

MTR CORPORATION
SUSTAINABILITY
REPORT 2001

CHAIRMAN'S MESSAGE

The 2001 Corporate Sustainability Report is another step forward for the Corporation following the production last year of our first Corporate Environmental Report, and we believe, marks a first for corporate reporting in Hong Kong.

As a publicly listed company, our stakeholders, in Hong Kong and globally, increasingly look to us to set out our economic, environmental and social contributions to Hong Kong's living environment. This report encompasses all three aspects, covering our approach and efforts toward delivering sustainable returns to our shareholders in an environmentally and socially responsible manner. As a business, our responsibility to our employees, shareholders customers and other stakeholders requires that this is achieved based upon sound business principles which will sustain the success of the corporation and add value for the long term.

Our mission remains to develop and manage a world class railway together with property and other related business to enhance the quality of life in Hong Kong. We aim to achieve our mission through the application of our Core Values of Service, Respect and Value, which were officially launched in 2001, and which guide our efforts towards sustainability.

The progress in the economic, environmental and social aspects of our business we report here has been achieved through the dedication and commitment of our 7200 employees to these Core Values. That commitment will continue to be reflected in our pursuit of the targets we have set ourselves for 2002, which include the launch of our Code of Ethics and certification to the ISO 14000 environmental management system standard in 2003.

I am pleased to note that our achievements in 2001 were recognised by awards from various bodies, including the Hong Kong Eco Business Award Committee (Green Office Grand Award), and the HK Government Labour Department (for Effective Staff communication and Good People Management).

The report presented here is our latest contribution to what we recognise must be a continual dialogue with you and the other members of society whose lives we touch. We welcome your thoughts and ideas on how MTR can continue to provide Hong Kong's Fast Track to a World Class City.

A handwritten signature in black ink, appearing to be 'Jack CK So', written in a cursive style.

Jack CK So, Chairman

Hong Kong, April 2002

1 INTRODUCTION

This report provides an overview of MTR Corporation's approach to sustainability and details its social, environmental and economic performance during 2001. The report also describes MTR's progress towards achieving its 2001 environmental targets and presents a set of challenging sustainability targets for MTR during 2002.

Guidelines produced by the Global Reporting Initiative (GRI) were used to develop the structure and content of this report. Please go to Appendix A to see which of GRI's indicators we report on this year. This report has been designed principally with online use in mind and the web version is supplemented by additional materials on a wide range of topics. For those who need a permanent record, a bilingual downloadable version in English and Chinese has been prepared.

This report has been verified by an independent consultancy and reviewed by an external sustainability expert.

Sustainability is a relatively new concept for many companies and individuals – if this is the case for you, please [click here](#). As MTR's and Hong Kong's first corporate sustainability report, we would very much like to receive your views either via the feedback form or by sending an email to envmng@tr.com.hk.

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2 ABOUT MTR

The MTR Corporation Limited came into existence on 30 June 2000, succeeding the Mass Transit Railway Corporation which had been established in 1975 as a Government owned statutory Corporation. With a daily patronage of over 2.2 million passengers, the MTR is one of the most intensively utilised mass transit railway systems in the world, transporting 1 in 3 of Hong Kong's population every day.

Through effective and efficient management in planning, design, operations, maintenance and continuous improvement of its railway services, MTR has been confirmed by recent benchmarking studies as one of the world's finest railways for reliability, customer service and cost-efficiency.

MTR currently operates 82.2 km of railway, comprising 5 railway lines with 44 stations, of which 10 are interchanges to provide convenient transfer between the lines.

Figure 1 The Railway Network



In conjunction with railway development, MTR plays an important role in establishing new property complexes above our stations and depots. The Corporation is committed to developing and managing these properties to the highest standards, providing a high quality living and working environment and creating new communities. At present a total of 3.3 million square metres of residential and commercial floorspace is being or has been constructed along the Airport Railway at Hong Kong, Kowloon, Olympic, Tsing Yi and Tung Chung Stations.

3 SUSTAINABILITY

MTR aims to deliver optimised and consistent returns to its shareholders in an environmentally and socially responsible manner, thereby contributing to Hong Kong's overall movement toward a sustainable future.

For our rail operations, this means the provision of equitable access to affordable, safe, useful and reliable transportation, while continually reducing our consumption of non-renewable resources, the noise we generate and our emissions to air and water.

For our property business, this means establishing new communities centred on rail access which are designed, developed and managed in accordance with the highest planning, building and environmental standards. In this way, we aim to maximise the beneficial use of Hong Kong's scarce land resources through the 'dual use' of land for both rail stations and residential communities, and to provide quality lifestyles for residents via easy rail access to work, education, family and friends, shopping and other recreational pursuits. MTR takes the key role of enabling agent to drive forward these complex and often challenging combination projects, bringing them to fruition in partnership with Hong Kong's most innovative and forward looking property developers.

Notwithstanding our commitment to sustainability as one of Hong Kong's largest corporate citizens and our integral involvement in day to day life here, there are a number of compelling business reasons for taking our environmental and social responsibilities seriously:

- Reducing risks to the environment and improving the safety of our customers and staff.
- Improving productivity by encouraging staff to implement best practice.
- Ensuring construction projects are delivered on time or early.
- Attracting investors who value good corporate governance and transparency.
- Attracting socially responsible investors and investment funds.

We also recognise that a company's market value is based not only on the value of its physical assets but also on its readiness to take advantage of future opportunities. As our sustainability report demonstrates MTR is a forward-looking, innovative company with high levels of staff training, good stakeholder relations and an excellent understanding of future environmental and social trends.

The development of this and future MTR Corporate Sustainability Reports was greatly assisted by a number of socially responsible funds and organisations who reviewed an advanced draft of the report.

Triple bottom line accounting goes to the heart of corporate management disciplines. Companies publishing Annual Sustainability Reports are to be applauded as this disclosure can only lead to better informed judgements of management strengths and strategic capability. This report is a great precedent for Hong Kong companies.

Tessa Tennant, ASrIA

The Association for Sustainable and Responsible Investment in Asia (ASRIA) is the first not-for-profit membership organisation dedicated to promoting sustainable and responsible investment in the region.

MTR's mission is to develop and manage a world class railway together with property and other related businesses, to enhance the quality of life in Hong Kong.

Within that mission, our sustainability aspirations are to:

- Promote the environmental and social benefits of rail and encourage greater patronage and rail infrastructure development as a means to reduce traffic congestion, accidents and air pollution.
- Improve performance by setting Divisional targets, positively engaging business partners, contractors and suppliers and communicating our performance within the company and externally.
- Maintain good communications with the HKSAR Government and the community during the planning, construction and operation of railways and with staff and customers to ensure the delivery of excellent passenger services.
- Act responsibly towards our customers, staff and shareholders by delivering on our service pledge commitments, ensuring staff are well motivated and trained and following our policies on corporate governance and ethics.
- Explore ways to reduce environmental impacts whilst adding shareholder value through innovation and technology.

There are a number of challenges to achieving these aspirations:

- We need to continue our discussions with external organisations regarding the fiscal and institutional incentives for constructing new railways rather than new roads.
- We need to maintain and develop good working relationships with our business partners, suppliers and contractors and understand the competitive and cultural pressures under which they operate.
- We need to recognise that managing environmental issues in our rail and property businesses must be approached differently to suit the characteristics of each business, and develop an approach for the property business which is appropriate to Hong Kong's property market.
- We need to set an appropriate pace for achieving our sustainability aspirations to ensure that our progress is founded upon pragmatic business decisions.

We will deliver on our sustainability aspirations by

- Ensuring that our policies are fully implemented across the company.

- Responding to the recommendations of our working groups on environment and fully supporting the staff consultative mechanisms.
- Further strengthening our management systems on environment, safety and quality.
- Setting, tracking and reporting of our sustainability targets during 2002.
- Reinforcing our core values of Service, Value and Respect towards Customers, Staff and Shareholders.

Our approach to the different facets sustainability was recognised in 2001 by

- Hong Kong Eco Business Awards – Grand Award (Green Office)
- Labour Department - Good People Management Award

4 SOCIAL

MTR delivers a world-class railway service in Hong Kong and in doing so provides people with more time for life. In addition, MTR plays a pivotal role in establishing new communities in Hong Kong centred on rail access. In short, MTR's core businesses are inherently beneficial to Hong Kong society.

In terms of how we deliver these services, we are committed to the long-term development and retention of our staff, to maintain excellent relations with all our stakeholders, to play our part as a corporate citizen in the community and to adhere to the highest standards of health and safety and business ethics.

Code of Conduct

The Corporation's recently published Code of Conduct, which was drawn up during 2001, formalises the policies and practices that MTR has developed to deal responsibly with its internal and external stakeholders. Its 12 sections include those covering employees, customers, contractors, the community, as well as health and safety. The Code applies to everyone working at the Corporation and in 2002 will be the subject of an extensive education campaign designed to ensure a full understanding throughout the Corporation. Its aim is to ensure consistently high standards of care and fair treatment of those involved with MTR on issues including fair competition, bribery, conflict of interest and transparency.

⇒ 2002 Target

To publish the Code of Conduct on MTR's website

To deliver Corporate wide training on MTR's Code of Conduct.

Customers

Our Service Pledge

The MTR Customer Service Pledge is agreed with the SAR Government on an annual basis and sets demanding quantitative targets across 16 service areas including train punctuality, reliability and cleanliness. Over the course of 2000, we achieved all our service pledges (including MTR train punctuality of 99.4%) and in the spirit of continual improvement, raised selected targets further. During 2001, we are pleased to report that MTR achieved all 12 of its 2001 pledges.

Customer Satisfaction

These very high levels of performance are reflected by the results of our regular customer surveys. On the basis of complaints received, 999,999.5 out of every one million passengers are satisfied with MTR's service.

Accessibility

We are striving to make our railways accessible to all our passengers – including the disabled, the elderly and people traveling with babies or small children. We have installed a range of facilities including tactile guide paths, audio induction loops, lifts and ramps (by which 70% of our platforms can now be reached), Braille route maps and bi-directional wide ticket gates. In 2001, the Hong Kong Physically Handicapped and Able-Bodied Association, an organization comprising people with disabilities,

senior citizens and care providers, voted MTR as Hong Kong's "Most Barrier Free Public Transport Facilities." Details on special facilities for disabled passengers can be found at MTR Web site>Train Services>MTR Network>MTR Facilities>Special Facilities for Disabled Passengers.

⇒ *2002 Target*

To achieve the targets in MTR's 2002 Customer Service Pledges

Our Staff

MTR's ability to deliver on its customer service pledges is a direct reflection of the high levels of skill, motivation and professionalism amongst our staff. Our philosophy and culture enables us to attract, retain and develop high calibre people at all levels, through offering well-structured remuneration, training and career paths and a stimulating, caring working environment with open communication for employees, consultants and contractors. Our voluntary turnover rate in 2001 is 2.1% (12 month moving average).

With continued efforts to enhance productivity, our total workforce has fallen continuously since 1998 from 8,786 to 7,231 in 2001. This has been achieved by organisational restructuring and streamlining, some staff reductions, balanced by the steady development of a multi-skilled workforce. All initiatives have been carried out in a context of mutual cooperation and a recognition that the challenges presented also offer opportunities for career development.

During the year, human resources processes were streamlined with the development of a new Human Resources Management Information System. When the new system is fully implemented in 2002, it will further enhance operational efficiency with the introduction of self-service functions and will reduce paper consumption.

Training and Development

We are committed to maintaining our excellent service delivery record through ongoing training and development of our staff. Staff competency in running a safe and efficient railway is ensured through: advanced training technologies, such as our e-Learning centre; sophisticated railway training facilities; and accelerated development schemes for high potential staff at management and professional levels. In recognition of this, MTR received the 2001 Excellence in Practice Awards from the American Society of Training and Development.

Training on railway operations, technical and safety issues was delivered through 3,253 training courses amounting to 42,740 trainee man days in 2001. In contributing to an environmentally friendly transportation service, a series of environmental management programmes was delivered to 2,307 operations staff.

Training on managing changes was reinforced during the year by the official launch of our Core Values. The Core Values of Service, Value and Respect towards Customers, Staff and Shareholders will foster a strong culture of continuous improvement and sustain our business objectives.

Over 2001, we increased the training component of our operations staff in line with our 2005 target to ensure that staff spend at least 4% of their time on training. During 2001, staff in Operations Division received an average of 10.2 training days on operations, safety, quality, environmental, technical and IT skills, while staff in other divisions

received an average of 2.4 training days. Training expenses were equivalent to 2.6% of the total payroll. This compares favourably to the Hong Kong average for similar corporations of 2%.

Staff Consultation

Labour relations in MTR have remained healthy after the Initial Public Offering in 2000. Staff consultation is via a well-established two tier mechanism established in 1980: the Joint Consultative Committees (JCCs) and the Staff Consultative Council (SCC). The SCC is for discussing matters of company wide interest while JCCs are departmental consultative bodies. About 500 staff are elected by their colleagues to serve on 23 JCCs across MTR.

There are two staff unions, the Staff General Association and the Staff Union. MTR maintains regular dialogue and cordial relations with the unions.

Staff Attitude Survey

To gauge staff's attitude and opinions about the Corporation, we conducted our fourth Staff Attitude Survey in 2001. This provided essential input in formulating our future policies and plans and also demonstrated our success in handling the recent changes following the Company's privatisation and the recent economic downturn. The majority of staff considers MTR to be a progressive company and that our service is highly regarded by customers. Staff also identified training, safety and working conditions, downward communication and employee involvement as areas of strength for MTR.

The survey results also reflected the general sentiment in Hong Kong during 2001, namely that the economic downturn had affected staff morale and led to concerns about job security, greater stress and heavier workloads. In response, MTR's Chairman encouraged staff to take a positive view "The economic downturn has affected all companies in Hong Kong. MTR must change if we are to maintain our competitive lead...I urge all of you to adopt a positive attitude in order to face the current and future challenges".

In recognition of our outstanding performance in human resources management and significant efforts in maintaining good staff relations, MTR received the Good People Management Award 2001 from the Hong Kong SAR Labour Department.

Equality of Opportunity

MTR's Code of Conduct formally commits the corporation to the achievement of equality of opportunities for all its employees. All employees are assessed on their ability and suitability to meet their job requirements irrespective of their seniority, gender, race, age or educational background.

Rewards & Benefits

We benchmark the rewards and benefits provided to our staff against other large, reputable Hong Kong companies to attract and retain high caliber people at all levels.

Metro Credit Union

The Metro Credit Union (MCU) promotes prudent financial planning amongst MTR staff. Its 5,900 members can make monthly saving through payroll deduction and by pooling savings the MCU can provide needy members with low interest loans.

Sports and Recreation

The Metro Recreation Club (MRC) assists staff to have healthy and balanced lifestyles by providing recreational and sporting facilities for 6,300 MTR staff members and their families.

⇒ *2002 Targets*

To deliver an average of 10.7 training days to Operations Division staff and 2.4 training days to staff in other divisions

To implement the action plan developed from the 4th Staff Attitude Survey

Community

As a corporate citizen, MTR seeks to identify areas of need where it can assist the community at large. MTR interacts with people in ways that reinforce MTR's place in the community. For example, MTR organized events in August 2001 to celebrate a milestone in Hong Kong's transport heritage and to promote the benefits of train modernization. Two thousand people brought charity tickets for the last journey on first generation trains from Central Station to Kowloon Bay Depot, where they joined a further 8,000 people at the depot's open day.

With their caring attitude, the 70 staff belonging to MTR's Corporation Community Involvement Team (CCIT) organize between 8 and 10 events per year to help those in need. Examples of their activities in 2001 include renovation of the homes and repair of electrical appliances for senior citizens living alone. As Mr. Ng Ping Kee, a long standing CCIT member says "It is better to do chores for the elderly than taking them out to eat in a restaurant, They have a very limited budget and hiring a handyman is often something they cannot afford."

