

Institutional Support to the Malawi Ministry of Transport

Railway Organizational Structure

Regulatory Unit

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Prepared by:
Institutional Reform and the Informal Sector (IRIS)
2105 Morrill Hall
University of Maryland, College Park
College Park, MD 20740

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RAILWAY ORGANIZATIONAL STRUCTURE – REGULATORY UNIT

1. Introduction

This report will address the need for government regulation of the railway concession and specifically the possibility of creating an autonomous Railway Regulatory Unit under the jurisdiction of the Ministry of Transport (MoT). Since Malawi Railways is currently owned and operated by the government, an independent government body was not deemed necessary to regulate it with respect to commercial practices or safety matters. This situation may change when the railway is concessioned to a private operator. Such a unit would be responsible for railway industry monitoring, environmental impact, maintenance standards, and safety administration. It would also be assigned the responsibility of investigating major accidents or incidents relating to rail transport, to ensure that there is the possibility of independent investigations.

The Railways Legal Framework Report provides a comprehensive discussion of the relevant laws and responsibilities related to railway regulation. It also makes recommendations concerning legal provisions of the railway concession agreement and amendments to the Railway Act. The purpose of this Railways Organizational Structure Report is to describe the rationale for a new rail regulatory framework and to outline and describe the role and responsibilities of a railway regulatory unit within the Ministry of Transport.

2. Background

Transportation regulatory issues can be divided into three broad categories (1) economic and competitive regulation, (2) environmental regulation, and (3) safety regulation. A fourth category can be added with respect to Malawi Railways, (4) oversight of the terms of the concession. Since the same issues exist for all modes, any of the regulatory functions could be handled on an individual mode by mode basis. They could also be combined in a single agency dealing with all modes. Economic or environmental regulatory issues could also be handled on a national basis for all industries through a single antitrust or environmental agency.

Determining how each regulatory category should be handled depends upon the mode, type and amount of traffic, and the current regulatory environment in the country. The cost to the government of providing regulation is also likely to be a big factor. Since Malawi railways will be the first transport concession awarded, it is likely to set the stage for the regulatory framework for the privatization or concessioning of the inland waterways. Civil aviation regulation is already covered by international agreements.

The principal function of Malawi Railways is to transport import and export commodities between Malawi and the Mozambican port of Nacala on the Indian Ocean. Malawi Railways and the Mozambique rail link to Nacala form a single rail line that does not connect or interchange at the present time with any other railway in the region. Both the Mozambique rail link and most

services at the port of Nacala are also in the process of being concessioned, and are likely to have the same private operator.

Malawi Railways carried 338,000 tons of freight in 97/98 for a total of 50,092,000 ton kilometers. It also carried 452,000 passengers (an average of about 125 passengers per day) for a total of 18,758,000 kilometers. Freight traffic has remained approximately constant since 1992, but passenger traffic has fallen by 50% due to the elimination of some service.

The railway currently carries about 18% of Malawi's international traffic, a far cry from the late 1970's when the railway carried virtually all of Malawi's international traffic. Since then regional conflict has destroyed the rail line to the Mozambique port of Beira and shifted traffic to new road routes to South Africa and Dar es Salaam. There is stiff competition for international traffic by Malawian and foreign motor carriers. It is unlikely that the railway will ever completely regain its former prominence. It should, however, with efficient operation, be able to capture a much larger share of the market and become a strong competitive alternative to the motor carriers.

3. The Rationale for Regulation

The motivating force behind the worldwide movement toward privatization and concessioning of government transport enterprises is a belief that the self interest of privately operated enterprises, responding directly to market forces, tends to create more responsive and efficient companies offering lower cost products and services than those companies which are owned and run by government. In addition, fiscal considerations push governments to privatize in order to eliminate payments of subsidies to parastatals in favor of receipt of concession fees from private operations

In a truly competitive market with free entry and exit of firms, there should be very little if any need for economic regulation of rates, services, routes, or entry or exit of firms. Any public services obligation required by the government would be purchased directly in the market place. It is also in the concessionaire's best interest to maintain a safe operating environment. The costs of failing to provide adequate maintenance or causing hazardous spills or derailments are usually far greater than the costs of preventing these problems in the first place. The need for any government safety regulation of railways beyond customary civil and criminal law is somewhat limited, particularly in the absence of significant passenger traffic. In the case of Malawi Railways, the railway right of way is a dedicated, single line system with few official grade crossings. A rational company, like a rational person, will tend to follow reasonable safety practices in pursuit of its own self-interest. If the company doesn't, civil and criminal penalties imposed by the court system are sufficient to protect the public if the court system is effective and negligence awards are adequate. This is especially true for a railway, because safety incidents also impose costs internal to the railway company itself.

