

AFR TZA/S 201/94

STUDY ON DAR ES SALAAM ROAD DEVELOPMENT PLAN

FOLLOW-UP REPORT 1995

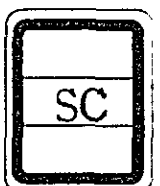
Project data

Region:	Africa
Country:	United Republic of Tanzania
Sector / Subsector:	Transportation / Road
Code No:	AFR TZA/S 201/94
Type:	Master Plan + Feasibility Study
Counterpart Agency:	Ministry of Works, Communications and Transport
Fiscal Year Completed:	1995
Consultants:	Japan Engineering Consultants Co., Nippon Koei Co.,
Expenditure:	*** Unknown ***
Present Status:	Promoting

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Project site map / location

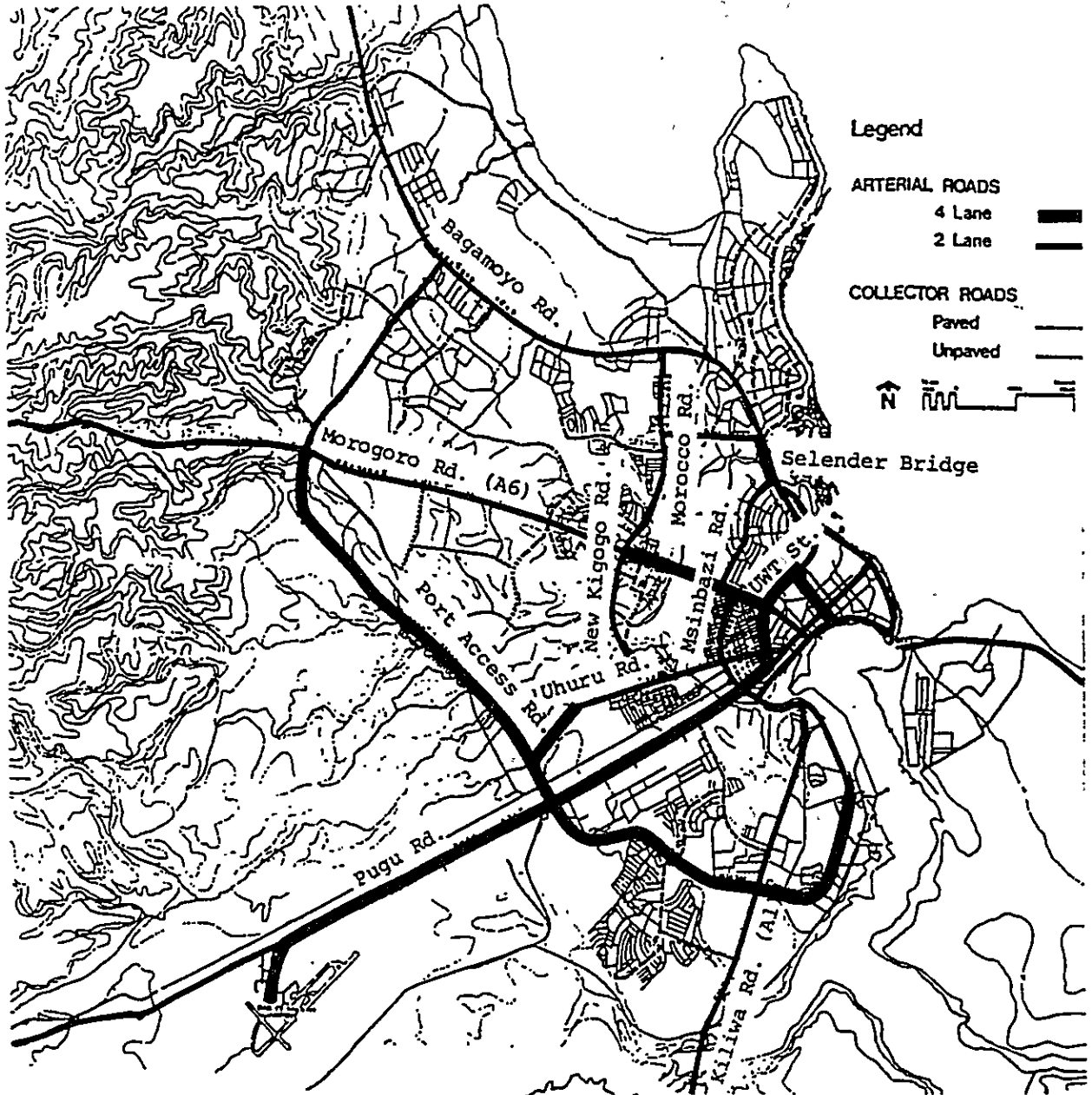


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1 Executive Summary

Summary of survey results

The implementation of the road development programme for Dar es Salaam must be considered an important contribution towards Tanzania's general economic and infrastructural development.

