

(2) 準備調査概要説明時

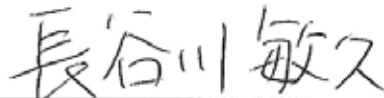
**Minutes of Discussions
on the Preparatory Survey
on the Project for Widening of New Bagamoyo Road
in the United Republic of Tanzania
(Explanation on Draft Final Report)**

In March 2009, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey team on "the Project for Widening of New Bagamoyo Road" to the United Republic of Tanzania (hereinafter referred to as "Tanzania"), and through discussions, field survey and technical examination of the results in Japan, JICA prepared a draft final report of the study.

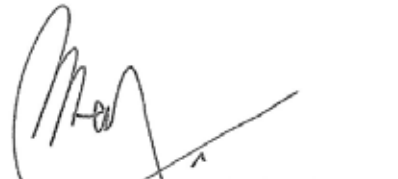
In order to explain and to consult with the concerned officials of the Government of Tanzania on the contents of the draft final report, JICA sent to Tanzania the Basic Design Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Toshihisa HASEGAWA, Senior Representative of JICA Tanzania Office, from October 19 to October 23, 2009.

As a result of discussions, both sides confirmed the main items described in the attached sheets.

Dar es Salaam, October 22, 2009



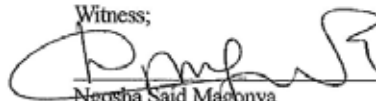
Toshihisa HASEGAWA
Leader
Preparatory Survey Team
Japan International Cooperation Agency



Ephraim C M Mrema
Chief Executive
Tanzania National Roads Agency
the United Republic of Tanzania



Musa I lyombe
Director of Transport Infrastructure
Ministry of Infrastructure Development
the United Republic of Tanzania

Witness;


Ngosha Said Magonya
Commissioner for External Finance
Ministry of Finance and Economic Affairs
the United Republic of Tanzania

ATTACHMENT

1. Components of the Draft Final Report

1-1. The Tanzanian side agreed and accepted in principle the contents of the draft final report of the Basic Design Study explained by the Team.

1-2. The Tanzanian side requested the service road to be included in the Project, explaining that due to budget constraints, the Tanzanian Government may not be able to timely construct the service roads after the handover of the main carriageway works. The Team acknowledged that service roads are important. However, the service roads were not in the initial plan.

2. Cost Estimation

Both sides agreed that the Project Cost Estimation as attached in Annex-1 should never be duplicated or released to any third parties before the signing of all the Contract(s) for the Project.

3. Japan's Grant Aid Scheme

The Tanzanian side understood the Japan's Grant Aid scheme and the necessary measures to be take by the Government of Tanzania as described in Minutes of Discussions signed on March 31, 2009.

4. Schedule of the Study

JICA will complete the Final Report in English, in accordance with the confirmed items and send it to the Tanzanian side by the end of January, 2010.

5. Project Site

5-1. The Tanzanian side explained that the request of the Tanzanian Government to the Japanese Government was for 17.2km from Morocco to Tegeta and the commitment for implementation of the project should be for the whole 17.2km. However, the Tanzanian side agreed that in order to allow time for relocation of utilities and compensation of properties which are concentrated in the section from Morocco to Mwenge, the project site should start with the 12.9km section from Mwenge to Tegeta and be followed by the 4.3km section from Morocco to Mwenge.

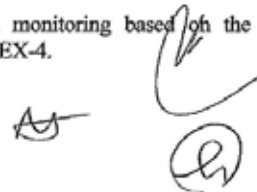
5-2. The Team observed that the Japanese Government is rather difficult to commit to implement the 4.3km section from Morocco to Mwenge. Also, the consultant made partial survey of the 4.3km section, because of obstruction of walls, and many private properties. In this regard, The Tanzanian side promised to secure the land and to remove the existing facilities such as building and fencing walls which are affecting the further investigation of underground utilities within the RoW to enable carrying out an additional survey as soon as possible preferably by the end of December, 2010.

5-3. Consequently, both sides agreed that the Project will first focus on the section between Mwenge and Tegeta junctions (12.9km), as shown in ANNEX-2.

6. Environmental and Social Considerations

6-1. Both sides confirmed that the Tanzanian side will get the certificate of the Environment Social Impact Assesment (ESIA) by the end of November, 2009. As soon as it is issued, it should be sent to the JICA Tanzania office.