Nevertheless, it is also true that society cannot rely wholly on the concessionaire's enlightened self-interest to provide for public safety and environmental protection. In some cases an individual or corporation may not act completely rationally, in other cases an individual or

corporation may make decisions on the basis of incorrect or limited information. Short-term interests may be placed ahead of long-term interests, particularly if the concessionaire has resource limitations. In some countries there are a limited number of firms and the markets are not fully competitive. A large firm may also use its size and financial leverage against smaller and weaker firms and rivals to gain unfair advantages. The court system also is often overburdened and it can be expensive and time consuming to pursue legal remedies. For these reasons, it is necessary for the government to maintain some level of monitoring and regulatory oversight of private transport firms and concessions. Although self-interest provides strong safety and environmental incentives, there may be external costs or benefits accruing to the decision-maker that distort market signals.

The need for, and scale of government regulation is an extremely important issue. By their very nature, regulatory interventions impose additional costs on the private sector that change and distort competitive market signals. If the amount of regulation is too restrictive or expensive, it can lead to an inefficient allocation of resources. For this reason regulatory oversight needs to be kept as simple, unobtrusive, self-regulating, and inexpensive as possible. Regulators are frequently faced with pressure to increase safety standards, regulatory interventions, and inspections without taking full regard of the impact that such measures impose on individual firms. Alternatively, experience over time has frequently shown that many regulators become the captives of the industries they are supposed to regulate. Concerns over “market fairness”, for example, may lead to regulatory restrictions that impose undue hardships on potential new entrants. It is very important, therefore, to provide a regulatory framework that protects legitimate public interests, while not being overly intrusive on normal business practices. The regulatory framework should also not impose excessive costs or demands on either government or industry. In this fashion it will be effective and sustainable.

4. Economic Regulation

In the case of Malawi Railways, there is, with the limited exception of PSO passenger fares, no need for economic regulation of railway rates. Large users who have some market power generate most of the freight traffic. An active trucking industry alternative already exists for both domestic and international freight and it is quite easy (except perhaps for capital and interest costs) for new trucking firms to enter the market if the railway is charging excessive rates. Moreover, after five years, there is a provision for granting trackage rights to other operators in the concession agreement (draft). Thus, even though the railway will have a natural monopoly on rail services within Malawi for at least the next five years, there will be sufficient competitive forces and alternatives to ensure a fully competitive transport market.

The Competition and Fair Trading Act of 1998 prohibits anti-competitive trade practices, permits the commission to control mergers and takeovers, and regulates the relationship between suppliers of goods and services and consumers. This act appears sufficient to deal with railway economic regulation issues which might arise. The Competition and Fair Trading Commission that the Act establishes will have jurisdiction over all modes, thus ensuring some degree of fairness throughout the transport sector. There appear to be no special circumstances that would justify the Ministry of Transport’s involvement in railway economic regulation.

5. Environmental Regulation

As mentioned in the Railway Legal Framework Report, the Railway Act only deals with environmental issues in a single provision dealing with the carriage of goods of a dangerous nature (Sec 65). The Environmental Management Act of 1996, however, provides for the protection and management of the environment and the conservation and utilization of natural resources. This act provides an adequate framework for addressing environmental issues in relation to the railway. This will encourage equitable treatment across all transport modes. There appear to be no special circumstances that would justify the Ministry of Transport's involvement in railway environmental regulation. Note, however, that an accident involving a hazardous spill in environmental terms would also be treated as a safety incident subject to safety regulations.

6. Concession Oversight

Monitoring and enforcing the provisions of the concession is a task that must be addressed in all of Malawi's concession agreements whether they involve power, transportation, or telecommunications. Usually the concession requirements can be divided into financial or sector specific i.e., transport in this case, provisions. In the future, after several concessions have been awarded, it may be desirable to create a separate agency to deal with concession requirements common to all Malawian concessions. For the present, however, the organizational alternatives for handling concession requirements appear to be, (1) the Ministry of Transport, (2) the Ministry of Finance, and (3) the Privatisation Commission

In the current draft Malawi Railway Concession Agreement both the Minister of Transport and the Minister of Finance are mentioned, although the Minister is defined to mean "the Minister responsible for Transport." As written, it appears that the Minister of Finance is only responsible for establishing "a presumptive lease value for taxation purposes where he deems the leasing of a part of the Railway Estate by the concessionaire to a third party not to be on an "arms length" basis." It is expected that this demarcation of responsibilities will be considered and adjusted during final negotiations of the Concession Agreement.