The City Council's current proposal to alter the recent submission for assistance from arterial road development to include the rehabilitation of local roads, particularly for high density residential areas, and the continuation of middle ring road would positively affect a significant proportion of the city's population.

Conclusions

It is important that the implementation of the road development programme is not treated in isolation to other likely developments in Dar es Salaam (eg: the rehabilitation of the water supply). Before any decision is made on the proposal, full consideration of other important infrastructure developments in the city must be taken.

At project level, it is probable that to some extent the water supply rehabilitation programme will overlap with the proposed road development programme. It is imperative that adequate liaison takes place between the appropriate government agencies to fully coordinate planning in a logical sequence.

Recommendations for JICA

Although JICA may not affect recipient government's development planning policies or implementation strategies, the lack of co-ordination in separate feasibility studies will lead to an unnecessary waste of donor resources. Where a planning conflict occurs and significant sums of aid funding are involved, JICA should ensure that coordination of activities begins at master plan or feasibility stage.

JICA should continue to examine ways it can assist the Dar es Salaam City Council to implement its road development programme, in particular its proposed submission to rehabilitate

local roads in high density population areas and the continuation of the middle ring road.

Dissemination and following action

Apart from the JICA UK Office, it is anticipated that this report will be distributed among the relevant Tanzanian Government authorities associated with the project: Dar es Salaam City Council and the Ministry of Works.

2 Results of survey: Project Design

Identification and outline of project rationale

As a consequence of the Japanese grant-assisted road improvement and maintenance programme carried out by the Dar es Salaam City Council between 1991 and 1995, the necessity for a long term road development plan for Dar es Salaam was identified. It was expected that such a development would maximise the benefits gained from the road improvement programme while taking into account the likely increase in road use in the Dar es Salaam region for the next 25 years.

In 1993, in response to a request from the Government of the United Republic of Tanzania, the Government of Japan agreed to conduct a study to draw up a master plan and feasibility study for road development in the Dar es Salaam municipality.

Short description of project

The study proposed an extensive road development and traffic management plan for Dar es Salaam municipality. If acted on promptly, the development may be completed by the year 2010. In addition to the overall plan, the study also identified two project packages which required urgent action and were recommended for grant aid funding.

- Package A Inner ring road and feeder road
 - Ai. 4 lanes of 9.9 km central circulation road
cost: 3,098,000 (¥'000)
 - Aii. 4 lanes of 4.3 km New Bagamoyo Rd
cost: 1,392,000 (¥'000)

- Package B Inner city roads and radial feeder roads
 - Bi. 4 lanes of 6 km of surrounding road
cost: 1,540,000 (¥'000)
 - Bii. 4 lane on Uhuru and Kilwa roads
cost: 1,760,000 (¥'000)

Both packages included signals, bus terminals, pavements, bicycle paths, and pedestrian bridges.

Detailed design:

The study was divided into two components:

Part A: Master plan study

The master plan examined seven basic considerations.

I Road development plan, including:

- widening of arterial roads in the city centre;
- widening the middle ring road & completing associated link road;
- widening of trunk roads to 4 lanes;
- grade separation of intersections;
- construction & improving road network inside Mandela Road;
- rehabilitation of pavements;
- reconstruction of bridges on major roads;
- strengthening of road network in Kigamboni area;
- strengthening of road network along Pugu Rd;
- construction of outer ring road;
- improvement of major rural roads in Dar es Salaam municipality.

Total Cost: 52,545,000 (¥'000) including construction and compensation costs

II Public transport development plan including:

- Improvement of long distance bus services;
- Improvement of city bus services.

Total Cost: 354,000 (¥'000) including construction and compensation costs.

III Traffic management plan including:

- reduction of road side parking;
- increased road capacity by introduction of proper traffic regulation;
- improved pedestrian facilities;
- improvement of bottlenecks.

Total Cost: 3,865,000 (¥'000) including construction and compensation costs.

IV Short-term development plan through:

- maximising existing facilities through the minimum level of inputs to development, improvement and maintenance programmes by the year 2000.

