

M Moser Environmental Responsibility Report 2011



Beijing

Delhi

Guangzhou

Hong Kong

Kuala Lumpur

London

New York

Shanghai

Shenzhen

Singapore

Taipei

Environmental Responsibility Report 2011

Welcome to the 2011 edition of M Moser Associates' Environmental Responsibility Report.

As in previous years, the report provides more than a simple snapshot of M Moser's current carbon footprint; it is also an update on a 'work-in-progress' as our company develops as an industry leader in sustainability and a healthy, productive place to work.

Notable influences on 2011's environmental picture were M Moser's global 30th anniversary celebrations, and the relocation of our Shanghai office to a new LEED Gold certified premises. The latter action also reflects M Moser's commitment to continually upgrading and improving its work environments to showcase sustainable design for business.

We hope this report will provide a valuable insight to how and where we work, and the impact our activities make on the environment.



INTRODUCTION

The purpose of this study is to analyse the sustainability profiles of M Moser offices globally*, and to compare their consumption of resources, transportation trends, and the emissions resulting from their activities.

**Due to its recent establishment, the Bangalore office was not included in this study.*

Some GREEN successes



Around **89%** of our employees work from offices with LEED certification (or pending certification)



We have led **30+** green system certified projects around the globe



Approximately **25%** of all LEED CI projects in China have been led by M Moser



72.6% of M Moser employees use virtual conferencing to reduce business air travel

All data used in this study pertain to M Moser offices in the year 2011.

Data were collected via expenditure records, travel logs and staff surveys.

M Moser offices surveyed

No.	Office	Rating	Certified	Floor net Area (Sq-m)	Headcount
1	Beijing	Gold	March 2009	1,468	100
2	Guangzhou	Gold	September 2009	988	54
3	Delhi	Certified	March 2010	176	31
4	Hong Kong	Gold	March 2010	1133	120
5	New York	Silver	April 2011	557	34
6	Singapore	Gold	January 2012	599	61
7	Shanghai	Gold	September 2012	2,135	163
8	Kuala Lumpur	Targeting Gold	In-progress	371	19
9	London	Relocating 2012		405	31
10	Shenzhen	Next Relocation will consider LEED		159	9
11	Taipei	Next Relocation will consider LEED		466	31
Total LEED certified/LEED anticipated offices				7,427	582
Total for 11 offices				8,457	653
Percentage of total				88%	89%

LEED Certificates of M Moser Offices



M Moser Beijing



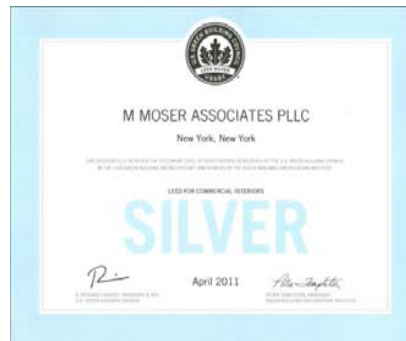
M Moser Guangzhou



M Moser Dehli



M Moser Hong Kong



M Moser New York



M Moser Singapore



M Moser Shanghai

to know more about LEED
www.usgbc.org/LEED/



M Moser Beijing



M Moser Guangzhou



M Moser Delhi



M Moser Hong Kong



M Moser New York



M Moser Singapore



M Moser Shanghai



M Moser Kuala Lumpur

GETTING
GREENER
EVERY DAY...

INTERNAL ROADMAP

A strategy for benchmarking & reducing greenhouse gases

M Moser pursues a four-pronged strategy for monitoring and reducing its carbon footprint:



LEED-certified offices, everywhere we are

Over the past several years, every new, relocated or revamped M Moser office has been designed to achieve LEED certification. By adhering to LEED CI standards and achieving a minimum Silver rating at all our offices, M Moser is on course to be externally verified and recognised as LEED compliant. As LEED requires a mandatory accounting of energy uses, further analysis can be conducted on internal energy consumption and associated GHG emissions.

M Moser pledges to continue pursuing LEED certification each time an office undergoes a new fit-out (within the boundaries of commercial tenancy periods as specified in offices' individual lease agreements).