6-2. The Tanzanian side agreed to implement the necessary works and monitoring based on the Environmental Checklist and Monitoring Form, attached ANNEX-3, ANNEX-4.

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7. Other Relevant Issues

7-1. The Tanzanian side confirmed that the following undertakings should be taken by the Tanzanian side at the Tanzanian expenses.

- (a) To remove the existing trees along the Project road, and buildings and/or their exterior within the Project site and inform the result to JICA Tanzania office by the end of December, 2009.
- (b) To relocate and/or remove existing utilities (electric/telephone lines, water pipes, etc.) including the underground facilities from the Project site in the section between Mwenge and Africana junctions (7.5km) and inform JICA Tanzania office by the end of June, 2010.
- (c) To complete the relocation and removal works of the section between Mwenge and Tegeta junctions and inform the result to JICA Tanzania office by the end of September, 2010.
- (d) Necessary arrangement for traffic control at necessary sections.
- (e) Necessary arrangement for the tax exemption of imported equipment, materials and vehicles, and custom clearance for the Project.
- (f) Securing and clearance of the temporary yard.
- (g) Securing of site for disposal of waste.
- (h) Necessary arrangement for securing borrow pits and quarries.
- (i) Securing the land for the Project.
- (j) Necessary arrangement of public utilities for the temporary yard to be used for site facilities such as site offices, plant yards, dormitory, etc. and for temporary works.
- (k) Necessary arrangement of detours for public traffic at necessary sections, e.g. securing of land, public announcement etc.
- (l) Necessary coordination among residents and/or road users and the Contractor.
- (m) Necessary coordination with concerned Ministry and/or Authority.
- (n) Necessary arrangement for timely issuance of the license and permission, e.g. Company License for Contractor, permission of quarrying, etc.
- (o) Necessary arrangement of budget allocation for the commission for Authorization to Pay (A/P) and Payment.
- (p) Necessary arrangement of counter part personnel for the Project.

7-2. The Team strongly expressed concern over the time consuming for getting Government Notice (GN) on tax exemption. The Team insisted that this matter could negatively affect the successful completion of the Project construction works within the expected period, and requested to issue GN within thirty (30) calendar days from the day when TANROADS receive application for tax exemption. The Tanzania side understood the concern expressed from the Team and promised to request the Ministry of Finance and Economic Affairs to comply.

7-3. The Tanzania side shall secure enough budget and personnel necessary for the operation and maintenance of the road and the facilities including such as the bridges constructed by the Project, including the periodical maintenance work after the completion of the Project and shall take necessary actions to maintain it properly at its own expense.

- ANNEX-1 Project Cost Estimation
- ANNEX-2 The proposed range of the New Bagamoyo Road
- ANNEX-3 Environmental Checklist
- ANNEX-4 Monitoring form