V Required cost summary:
183,116,000 (¥'000)

VI Economic and financial feasibility:

Benefit/Cost Ratio	1.46
Net Present value	11,866 (¥'000,000)
Estimated IRR	15.7%

The study recommended that international funding be sought. Grant aid would be applied for to cover the most immediate and urgent projects, while loans would be applied for to supplement local funding for the remainder of the work.

VII High priority projects identified

Part B: Feasibility Study

This examined the feasibility of implementation of the master plan and recommended:

- international funding be sought for capital investment and that the maintenance regime be supported by strengthening of the existing Road Fund account;
- local funding to meet compensation costs;
- resettlement packages for those affected be met before plan implementation;
- parallel development of improved drainage measures in the areas of Kijitonyama river and Gerezani creek be carried out;
- establishment and implementation of effective river basin use regulations;
- establishment and implementation of effective air pollution legislation;
- confirmation of location of proposed bus service facilities;
- establishment of the Dar es Salaam Road Improvement and Maintenance Project (DRIMP) to supply on the job training for Dar es Salaam City Council, Ministry of Works, and private contractors' staff.

Funding

The study was funded by Japanese Government grant aid.

The recommendation of the study was to fund the implementation of the master plan through a mixture of grant aid (most pressing), foreign loans (the majority), and local funding.

Critique of project design

Although recommendations have been made regarding a number of environmental and other legislative concerns, the study failed to consider the problems which will come when the improvement of other key city utilities (eg: water, sewage, etc) takes place. These utilities are in an equal, if not poorer, state than the roads and will require attention either prior to, or at least concurrently to, any further road development.

The master plan also requires a number of associated projects to be carried out to ensure its success which may be difficult for the counterpart agencies or Tanzanian Government to achieve fully. These include resettlement packages, improved drainage measures in the areas of Kijitonyama river and Gerezani creek, establishment of effective river basin use regulations, introduction of effective air pollution legislation, and the establishment of the Dar es Salaam Road Improvement and Maintenance Project (DRIMP). How these issues will be resolved should also be addressed before the master plan is implemented.

3 Results of survey: Project Implementation

Implementation and monitoring

The study has been carried out and a final report produced in March 1995.

Development to date

As a result of an interim report produced in 1994, Dar es Salaam City Council and the Ministry of Works requested grant aid for Package A from the Japanese Government in October 1994. This request was considered as essential development by the Japanese embassy, and was passed to the Ministry of Foreign Affairs in Tokyo for consideration. There has been no response to date.

Since then, the Dar es Salaam City Council have reviewed their priorities and identified two project areas which they feel are of greater priority for road development in Dar es Salaam. These are:

- the rehabilitation of local roads and drainage, particularly for high-density or low-cost residential areas where poor roads constitute a significant health hazard in the rainy season;
- the continuation of the middle ring road to ease traffic congestion in the city centre.

The proposal for this programme is currently with the city council and is expected to be forwarded to the Prime Minister's Office, Planning Commission, and Ministry of Finance for consideration soon after parliament has resumed.

Additional equipment and heavy plant will soon be required to supplement/replace the existing aging plant. This will be necessary before the impacts of improved revenue will allow the council to purchase such equipment independently. It is likely that the Japanese Government will shortly be approached to assist in the purchase of this equipment.

Processes

JICA sent a study team composed of members from the Japan Engineering Consultants Co., Ltd and Nippon Koei., Ltd.. They visited Tanzania three times between October 1993 and December 1994. The team held discussions with the appropriate Tanzanian government and city council officials concerned. Many of these persons had already been involved in the previous road improvement and maintenance programme. Field surveys were carried out and, after returning to Japan further studies were carried out, and the report was produced.

Impacts

The project implementation will greatly enhance the flow of urban traffic in and around Dar es Salaam. It will also allow for the efficient transfer of human resources and the associated economic benefits accruing from this. In some areas, the associated improvements in drainage will bring direct benefits in health and quality of life. The enactment, implementation, and enforcement of legislation on pollution control will also bring similar benefits.

There will be a considerable amount of training for Dar es Salaam City Council and Ministry of Works, Communications and Transport staff, in addition to the staff of some private contractors. This is expected to enhance the sustainability of the programme.

It will be necessary to negotiate and implement the resettlement of some people living in the project area and this will require considerable compensation.