Virtual Project Room

Our continuing investment in in-house CoBIM technologies and Virtual Project Room tools enables our people to connect with distant colleagues and clients via videoconferencing, shared desktops, file-sharing, email and other virtual tools rather than travel. Ultimately, this reduces our global transportation and time/cost impacts.



Recycling/re-use programmes

By maintaining recycling and re-use programmes at our offices, we reduce the waste we generate. These programmes also take into account the reduction of waste at the products' source.



Energy-efficient IT tools

As a human capital intensive, service oriented business, a large proportion of our emissions is generated by computers, printers and other IT equipment. To minimise their impact, we procure certified energy-efficient equipment (including EnergyStar-rated) whenever possible – which also contributes to our offices' LEED credits.

PROGRESS FROM 2010

Carbon emissions & energy consumption

Compared to year 2010, M Moser's carbon emissions and energy consumption were reduced in 2011 in almost every category. However, business air travel increased over 2010 due to M Moser's global 30th anniversary celebrations.

Item	11 global offices in 2011		8 East Asia offices in 2010		% Emissions/Usage change per employee or per car 2011 vs. 2010
	Total	Per employee or per car	Total	Per employee or per car	
Electricity carbon emissions	1,082,887 kg CO2	1,658 kg CO2 per employee	948,706 kg CO2	1,993 kg CO2 per employee	-16.80%
Business air travel carbon emissions	518,009 kg CO2	793 kg CO2 per employee	255,516 kg CO2	537 kg CO2 per employee	47.70%
Company vehicle carbon emissions	94,636 kg CO2	10,515 kg CO2 per car	111,400 kg CO2	12,378 kg CO2 per car	-15.10%
Paper consumption	17,739 kg	27kg per employee	16,991 kg	36kg per employee	-25%
Water usage	1,262 cubic metres	5.5 cubic metres per employee	1,933 cubic metres	11 cubic metres per employee	-50%

CO2 SUMMARY RESULTS

M Moser's global CO2 emissions from 'scope 1' and 'scope 2' related functions in 2011 amounted to **1,692,520 kg**.

Shanghai was the biggest CO2 emitter by aggregate

Electricity consumption was responsible for 64% of M Moser's global emissions.

Carbon emission of M Moser offices (kg CO2)

Shanghai	423,988
Hong Kong	356,838
Beijing	282,952
Singapore	163,058
Guangzhou	124,124
Delhi	100,003
London	76,160
Taipei	61,612
New York	41,262
Kuala Lumpur	38,969
Shenzhen	23,553

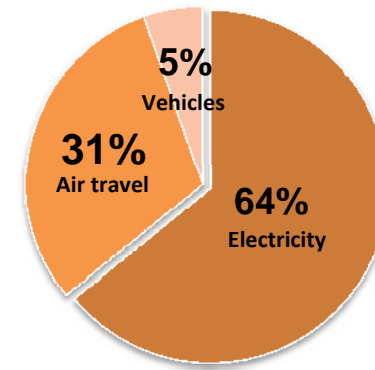
In 2011, each M Moser employee produced 2,448kg of CO2-equivalent to what would be generated by:

Making five round-trips between Shanghai and Beijing in a two-litre car

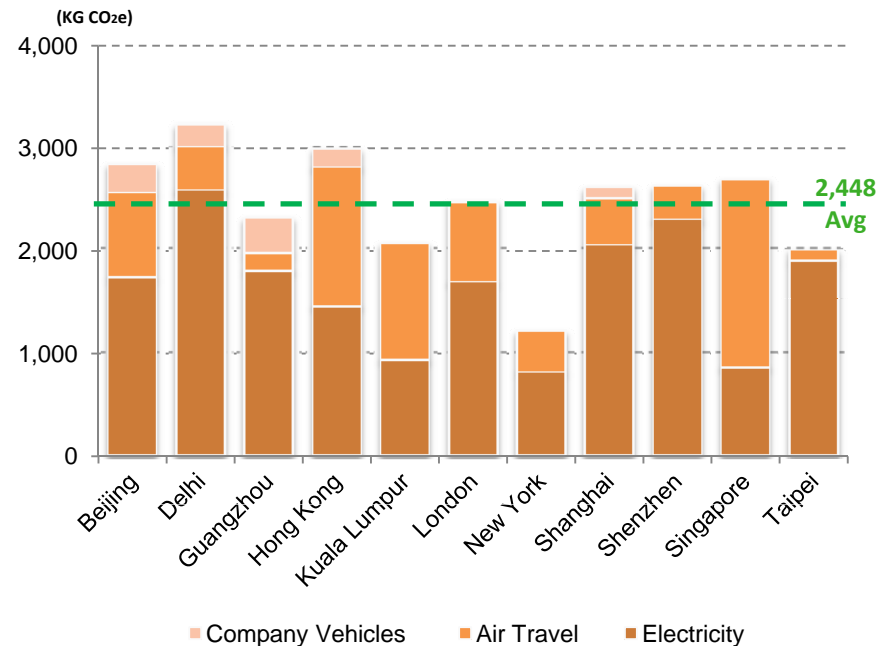
A round trip flight from London to Miami

