on ensuring that regional and district roads are designed, built, and operated with all road-users in mind. With this approach, vulnerable users will not be considered as an afterthought but as a key element of the process. This will be done through a combination of people-centered technical designs, consultations, and road safety audits.

Desk-based road infrastructure design and the conventional stakeholder engagement process for road design will be substantially enriched with complementary, carefully designed citizen engagement activities and people-centered road safety audits. This will be accomplished through two people-centered rounds of consultations targeted at addressing the needs and concerns of all road-users and two people-centered road safety audits. A schematic diagram of how the people-centered approach departs from the up-to-now conventional approach in Tanzania is provided in the figure below. These tools will be tailored to the realities of the communities that use these low-volume roads. It will assist in informing road solutions that will protect the communities by reducing or limiting exposure to social and road safety risks. Engaging local communities in road development projects is also expected to increase their participation and decision-making, especially for women, and implement approaches that will ensure social inclusion and protection while contributing to mitigate and respond to potential social risks derived by the project such as gender-based violence (GBV), HIV/AIDS, and occupational health and safety (OHS).



The approach will result in sensitive treatments of all segments of the roads including special interventions in populated areas with bikeways and sidewalks/walkways, traffic-calmed areas with speed management actions (especially near Schools, Markets and Hospitals/Dispensaries), street lighting as needed, signalling, cattle crossing management, public transport stands and bays (catering to all public transport modes such as buses, three-wheelers, and motorbike-taxis), community road and path access, and space for freight needs for loading and off-loading, and other needs.

The people-centered design approach includes the following key elements:

(1) Active listening round of consultations:

A first round of consultations performed at an early stage (before preliminary design commencement) will gather voices of the community about current road context, uses, needs, road safety risks and other social risks along the project roads. These consultations will typically engage all categories of road users and stakeholders in the villages ensuring all voices are heard. This includes Primary and Secondary school pupils and teachers; the disabled persons; youth; the elderly; men and women; drivers of public Commuters, daladalas, bodabodas, and bajajis; freight transporters; animal herders; local leaders; representatives of local industry including agribusiness and small-holder farmers; street vendors and any other relevant road user group along the project roads. This first round of consultations will inform preliminary designs and the Environmental and Social Impact Assessment (ESIA) process, collecting information that will ensure that the designs will respond to mobility and accessibility functions for all road users. This will add value to inform the conceptual road design and help propose solutions that reduce social and road safety risks while considering the needs of the vulnerable road users who face specific challenges when using the roads. The approach will have sensitive treatments to discuss with women and men and girls and boys independently to ensure that the voices of each group are heard.

(2) Design Consultations:

A second round of consultations performed during the design review stage will gather feedback from the communities to test that the proposed solution is people-centered and addresses other functions for which the communities currently use road space. This second round of consultations will intensify engagement beyond conventional consultation practice to discuss the design attributes with all groups previously engaged during the first round of consultations. This engagement will walk through the details of the design proposal and gather detailed information that will be used to review the design as needed. For some complicated locations like a village main square, engagement will also include a discussion on site. The discussions will also cover the management of social risks, including those associated with accidents, GBV, HIV/AIDS, COVID-19 or OHS during construction.

(3) People-Centered Road Safety Audits (PCRSA):

The RISE Project will conduct two 'People-Centered Road Safety Audits' for each project design, one at the Preliminary Design Stage (RSA Stage 2) and the other during the Draft Detailed Design stage (RSA Stage 3). The safety audits will complement the conventional road safety audits approach by placing especial emphasis on the needs of all road-users and by carefully analyzing information collected during the people-centered consultations. It will view the road from the perspective of pedestrians, cyclists, public transport users, and all different socioeconomic groups that were engaged in the consultation process. These people-centered road safety audits will include both desk review and fieldwork to walk the whole road alignment.

As a result, the TANROADS wishes to engage a consulting firm to undertake people-centered road safety audits of selected low volume roads (regional roads) in Lindi, Geita and Tanga regions.

These Terms of Reference (ToR) are intended to serve as the basis for a contract between a qualified and experienced Consulting firm and TANROADS for the consultancy services to undertake people-centered road safety audits (both at Preliminary design stage and Detailed

design stage) of selected regional roads based on the “People-Centered Approach” explained above.

2. Objectives:

The broad objective of this assignment is to engage a consulting firm to carry-out the people-centered road safety audits (PCRSAs) both at Preliminary design stage (RSA Stage 2) and Detailed Design stage (RSA Stage 3) of selected regional roads in Lindi, Geita and Tanga regions based on the “People-Centered Approach” explained earlier.

