# Independent Analysis of the Public Feedback for The Third Engagement Process of The Council for Sustainable Development: Better Air Quality



Undertaken by

Social Sciences Research Centre The University of Hong Kong



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# **Executive Summary**

### **Public Response:**

There was enormous response to the Engagement Process with more than 80,000 feedback forms being submitted and more than 3,000 comments reflecting strong public concern about better air quality.

## **High Air Pollution alert days:**

There is clear consensus that Hong Kong needs a more active response to HAP alerts and to cancel at least those events involving physical activity, while making more use of public transport. There is a majority preference for colour alerts. The precise length of notice for alerts needs further discussion once the responses are made explicit.

### **Road Pricing:**

There is broad public support for road pricing, if it will deliver measurable air quality improvement, assuming a reasonable increase in transport costs and that there are no better alternatives, although the motor and taxi trade are clearly not yet persuaded that road pricing will not damage them. There is broad consensus that the fees should be based on polluter pays, with discounts for public buses, school buses and disabled transport. People are prepared to use public transport more in response and would support the income from road pricing being used to encourage greener vehicles and transport choices.

### **Demand Side Management/Energy Saving:**

There is strong consensus on the need for new policies, including both mandatory measures and incentives. The only area that needs further discussion is precisely where to draw the line between mandatory and voluntary measures. Mandatory measures with broad support include turning off lighting and air conditioning in empty offices and schoolrooms, turning off advertising lights in the early morning and use of energy efficient light bulbs. There is majority support for off-peak electricity discounts and incentives for more efficient design and operation of buildings.

### **Engagement Process:**

There are stakeholder concerns about how the topics were selected and the wording of some questions on the questionnaire, which arguably suggest some residual lack of trust in the engagement process.

### **Other Air Quality Concerns:**

Perhaps the most important point is that community are all concerned about air quality, otherwise there would not have been such an enormous response to the engagement process. People want to see government action, but also recognize the need for change in personal behaviour. Stakeholders expressed concern about the Air Quality Objectives, which underpin the HAP alert system. They also want to see reduced traffic, cleaner traffic and fuels being encouraged, more education and more greening.

### **Conclusion:**

The government is facing a unique opportunity for change with strong community support. As long as the important issues without consensus are addressed (such as the fears of the transport trade about road pricing), it should be possible to make some real and significant changes that the public wants and will support.

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# **Table of Contents**

# **Chapter 1: Introduction**

## 1.1 Background

The Council for Sustainable Development (SDC) of the Hong Kong Special Administrative Region Government (HKSARG) commissioned the Social Sciences Research Centre of The University of Hong Kong (SSRC) through the Sustainable Development Division (SDD) to engage in independent analysis of public feedback received as part of the third engagement process on Better Air Quality. This report summarizes the findings of this analysis.

## 1.2 Team

The membership of the team is detailed in Appendix 1. The team was led by Professor John Bacon-Shone, with assistance from Ms Mandy Lao, analysis by Mr Adam Cheung and Ms Jenny Lee and processing and logistics support from all the staff of the Social Sciences Research Centre.

## **1.3 Engagement Process**

The Engagement Process started on June 2nd 2007 and finished in October 2007, with all feedback received before the Council meeting on November 22nd included in the analysis. The SDD worked with partners to organize a large number of events and Appendix 2 contains a list of the seminars, briefings and forums. There was a summit on December 17<sup>th</sup> at which the key findings in this report were presented.

## **1.4 Types of Feedback Received**

The SSRC assisted the SDC in designing a feedback form for wide distribution in the community. It was designed to be simple enough to be understood by anyone with secondary education. In addition, there was a variation of the form for school use, which was identical except for replacing the standard demographic questions with a question about current form level. The form was made available as a printed form, as a downloadable pdf format file (in Appendix 3) and as an online questionnaire to facilitate widespread use.

In addition to the structured feedback using the form, there were two forums available for feedback and an email address. In addition, the public was encouraged to make written submissions.

Lastly, all participation in the engagement events mentioned in 1.3 was recorded and summarized as an important source of feedback by stakeholders.

# **1.5 Analysis of Feedback**

The feedback provided using the feedback form was analyzed using quantitative methods and the analysis can be found in Chapter 2. All other feedback was analyzed using qualitative methods and the analysis can be found in Chapter 3. The combined findings and conclusions are discussed in Chapter 4.

# **Chapter 2: Quantitative Data Analysis**

## 2.1 Quantity of Feedback

A total of 81,112 usable feedback forms was received and processed, excluding the 585 forms received with no valid information other than demographics. This also excludes the approximately 2,000 forms collected during the district exhibition events, which were lost prior to transfer and hence were not received by the SSRC for processing. However, the SDC made public this loss and encouraged members of the public who had submitted forms to resubmit forms, which should have reduced the impact of the loss. In any event, it is believed by SDD that no more than 2,000 forms were lost, which is small (only about 2%) relative to the number of forms received, so the impact on the findings should be negligible. It is noteworthy that the usable feedback forms represent responses from more than 1% of the total population of Hong Kong, which is high by any standards for an engagement process. The dataset generated from the feedback forms has been returned to the SDC for archiving.

## **2.2 Statistical Analysis**

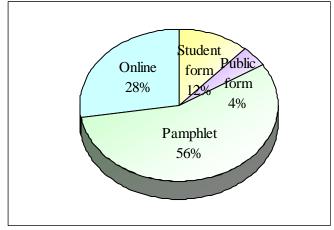
It is important to note that the feedback forms are not a random sample of any population, so statistical tests, which assume random samples, are not appropriate. However, as noted above, this is a very large number of responses, indicating strong public interest in the engagement topic, so the analysis that follows represents the views of many members of the public. For most questions, the differences across demographic groups are small, indicating that gender, age, employment status do not have much relation with responses to the questions. For the few exceptions, the breakdown by demographic groups is shown<sup>1</sup>. The SDC states that every voice counts, so we should not discriminate against any respondent.

<sup>&</sup>lt;sup>1</sup> Tables with a contingency coefficient of more than 0.1 are shown in Appendix 5 and the two tables with the largest coefficients are shown in this chapter.

# 2.3 Types of Form

Figure 2.1 shows that slightly more than half of the feedback forms were the printed pamphlet and more than a quarter were submitted online, with the remainder using the downloadable public and student forms.

Figure 2.1 Source of the 81,112 Forms

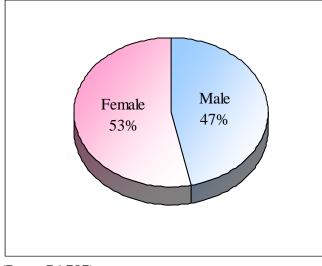


(Base=81,112)

# **2.4 Demographics**

Figure 2.2 shows slightly more females than males completed the forms.

Figure 2.2 Gender breakdown



(Base=76,787)

Figure 2.3 shows that around half of the forms were submitted by people aged 18 years or less, with nearly a quarter from people aged 30-49 years.

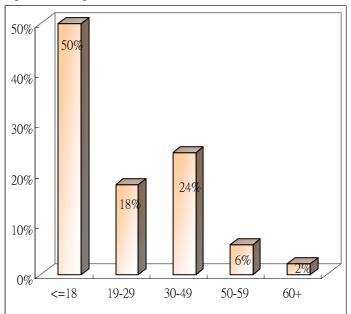
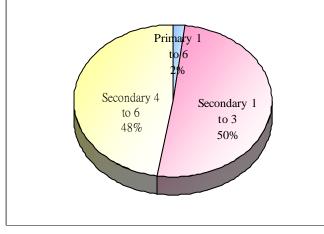


Figure 2.3 Age breakdown

(Base=76,737)

Figure 2.4 shows that almost all the school forms were completed by secondary school students, almost evenly split between lower and upper secondary.

Figure 2.4 Class Level (for the 9,275 School forms)



(Base=9,275)

Figure 2.5 shows that about 60% of forms were submitted by students (school and university combined), with about a quarter submitted by employees. It is important to note that while only 1.4% were submitted by employers, this still represents about 1,000 employers.

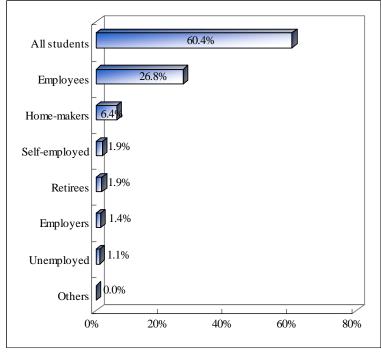


Figure 2.5 Occupational Status

(Base=76,256)

Figure 2.6 shows that employee come from a wide range of sectors, with the service sector (the largest sector in Hong Kong) providing the most responses.

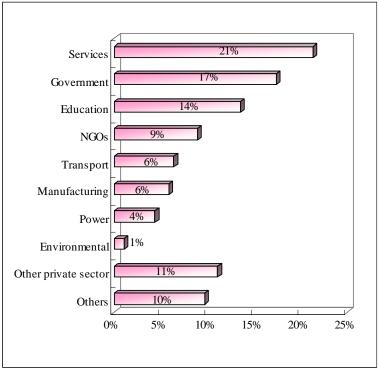


Figure 2.6 Industry for employed persons

(Base=23,141)

Figure 2.7 indicates that a small proportion of people (but more than 1,000) currently living in the mainland or overseas submitted the form.

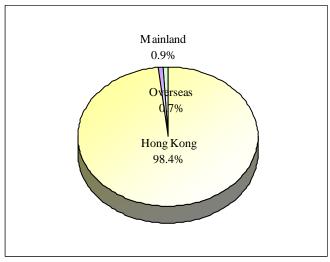
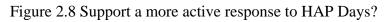


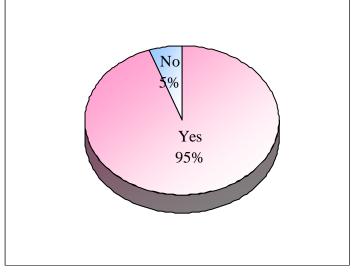
Figure 2.7 Where do people live?

(Base=66,520)

# 2.5 High Air Pollution (HAP) Days

Figure 2.8 shows that there is strong support for a more active response to HAP days, with 95% support this.





(Base=75,817)

Figure 2.9 indicates that almost half of respondents chose a colour alert system, with more than a quarter choosing a number system and only 14% choosing the current system.

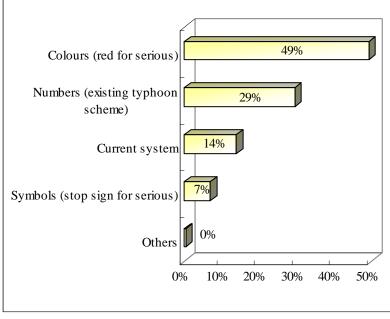


Figure 2.9 What type of HAP day alert system do you support?

(Base=74,435)

Figure 2.10 shows lack of consensus about how far ahead an alert should be issued, with almost equal numbers supporting less than 24 hours and 24 hours or more. This may reflect that the level of notice needed is implicitly linked with the type of action to be taken with more notice needed for more extreme actions.

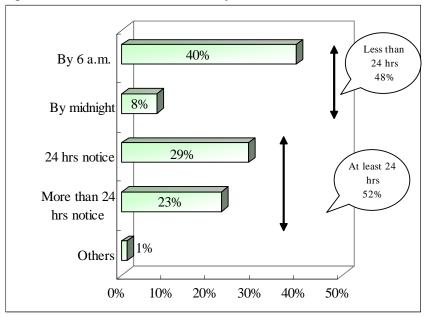
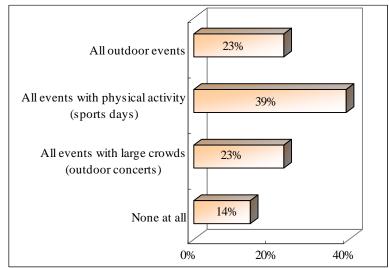


Figure 2.10 When to issue HAP day alert?

(Base=75,881)

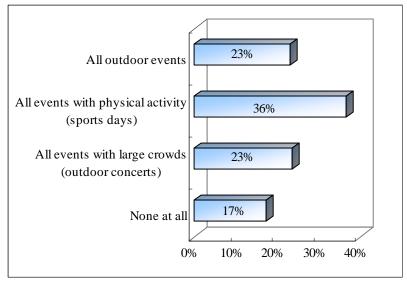
Figure 2.11 shows that while only 14% of respondents think no outdoor events should be cancelled, there is not a clear consensus about what sort of outdoor events should be cancelled. This may reflect that general public is unclear as to the health benefits of canceling different types of event.

Figure 2.11 What Government outdoor events to cancel on alert days?



(Base=76,368)

Figure 2.12 shows that people have similar expectations for private and government outdoor events, with only 17% of respondents responding that no private outdoor events need to be cancelled on HAP alert days.



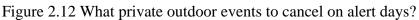
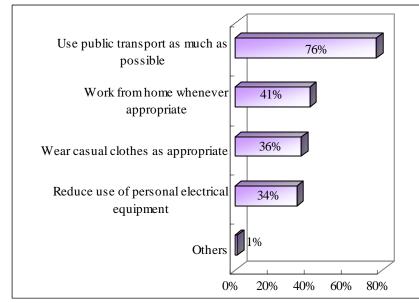


Figure 2.13 shows broad consensus that we should all use more public transport on alert days, with more than a third of respondents choosing working from home and wearing causal clothes as appropriate and reducing use of personal electrical equipment.