Leaving a 60-watt light bulb on for eight years

Carbon emissions (by activity)



Carbon emissions (per employee)



ELECTRICITY



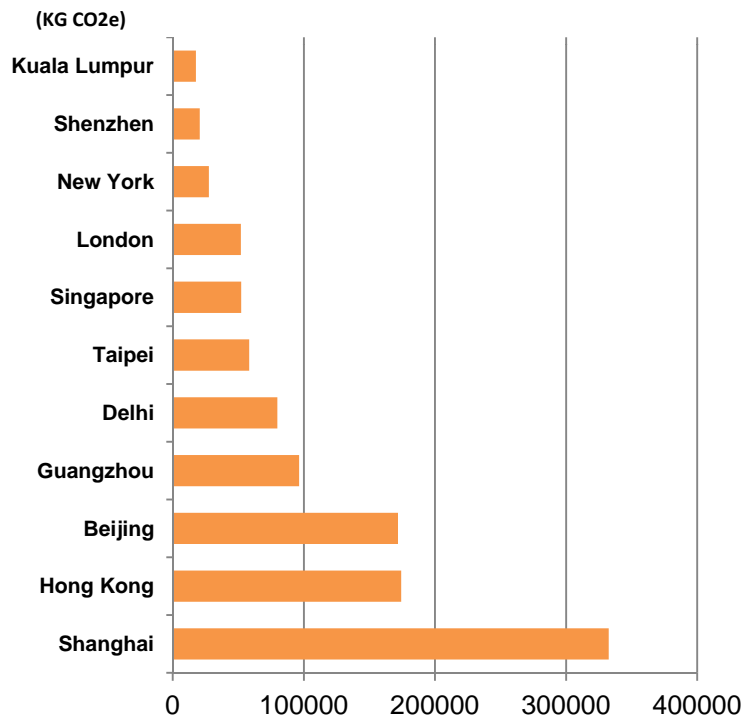
In 2011, M Moser's total CO₂ emissions from electricity consumption was **1,082,887 kg** – approximately the same as that generated by 100 US families in one month

The Shanghai office was M Moser's the largest single contributor of carbon emissions from electricity usage.

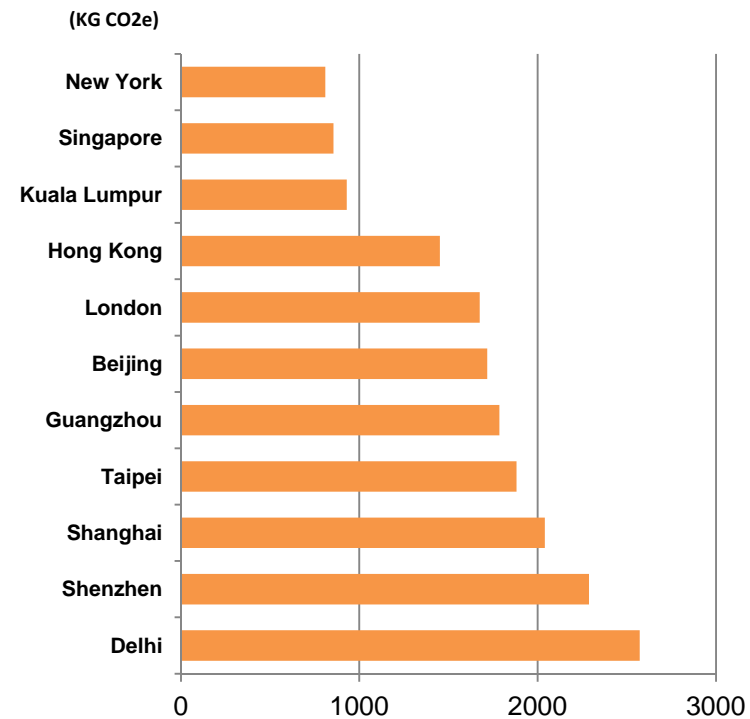
The largest per employee contributor was M Moser Delhi