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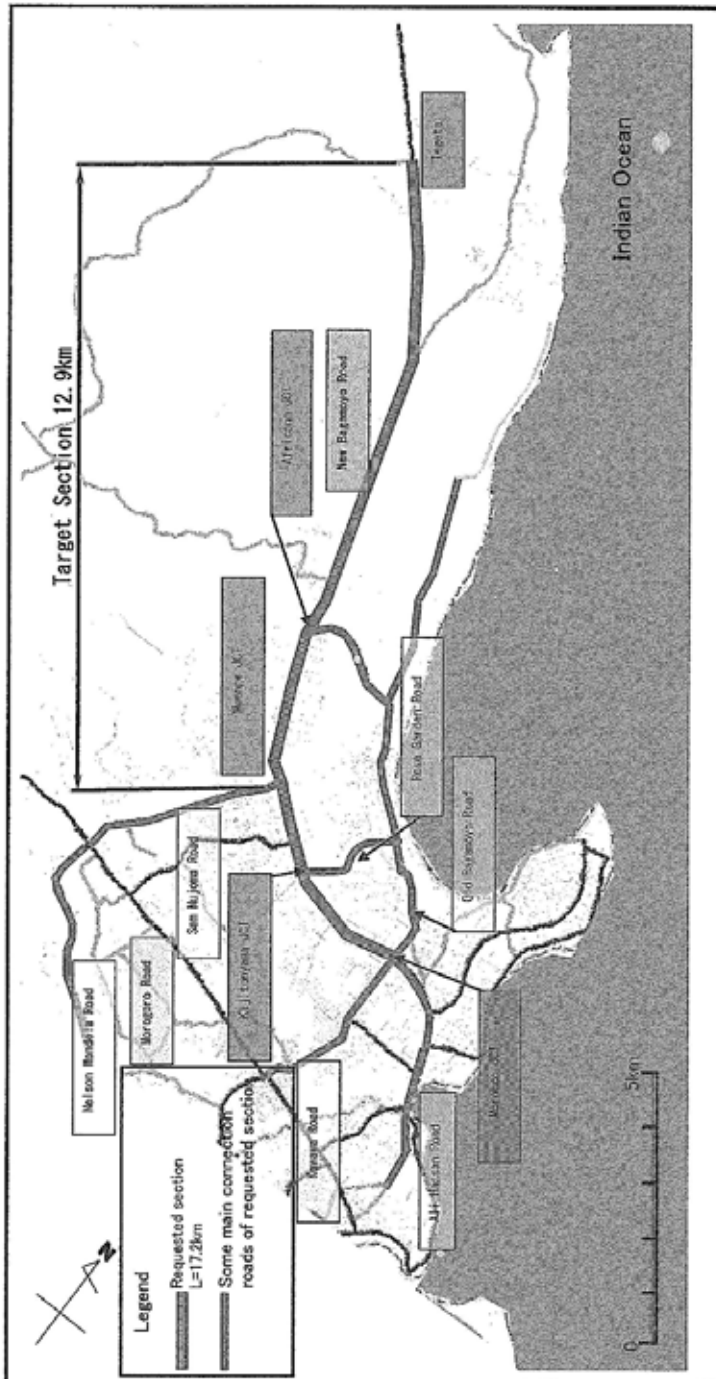
ANNEX-1

STRICT CONFIDENCE

Approximate cost borne by the Japanese side

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due to the confidentiality.**






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ANNEX-3
Environmental Checklist: 15. Roads and Railways (1)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
1 Permits and Explanation	(1) EIA and Environmental Permits	<p>① Have EIA reports been officially completed?</p> <p>② Have EIA reports been approved by authorities of the host country's government?</p> <p>③ Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?</p> <p>④ In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?</p>	<p>① DRAFT ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT (Draft ESIA Report) was prepared in September 2009.</p> <p>② Draft ESIA Report was submitted to National Environmental Management Council (NEMC) by TANROADS in September 2009. NEMC is to conduct site surveys based on the report and instruct TANROADS to review it. And thereafter TANROADS will submit an evaluation report on PAPs to NEMC in October 2009, and receive the certificate in November the same year.</p> <p>④ Not necessary</p>
	(2) Explanation to the Public	<p>① Are contents of the project and the potential impacts adequately explained to the public based on appropriate procedures, including information disclosure? Is understanding obtained from the public?</p> <p>② Are proper responses made to comments from the public and regulatory authorities?</p>	<p>① In June, 2008, a meeting of stakeholders was held in the city of Kinondori and explanations were given on the project and opinions were exchanged.</p> <p>② Between June and August, 2008, public consultations were held at 16 venues to stakeholders including local leaders, officers from local governments and public utility agencies. The opinions of these relevant people were reflected to the Draft ESIA Report.</p>
2 Mitigation Measures	(1) Air Quality	<p>① Is there a possibility that air pollutants emitted from various sources, such as vehicle traffic will affect ambient air quality? Does ambient air quality comply with the country's ambient air quality standards?</p> <p>② Where industrial areas already exist near the route, is there a possibility that the project will make air pollution worse?</p>	<p>① The present situation complies with the vehicle emission standards under Tanzania's environmental standards. But there's no standard for monitoring environment along the road. As the Project aims at eliminating the current traffic congestion, the quantity of extra air pollutants originating from traffic congestion will be improved from the present level.</p> <p>② There is a cement factory approximately 5 km away from the end of the objective road. The project will not affect adversely the cement factory.</p>
	(2) Water Quality	<p>① Is there a possibility that soil runoff from the bare lands resulting from earthmoving activities, such as cutting and filling will cause water quality degradation in downstream water areas?</p> <p>② Is there a possibility that surface runoff from roads will contaminate water sources, such as groundwater?</p> <p>③ Do effluents from various facilities, such as stations and parking areas/service areas comply with the country's effluent standards and ambient water quality standards? Is there a possibility that the effluents will cause areas that do not comply with the country's ambient water quality standards?</p>	<p>① Because the Project aims at improving an existing road, there will be neither large-scale change of the existing topography nor massive civil engineering work. Therefore, water quality may be somehow concerned only during the bridge/culvert work at crossing of these rivers.</p> <p>② The surface runoff from the road will, in principle, be guided to the intended destination by such drainage facilities as side ditches.</p> <p>③ No parking or service areas are planned in the Project.</p> 