In the case of the current draft for the Malawi Railway concession, the following functions are mentioned that will require monitoring or enforcement:

- ◆ Agreement for changes in PSO passenger fares, stops, and schedules.
- ◆ Receiving and determining the format for PSO statistics
- ◆ Determining the condition of the Railway Estate prior to return
- ◆ Authorizing leases that extend beyond the lease period
- ◆ Authorizing railway bridge and highway crossings
- ◆ Providing for trackage rights for other service providers
- ◆ Sale of movable assets
- ◆ Operational and safety reporting
- ◆ Railway operating statistics

- ◆ Forfeiture of the Concession
- ◆ Force Majeure
- ◆ Annual cash payment for PSO
- ◆ Concession Payment
- ◆ Financial Reports
- ◆ Audit Reports
- ◆ Default forfeiture
- ◆ Return of portions of the Railway estate

It should be noted that while the list of functions appears long, many of them are one time or annual events. Others such as determining the condition of the railway estate, prior to return, or providing trackage rights for other service providers do not need to be done for five to 20 years. Some, such as Force Majeure, or default forfeiture, hopefully will never have to be used.

In general the initial items require some railway knowledge or expertise. These items should remain under the responsibility of the Minister of Transport. The last few items, however, are more likely to have financial considerations. Several of these items, such as annual cash payment for PSO, the concession payment, and the financial and audit reports should become the responsibility of the Minister of Finance.

Item 6.3.5 involving grade crossings should be coordinated with the organization responsible for road construction and maintenance (National Road Authority)

7. Safety Regulation

Malawi Railways, as a government operated corporation, has been essentially self-regulated with respect to safety. The Railway has its own internal safety regulations, and the General Manager is able to establish a Board of Enquiry in the event of a serious accident (Under the Commission of Inquiry Act (Cap. 18:01), the President of Malawi also has the power to establish a Board of Enquiry). As the Railways Legal Framework Report points out, with the concession there will be a need to develop a safety plan that provides for oversight of the public interest.

This oversight, however, needs to be kept as simple, unobtrusive, self-regulating, and inexpensive as possible. Most of the railway traffic will be freight and most accidents will involve derailments and problems internal to railway operations. In these cases there will be only a limited need for government involvement. When, however, accidents involve death or injury to passengers, employees, or the general public, and/or collisions at grade crossings, it is in the interest of both the government and the railway to have government oversight. In the absence of such oversight, public demand for quick government action following any serious railway accident might result in criticism of the government and the subsequent creation of an excessively restrictive safety environment.

It should be noted that railway accidents involving death or injury are quite rare, and that the Concessionaire's own potential for monetary loss is likely to be a strong incentive for good safety practices. The Concessionaire will be subject to all the laws of Malawi, including especially

general police powers. These laws include a range of safety, labor, and environmental issues. Some of these laws may provide for inspections by agencies other than the Ministry of Transport. Workplace safety might be an example.

8. Recommendations and Conclusions

- ◆ There is a need for government safety regulation of the railway concession. Given the transport expertise involved, the Ministry of Transport should have this responsibility.
- ◆ The Ministry of Transport should also be responsible for monitoring a number of the requirements contained in the Railway Concessioning Agreement.
- ◆ Economic and environmental regulation, where necessary, should be provided for by the agencies responsible for enforcing the Competition and Fair Trading Act, and the Environmental Management Act.
- ◆ Railway regulation can be handled by creating a railway section within the existing Transport Planning Unit of the Ministry of Transport. Given the limited amount of regulatory activity involved, particularly during the first five years when there is only one concessionaire, it is not necessary to create a new Department of Railways.

9. Parameters of Government Oversight

The Railway Act provides the Minister of Transport with sufficient oversight authority to regulate railway safety. In order to exercise this authority in an economically sustainable manner, the Ministry's railway section should supplement the engineering and safety information and reports provided by the Concessionaire with an occasional proactive inspection visit to the railway. This avoids the need for a staff of government railway inspectors and professional engineers to regularly walk track and inspect equipment and yet still provides a check on the accuracy and reliability of the Concessionaire's information and safety program. A large Ministry staff would not only be expensive and but it would duplicate the efforts of the concessionaire's own inspectors and professional engineers. The suggested regulatory approach would require the concessionaire to provide a safety plan for Ministry of Transport approval. Compliance with this Safety plan would be monitored through personal injury accident reports and regularly scheduled reports of more minor incidents such as freight derailments submitted by the concessionaire. The Minister of Transport, through the railway section, would reserve the right to inspect the railway or obtain additional information as may reasonably be required for safety purposes.

The suggested regulatory approach relies on regularly scheduled reporting by the railway to the government of all accidents and derailments and other important incidents. The reports should state the cause of the accident and any measures taken to prevent future occurrences. The current draft concession agreement only provides for an annual reporting of accidents by the concessionaire to the Government. This is not frequent enough to provide a satisfactory oversight function. If this report is to have a significant role in the Government's safety

oversight, it should be made at least semi-annually. Certain accidents, especially serious injuries or death of passengers and staff should be reported immediately as per Section 43 of the Railway Act and the subsidiary legislation under this section. . Level crossing accidents with or without injuries should also be reported immediately. Derailments and other operational accidents, without injuries, should be reported semi-annually. This would increase public confidence that any review or recommendation made by the Government would be timely.