M Moser New York achieved the highest per employee electricity savings

CO₂ emissions from electricity consumption
(per office)



CO₂ emissions from electricity consumption
(per employee)



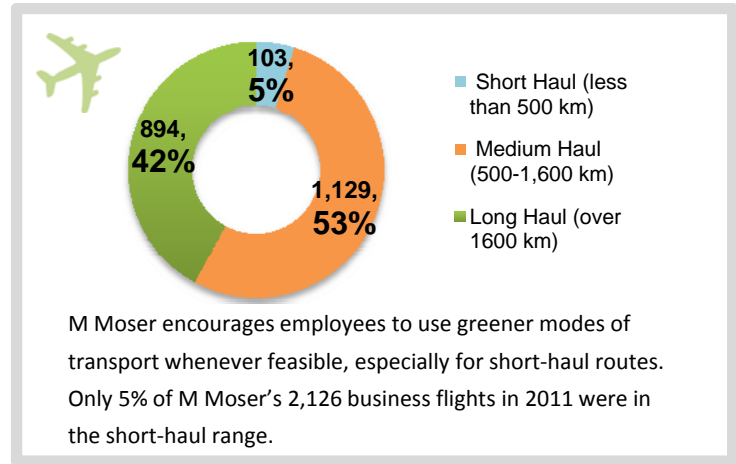
BUSINESS AIR TRAVEL

In 2011, **233** employees made 2,129 business-related flights, producing CO2 emissions totalling **518,009 kg**.

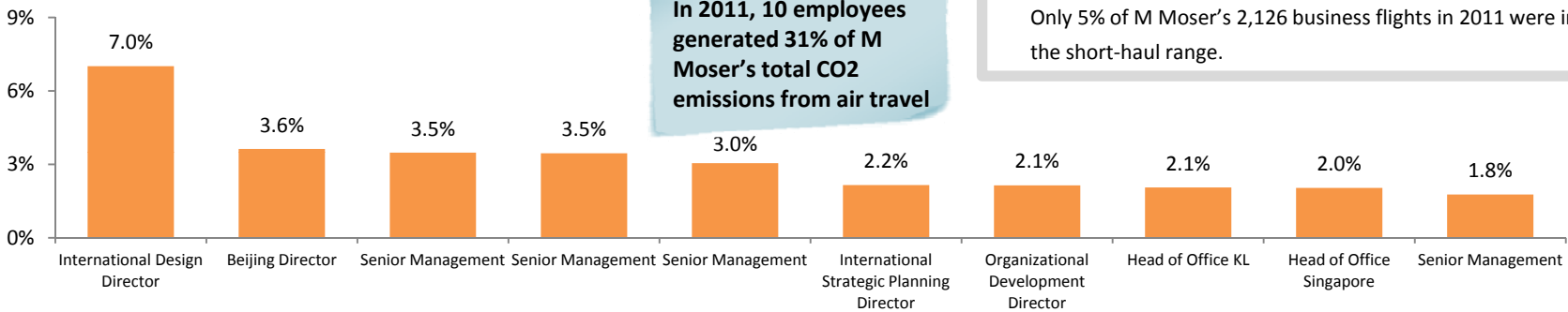
The largest single contributor of business air travel-related emissions was M Moser Hong Kong.

On average, each M Moser employee flew **3.3** times in 2011.