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Environmental Checklist: 15. Roads and Railways (2)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
	(3) Noise and Vibration	<p>① Do noise and vibrations from vehicle and train traffic comply with the country's standards?</p>	<p>① There is no environmental standard governing noise and vibration. Noise and vibration are concerned due to vehicles engaged with the construction work. The noise and vibration are to be measured before and during the construction, and their impacts are monitored in accordance with ESIA Report.</p>
3 Natural Environment	(1) Protected Areas	<p>① Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?</p>	<p>① No important natural reserve or national park is situated in areas along the route in question.</p>
	(2) Ecosystem	<p>① Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?</p> <p>② Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?</p> <p>③ If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?</p> <p>④ Are adequate protection measures taken to prevent impacts, such as disruption of migration routes, habitat fragmentation, and traffic accident of wildlife and livestock?</p> <p>⑤ Is there a possibility that installation of roads will cause impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, and disturbance of ecosystems due to introduction of exotic (non-native invasive) species and pests? Are adequate measures for preventing such impacts considered?</p> <p>⑥ In cases where the project site is located at undeveloped areas, is there a possibility that the new development will result in extensive loss of natural environments?</p>	<p>①-⑥ No inhabitation of rare fauna or flora has been reported in areas along the route in question.</p>
3 Natural Environment	(3) Hydrology	<p>① Is there a possibility that alteration of topographic features and installation of structures, such as tunnels will adversely affect surface water and groundwater flows?</p>	<p>① As the Project aims at improving an existing road, there will be no major change of the existing topography. The planned cross-section of the target road for improvement involves low banking of approximately 1 m in height at most sections. Drainage facilities are planned along the route to swiftly drain rainwater from the road surface. At some cut sections, side ditches are planned at the top and toe of the slopes to properly guide surface water. The replacement bridges will have no piers in the river channel and the clearance height of the girders is planned taking the recorded flood-water level in the past into consideration.</p>

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Environmental Checklist: 15. Roads and Railways (3)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
	(4) Topography and Geology	<p>① Is there a soft ground on the route that may cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides, where needed?</p> <p>② Is there a possibility that civil works, such as cutting and filling will cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides?</p> <p>③ Is there a possibility that soil runoff will result from cut and fill areas, waste soil disposal sites, and borrow sites? Are adequate measures taken to prevent soil runoff?</p>	<p>①②③ No steep slopes liable to collapse or landslide have been found in areas along the route in question.</p> <p>③ The existing route in the target section runs near open cast quarries at Kunduchi. At present, no serious land collapse or soil runoff is taking place and no signs of these have been detected. One reason for this is that the toe of the present road is away from the top of the cut slopes at open cast quarries. Accordingly, the Project will maintain the present situation while planning the introduction of suitable drainage facilities. Materials are extracted from the existing borrow pits and quarries.</p>
(1) Resettlement		<p>① Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?</p> <p>② Is adequate explanation on relocation and compensation given to affected persons prior to resettlement?</p> <p>③ Is the resettlement plan, including proper compensation, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?</p> <p>④ Does the resettlement plan pay particular attention to vulnerable groups or persons, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?</p> <p>⑤ Are agreements with the affected persons obtained prior to resettlement?</p> <p>⑥ Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?</p> <p>⑦ Is a plan developed to monitor the impacts of resettlement?</p>	<p>① As a result of selecting road alignments which will minimize the involuntary resettlement of local residents, the removal of only two houses which are situated within the RoW will be required. As one of these is a water by tank station, this is not a case of involuntary resettlement, and resettlement has been agreed among the persons involved (Item to be confirmed). The other house is situated almost at the middle of the planned widened road and any change of the planned road alignments to avoid the removal will cause a significant adverse impact on other houses along the route. As such, the resettlement is essential. Therefore, it will be resettled under proper compensation by the Government of Tanzania (Item to be confirmed).</p> <p>②-⑦ In the Environmental and Social Management Plan (ESMP) described in the ESIA report, it is recommended to compensate them where involuntary resettlement is not avoidable by designing. Also Monitorings are recommended at pre-construction stage, construction stage and operation stage.</p>