Under the suggested approach, the Government would not ordinarily conduct direct or periodic inspections of equipment or track but might do so on a scheduled or unscheduled basis from time to time. The Ministry would instead conduct spot checks of the concessionaire's operations and implementation of approved safety procedures, as recommended in the Railways Legal Framework Report. Railway inspections could be made from time to time to verify the accuracy of the Railway Administration's record keeping. If there appeared to be an unusual increase in certain types of accidents or derailments, or if it appears that a number of accidents were the result of the concessionaire failing to follow previously agreed upon procedures, then the Government could conduct investigations and inspections.

In order for this system of safety oversight to work well there must be some sort of approved safety rules agreed to by the concessionaire and the Government concerning appropriate safety and inspection standards to be used by the concessionaire. The rules should contain a provision concerning the notice and procedures that the concessionaire must take if it wants to modify or change standards, perhaps as a result of a technological advance. Finally, there needs to be agreement on the type of penalties and sanctions that the government may impose in the event of accidents or derailments caused by the failure of the concessionaire to follow agreed-upon safety standards and inspection schedules. The Railways Legal Framework Report recommends a requirement that the concessionaire submit a safety plan for Ministerial approval. It is anticipated that there will be a periodic meeting, perhaps annually, where changes or modification in the safety rules by either party could be discussed and agreed upon.

10. Recommendations

- ◆ That the Ministry of Transport adopt a railway safety regulatory approach that relies on reports and engineering and safety information supplied by the concessionaire, supplemented by occasional spot checks of the railway's records and railway visits. To be effective, this approach would require the concessionaire to provide a semi-annual safety report and immediately report certain accidents, especially serious injuries to, or death of passengers, staff, and the general public. Level crossing accidents with or without injuries should also be reported immediately. This approach will provide a stronger governmental safety oversight role for the railway than currently exists for any other surface transport mode.
- ◆ That the Minister wherever possible, consistent with good safety practice and to lower the cost to the government, relies on the Concessionaire's resident professional engineer for advice and recommendations. The right to appoint an independent professional engineer or advisor would be retained for special cases where there appears to be a disagreement or

potential conflict of interest. The Railway Act contains several provisions authorizing the Minister of Transport to approve, or take action on the basis of recommendations of a professional engineer that he appoints. Many of these provisions, while important, are fairly routine and would involve unnecessary and costly duplication if both the government and the concessionaire hire their own professional engineers.

- ◆ That the safety rules, to be submitted by the railway, be discussed and developed jointly between the railway and the government and that there be an annual meeting between the Ministry of Transport and the Concessionaire where changes or modifications in the safety plan by either side would be discussed.

Railway Organizational Structure

Regulatory Unit

**Terms of Reference
Staffing**

RESPONSIBILITIES AND STAFFING

11. Terms Of Reference Ministry Of Transport Regulatory Unit

It is recommended that the Ministry of Transport create a railway regulatory section within the existing Transport Planning Unit (TPU). This section would, through the Director of the TPU and the Principal Secretary, monitor the Railway and advise the Minister of Transport on activities required under the Railway Act or the Concession Agreement.

These duties of the railway regulatory section would include:

- ◆ Review the railway reports and recommend their acceptance or non-acceptance by the Minister;
- ◆ Provide regulatory safety oversight of the railway;
- ◆ Hire and supervise professional engineers, inspectors, or other staff that might be temporarily required to investigate the railway (for example, in the event of a serious accident);
- ◆ Ensure that the provisions of the Concession Agreement that are the responsibility of the Minister of Transport are fulfilled;
- ◆ Prepare for any meetings involving the railway and the Ministry;
- ◆ Gather statistics and perform analyses on Malawi and regional truck, rail and international traffic, including operations at the port of Nacala and Beira;
- ◆ Interchange information with and represent the Ministry of Transport, as necessary, at regional railway association meetings;
- ◆ Receive and investigate public complaints concerning railway service and activities on behalf of the Minister, and make recommendations to the Minister as warranted;

While the scope of the responsibilities of the railway regulatory section is quite broad, a number of these responsibilities require only periodic or annual review. Malawi Railway's safety record compares quite favorably to the other surface transport sectors and there is no need to conduct a greater level of regulatory oversight for the railway than is conducted for other surface modes.

12. Staffing, Qualifications And Training Requirements

A single professional Government Railway Officer should initially staff the Railway Section. Over time, depending on the level of effort required to monitor the railway, an additional

professional could be added to this section. The selected individual should probably be retained at a P6 grade level to ensure a qualified individual.

The Government Railway Officer should have an engineering or railway background. In addition, he should have some business, economic, or legal experience. The individual selected should have an understanding of market competition principles as well as an awareness of the public safety obligations of the government.

The individual selected should receive some initial training in railway safety practices and operations.