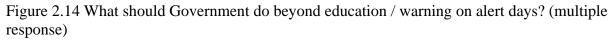
Figure 2.13 What should we do on alert days? (Multiple response)

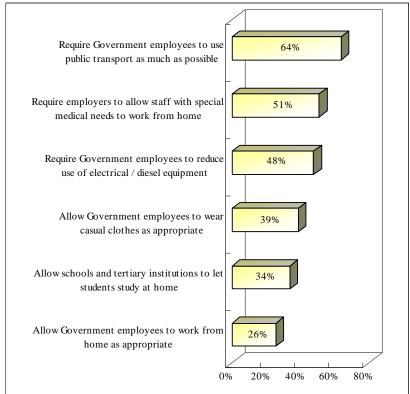


(Base=76,361)

<sup>(</sup>Base=76,352)

Around half of respondents (Figure 2.14) believed that the government should respond to alert days by requiring civil servants to use public transport as much as possible and reduce use of electrical/diesel equipment and require employer to allow staff with special needs to work at home. Around a third supported that civil servants should wear casual clothes and work from home as appropriate and schools should allow students to study at home.





(Base=76,981)

As shown in Figure 2.15, respondents also expected private employers to encourage use of public transport, reduce use of diesel/electrical equipment, working from home and wearing of casual clothes.

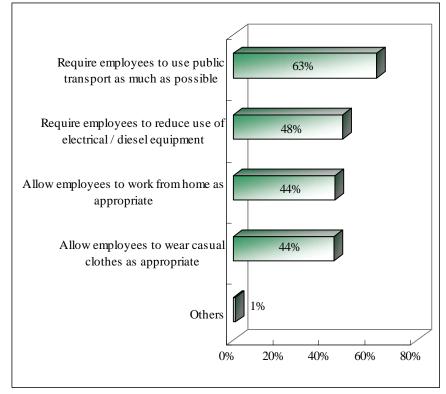


Figure 2.15 What should employers do on alert days? (multiple response)

(Base=76,307)

# 2.6 Road Pricing (RP)

On average, respondents reported that road pricing would affect them in two roles (Figure 2.16), with two thirds of respondents being bus users and around half being minibus, private vehicle and taxi users.

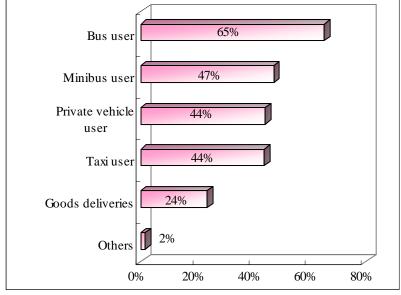


Figure 2.16 In what roles would Road Pricing affect you? (multiple response)

(Base=75,836)

About twice as many respondents agreed (42%) as disagreed (21%) that road pricing should be part of government air pollution policy, with the remainder (37%) neutral (Figure 2.17).

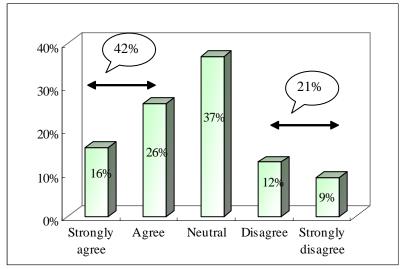
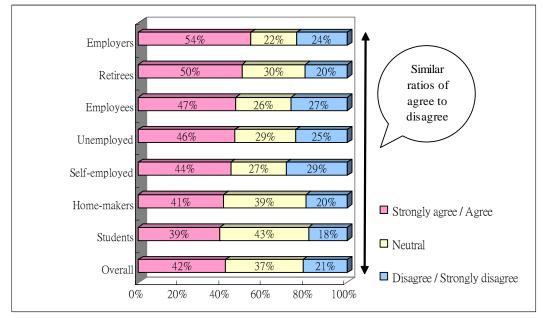


Figure 2.17 Should Road Pricing be part of government air pollution policy?

(Base=74,463)

As this question was one of the few that shows differences across demographic groups, Figure 2.18 shows the most important demographic breakdown. However, the major difference is the proportion who are neutral, with the ratio of agree to disagree similar across employment groups.

Figure 2.18 Should Road Pricing be part of government air pollution policy by employment status ?



When asked the most important reason to oppose road pricing, around half of respondents chose high additional transport cost, followed by insufficient alternative routes and insufficient alternative transport choices (Figure 2.19).

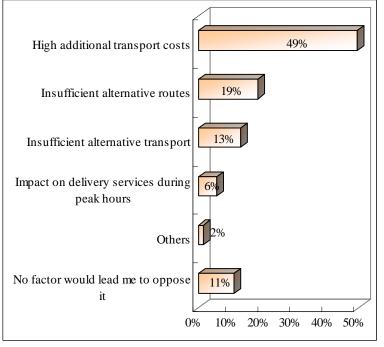
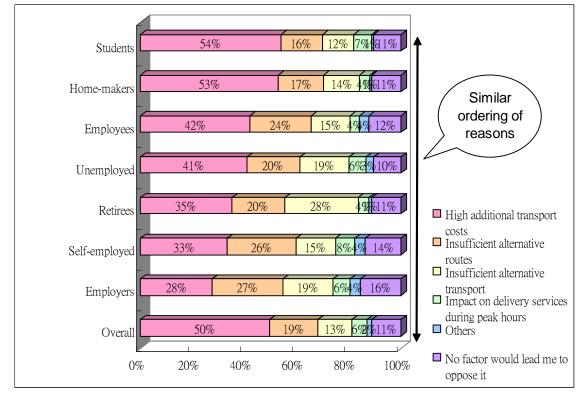
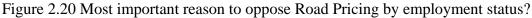


Figure 2.19 Most important reason to oppose Road Pricing?

(Base=67,135)

As this question also shows important differences across demographic groups, we show the most important demographic breakdown, i.e. by employment status. Although students chose transport cost much more often than employers as the most important reason, it is noteworthy that as groups, they both chose the same 3 most important reasons in the same order (Figure 2.20).





Two thirds of respondents chose polluter pays as the basis of road pricing fees (Figure 2.21), with a third choosing time/period, HAP days, private use and district driving in.

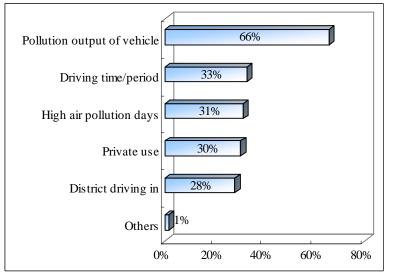
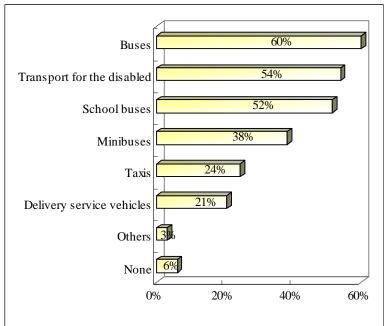


Figure 2.21 What should affect Road Pricing fees? (multiple response)

(Base=75,767)

There was majority support for buses, disabled transport and school buses to receive discounts, with lower support for minibuses (38%), taxis (24%) and delivery service vehicles (21%).

Figure 2.22 Who should get reduced Road Pricing fees? (multiple response)



(Base=75,936)

Given that extra transport costs was the more important reason given for rejecting road pricing, it is important to note that three quarters of respondents support some increase in transport costs in return for better air (Figure 2.23).

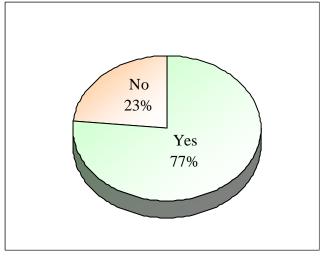
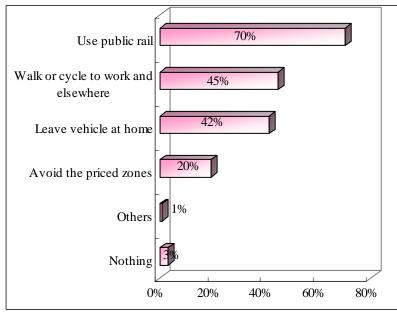


Figure 2.23 Support some transport cost increase in return for better air?

(Base=75,315)

Figure 2.24 shows that a strong majority (70%) of respondents are prepared to use public rail more to reduce air pollution from road transport and nearly half would be prepared to walk or cycle and leave a vehicle at home.

Figure 2.24 What would you be prepared to do about air pollution from road transport? (multiple response)



(Base=75,544)

Only subsidizing environmentally friendly transport received majority support (Figure 2.25), with around a third supporting each of reducing fuel tax, less polluting transport, supporting walking, supporting cycling and reducing road tax.

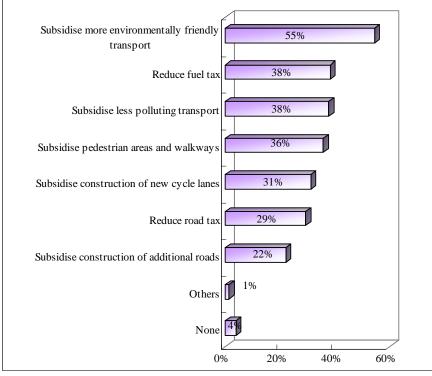
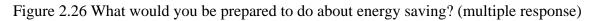


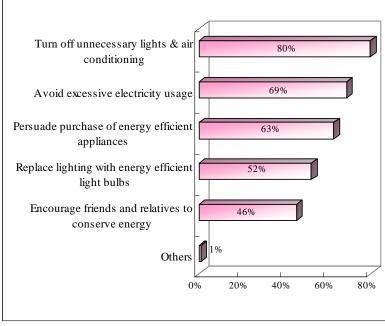
Figure 2.25 Tax / spending changes for Road Pricing? (multiple response)

(Base=75,799)

# 2.7 Demand Side Management/Energy Saving

The majority of respondents were prepared to take a range of actions to help save energy, including turning off lights and air conditioning, avoid excess electricity usage, persuade people to purchase energy efficient appliances and use energy efficient light bulbs (Figure 2.26).





(Base=79,203)

A strong majority support switching of air conditioning and lighting in schools and offices when empty (72%) and advertising lights turned off in the early morning (71%) as mandatory actions, with a simple majority supporting energy efficient office equipment purchase in government and companies, green buildings and energy efficient bulbs being mandatory (Figure 2.27).

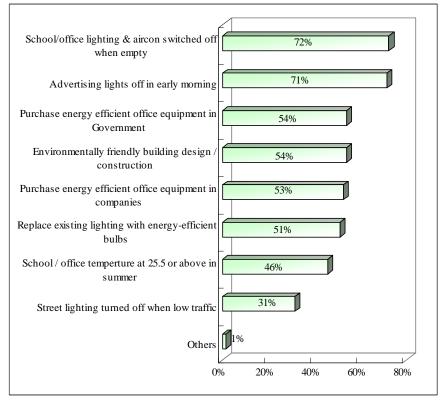


Figure 2.27 What should be mandatory? (multiple response)

(Base=79,246)

A simple majority support cheaper off-peak electricity, incentives for green building design and performance (Figure 2.28).

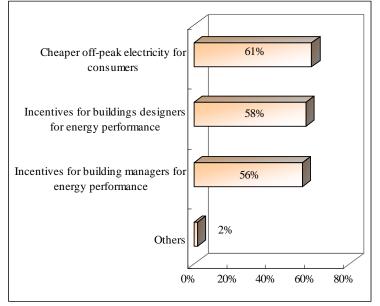


Figure 2.28 What policies do you support to encourage efficiency? (multiple response)

(Base=78,073)

# **Chapter 3: Qualitative Data Analysis**

## **3.1 Quantity of Feedback**

The feedback analyzed using qualitative methods includes:

- a) 691 submissions to the two online forums,
- b) 121 emails sent to the SDD email address,
- c) 84 written submissions sent to the SDC or SDD,
- d) feedback provided during 33 of the 48 partner events.

However, as some of the written submissions were extensive, this method of counting does not provide a very useful comparison. When we count the number of distinct comments made across all these forms of feedback (for reports, we included only the executive summary), we obtain 3,558 comments, which is the basis for analysis in the rest of this chapter. All the materials used in the qualitative analysis have been returned to the SDC for archiving.

## **3.2 Qualitative Analysis**

The qualitative analysis started from the implicit framework provided by the feedback form (to facilitate comparison) and the 2006 SDC Report, then followed the grounded theory approach of Glaser and Strauss to construct the rest of the framework from the data itself. Categories of sub-themes are developed under each theme. For instance, the theme of High Air Pollution Day Alert covers the five sub-themes covering general comments on the alert system, comments on the policies for HAP days, support comments on HAP day alert, oppose comments on HAP day alert and other aspects of HAP day alert. Sub-themes are counted by adding up the counts for each item under the sub-themes. For details, please refer to the full qualitative framework (Appendix 6). A sample of the comments linked to the framework to illustrate the meanings can be found in Appendix 7.

# **3.3 Broad Themes**

In addition to the three public engagement topics, the other two broad themes are the engagement process itself and other air quality concerns, nearly all of which relate to the Council paper on air quality issued in 2006. Figure 3.1 shows that around one third of comments (1,183) related to these other air quality concerns, while around two thirds (2,244) related to the three topics and around 4% (131) related to the process.

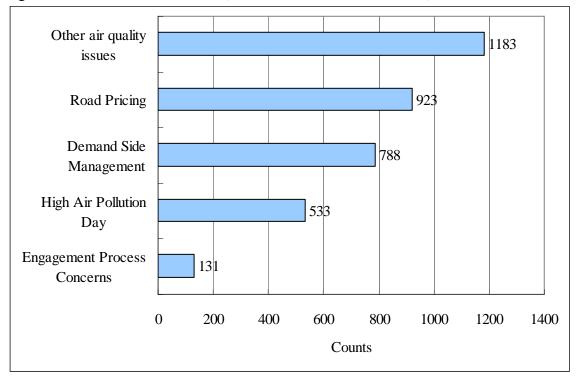


Figure 3.1 Distribution of themes (Based on number of comments)

# **3.4 Common Concerns Overall**

Figure 3.2 shows the 20 most popular topics for comments. It is interesting that the top four categories include the policies for two of the topics (HAP and DSM), alternatives for the  $3^{rd}$  topic (ERP) and other suggestions for improving air quality, suggesting not only strong interest in the three policy topics, but also in other policies to improve air quality. In the following sections, we highlight topics under each theme with at least 10 comments submitted.