In February 2001, a 24-hour Pedal Kart Grand Prix was organized by the Hong Kong Round Table. 22 organizations entered 36 karts for this endurance charity race. MTR's four kart teams raised over HK\$50,000 for a number of charity and traveled over 2,000km. Major beneficiaries include Worldwide Fund - Wheelchair Access Walkway at Mai Po Marshes, Sunbean Children's Home, Hong Chi Association and Hong Kong Society for Rehabilitation. Thanks to MTR's team of design and mechanical specialists and dedicated pedallers, the Corporation won the Best All Round Team award.

⇒ *2002 Target*

To maintain the same level of community involvement

Dialogue with External Stakeholders

The development of new rail infrastructure and operation of the MTR network requires ongoing discussions with a wide range of external stakeholders. The planning process is considerably enhanced by extensive discussions with the SAR Government who

ensure that new rail infrastructure is consistent with Hong Kong's vision as Asia's World City and fully takes account of the concerns of local residents. During construction, excellent environmental performance and good communication with local residents and the Environmental Protection Department ensures that projects proceed smoothly.

MTR has a wide base of investors both in the equity and debt capital markets and is committed to cultivating high standards of investor relations through regular and open communications. During 2001, this commitment was demonstrated by the involvement of senior management with more than 250 meetings with research analysts and institutional investors. This was in addition to participation in a significant number of local, regional and global investor conferences [see 'Investor Relations' Annual Report 2001].

MTR has an effective system to facilitate communication with members of the general public. Complaints, concerns and enquiries are responded to within 72 hours of notification. An ongoing programme of informal visits to schools and elderly centers is organized with project-specific visits to areas where construction works are being carried out.

During 2001, MTR attended 56 meetings at the Legislative Council and local councils. To facilitate communication with the general public, liaison meetings in the form of coffee evenings (24 during 2001), school talks (38), talks to Senior Citizens (18), visits to the railway and related work sites (276) were organized. MTR representatives also attended 18 live phone-in radio programmes to have direct dialogue with the public.

⇒ 2002 Target

To maintain the number of meetings with external stakeholders at 2001 levels.

Health and Safety

MTR is committed to ensuring the health and safety of staff, customers, contractors and the public on its premises. We take care to ensure a climate of safety awareness in all areas and strive for continuous improvement in safety performance. Our efforts during 2001 once again resulted in safety records for all groups that are among the best in the world for our type of operations.

Raising Awareness

Education on the safe use of the MTR rail network continued during 2001 through our Passenger Behaviour and Education programme. Staff visited 39 schools and senior citizen centers and organized visits to MTR facilities to raise awareness of safety issues. Customer safety was further encouraged by MTR's Model Passenger Awards, Escalator Safety Campaign, Safety Month and participation in Transport Day. A passenger guide 'Safety on the MTR' can be found at [MTR Web site>Train Services>Safety on the MTR](#).

Awareness among employees was advanced during the year through regular training, events such as the Corporate Safety Week and the Inter-company safety quiz. A pilot Behavioural Accident Prevention Protection Process was introduced at the Airport Railway to improve working practices in operations and new construction work.

Improving Risk Management

All new equipment destined for MTR continues to be evaluated for its health and safety performance. Our risk management system, which seeks to identify and mitigate potential hazards was improved through the upgrading of the Hazard Registration System in order to allow faster data retrieval, analysis and reporting.

Figure 2 Number of Incidents (1992 – 2001)

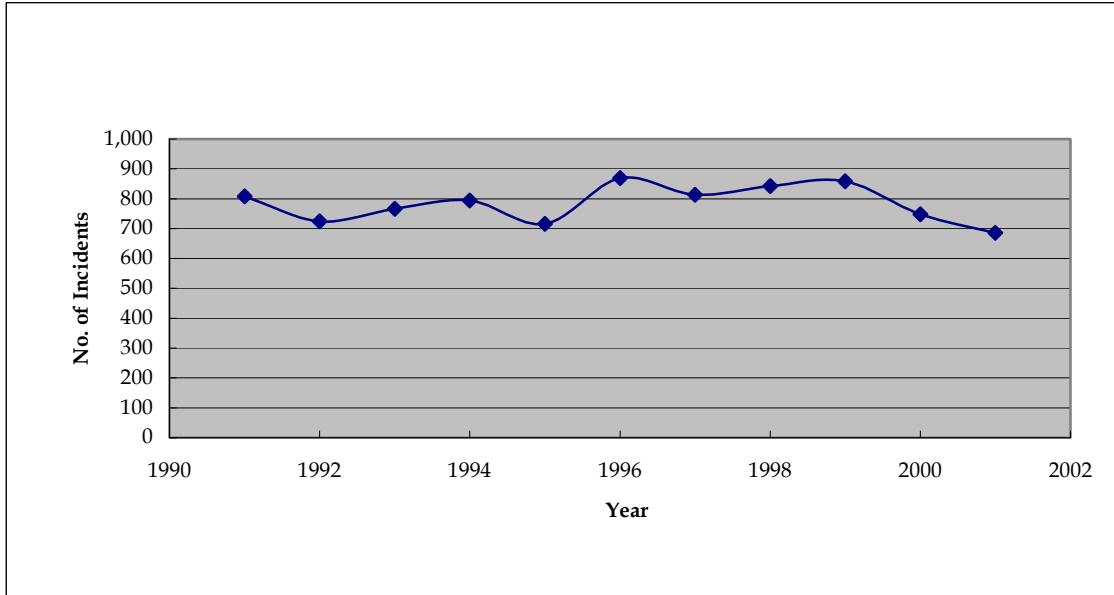


Figure 3 Incidents per Million Passengers Carried (1992-2001)

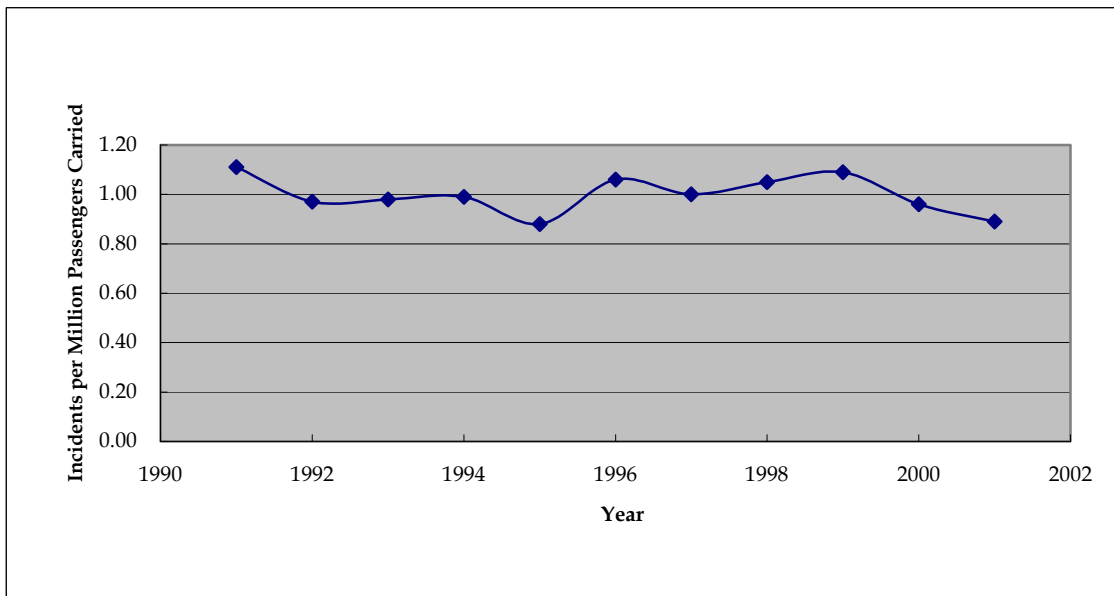
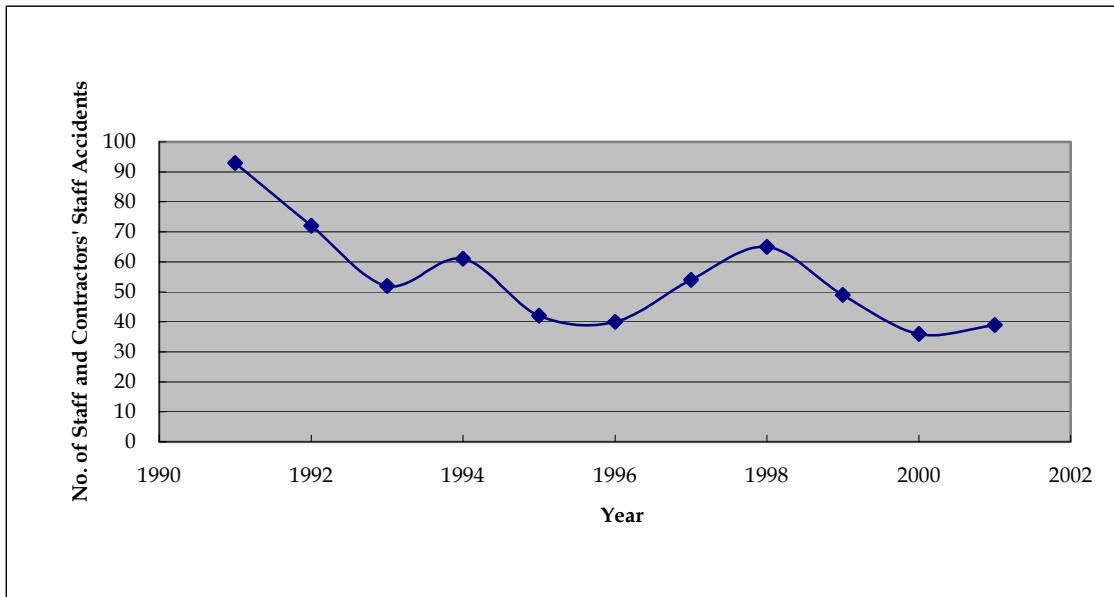


Figure 4 Number of Staff and Contractor Accidents (1992 - 2001)



⇒ 2002 Targets

To reduce the number of incidents per million passengers carried

To reduce the number of staff and contractors' staff accidents

Human Rights

The Global Reporting Initiative guidelines on sustainability reporting requests that all companies describe their approach towards Human Rights. For MTR, all its core business activities take place in Hong Kong where Human Rights violations such as child, forced and compulsory labour are extremely rare.

5 ENVIRONMENT

At MTR, environmental responsibility starts at the highest level and cascades down throughout the organisation to ensure that all staff understand their own responsibilities and the ways they can best assist the Corporation meets its environmental goals. At the operational level, each of the six Corporate Divisions is responsible and accountable for its own environmental performance, and for meeting its objectives and targets.

To direct and oversee the development and implementation of the Corporate Environmental Policy and related initiatives, the Corporation has established an Environmental Coordinating Committee. This Committee comprises senior representatives from each of the six Divisions and reports directly to the Operations Director.

Environmental Management Systems

MTR has initiated a corporate-wide Environmental Management System (EMS) to enable each of the six Divisions to monitor and respond to the environmental impacts associated with its activities such that they can be managed and minimised at all times. This approach integrates environmental management into all activities, to fully exploit the opportunities and synergy for cost effective avoidance or mitigation of environmental impacts. That commitment will continue to be reflected in our pursuit of the targets we have set ourselves for 2002, which include certification to the ISO 14000 environmental management system standard in 2003.

Project Specific Management

Under the Environmental Impact Assessment Ordinance, Environmental Permits must be obtained before major infrastructure projects can proceed. MTR adopts a positive 'ownership' approach to Environmental Permits and takes the responsibility for obtaining and maintaining the permit for each of our projects, rather than requiring individual contractors to apply for them. Apart from its success in environmental terms, we estimate that this 'One Project - One Permit' approach is 50 - 60% more cost-effective than requiring each contractor to obtain his own Environmental Permit from Government with the added benefit of improved programme control.

Managing Our Contractors

With the construction of new railways, MTR has initiated a programme to enhance environmental awareness in the construction industry by encouraging contractors to consider environment throughout the project lifecycle. For instance, procedures have now been revised so that environmental issues, most notably noise and disposal of construction waste, are incorporated into Prequalification Assessment Criteria.

Another example is the recent revision of the General Specification to further enhance the Contractor's obligations in terms of waste disposal. To maximise opportunities for re-use and recycling, MTR requires contractors to distinguish and segregate wastes into inert, non-inert and chemical waste.

MTR has pioneered the Partnering system in Hong Kong. This brings together traditionally separate client, designers, engineers and construction contractors at an early stage of a project and enables project designs, construction methods and sequences to be developed with the input of all parties. This improves the efficiency and implementability of the project and saves energy, time and materials.

Throughout a project, MTR audits the environmental performance of its contractors. MTR introduced an initiative in 1998 to link the results of selected environmental audits to milestone payments. This has been a particularly effective means of encouraging contractors to comply with the required standards throughout the contract life.

At the end of a project, a contractor's overall environmental performance is reviewed and recorded in order to inform future pre-qualification and tender processes.

5-year Contract for Station Cleaning

Traditionally, cleaning service contracts for Urban Line and Lantau Airport Railway stations, tracks, tunnels and station platforms have been managed by different functional units. The various contracts for these services were awarded to different contractors according to tender results and at different periods of time. Annual spending on these station cleaning contracts amounted to \$60M.

To explore cost saving whilst enhancing service quality, the following changes have been made to the Contract :-

- Consolidation of all stations, plant rooms, track and tunnel cleaning services in a single contract for tender.
- Performance specification with emphasis on the environment, e.g. the Green Bins, cleaning of the flower beds outside station entrance maintenance of a clean environment for passengers.
- Specification to reflect the use of more environmentally friendly cleaning products and minimise wastewater disposal within the stations.

Hence, flexibility was built in the tender such that the Corporation could award contracts based on the most viable options out of 15 possible combinations. This resulted in an annual saving of 17% (equivalent to \$10M). In addition, quality services have been enhanced because the Contractor has been given a mission to maintain a clean and tidy environment within stations and outside station entrance.

Managing Our Suppliers

The assessment of suppliers/contractors in terms of environmental issues has now become part of our on-going processes starting from the introduction of environmental aspects into the pre-qualification process and continuing with on-going performance appraisals.

Supplier environmental assessment criteria has been introduced in 2001 and it is targeted to have approx. 50% of all suppliers evaluated in this manner by the end of 2002. On-going Performance Appraisals (6 monthly for major works - by Contract for other works) now include environmental performance assessments which will form part of our data-base for future selection of suppliers.

The Corporation's General Specification has also been upgraded in 2001 to introduce more stringent requirement related to the use of products harmful to the environment and the processes for disposing of waste products, redundant equipment and construction debris. These requirements will affect all new works.

In 2001, MTR spent about HK\$ 1 billion of dollars on supplies and services, not including new railways and Capital and Revenue Works. By influencing our suppliers,

MTR can make a wide ranging and potentially large contribution towards making better use of our resources.

For some supplies, no 'environmentally friendly' options are available. One example is electricity, which cannot currently be purchased in Hong Kong from renewable sources. During 2001, MTR purchased a number of items which resulted in major energy savings or reduced the use of harmful products. These included new Tunnel Cleaning Vehicles (which reduced volumes of waste water) and non-Ozone Depleting refrigerants in train air conditioning units.

Accounting for the Environment

During 2001, MTR undertook a pilot project to determine the environmental spend at Kowloon Bay Depot through an assessment of the Corporation's management accounting system, site visits and staff discussions. The project estimated that environmental spend accounted for over 20% of total spend at the depot. The implications for the management accounting system, potential cost savings and wider applicability of the project's approach will be reviewed during 2002.

Resources

During 2001, MTR proactively managed its resource consumption through its environmental management system and achievement of its Divisional targets. MTR's consumption of key resources is discussed below and supplemented by data at the end of this chapter.