Railway Organizational Structure

Regulatory Unit

Discussion of Issues

DISCUSSION OF ISSUES

13. Review of the Proposed Railway Regulatory Unit

The recommendation of the IRIS consultants that a Railway Regulatory Section be created within the existing Transport Planning Unit of the Ministry of Transport to monitor Malawi Railways was discussed and reviewed at a Ministry of Transport (MoT) meeting chaired by the Principal Secretary. In addition to senior staff of the MoT, the meeting included IRIS consultants and a representative of USAID. A number of important issues were raised and discussed concerning the size, function, and location of such a unit. The need for a contingency plan in case the concessionaire failed was mentioned as well as the suggestion that ways be found to minimize this risk. The consultants were to consider how the structure of the proposed Railway Regulatory Unit relates to the size and functions of other regulatory units recently established in Malawi for the electricity and telecommunications sectors. It was also suggested that the merits of making the Regulatory Unit independent of the Ministry of Transport be explored.

14. Background

The IRIS consultants recommend that a Railway Regulatory Section be established within the existing Transport Planning Unit of the Ministry of Transport to monitor Malawi Railways, and to advise the Minister of Transport on activities required under the Railway Act and the proposed concession agreement. A single professional Government Railway Officer would initially staff this section. He would rely on a combination of spot checks and reports from the railway to ensure compliance by the concessionaire with approved safety plans and practices. The MoT unit would not be responsible for economic or environment regulation.

◆ **How appropriate is the recommended size of the Railway Regulatory Section to the task of monitoring Malawi Railways?**

Malawi Railways carried 337,594 tons of traffic and 452,000 passengers during the 1997/98 period. This is equivalent to 40 truckloads of freight and 125 passengers per day. Railway locomotives traveled about 2% of the distance covered by Stagecoach buses and carried less than 2% as many passengers.

An enterprise of Malawi Railway's size does not justify, nor can it support, a large regulatory staff. Even employing additional staff of five or six railway regulators is likely to eliminate much of the economic benefit anticipated from the railway concessioning process. It should be noted that in addition to the Railway Officer recommended by the consultants, the Ministry of Transport already has two professional officers with assigned railway sector responsibilities. In the event of any unexpected emergency, current MoT staff could be made available to the section for short periods. If future experience shows that the regulatory burden is greater than anticipated, additional regulatory staff can be hired as necessary at some later date.

The functions of the railway regulatory unit are primarily related to ensuring the public interest in safety. The unit will have concession oversight functions (outlined in attachment 1.) The safety record of Malawi Railways compares quite favorably to the road or inland waters sectors. A regulatory unit of more than one railway officer does not appear warranted on the basis of possible safety considerations alone.

◆ **To what extent is there a potential conflict of interest in using information from the concessionaire's engineers and records to evaluate safety practices?**

The practice of using information from railway personnel and records is widely used through the world. To independently inspect and verify all aspect of the railway's safety operations is duplicative, expensive and time consuming. Potential conflicts of interest by the railway are minimized by the use of spot checks, occasional site inspections, periodic examination of records, and fines or sanctions for false or misleading reporting. This practice is no different than the practice used by most governments for tax or revenue collection.

◆ **Should the Railway Regulatory Unit be established as an independent Commission?**

An independent railway regulatory Commission would have more flexibility than a unit within the MoT. The Commission would not be constrained by civil service requirements and government regulations. This might help to attract and keep a more qualified professional railway officer. On the other hand, the cost of establishing and maintaining an independent Railway Regulatory Commission would be substantial. Unlike the telecommunications sector, there is no readily available source of funding such a Commission within the rail sector. There are also several advantages to maintaining the railway unit within the MoT. The proposed concession agreement gives the responsibility for overseeing the public's interest in Malawi Railroad to the Minister of Transport. The Minister's own staff is in a much better position to provide him with timely advice than an independent Commission. The Ministry of Transport also has broad safety responsibilities for Malawi's entire transport sector. Coordination of these interests would be easier if the unit was located within the MoT.

Given the size of the proposed railway regulatory unit, the benefit of direct access to the Minister, and the expense of establishing an independent Commission, such an action cannot be recommended at this time.

◆ **What has Malawi's experience been with Regulatory Commissions in the Electrical and Telecommunications Sectors?**

The experience with regulation of the private sector is very new in both of these sectors. Malawi is quickly learning, however, that regulation can be very expensive and that large regulatory units may not be necessary.

Electricity

The electrical sector is divided into three separate industries, electrical generation, distribution, and transmission. There are several companies in the first two industries and one company in the last. New companies can request licenses at any time. The numbers of customers and the capital investment required is much larger than anticipated for the railway. The Electric Council also has broad responsibilities for rate regulation as well as safety regulation.

At present the Electric Council has a thirteen-member board, and an Executive Director. This is proving to be financially unsustainable. A task force and its outside advisors are recommending that the Council be reduced to not more than three to five members.