701
577
280
234
210
199
167
160
134
125
124
105
84
77
50
49
43
39
32
0 100 200 300 400 500 600 700 80 Counts

Figure 3.2 Top 20 counts of categories

## 3.5 Common Concerns about High Air Pollution Alerts

Table 3.1 shows the common concerns about HAP alerts. For the alert system, there is support for colour (22 comments) or number coding (9 comments and 10 comments for typhoon alerts) in the alert system and suggestions to report specific pollutants (11 comments). There are also many comments (31 comments) about the announcement channels used. For the HAP day policies, there are many comments about both mandatory and advisory measures. For mandatory measures, there is support for restricting the number of vehicles (24 comments) and the need to cancel outdoor activities (16 comments). For advisory measures, there is support for avoiding outdoor activities (20 comments) and private sector guidelines (13 comments). Finally, there are also many comments about education and information, including the health implications (10 comments).

#### **Table 3.1 High Air Pollution Day Alert Counts**

1.1 General comments about alert system (26 comments)

- 1.1.1 General about coding system (4 comments)
  - 1.1.1.1 Color coding (22 comments)
  - 1.1.1.2 Symbol coding (5 comments)
  - 1.1.1.3 Alphabets coding (1 count)
  - 1.1.1.4 Number coding (9 comments)
  - 1.1.1.5 Similar to typhoon alerts (10 comments)
  - 1.1.1.6 Other systems (7 comments)
- 1.1.2 General about Air Pollution Index (12 comments)
  - 1.1.2.1 Statistics based (4 comments)
    - 1.1.2.2 Reporting specific pollutants (11 comments)
    - 1.1.2.3 Other aspects of API (16 comments)
- 1.1.3 General about time frame for announcement (1 count)
  - 1.1.3.1 Early forecast of HAP (16 comments)
  - 1.1.3.2 Regular/ Hourly reporting (7 comments)
  - 1.1.3.3 Immediate/ Real time announcement (5 comments)
  - 1.1.3.4 Others (1 count)
- 1.1.4 Anything about announcement channels (31 comments)
- 1.1.5 Other aspects of alert system (22 comments)
- 1.2 General about policies for HAP days (7 comments)
  - General about mandatory measures to HAP days (9 comments)
    - 1.2.1.1 Allow employee to work at home in HAP days (7 comments)
    - 1.2.1.2 Restrict the number of vehicles in HAP days (24 comments)
    - 1.2.1.3 Casual wear in HAP days (5 comments)
    - 1.2.1.4 Turn off engine when not traveling (in HAP days) (6 comments)
    - 1.2.1.5 High pollutant emission vehicles should be monitored (4 comments)
    - 1.2.1.6 No schooling on HAP days (6 comments)
    - 1.2.1.7 Outdoor activities needed to be cancelled (16 comments)
    - 1.2.1.8 Other mandatory policies on HAP days (57 comments)

1.2.2 General about advisory measures to HAP days (13 comments)

1.2.1

- 1.2.2.1 Advice/ guideline to avoid outdoor activities (20 comments)
  - 1.2.2.2 Provide guideline for private sector (13 comments)
  - 1.2.2.3 Work/Stay at home (5 comments)
  - 1.2.2.4 Other advisory measures to HAP days (40 comments)
- 1.2.3 General about education of HAP days (2 comments)
  - 1.2.3.1 Inform the public the health implication of HAP (10 comments)
  - 1.2.3.2 Education/ information about HAP alerts (15 comments)
  - 1.2.3.3 Other areas of education about HAP days (21 comments)
- 1.3 Support comments on HAP day alert (17 comments)
- 1.4 Oppose comments on HAP day alert (15 comments)
- 1.5 Other aspects of HAP day alert (11 comments)

## 3.6 Common Concerns about Road Pricing

Table 3.2 shows the common concerns about road pricing. There were many general supporting (84 comments) and opposing (27 comments) comments. The specific opposing comments were most commonly about effectiveness in reducing air pollution (53 comments), increasing travel costs (22 comments), affecting related industries (15 comments), impact on nearby districts (12 comments) and the economy (10 comments).

The comments on road pricing zones mainly supported targeting heavily congested roads (12 comments), while the time to be charged comments supported peak hours (13 comments). Regarding the type of vehicle, there was support for differential rates (13 comments), with discounts for public transport (15 comments) and environmentally friendly vehicles (13 comments). However the most common response on charging by far was support for the polluter pays principle (26 comments).

Complementary measures raised included alternative routes (17 comments), alternative transport (15 comments), better transit between charged and non-charged zones (10 comments) and sufficient car parks (10 comments). For policies related to revenue, there was strong support for encouraging environmentally friendly cars (34 comments), cycling/walking (24 comments) and use of public transport (22 comments).

There were also many comments about alternatives to road pricing, including restricting the number of private vehicles (40 comments) and buses (26 comments) on the roads, using cleaner fuels (19 comments) and better maintenance (19 comments) and idling engines (17 comments).

## Table 3.2 Road Pricing (RP) Counts

2	General	comments	about	Road	pricing	(15	comments)	

2.1 General support comments road pricing (84 comments)

	11		1 0	•	
2.2 General	about Road	pricing fee	policies	(13 comment	s)

		5 F (
2.2.1	General	about Road pricing zones (7 comments)
	2.2.1.1	In serious polluted areas (4 comments)
	2.2.1.2	On heavily congested roads (12 comments)
	2.2.1.3	Specific road pricing zone should be provided (4 comments)
	2.2.1.4	Other zones (1 count)
2.2.2	Road pri	cing periods (2 comments)
	2.2.2.1	During peak hours/ congestion time (13 comments)
	2.2.2.2	During High Air Pollution time (2 comments)
	2.2.2.3	Other pricing period (2 comments)
2.2.3	Types of	vehicle being charged (3 comments)
	2.2.3.1	Different fee scales for different vehicles (13 comments)
	2.2.3.2	Charge on vehicles with low usage (2 comments)
	2.2.3.3	Discount for environmental friendly vehicles (13 comments)
	2.2.3.4	Discount for public transportation (15 comments)
	2.2.3.5	Others aspect about types of vehicles being charged (15 comments)
2.2.4	Adopt po	olluter pays principle (26 comments)
2.2.5	Other fee	e policies (13 comments)
2.3 Measures comple	ment road	l pricing (4 comments)
2.3.1		ve transport means (15 comments)
2.3.2	Alternati	ve routes (17 comments)
2.3.3	Pedestria	an pathways/ Cycling lane (2 comments)
2.3.4	Better tra	ansit measures for transportation connections between the charged and the

- non-charged zone (10 comments)
- 2.3.5 Sufficient car parks (10 comments)

- 2.3.6 Transit transport services at discount price (8 comments)
- 2.3.7 Other complementary measures (11 comments)

2.4 Policies associated with road pricing (9 comments)

- 2.4.1 Increase fuel tax (7 comments)
  - 2.4.2 Encourage use of environmental friendly cars (34 comments)
  - 2.4.3 Encourage use of public transport (22 comments)
  - 2.4.4 Encourage cycling/ walking (24 comments)
- 2.4.5 Other Revenue/ income use of road pricing (29 comments)

2.5 General about oppose road pricing (27 comments)

- 2.5.1 Road pricing is not effective to reduce air-pollution (53 comments)
- 2.5.2 Many factors affecting road-side air quality except vehicles (10 comments)
- 2.5.3 Road pricing is not the only measure (3 comments)
- 2.5.4 Road pricing would affect related industries (15 comments)
- 2.5.5 Road pricing would affect the economy (10 comments)
- 2.5.6 Road pricing would increase travel cost of people (22 comments)
- 2.5.7 Road pricing will increase the pressure of nearby districts (12 comments)
- 2.5.8 Other oppose comments (47 comments)

2.6 Alternative of road pricing (1 comments)

- 2.6.1 Reduce number of bus on road (26 comments)
- 2.6.2 Restrict number of private vehicles on road (40 comments)
- 2.6.3 Diversion of transport (11 comments)
- 2.6.4 Use environmental fuel (19 comments)
- 2.6.5 Reduction of building density (6 comments)
- 2.6.6 Turn off engine when not traveling (17 comments)
- 2.6.7 About vehicles' maintenance (19 comments)
- 2.6.8 Other alternative of road pricing (95 comments)

2.7 Other aspects of road pricing (29 comments)

## 3.7 Common Concerns about Demand Side Management

There were many general comments of support (50 comments) with only a few opposing (5 comments). However most comments were about specific mandatory and incentive policies.

For mandatory measures, there was strong support for restricting air-conditioning (74 comments), advertising lights (47 comments), energy efficient lightbulbs (24 comments), using energy efficient products (18 comments) and reducing street lighting (28 comments)

For incentives, there were many suggestions, with the most popular being differential electricity pricing (39 comments), promoting energy efficient products (32 comments), roof gardens (24 comments), solar energy (23 comments), energy audits (14 comments), energy efficiency labels (14 comments), company subsidies for energy savings (12 comments) and building energy saving labels (11 comments).

#### **Table 3.3 Demand Side Management Counts**

3.2.2

3

- General about Demand Side Management (7 comments)
  - 3.1 General support comments on DSM (50 comments)
  - 3.2 General comments about new policies achieving DSM (17 comments)
    - 3.2.1 General about Mandatory approach (13 comments)
      - 3.2.1.1 Environmental friendly practices in building design/ construction (45 comments)
      - 3.2.1.2 Reduce laser light performance (7 comments)
      - 3.2.1.3 Reduce street lights/ lamps (17 comments)
      - 3.2.1.4 Restrict use of air-conditioning (74 comments)
      - 3.2.1.5 Restrict use of advertising lights (47 comments)
      - 3.2.1.6 Restrict use of luxury electricity consumption items (4 comments)
      - 3.2.1.7 Turn off public facilities when not necessary (10 comments)
      - 3.2.1.8 Turn off street light when not necessary (11 comments)
      - 3.2.1.9 Mandatory use of energy efficiency products (18 comments)
      - 3.2.1.10 Mandatory use of energy efficiency light bulbs (24 comments)
      - 3.2.1.11 Other mandatory approach (55 comments)

General about domestic energy saving schemes/ incentive approach (16 comments)

- 3.2.2.1 Apply differential electricity pricing (39 comments)
- 3.2.2.2 Provide energy audits to companies/ households (14 comments)
- 3.2.2.3 Flexible working hours (4 comments)
- 3.2.2.4 5-days work (3 comments)
- 3.2.2.5 Increase using energy efficiency labeling (14 comments)
- 3.2.2.6 Promote using energy efficiency products (32 comments)
- 3.2.2.7 Promote roof gardening to save energy (24 comments)
- 3.2.2.8 Use of water cooling system (7 comments)
- 3.2.2.9 Use of solar energy (23 comments)
- 3.2.2.10 Provide more choices on energy efficiency products (6 comments)
- 3.2.2.11 Energy saving competitions (8 comments)
- 3.2.2.12 Energy labels for outstandingly energy efficient buildings (11 comments)
- 3.2.2.13 Subsidizes for buying energy saving devices (6 comments)
- 3.2.2.14 Punish those who fail to meet energy efficiency standards (6 comments)
- 3.2.2.15 Subsidies for companies initiating DSM energy saving schemes (12 comments)
- 3.2.2.16 Other incentive approach on DSM (74 comments)
- 3.2.3 Education on energy saving (43 comments)
- 3.2.4 Other new policies on DSM (17 comments)
- 3.3 Comments about opposing DSM policies (5 comments)
- 3.4 Other aspects of DSM approach (25 comments)

## **3.8 Common Concerns about the Engagement Process**

Table 3.4 summarizes the common concerns about the engagement process, showing that the two major concerns were selection of the topics (39 comments) and the methods used to collect opinions (32 comments).

### **Table 3.4 Engagement Process Counts**

- 4 General comments about engagement process (10 comments)
  - 4.1 Comments on how the topics are chosen (39 comments)
  - 4.2 Comments on methods to collect opinions (32 comments)
  - 4.3 Concern on how the opinions are handled (7 comments)
  - 4.4 Other comments about engagement process (43 comments)

## 3.9 Common Concerns about Other Air Quality Issues

Table 3.5 summarizes all the other air quality concerns that go beyond the three topics in the public engagement process. Many are issues covered by the SDC 2006 report.

For the 2006 report issues, all the comments relating to institutional choices (40 comments) relate to concerns about the review of air quality objectives. The comments on electricity generation, transport choices and industry choices are widely spread over topics, with the exception of the support for more hybrid vehicles (37 comments). There were many other suggestions for improving air quality, with the most popular being traffic reduction (80 comments), education (65 comments), greening (58 comments), renewable energy (47 comments), non-polluting transport (45 comments), building density (44 comments), regional studies (17 comments), using rail more (15 comments).

There were also many comments emphasizing government responsibility for action, particularly through taking a leading role (56 comments), while there were also many comments emphasizing the need for individual action (27 comments).