Electricity

Operating Railway

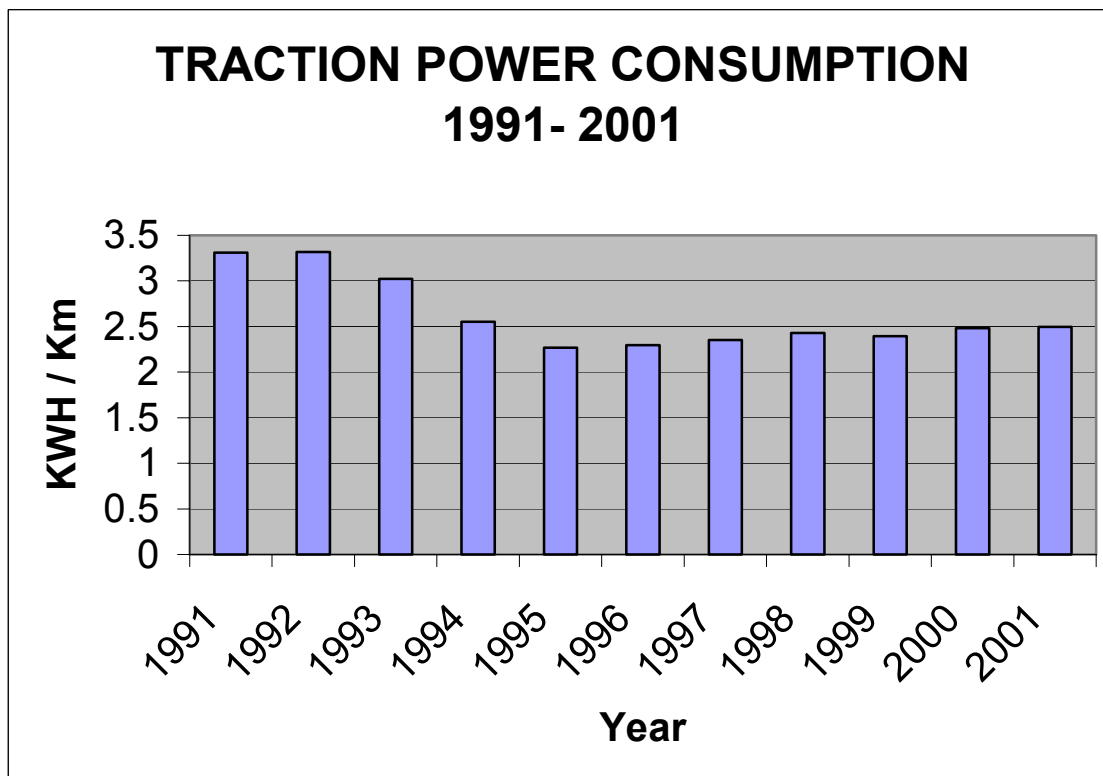
MTR is one of the most energy efficient mass transport systems in the world and considerably more efficient than motorised road vehicles. However, transporting 2.2 million people every day necessitates the consumption of large quantities of electricity. As a major cost and important environmental issue, MTR proactively manages electricity consumption whilst maintaining the highest safety, service and comfort levels for passengers.

Over 2001, energy consumption for the operating railway decreased by 0.06% to 709,170MWh. This modest reduction was achieved in the context of enhancing urban line passenger services by reducing the time between trains from 5 minutes to 4 minutes between 0930-1630hrs on weekdays and 1000-2000hrs on Sundays. The additional traction energy required was offset by a number of initiatives identified and implemented by the Energy Management Working Group including:

- Smoother train regulation between stations.
- Reduced energy consumption at stations through measures such as switching off certain escalators during non-peak hours.
- Reduced energy consumption at depots through measures such as switching off lighting when they are not needed.
- Reduced consumption at Headquarters through measures such as reducing the operation hours of Air Handling Units after office hours.

Figure 5 illustrates MTR's traction energy per car-kilometre over the last ten years. Traction energy decreased in the early 1990s when regenerative braking (which converts forward motion into energy to be used later for acceleration) was introduced but has increased slightly year on year since 1995 as increased train frequency has required more demanding regulation between stations.

Figure 5 MTR's total traction energy consumption 1991-2001



Over the next 3 years, MTR intends to fit its urban line trains with static invertors. These convert electrical power into traction power more effectively and the fitting of the invertors will also help further reduce noise from operating trains. Another initiative is the ongoing programme to fit platform screen doors. By sealing off the tunnels from the platform and station, the space to be cooled by the air conditioning system is considerably reduced with corresponding energy savings. Over the next five years, 2,920 sets of platform screen doors will be fitted.

Property

Property Development is currently incorporating a number of energy efficient features into the design of new buildings including:

- Optimisation of Overall Thermal Transfer Value.
- Specification of Variable Air Volume and seawater cooled air conditioning – the latter being 30% more efficient than air cooled systems.
- Specification of electronic (rather than electromagnetic) ballasts in lighting systems.

In 2001, Property Management replaced almost 5,000 tungsten filament bulbs with compact fluorescent tubes at the Tierra Verde, Tung Chung Crescent, Waterfront and Island Harbourview developments. It is expected that this initiative will result in savings of 1,000MWh energy and almost HK\$900,000 per annum.

Water

The main source of water consumption is keeping MTR's facilities and equipment clean. Mindful that water is an increasingly precious resource, MTR has introduced measures to reduce water usage, including cleaning platforms with purpose built machines. A sub-working group under the leadership of EMS implementation working group was formed in June 2001 to propose the control and monitoring measures of water consumption at stations. The total water consumption for Urban Line and Lantau Airport Railway stations in 2001 was 211,073 m³. This represents a reduction of 5.9% compared to consumption in 2000.

Water consumption of individual lines in 2001 was:

- Island Line – 46,866 m³ (113.5% of 2000 total)
- Tsuen Wan Line – 25,230 m³ (75.1% of 2000 total)
- Kwun Tong Line – 106,065 m³ (86.5% of 2000 total)
- Lantau Airport Railway – 32,912 m³ (122.8% of 2000 total).

Extending Asset Lives

Another way of reducing resource use is to make existing components last longer. MTR's maintenance programmes have extended the useful working life of its rolling stock from 25 years to 40 years and of its rail life from 10 to 15 years.

Paper

Paper consumption has been further reduced by a number of initiatives including the Legal and Procurement Divisions introduction of an electronic Purchasing Card and the distribution of tenders on CD-ROMs. Forthcoming initiatives include roll out of the Ellipse 5 which will allow the electronic purchase of repetitive, high volume goods.

Computers

Continuing advances in technology means that MTR needs to update its computer hardware. During 2001, over 700 computers were replaced and 142 PCs were re-deployed, the majority being donated to local schools and other organisations. In 2002, MTR aims to re-deploy 30% of its replaced computers.

Waste and Emissions

Maintaining a transport system that serves 1 in 3 people in Hong Kong every day generates a broad spectrum of wastes ranging from paper through used computers, metals and plastics, to oils and other chemical wastes. MTR seeks ways to reduce, reuse and recycle these materials but if this is not possible, waste is disposed of in a responsible and legally compliant manner.

Wastes from Railway Construction

During the construction of new railways, large volumes of materials such as excavated spoil and construction and demolition debris are often generated. The opportunities for reuse and disposal are described in the Environmental Impact Assessment for the construction project. Waste management measures are included in the tender specification and implemented by the selected contractor for the works. MTR and EPD

monitor the contractor's performance and weaknesses are addressed as soon as they are identified.

Wastes from Operating Railway

Metals

Regular maintenance of the MTR network and its rolling stock is vital to maintain high levels of service and extend working lives of components. Operations Division aims to recycle 100% of the ferrous metals generated by maintenance works. During 2001, this amounted to about 1,100 tonnes of metal.

Oils and Chemical Wastes

The Corporation produced 15,632 litres of waste oil and 7,132 litres of waste solvent during 2001. MTR utilises internal systems to ensure all its hazardous wastes are managed in accordance with the relevant regulations. Previously, waste oil was disposed of as chemical waste. In 2001, MTR recycled 3,154 litres of oil generated by the depots. In 2002, the oil recycling scheme will be extended to station maintenance activities.

Passenger Waste Paper

Passengers using the MTR network generate a considerable quantity of waste paper. In 2001, the programme to install passenger waste paper recycling bins was extended from 4 stations to 27 stations. As a result, the amount of waste paper collected and reused increased from 15 to 46 tonnes during 2001.

Wastewater

Wastewater is generated from both construction and operational activities and MTR has introduced practical measures to reduce and improve discharge quantity and quality. During 2002, a further 3 treatment plants and 11 external pipeline diversions were installed.. These and other initiatives enabled MTR to be 98.8% compliant with the Water Pollution Control Ordinance during 2001:

- 96% for the Tsuen Wan Line
- 99% for the Island Line
- 100% for the Kwun Tong Line
- 100% for the Lantau Airport Railway

Noise

Operating Railway

MTR has developed programmes to reduce noise from its operations particularly from above ground train movements. Trains on the urban and airport lines are fitted with wheel dampers and rail lubricators. Comprehensive maintenance programmes help reduce noise and extend the working lives of rails and wheels. Noise is generated by the combined roughness of the rails and wheels. Both surfaces need to be equally smooth for maximum benefit. During 2001, MTR increased wheel turning by 9% and decreased rail grinding by 10% to 233,468km of track. However rail grinding can cause

noise nuisance as it must be undertaken at night. MTR awarded the contract for a higher capacity, quieter grinding machine in 2001.

Extensive noise monitoring programmes across the MTR rail network (including real time monitoring on the Lantau Airport Railway) have demonstrated 97% compliance with the Noise Control Ordinance during 2001. MTR uses its monitoring programmes to not only demonstrate compliance but also to provide pointers towards even better noise performance.

Railway Construction

Over the years, MTR has developed a comprehensive catalogue of tried and tested measures that are incorporated into its construction contracts to ensure that people living and working close to construction works do not experience unacceptable levels of noise.

MTR monitors the noise from construction works undertaken by contractors in much the same way as it monitors its own operating railway. During 2001, weekly noise monitoring programmes demonstrated the following levels of compliance:

- 99.6% for the Tseung Kwan O Extension (TKE) works (707 measurements and 3 exceedances).
- 100% for the Quarry Bay Relief Works (QBR) works (245 measurements and 0 exceedances).
- 100% for the Mei Foo Noise Enclosure (MEF) works (66 measurements and 0 exceedances).

Compared with the level of compliance during 2000, the overall compliance rate has increased from 98.7% to 99.7%.

Property

Noise can also create problems at MTR's managed property developments. To manage this issue, MTR implements a noise control policy and undertakes acoustic improvements to reduce noise from its water pump rooms. As a result, 100% compliance with the Noise Control Ordinance was achieved during 2001.

Emissions to Air

Operating Railway

Electrically powered rail transport is the least polluting form of mass transport mainly because air borne emissions arising from a small number of power stations can be more easily controlled than those from mobile internal combustion engines. In addition, power plant emissions are generally more widely dispersed and occur further away from densely populated areas. Figures 6, 7 and 8 provide a graphical comparison of the emissions from the different types of transport available in Hong Kong (W. Barron & Steinbrecker 1997).

Figure 6 Respirable Suspended Particulates (RSP)

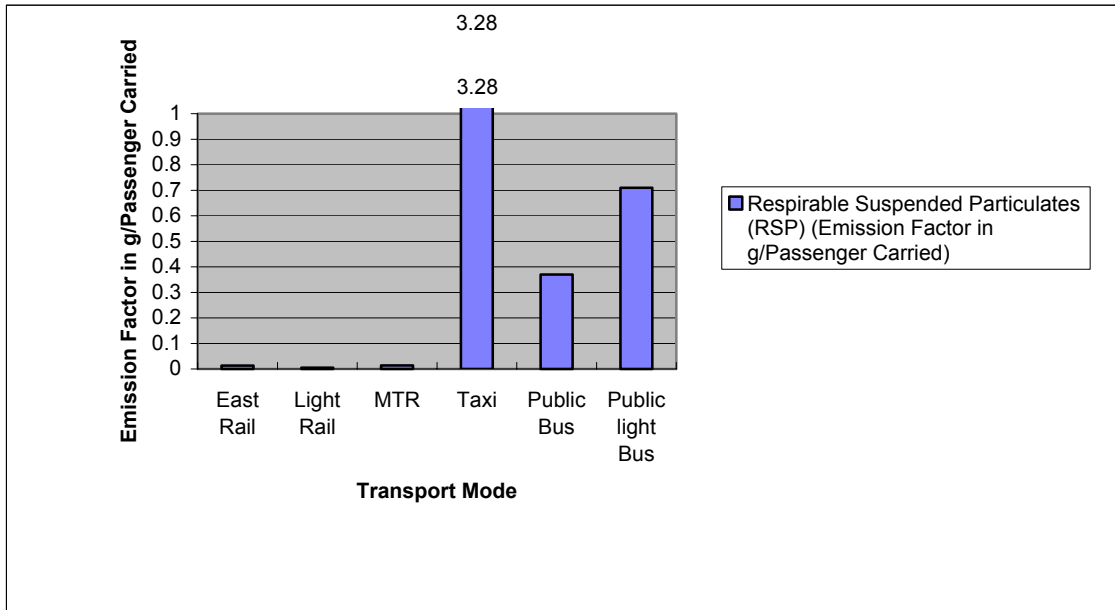


Figure 7 Nitrogen Oxides (NOx)

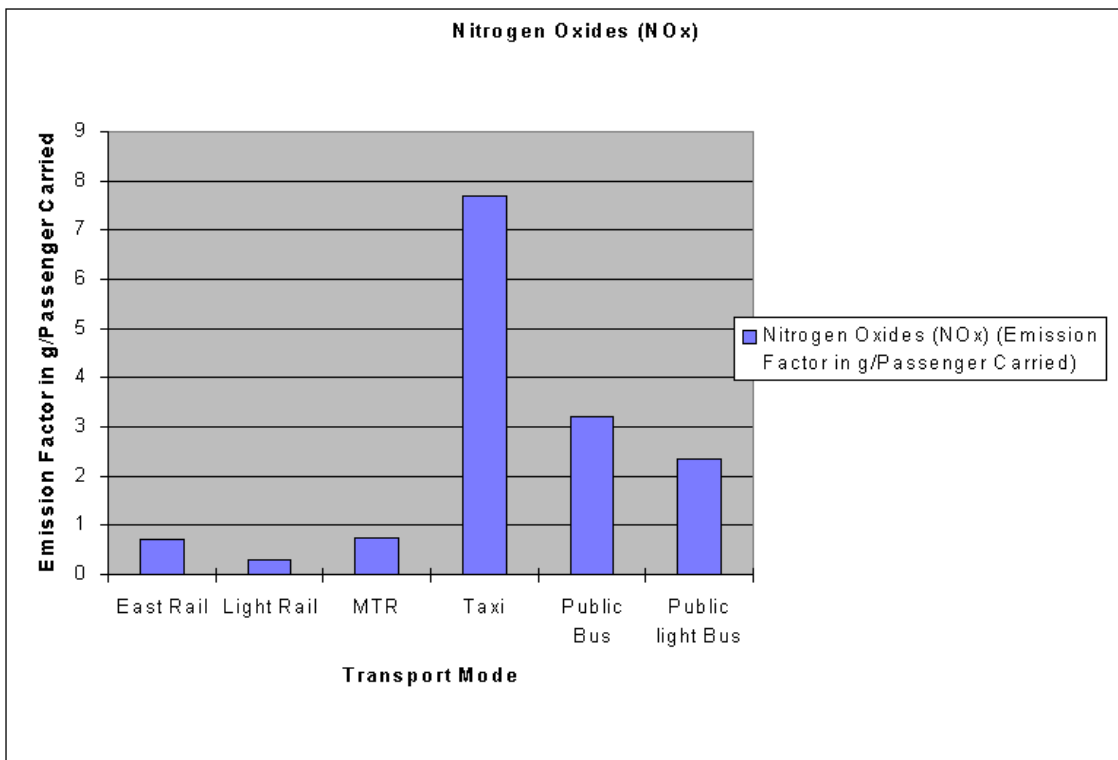
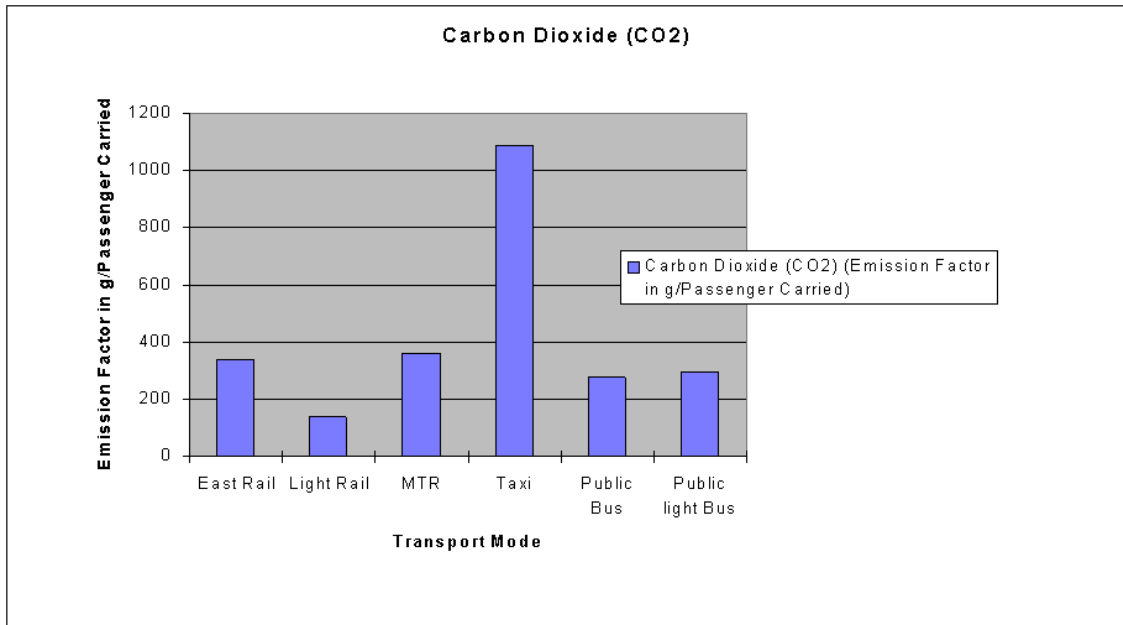