The following is a list of regional roads (with details) for which PCRSAs at two different stages are to be carried-out by independent Consultant: -

No.	Name of Road	Region & District	Current Status	Length (km)
1	Namichiga-Ruangwa Road	Lindi Region	Detailed Design Completed	20.58 Km
2	Ushirombo-Lulemba-Nyikonga-Katoro Road	Geita Region	Detailed Design Ongoing	41.0 Km
3	Mkata – Kwamsisi Road	Tanga Region	Preliminary Design ongoing	38.0 Km

The focus shall be on conducting PCRSAs at preliminary stage (Road Safety Audit Stage 2) and detailed design stages (Road Safety Audit Stage 3) with special emphasis on predominant road-users of low volume roads, such as pedestrians, cyclists, motorcyclists, etc. The PCRSAs shall take into account the information received from the two rounds of consultations done by the ESIA and design consultants. In addition to this, the PCRSAs field visits must include brief engagement with key road-users to better understand the access pattern of various road-users and their needs in terms of road safety. The Consultant shall include TANROADS staff (nominated by the Client) during carrying out PCRSA with a view to build capacity.

3. Scope of work

The services to be provided by the Consultant include:

The Consultant audit team consists of a team leader and team members, as specified in section 9. “Qualification and selection criteria”.

TANROADS will voluntarily identify staff to accompany the Consultant’s team undertaking the PCRSA. TANROADS staff will participate as observers only.

- 3.1 Review the information collected by the ESIA and design consultants during the consultation process and understand the mobility and accessibility needs of all road-users, especially vulnerable road-users, road safety issues / concerns raised by the community, etc. The Consultant shall prepare a brief note (extract from the consultation information) from the consultation materials and disseminate it to the audit team members prior to the commencement meeting.
- 3.2 The Consultant in close cooperation with the Client, shall organize a commencement meeting to discuss the PCRSA schedule, familiarize with the proposed road section in question for the PCRSA, understand the community needs and comments raised by

the community (from ESIA and design consultants), briefly understand design principles, key design features (from Design consultants), etc. In that meeting, ESIA and Design Consultants will also be invited to make brief presentations to give basic understanding and principles of design to road safety audit consultant.

At the end of the commencement meeting, the Consultant shall prepare key areas of emphasis for the PCRSA to be conducted, using the critical information presented by the ESIA and Design Consultants. For example, the site familiarization may indicate that the road section has multiple schools located on it and attracts pupils from nearby villages / habitations who walk to school. Therefore, a special emphasis shall be placed on pedestrian related facilities and traffic calming measures near schools while reviewing designs and conducting field inspections.

- 3.3 The Consultant shall undertake detailed desktop review of the design drawings and previous road safety audit report (if conducted previously). At the end of the desktop design review, the Consultant and the audit team shall again prepare a list of key areas of emphasis which require further attention and discussion during the field visit. For example, the desktop review of design drawings may indicate sparsely populated area in some rural sections where no separated pedestrian facilities are proposed. Such observations shall be noted so that it can be checked during the field inspections to ascertain needs for safe pedestrian access and likely facilities / treatments to cater the need.
- 3.4 Using the international good practice, the Consultant shall prepare a field inspection checklist prior to the PCRSA site visits. The checklist must cover all the relevant areas of road safety, and must focus on vulnerable road-users.
- 3.5 The audit team shall undertake a field inspection to see how the road design proposal interacts with its surroundings and nearby roads, to visualize potential impediments and conflicts for road-users. The field inspection shall essentially be organized during the daylight. However, it would be ideal to also conduct field inspection at night time. The audit team, while conducting field inspection, shall briefly engage with key road-users, schools, medical facilities, shops, etc. to better understand the access pattern of various road-users and any underlying road safety concerns. Photographs shall be taken to include them in the PCRSA report, for better explanation of road safety findings.
- 3.6 The Consultant shall prepare the PCRSA report. The TANROADS staff seconded to support the PCRSA / accompanied the PCRSA, shall be involved in the report preparation process for capacity building reasons. The report shall clearly explain the audit's road safety findings, and recommendations on how the identified road safety deficiencies may be addressed. Photographs shall be used to visibly explain the findings and recommendations. The location (chainage) shall be precisely mentioned against each safety finding.
- 3.7 The Consultant, in close collaboration with the client, shall organize a completion meeting, where the Consultant shall present the PCRSA findings and recommendations to the client (road agency), design consultants and ESIA consultants.
- 3.8 PCRSA's are a learning process for the road agencies in Tanzania. Therefore, the Consultant shall conduct trainings for PCRSA (at both Preliminary Design Stage and Detailed Design Stage) in each of the four regions. The draft training framework shall be prepared and shared with the Client for its review. Once finalized, the Consultant shall organize training in close collaboration with the Client. The Client will identify the