## **Table 3.5 Other Air Quality Concern Counts**

#### 5 Other issues

- 5.1 Expressions of concern on air pollution (134 comments)
- 5.2 Comments about causes of air pollution (105 comments)
- 5.3 The report recommendations  $(\hat{1} \text{ count})$ 
  - 5.3.1 Institutional choices (Review of Air Quality Objectives) (40 comments)
  - 5.3.2 Electricity Generation choices (23 comments)
    - 5.3.2.1 Use of Clean coal (3 comments)
      - 5.3.2.2 Flue-gas desulphurization (FGD) pollutant control (6 comments)
      - 5.3.2.3 Use of liquefied natural gas (5 comments)
    - 5.3.2.4 Selling electricity to China (2 count)
  - 5.3.3 Transport choices (16 comments)
    - 5.3.3.1 Converting light vehicles to cleaner fuel (light goods vehicles, light buses) (6 comments)
    - 5.3.3.2 Fitting catalytic converters and particulate traps onto medium and heavy vehicles (5 comments)
    - 5.3.3.3 Retrofitting particulate traps on franchised buses (5 comments)
    - 5.3.3.4 Prevent importing of high sulphur diesel from Shenzhen (3 comments)
    - 5.3.3.5 More hybrid vehicles (37 comments)
  - 5.3.4 Industry choices (2 comments)
    - 5.3.4.1 Shifting from industrial diesel to ultra-low sulphur diesel (e.g. ferry, construction, boats) (1 count)
    - 5.3.4.2 Promotion of cleaner production (10 comments)
    - 5.3.4.3 Code of Conduct on regional sourcing (for suppliers) (2counts)

5.4 Other suggestions for improving air quality (166 comments)

- 5.4.1 Greening (58 comments)
- 5.4.2 Building density (44 comments)
- 5.4.3 Education (65 comments)
- 5.4.4 Encouraging renewable energy (47 comments)
- 5.4.5 Emissions trading (8 comments)
- 5.4.6 Reduction of traffic (80 comments)
- 5.4.7 Encourage more use of rail (15 comments)
- 5.4.8 Adoption of cleaner form of transport (e.g. walking, cycling) (45 comments)
- 5.4.9 Ban Idling Engines (31 comments)
- 5.4.10 On-going studies on regional aspects of air pollution (17 comments)
- 5.4.11 Clean Air Charter (1 count)

5.5 Government responsibility for action (24 comments)

- 5.5.1 Against mandatory approach in general/legislation (2 comments)
- 5.5.2 Oppose air quality policies (3 comments)
- 5.5.3 Support government take a leading role (56 comments)
- 5.5.4 Other comments on government's role (39 comments)
- 5.6 Needs for individuals to act/ change behaviour (27 comments)

5.7 Complaints (49 comments)

## 3.10 Patterns of comments by different stakeholders

For submissions that were from identifiable individuals or organizations, we can break down the types of comments they made to understand the differing concerns across the community. Table 3.6 shows that at the theme level, private companies were more concerned about road pricing, while academics were more concerned about high air pollution alerts.

1 abic 5.0 1 lic	mes						
	Total	Private individuals	Private companies	Academics	Interest and professional groups	Environmental groups	Political groups
HAP day	15%	14%	5%	41%	17%	23%	21%
alert							
RP	26%	24%	35%	3%	36%	27%	16%
DSM	22%	24%	20%	15%	18%	19%	9%
Engagement	4%	3%	5%	6%	7%	3%	0%
process							
Other topics	33%	34%	35%	35%	23%	29%	55%
Total	100%	100%	100%	100%	100%	100%	100%

# Table 3.6 Themes

Table 3.7 shows that within HAP alerts, academics were more likely to have general comments and to oppose HAP alerts.

	Total	Private individuals	Private companies	Academics	Interest and professional groups	Environmental groups	Political groups
General comments on alert system	39%	34%	36%	82%	38%	55%	40%
Comments on the policies for HAP days	53%	58%	64%	4%	49%	41%	56%
HAP days Support HAP Day Alert	3%	2%	0%	0%	9%	5%	0%
Oppose HAP Day Alert	3%	3%	0%	14%	0%	0%	0%
Other aspects of HAP day alert	2%	2%	0%	0%	5%	0%	4%
Total	100%	100%	100%	100%	100%	100%	100%

### Table 3.7 High Air Pollution Day Alert

Table 3.8 shows that private companies mainly submitted comments opposing road pricing, while academics and political groups were primarily concerned with fee policies.

Table 3.8 Roa	Total	Private individuals	Private companies	Academics	Interest and professional groups	Environmental groups	Political groups
General comments	2%	1%	0%	0%	3%	0%	11%
about RP							
Support RP	9%	10%	7%	0%	8%	12%	11%
Comments	17%	17%	13%	100%	14%	28%	42%
about RP							
fee policies							
Measures complement	8%	9%	0%	0%	11%	10%	5%
RP							
Policies associated with RP	14%	13%	15%	0%	10%	22%	16%
Oppose RP	22%	18%	49%	0%	29%	6%	0%
Alternatives to RP	25%	31%	15%	0%	16%	8%	16%
Other aspects of RP	3%	1%	0%	0%	9%	14%	0%
Kr Total	100%	100%	100%	100%	100%	100%	100%

Table 3.9 shows that all sectors were primarily concerned with new policies to implement DSM.

	Total	Private individuals	Private companies	Academics	Interest and professional groups	Environmental groups	Political groups
General comments	1%	1%	5%	0%	0%	3%	0%
on DSM Support DSM	6%	4%	13%	0%	14%	6%	9%
New policies achieving DSM	89%	92%	78%	100%	69%	91%	91%
Oppose DSM	1%	1%	3%	0%	0%	0%	0%
Other aspects of DSM	3%	1%	3%	0%	17%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%

Table 3.9				
	<b>m</b> 4 1	р	• •	п

Table 3.10 shows general concern about the selection of topics and the means of collecting opinions.

Table 5.10 Eng	Total	Private individuals	Private companies	Academics	Interest and professional groups	Environmental groups	Political groups
General comments about	8%	6%	10%	0%	12%	0%	-
engagement process							
General comments on	30%	28%	20%	25%	39%	20%	-
topic selection Comments on	24%	27%	30%	50%	15%	20%	
methods to collect opinions/							-
Questionnaire Concern on	5%	6%	0%	0%	6%	0%	
handling of opinions							-
Other comments	33%	33%	40%	25%	27%	60%	
about engagement process							-
Total	100%	100%	100%	100%	100%	100%	-

### Table 3.10 Engagement process

Finally Table 3.11 shows academics more likely to express concern about air quality while other groups were more likely to make other suggestions for improving air quality.

Table 5.11 Other to	pics						
	Total	Private individuals	Private companies	Academics	Interest and professional groups	Environmental groups	Political groups
Expressions of concern on air pollution	11%	9%	17%	42%	12%	15%	21%
Causes of air pollution	9%	8%	4%	4%	12%	15%	12%
Report recommendations	14%	11%	26%	33%	24%	19%	12%
Other suggestions for improving air	49%	56%	31%	8%	27%	28%	41%
quality Government role/ responsibility for action	10%	8%	9%	13%	23%	19%	11%
Need for individuals to act/change behaviour	2%	3%	1%	0%	2%	0%	3%
Complaints	4%	4%	11%	0%	1%	6%	0%
Total	100%	100%	100%	100%	100%	100%	100%

#### Table 3.11 Other topics

## **Chapter 4: Combined Analysis and Conclusions**

## 4.1 How to combine the quantitative and qualitative analysis?

It is not meaningful to directly compare the quantitative and qualitative analysis as they are based on different types of feedback from different types and numbers of respondents. However it is helpful to try and combine them to provide a useful broad picture of community views and hence make some conclusions about which issues have reached consensus and which issues have not. This is necessarily subjective, but as the report has provided the underlying quantitative and qualitative analysis in the two previous chapters, there is a high degree of transparency, which allows everyone to draw their own conclusions.

## 4.2 High Air Pollution alert days

There is clear consensus that Hong Kong needs a more active response to HAP alerts and to cancel at least those events involving physical activity, while making more use of public transport. There is a majority preference for colour alerts. The precise length of notice for alerts needs further discussion once the responses are made explicit.

## 4.3 Road Pricing

There is broad public support for road pricing, if it will deliver measurable air quality improvement, assuming a reasonable increase in transport costs and that there are no better alternatives, although the motor and taxi trade are clearly not yet persuaded that road pricing will not damage them. There is broad consensus that the fees should be based on polluter pays, with discounts for public buses, school buses and disabled transport. People are prepared to use public transport more in response and would support the income from road pricing being used to encourage greener vehicles and transport choices.

## 4.4 Demand Side Management/Energy Saving

There is strong consensus on the need for new policies, including both mandatory measures and incentives. The only area that needs further discussion is precisely where to draw the line between mandatory and voluntary measures. Mandatory measures with broad support include turning off lighting and air conditioning in empty offices and schoolrooms, turning off advertising lights in the early morning and use of energy efficient lightbulbs. There is majority support for off-peak electricity discounts and incentives for more efficient design and operation of buildings.

### **4.5 Engagement Process**

There are stakeholder concerns about how the topics were selected and the wording of some questions on the questionnaire, which arguably suggest some residual lack of trust in the engagement process.

### 4.6 Other Air Quality Concerns

Perhaps the most important point is that a very large part of the community is very concerned about air quality, otherwise there would not have been such an enormous response to the engagement process. People want to see government action, but also recognize the need for change in personal behaviour. Stakeholders expressed concern about the Air Quality Objectives, which underpin the HAP alert system. They also want to see reduced traffic, cleaner traffic and fuels being encouraged, more education and more greening.

## **4.7** Conclusion

The government is facing a unique opportunity for change with strong community support. As long as the important issues without consensus are addressed (such as the fears of the transport trade about road pricing), it should be possible to make some real and significant changes that the public wants and will support.

## Appendix 1

## Composition and Organization Structure of the Consultancy Team

### **Composition and Organization Structure of the Consultancy Team**

### I. The Consultancy Team

Professor John Bacon-Shone, Director of the SSRC Ms. Mandy Lao, Research & Strategy Manager Mr. Samson Lee, Assistant Technical Manager Ms. Jenny Lee, Senior Research Executive Mr. Adam Cheung, Research Executive Ms. Olivia Chong, Research Assistant

### **II. Organization Structure of Consultancy Team**

Professor John Bacon-Shone was responsible for overseeing the whole public engagement process, the questionnaire design and data analysis, as well as presenting public feedback in the Better Air Quality Summit and writing the independent final report for the SDC.

Ms. Mandy Lao co-ordinated the work from data collection to data analysis as well as oversees the work of Qualitative and Quantitative Teams. She was also responsible for gathering all qualitative data and creating the analytical framework, while preparing monthly progress reports for the SDD and handing the key translation work.

Mr. Samson Lee was responsible for overseeing data entry and processing to ensure a smooth and accurate data input throughout the whole process.

Ms. Jenny Lee was responsible for quantitative data processing and analysis.

Mr. Adam Cheung was responsible for qualitative data coding and analysis.

Ms. Olivia Chong was responsible for recording of public feedback during the engagement process.

## Appendix 2

List of Engagement Seminars, Briefings and Forums Organized by the SDC and/or Co-organized with its Partner Organizations

### List of Engagement Events Organized by the SDC and/or Co-organized with its Partner Organization

I. 3 thematic engagement sessions with about 230 participants, including members of the public, District Council members, civil servants, as well as representatives from NGOs and corporations:

25 July 2007	Engagement Session on Demand Side Management
15 Aug 2007	Engagement Session on Road Pricing
25 Aug 2007	Engagement Session on "High Air Pollution" Days

## II. 25 engagement events co-organized by the SDC and its partner organizations involving about 3,100 participants:

15 June 2007	Breakfast Meeting organized by the Employers' Federation of
15 June 2007	Hong Kong
29 June 2007	Briefing for Business Coalition on the Environment and
29 Julie 2007	
	international chambers of commerce organized by Hong Kong
4.1.1.2007	General Chamber of Commerce
4 July 2007	Roundtable Luncheon organized by Hong Kong General
( I I 2007	Chamber of Commerce
6 July 2007	School forum organized by Anglican (HK) Secondary School
	Council
20 July 2007	Briefing for frontline housing managers organized by Hong
	Kong Housing Authority
8 Aug 2007	Workshop for primary school students organized by Hong
	Kong Baptist University
15 Aug 2007	Focus group discussion on "High Air Pollution" Days
	organized by the Family Planning Association of Hong Kong
21 Aug 2007	Focus group discussion on "Road Pricing" organized by the
	Family Planning Association of Hong Kong
22 Aug 2007	Focus group discussion on "Demand Side Management"
-	organized by the Family Planning Association of Hong Kong
23 Aug 2007	Seminar on Demand Side Management organized by the 30s
C	Group
23 Aug 2007	Focus group discussion on "High Air Pollution" Days
C	organized by the Family Planning Association of Hong Kong
28 Aug 2007	Focus group discussion on "Road Pricing" organized by the
U	Family Planning Association of Hong Kong
31 Aug 2007	Focus group discussion on "Demand Side Management"
	organized by the Family Planning Association of Hong Kong
7 Sept 2007	Study tour to Kowloon Motor Bus Company Limited organized
· ~ · · · · · · · · · · · · · · · · · ·	by Hong Kong General Chamber of Commerce
12 Sept 2007	Study tour to Air Quality Roadside Monitoring Station
	organized by Hong Kong General Chamber of Commerce
13 Sept 2007	Forum organized by the Employers' Federation of Hong Kong
15 Sept 2007	Forum for academia jointly organized by tertiary institutions
15 Sept 2007	i orum for academia jointry organized by tertiary institutions

22 Sept 2007	Seminar on 'High Air Pollution' Days and Road Pricing organized by the 30s Group				
3 Oct 2007	Forum organized by the University of Hong Kong				
5 Oct 2007	Youth Forum organized by the HK Federation of Youth Groups				
6 Oct 2007	Forum organized by Hong Kong People's Council for Sustainable Development				
6 Oct 2007	Zero Carbon Alliance Launching Day organized by Professional Green Building Council				
8 Oct 2007	Seminar for principals and teachers organized by Shun Tak Fraternal Association				
10 Oct 2007	Youth Forum organized by the HK Federation of Youth Groups				
12 Oct 2007	Seminar organized by Business Environment Council				

# III. 13 briefings for about 1,100 executives / members of professional/advisory bodies or corporations:

Briefing for the Wharf (Holdings) Limited
Briefing for the Hongkong Electric Company Limited
Briefing for Amway Hong Kong Limited
Luncheon Talk for Hong Kong and China Gas Company
Briefing for Li & Fung Ltd. and Jebsen & Co Ltd.
Seminar for the HSBC
Seminar for the HSBC
Briefing for Hong Kong Women Professionals & Entrepreneurs
Association
Briefing for the British Chamber of Commerce
Briefing for relevant Government advisory bodies
Briefing for the Chartered Institute of Logistics and Transport
in Hong Kong
Workshop for the Canadian Chamber of Commerce
Forum for various professional bodies organized by Hong
Kong Institution of Engineers

## IV. 7 briefings for about 1,400 students:

3 Sept 2007	Briefing for ESF Glenealy School
5-6 Sept 2007	Briefing for ESF Kennedy School
14 Sept 2007	Briefing for Yew Chung International School
17 Sept 2007	Briefing for ESF Renaissance College
21 Sept 2007	Briefing for ESF Bradbury School
24 Sept 2007	Briefing for German Swiss International School
5 Oct 2007	Briefing for ESF Beacon Hill School

Appendix 3

**Bilingual Feedback Form** 

#### 請填寫意見並交回本小冊子 Please fill in your comments and return this pamphlet to us.

#### A. 個人資料 Demographic

1. 性別:

Record Gender:

- □ 男 Male
- □ 女 Female
- 2. 年齡:

How old are you:

- □ < 18
- 🗆 19 29
- 30 49
- □ 50 59
- □ 60 +

3. 就業情況:

What is your occupational status?