Telecommunications

The telecommunications sector is quite dynamic and expanding. Technological change requiring capital investment occurs on a regular basis. Malawi currently has a regulatory authority, MACRA, with a staff of nine. This appears to be quite large considering the size of Malawi's telecommunications market.

As the regulatory experience in Malawi matures, it is likely that the regulation agencies for these two sectors will be merged and the combined regulatory staff will be about six to nine professionals.

◆ Market Failure of the Railway Concession and the Role of Regulation

Much of the discussion during the MoT meeting on railway regulation concerned the risk of default by the railway concession and the possible future closure of the railway or its return to operation by the government. It was suggested that the railway regulatory unit might have a role in preventing this and that it could develop contingency plans for this possibility.

IRIS has reviewed this suggestion and believes that the risk of unexpected default by the concessionaire is minimal. The normal activities of the Railway Regulatory Unit combined with active discussions with the transport community and railway shippers should provide sufficient information on the traffic and financial condition of the railway operations to provide ample warning of any financial or operational problems that the concession may have. IRIS does not recommend that the regulatory unit assume any regulatory function to prevent default by the railway concession beyond careful monitoring of the railway reports and consideration of shipper complaints.

As almost all countries in the world both developed and developing have discovered, it is not possible for government to regulate a firm or industry into profitability or success. During the 1960's excessive regulation of U.S. railways drove many of them into bankruptcy. It was only after deregulation that U.S. railways began to return to profitability. Government operation of Malawi Railways has not proven successful. There is no reason to think that tighter government regulation of the new concessionaire will be any more successful. The Ministry of Transport

does not have, and is not likely to be able to recruit and hire, any executives who are more capable than the managers that the concessionaire itself will employ. The concessionaire's financial stake in Malawi Railways and his possibility of making a profit are much stronger incentives for success than any regulatory constraints that the Ministry of Transport or its regulatory unit can impose on him. The Concession Agreement requires a minimum U.S.\$500,000 annual payment from the concessionaire during the twenty year term. This payment is due whether the concession operates the railway or not. This provides a strong deterrent to any arbitrary default by the concessionaire.

Regulation, by definition, is restrictive and constraining, not permissive and encouraging. Safety practices, for example, are regulated to prevent and restrict a firm from using unsafe practices. Environmental regulations prevent a firm from unwise use of natural resources. Antitrust regulation prohibits a firm from unfair business practices. It is difficult to imagine how financial success and traffic growth of Malawi Railways can be stimulated through regulatory activity. To the contrary, the government needs to encourage the concessionaire to be innovative, to try new business practices, and to compete vigorously and forcefully for traffic with truckers. This will lower transport costs and benefit the whole country. Regulatory constraints, no matter how well intentioned, cannot achieve this.

The Government takeover of Stagecoach Bus Lines illustrates how government regulation can aggravate a company's financial problems. It also indicates that the Ministry of Transport should have ample warning, in the unlikely event that the railway concession is not successful. While the withdrawal of Stagecoach Limited was due to a number of factors, including poor roads and a desire of the parent company to consolidate operations, much of the blame for the withdrawal rests on the government's regulatory policy.

Before deregulation of the bus and minibus industry, Stagecoach had a monopoly on bus service. In return for being allowed to operate in profitable areas, it was required to provide service to non-profitable rural areas. Losses were cross-subsidized by the profitable service. With deregulation, other bus service and minibuses were allowed to compete for the profitable service, but did not have the same obligation to serve non-profitable areas. Stagecoach was not permitted to eliminate the rural routes that lost money and it no longer had the monopoly profits from its other routes to cross-subsidize these losses. As losses mounted without regulatory relief from unprofitable service obligations, Stagecoach made a business decision to leave Malawi. It should be noted, however, that the Malawian Government was aware of Stagecoach's financial situation for some time. The Government also had several months' notice of the company's final decision to leave Malawi.

◆ **Is there a possibility that the Malawi Railway concession will fail? Yes.**

The Malawi Government has incurred crippling financial losses during its operation of Malawi Railways. The World Bank and USAID technical assistance have yet to raise traffic levels substantially. It is possible the concessionaire will also fail and that the Malawi Government will have to seek another concessionaire, take over the railway or simply shut the railway down. The success of Malawi Railway is very important to the country's economic development, but

Malawi Railways is still a very small railway and it will take careful management by the concessionaire to make it profitable.

◆ **Is failure of the Malawi Railway concession likely? No.**

The concessionaire consortium does not believe that failure is likely. It is making a substantial up-front financial commitment to success. This financial stake is much greater than the approximately US\$ 500,000 that will be paid before any railway operations occur. There are also significant start-up costs, personnel to be hired, etc. This financial commitment is the consortium's commitment to success. USAID and the World Bank also believe that the railway concession is likely to be successful. These agencies are investing millions of dollars in Malawi Railway that could have been spent on other donor projects because they are confident that the concession will work.