staff members for the trainings. The training shall include, inter alia, PCRSA process, field inspection checklist, commonly found road safety deficiencies on low volume roads and suitable countermeasures, etc. The trainings shall be interactive to involve participation from staff and must include field visits for practical experience. A concise report shall be prepared on the conducted trainings and submitted to the Client, within a week after the completion of each training.

4. Deliverables

The following shall be the deliverables for the assignment:

4.1 Inception Report.

The inception report shall as minimum cover the consultant's methodology for undertaking the assignment, time frame for carrying out the assignment, strategies for stakeholder engagement including ESIA and Design Consultant etc.

4.2 RSA Stage 2 Report

The report shall cover findings of the preliminary site survey and data collection, outcome of consultations with ESIA and Design Consultants, outcome of commencement meetings with stakeholders etc. At the end of the commencement meetings, the Consultant shall prepare key areas of emphasis for the PCRSA to be conducted using the critical information presented by the ESIA and Design Consultants.

4.3 RSA Stage 3 Report

4.4 The report shall cover the findings from the desktop design review taking into account of the following:

- At the end of the desktop design review, the Consultant and the audit team shall again prepare a list of key areas of emphasis which require further attention and discussion during the field visit.
- The Consultant shall prepare the PCRSA report outlining the road safety findings and recommendations using photographs and precise location (chainage) for each safety finding. The report shall be succinct, nevertheless it shall include all the necessary information with thorough explanations.
- A concise report shall be prepared by the Consultant to highlight the major agreed items by the design consultant and also the items which are not agreed by the design consultant, with details, likely impact, and any alternative treatment suggested.
- As PCRSA are a continuous learning process for the road agencies, the Consultant shall conduct trainings on PCRSA (as identified in 3.9) in each of the three regions. A concise report shall be prepared on the conducted trainings and submitted to the Client, within a week after the completion of each training.
- The Consultant shall present the outcomes of the PCRSA to the Senior Management Officials of the Client or the World Bank team if requested by the Client.

5. Tentative timeframe

The timeframe for this assignment is approximately 8.00 months. During this period, the Consultant shall have to work in close collaboration with the ESIA and Design Consultants as PCRSAs are parallel activities alongside design development. The Consultant shall propose the Work Plan for the accomplishment of the assignment within 8 months spread from Inception phase to Detailed design phase. The assignment shall comprise of desktop review, field visits, consultations, data analysis and report writing. The Consultant's key professional staff will spend time for field visits, office works and report writing.

Phase I- Baseline data collection and preparation of inception report covers 1.0 Month; undertake RSA of Preliminary Design Report covers 2 Months, and Revised RSA Stage 2 Report covers 0.5 Months. While **Phase II** which involves RSA stage 3 on Detailed Design of Road Projects covers 3 Months and Revised RSA Stage 2 Report covers 1.0 Months. The Consultant shall propose the work plan for carrying out the assignment.

Table 1.

PHASE		TIME REQUIRED	ACTIVITIES	OUTPUT
I	On Preliminary Design Report			
	Preliminary site survey and data collection for 3 project roads (Each Road Separately);	1.5 Months	<ul style="list-style-type: none"> • Preliminary findings, site visit, 	Inception Report
	People Centered RSA stage 2 on Preliminary Design Report of one (1) Road project.	2.0 Months	<ul style="list-style-type: none"> • Desk Review; • Site visit, • Data collection; • consultation and • Report writing. 	1. Draft RSA Stage 2 Report
	Review People Centered RSA stage 2 on Detailed Design Report of roads projects	0.5 Months	<ul style="list-style-type: none"> • Incorporate comments; • Revised PCRSA Stage 2 	Final RSA Stage 2 Report
II	On Detailed Design Report:			
	People Centered RSA stage 3 on Detailed Design Report of all 3 roads projects	2.0 Months	<ul style="list-style-type: none"> • Desk Review; • Site visit, • Consultation and • Report writing. 	1. Draft RSA Report stage 3 Report
	Conduct On-job Training to TANROADS Staff for capacity building.	1.0 Months		2. Training Report
	Review People Centered RSA stage 3 on Detailed Design Report of all 3 roads projects	1.0 Months	RSA Final Report	2. Final RSA Stage 3 Reports for