- □ 僱員 Employees
- □ 僱主 Employers
- □ 自僱 Self-employed
- □ 待業 跳到第 5題 Unemployed Skip to Question 5
- □ 學生 跳到第 5題 Student Skip to Question 5
- □ 家庭主婦 跳到第5題 Home-makers Skip to Question 5
- □ 退休人士 跳到第 5 題 Retirees Skip to Question 5
- □ 其他 (請説明) Others (please specify) \_\_

#### 從事行業:

What industry you are working in?

- 口 政府 Government
- □ 非政府機構 NGOs
- □ 教育界 Education
- □ 環保業 Environmental
- □ 電力行業 Power
- □ 運輸業 Transport
- □ 製造業 Manufacturing
- □ 服務業 Services
- □ 其他私營界別 Other private sector
- □ 其他 Others
- 5. 居住地方:
  - Where do you live?
  - □ 香港 Hong Kong
  - □ 內地 Mainland
  - □ 海外 Overseas

#### B.「高度空氣污染」日子的警示 High Air Pollution Day Alerts

- 我們應否有一個較現行更主動積極的「高度空氣污染」日子的警示?
   Should we have a more active response to high air pollution day alerts than we do currently?
  - □ 應該 Yes
  - □ 不應該 No
- 當局應採用哪種警示系統,以顯示空氣質素的安全程度?
   What sort of alert system should be used to identify how safe the air quality is?

- □ 顏色識別系統,例如紅色表示空氣污染達嚴重程度 Colour-coding scheme, eg. red colour for serious level
- □ 數字識別系統,例如現時實行的颱風訊號系統 Number-coding scheme, e.g. existing scheme for typhoon
- 符號識別系統,例如停止符號表示空氣污染達嚴重程度
   Symbol-coding scheme, e.g. stop sign for serious level
- □ 沿用現行的空氣污染指數系統 Use of the current system
- □ 其他 (請説明) Others (please specify)
- 在「高度空氣污染」日子, 當局應提前多久向市民發出「高度空氣污染」日子的警示(假設提前警示的時間愈早,準確性愈低)? How long before a high air pollution alert day should a notice be issued (assuming that longer notice would be less accurate)?
  - □ 24 小時以前通知 More than 24 hours' notice
  - □ 24 小時通知 24 hours' notice
  - □ 在午夜或以前(00:00) By midnight (00:00)
  - □ 在當日上午6時或以前 By 6 a.m. of that day
  - □ 其他 (請説明) Others (please specify) \_
- 在「高度空氣污染」日子,哪些由政府舉辦的戶外活動應被取消?
   On high air pollution alert days, what sort of outdoor events organised by the Government should be cancelled?
  - □ 所有戶外活動 All outdoor events
  - □ 所有涉及大量群眾參與的活動,例如戶外音樂會 All events involving large crowds such as outdoor concerts
  - 所有涉及體力消耗的活動,例如運動會
     All events involving physical activity such as sports days
  - □ 以上各項皆不是 None at all
- 10. 在「高度空氣污染」日子,哪些由私人機構舉辦的戶外活動應被 取消?

On high air pollution alert days, what sort of outdoor events organised by the private sector should be cancelled?

- □ 所有戶外活動 All outdoor events
- □ 所有涉及大量群眾參與的活動,例如戶外音樂會 All events involving large crowds such as outdoor concerts
- 所有涉及體力消耗的活動,例如運動會
   All events involving physical activity such as sports days
- □ 以上各項皆不是 None at all

除了警示系統、可能的強制性行動和教育工作外,在「高度空氣污染」日子,我們應作出什麼相應的行動?你可選擇多於一項。
 In addition to warnings, possible mandated actions and education, what should we do on a high air pollution day? You may tick more than one box.

- □ 盡量使用公共車輛作為主要的交通工具 Use public transport as much as possible
- □ 盡量減少使用個人電器用品 Reduce use of personal electrical equipment as much as possible
- □ 按情況穿着合適的輕便衣服 Wear casual clothes as appropriate
- □ 按情況盡量留在家中工作 Work from home whenever as appropriate
- □ 其他 (請説明) Others (please specify) \_\_\_\_\_
- 12. 除了警示系統和教育工作外,在「高度空氣污染」日子,政府應採 取什麼相應的行動?你可選擇多於一項。

In addition to warnings and education, what should the Government do on a high air pollution day? You may tick more than one box.

- □ 要求政府僱員盡量使用公共車輛作為主要的交通工具 Require Government employees to use public transport as much as possible
- □ 要求政府僱員盡量減少使用電力推動或柴油推動的電器器材 Require Government employees to reduce use of electrical and diesel-powered equipment as much as possible

- 要求僱主容許健康狀況特殊的僱員,例如有呼吸系統毛病或心臟 病等僱員留在家中工作 Require employers to allow staff with special medical needs, like people with respiratory or heart diseases, to work from home
- □ 容許政府僱員按情況穿着合適的輕便衣服 Allow Government employees to wear casual clothes as appropriate
- 容許政府僱員按情況盡量留在家中工作
   Allow Government employees to work from home as appropriate
- □ 容許學校或高等學院讓學生盡量留在家中學習 Allow schools and tertiary institutions to let students study at home whenever possible
- 13. 僱主在「高度空氣污染」日子應有什麼相應的行動?你可選擇多於 一項。

What should employers do on a high air pollution day? You may tick more than one box.

- □ 要求僱員盡量使用公共車輛作為主要的交通工具 Require employees to use public transport as much as possible
- □ 要求僱員盡量減少使用電力推動或柴油推動的電器器材 Require employees to reduce use of electrical and diesel-powered equipment as much as possible
- 容許僱員按情況盡量留在家中工作
   Allow employees to work from home as appropriate
- □ 容許僱員按情況穿着合適的輕便衣服 Allow employees to wear casual clothes as appropriate
- □ 其他 (請説明) Others (please specify)\_

#### C. 道路收費 Road Pricing

14. 假如實施道路收費計劃,在哪些方面會對你帶來影響?你可選擇多 於一項。

If road pricing is introduced, in what ways would it affect you? You may tick more than one box.

- □ 作為司機 Motorist
- □ 作為乘搭巴士人士 Bus user
- □ 作為乘搭的士人士 Taxi user
- □ 作為乘搭小巴人士 Minibus user
- □ 作為送貨人士 Goods deliveries
- □ 其他 (請説明) Others (please specify) \_
- 15. 你有多同意/不同意道路收費應為政府政策之一,以處理香港空氣 污染的問題?

How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong?

- □ 非常同意 Strongly agree
- □ 同意 Agree
- 口 中立 Neutral
- □ 不同意 Disagree
- □ 非常不同意 Strongly disagree

16. 哪一項最重要的因素會令你反對道路收費的建議?

What single most important factor would lead you to oppose road pricing?

- □ 政府未能提供足夠可供選擇的路線 The Government is unable to provide sufficient alternative routes
- □ 其他交通工具的選擇並不足夠 There are insufficient alternative forms of transport
- □ 要付出高昂的額外交通費用 High additional transport costs
- □ 在繁忙時段對送貨服務帶來的影響 Impact on delivery services during peak hours
- □ 其他 (請説明) Others (please specify)\_
- □ 沒有任何因素會令我反對這項建議 No factor would lead me to oppose it

17. 你認為應以什麼因素作為決定道路收費的費用的根據?你可選擇多於 一項。

What factors do you support when determining the fees for road pricing? You may tick more than one box.

- □ 車輛污染物排放量 Pollution output of vehicle
- □ 行車時間/時段 Driving time/period
- □ 車輛行駛的區域 District driving in
- □ 為了私人目的而駕駛私家車 Private use
- □「高度空氣污染」日子 High air pollution days
- □ 其他 (請説明) Others (please specify)\_
- 18. 在考慮以上的因素後,哪類車輛應獲減收道路收費?你可選擇多於 一項。

What types of vehicles should be given reduced road pricing after accounting for the above? You may tick more than one box.

- □ 的士 Taxis
- □ 巴士 Buses
- □ 小巴 Minibuses
- □ 送貨車輛 Delivery service vehicles
- □ 殘疾人士車輛 Transport for the disabled
- □ 學校巴士 School buses
- □ 其他 (請説明) Others (please specify)\_
- □ 沒有任何車輛 None

19. 假如道路收費可以令空氣質素有某程度的改善,你會否支持為了社 會大眾的利益而增加整體的道路交通成本?

Would you support some increase in road transport costs for the community, if it led to a measurable improvement in air quality?

- □ 支持 Yes
- □ 不支持 No
- 20. 在個人層面上,你會作出什麼行動,以減少道路交通帶來的空氣污染?你可選擇多於一項。

What would you be prepared to do at a personal level to reduce air pollution from road transport? You may tick more than one box.

- □ 避免把車輛駛進收費區域 Avoid the priced zones
- □ 使用公共鐵路運輸系統 Use public rail
- □ 外出時盡量不駕駛私家車輛 Leave vehicle at home
- □ 步行或以自行車代步上班或到其他地方 Walk or cycle to work and elsewhere
- □ 其他 (請説明) Others (please specify) \_
- □ 沒有任何行動 None

## (假如實施道路收費,你會支持政府在開支或税收上有哪些方面的變動?你可選擇多於一項。

What changes in Government spending or taxes would you support, if road pricing is introduced? You may tick more than one box.

- □ 減燃料税 To reduce fuel tax
- □ 減道路税 To reduce road tax
- □ 撥款興建新的單車徑 To subsidise construction of new cycle lanes
- □ 撥款興建額外的道路 To subsidise construction of additional roads
- □ 撥款擴闊行人區及行人道 To subsidise widening of pedestrian areas and walkways
- 資助導致較少污染或道路擠塞的交通模式,例如以鐵路接駁貨櫃
   碼頭 To subsidise less polluted or congested forms of transport,
   e.g. rail to the container port
- □ 資助使用更環保的交通工具,例如混合動力車 To subsidise use of more environmentally friendly forms of transport, e.g. hybrid vehicles
- □ 其他 (請説明) Others (please specify) \_\_
- □ 無需任何變動 None

#### D. 用電需求管理/節約能源 Demand Side Management/Energy Saving

22.在個人層面上,你會作出什麼行動,以控制自己的能源需求或節約 能源?你可選擇多於一項。

What things would you be prepared to do at a personal level to manage your energy demand or save energy? You may tick more than one box.

- □ 勸諭你的家庭成員購買有能源效益標籤的家庭電器 Persuade your household to purchase energy efficient household appliances
- 關掉不必要的電燈及冷氣 Turn off unnecessary lights and air conditioning
- □ 鼓勵親戚朋友採取有助能源效益及節約能源的措施 Encourage friends and relatives to adopt energy efficiency and conservation practices
- 二 盡量避免過度用電 Avoid excessive electricity usage wherever possible
- □ 以具能源效益的電燈泡取代現時的照明設備 Replace existing lighting with energy-efficient light bulbs
- □ 其他 (請説明) Others (please specify)
- 23. 你認為哪些項目應被強制執行,以控制能源的消耗?你可選擇多於 一項。

What things do you think should be mandatory to manage energy consumption? You may tick more than one box.

- □ 在馬路交通流量較低時關掉路面的街燈 Street lighting turned off when there is low traffic
- 在清晨時份關掉廣告燈光 Advertising lights turned off in the early morning
- 當沒有人在學校/工作辦公室時,關掉室內的電燈及冷氣
   School/office lighting and air conditioning should be switched off in
   empty offices
- 學校/辦公室的室溫在夏季應保持最低攝氏 25.5 度或以上
   School/office temperature should be maintained at 25.5 degrees or above in the summer
- □ 公司及機構應購買有能源效益標籤的辦公室設備 Purchase energy efficient office equipment in companies and corporations
- □ 所有政府部門應購買有能源效益的辦公室設備 Purchase energy efficient office equipment in all Government departments
- □ 建築設計及建造工程應採用環保措施 Use environmentally friendly practices in building design and construction
- □ 以具能源效益的電燈泡取代現時的照明設備 Replace existing lighting with energy-efficient light bulbs
- □ 其他(請説明)Others (please specify)\_
- 24. 你會支持推行什麼政策,以達到更大的能源效益?你可選擇多於 一項。

What policies would you support to encourage greater energy efficiency? You may tick more than one box.