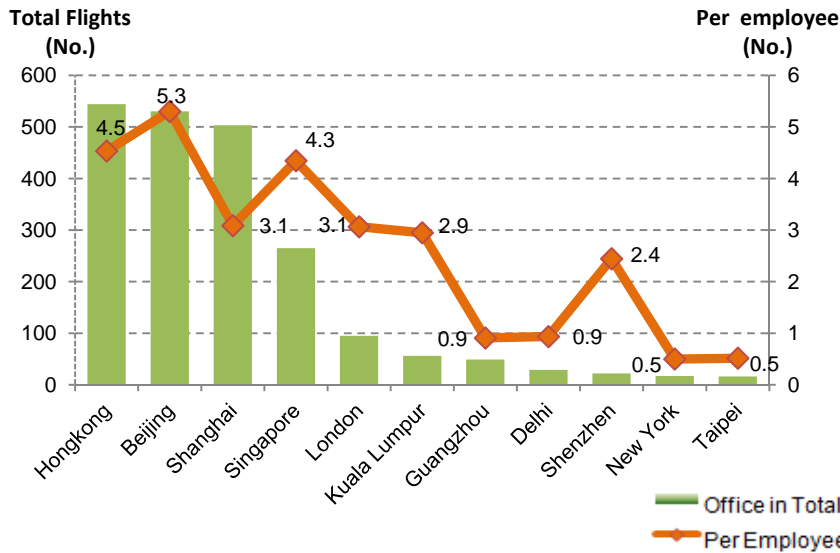
The office with the most flights per employee was M Moser Singapore.



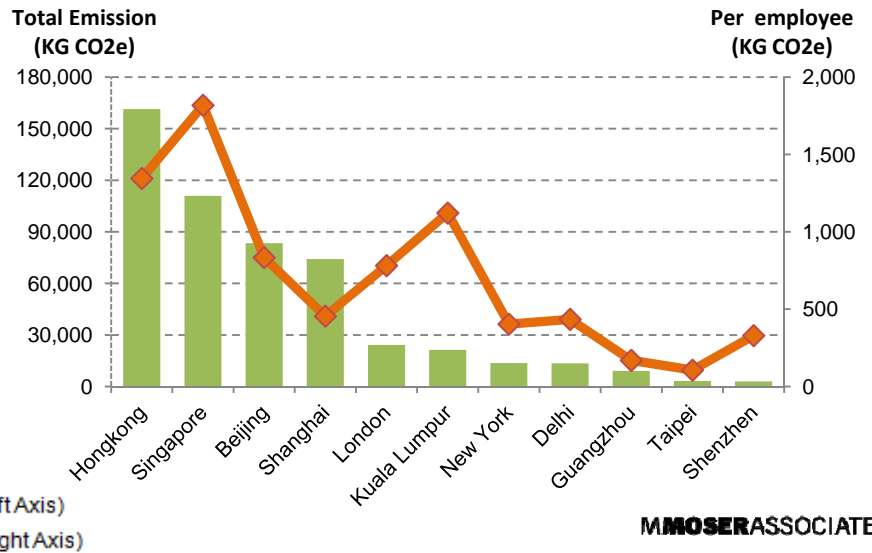
Total 10 Flyers (by % of total CO2 emissions from air travel)



Business flights



CO2 emissions from air travel



COMPANY VEHICLES



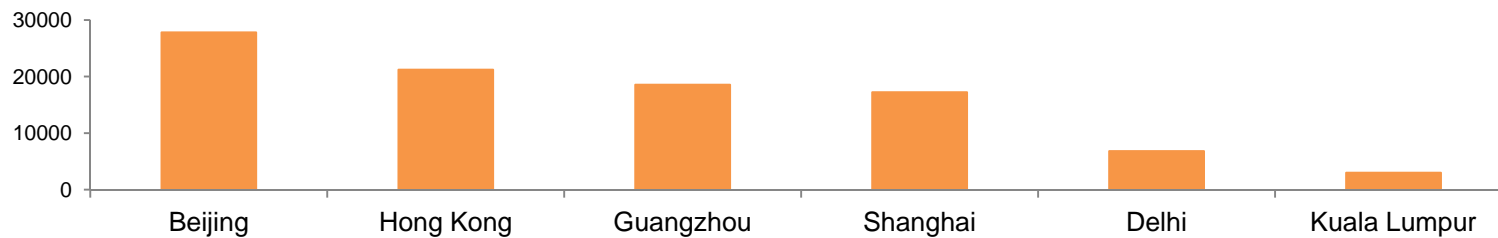
Total CO2 emissions from M Moser company vehicles in 2011 was **94,636 kg***