Figure 8 Carbon Dioxide (CO₂)



Ozone Depleting Substances

MTR has completed programmes to phase out our use of Ozone Depleting Substances. In 2001, the refrigerants in 9 chillers at shopping centres and 12 chillers at office buildings were replaced with zero ozone depleting alternatives. As a result, 100% of chillers in MTR-managed properties and an estimated 30% of operational railway chillers now contain zero ozone depleting refrigerants. The remaining chillers will be modified over the next 15 years, while all new chillers will comply with current legislation on ozone depleting substances.

Railway Construction

Construction phase air quality monitoring programmes demonstrated the following levels of compliance during 2001:

- 100% for the TKE works (691 measurements and 0 exceedances).
- 100% for the QBR works (192 measurements and 0 exceedances).
- 100% for the MEF works (29 measurements and 0 exceedances).

Compared with the level of compliance during 2000, the overall compliance rate has increased from 99.6% to 100%.

Emissions from Road Vehicles

Corporation personnel use the MTR as much as practical. However, road vehicles are needed for certain tasks. All MTR road vehicles use unleaded petrol or ultra low sulphur diesel fuel and 64 of the 72 diesel road vehicles have been fitted with catalytic converters. The remaining 8 are emergency vehicles such as heavy lift cranes, which are seldom used, and for which catalytic converters are not available 'off the shelf'.

Indoor Air Quality

MTR has a comprehensive monitoring programme to assess whether air within the operating railway, its own offices and Public Transport Interchanges meets its own design standards. During 2001, the programme demonstrated that indoor air quality met MTR's design standards.

Radon Monitoring

Radon is a naturally occurring radioactive gas emitted from certain types of rock which can gather in enclosed spaces such as underground tunnels. As a result, MTR undertakes radon monitoring within tunnels and stations to assess compliance with World Health Organisation standards. Monitoring has confirmed that 13 of the 14 TWL stations are within the WHO limits. One station requires more detailed monitoring – this will be conducted in 2002.

Table 1 Key Environment Data

Issue	Division	2000	2001
Resources			
Electricity	Operations	709,603 MWh	709,170 MWh
Water	Operations	224,256 m ³	211,073m ³
Wastes			
Metals recycled	Operations	680 tonnes	720 tonnes
Spent oil generated	Operations	34,120 litres	15,632 litres
Spent oil recycled	Operations	0 litres	3,154 litres
Spent solvent generated	Operations	6,712 litres	7,132 litres
Passenger Paper Recycled	Operations	4 tonnes	46 tonnes
Noise			
	Projects (% compliance)	98.7	99.7
Air Quality			
	Projects (% compliance)	99.6	100

6 ECONOMIC

Whilst corporate reporting on financial performance is well established through our Annual and Interim Accounts, reporting on the interactions between MTR and the economy is at an early stage of development.

Financial Performance

MTR's Annual Report 2001 describes how the Corporation enhances long term shareholder value and details our financial performance during 2001. Of particular interest may be the Financial Review, Profit and Loss Account, Balance Sheet and Cash Flow Statement.

MTR Summary Financial Performance (2001)

Profit and loss account (in HK\$ million)

Turnover	7,592
Operating profit before depreciation	7,307
Depreciation	(2,178)
Interest and Finance Charges	(874)
Profit	4,284
Dividend	2,118

Balance sheet (in HK\$ million)

Total assets	98,128
Loans, obligations under financial leases and bank overdrafts	31,385
Deferred income	8,411
Shareholders' funds	54,049

Financial ratios (in percentage)

Operating profit from railway and related operations before depreciation as a percentage of turnover	53.5%
Non-fare revenue as a percentage of turnover	24.5%
Debt/equity ratio	58.1%
Interest cover (in times)	3.8x

Interaction with Hong Kong, Asian and Global Economies

MTR directly employs about 7,200 people and indirectly supports the employment of many more in Hong Kong, the region and globally through the hiring of contractors for projects (ranging from rail infrastructure construction to station cleaning), the purchase of supplies and energy and our involvement in joint property development ventures. Beyond this, MTR's services, namely the efficient movement of people and the provision of residential, retail and office space, play an important role in the Hong Kong economy. In addition, the Octopus Smartcard pioneered and majority owned by MTR, provides electronic payment of fares for transport and other services in Hong Kong. The service allows more efficient transactions and reduces the need for cash handling.

MTR's Role in Promoting Hong Kong as an International Financial Centre

MTR's partial privatisation in October 2000 and subsequent inclusion in the Hang Seng Index (which represents Hong Kong's 33 blue chip companies), MSCI and FTSE Index series has brought additional quality and diversity to Hong Kong's equity capital market. As of 31 December 2001, MTR was ranked number 13 in terms of market capitalisation and number 22 in terms of turnover. Our ongoing borrowing needs for our capital expenditure programme were met by using a number of cost effective transactions involving different financial instruments and markets. We managed our debt portfolio prudently in accordance with our Preferred Financing Model which diversifies risk through different specifications. MTR continues to be active in raising corporate governance and transparency standards [see 'Corporate Governance' Annual Report 2001] in Hong Kong and more widely in Asia through our excellent relations with investors [see 'Investor Relations' Annual Report 2001].

Measures of MTR's Economic Contribution

The Global Reporting Initiative, which provides international best practice on corporate sustainability reporting, has proposed a set of core economic indicators [See Annex A for more details]. These together with additional MTR specific data provide an indication of MTR's economic contribution.

MTR's Economic Contribution

	2001	2000
Financial Performance		
Turnover	HK\$ 7,592 million	HK\$ 7,577 million
Profit for the year attributable to shareholders	HK\$ 4,284 million	HK\$ 4,069 million
Return on Shareholder's Fund	8.2%	8.5%
Interaction with Hong Kong, Asian and Global Economies		
Number of Staff	7,231	7,332
Staff costs and related expenses	HK\$ 1,641 million	HK\$ 1,688 million
Energy and Utilities	HK\$ 501 million	HK\$ 500 million
Repairs and Maintenance	HK\$ 437 million	HK\$ 456 million
Stores and Spares Consumed	HK\$ 119 million	HK\$ 127 million
Railway Capital Expenditure	HK\$ 6,657 million	HK\$ 6,607 million
Total number of passengers (MTR & AEL)	767 million	778 million
Share of franchised public transport in HK	23.5%	24.1%
Interest payments on borrowings	HK\$ 896 million	HK\$ 1,209 million
Dividend Payment	HK\$2,118 million	HK\$ 500 million
Taxes paid **	Nil	Nil
Subsidies received	Nil	Nil

** Deferred taxation

7 SUSTAINABILITY AWARENESS

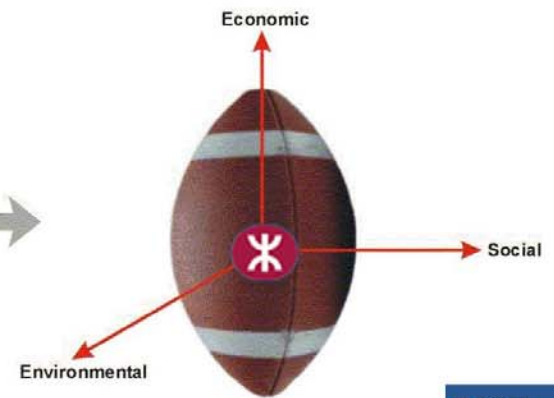
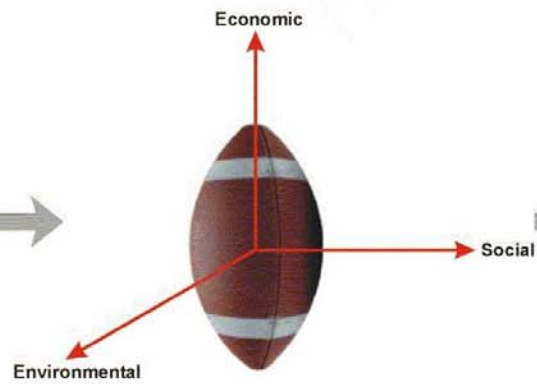
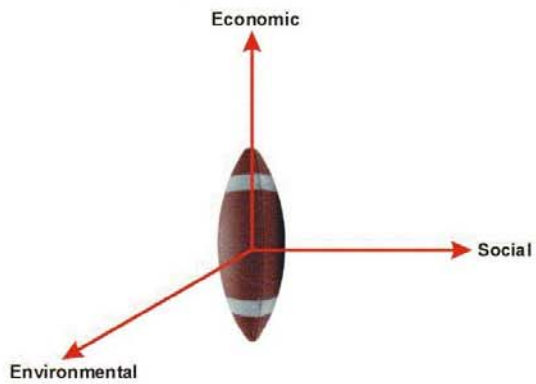
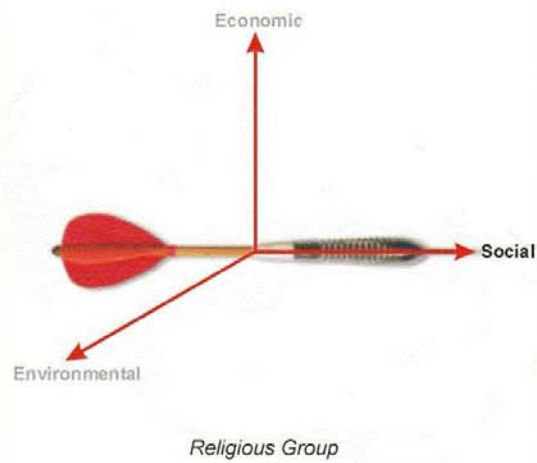
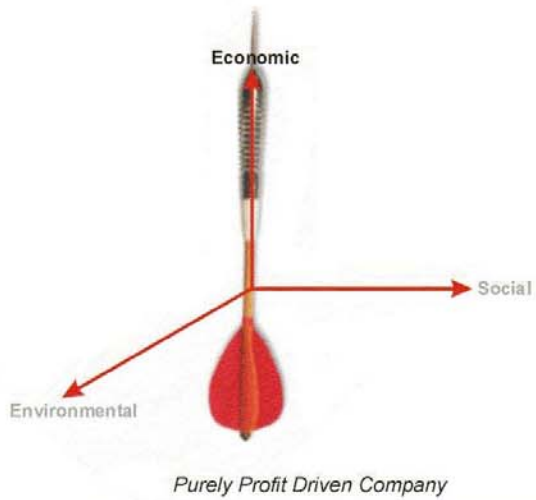
MTR is keen to increase awareness and understanding on the subject of corporate sustainability in Hong Kong, nationally and internationally. This report describes what sustainability means for MTR [See – Chapter 3] but how do others define it?

For the Dow Jones Sustainability Index [www.sustainability-index.com/], “Corporate Sustainability is a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments. Corporate sustainability leaders achieve long-term shareholder value creation by gearing their strategies and management to harness the market's potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability costs and risks.”

There are a number of other good textual definitions of corporate sustainability (eg: WBCSD [www.wbcsd.ch/], Mallen Baker [www.mallenbaker.net/csr/] etc) but very few accessible visual representations. As a result, MTR decided to develop a series three dimensional shapes to illustrate what of sustainability means for different organisations and how companies make progress towards sustainability (Figure 9).

Some organisations can be characterised as being only concerned with one facet of sustainability, eg: a purely financially driven company. Such organisations can be portrayed as a dart. In reality there are very few like this – those having an interest in two facets of sustainability can be thought of as a frisbee. An example would be a pressure group campaigning on environmental and social issues. The majority of listed companies can be thought of a rugby ball, primarily concerned with delivering shareholder returns but also addressing environmental and social issues to some extent. As companies integrate environmental and social issues into their business framework, the girth of the rugby ball increases and according to corporate sustainability rationale, so too does the overall volume of the ball, leading to increased shareholder returns. In short, inflate for sustainability.

The dart – frisbee – rugby ball analogy can also be used to describe corporate transparency on sustainability issues. From this perspective, most Hang Seng companies are darts given that they report on financial performance. The few who publish environment reports are Frisbees in the economy – environment plane, whilst MTR is currently the only rugby ball!



Corporate Evolution towards Sustainability



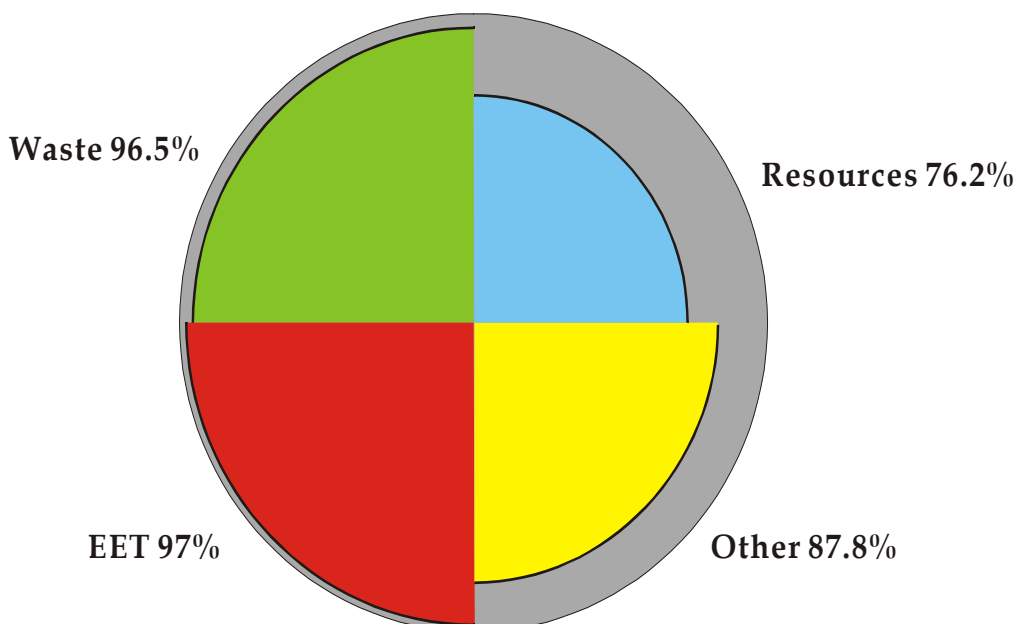
8 ENVIRONMENTAL PERFORMANCE IN 2001

Over the course of 2001, MTR's divisions have been working towards the targets set out in the Corporation's Environment Report 2000. During preparation of this Sustainability Report, detailed information on progress was reviewed and follow-up discussions were held with senior management from each Division to agree the percentage completion for each target. In accordance with the verification methodology, a representative sample of the targets was verified through further information review and working level meetings. During 2001, MTR fully achieved 90% of its 175 environmental targets.