- □ 在非用電高峰期向用電者收取較便宜的電費 Cheaper off-peak electricity for consumers
- □ 為能夠達到節能目標的物業管理人發放獎勵 Incentives for building managers who achieve energy performance targets
- □ 為能夠設計出能源效益出眾的建築物的專業人士發放獎勵 Incentives to professionals who design buildings with superior energy performance
- □ 其他 (請説明) Others (please specify)\_

Appendix 4

## **One-way Frequency Tables for Feedback Form**

## Sample size: 81,112 (in total)

### A. Demographics

#### Form type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Teleform (public)	3501	4.3	4.3	4.3
	Teleform (student)	9534	11.8	11.8	16.1
	Pamphlet	45708	56.4	56.4	72.4
	Online	22369	27.6	27.6	100.0
	Total	81112	100.0	100.0	

#### Q1. Gender:

		Frequency	Percent	Valid Percent	Cumulative Percent
		riequency	Teleent	valiu i ciccin	releem
Valid	Male	35935	44.3	46.8	46.8
	Female	40852	50.4	53.2	100.0
	Total	76787	94.7	100.0	
Missing	Missing answer	4325	5.3		
Total		81112	100.0		

#### Q2. How old are you? (recoded)

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	<=18	38261	47.2	49.9	49.9
	19-29	13732	16.9	17.9	67.8
	30-49	18643	23.0	24.3	92.0
	50-59	4484	5.5	5.8	97.9
	60+	1617	2.0	2.1	100.0
	Total	76737	94.6	100.0	
Missing	Missing answer	4375	5.4		
Total		81112	100.0		

\*In Q2, we assumed that respondents who completed the student teleform are aged 18 or below.

#### Q2 (student). What is your class level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary 1 to 6	180	.2	1.9	1.9
	Secondary 1 to 3	4683	5.8	50.5	52.4
	Secondary 4 to 6	4412	5.4	47.6	100.0
	Total	9275	11.4	100.0	
Missing	Not applicable	71784	88.5		
	Missing answer	53	.1		
	Total	71837	88.6		
Total		81112	100.0		

\* About 10 respondents are secondary 7, their class levels are regarded as the category "Secondary 4 to 6".

#### Q3. What is your occupational status? (recoded)

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Employees	20472	25.2	26.8	26.8
	Employers	1031	1.3	1.4	28.2
	Self-employed	1480	1.8	1.9	30.1
	Unemployed	853	1.1	1.1	31.3
	Students	46085	56.8	60.4	91.7
	Home-makers	4888	6.0	6.4	98.1
	Retirees	1444	1.8	1.9	100.0
	Others	3	.0	.0	100.0
	Total	76256	94.0	100.0	
Missing	Missing answer	4856	6.0		
Total		81112	100.0		

#### Q4. What industry you are working in?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Government	4029	5.0	17.4	17.4
	NGOs	2074	2.6	9.0	26.4
	Education	3143	3.9	13.6	40.0
	Environmental	255	.3	1.1	41.1
	Power	1018	1.3	4.4	45.5
	Transport	1483	1.8	6.4	51.9
	Manufacturing	1368	1.7	5.9	57.8
	Services	4944	6.1	21.4	79.1
	Other private sector	2572	3.2	11.1	90.3
	Others	2255	2.8	9.7	100.0
	Total	23141	28.5	100.0	
Missing	Not applicable	53131	65.5		
	Missing answer	4840	6.0		
	Total	57971	71.5		
Total		81112	100.0		

#### Q5. Where do you live?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Hong Kong	65435	80.7	98.4	98.4
	Mainland	591	.7	.9	99.3
	Overseas	494	.6	.7	100.0
	Total	66520	82.0	100.0	
Missing	Not applicable	9534	11.8		
	Missing answer	5058	6.2		
	Total	14592	18.0		
Total		81112	100.0		

## **B. High Air Pollution Day Alerts**

Que should we have a more derive response to mgn an ponution day aferts than we do et							
					Cumulative		
		Frequency	Percent	Valid Percent	Percent		
Valid	Yes	71679	88.4	94.5	94.5		
	No	4138	5.1	5.5	100.0		
	Total	75817	93.5	100.0			
Missing	Missing answer	5295	6.5				
Total		81112	100.0				

#### Q6. Should we have a more active response to high air pollution day alerts than we do currently?

#### Q7. What sort of alert system should be used to identify how safe the air quality is?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Colour-coding scheme, e.g. red colour for serious level	36739	45.3	49.4	49.4
	Number-coding scheme, e.g. existing scheme for typhoon	21939	27.0	29.5	78.8
	Symbol-coding scheme, e.g. stop sign for serious level	5158	6.4	6.9	85.8
	Use of the current system	10342	12.8	13.9	99.7
	Others	257	.3	.3	100.0
	Total	74435	91.8	100.0	
Missing	More than 1 answer	1568	1.9		
	Missing answer	5109	6.3		
	Total	6677	8.2		
Total		81112	100.0		

#### Q7. What sort of alert system should be used to identify how safe the air quality is? (Others)

			D	Valid	0 1.0
		Frequency	Percen t	Percen	Cumulativ e Percent
Valid	Use of cartoon / human figure	36	.0	14.0	14.0
v anu	Alphabets coding scheme				
		12	0.	4.7	18.7
	Scale coding scheme, e.g. high - low, good - bad	13	0.	5.1	23.7
	Class or grade coding scheme, e.g. class I, II, III	10	0.	3.9	27.6
	Picture coding scheme, e.g. use of any graphic images	13	.0	5.1	32.7
	Number & symbol coding scheme	10	.0	3.9	36.6
	Colour & number coding scheme	65	.1	25.3	61.9
	Symbol & colour coding scheme	11	.0	4.3	66.1
	Colour & number & symbol coding scheme	6	.0	2.3	68.5
	All 4 listed coding systems	14	.0	5.4	73.9
	Current scheme and color coding scheme	8	.0	3.1	77.0
	Current scheme and symbol coding scheme	2	.0	.8	77.8
	Cartoon or human figure and colour coding scheme	1	.0	.4	78.2
	Cartoon or human figure, picture and scale coding scheme	1	.0	.4	78.6
	Number, cartoon or human figure, scale & colour coding scheme	1	.0	.4	79.0
	Following international standards, e.g. European standard, USA standard	36	.0	14.0	93.0
	Reporting real figures of pollutants	8	.0	3.1	96.1
	Use Pollutants Standards Index (PSI)	2	.0	.8	96.9
	Modification on the current coding scheme	2	.0	.8	97.7
	Kind of new or creative coding system	6	.0	2.3	100.0
	Total	257	.3	100.0	
Missing	System	80855	99.7		
Total		81112	100.0		

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than 24 hours' notice	17156	21.2	22.6	22.6
	24 hours' notice	21810	26.9	28.7	51.4
	By midnight (00:00)	6029	7.4	7.9	59.3
	By 6 a.m. of that day	30027	37.0	39.6	98.9
	Others	859	1.1	1.1	100.0
	Total	75881	93.6	100.0	
Missing	More than 1 answer	513	.6		
	Missing answer	4718	5.8		
	Total	5231	6.4		
Total		81112	100.0		

Q8. How long before a high air pollution alert day should a notice be issued (assuming that longer notice would be less accurate)?

\*In Q8, if any 2 or more options among the first 4 options were chosen, we use the lowest option as the answer.

Q8. How long before a high air pollution alert day should a notice be issued (assuming that longer notice would be	)e
less accurate)? (Others)	_

				Valid	Cumulativ
		Frequency	Percent	Percent	e Percent
Valid	72 hours' notice	3	.0	.3	.3
	12 hours' notice	64	.1	7.5	7.8
	More than 12 hours' notice	2	.0	.2	8.0
	10 hours' notice	5	.0	.6	8.6
	8 hours' notice	8	.0	.9	9.5
	6 hours' notice	34	.0	4.0	13.5
	4 hours' notice	17	.0	2.0	15.5
	2 hours' notice	52	.1	6.1	21.5
	5 hours' notice	7	.0	.8	22.4
	3 hours' notice	25	.0	2.9	25.3
	1 hour' notice	23	.0	2.7	27.9
	48 hours' notice	9	.0	1.0	29.0
	Few hours' notice	1	.0	.1	29.1
	15 min.s' notice	1	.0	.1	29.2
	By 7 pm	4	.0	.5	29.7
	By 8pm	3	.0	.3	30.0
	By 9pm	5	.0	.6	30.6
	By 10pm	1	.0	.1	30.7
	By 11pm	1	.0	.1	30.8
	Ву брт	5	.0	.6	31.4
	Prior night	3	.0	.3	31.8
	By 3pm	1	.0	.1	31.9
	By 4am	11	.0	1.3	33.2
	By 5am	9	.0	1.0	34.2
	By 7am	33	.0	3.8	38.1
	By 8am	40	.0	4.7	42.7
	By 9am	10	.0	1.2	43.9
	By 10am	2	.0	.2	44.1
	At morning	2	.0	.2	44.4
	By 12:00 noon	28	.0	3.3	47.6
	By 3pm	5	.0	.6	48.2
	At afternoon	2	.0	.2	48.4
	Immediate notice	143	.2	16.6	65.1
	At the time of weather report	17	.0	2.0	67.1
	After news report	36	.0	4.2	71.2
	At evening and morning	13	.0	1.5	72.8
	AM and PM	15	.0	1.7	74.5
	Regular notice	84	.1	9.8	84.3
	At morning, afternoon & night	27	.0	3.1	87.4

	Before going to work or school	8	.0	.9	88.4
	Every Saturday or Sunday	1	.0	.1	88.5
	News report in the morning	5	.0	.6	89.1
	At morning & noon	4	.0	.5	89.5
	As soon as possible	10	.0	1.2	90.7
	Day time	1	.0	.1	90.8
	At the time of weather report and news report	2	.0	.2	91.0
	Same as now	1	.0	.1	91.2
	All 4 listed time are feasible, i.e. more than 24				
	hours' notice, 24 hours' notice, by mid-might, by 6	8	.0	.9	92.1
	am of that day)				
	24 hours' notice or By 6am of that day	1	.0	.1	92.2
	By 6am and 3 hours' notice	1	.0	.1	92.3
	By 6am and 6pm	1	.0	.1	92.4
	1 day before	8	.0	.9	93.4
	2 days before	5	.0	.6	93.9
	3 days before	9	.0	1.0	95.0
	7 days before	13	.0	1.5	96.5
	A month before	2	.0	.2	96.7
	2 months before	1	.0	.1	96.9
	No notice required	27	.0	3.1	100.0
	Total	859	1.1	100.0	
Missing	System	80253	98.9		
Total	-	81112	100.0		

#### Q9. On high air pollution alert days, what sort of outdoor events organised by the Government should be cancelled?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All outdoor events	17634	21.7	23.1	23.1
	All events involving large crowds such as outdoor concerts	17804	21.9	23.3	46.4
	All events involving physical activity such as sports days	29870	36.8	39.1	85.5
	None at all	11060	13.6	14.5	100.0
	Total	76368	94.2	100.0	
Missing	Missing answer	4744	5.8		
Total		81112	100.0		

\*In Q9, if any 2 or more options among the first 3 options were chosen, we use the highest option as the answer.

Q10. On high air pollution alert days, what sort of outdoor events organised by the private sector should l	be
cancelled?	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All outdoor events	17576	21.7	23.0	23.0
	All events involving large crowds such as outdoor concerts	17854	22.0	23.4	46.4
	All events involving physical activity such as sports days	27831	34.3	36.5	82.9
	None at all	13091	16.1	17.1	100.0
	Total	76352	94.1	100.0	
Missing	Missing answer	4760	5.9		
Total		81112	100.0		

\*In Q10, if any 2 or more options among the first 3 options were chosen, we use the highest option as the answer.

Q11. In addition to warnings, possible mandated actions and education, what should we do on a high air pollution day? You may tick more than one box.

### **Multiple Response**

Case Summary							
	Cases						
	Valid		Missing		Total		
	Ν	Percent	Ν	Percent	Ν	Percent	
\$q11(a)	76361	94.1%	4751	5.9%	81112	100.0%	
D' 1	. 1	1 . 1 . 1	1				

a Dichotomy group tabulated at value 1.

\$q11 Frequencies							
		Resp	onses	Percent of			
		Ν	Percent	Cases			
Q11. In addition to warnings, possible	Use public transport as much as possible	58378	40.7%	76.5%			
mandated actions and education, what should we do on a	Reduce use of personal electrical equipment as much as possible	25582	17.8%	33.5%			
high air pollution day? You may tick	Wear casual clothes as appropriate	27573	19.2%	36.1%			
more than one box.(a)	Work from home whenever as appropriate	31005	21.6%	40.6%			
	Others	889	.6%	1.2%			
Total		143427	100.0%	187.8%			

a Dichotomy group tabulated at value 1.