M Moser's Beijing office generated the most company vehicle emissions in 2011

Carbon emissions from company vehicles

Office	Beijing		Hong Kong		Guangzhou		Shanghai		Delhi		Kuala Lumpur	
Vehicle & fleet size	Chrysler Grand Voyager 2006	2 cars	Toyota Previa (7-seaters)	2 cars	Chrysler Grand Voyager 2006	1 car	Chrysler Grand Voyager 2006	2 cars	Honda Civic 2007	1 car	Peugeot 407	1 car
Annual mileage per car	45,000km		32,300km		63,000km		29,000km		36,200km		13,700km	
Mileage per year	90,000km		64,600km		63,000km		58,000km		36,200km		13,700km	
Total CO2 (kg)	27,805		21,229		18,551		17,233		6,806		3,012	

Total Emissions (KG CO2e)



* Singapore, London, Taipei, New York and Shenzhen do not operate company vehicles

COMMUTING

M Moser staff members from 11 offices around the globe were surveyed about their normal commutes to work.

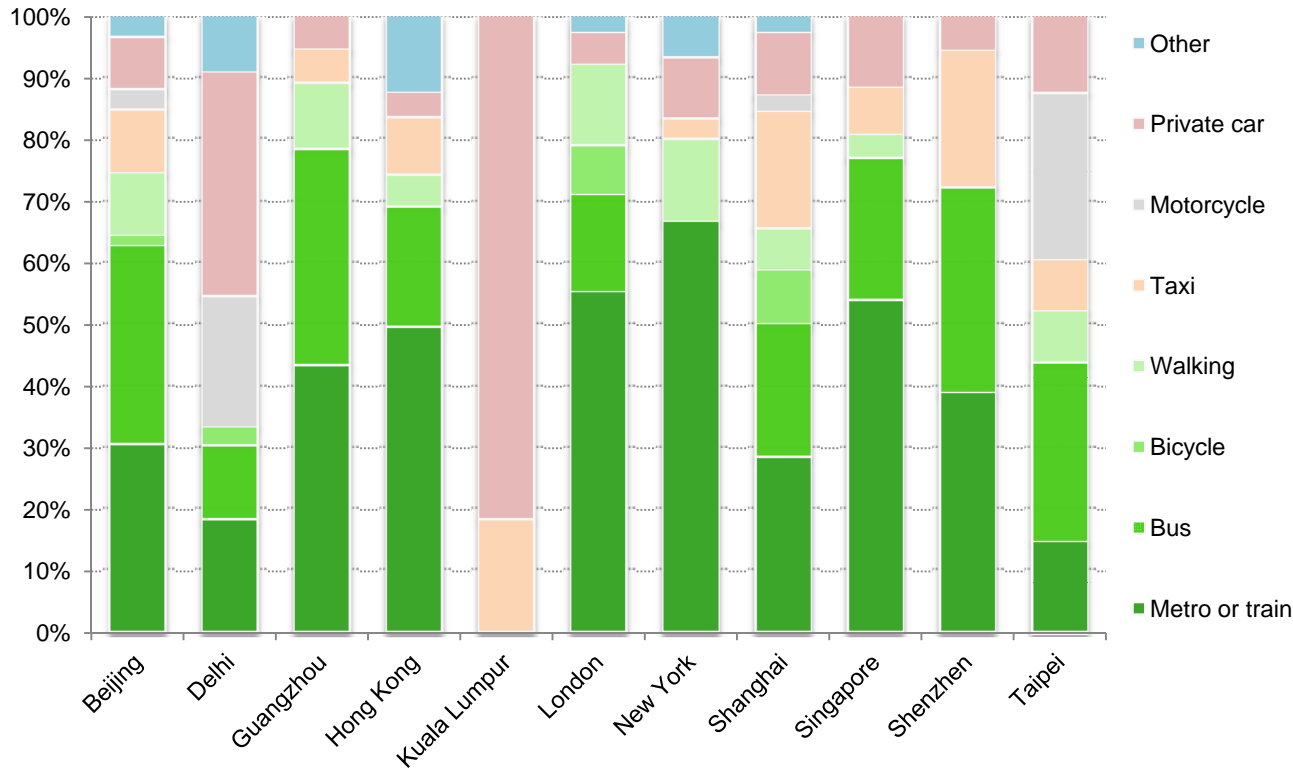
Among other data, the survey revealed that each employee uses an average of **1.5** modes of transport for their daily commute. Shanghai staff used the most with 1.8, while Kuala Lumpur staff members used the fewest modes at 1.1.