Progress against Environmental Targets during 2001

	Number	% Total
100% complete targets	157	89.7
75% complete targets	5	2.9
50% complete targets	7	4
25% complete targets	0	0
0% complete targets	6	3.4

% Targets Completed During 2001



To enable the divisions to track and record their progress on each of their targets, and for overall progress to be monitored at corporate level, MTR has developed the Environmental Target Tracking Tool (ET3), located on the MTR Intranet system. Every quarter, the Divisional Representatives from each division update progress on their targets, with the results being presented to the ECC chaired by the Operations Division Director. This data is then compiled to produce a summary of the percentage of targets in each sector that are on track for completion, in the form of a pie chart and this is presented to the MTRC Executive.

Progress against each of the 2001 divisional targets is presented overleaf together with an explanation of why 10% of the targets were not fully achieved during 2001.

Operations Division

Target	% Complete	Verification
RESOURCE USE		
Save HK\$6.7 million on energy budget by implementing energy saving initiatives	100	✓
Complete the retrofitting exercise at the Choi Hung (CHH) centre track platform	100	
Replace 3 chillers with non-ozone depleting substance, R134a	100	
Reduce water consumption by 3%	100 ¹	✓
Reduce hazardous chemical consumption by 5%	100	
Reduce printing paper consumption by 5%	50 ²	
ENVIRONMENTAL IMPACT REDUCTION		
Ensure all new wheel sets have dampers	100	
Maintain or better the level of wheel turning activity in 2000	100	
Maintain or better the level of rail grinding activity achieved in 2000	90 ³	
Award contract for new higher capacity rail grinding train	100	
50% of the redundant rail joints at the open section from CHH to LAT will be removed	100	
Maintain flange lubricators fitted to LAR trains.	100	
Maintain the rail lubricators fitted to 6 units on 3 URL.	100	
Complete installation of an acoustic barrier system in the fixed high platform OHL wagon	100	
Continue to monitor noise from the LAR.	100	✓
Test under floor noise monitoring system.	75 ⁴	
Continue to monitor noise at 27 sensitive receivers adjacent to the open sections of MTR lines	100	✓
Complete the rolling stock noise study for the Kwun Tong Line and examine measures for reducing noise	100	
Continue to undertake the retrofitting exercise for public address systems and conduct acoustic test at North Point Station.	100	
AIR QUALITY IMPROVEMENT		
Conduct indoor air qualities surveys at 3 transport interchanges and achieve 100% compliance with the design standards	100	✓
Continue to monitor indoor air quality at 40 URL and LAR stations	100	✓
Conduct radon surveys for TWL and achieve 100% compliance with the WHO limits	99 ⁵	✓
WASTES REDUCTION		
Roll out the passenger waste paper recycling activity from 4 trial stations to others.	100	
Extend waste recycling activity to cover metallic and plastic wastes.	100	
Recycle all waste metal	100 ⁶	
Award oil-recycling Contract and achieve 100% recycling of waste oil.	100 ⁷	✓
Adopt acid detergent which contains no volatile organic compound and no COD or BOD at one URL train-wash.	100	
Complete modification works at KBD	100	
Maintain a quarterly wastewater-monitoring program to monitor discharges from stations, tunnels and depots.	100	
Install wastewater treatment systems and undertake external pipeline diversions to achieve 100% compliance with WPCO.	99 ⁸	
Conduct asbestos removal work in 14 URL stations.	100	✓
ENVIRONMENTAL EDUCATION & TRAINING		

Target	% Complete	Verification
Maintain and/or increase the percentage of staff joining the Working Group (67% in 2000)	100	
Maintain and / or increase the level of activity achieved by the Environmental Protection Working Group in 2000	100	
Maintain and reinforce training in EMS and legislative requirements (320 staffs trained in 2000)	100	
Maintain and/or increase the number of seminars given by EPD and encourage staff to attend (5 seminars to 200 MTR Staff in 2000).	100	
Maintain the commitment in 2000 to conduct external visits to promote environmental awareness outside the Company.	100	
OTHERS		
Comply with EIA Ordinance	100	
Identify and review all necessary works instructions with potential environmental implications.	100	
Ensure environmental specifications are included in all contracts with sum over HK\$5,000,000	100	✓
ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)		
Carry out divisional EMS for Consultancy Services and Transport Planning.	100	
Develop and implement Water and Indoor Air Quality Information Systems to support the EMS.	100	
Commence system audits of the divisional EMS.	100	
Examine how best the EMS system can be integrated with the Safety and Quality Management Systems in the Operations Division.	100	✓
AUDITS AND REPORTING		
Undertake internal audits to ensure the implementation of the last audit's recommendations	100	
Issue an internal energy audit report. Develop an audit protocol for subsequent energy audits	100	✓
Achieve the target of less than 30 cases of environmental complaints in 2001	100	✓

¹ 5.9% reduction by major water consumers (stations), reduction in offices and depots not known. ² Some departments reduced paper consumption by at least 5%, reduction for other offices not known. ³ Length of rail ground in 2001 was 90% of that in 2000 due to breakdown of Rail Grinding Unit. ⁴ Monitoring system at design stage. ⁵ Of 76 monitoring points in the 14 TWL stations, 75 are within the WHO limits. One monitoring location requires more detailed monitoring – this will be conducted in 2002. ⁶ All collectable metal. ⁷ All recyclable oil. ⁸ WPCO compliance is 99%.

Project Division

Target	% Complete	Verification
<i>RESOURCE USE</i>		
<i>Tropical Hardwoods</i>		
Maintain the current standards with no tropical hardwoods being used on MTRCL railway projects.	50 ¹	✓
<i>WASTE MINIMISATION</i>		
<i>Noise Monitoring</i>		
Continue to implement weekly noise monitoring programme for TKE & MEF construction works to assess noise. Achieve an overall 90% compliance rate.	100	✓
<i>Air Monitoring</i>		
Continue to implement monthly air monitoring programme for TKE & MEF construction works to assess dust levels. Achieve an overall 90% compliance rate.	100	✓
<i>ENVIRONMENTAL EDUCATION & TRAINING</i>		
<i>Internal Education & Training</i>		
Maintain and/or increase the number of internal seminars (23 seminars to 700 staff in 2000).	100	
<i>External Education & Training</i>		
Maintain and/or increase the number of presentations given by the Corporate Environmental Manager to external bodies (3 presentations in 2000).	100	
Support to Graduates – Implement support to 2 PhD graduates at HK polytechnic undertaking research in acoustics.	100	
<i>Environmental Campaigns & Related Activities</i>		
Where practicable, establish and implement public involvement programmes such as displaying art work on hoarding at Mei Foo.	100	
<i>OTHERS</i>		
<i>Environmental Impact Assessment (EIA)</i>		
Undertake EIAs for the North Island Line and Tsim Sha Tsui station modification Projects.	100	
<i>Environmental Management Plans</i>		
Continue to receive and audit Environmental Management Plans from all Project Civil and E&M Contracts.	100	
<i>Environmental Performance Indicator System</i>		
Launch an MTRCL environmental award system for Contractors.	100	✓
<i>Environmental Audits & Compliance Reports</i>		
Undertake 142 audits (28 for payment milestones) with a target of zero payment milestones being withheld.	100	✓
Maintain the production of Environmental Monitoring and Audit Reports for all necessary contracts.	100	
Maintain reporting of Environmental Monitoring and Audit Reports on MTRCL's website.	100	✓
<i>Audits and Reporting</i>		
<u>Formalise a Divisional Policy Principle for the undertaking of third-party environmental audits and the publishing of results.</u>	100	

¹ It is unclear whether tropical hardwoods have been sourced from sustainable sources.

Property Development (Property Division)

Target	% Complete	Verification
RESOURCE USE		
Property Design		
Optimise Overall Thermal Transfer Value (OTTV) - The target will be dependant upon the sites pursued for development, however, it is envisaged that the Kowloon Station Development Package 5, 6 & 7 may be a site which will be designed to achieve optimum OTTV.	100	✓
Adopt Electronic Ballasts - The target will be dependant upon the sites pursued for development, however, it is envisaged that the design/installation of electronic ballasts may be completed in 2 new office buildings.	100	✓
Adopt Variable Air Volume (VAV) Air Conditioning - The target will be dependant upon the sites pursued for development, however, it is envisaged that the design/installation of the VAV system of air conditioning may be completed in 2 new office buildings.	100	✓
Adopt Seawater Cooling - The target will be dependant upon the sites pursued for development, however, it is envisaged that the design/installation of over 40,000 refrigeration tonnes of seawater cooled chiller plant may be completed for new property developments.	100	✓
Reduce Water Consumption - As appropriate, specify systems and equipment for reducing water consumption in new developments.	0 ¹	
Adopt / design to maximise the utility of renewable resources and materials from sustainable sources.	50 ²	
Adopt / design to encourage recycling of materials during construction and operation phases.	100	✓
Property Construction		
Maintain record of zero use of diesel hammer percussion piling for the construction of new property developments.	100	
As appropriate, encourage the adoption of metal hoarding for new development sites.	100	
As appropriate, encourage the adoption of metal formwork instead of timber formwork for building construction in new development sites.	100	
Encourage the use of tropical hardwood from managed sources only.	50 ³	
WASTE MINIMIZATION		
Property Design		
Use refrigerants with no ozone depleting potential in all new chillers.	100	
Adopt designs that minimise contribution to global warming effect.	100 ⁴	
Adopt designs that minimise air, water and noise pollution.	100 ⁵	
Property Construction		
Encourage contractors to reinforce construction site management measures for noise control, dust minimisation, water and waste management, and health related issues.	100	
Encourage contractors to segregate construction waste to promote the recycling of materials.	100	
Encourage contractors to use no ozone depleting materials.	100	
Encourage contractors to use no hazardous materials.	100	
Encourage contractors to reduce the amount of wet trade construction.	100	
ENVIRONMENTAL EDUCATION & TRAINING		
Internal Education & Training		
Establish formal records of staff environmental training.	100	
Encourage staff to attend training programmes on environmental matters and concerns.	100	

Target	% Complete	Verification
Keep staff appraised of the latest environmental laws and best practice.	100	
<i>External Education & Training</i>		
Establish formal records of environmental training.	100	
Encourage contractors to conduct training programmes for their staff and workers to educate them on environmental matters and concerns.	100	
Encourage contractors to set up procedures to manage environmental complaints both from internal and external parties.	100	
In line with the Dream City Concept developed by the Corporation, develop programme design packages for tendering.	100	
In line with the innovative building design proposed by the Company and submitted to Buildings Department, progress agreed initiatives.	100	
<i>Green Ambassador Programme</i>		
In line with the Green Ambassador Programme for students and teachers, as appropriate, conduct further study trips to acquire information on the latest building design and construction technology.	100	
<i>OTHERS</i>		
<i>Regulatory Compliance</i>		
As applicable, observe the Hong Kong Planning Standards and Guidelines.	100	
As applicable, observe the requirements of the BD's, EMSD's and EPD's practice notes, guidance notes and codes of practice.	100	
Maintain 100% compliance with air pollution, noise and water pollution control ordinances for new property developments.	100	
Design the Kowloon Station Development Packages 5, 6 & 7 to achieve at least Level 2 Indoor Air Quality Objectives.	100	
<i>Environmental Impact Assessment</i>		
As applicable, undertake EIAs for new development Projects and fully comply with the requirements of issued Environmental Permits.	100	
<i>Audits and Reporting</i>		
Complete the HKBEAM assessments on 3 new property developments (ie HK Station Mega Tower, Olympic Station Package 3 Residential Development, Kowloon Station Package 3 Residential Development) and, as applicable, commence/undertake assessments for new property developments.	50 ⁶	✓
<i>Environmental Management System (EMS)</i>		
Comply/implement the requirements of the Corporate EMS as applicable to the Property Division.	100	
<i>Building Management System</i>		
Provide building management systems to all new property developments, both commercial and residential, to monitor and control energy use.	100	

¹ There was concern that end users would be unsatisfied with low flow devices (such as showers and toilets) and that there may be hygiene issues associated with rainwater collection and grey water recycling systems. ² The use of renewable resources was encouraged rather than maximised. ³ It is unclear what encouragement has been provided. ⁴ As far as practical. ⁵ As far as practical. ⁶ HKBEAM assessment completed for 1 new property development, in progress for two others.

Property Management (Property Division)

Target	% Complete	Verification
RESOURCE USE		
<i>Energy</i>		
Achieve efficient energy management by implementing proper maintenance programmes and benchmarking the market norm.	50 ¹	
Continue to implement energy saving initiatives and upgrading programmes.	100	✓
<i>Benchmark</i>		
Benchmark MTRCL's use of resources with the best market practice.	0 ¹	
Benchmark MTRCL's use of non-renewable sources with the best market practice.	0 ¹	
Establish targets and implement measures to achieve the goals.	0 ¹	
<i>Green Procurement</i>		
<u>In combination with Legal and Procurement Division, establish a "Green Procurement" policy.</u>	100 ²	
Encourage recycling of materials.	100	
Encourage the use of materials obtained from sustainable sources.	50	
Galvanised Iron Pipes		
Replace galvanised iron pipes with copper piping in 41 blocks in Telford Gardens.	100	
Regularly monitor fresh water supplies.	100	
WASTE MINIMIZATION		
Noise		
Adhere to the requirements of the in-house noise pollution control policy which was established in 2000.	100	
As applicable, continue to implement acoustic improvement works to water pump rooms at the Company's managed estates and achieve 100% compliance with the statutory noise criteria.	100	
Noise Monitoring - Continue to implement noise monitoring at all MTRCL Estates where required to assess noise from pumps and lifts. Promptly address all problems identified/reported.	100	
<i>Air</i>		
Eliminate Ozone Depleting Substances - Ensure all new chillers and associated repairing works do not use ozone depleting substances.	100	
Exhausts - Maintain daily visual checking of restaurant exhausts/outlets. Ensure that problems/complaints are responded to, and as far as practicable resolved, within one week.	100	
<i>Waste Management</i>		
Effluent Discharges - Renew the effluent discharge licence for Telford Garden's Market and achieve 100% compliance with the WPCO. Ensure proper maintenance of the effluent discharge system.	100	
Hazardous Materials - Maintain daily checking of storage facilities for hazardous materials at each MTRCL Estate. Ensure effective handling of hazardous materials by implementing proper operational procedures.	100	
Waste Disposal - Maintain regular checking of refuse disposal facilities at each MTRCL Estate. Ensure that problems/complaints are responded to, and as far as practicable resolved, within one week.	100	
ENVIRONMENTAL EDUCATION & TRAINING		
Continue to conduct training programmes for staff and workers to educate them on environmental matters and concerns.	100	
Train an "Environmental Champion" within the Property Division to audit/assess contract submissions.	50 ³	✓

Target	% Complete	Verification
Encourage contractors to set up procedures to manage environmental complaints from both internal and external parties.	100	
Continue to implement the guidelines in the Environmental Manual and up-date the Manual as necessary.	100	
Continue to implement waste recycling campaigns and related programmes at Heng Fa Chuen to promote and encourage recycling of materials.	100	
OTHERS		
<i>Waste Management</i>		
As applicable, observe the requirements of the BD's, EMSD's and EPD's practice notes, guidance notes and codes of practice.	100	
Maintain 100% compliance with air pollution, noise and water pollution control ordinances for new property developments.	100	
Monitor indoor air quality in offices to maintain at least Level 2 Indoor Air Quality Objectives.	50 ⁴	
Implement any EIA recommendations or conditions in an Environmental Permits that related to the management of MTRCL's Property Developments.	100	
Audit and Reporting		
Review the applicability of establishing a Divisional Policy Principle for the undertaking of third-party environmental audits and the publishing of results.	100	
Benchmarking		
In line with the benchmarking study undertaken in 2000 to assess MTRCL's use of energy and non-renewable products against best market practice, establish targets and implement measures to achieve the goals.	0 ¹	

¹ External benchmarking was not undertaken due to the lack of publicly available information on company performance. ² Legal and Procurement Division established the Green Procurement policy. ³ An environmental champion was trained – no contracts were audited or assessed. ⁴ There were some minor deviations from Level 2 Objectives. These were rectified by cleaning of air conditioning systems.