				each road
	TOTAL	8.00 Months		

6. The Responsibility of the Employer:

- (a) The Employer will provide project reports and plans including (i) Facilitate access by the expert to site (ii) Provide design drawings, (iii) Preliminary Design and Detailed Design reports depending on the current status of the project, etc.
- (b) The Employer will provide liaison with the Government Ministries and Departments in order to introduce the Consultant to them. However, the Consultant shall be fully responsible for collecting data and information from these agencies; paying for them where applicable.
- (c) Obtain formal consent from outside authorities or persons having rights or powers in connection with the works or the site thereof:
 - (i) Obtain ministerial orders, sanctions, licenses and permits in connection with the works;
 - (ii) Register a non-Tanzanian firm and senior staff with the Engineers Registration Board. Any associated cost will be borne by the consultant.

7. Responsibility of the Consultant:

The consultant shall be responsible for: -

- (a) Quality output of the assignments and deliverables;
- (b) Collection of data and information from site, and other agencies;
- (c) Office accommodation and secretarial services and stationeries;
- (d) Local and international transportation of his staff and communication during the undertaking of the assignment; and
- (e) Any insurances and Taxes if any.

8. PAYMENT SCHEDULE: -

The expert shall submit his quotation for the cost of the assignment covering remuneration and reimbursable while accompanying them with the work schedule showing his/her involvement in the assignment.

Payment will be in phases as follows: -

- i) 20% of contract amount upon submission of an acceptable Inception Report
- ii) 30% of Contract amount upon submission of acceptable RSA Stage 2 Report on Preliminary Design Report for all 3 Road Projects; and
- iii) 50% of Contract amount upon submission of acceptable RSA Stage 3 Reports on Preliminary Design Report for all 3 Road Projects Final RSA Report including Submission of acceptable on-Job training workshop report.

9. Qualifications and Selection Criteria

Due to the nature of the project, it should be led by a specialized firm focusing on Road Safety, in particular on Road Safety Audits of low volume roads, with good experience in implementing such program/ project in similar conditions. The Consultant should be able to demonstrate:

- a strong track record in conducting road safety audits at low volume roads;
- a strong theoretical and practical understanding of measures required for vulnerable road-users; and
- Successfully conducted capacity building activities for Road Safety Audits.

It is anticipated that the team should at least comprise the following:

- Team Leader /Senior Road Safety Auditor;
- Road Safety Auditor; and
- Highway Engineer / Traffic Engineer.
- Environmental/Social Expert.

1. Team Leader (Senior Road Safety Auditor):

- At least Bachelor Degree in Civil Engineering and Master Degree in Traffic / Transportation / Highway Engineering is an added advantage;
- Minimum 15years of experience in conducting Road Safety Audits;
- Should be fully conversant with the road safety issues in LMIC and have previous experience in undertaking Road Safety Audits;
- Prior experience as Team Leader in similar assignments;
- Experience in conducting trainings on road safety audits;
- Should have wide-ranging road safety leadership experience in developing/ developed countries;
- Proficiency in spoken and written English.

2. Road Safety Auditor:

- At least a Bachelor Degree in Civil/Transportation Engineering;
- Minimum 10years of experience in conducting Road Safety Audits;
- Experience in writing Road Safety Audit reports.
- Experience in LMIC.
- Proficiency in spoken and written English.

3. Highway Engineer / Road Engineer / Traffic Engineer:

- At least a Bachelor Degree in Civil/Transportation Engineering;
- Minimum of 5 years' experience in conducting road design/construction projects;
- Active participation in Road Safety Audits;
- Experience in preparing road designs, particularly for low volume roads.
- Proficiency in spoken and written English.

4. Environment and Social Expert:

- Bachelor Degree in Civil Engineering / Environmental Engineering / Social Services
- Minimum 7-10 years of experience in road development projects.

- Sound knowledge of road-user behaviour, accessibility requirements of community on low volume roads, etc.
- Conversant with gender issues and their effects on road safety in rural environment.
- Experience in community engagement / consultations.
- Experience in LMIC and in developing countries.

9.1 Support Staff

In addition to the above key staff, the Consultant shall determine the Support and Backup staff deemed necessary to assist with successful completion of the assignment. However, their qualifications will not be considered in the evaluation of the proposals.