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Environmental Checklist: 15. Roads and Railways (4)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
4 Social Environment		<p>① Where roads or railways are newly installed, is there a possibility that the project will affect the existing means of transportation and the associated workers? Is there a possibility that the project will cause significant impacts, such as extensive alteration of existing land uses, changes in sources of livelihood, or unemployment? Are adequate measures considered for preventing these impacts?</p> <p>② Is there a possibility that the project will adversely affect the living conditions of inhabitants other than the affected inhabitants? Are adequate measures considered to reduce the impacts, if necessary?</p> <p>③ Is there a possibility that diseases, including communicable diseases, such as HIV will be introduced due to immigration of workers associated with the project? Are adequate considerations given to public health, if necessary?</p> <p>④ Is there a possibility that the project will adversely affect road traffic in the surrounding areas (e.g., by causing increases in traffic congestion and traffic accidents)?</p> <p>⑤ Is there a possibility that roads and railways will cause impede the movement of inhabitants?</p> <p>⑥ Is there a possibility that structures associated with roads (such as bridges) will cause a sun shading and radio interference?</p>	<p>① ② As the Project aims at improving an existing road, there will be no adverse impacts on the living conditions or road traffic in the subject area.</p> <p>③ Activities to educate workers on the danger and prevention of malaria and HIV will be required.</p> <p>④ As the main objective of the Project is to alleviate traffic congestion, appropriate consideration should be given to avoiding any unnecessary traffic congestion and accidents during the construction period. It is necessary to introduce safety facilities at appropriate sites along the route of the target road.</p> <p>⑤⑥ No impediment to the movement of inhabitants or sun shading or radio interference will result from the Project.</p>
	(2) Living and Livelihood	<p>① Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?</p> <p>② Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?</p>	<p>① No cultural nor other sites requiring protection exist at the project sites or in nearby areas.</p> <p>② No important landscape requiring special consideration exists at the project sites or in nearby areas.</p>
	(3) Heritage		
	(4) Landscape		
	(5) Ethnic Minorities and Indigenous Peoples	<p>① Where ethnic minorities and indigenous peoples are living in the rights-of-way, are considerations given to reduce the impacts on culture and lifestyle of ethnic minorities and indigenous peoples?</p> <p>② Does the project comply with the country's laws for rights of ethnic minorities and indigenous peoples?</p>	<p>①② No ethnic minorities nor indigenous people with a unique culture or lifestyle live in areas where the project sites are located.</p>

Environmental Checklist: 15. Roads and Railways (5)

Category	Environmental Item	Main Check Items	Confirmation of Environmental Considerations
5 Others	(1) Impacts during Construction	<p>① Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?</p> <p>② If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impact?</p> <p>③ If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?</p> <p>④ If necessary, is health and safety education (e.g., traffic safety, public health) provided for project personnel, including workers?</p>	<p>① Noise and vibration due to the work are to be reduced by avoiding unnecessary idle away of accelerator and nighttime work as much as possible. Waste will be transported and disposed at dumping-ground in a lump. Dust will be reduced by spraying water periodically.</p> <p>② As the Project aims at improving an existing road, there will be no adverse impacts on the natural environment (ecosystem).</p> <p>③ Inbound and outbound carriageways will be separately constructed, and safety facilities and watchmen are to be allocated as required in order not to affect the current traffic as much as possible.</p> <p>④ Education on traffic safety and health will be provided periodically to the workers engaged with the Project.</p> <p>Regarding the matters above, contractor will implement mitigation measures under supervision of TANROADS.</p>
	(2) Monitoring	<p>① Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?</p> <p>② Are the items, methods and frequencies included in the monitoring program judged to be appropriate?</p> <p>③ Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?</p> <p>④ Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?</p>	<p>①-④ Monitoring Plan is stated in the ESIA Report. After commencement of the work, TANROADS and a contractor will continuously review by holding talks together and implement the monitoring.</p>
6 Note	Reference to Checklist of Other Sectors	<p>① Where necessary, pertinent items described in the Forestry Projects checklist should also be checked (e.g., projects including large areas of deforestation).</p> <p>② Where necessary, pertinent items described in the Power Transmission and Distribution Lines checklist should also be checked (e.g., projects including installation of power transmission lines and/or electric distribution facilities).</p>	Not applicable
	Note on Using Environmental Checklist	<p>① If necessary, the impacts to transboundary or global issues should be confirmed, if necessary (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).</p>	Not applicable

1) Regarding the item "Country's Standards" mentioned in the above table, in the event that environmental standards in the country where the project is located diverge significantly from international standards, appropriate environmental considerations are made, if necessary.