How should the possibility of failure be handled? First, make the risk of concessionaire failure as small as possible, Second, ensure as much advance notice of traffic and financial problems as possible, Third, have a contingency plan to encourage continued operation of the railway, if it is in the country's interest, should the concession fail.

◆ **How can Concession Failure be avoided and what can be done if it occurs?**

Actions to prevent concessionaire failure are best taken before the concession is awarded. The risk of failure is reduced by making sure the concessionaire has access to sufficient financial capital to weather an occasional financial setback. The concessionaire's financial commitment in the railway needs to be large enough to make it expensive for the concessionaire to default.

The risk of concession failure also needs to be reduced by limiting the government involvement in purely business decisions of the railway and in keeping any regulatory burden imposed by the government on the railway as small as possible.

The essential elements of any contingency plan for railway concession failure need to be incorporated into the proposed railway concession agreement. The Government should have a reasonable opportunity to take over operation of the railway or allow another company to operate on the line in case of concessionaire default. The government needs access to the railway's rolling stock on reasonable terms if case of default.

The Ministry of Transport can achieve maximum advance notice of any possible railway traffic or financial problems by encouraging transparency in railway reporting. The MoT should work closely with the concessionaire to ensure that the reports contains the proper information and that this information is presented in a fashion that identifies problem areas as well as successes. The Ministry has a public obligation to see that these reports are carefully reviewed before acceptance and not just filed away. The Ministry needs to maintain close contact with the transport community. Railway failure does not occur overnight. The railway's customers and competitors will be well aware of any traffic or financial problems the concessionaire is having well before

any effort by the concessionaire to suspend operations. Coordination with the transport community is a much more effective and less costly way to monitor the railway concession than employing additional regulators.

Railway Organizational Structure

Attachment 1

ATTACHMENT 1.

When considering the size and scope of the proposed Ministry of Transport Railway Regulatory Unit, it is useful to consider how the MoT oversees regulatory safety functions for other surface modes such as the bus line, Malawian and international truckers, minibuses, and taxis. There are many more kilometers of traffic on all of these modes than on the railway. There are also many more fatalities and injuries on these modes. It appears from the limited information that is available that the railway is the safest surface mode. If this is so, there appears to be no legitimate reason to devote more scarce resources to railway safety than to bus, minibus or other surface modes.

This attachment describes the railway oversight functions outlined in the proposed Railway Concession Agreement and the likely staff effort required to carry out these functions. The attachment also provides information on the traffic levels, accident rates and regulatory oversight by the Ministry of Transport for other surface modes such as the bus line, Malawian and international truckers, minibus, and taxis.

Railway Oversight Functions Outlined in the Proposed Concession Agreement

The current draft for the Malawi Railway concession identifies the following functions that will require government monitoring or enforcement:

1. Agreement for changes in PSO passenger fares, stops, and schedules.
Changes in the PSO passenger fares are linked to inflation. There will be little need for any additional analysis.
2. Receiving and determining the format for PSO statistics
Determining the format for the PSO statistics is a one-time effort that will probably be completed before, or shortly after, the signing of the concession agreement
3. Determining the condition of the Railway Estate prior to return
This will not have to be done until at least the year 2019.
4. Authorizing leases that extend beyond the lease period
This would only be done after 20 years, if ever.
5. Authorizing railway bridge and highway crossings
This would likely be done through coordination with the MoT highway branch or the National Roads Authority
6. Providing for trackage rights for other service providers
This would not need to be done until at least the year 2003 or 2004

7. Sale of movable assets
Not a frequent event
8. Operational and safety reporting
Semi-annual report, supplemented by occasional spot checks and railway visits
9. Railway operating statistics
Semi-annual or annual report. This requires review and approval
10. Forfeiture of the Concession
An unlikely event. Non-payment of concession fee would be the most likely cause.
11. Force Majeure
An unlikely event
12. Annual cash payment for PSO
An automatic event. It is a netting out of payment from the concessionaire's payment.
13. Concession Payment
A function for the Ministry of Finance
14. Financial Reports
Ministry of Finance
15. Audit Reports
Ministry of Finance
16. Default forfeiture
Unlikely event
17. Return of portions of the Railway estate.
Not a frequent event

Functions of the MoT Railway Regulatory Unit Recommended by IRIS

1. Review the railway reports and recommend their acceptance or non-acceptance by the Minister
It is recommended that the railway have a semi-annual safety report.
2. Provide regulatory safety oversight of the railway
This involves reviews of reports (item 1) and occasional spot checks and railway visits.
3. Hire and supervise professional engineers, inspectors, or other staff that might be temporarily required to investigate the railway (for example, in the event of a serious accident)
This will be an infrequent event if the Concessionaire maintains the railway's safety record.