Q11. In addition to warnings, possible mandated actions and education, what should we do on a high air pollution day? You may tick more than one box. (Others)

## **Multiple Response**

	Case Summary							
		Cases						
		Valid		Missing		Total		
		Ν	Percent	Ν	Percent	Ν	Percent	
\$c	q11(a)	889	1.1%	80223	98.9%	81112	100.0%	

a Group

#### \$q11 Frequencies

		Resp	onses	Percent of Cases
		Ν	Percent	
Q11. In	Use walking to replace the use of motor vehicles	13	1.4%	1.5%
addition to	Encourage cycling to replace the use of motor vehicles	10	1.1%	1.1%
warnings,	Use transit railway as main public transport	16	1.7%	1.8%
possible	Reduce the use of all types of transport	15	1.6%	1.7%
mandated	Reduce use of private vehicles	24	2.5%	2.7%
actions and	Turn off engine when not using	13	1.4%	1.5%
education, what	Use environmentally-friendly vehicles / vehicles which cause less air pollution	11	1.2%	1.2%
should we	Use ferry	1	.1%	.1%
do on a high air	Flexible working hours whenever appropriate to reduce the no. of vehicles on the road during peak hour	1	.1%	.1%
pollution day?	Reduce use of air conditioner or turn the air conditioner at 25 degree	140	14.8%	15.7%
	Reduce use of lightings	12	1.3%	1.3%
	Reduce energy consumption	29	3.1%	3.3%
	Turn off electrical appliance when not using	1	.1%	.1%
	Use of energy efficient products	9	1.0%	1.0%

Reduce use of public electrical equipment as much as	1	.1%	.1%
possible	1	.170	.1 70
Reduce the use of spray	17	1.8%	1.9%
Reduce the use of any pollution products	6	.6%	.7%
Reduce the use of plastic bags	8	.8%	.9%
Not or reduce smoking	45	4.8%	5.1%
Be conscious to indoor air pollution	1	.1%	.1%
Reduce all actions which causes pollution	10	1.1%	1.1%
Be conscious to personal health condition	7	.7%	.8%
Avoid going outdoor if having respiratory disease / for	22	2.20/	2.50
elderly or children	22	2.3%	2.5%
Elderly should be more cautions to their health	4	.4%	.4%
Reduce violent exercise or physical activities	20	2.1%	2.2%
Be conscious to health condition of elderly / children / those	13	1.4%	1.5%
people who have respiratory problem	4	40/	10/
Reduce smoking at outdoor places	4	.4%	.4%
Reduce or prohibit outdoor working	13	1.4%	1.5%
Avoid outdoor activities or stay indoor if possible	137	14.5%	15.4%
Prevent visiting high pollution district / avoid crowd area	25	2.6%	2.8%
Students take a day off and stay at home	86	9.1%	9.7%
Do not stay long on street	2	.2%	.2%
Wear masks	103	10.9%	11.6%
People take a day off or early leave whenever as appropriate	34	3.6%	3.8%
Close window or door	3	.3%	.3%
Use of air filter	6	.6%	.7%
Leave HK	2	.2%	.2%
Stay or take rest in a place where have better air quality	13	1.4%	1.5%
Drink more water	3	.3%	.3%
Ask the government to take action to tackle the air pollution problem	3	.3%	.3%
Complain to those companies or industries which produce much air pollution	2	.2%	.2%
No action required	60	6.3%	6.7%
Total	945	100.0%	106.3%
	-		

Q12. In addition to warnings and education, what should the Government do on a high air pollution day? You may tick more than one box.

## **Multiple Response**

Case Summary							
	Cases						
	Valid		Missing		Total		
	Ν	Percent	Ν	Percent	Ν	Percent	
\$q12(a)	76981	94.9%	4131	5.1%	81112	100.0%	

a Dichotomy group tabulated at value 1.

	\$q12 Fre	equencies		
		Respo	onses	Percent of
		Ν	Percent	Cases
Q12. In addition to warnings and education, what should the	Require Government employees to use public transport as much as possible	49310	24.5%	64.1%
Government do on a high air pollution day? You may tick more than one box.(a)	Require Government employees to reduce use of electrical and diesel-powered equipment as much as possible	36949	18.3%	48.0%
	Require employers to allow staff with special medical needs, like people with respiratory or heart diseases, to work at home	39445	19.6%	51.2%
	Allow Government employees to wear casual clothes as appropriate	29856	14.8%	38.8%
	Allow Government employees to work from home as appropriate	19953	9.9%	25.9%
	Allow schools and tertiary institutions to let students study at home whenever possible	26143	13.0%	34.0%
Total	-	201656	100.0%	262.0%

a Dichotomy group tabulated at value 1.

## **Multiple Response**

Case Summary							
	Cases						
	Valid		Missing		Total		
	Ν	Percent	Ν	Percent	Ν	Percent	
\$q13(a)	76307	94.1%	4805	5.9%	81112	100.0%	

a Dichotomy group tabulated at value 1.

\$q13 Frequencies							
		Resp	onses	Percent of			
		Ν	Percent	Cases			
Q13. What should employers do on a high air pollution	Require employees to use public transport as much as possible	47743	31.3%	62.6%			
day? You may tick more than one box.(a)	Require employees to reduce use of electrical and diesel-powered equipment as much as possible	36583	24.0%	47.9%			
	Allow employees to work from home as appropriate	33817	22.2%	44.3%			
	Allow employees to wear casual clothes as appropriate	33662	22.1%	44.1%			
	Others	707	.5%	.9%			
Total		152512	100.0%	199.9%			

a Dichotomy group tabulated at value 1.

Q13. What should employers do on a high air pollution day? You may tick more than one box. (Others)

## **Multiple Response**

	Case Summary								
Cases									
		Valid		Missing		Total			
		Ν	Percent	Ν	Percent	Ν	Percent		
	\$q13(a)	707	.9%	80405	99.1%	81112	100.0%		

		Res	ponses	Percent of Cases
		Ν	Percent	
Q13. What	Arrange company bus service to staff	7	1.0%	1.0%
should	No taxi claims	1	.1%	.1%
employers	Encourage employees going to work by cycling	7	1.0%	1.0%
do on a	Reduce using vehicles	8	1.1%	1.1%
high air	Encourage employees to use rail transit	4	.6%	.6%
pollution	Encourage car-pool	3	.4%	.4%
day?	Require drivers to turn off engines when not using	5	.7%	.7%
	Encourage employees using ferry as much as possible	1	.1%	.1%
	Reduce use of air conditioner or turn the air conditioner at 25 degrees	88	12.2%	12.4%
	Use energy-save products	13	1.8%	1.8%
	Remind employees to save energy	9	1.2%	1.3%
	Require employees not smoking	12	1.7%	1.7%
	Pay attention to indoor air pollution	2	.3%	.3%

\$q13 Frequence	ies	
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I	Reduce work or activities that lead to a air pollution	5	.7%	.7%
	Be conscious to or alert employees with respiratory problems	11	1.5%	1.6%
	Allow employees with respiratory problem working from home / taking day off	79	10.9%	11.2%
	Special arrangement for employees with respiratory problems, e.g. shuttle bus	2	.3%	.3%
	Reduce or avoid the use of spray	1	.1%	.1%
	Reduce or avoid the use of plastic bags	1	.1%	.1%
	Raise employees' awareness on air pollution	6	.8%	.8%
	Ensure a healthy working environment	1	.1%	.1%
	Reduce outdoor work or activities as much as possible	62	8.6%	8.8%
	Reduce unnecessary construction work	2	.3%	.3%
	Avoid employees working in high pollution area	5	.7%	.7%
	Reduce outdoor working period	16	2.2%	2.3%
	Encourage employees working indoor	3	.4%	.4%
	Prohibit employees working outdoor	19	2.6%	2.7%
	Set up rest period for employees working	7	1.0%	1.0%
	Offer compensation to employees who working outdoor and high risk area	2	.3%	.3%
	Offer subsidies or reward to employees who work on that day	2	.3%	.3%
	Provide masks to employees or encourage	45	6.2%	6.4%
	Switch on or improve the air ventilation system	15	2.1%	2.1%
	Allow employees taking day off	141	19.5%	19.9%
	Allow employees to decide going to work or not	7	1.0%	1.0%
	Close window or door	1	.1%	.1%
	Reduce or avoid work which consumes much physical energy	6	.8%	.8%
	Allow employees to stay in a safe place	2	.3%	.3%
	Flexible working hours	25	3.5%	3.5%
	Reduce working hours	31	4.3%	4.4%
	Prohibit overtime work or working during night	1	.1%	.1%
	Ask the government to take action to tackle the air pollution problem	2	.3%	.3%
	No action required	64	8.8%	9.1%
Total	-	724	100.0%	102.4%

## **C. Road Pricing**

Q14. If road pricing is introduced, in what ways would it affect you? You may tick more than one box

## **Multiple Response**

	Case Summary								
	Cases								
	Valid		Missing		Total				
	Ν	Percent	Ν	Percent	Ν	Percent			
\$q14(a)	75836	93.5%	5276	6.5%	81112	100.0%			

a Dichotomy group tabulated at value 1.

\$q14 Frequencies							
		Respo N	onses Percent	Percent of Cases			
Q14. If road pricing is introduced, in what ways would it affect you? You may tick more than one box.(a)	Private vehicle user Bus user Taxi user Minibus user Goods deliveries Others	33526 49426 33287 35849 17928 1207	19.6% 28.9% 19.4% 20.9% 10.5% .7%	44.2% 65.2% 43.9% 47.3% 23.6% 1.6%			
Total		171223	100.0%	225.8%			

a Dichotomy group tabulated at value 1.

Q14. If road pricing is introduced, in what ways would it affect you? You may tick more than one box. (Others)

## **Multiple Response**

Case Summary								
	Cases							
	Valid		Missing		Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
\$q14(a)	1207	1.5%	79905	98.5%	81112	100.0%		

	\$q14 Frequencies			
		Resp	oonses	Percent of Cases
		Ν	Percent	
Q14. If road	MTR user	92	7.4%	7.6%
pricing is	KCR user	34	2.7%	2.8%
introduced,	Tram user	9	.7%	.7%
in what	Shuttle bus user	9	.7%	.7%
ways would	Company vehicle user	1	.1%	.1%
it affect you?	All passengers	146	11.7%	12.1%
you	Ferry user	6	.5%	.5%
	School bus passenger or student	5	.4%	.4%
	LRT user	19	1.5%	1.6%
	Increase driving cost	3	.2%	.2%
	Driver of the disable	2	.2%	.2%
	Private car owner	43	3.5%	3.6%
	Child-care bus owner	1	.1%	.1%
	All car owner	28	2.3%	2.3%
	School bus owner	6	.5%	.5%
	Increase delivery cost	9	.7%	.7%
	Goods receiver	3	.2%	.2%
	Car industry, e.g. car selling	6	.5%	.5%
	Public bus company	3	.2%	.2%

I	Public transport service provider	7	.6%	.6%
	All kinds of business	3	.2%	.2%
	Road user	71	5.7%	5.9%
	Retired people or elderly	2	.2%	.2%
	Tax payer	4	.3%	.3%
	Retail operator	4	.3%	.3%
	People with low class or income level	15	1.2%	1.2%
	Any people or all people	250	20.1%	20.7%
	Student	48	3.9%	4.0%
	Employer	7	.6%	.6%
	Pedestrian	22	1.8%	1.8%
	Parent	7	.6%	.6%
	Employee	4	.3%	.3%
	People who need to bear the road price burden	11	.9%	.9%
	Teacher	1	.1%	.1%
	Tourist	3	.2%	.2%
	People working outdoor	2	.2%	.2%
	Residents who live near railway	2	.2%	.2%
	Increase transportation fee	77	6.2%	6.4%
	No influence	279	22.4%	23.1%
Total		1244	100.0%	103.1%

a Group

## Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Strongly agree	11796	14.5	15.8	15.8
	Agree	19331	23.8	26.0	41.8
	Neutral	27451	33.8	36.9	78.7
	Disagree	9302	11.5	12.5	91.2
	Strongly disagree	6583	8.1	8.8	100.0
	Total	74463	91.8	100.0	
Missing	More than 1 answer	2529	3.1		
	Missing answer	4120	5.1		
	Total	6649	8.2		
Total		81112	100.0		

## Q16. What single most important factor would lead you to oppose road pricing?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The Government is unable to provide sufficient alternative routes	12482	15.4	18.6	18.6
	There are insufficient alternative forms of transport	8810	10.9	13.1	31.7
	High additional transport costs	33230	41.0	49.5	81.2
	Impact on delivery services during peak hours	3920	4.8	5.8	87.1
	Others	1144	1.4	1.7	88.8
	No factor would lead me to oppose it	7549	9.3	11.2	100.0
	Total	67135	82.8	100.0	
Missing	More than 1 answer	7825	9.6		
	Missing answer	6152	7.6		
	Total	13977	17.2		
Total		81112	100.0		

		Frequency	Percent	Valid Percent	Cumulative Percent
Q16.	Restrict choices of people	2	.0	Percent .2	Percent
What	Lack of environmentally friendly vehicle	2	.0	.2	• 4
single	choices that are using alternative fuel, e.g.	1	.0	.1	
most	LPG private vehicle	-			
importan	Shift the cost burden/ pressure to the public	67	.1	5.9	6.1
t factor	Significantly affect the livelihood of the	7	.0	.6	6.7
would	public	/	.0	.0	0.
lead you	Tax revenue collected from the public has	6	.0	.5	7.
to oppose	been used in roads construction	9	0	.8	8.
road	It should be free in using roads High administrative cost	22	.0 .0	.8 1.9	8. 10.
pricing?	It is an unfair practice	16	0. 0.	1.9	10.
	Increase in car rent	10	0. 0.	.1	11.
	Increase the cost of car owners	1	0. 0.	.1 .1	11.
	It is an excuse to increase government				
	revenue	10	.0	.9	12.
	Add cost to transport business	19	.0	1.7	14.
	Shift more people to mass public transport	12	.0	1.0	15.
	system that might				
	Uneven use of roads	15	.0	1.3	16.
	Negative impacts are more than positive	1	.0	.1	16.
	impacts Causes Inconvenience to public	34	.0	3.0	19.
	Affect employee's work commitment	2	.0 .0	.2	19.
	Adverse effects on economy	8	.0	.2	20
	Exposure of privacy	23	.0	2.0	20
	Strengthen social class segregation	10	.0	.9	22
	Might cause congestion at the charging zone	10	0. 0.	1.3	23
	Increase cost of living, might lead to				
	inflation	2	.0	.2	24
	Cause other problems	7	.0	.6	25
	Hinder business sector / retail operator	3	.0	.3	25.
	Road pricing cannot / may not solve the	234	.3	20.5	46
	problem of air pollution	234	.5	20.5	-10
	Road pricing is not the most effective way	128	.2	11.2	57
	to reduce air pollution				
	Not effective to rich people who can afford both the vehicle price and pollution cost /	114	.1	10.0	67.
	unfair to low income people	114	.1	10.0	07
	Road pricing cannot reduce the total no. of				
	vehicles on road, so it cannot reduce air	41	.1	3.6	70
	pollution				
	Shift the pollution / congestion to other	18	.0	1.6	72
	districts	10	.0	1.0	12
	Road pricing would not change the traveling	10	.0	.9	73
	pattern	-			
	More attention should be paid to the pollution from mainland	59	.1	5.2	78.
	Private vehicles / traffic are not the main				
	causes of pollution	103	.1	9.0	87.
	More attention should be paid to other	20	0	1.5	
	sources of air pollution	20	.0	1.7	89.
	Other works can be done before introducing				
	road pricing, e.g. setting up regulation &	6	.0	.5	89
	doing promotion for reducing air pollution				
	Government did not do well in reducing air	17	.0	1.5	91
	pollution or road planning	1/	.0	1.5	71
	Government should consider other	21	.0	1.8	93.
	alternatives / solutions	21	.0	1.0	15

Q16. What single most important factor would lead you to oppose road pricing? (Others)

	All the 4 listed factors (i.e. the government is unable to provide sufficient alternative routes, there are insufficient alternative forms of transport, high additional transport costs, impact on delivery services during peak hours)	22	.0	1.9	94.9
	High additional transport costs & causes inconvenience to the public	1	.0	.1	95.0
	Shift the cost burden to the public & road pricing cannot solve the problem of air pollution	2	.0	.2	95.2
	Shift the cost burden to the public & road pricing cannot solve the problem of air pollution	3	.0	.3	95.5
	Cannot reduce the total no. of vehicles on roads& private vehicles / traffic are not the main causes of pollutions	3	.0	.3	95.7
	Higher additional transportation costs & road pricing cannot solve the problem of pollution	1	.0	.1	95.8
	There are insufficient alternative forms of transport & impact on delivery services during peak hours	1	.0	.1	95.9
	The government is unable to provide sufficient alternative routes & there are insufficient alternative forms of transport	3	.0	.3	96.2
	Unclear about the detail of road pricing / the road pricing scheme is not well-defined, e.g. purpose	15	.0	1.3	97.5
	Impractical in HK / physical limitation in HK	6	.0	.5	98.0
	Unclear / concern about the usage of the collected fee	15	.0	1.3	99.3
	Do not have enough measure / system which can match the scheme, e.g. insufficient cycle lanes, parking & coverage of railways	8	.0	.7	100.0
	Total	1144	1.4	100.0	
Missing	System	79968	98.6		
Total		81112	100.0		

Q17. What factors do you support when determining the fees for road pricing? You may tick more than one box.