In cases where local environmental regulations are yet to be established in some areas, considerations should be made based on comparisons with appropriate standards of other countries (including Japan experience).

2) Environmental checklist provides general environmental items to be checked. It may be necessary to add or delete an item taking into account the characteristics of the project and the particular circumstances of the country and locality in which it is located of the

Table Contents of the Monitoring

Items	Contents of the monitoring
Involuntary Resettlement	<ul style="list-style-type: none"> • To confirm that the minutes of understanding which is considered the compensation for the reallocation was made on the involuntary resettlement. • To confirm that the address of the relocation was secured. • To confirm that the involuntary was lived as well as before the resettlement.
Air Pollution	<ul style="list-style-type: none"> • To confirm the measure to the dust that the resident people along the site may claim.
Noise and Vibration	<ul style="list-style-type: none"> • To confirm the measure to the noise that the resident people along the site may claim. • To confirm the measure to the vibration that the resident people along the site may claim.

Note: The items of the monitoring plan were picked up from the items which will be affected with further impact in the scoping table.

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資料5. 事業事前計画表(基本設計時)

1 案件名
タンザニア連合共和国 ニューバガモヨ道路拡幅計画
2 要請の背景(協力の必要性・位置付け)
<p>タンザニア連邦共和国(以下「タ」国)の道路開発計画は、「National Transport Policy」(2003年策定)の実現に向けて中期投資計画となる「10 Year Transport Sector Investment Programme (TSIP) Phase 1」(2003年策定)の中で具体的な運輸セクターの戦略の中心となる柱として、①運輸交通インフラのシームレス化による運輸交通の円滑化、②運輸交通インフラの整備による交通困難地域の解消、③運輸交通インフラ・システムの改善による農業、製造業、鉱工業、観光、貿易分野の経済成長の促進を上げている。ダルエスサラーム市は、「タ」国の経済・流通の中心地であり、道路、鉄道、空港、港湾など全ての交通システムの要衝となっている。しかし、同市の都市開発は、モロゴロ道路、ニエレレ道路、キルワ道路、並びにニューバガモヨ道路の4本の幹線道路沿いに無秩序に進行してきた結果、交通渋滞が年々悪化しており、同市の経済活動を阻害している。このため、他ドナーによる幹線道路の4車線化事業が着手、或いは完成されるとともに、自家用車から公共交通機関の利用への転換促進をねらいとしたBRT計画が策定され、フェーズ1工区事業の応札が着手された。「タ」国の道路基金関連予算は今後とも増加すると期待されるものの、これら道路の改修及び維持管理を実施するには、当面はドナー等からの資金援助が必要不可欠である。一方、同市の人口は、年々集中する傾向にあり、2003年における約260万人(センサス)が2030年には580万人に増加すると予想されている。2007年時点の人口は約300万人と推計され、都市計画上、増加する280万人の移住区域が課題となっており、基本インフラの整備が望まれている。本プロジェクトの対象であるニューバガモヨ道路は、上記主要幹線道4路線のうち唯一4車線化がされておらず道路の断面交通容量の不足から慢性的な渋滞状況にある。特に朝夕のピーク時間は、低速車の混在や現況路面の損傷に起因して日常的に激しい渋滞が発生している。また、著しい降雨時には排水管の排水不良及び側溝の通水能力不足により道路が冠水し、これも渋滞の要因となっている。その上、同市の自家用自動車保有台数は、2007年の約7.8万台が、2030年には51.5万台と増加することが予想される。したがって、同市の都市幹線道路の交通容量の拡充と、公共交通機関への転換を考慮したBRT整備に対する基本インフラの整備は喫緊の課題となっており、本計画もその都市幹線道路の拡充整備事業の一環として位置づけられている。以上から、本計画ではニューバガモヨ道路の深刻な渋滞を緩和し、ダルエスサラーム市内の安全で円滑な交通流を確保することを目的とする。</p>
3 プロジェクト全体計画概要 *下線部：本無償資金協力の直接関係する成果、活動および投入
<p>(1) プロジェクト全体計画の目標(裨益対象の範囲及び規模) ニューバガモヨ道路の深刻な渋滞が緩和され、円滑かつ安定的な交通が確保される。 裨益対象：ダルエスサラーム市の住民約300万人(2030年時で約580万人)</p> <p>(2) プロジェクト全体計画の成果 <u>対象道路が整備される。</u></p> <p>(3) プロジェクト全体計画の主要活動 <u>対象道路の12.9km間の道路整備を行う。</u></p> <p>(4) 投入(インプット)</p>