Finance Division

Target	% Complete	Verification
RESOURCE USE		
General, Office & System Management		
Reduce paper usage by keeping documentation and reports archived in electronic format	100	
Reduce paper usage by promoting information sharing with Internet/Intranet instead of paper circulation.	100	
Reduce computer printouts by promoting information retrieval or enquiry via information systems and end-user computing tools.	100	
Information Technology Management		
Develop programme for recycling computer consumables and printouts.	100	
Company Reporting		
Within the boundaries of the relevant legislation governing Company Reporting, examine ways to reduce the printing of Company reports and circulates (e.g. the Company's annual report). Where possible, reports will made available on the MTRCL's website (e.g. the Company's first Corporate Environmental Report)	100	
WASTE MINIMIZATION		
Logistic & Material Management		
Pollution-free Mechanical Handling Equipment - Achieve 100% use of pollution-free mechanical handling equipment through the purchase (for any replacement or any additional requirement) of battery mechanical handling equipment.	100	
Clauses will be added to Scrap Merchants Contracts to ensure they comply with the Environmental Protection Regulations relating to used batteries.	100	✓
Lead Free Vehicles - Achieve 100% use of lead free (unleaded) gasoline road vehicles through the purchase for the replacement or any additional requirement of lead free (unleaded) gasoline road vehicles. Replace one Goods Van.	100	
Energy Saving – Continue to implement energy saving initiatives to avoid the use of unnecessary lighting.	100	
Electronic Requisition System - Design an electronic requisition system for new stock items to replace the existing paper requisition	100	
Air		
Particulate Removal Devices - Fit particulate removal devices to 100% of pre-euro diesel road vehicles, and purchase (for any replacement or any additional requirement) only diesel road vehicles with minimum particulate emissions if there is any requirement.	100	
Waste Management		
Waste Segregation - Minimise waste and improve the opportunities for reuse/recycling through contractual specifications.	100	
Waste Disposal - Clauses will be added to Contracts for Waste Disposal to ensure Contractors comply with the Environmental Protection Regulations.	100	
Chemical Waste		
Achieve 100% compliance with the EPD's Regulations on Chemical Waste disposal and handling.	100	
Add clauses to the new Contract for Chemical Waste Disposal to ensure the Waste Collectors comply with the Environmental Protection Regulations.	100	
ENVIRONMENTAL EDUCATION & TRAINING		
Increase Environmental Awareness		

Target	% Complete	Verification
Develop and implement a programme to increase the environmental awareness of staff. New staff will attend an induction programme which will include an environmental segment, and current staff will receive work-related training.	100	
Publish information on environmental issues on the Corporate Intranet/Internet.	100	
<i>Environmental Working Group</i>		
Set up an environmental working group to encourage staff to share ideas and thinking on environmental matters.	100	
<i>OTHERS</i>		
<i>Environmental Management System (EMS)</i>		
Establish a Divisional Environmental Management System. Compile and implement an action plan for the implementation of the EMS.	100	
<i>Green Accounting</i>		
Examine the possibilities for green/full cost accounting, in so far as is applicable to MTRCL.	75 ¹	
<i>Review</i>		
Review the environmental protection requirements for dangerous substances in the inventory. Modify the requisition form for new stock items to incorporate the environmental protection requirements.	0 ²	
<i>Environmental Impact Assessments</i>		
Implement EIA recommendations conduct internal environmental assessments for new projects.	100	
<i>Audits and Reporting</i>		
Formalise a Divisional Policy Principle for the undertaking of third-party environmental audits and the publishing of results ³ .	100	

¹ A pilot project to examine the utility of environmental accounting is 75% complete. ² This will be completed during 2002. ³ This was a target for Legal and Procurement Division.

Legal and Procurement Division

Target	% Complete	Verification
RESOURCE USE		
Green Procurement		
Identify the environmental criteria to be incorporated into the regular performance reviews of the supply chain.	100	
Raise environmental awareness by incorporating environmental criteria/EMS requirements into the pre-qualification and tendering process:	100	✓
a) Pre-qualifications to include environmental assessment of 100% tenderers;		
b) Tender to include environmental assessment of 50% tenders.		
Identify at least 2 related new products/technology items each year for use within the Corporation.	100	✓
Paper Reduction		
Reduce paper consumption by 30% by using electronic means of tendering and purchasing.	75 ¹	
WASTE MINIMISATION		
Disposal Procedures		
Work with the supply chain to ensure environmentally acceptable disposal procedures are identified. Include onsite segregation of waste as a contractual requirement in construction contracts.	100	
ENVIRONMENTAL EDUCATION AND TRAINING		
Internal Education & Training		
As appropriate, support and facilitate other Divisions to educate and train staff on environmental matters.	100	
External Education & Training		
As appropriate, support and facilitate other Divisions to educate passengers, legislators, opinion makers and the general public on the environmental benefits of rail.	100	
OTHERS		
Environmental Impact Assessment (EIA)		
Support and facilitate other Divisions undertake EIA (eg by assisting with the preparation of tenders and contracts).	100	
Environmental Management System (EMS)		
Develop and implement a Divisions Environmental Management System and support and develop the corporate EMS.	100	
External Education & Training		
<u>Formalise a Divisional Policy Principle for the undertaking of third-party environmental audits and the publishing of results.</u>	100	

¹ It is estimated that initiatives have substantially reduced paper consumption.

Human Resources and Administration Division

Target	% Complete	Verification
RESOURCES USE		
Energy		
Complete the collection of data on energy/fuel usage. Review the data, establish trends and set quantifiable targets for 2002.	100	✓
Green Procurement		
Seek ways to influence suppliers and contractors to use environmentally friendly materials in their supply of goods and services to the Corporation.	100	
In combination with the Legal and Procurement Division, establish a "Green Procurement" policy.	100 ¹	
Recycled Photocopier Paper		
In combination with the Legal and Procurement Division, review the results of the test and trials that have been requested on recycled photocopying paper. Determine and implement the best course of action.	100	
Lunch Boxes		
In combination with the Legal and Procurement Division, review the results of the trials that have been requested on decomposable lunch boxes and determine and implement the best course of action.	100	
WASTE MINIMISATION		
Waste Recycling		
Maintain and/or increase the paper recycling rate achieved in 2000 (3.6%)	75 ²	
Maintain and/or increase the printer cartridge recycling rate achieved in 2000 (90%)	100	
Air		
Indoor Air Quality Monitoring – Continue to undertake bi-annual monitoring in the Headquarters Building. Compare results with 2000 to establish trend and verify compliance with WHO standards.	100	
ENVIRONMENTAL EDUCATION & TRAINING		
Internal Education & Training		
Disseminate information on new environmental protection issues.	100	
Encourage 1,410 staff to attend the "Environmental Management System/Environmental Awareness" course.	100	✓
Green Ambassador Programme		
Continue to support the Green Ambassador Programme for students and teachers to undertake overseas field studies and promote the sharing of environmental protection experience.	100	
Environmental Campaigns & Related Activities		
Campaigns – Consider launching campaigns and related initiatives to promote clean and green transport modes.	100	
Economic Incentives – Maintain and/or increase economic incentives such as fare discounts, and rideship rewards to encourage the use of the MTR.	100	✓
Environmental Information – Maintain and/or increase the number of environmental messages to displayed on the Infopanel within the MTR trains (4 messages in 2000).	100	
Maintain the commitment in 2000 to conducting external visits to promote environmental awareness outside the Company.	100	
OTHERS		
Environmental Impact Assessment (EMS)		
As appropriate, support the undertaking of EIAs by other Divisions.	100	

Target	% Complete	Verification
<i>Environmental Management System (EMS)</i>		
Develop and implement a Divisional Environmental Management System and support and develop the Corporate EMS.	100	

¹ Legal and Procurement Division established the Green Procurement policy. ² A recycling rate of 3.2% was achieved.

9 SOCIAL AND ENVIRONMENTAL TARGETS FOR 2002

Corporate Targets

SUSTAINABILITY

To raise awareness of corporate sustainability both within and outside MTR through articles and seminars.

SOCIAL

To achieve the targets in MTR's 2002 Customer Service Pledges

To deliver an average of 10.7 training days to Operations Division staff and 2.4 training days to staff in other divisions

To implement the action plan developed from the 4th Staff Attitude Survey

To maintain the same level of community involvement

To maintain the number of meetings with external stakeholders at 2001 levels.

To reduce the number of incidents per million passengers carried

To reduce the number of staff and contractors' staff accidents

To publish Codes of Conduct on MTR's Web site

To deliver Corporate wide training on MTR's Code of Conduct

ENVIRONMENT

To achieve certification to ISO14001 (the international environmental management system standard) in 2003

To continue to move from a large number of process-oriented targets to a smaller number of quantitative process and performance targets with a view to developing Key Performance Indicators (KPIs) in 2003.

To extend the roll out of the Green Procurement policy

To develop a better understanding of paper consumption with a view to setting a quantitative reduction target in 2002

Divisional Targets

Operations Division

Objectives	Targets
Resource Use	
<i>Energy Consumption Reduction</i>	As per the target set up by Energy Management Working Group
<i>Platform Screen Doors</i>	Complete the installation of PSD in TST, JOR, YMT and MOK.
<i>Phasing Out of Ozone Depleting Substances</i>	Replace 12 chillers with non-ozone depleting substance, R134a.
<i>Water Consumption Reduction</i>	Complete the E.A. identification and assessment on all processes by using ISO14001 method, and propose saving target for 2003
<i>Hazardous Chemical Consumption Reduction</i>	Complete the E.A. identification and assessment on all processes by using ISO14001 method, and propose saving target for 2003
Waste Minimization	
<i>Noise</i>	
Wheel Dampers	Ensure all new wheel sets have dampers
Wheel Lathering	Maintain or better the level of wheel turning activity in 2001
Flange Lubricators on LAR	Maintain flange lubricators fitted to LAR trains.
Rail Lubricators on URL	Maintain the rail lubricators fitted to 6 units on 3 URL.
Real-time Noise Monitoring	Continue to monitor noise from the LAR. EMU under floor noise monitoring
Noise Monitoring	Continue to monitor noise at 27 sensitive receivers adjacent to the open sections of MTR lines.
Acoustic Barrier at the Viaduct between HFC and CHW	Replace the Noise Absorption Material
Rail Maintenance	Maintain or better the level of rail grinding activity achieved in 2001; 50% of the redundant rail joints at the open section from CHH to LAT will be removed.
<i>Air</i>	
Indoor Air Quality (Transport Interchanges)	Conduct indoor air qualities surveys at 3 transport interchanges and achieve 100% compliance with MTR design standards.
Indoor Air Quality	Conduct annual monitoring indoor air quality at URL & LAR air-conditioned stations and the train saloon.
Radon	Undertake detailed radon monitoring at outstanding TWL station and report on level of compliance with WHO standards. Conduct radon surveys for KTL and achieve 100% compliance with the WHO limits.
<i>Wastes</i>	

Objectives	Targets
Waste paper recycling Programme	Roll out the passenger waste paper recycling activity at TKL Recycle waste metal Recycle waste oil
Wastewater Monitoring Programme	Maintain a wastewater-monitoring programme to monitor discharges from stations, tunnels and depots. Achieve 95% compliance of the first round of water sampling.
Wastewater Reduction	Complete the installation of tunnel washing machine by end of 2002
Solid Waste Reduction	Complete the E.A. identification and assessment on all processes by using ISO14001 method, and propose saving target for 2003
Environmental Education & Training	
<i>Operations Division Environmental Protection Working Group</i>	Maintain and/or increase the percentage of staff joining the Working Group Maintain and/or increase the level of activity achieved by the Environmental Protection Working Group in 2001
<i>Training</i>	Incorporate Environmental Protection requirements into OTD MTR new staff introductory course. Set up preparation training courses for ISO14001
<i>Visit by External Parties</i>	Maintain the commitment in 2001 to conduct external visits to promote environmental awareness outside the Company.
Environmental Management System (EMS) and ISO14001	
<i>Integrate EMS into IMS</i>	Complete the integration by end of 2002
<i>Computer-Aided Supporting System</i>	Develop and implement Indoor Air Quality Information Systems to support the environmental monitoring
<i>EMS System Audits</i>	Complete the implementation of the last EMS audit's recommendations
<i>ISO14001 Preparation</i>	Complete the Environmental Aspects Identification based on ISO14001 method
Others	
<i>Reduce Environmental Cases</i>	Zero complaint case leading to credible environmental abatement notice or prosecution

Project Division

Objectives	Targets
Resource Use	
<i>Tropical Hardwoods</i>	Maintain the current standards with no tropical hardwoods being used for hoarding on MTRCL railway projects.
Waste Minimization	
<i>Noise Monitoring</i>	Continue to implement weekly noise monitoring programmes for TKE & MEF construction works to assess noise. Achieve an overall 90% compliance rate.
<i>Air Monitoring</i>	Continue to implement monthly air monitoring programme for TKE & MEF construction works to assess dust levels. Achieve an overall 90% compliance rate.
<i>Complaints</i>	Respond to all environmental complaints within 72 hours of receipt of notification.
Environmental Education & Training	
<i>Internal Education & Training</i>	Provide 20 seminars on environmental issues to 150 staff in 2002.
<i>External Education & Training</i>	Provide 5 presentations by the Environmental Manager. Maintain financial and technical support for 2 PhD graduates at HK Polytechnic University undertaking research in acoustics. Develop CBT for Environmental Training of Project Division.
<i>Environmental Campaigns & related Activities</i>	Where practicable, maintain public involvement programmes such as displaying artwork on hoarding.
Others	
<i>Environmental Permit</i>	Maintain current standard of no breaches to the Environmental Permit for TKE No breaches to the Environmental Permit for TST
<i>Environmental Impact Assessment (EIA)</i>	Implement the Environmental Permit for PBL provided the project starts in 2002. Complete EIA for the North Island Line as appropriate. Complete the EIA for the Tung Chung Cable Car as appropriate. Start the EIA for SCL as appropriate.
<i>Environmental Management Plans</i>	Continue to receive and audit Environmental Management Plans from all Project Civil and E&M Contracts.
<i>Environmental Performance Indicator System</i>	Maintain the MTRCL environmental award system for Contractors with presentations once per quarter.
<i>Environmental Audits & Compliance Reports</i>	Undertake 179 audits (11 for payment milestones) with a target of zero payment milestones being withheld. Maintain the monthly production of Environmental Monitoring and Audit Reports for all necessary contracts. Maintain reporting of Environmental Monitoring and Audit Reports on MTRCL's website.
<i>Audits and Reporting</i>	Assist in achieving ISO 14,001 certification for the Division and for the Corporate MTRC. Maintain good relations with District Council, Local Residents Groups and Site Liaison Groups.