Sustainability

The Dar es Salaam City Council feel confident in their ability to maintain roads, particularly if the full recommendations of the master plan are implemented. Crucial to this will be the establishment of the Dar es Salaam Road Improvement and Maintenance Project (DRIMP), further strengthening of the Engineering Department, and on-the-job-training for Tanzanian staff.

Maintenance and future road developments are to be funded out of an improved revenue generation programme including parking fees, fuel tax, and property tax. The city council is expected to approve, shortly, the implementation of a metering programme within the city centre. In addition, the new policy of the City Council Engineering Department to act as a review and policy making organ which supervises private contractors, should allow the council to carry out any maintenance programme more cost effectively.

Other features which should create improved cost effectiveness include an increasing ability to purchase spare parts and materials in Tanzania, and a higher locally available skills level, both in the private and public sectors.

In the short term additional equipment will be necessary to supplement the existing ageing plant before the impacts of improved revenue will allow the council to purchase replacement equipment independently; particularly as much of the early revenue will go towards loan repayment.

4 Results of survey: Conclusions

General comments on development

The implementation of the road development programme for Dar es Salaam must be considered an important contribution towards Tanzania's general economic and infrastructural development.

However, before any decision is made on the proposal, full consideration of other important infrastructure developments in the city must be taken. The strategic fault of the recent road improvement and maintenance programme should be avoided. If the rehabilitation of Dar es Salaam's water supply proceeds, and this is probable, a considerable amount of re-working the recently-improved roads will be necessary.

At project level, it is probable that to some extent the water supply rehabilitation programme will overlap with the proposed road development programme. It is imperative that adequate liaison takes place between the appropriate government agencies to fully co-ordinate planning in a logical sequence.

At planning and policy level, effective and rational co-ordination is also required. This should be applied to both implementing agencies and donor agencies. A recent example of the consequences of the failure to do this involves the IRBD performing a feasibility study under the the Prime Minister's Office, to examine the road networks, sewers, water supply, and solid waste disposal in eight major municipalities of Tanzania. In a few instances, this initiative led to a few other donors withdrawing their interest in similar developments. Eventually the IBRD programme was scaled down to address urban water supplies only, the result was that some Tanzanian implementing agencies received no assistance in their development programmes.

It is possible that a donor conference should be organised under the Planning Commission to address co-ordination issues and to create an integrated approach to development for both the implementing agencies and the donors. This would serve to ensure that more effective development in the region takes place while making far more efficient use of donor resources.

Specific comments on JICA's role

If JICA is to invest in further road development work, they should consider closely the City Council's current proposal to change the recent submission for assistance from arterial road development to include the rehabilitation of local roads, particularly for high density residential areas, and the continuation of the middle ring road. This would positively affect a significant proportion of the city's population.

It is also important that donors to the road improvement programmes consider the impacts that the probable rehabilitation of the water supply are going to have on any road development work, and what measures can be taken to limit or avoid these.

JICA could promote and support moves which lead to better coordination of utility and infrastructural development in Dar es Salaam and the promotion of more effective and cost efficient development processes. In particular, improved liaison and coordination between the various implementing agencies and between the various donor agencies must be rigorously pursued and implemented.

Requests for further surveys

The Dar es Salaam City Council have recently presented a request for funding road improvement which includes a detailed design study. The current goal within the roads department is to promote the improvement of the roads in the high population low cost housing areas over further city centre road developments. The new proposal promotes further improvement and maintenance of the current road infrastructure:

- rehabilitation of local roads, particularly for high density population areas;
- continuation of ring road.

The proposal for this programme is currently with the city council and is expected to be forwarded to the Prime Ministers Office, Planning Commission, and Ministry of Finance for consideration soon after parliament has resumed.

Annex A: Interview

Interviewees

Mr Gamba, Dar es Salaam City Council City Engineer
Mr Paul Gasinzigwa, Dar es Salaam City Council Project Manager
Mr Ringo of Dar es Salaam City Council Roads Department*
Mr Urio, Director of Roads and Aerodromes, Ministry of Works

Interview notes from Mr Gamba and Mr Gasinzigwa of the Dar es Salaam City Council.

(Note: Questions given in Italics)

Who initiated the project?

The project originated out of the Road Improvement and Maintenance Programme due for completion in January 1996.

There have been some changes to the JICA design. We would now like to further improve the city centre and middle ring road. There is also a greater emphasis on improving roads in high-density settlements.