9.2 Staff Inputs

The Consultant is expected to propose an optimum number of person-months. The person-months for Stage 2 (RSA Stage 2) and Stage 3 (RSA Stage 3) to be provided by the Consultant is estimated at about 30 Staff - Months as indicated in the Table below:

Key Staff	Staff-Months	
	RSA Stage 2	RSA Stage 3
Team Leader (Senior Road Safety Auditor)	3	5
Road Safety Auditor	3	4
Highway Engineer/Road Engineer/Traffic Engineer	3	4
Environment and Social Expert	3	5
Staff – Months for Individual Stage	12	18
Total Staff - Months	30	

10. Reporting

During the implementation of the assignment, the Consultant shall prepare reports in English language for each road projects separately and submit to TANROADS in time. The reports shall be submitted in Four (4) hard copies and 2 soft copies. The Reports to be submitted by the Consultants are as follows: -

(i) Inception Report

This report shall give a brief description of the Consultant's establishment plan for the assignment, staffing deployment, methodology to be employed in carrying out the assignment, programs of executing the assignment, summary of initial findings after visiting the site, problems and such remarks as deemed appropriate. The report shall be submitted 1.5 months after commencement date of the assignment.

(ii) Road Safety Audit Reports:

The report should specifically describe the safety deficiencies, potential or real, which have been identified along with the relevant references to accepted standards, practices and road safety principles. The points should be illustrated wherever practicable by 'marking-up' on the plans or other relevant drawings and /or by colour photographs of the items concerned. The report may include the auditors' suggestions for eliminating or otherwise treating the safety problem identified. A summary of audit of the audited items shall be prepared by the Auditor together with the audit report. The Consultant shall prepare road safety audit reports for three stages and submit to TANROADS timely. The Consultant Team leader shall present the Road safety audit findings and recommendations within 2 weeks after submission

of the RSA Reports in every stage in the Presence of Client and Design team to discuss and way forward. The RSA reports shall be submitted as shown below: -

a) People Centered Road Safety Audit Stage 2 on Preliminary Design Report:

Road Safety Audit of Preliminary design report. The Consultant shall review the road safety facilities for vulnerable road users, road geometry, drainage, shoulders, edge treatment and road side areas, alignment, junctions, roundabout, traffic signs and markings, bridges, safety barriers and pedestrian facilities and report any road safety hazards or shortfalls. The report shall clearly indicate the findings and recommended safety measures. The report shall be submitted 3.5 months after commencement date of the assignment.

b) People Centered Road Safety Audit Stage 3 on Detailed Design Report:

Road Safety Audit stage 3 should be carried-out on design report of all 3 project roads. The Consultant shall assess the safety for all road users including vulnerable road users, pedestrian facilities, cyclists' path, zebra crossings, bus bays, road signs, road markings, pedestrian bridges at schools, markets, hospitals, villages, and safety at night. The report shall clearly indicate the findings and recommended measures. The report shall be submitted 3 months after approval of Road safety Audit stage 2 Preliminary report.

c) Road Safety Training Report:

Training on People Centered Road Safety Audit of Preliminary Design and Detailed Design to the nominated staff from TANROADS and TARURA should be conducted to all three (3) regions. The report shall be submitted within 1 month after conducting the training.

Annex 'A'

List of People Centered Wards/Villages along the 3 Regional Roads to be considered in PCRSA are as shown in the Table Below: -

S/N	REGION	S/N	WARD(W) /VILLAGES(V)
1. Namichiga - Ruangwa Regional Road Project (20.58 Km)			
1	LINDI	1. 2. 3. 4. 5. 6. 7. 8.	Namichiga A; Namichiga B; Matumbu, Naunambe; Mbekenyera; Mchangani and Likangara.
2. Mkata - Kwamsisi Regional Road Project (38.00Km)			
2.	TANGA	1. 2. 3. 4. 5. 6. 7. 8.	Mkata; Kwapala; Kwasunga; Mawe Matatu; Kodichenje; Pozo; Perani; and Kwamsisi.
3. Ushirombo - Lulembera-Nyikonga-Katoro Regional Road Project (59Km)			
3.	GEITA	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13	Kilimahewa(Ushirombo Town); Bulangwa; Bwenda; Silamila; Butinzya; Kashero; Lulembera; Nyikonga; Magenge; Sobola; Kaseme; Kasesa; and Katoro