ア 日本側(=本案件)：

イ 相手国側

- (ア) 道路建設実施に伴う道路敷地内の家屋移転及び補償費用
- (イ) 道路建設実施に伴う支障物件（上水道、通信、電力）の移設に係る費用
- (ウ) 道路建設に伴う樹木の伐採、移植に係る費用
- (エ) 本計画に伴う「タ」国の建設業者登録費用
- (オ) 銀行手数料
- (カ) 道路建設後の維持管理費用

(5) 実施体制

主管官庁：インフラ開発省(MoID)

実施機関：タンザニア道路公社(TANROADS)

4 無償資金協力案件の内容

(1) サイト

ニューバガモヨ道路(延長 12.9km)

(2) 概要

対象道路延長 12.9km、道路横断暗渠 28 箇所、呑口・吐口工 52 箇所、集水柵工 43 箇所、橋梁 3 箇所（上下線合わせて 6 橋梁）の架け替え及び新設、他道路付帯施設の整備

(3) 相手国側負担事項

- ① 道路敷地内の家屋移転
- ② 支障物件（上水道、光ケーブル、電気、電話）の移設
- ③ 樹木の伐採、移植
- ① 建設に必要な手続き
- ② 建設後の道路維持管理

(4) 概算事業費

(5) 工期

入札期間を含め約 33 ヶ月(予定)

(6) 貧困、ジェンダー、環境及び社会面の配慮

特になし

5 外部要因リスク(プロジェクト全体計画の目標の達成に関するもの)

(1) 洪水、地震など予想を越える自然災害が発生しない

6 過去の類似案件からの教訓の活用

無償資金協力「キルワ道路拡幅計画」の教訓から、道路排水側溝は三面張りにすることとした。

7 プロジェクト全体計画の事後評価に係る提案

(1) プロジェクト全体計画の目標達成を示す成果指標

成果指標	現状の数値 (2009年)	計画値 (2013年)
ピーク時 (*) の平均時速	6.5km/h	42km/h
交通容量	825台/時間/車線	1,740台/時間/車線

(*)ピーク時 (朝 6 時～9 時、夕方 15 時～20 時、合計 8 時間)

(2) その他の成果指標

特になし

(3) 評価のタイミング

2013 年以降(施設完了後)

資料6. 参考資料/入手資料リスト

収集資料リスト

番号	名 称	形 態 図書・ビデオ 地図・写真等	オリジナル ・コピー	発行機関	発行年
1	MOID and TANROADS Organization Structures	図書	コピー	TANROADS	2008
2	Tanroads Paper for second joint infrastructure review meeting 8 th – 10 th Oct., 2008	図書	コピー	TANROADS	2008
3	AADT for Morroco – Tegeta Kibanoi	図書	コピー	TANROADS	2008
4	Axle load by each category of vehicle	図書	コピー	TANROADS	2008
5	Key TANROADS performance indicators for the past 5 years	図書	コピー	TANROADS	2008
6	Maintenance Budget Year 2008/09	図書	コピー	TANROADS	2009
7	Project Financiers (Road Projects)	図書	コピー	TANROADS	2008
8	Kinondoni Population in 2002	図書	コピー	DSM CITY COUNCIL	2003
9	Dar es Salaam weather	図書	コピー	MSN WEATHER	2008
10	Tanzania GDP (2002-2007)	図書	コピー	Economy Survey	2006
11	Projected TANROADS sources and expenditure of funds for the plan period	図書	コピー	TANROADS	2008
12	Tanzania Road Fund Board Financing	図書	コピー	TANROADS	2008
13	Technical Reports (Dar es Salaam Transport Policy and System Development Master Plan)	図書	コピー	DSM CITY COUNCIL	2008
14	Tanzania Population by Region	図書	コピー	NATIONAL BUREAU OF STATISTICS (NBS)	2008
15	Trunk Road Network	図書	コピー	TANROADS	2008
16	Dar es Salaam Road Network	図書	コピー	TANROADS	2008