Overall, most M Moser staff members worldwide used public transportation to travel to work. A large proportion of employees used **GREEN** modes of transport for their commutes.

Things you might want to know

- ❑ Our 2011 survey was distributed online to reduce its environmental impact
- ❑ Staff from 11 offices participated in the survey
- ❑ 369 valid responses were received (a valid response rate of approximately 56%)

Modes of commuting to work (aggregated)



-  Car:
271g CO2/person/km
-  Bus:
101g CO2/person/km
-  Electric bike:
22g CO2/person/km
-  Bike:
ZERO CO2!
-  Walk:
ZERO CO2!

PAPER CONSUMPTION

The M Moser office with the highest total paper consumption was Shanghai, but the biggest per employee consumer was London.

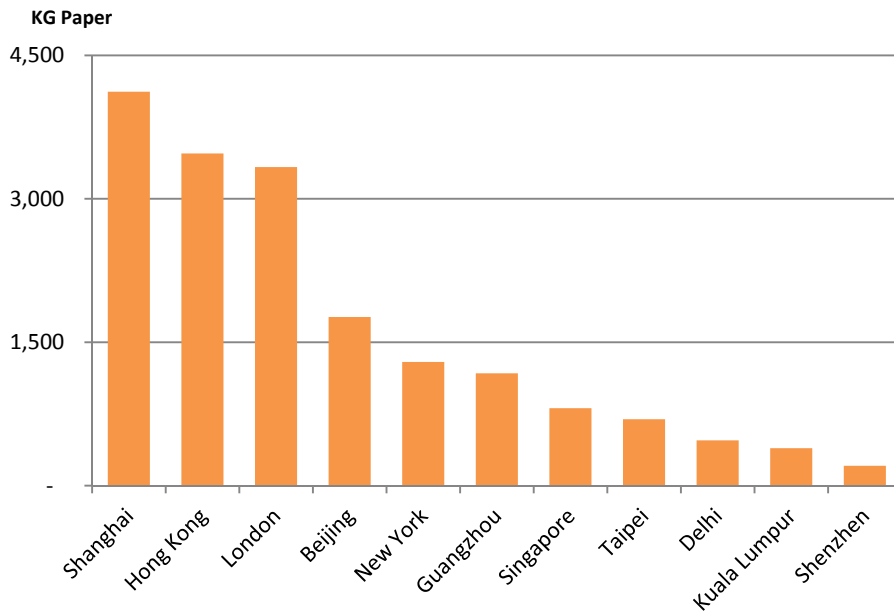
M Moser exclusively uses paper products derived from agro-forested virgin trees.