Property Development (Property Division)

Objectives	Targets
Resource Use	
<i>Property Design</i>	<p>Optimise Overall Thermal Transfer Value (OTTV) for Kowloon Station Development Packages 5, 6 & 7.</p> <p>Adopt Electronic Ballasts in the new office building of Kowloon Station Development Package 5,6 & 7.</p> <p>Adopt Variable Air Volume (VAV) Air Conditioning in the new office building of Kowloon Station Development Package 5,6 & 7.</p> <p>Adopt Seawater Cooling in Kowloon Station Development Package 5,6 & 7.</p> <p>Adopt Energy Saving Light Fittings in the design of the new shopping centre in Kowloon Station Development and the park-and-ride carpark in Choi Hung Station Development.</p> <p>Adopt Variable Speed Pumping System in the design of the new shopping centre in Kowloon Station Development for potable water supply system, and in the new office building in Kowloon Station Development Package 5,6 &7 for the air-conditioning system.</p>
<i>Property Construction</i>	<p>Maintain record of zero use of diesel hammer percussion piling for the construction of new property developments.</p> <p>As appropriate, encourage the adoption of metal hoarding for new development sites.</p> <p>As appropriate, encourage the adoption of metal formwork instead of timber formwork for building construction in new development sites.</p> <p>Encourage the use of tropical hardwood from managed sources only.</p>
Waste Minimization	
<i>Property Design</i>	<p>Use refrigerants with no ozone depleting potential in all new chillers.</p> <p>Adopt designs that minimise contribution to global warming effect.</p> <p>Adopt designs that minimise air, water and noise pollution.</p>
<i>Property Construction</i>	<p>Encourage contractors to:</p> <ul style="list-style-type: none">• reinforce construction site management measures for noise control, dust minimisation, water and waste management, and health related issues.• segregate construction waste to promote the recycling of materials.• use no ozone depleting materials.• use no hazardous materials.• use dry wall construction.• use off site pre-fabricated modular construction.
Environmental Education & Training	
<i>Internal Education & Training</i>	<p>Establish formal records of staff environmental training.</p> <p>Encourage staff to attend training programmes on environmental matters and concerns.</p>

Objectives	Targets
<i>External Education & Training</i>	<p>Keep staff appraised of the latest environmental laws and best practice.</p> <p>Keep staff abreast of latest technology which are environmental friendly.</p> <p>Establish formal records of environmental training.</p> <p>Encourage contractors to conduct training programmes for their staff and workers to educate them on environmental matters and concerns.</p> <p>In line with the Dream City Concept developed by the Corporation, develop programme design packages for tendering.</p> <p>In line with the Green and Innovative Buildings Practice Notes, encourage developers to incorporate design into new developments.</p> <p>As appropriate, conduct further study trips to acquire information on the latest building design and construction technology.</p>
Others	
<i>Regulatory Compliance</i>	<p>As applicable, observe the Hong Kong Planning Standards and Guidelines.</p> <p>As applicable, observe the requirements of the BD's, EMSD's and EPD's practice notes, guidance notes and codes of practice.</p> <p>Maintain 100% compliance with air pollution, noise and water pollution control ordinances for new property developments.</p> <p>Design the Kowloon Station Development Packages 5, 6 & 7 to achieve at least Level 2 Indoor Air Quality Objectives.</p>
<i>Environmental Impact Assessment</i>	<p>As applicable, undertake EIAs for new development Projects and fully comply with the requirements of issued Environmental Permits.</p>
<i>Audits and Reporting</i>	<p>Complete the HKBEAM assessments on 3 new property developments (ie HK Station Mega Tower, Olympic Station Package 3 Residential Development, Kowloon Station Package 3 Residential Development) and, as applicable, commence/undertake assessments for new property developments.</p>
<i>Environmental Management System (EMS)</i>	<p>Comply/implement the requirements of the Corporate EMS as applicable to the Property Division.</p>
<i>Building Management System</i>	<p>Provide building management systems to all new property developments, both commercial and residential, to monitor and control energy use.</p>

Property Management(Property Division)

Objectives	Target
<p>Resources Use</p>	<p>Replacement of Tungsten filament light bulbs by compact fluorescent tubes for energy saving and reduction in heat generation in all newly handed over LAR properties which includes Tung Chung Site 3, Tung Chung Site 4, Kowloon Station package 2.</p> <p>Reduction of unnecessary lighting for energy saving in all newly handed over LAR properties.</p> <p>The operation programme of the chiller plants in Telford Plaza I & II is further studied, aiming to achieve 3% energy saving.</p> <p>Internally benchmark energy and water consumption of MTRC managed properties and develop quantitative targets and action plan for 2003.</p> <p>Work with Legal and Procurement on the implementation of the 'Green Procurement' policy.</p> <p>Carry out environmental assessment and justification before procurement of materials/equipment and implementation of works.</p>
<p>Waste Minimisation</p>	<p>Full implementation of noise pollution control policy and management system.</p> <p>Use zero ozone depletion potential refrigerant for chiller plant repairing works.</p> <p>Re-use the disposed construction materials (eg. Hoarding board, shopfront glass panel, glass door etc.) for renovation work and spare part for future maintenance use.</p> <p>Continue the replacement of fresh water supply G.I. downfeed pipes and soil and waste C.I. drainage pipe with more durable material e.g. copper pipes and UPVC pipes, at Luk Yeung Sun Chuen.</p> <p>Internally benchmark waste generation of MTRC managed properties and develop quantitative targets and action plan for 2003.</p>
<p>Education & Dissemination</p>	<p>Waste recovery (plastic bottles, aluminium cans and paper) in residential estates.</p> <p>Continue feasibility study on " Voltage Reduction System" on lighting for energy saving in International Finance Centre Carpark and Maritime Square Carpark. A trial installation was installed in the Tierra Verde Carpark.</p> <p>Continue feasibility study on variable speed drive for the chillers in Maritime Square for energy saving.</p> <p>Continue to encourage contractors to set up procedures to manage environmental complaints from both internal and external parties.</p> <p>Continuously promote environmental best practice by estate managers.</p>
<p>Comply with Hong Kong's Legislative Requirements and International Best Practice</p>	<p>100% compliance with air pollution, noise, water pollution control ordinances for operation, maintenance and renovation works.</p> <p>Monitoring of tenant fit-out works and operation for compliance with statutory requirements.</p> <p>Conduct positive measure to prevent existence of legionnaires disease at MTRC managed properties.</p> <p>Monitor indoor air quality in offices to maintain at least Level 2 Indoor Air Quality Objectives</p>

Finance Division

Objectives	Target
Resource Use	
<i>General, Office & System Management</i>	<p>Continue Livelink Document Management system implementation (target to be completed by Q4/2002)</p> <p>Continue to purchase computer equipment e.g. desktop PC under green procurement guidelines (For information, around 600 desktop PC was purchased in 2001 and similar figure is expected in 2002)</p> <p>Continue to exercise the recycle programme of PC equipment and target to re-use PC equipment by 30% (For information, in year 2001, out of 761 replaced PC equipment, 142 was re-deployed or donated. Re-use rate is 19%)</p>
<i>Company Reporting</i>	<p>Within the boundaries of the relevant legislation governing Company Reporting, examine ways to reduce the printing of Company reports and circulars.</p>
Waste Minimisation	
<i>Logistic & Material Management</i>	<p>Ensure 100% compliance with the EPD regulations on Chemical Waste disposal and handling</p> <p>Ensure 100% use of pollution-free mechanical handling equipment</p> <p>Ensure 100% use of lead free gasoline road vehicles. Target to replace one Goods Van in 2002</p> <p>Ensure 100% fitting of particulate removal device to pre-euro diesel road vehicles</p> <p>Electronic Requisition System – Design an electronic requisition system for new stock items to replace the existing paper requisition</p>
Environmental Education & Training	
<i>Increase Environmental Awareness</i>	<p>Help to provide computer terminal for roving display of environmental promotion</p> <p>Continue the environmental working group to manage and monitor the progress of environmental targets on regular basis</p>
Others	
<i>Green Accounting</i>	<p>Complete pilot project on estimating environmental spending at Kowloon Bay Depot</p>

Legal & Procurement

Objectives	Targets
Resource Use	
<i>Green Procurement</i>	Develop environmental assessment criteria for supplier performance reviews. Identify 3 or more products/technologies which can be introduced each year to the Corporation. Review GS provisions on packaging (less wood more recoverable products).
<i>Paper Reduction</i>	Introduce catalogue system in 2 nd Quarter. Initiate use of LAN for transmission of documents to Rugby Office expeditors. Tender and select an 'e-Tendering' system. Promote the use of the LAN for MTRC publications (MTR Express, Engineering Insight etc).
Waste Minimisation	
<i>Disposal Procedures</i>	Review and implement policy to segregate scrap to distinguish "re-cycle", "non-re-cycle" components and maximise sales benefits.
Environmental Education and Training	
<i>Internal Education & Training</i>	As appropriate support, other Divisions to educate personnel in the use of the catalogue system and P. Card.
<i>External Education & Training</i>	Assist Corporation in promoting the environmental benefits of rail.
Others	
<i>Environmental Impact Assessment (EIA)</i>	Continue to facilitate the award of EIA projects by other Division.
<i>Environmental Management System (EMS)</i>	Implement the Divisional Environmental Management System established in 2002 and support the Corporate EMS.
<i>Audit and Reporting</i>	Expand third - party (supplier/contractor) audits to make suppliers aware of MTRC policy on environmental priorities.

Human Resources and Administration Division

Objectives	Target
Resource Use	
<i>Energy</i>	Maintain levels of resource consumption in offices and by road vehicles at 2001 levels.
Waste Minimisation	
<i>Waste Recycling</i>	Undertake an initiative to better understand use of paper in offices with view to establishing quantitative target for 2003. Maintain and/or increase the printer cartridge recycling rate achieved in 2001 (90%)
<i>Air</i>	Indoor Air Quality Monitoring – Continue to undertake bi-annual monitoring in the Headquarters Building. Compare results with 2001 to establish trend and verify compliance with WHO standards.
Environmental Education & Training	
<i>Internal Education & Training</i>	Disseminate information on new environmental protection issues.
<i>Green Ambassador Programme</i>	Continue to support the Green Ambassador Programme for students and teachers to undertake overseas field studies and promote the sharing of environmental protection experience.
<i>Environmental Campaigns & Related Activities</i>	Campaigns – Consider launching campaigns and related initiatives to promote clean and green transport modes. Economic Incentives – Maintain and/or increase economic incentives such as fare discounts, and rideship rewards to encourage the use of the MTR. Environmental Information – Maintain and/or increase the number of environmental messages to displayed on the Infopanel within the MTR trains. Maintain the commitment in 2001 to conducting external visits to promote environmental awareness outside the Company.
Others	
<i>Environmental Impact Assessment (EMS)</i>	As appropriate, support the undertaking of EIAs by other Divisions.
<i>Environmental Management System (EMS)</i>	Develop and implement a Divisional Environmental Management System and support and develop the Corporate EMS.

A GLOBAL REPORTING INITIATIVE INDICATORS

After publication of the *Sustainability Reporting Guidelines* (Global Reporting Initiative June 2000), it became evident that that further work was required to develop a set of indicators to assist companies preparing sustainability reports. The GRI established a Measurement Working Group to undertake this task and their recommendations as to which indicators should be included in the next version of the *Guidelines* are presented in the *Final Report of the Measurement Working Group* (GRI January 2002). The table below presents the core indicators recommended by the Measurement Working Group, indicates where these are discussed in MTR's Corporate Sustainability Report 2001 and summarises the extent to which MTR reports on each indicator. By doing this, MTR seeks to demonstrate the scope of its sustainability reporting and to 'road test' the recommended core indicators in order to provide feedback to GRI. An assessment of the information presented below suggests that MTR partially or completely reports against 70% of GRI's proposed core indicators.

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
<u>Multi-Dimensional</u>	What are the main issues for the organisation in relation to the major themes of sustainable development?	Main issues highlighted in Social, Environment and Economy chapters	Complete
	In what ways were stakeholders included in identifying these issues?	-	-
	For each issue, who are the stakeholders mostly impacted/influenced by the organisation?	Relevant sections in Social, Environment and Economy chapters	Partial
	How are these issues reflected in the organisation's values and integrated into its strategies?	Sustainability chapter	Partial
	What are the organisation's objectives and actions on these issues?	Social: Business Ethics (Code of Conduct), Targets 2002 Environment: Environmental Policy, Targets 2002	Partial

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
<u>Environmental</u>			
Materials	E1. Total materials use (other than fuel and water).	Environment chapter, Resources	Partial
	E2. Percentage of recycled inputs as part of total inputs	Environment chapter, Waste and Emissions	Partial
Energy	E3. Direct energy use, i.e. all energy sources consumed by the reporting organization for its own uses as well as for the production and delivery of energy products (e.g. electricity or heat) to other organizations.	Environment chapter, Electricity, Key Environment Data	Partial
	E4. Indirect energy, i.e. all energy used to produce and deliver energy products purchased by the reporting organization (e.g. electricity or heat).	-	-
Water	E5. Total water use.	Environment chapter, Water, Key Environment Data	Partial
	E6. Rate of wastewater or used water recycling and reuse.	Environment chapter, Wastewater	-
Biodiversity	E7. Total amount of land owned, leased or managed by the organization	140.2ha	Complete
	E8. Location and size of land owned, leased, or managed in biodiversity-rich habitats (BHs).	No such land is owned, leased or managed	Complete
	E9. Description of the major impacts on biodiversity associated with the organization's activities in terrestrial, freshwater, and marine environments. Note: for examples of possible indicators, please see the "measuring impacts" section of the Biodiversity Protocol developed by the MWG subgroup.	No major impacts on biodiversity	Complete

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
Emission Effluents and Waste	E10. An account of organization's policies, programs, or procedures to prevent or minimize impacts on biodiversity, including use of EIAs/SIAs and biodiversity conservation.	EIAs are conducted for every new railway project and for every property project with more than 2000 residential units. Where appropriate these include an assessment of potential ecological impacts.	Complete
	E11. Greenhouse gas emissions (as defined by Annex A of the Kyoto Protocol to the UNFCCC) and in CO ₂ equivalents (global warming potential)	-	-
	E12. Ozone depleting substances emissions (per Montreal Protocol Annexes A, B, C and E) in tonnes of CFC-11 equivalents (ozone depleting potential).	Environment chapter, Ozone Depleting Substances	-
	E14. Total waste (for disposal). Provide definition, destination, and estimation method. Note: 'Destination' refers to the method by which waste is treated, including reuse, recycling, recovery, incineration, or landfilling.	Environment chapter, Waste and Emissions	Partial
	E15. Quantity of waste to land by material type. Note: Information should be presented according: <ul style="list-style-type: none"> • Stockholm POPs Convention <ul style="list-style-type: none"> - Identify stockpiles containing chemical listed in Annex A, B and C - Identify wastes containing or contaminated with Annex A or B substances - Identify potential for unintentional production of Annex C substances • Basel Convention <ul style="list-style-type: none"> - Identify hazardous wastes listed in Annex I, II, III and VIII. • National or local laws 	Environment chapter, Waste and Emissions	-

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
Effluents to Water	E16. Report on significant discharges to water for your industry sector as identified by the relevant GRI supplement	Environment chapter, Wastewater	Complete
Products and Service	E17. Describe, identify and quantify (where relevant) the extent to which the use, consumption, storage and/or disposal/treatment of the reporter's products and services entails the generation or use of: <ul style="list-style-type: none"> <li>• Ozone Depleting Substances 	Environment chapter, Ozone Depleting Substances	Complete
	E18. Percentage of product weight/volume reclaimed after use.	-	-
	E19. Describe product and service stewardship initiatives across the entire life cycle of the product, including efforts to address issues of product design, manufacturing impacts, use, and final disposal.	-	-
Compliance	E20. Magnitude and nature of penalties for non-compliance with all applicable international declarations, conventions, and treaties, and national, sub-national, regional, and local regulations associated with environmental issues (e.g. air quality, water quality). Explain based on countries of operation.	Environment chapter, Noise and Wastewater	Complete

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
<u>Social</u>	Labour		
Employment and decent work	L1. Workforce by status (employee – non employee); Employment by type (full time / part time) and by contract (indefinite or permanent / fixed term or temporary) and in conjunction with other employers (temporary agency workers or workers in co-employment relationships) segmented by region.	Social chapter, Our Staff Operations: 4570 Corporate Management and Service Departments: 960 Engineering and Project: 1,164 Property Development and Management: 537	Partial
	L2. Employment net creation and average turnover segmented by region	Social chapter, Our Staff	Complete
Industrial relations	L3. Percentage of employees represented by independent trade union organizations or other bona fide employee representatives by geography or percentage of employees covered by collective bargaining agreements by region.	Social chapter, Staff Consultation	Partial
	L4. Policy and procedures involving information, consultation, or negotiation with employees over changes in the operation of the reporting enterprise (i.e. restructuring)	Social chapter, Staff Consultation	Complete
Health and safety	L5. Describe reporter practice on recording and notification of occupational accidents and diseases and how they relate to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases.	Social chapter, Health and Safety	Partial
	L6. Existence of formal joint health and safety committees comprising management and worker representative and extent of workforce covered by any such committees.	Social chapter, Health and Safety	Partial