番号	名 称	形 態 図書・ビデオ 地図・写真等	オリジナル ・コピー	発行機関	発行年
17	Road Maintenance Operation Plan	図書	コピー	TANROADS	2009
18	Dar Rapid Transit Agency Boucher	図書	オリジナル	DART Agency	2009
19	Dar Rapid Transit Agency Boucher (Kiswahili)	図書	オリジナル	DART Agency	2009
20	Dar Rapid Transit Project, Bidding Document Vol. IIA-4, Road Works Drawings (Kawawa)	図書	コピー	DART Agency	2007
21	Dar Rapid Transit Project, Bidding Document Vol. IIA-1, Road Works Drawings (Kivukoni - Ubungo)	図書	コピー	DART Agency	2007
22	Dar Rapid Transit Project, Bidding Document Vol. IIA-1, Road Works Drawings (Kivukoni - Ubungo)	図書	コピー	DART Agency	2007
23	Dar Rapid Transit Project, Bidding Document Vol. IIB, Stations, Architectural, Structural & Electrical (Extract)	図書	コピー	DART Agency	2005
24	Accidents in Dar in 2007	図書	コピー	TANROADS	2007
25	BoQ, Cost Estimate for Additional of New Street Light Poles	図書	コピー	TANROADS	2009
26	Detailed Engineering Design for Upgrading of Sam Nujoma Road, Materials and Hydrology/ Hydraulic	図書	コピー	TANROADS	2005
27	Preliminary Engineering Design for the Upgrading of Sam Nujoma Road, Traffic Study Report	図書	コピー	TANROADS	2005
28	Preliminary Engineering Design for the Upgrading of Sam Nujoma Road, Final Design Report	図書	コピー	TANROADS	2005
29	Bagamoyo Road Project Vol. V, Contract Document Drawings	図書	コピー	Ministry of Works (MoID)	2003
30	Supervision Services for the Rehabilitation of Nelson Mandela Road in Dar es Salaam, Monthly Report	図書	コピー	TANROADS	2009
31	Guidelines for the Geometric Design of Urban Arterial Road, South Africa	図書	コピー	TANROADS	1986

番号	名 称	形 態 図書・ビデオ 地図・写真等	オリジナル ・コピー	発行機関	発行年
32	Road Traffic Signs Manual	図書	コピー	SATCC	1990
33	Study of Traffic Management on Trunk Roads in Dar es Salaam Region, Final	図書	コピー	TANROADS	2003
34	Dar es Salaam Water Supply & Sanitation Project, Rehabilitation of Sewerage Systems Vol. 3 Drawings (Extract)	図書	コピー	DAWASA	2003
35	Dar es Salaam Water Supply & Sanitation Project, Rehabilitation of Distribution Systems , As-Build Drawings (Extract)	図書	コピー	DAWASA	2008
36	Block Mapping Programme, Field Verification Map (Extract)	図書	コピー	DAWASCO	Vague
37	Priamary Network, As-Build Drawings (Extract)	図書	コピー	TANESCO	Vague
38	Second by Cables Network, As-Build Drawings (Extract)	図書	コピー	TTCL	Vague
39	Road Sector Compensation and Resettlement Guidelines	図書	コピー	MoID	2008
40	The Environmental (Registration of Environmental Experts) Regulations, G.N. No.348 of 2005, The Environmental Impact Assessment and Audit Regulations, G.N. No.349 of 2005	図書	コピー	The United Republic of Tanzania	2005
41	Consultancy Services for the Conceptual Design of A Long Term Integrated Dar es Salaam BRT System and Detailed Design for the Initial Corridor Resettlement Policy Framework	図書	コピー	Prime Ministers Office for Regional Administration and Local Government The Dar es Salaam City Council	2007
42	The Project for Widening of New Bagamoyo Road including Improvement of Mwenge Bus Terminal, Project Brief	図書	コピー	MoID	2008