As such, we have recently submitted a proposal to the City Council for approval to apply for donor funding for the rehabilitation of additional local roads and the extension of the middle ring road. This would be instead of the proposal for road development currently with the Japanese Embassy for consideration.

Were others consulted during the project design?

Other relevant government departments have been consulted throughout the process.

There has been considerable cooperation in the past. The World Bank has been examining the possibility of a coordinated infrastructural development to include water, solid waste, electricity supply, roads, sewers, and drainage for the 8 major municipalities.

However, all work has been suspended but may be reactivated after the elections.

What is the capability of Dar es Salaam City Council to continue to maintain the improved roads after completion?

There has been encouragement of the development of private sector construction companies capable of carrying out maintenance works in Dar es Salaam. There has also been the development of a facility within City Council to monitor road conditions and the private sector construction companies.

We are now very interested in revenue collection, this is linked to the restructuring of Government. We're investigating parking fees, toll roads, and a fuel tax. We have upwards of 1,400 official roads to maintain and with very limited funding, we have to try to obtain some cost-recovery directly into the roads maintainance.

Will the revenue generation be sufficient to meet maintenance costs?

The revenue should be sufficient but there may be problems with collection methods, the effective allocation of funds by council (ie budget), and in transparency and accountability.

Is the management adequately skilled to maintain and operate the scheme in the foreseeable future?

Yes. There has been considerable on the job training for 5 city council engineers during the improvement and maintenance programme.

Are there plans for any further work?

The council would still like to proceed with the proposed development plan after the revised improvement and maintenance programme is completed. This of course would be dependent on the ability to attract donor funding.

Are there any other perceived problems?

Supply of equipment, current plant is aging and can not expect to have a much longer life. Further equipment will be required if Dar es Salaam City Council can attempt to effectively maintain the roads.