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
Training and education	L7. Average hours of training per year per employee by category of employee (e.g. senior management, middle management, professions, technical, administrative, production, and maintenance)	Social chapter, Training and Development	Partial
Diversity and opportunity	L8. Existence of equal opportunity policies or programmes and any related policies such as those that address workplace harassment.	Social chapter, Equality of Opportunity	Complete
	L9. Female/male ratio for senior management and in corporate governance bodies (board of directors)	Male : female ratio for managers and above is 14:1.	Complete
	Human Rights		
Strategy and management	HR1. Existence and description of implemented policies, guidelines and procedures to deal with all aspects of human rights relevant to the reporter's operations. Policies must reflect existing international standards (e.g. Universal declaration, key ILO conventions).	Social chapter, Human Rights Social chapter, Code of Conduct	Partial
	HR2. Existence and description of monitoring and compliance systems for human rights performance, including defined responsibilities (e.g. board level).	-	-
Non-discrimination	HR3. Existence of global policy excluding discrimination in reporter's operations OR description of procedures/programs to address this issue.	Social chapter, Code of Conduct	Partial
Freedom of association and right to collective bargaining	HR4. Extent to which this right is universally stated and applied, not depending on local laws OR description of procedures/program to address this issue.	Social chapter, Staff Consultation	Partial
Child labour	HR5. Existence of global policy excluding child labour in reporter's operations OR description of procedures/programs to address this issue.	-	-

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
Forced and compulsory labour	HR6. Existence of global policy excluding forced and compulsory labour in reporter's operations OR description of procedures/programs to address this issue.	-	-
Supplier practices regarding all aspects of human rights¹	HR7. Existence and description of policies and procedures to deal with all aspects of human rights relevant to the reporter's supply chain.	-	-
	HR8. Extent to which suppliers/contractors confirm with the reporter's stated policies/guidelines	-	-
Customer, Society and Development			
Customer health and safety	C1. Description of reporter's policy, procedures/management systems, and compliance mechanisms for customer health and safety of products and services. Include geographic coverage of policy.	Social chapter, Health and Safety	Partial
Product and services declaration	C2. Description of reporter's policy, procedures/management systems, and compliance mechanisms for product information and labelling. Explain and justify multiple standards where applied to marketing and sales of products.	-	-
Advertising	C3. Description of reporter's policy, procedures/management systems, and compliance mechanisms for advertising in terms of standards for social and environmental responsibility. Include geographic coverage of policy.	-	-
Respect for Privacy	C4. Description of reporter's policy, procedures/management systems, and compliance mechanisms for customer privacy to ensure that data is not circulated without the explicit consent of the concerned customers. Include geographic coverage of policy.	Social, Code of Conduct	-

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
Customer Satisfaction	C5. Description of reporter's policy, procedures/management systems, and compliance mechanisms for customer satisfaction. Include geographic coverage of policy.	Social chapter, Customer Satisfaction	Complete
	C6. Use of systematic instruments to survey customer satisfaction (including of description of these instruments)	Service Quality Index (SQI) and Fare Index (FI) are used to determine satisfaction levels regarding quality of service and value of the fare paid.	-
Bribery, corruption	Business Ethics C7. Description of reporter's policy, procedures/management systems, and compliance mechanisms for organizations and employees regarding bribery and corruption include a description of how the reporter meets the requirements of the OECD convention on Combating bribery	Social Chapter, Code of Conduct	Complete
Political contributions	C8. Description of reporter's policy, procedures/management systems, and compliance mechanisms for political contributions	In accordance with its Code of Conduct, MTR makes no political contributions	Complete
Public Policy	C9. Description of reporter's policy, procedures/management systems, and compliance mechanisms for political lobbying	-	-
Competition, pricing	C10. Description of reporter's policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behavior	Social chapter, Code of Conduct	Complete

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
<u>Economics</u>			
Customers - Monetary Distribution	EC1. Amounts received by the reporter for the supply of its products and services	Economy, Turnover	Complete
Customers - Performance	EC2. Geographic analysis of 'key' markets by turnover. Key markets are defined as greater than 25% turnover within any specific product range or where the reporter country turnover represents greater than 5% of national GDP.	All core businesses are in Hong Kong	Complete
	EC3. Market share in 'key' markets	Economy, Share of franchised public transport in Hong Kong xxxx	Partial
Suppliers – Monetary Distribution	EC4. Payments outside the reporter for materials and services purchased.	Economy, Operating Expenses for Energy and Utilities, Stores and Spares Consumed	Complete
Suppliers - Performance	EC5. For 'key' suppliers: Percent of purchasing spent per supplier and main invoicing country. 'Key' is defined as greater than 10% of total purchasing spent with a given supplier or where total reporter purchasing spent in a particular country represents greater than 5% of national GDP.	Economy, Energy and Utilities account for 14% of Operating Expenses. Main invoicing country : Hong Kong	Complete
	EC6. Percent of contracts paid in accordance with 'agreed terms'. This excludes agreed penalty arrangements.	-	-
Employees – Monetary Distribution	EC7. Total remuneration to employees (including wages, pension, and other benefits and redundancy payments)	Economy, Staff costs and related expenses	Complete
Employees - Performance	EC8. Hours of training per person (cross referenced with L8)	Social, Our Staff, Training and Development	Complete

Theme	Core Indicator	Relevant Section of Sustainability Report	Extent of MTR's Reporting on Indicator
Funders – Monetary Distribution	EC9. Interest payments on borrowings and dividend payments	Economy, Interest Payments	Complete
Funders - Performance	EC10. ROACE (Return On Average Capital Employed)	-	-
Public Sector - Monetary Distribution	EC11. Taxes paid	Economy	Complete
	EC12. Subsidies received	Nil	Complete
Public Sector - Performance	EC13. Geographic analysis of corporation taxes paid.	Hong Kong	Complete
	EC14. Geographic analysis of subsidies received.	Not applicable	Complete

B MTR CORPORATION ENVIRONMENTAL POLICY

MTR Corporation Limited is committed to the protection of Hong Kong's environmental and the responsible management of all impacts arising from its activities in Hong Kong.

The Corporation will:

1. Comply with all relevant environmental laws or, in the absence of legislation, seek out and observe accepted best international practice as appropriate.
2. Employ a corporate-wide Environmental Management System (EMS) to continuously monitor and manage environmental impacts, and to conduct regular reviews on the range of environmental issues that require monitoring.
3. Conduct Environmental Impact Assessments for new projects, where required by law and suggested by best practice, and implement the recommendations.
4. Ensure that contractors and partners will implement any recommendation to achieve acceptable environmental standards, train and encourage all our suppliers to adopt environmental acceptable practices in the products and services provided.
5. Educate and train staff in environmental matters and raise their environmental awareness.
6. Educate passengers, legislators, opinion makers and the general public on the environmental benefits of railways.
7. Set environmental performance goals, arrange regular third-party environmental audits and publish the results with the aim of continuous improvement.

Any queries regarding the above policy can be directed to Dr. Glenn Frommer, Environmental Manager.

William Chan
Human Resources Director

10/01/2001

Remarks: This new version supersedes Issue No. 1 dated 27/11/97.

C OPINION STATEMENT

MTR's first environmental report last year already established the company amongst leading corporate performers on environmental issues, and in reporting on them. This year they have taken the further step of adding a number of social and community objectives to their corporate goals and mission, and reporting more broadly on their overall contribution to sustainable development.

Sustainable development depends very importantly on the views and aspirations of all the different stakeholders who interact with a company - its staff and customers, its investors and lenders, the government and the communities among which it operates. All these have legitimate claims and aspirations for a major company such as MTR. A sustainable company takes care to communicate with all these groups and conducts its operations to optimise its response to all their needs and aspirations.

The report indicates that MTR have been active in maintaining dialogues with all these groups and seeking to achieve this optimisation. The Code of Conduct for the company established during the year is one good manifestation of this process. So too is the well-rounded statement of sustainability principles and objectives which is set out in Chapter 3 of this report.

In the striking visual metaphor of the report MTR have sought to inflate the sustainability rugby ball to its optimum shape. In future reports it might be desirable to explore this basic metaphor in more detail so as to show how the different dimensions of sustainability support one another, and to quantify the effects. In particular it would be interesting to analyse the costs of achieving the environmental and social targets proposed, and to demonstrate how they reap bottom line benefits in terms of reducing other operating costs and risks, enhancing the reputation of the company and customer and staff loyalty, and consolidating the credibility of their basic licence to operate.

I am glad to see that the company intends to move forward to seeking certification of their environmental management systems to the ISO 14001 standard next year. This should help to ensure that the achievements and progress of the last few years are consolidated and lead to further continuous improvement. A key element in securing ISO certification will be to ensure that there is a continuing Board level commitment and drive to spread sustainable development values and objectives throughout the company. There will need to be internal structures to set and monitor objectives, and training programmes and internal procedures for making sustainability assessments of key decisions.

The single most important contribution that MTR makes to sustainability in Hong Kong derives from the quality of the rail service which it provides. The quality, reliability and frequency of this service plays an essential part in attracting and retaining passengers, and in discouraging people from switching in larger numbers to private cars with all the congestion and pollution which that would entail. Looking to the future the best contribution that MTR can make is to continue to provide this very high quality service at reasonable prices, and to develop the network over time to encourage even higher usage. The material assembled in this report shows that MTR has the service quality and the environmental and social standards to justify this, and the financial strength and performance to make this further development a realistic ambition.

MTR also makes a very important contribution to sustainability by developing its property portfolio to high environmental and social standards and locating them well in relation to the public transport network. It is good to see the greater attention to this

aspect which has been given by MTR this year, and that the Property Division is making significant innovations in providing for high energy performance in its new developments. It is to be hoped that in future it will also be able to make steady improvements in the energy and environmental performance of its existing property portfolio, to make good environmental services a key part of the management services it offers to partners in property management, and to use its influence as a major property developer, manager and landholder in Hong Kong to promote greater understanding and commitment to sustainability in the property sector generally.

The social objectives which MTR are delivering through their programmes and which they have set themselves for future years all look desirable in themselves. The difficult task in this area is to establish an appropriate scale of activity.

For education and training inside the company it might be appropriate to benchmark the training effort against other major world class corporations, and to establish the levels of competencies and qualifications the training effort is designed to achieve.

For action for the community it might be appropriate to pursue further dialogue with government, community authorities and the public as to what priorities and what scale of activity may be appropriate for MTR, and how resources for this effort can best be mobilised. The object might be to establish where MTR is likely to be the best provider of service either because of its special knowledge and skills, or because of its particular connection with particular communities through physical location or some other tie.

So far as human resources are concerned some major companies in the world have set themselves the goal of improving the gender balance of their companies, or of achieving specific levels for the employment of disabled or other disadvantaged groups. It would be interesting to know whether MTR intend to set themselves objectives in these areas in the future.

On the environmental objectives I am glad to see significant further progress since I commented on the first environmental report last year.

Energy usage and its impact on climate change will remain one of the major impacts of the company on the environment. I am glad to see the commitment to energy efficiency now being extended from the operating railway to the property portfolio and other parts of the company.

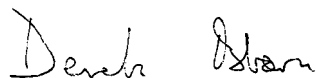
In future reports it would be helpful to see the energy performance of the different parts of the company consolidated into overall energy and carbon performance for MTR. This would then enable some longer term targets for continuing improvements in energy efficiency at company level to be established, and show what potential the company has to play a part in contributing towards the achievement of local, national or international carbon targets, or in future carbon trading arrangements.

I am glad to see continuing progress on other aspects of environmental performance including noise, reduced use of chemicals and ozone depleting substances and waste minimisation. Waste minimisation might be set as an explicit goal to be looked for in all operations, and built into the green procurement initiative, so that at the time of purchase of materials the eventual recycling route is specified. Progress toward the targets that have been set for recycling many of the company's wastes is impressive, though there is clearly more still to be done about the use of paper and establishing realistic targets for usage and for recycling.

The natural environment and support for biodiversity often feature in company environmental reports. MTR may not have very much scope for activity on this front within its own land portfolio. But MTR might like to consider in the future whether they have any scope for supporting action to protect the natural environment elsewhere in Hong Kong, perhaps by championing some crucial species or features of the Hong Kong natural environment to complement their social commitment to community development.

Going beyond its own operational activities, a company with the standing and reputation which MTR enjoys within Hong Kong and more widely is in a position to exert great influence and leadership in promoting sustainability in other organisations. The company has this year made important steps in extending its influence through its procurement policies to encourage or require sustainable practices from all its suppliers. It will be interesting if in future reports MTR can establish ways to measure the effects of this influence, and to consider how it can be used to help bring about continuous improvement amongst other companies.

Overall this first sustainability report shows that MTR have already made a significant commitment to sustainability. I look forward with great interest to seeing further progress in the years ahead. Sustainability issues are at the heart of MTR's core businesses. With determined leadership and continued commitment throughout the organisation MTR could become one of the leading champions of doing business in a sustainable way in Asia and the world.



Derek Osborn

Derek Osborn CB is a member of the UK Commission on Sustainable Development. He is chair of UNED-UK, and co-chair of Stakeholder Forum for Our Common Future. He was formerly Director General of Environmental Protection in the UK, Chair of the UK Round Table on Sustainable Development, Chair of the European Environment Agency, and co-chair of the negotiations at Earth Summit II, the Special Session of the United Nations five years after the Rio Earth Summit. He advises Governments, business and other bodies on sustainable development issue.

D VERIFICATION STATEMENT

SCOPE

ERM (Environmental Resources Management) has undertaken an independent verification of the MTR Corporate Sustainability Report 2001.

ACTIVITIES

We used a similar approach to that used in verifying MTR's Environment Report 2000. First, we worked directly with MTR to develop the structure and content of the report but were not involved in the development or collection of information. Second, we chose a representative sample of factual statements and numerical data points. Third, we confirmed or otherwise the accuracy of information by reference to appropriate source material, reviewing data management systems and interviews with staff at MTR's headquarters.

FINDINGS

The Corporate Sustainability Report 2001 presents a good account of the main sustainability issues under the control of MTR. Based on the sample, we are satisfied that the factual statements and data contained in the report, including progress against 2001 targets, are correct within reasonable levels of confidence and provide a fair and balanced assessment of performance. With reference to specific 2001 targets in Chapter 8, verification is indicated by a '✓'.

RECOMMENDATIONS

We recommend that MTR focuses management attention on the following.

- Agree consistent data boundaries for future sustainability reporting in terms of MTR's main operating Divisions: Projects, Operations and Property;
- Develop methodologies for data preparation and ensure these are used in a consistent manner from year-to-year;
- Continue to make the transition from a large number of mainly process orientated targets to a smaller number of quantitative performance targets.



Steve Laister

Executive Director

ERM Hong Kong

26 March 2002

ANNEX E

Please provide us with your feedback...

To help MTR improve its future sustainability reporting, we welcome your views, comments and suggestions on any of the issues identified or other aspects of MTR's approach to sustainability.

	Excellent	Good	Fair	Poor
How do you rate this report overall?	1	2	3	4

Please rate the report on the following:

• Range of issues covered	1	2	3	4
• Level of detail	1	2	3	4
• Usefulness	1	2	3	4
• Clarity and readability	1	2	3	4

How would you rate MTR on its sustainability performance?	1	2	3	4
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How could we improve the report?

- What information did you find most useful?
- What information did you find least useful?
- Are there other topics you would like to see covered in this report?

Do you have any further comments?

THANK YOU

Please send all comments to envmngn@mtr.com.hk.