4. Ensure that the provisions of the Concession Agreement that are the responsibility of the Minister of Transport are fulfilled
This will be a periodic effort and should not require much staff time (see list above).
5. Prepare for any meetings involving the railway and the Ministry
This is not likely to occur more than once or twice a year. The effort should not be any greater than the Ministry's current effort for Stagecoach Bus Lines.
6. Gather statistics and perform analyses on Malawi and regional truck, rail and international traffic, including operations at the port of Nacala and Beira
This will probably be the major day-to-day function of the unit. The statistics will be collected from other sources.
7. Interchange information with and represent the Ministry of Transport, as necessary, at regional railway association meetings
This is likely to be an annual event.
8. Receive and investigate public complaints concerning railway service and activities on behalf of the Minister, and make recommendations to the Minister as warranted;
The level of complaints is likely to be much less than the current level of complaints concerning bus, minibus, or taxi service. Most rail traffic will be freight and the large shippers are likely to resolve problems directly with the railway.

Road Traffic

STAGECOACH BUS LINES

Table 1 shows the total number of passenger carried by Stagecoach Limited (all lines)

Period	Passengers Carried
97/98	23,830,775
96/97	32,648,784

Table 2 shows the total number of bus km operated by Stagecoach Limited

Period	Bus km
97/98	22,672,000
96/97	25,852,000

Table 3 shows the number of accidents and fatalities during each period for the bus line

Period	Accidents	Fatalities
97/98	489	19
96/97	583	28

Table 4 shows the number of buses owned and licensed as of March 28, 1998

Fleet Strength	Number
Owned	307
Registered	229

Stagecoach operated as a private company with a significant level of government ownership until September 3, 1997, when the parent company withdrew. Since that time ADMARC has operated the company which has changed its name to Shire Bus Lines Limited. The employees of the bus company are not considered to be government employees.

Regulation

Bus vehicles must have a Certificate of Fitness in order to be registered. This certificate is issued twice a year. The bus company provides a report to the Ministry of Transport every four weeks with basic operation, revenue, and accident data. Fatal Accidents are reported to the Ministry of Transport, although it is not clear that this is legally required.

The Minister or his delegate usually attends annual and board meetings of the bus company.

The Ministry does not appear to have anyone who is specifically assigned regulatory oversight responsibility for Stagecoach or the new company, Shire Bus Lines. Two members of the Transportation Planning Unit are responsible for the entire Road Sector. Any bus oversight appears to be included in their responsibility. The Ministry keeps a file of reported bus accidents, but appears to exercise no other regulatory safety oversight with respect to the bus company. Other than the attendance at board meetings and the issuance of a certificate of fitness by the Road Traffic Department, there appears to be no regular inspection of the bus company or its equipment.

Minibuses and Taxis

Accidents are reported to the police. No summary accident report is readily available. The same two individuals in the Transport Planning Unit that are responsible for bus line and the rest of the road sector are responsible for any issues involving Minibuses and taxis. Minibuses and Taxis require semi-annual certificates of fitness to register their vehicles.

Road Traffic Department

Malawi has 18 vehicle inspectors that are responsible for issuing all passenger and commercial vehicle certificates of fitness. These inspectors are also responsible for conducting all driving tests.

Staff Position	Number
Motor Vehicle Examiners	12
Senior Motor Vehicle Examiners	3
Chief Motor Vehicle Examiners	3

Table 6 shows the number of persons killed and the number of persons injured annually.

Period	Persons Killed	Persons Injured
1997	756	2,448
1996	1,088	3,911
1995	1,142	3,429

Malawi Railways (1994) Limited

Table 7 shows the total locomotive kilometers. This provides a rough comparison to the bus kilometers shown above. Total vehicle kilometers are also shown. These include all goods vehicles, tank cars, coaching vehicles, and van and departmental vehicles.

Period	Locomotive Km	Vehicle Km
97/98	448,503	2,955,922
96/97	484,185	3,307,912

The railway's locomotives only traveled approximately 2% of the total kilometers traveled by Stagecoach buses during the 97/98 period. The railway carried less than 2% as many passengers as the bus line did during both the 96/97 and 97/98 periods.

Table 8 shows passenger and tonnage carried by the railway

Period	Passengers	Tons
97/98	452,000	337,594
96/97	451,000	

Table 9 shows the number of Locomotives and Total Rolling Stock

Equipment	Number
Locomotives	18
Total Rolling Stock	471

The Minister has significant legal responsibility for railway safety regulation. In practice, however, Malawi Railways appears to be essentially self-regulating with respect to safety.

Two members of the Transport Planning Unit are currently responsible for all railway issues in addition to several other responsibilities. Neither of these individuals visit the railway on any scheduled basis.

The railway issues an annual report. The latest compendium does not include any accident statistics.