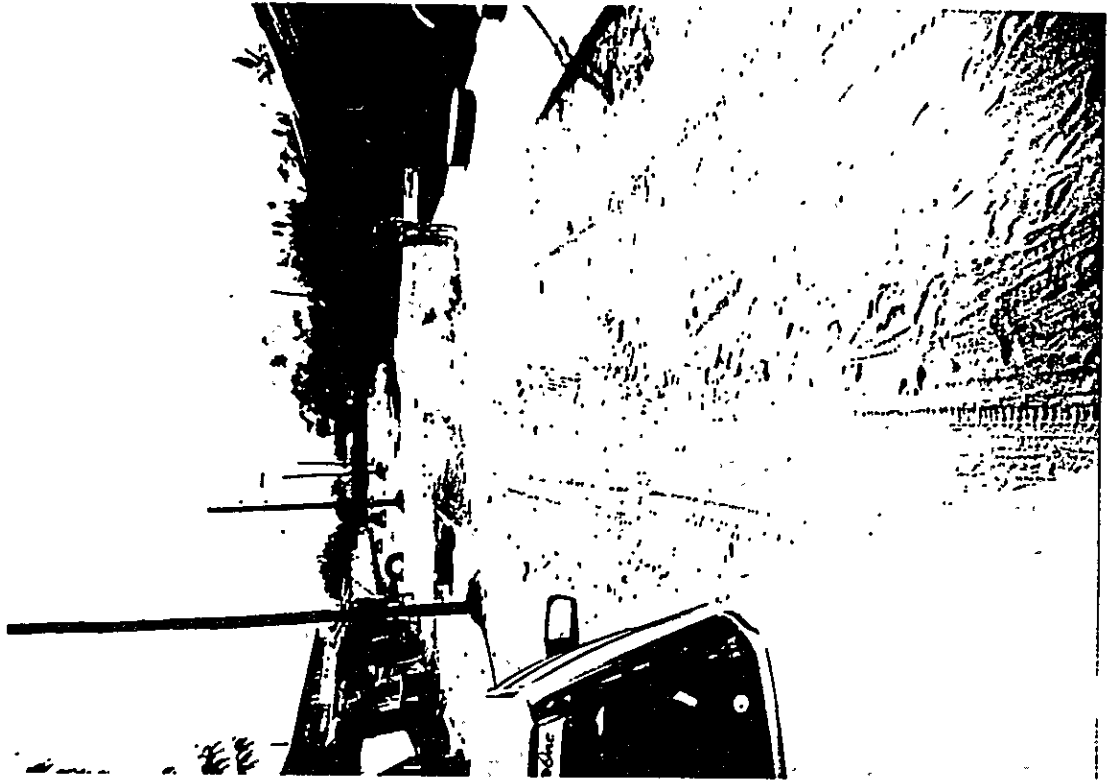
Annex B: Photographs of project



1 Inner city trunk road developed (Morogoro Road)



2 Inner city trunk road, unimproved (near Mnazimuja bus station)



3 Unimproved road, low cost housing area



4 Kisutu bus station

Annex C: Terms of reference and purpose of survey

Terms of Reference

- The JICA UK Office has requested the consultants to prepare of an independent follow-up survey in Tanzania.
- It is proposed that the work be carried out between Thursday 9th November and Friday 22nd December, 1995.
- The survey will comprise a broad evaluation and current appraisal of thirteen (13) Master Plans, Feasibility Studies, and Basic Studies in comparison to the present and future status of the individual projects or studies.
- The scope of work will cover:
 - a) Study on Water Resources Development in the Ruvu River Basin
 - b) Study on Dar es Salaam Road Development Plan
 - c) Natural Soda Development in Lake Natron and Related Transportation Facilities
 - d) Kilimanjaro Region Integrated Development Plan
 - e) Southern Coast Link Road Project
 - f) Proposed Mahale Mountains National Park
 - g) Lower Moshi Agricultural Development Project
 - h) Mkomazi Valley Area Irrigation Development Project
 - i) Expanded Afforestation Work in the Same District of Kilimanjaro Region
 - j) Road Improvement and Maintenance in Dar es Salaam
 - k) Lower Hai and Lower Rombo Agricultural Development Project
 - l) Rehabilitation of Dar es Salaam Water Supply
 - m) Topographic Mapping of Mwanza-Geita Block in the United Republic of Tanzania
- If possible, the survey will cover recent and relevant developments in the context of each project or study.
- Where appropriate, the reports will comprise questionnaires, interviews and highlight following actions for JICA and/or the Government of Tanzania.
- The reports will contain a detailed itinerary, records of interviews made and sources of information.

- The quantity and quality of information contained in the reports will reflect the availability and accessibility of information in Tanzania.
- The reports will be prepared in draft form and presented to the relevant implementing Ministries for comments before leaving Tanzania.
- Final report texts and layouts will be completed by Friday 22nd December, 1995.

Purpose of survey

This report comprises a descriptive assessment of the progress of the project against the objectives of the project as described in the original study. The purpose of the survey is to:

1. Describe project achievements to date by their:
 - A. Impacts
 - B. Effectiveness
 - C. Relevance
 - D. Efficiency
 - E. Sustainability
2. If required, produce specific and general recommendations to improve the performance of this and other similar projects
3. Further communication between funding agencies, design consultancies, implementing agencies and project beneficiaries

Annex D: Methodology and chronological itinerary

Methodology

As far as possible, the survey was performed by a structured process:

- identify the authorities involved;
- identify and locate key informants within the authorities;
- locate adequate documentation and reportage;
- define aims of project;
- conduct interviews on specific and general issues;
- define indicators of achievement and/or progress;
- visit the site;
- analyse the collected data;
- prepare draft report;
- discuss the draft report with key informants;
- edit and prepare final report text.

Chronological Itinerary

Wednesday, November 15th

09.30 Meeting with Ministry of Works, Transport and Communication:

Mr Urio, Director of Roads and Aerodromes

10.15 Meeting with Dar es Salaam City Council:

Mr Gamba, City Engineer

Mr Paul Gasinzigwa, Project Manager

14.30 Tour of town to visit road development sites:

Mr Ringo of Dar es Salaam City Council

Annex E: References & reports used in survey

JICA, Japan Engineering Consultants Co., Ltd (1995) The Study on Dar es Salaam Road Development Plan. Final Report: Master Plan Study and Feasibility Study. Summary. March 1995

JICA, Japan Engineering Consultants Co., Ltd (1995) The Study on Dar es Salaam Road Development Plan. Final Report: Master Plan Study and Feasibility Study. Main Text. March 1995

Government of Tanzania (1995) Application Form for Japan's Grant Aid. October 1995

Government of Tanzania, Ministry of Works, Communications and Transport (1995) Aid Proposal for Dar es Salaam Road Development Project. Widening of Middle Ring Roads and Rehabilitation of Local Roads. October 1995

Government of Tanzania, Ministry of Works, Communications and Transport (1995) Integrated Roads Project (IRP) Monthly Progress Report No 52. Mimeo, September 1995