In 2011, M Moser's total global paper consumption was

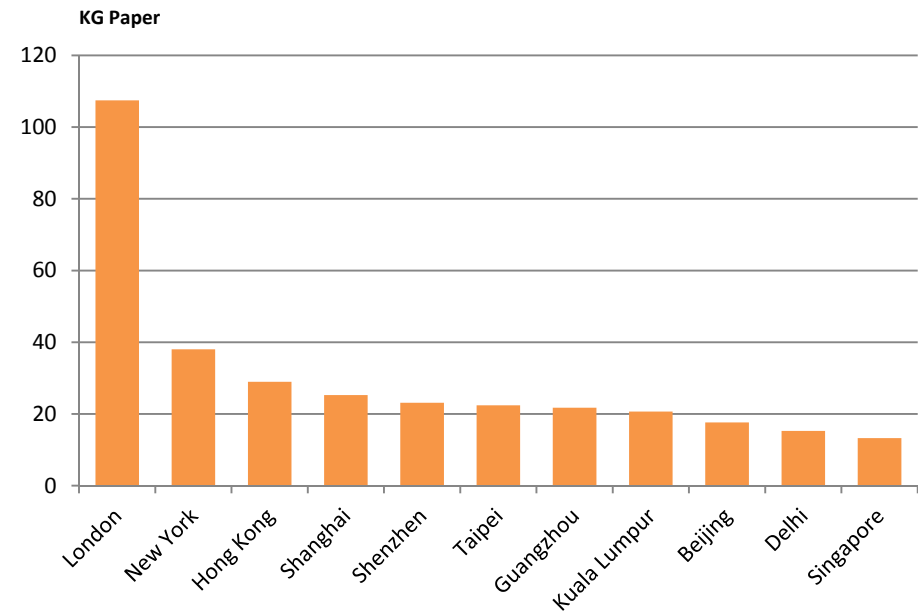
17,739 kg =
505 trees



Total paper consumption



Paper consumption per employee



OTHER METRICS

Our 2011 survey also included office water usage as one of M Moser's sustainability metrics*.

All data was derived from monitoring office water usage, including pantry sinks.

Office	Water usage (cubic metres)	Per employee (cubic metres)
Taipei	279	9
Guangzhou	413.7	7.7
London	221.6	7.1
Shenzhen	42.7	4.7
Singapore	233.4	3.8
Beijing	72	0.7

* Water usage was not metered in Hong Kong, Shanghai, Kuala Lumpur, New York and Delhi

Office	Staff survey response rate percentage
Kuala Lumpur	100.0%
New York	92.3%
Delhi	90.9%
Beijing	78.0%
Taipei	71.0%
Singapore	70.6%
Shanghai	67.5%
Shenzhen	66.7%
Hong Kong	66.2%
London	65.2%
Guangzhou	64.0%

M Moser is committed to providing a healthy work environment. As well as enhancing employee effectiveness and satisfaction, a healthy office minimises the number of days lost due to sickness.

Sick leave days were included in our report for the first time in 2011.

During 2011, average sick leave in M Moser was **3 DAYS**

72.6%
of M Moser employees used
virtual conferencing
technologies at work

Office	Sick leave (days)	Per employee (days)
Delhi	154	5
Kuala Lumpur	79.5	4.2
Hong Kong	465.25	3.9
Beijing	381.75	3.8
London	116	3.7
Shanghai	569	3.5
Shenzhen	27.75	3.1
Singapore	147.5	2.4
Guangzhou	91.5	1.7
New York	42.75	1.3
Taipei	27	0.9

Looking ahead



Our 2011 Environmental Report paints a picture of a company that has made steady progress in shrinking its impact on the environment. The data from this report also provides clues to how M Moser can further improve its environmental performance. Just how this will be achieved globally and by individual offices will be determined by internal discussions which will analyse and assess our findings for 2011.

In late 2012 and early 2013, we will begin planning relocations for our London, Beijing, Bangalore offices and will be opening a new office in Chengdu. With clear environmental goals inherent to these projects' objectives, we hope to maintain our high standard of environmental excellence without compromising business operations and profitability. These new projects will target LEED certification from the preplanning stage and suitable sites will be found that comply with LEED prerequisites.



M Moser Group

- Established in 1981 (HK)
- 13 offices in Asia, North America, Europe
- Over 660 staff worldwide
- Comprehensive, integrated services
- Promote clients' business vision and goals.
- Our offices provide our complete range of services from architecture design thru to construction and commissioning.

This report was compiled and generated by Lacey Li, Esther Lim , Steven Obrovac and Derek Fung

<http://www.mmoser.com>



1993
Shanghai



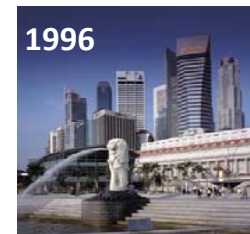
1997
Beijing



1981
Hong Kong



1989
Taipei



1996
Singapore



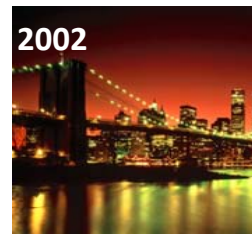
2000
London



1999
Guangzhou



2008
Shenzhen



2002
New York



2004
Kuala Lumpur



2008
Delhi
Mumbai



2011
Bangalore