## **Multiple Response**

	Case Summary									
		Cases								
		Valid		Missing		Total				
		Ν	Percent	Ν	Percent	Ν	Percent			
I	\$q17(a)	75767	93.4%	5345	6.6%	81112	100.0%			

a Dichotomy group tabulated at value 1.

\$q17 Frequencies									
		Resp	onses Percent	Percent of Cases					
Q17. What factors do you support when determining the fees for road pricing? You may tick more than one box.(a)	Pollution output of vehicle Driving time/period District driving in Private use High air pollution days Others	49806 24968 21267 22990 23790 1073	34.6% 17.4% 14.8% 16.0% 16.5% .7%	65.7% 33.0% 28.1% 30.3% 31.4% 1.4%					
Total		143894	100.0%	189.9%					

a Dichotomy group tabulated at value 1.

Q17. What factors do you support when determining the fees for road pricing? You may tick more than one box. (Others)

## **Multiple Response**

Case Summary									
	Cases								
	Valid		Missing		Total				
	Ν	Percent	Ν	Percent	Ν	Percent			
\$q17(a)	1073	1.3%	80039	98.7%	81112	100.0%			

a Group

#### \$q17 Frequencies

		Resp	oonses	Percent of Cases
		Ν	Percent	
Q17. What	Vehicles enter highly congested zone	18	1.7%	1.7%
factors do	Vehicles enter highly polluted area	6	.6%	.6%
you support	Traffic density	16	1.5%	1.5%
when	Air quality	2	.2%	.2%
determining	The amount of trees in the area	1	.1%	.1%
the fees for	Length of road	5	.5%	.5%
road pricing?	Availability or convenience of public transport	1	.1%	.1%
	Vehicle which is not fully occupied	15	1.4%	1.4%
	No of passengers	66	6.1%	6.2%
	Necessity of using the vehicle	7	.6%	.7%
	Emergency situation	5	.5%	.5%
	Distance traveled	7	.6%	.7%
	Car pool	3	.3%	.3%
	Usage frequency	7	.6%	.7%
	Different types of transport vehicles have different fee scale, e.g. private car, buses, lorries, public transport	52	4.8%	4.8%
	Vehicle which causes air pollution should pay more, e.g. not turn off engine when stop, not use environmentally friendly fuel	29	2.7%	2.7%
	Size of vehicles	17	1.6%	1.6%

1	C.C. or horse power	16	1.5%	1.5%
	Seating capacity	3	.3%	.3%
	Price of vehicles	8	.7%	.7%
	Model of vehicles	7	.6%	.7%
	Brand of vehicles	1	.1%	.1%
	Type of engine	2	.2%	.2%
	Fuel consumption of the vehicles	5	.5%	.5%
	Aging of the vehicles	1	.1%	.1%
	People who can afford more should pay more, e.g. rich people	16	1.5%	1.5%
	Fuel price	3	.3%	.3%
	No. of car owned	2	.2%	.2%
	The ratio of population who own a car	1	.1%	.1%
	Occupation	1	.1%	.1%
	Charge only if vehicles no. using the road exceeds a certain limit	2	.2%	.2%
	Temperature	1	.1%	.1%
	No factors needed	65	6.0%	6.1%
	Do not support road pricing	695	64.0%	64.8%
Total		1086	100.0%	101.2%

a Group

Q18. What types of vehicles should be given reduced road pricing after accounting for the above? You may tick more than one box.

## **Multiple Response**

1	Case Summary										
		Cases									
		Valid		Missing		Total					
		Ν	Percent	Ν	Percent	Ν	Percent				
	\$q18(a)	75936	93.6%	5176	6.4%	81112	100.0%				

a Dichotomy group tabulated at value 1.

\$q18 Frequencies								
		Resp	onses	Percent of				
		Ν	Percent	Cases				
Q18. What types of	Taxis	18577	9.5%	24.5%				
vehicles should be	Buses	45939	23.4%	60.5%				
given reduced road	Minibuses	29096	14.8%	38.3%				
pricing after	Delivery service vehicles	15653	8.0%	20.6%				
accounting for the above? You may	Transport for the disabled	40974	20.9%	54.0%				
tick more than one	School buses	39130	19.9%	51.5%				
box.(a)	Others	2298	1.2%	3.0%				
0011(u)	None	4534	2.3%	6.0%				
Total		196201	100.0%	258.4%				

a Dichotomy group tabulated at value 1.

Q18. What types of vehicles should be given reduced road pricing after accounting for the above? You may tick more than one box. (Others)

## **Multiple Response**

#### Case Summary

		Cases						
	Valid		Missing		Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
\$q18(a)	2298	2.8%	78814	97.2%	81112	100.0%		

		Resp	onses	Percent of
		N	Percent	Cases
Q18. What	Tram	19	.8%	.8%
types of the	All means of public transport	92	3.9%	4.0%
vehicles	MTR or KCR or LRT	120	5.1%	5.2%
should be	Lorry/truck	36	1.5%	1.6%
given	Taxi without passenger	1	.0%	.0%
reduced	Taxi with passenger	3	.1%	.19
road pricing	Vehicles for business purposes	13	.6%	.69
accounting	Emergency vehicles	130	5.5%	5.7%
for the	Government vehicles	36	1.5%	1.69
above?	Vehicles for public use / public service	20	.9%	.99
	Tourist buses	31	1.3%	1.39
	Shuttle bus	5	.2%	.29
	Hearse	9	.4%	.49
	Vehicles which are necessary to use the road	1	.0%	.09
	Private cars	692	29.5%	30.19
	Private cars with EURO 3 standard	6	.3%	.39
	Environmentally friendly vehicles, e.g. low emission vehicles, hybrid vehicles, electric vehicles	334	14.2%	14.5%
	Bicycle	31	1.3%	1.39
	Vehicles occupied by at least a certain no. of passengers	27	1.1%	1.29
	All vehicles except government vehicles	2	.1%	.19
	Motor cycle	31	1.3%	1.39
	All except private car	8	.3%	.39
	Not air-conditioned vehicles	2	.1%	.19
	Cross-bounder vehicles	2	.1%	.19
	Non-Europe private car	1	.0%	.0%
	Vehicles with low fuel consumption	2	.1%	.19
	Vehicles with no passenger	1	.0%	.0%
	Carpooling vehicle	1	.0%	.0%
	Vehicles with good maintenance	3	.1%	.19
	All except lorry	1	.0%	.0%
	Private cars which are owned by people who live or who near the priced zone	1	.0%	.0%
	Private cars if no public transit near priced zone is available	2	.1%	.19
	Vehicle with a child	1	.0%	.0%
	Large vehicles	1	.0%	.0%
	Brand new car	2	.1%	.19
	Vehicles with large c.c.	1	.0%	.09
	Vehicles registered by social welfare institutes	10	.0%	.49
	Vehicles registered by non-profit making institutes	10	.4%	.6%
	Vehicles registered by hon-pront making institutes	8	.3%	.39
	Transport vehicle for elderly	13	.6%	.69
	Transport vehicle for children	4	.2%	.29
	Transport vehicle for people with special needs	5	.2%	.29

No charge among all vehicle users or Oppose road pricing	627	26.7%	27.3%
Total	2348	100.0%	102.2%

a Group

## Q19. Would you support some increase in road transport costs for the community, if it led to a measurable improvement in air quality?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	57642	71.1	76.5	76.5
	No	17673	21.8	23.5	100.0
	Total	75315	92.9	100.0	
Missing	Missing answer	5797	7.1		
Total		81112	100.0		

Q20. What would you be prepared to do at a personal level to reduce air pollution from road transport? You may tick more than one box.

## Multiple Response

	Case Summary							
	Cases							
	Valid N Percent		Missing		Total			
			Ν	Percent	Ν	Percent		
\$q20(a)	75544	93.1%	5568	6.9%	81112	100.0%		

a Dichotomy group tabulated at value 1.

\$q20 Frequencies								
		Resp	Percent of					
		Ν	Percent	Cases				
Q20. What would you	Avoid the priced zones	14743	10.8%	19.5%				
be prepared to do at a	Use public rail	53116	39.0%	70.3%				
personal level to	Leave vehicle at home	31405	23.1%	41.6%				
reduce air pollution from road transport?	Walk or cycle to work and elsewhere	33938	24.9%	44.9%				
You may tick more	Others	681	.5%	.9%				
than one box.(a)	None	2348	1.7%	3.1%				
Total		136231	100.0%	180.3%				

a Dichotomy group tabulated at value 1.

Q20. What would you be prepared to do at a personal level to reduce air pollution from road transport? You may tick more than one box. (Others)

## **Multiple Response**

Case Summary								
	Cases							
	Valid N Percent		Missing		Total			
			Ν	Percent	Ν	Percent		
\$q20(a)	681	.8%	80431	99.2%	81112	100.0%		

a Group

#### \$q20 Frequencies

		Responses		Percent of Cases
		Ν	Percent	
Q20. What	Avoid using vehicles when possible	18	2.6%	2.6%
would you	Turn off engine when stopping car	133	18.9%	19.5%
be	Use public transportation, like bus, mini-bus	199	28.3%	29.2%
prepared	Drive private car when more than a certain no. of passengers	4	.6%	.6%

to do at a personal	Use electric vehicle, hybrid vehicles or environmental friendly vehicle, e.g. vehicle with relatively smaller emission volume	124	17.7%	18.2%
level to	Check and repair vehicles to avoid release of pollutants	17	2.4%	2.5%
reduce air	Avoid using transport vehicle which causes much air pollution	17	2.4%	2.5%
pollution	Not buy private car	20	2.8%	2.9%
from road	Reduce using air-conditioner in vehicles	17	2.4%	2.5%
transport?	Car-pool	28	4.0%	4.1%
_	Use environmentally friendly fuel or use lead-free gasoline	18	2.6%	2.6%
	More planning on the traveling route to minimize the use of vehicles	4	.6%	.6%
	Avoid using transport vehicles during peak hours	3	.4%	.4%
	Not drive at high pollution day	1	.1%	.1%
	Use motor cycle	1	.1%	.1%
	Reduce going out at high air pollution day	4	.6%	.6%
	Reduce activities carried out at high pollution area	1	.1%	.1%
	Report or accuse vehicles released heavy pollutants	12	1.7%	1.8%
	Avoid the busy district or crowded area	2	.3%	.3%
	Encourage friends or relatives to take actions to reduce air pollution	23	3.3%	3.4%
	Reduce going out or stay at home if possible	38	5.4%	5.6%
	Work from home as appropriate	18	2.6%	2.6%
Total		702	100.0%	103.1%

a Group

Q21. What changes in Government spending or taxes would you support, if road pricing is introduced? You may tick more than one box.

## **Multiple Response**

1									
	Case Summary								
		Cases							
		Valid		Missing		Total			
		N Percent		Ν	Percent	Ν	Percent		
	\$q21(a)	75799	93.4%	5313	6.6%	81112	100.0%		

a Dichotomy group tabulated at value 1.

	\$q21 Fre	equencies		
		Respo	onses	Percent of
		Ν	Percent	Cases
Q21. What	To reduce fuel tax	28934	15.0%	38.2%
changes in	To reduce road tax	22213	11.5%	29.3%
Government spending or	To subsidise construction of new cycle lanes	23632	12.3%	31.2%
taxes would you support, if	To subsidise construction of additional roads	16687	8.7%	22.0%
road pricing is introduced? You may tick more than one box.(a)	To subsidise widening of pedestrian area and walkways	27045	14.1%	35.7%
	To subsidise less polluted or congested forms of transport, e.g. rail to the container port	28634	14.9%	37.8%
	To subsidise use of more environmentally friendly forms of transport, e.g. hybrid vehicles	41343	21.5%	54.5%
	Others	1053	.5%	1.4%
	None	2899	1.5%	3.8%
Total		192440	100.0%	253.9%

a Dichotomy group tabulated at value 1.

Q21. What changes in Government spending or taxes would you support, if road pricing is introduced? You may tick more than one box. (Others)

## Multiple Response

	Case Summary							
		Cases						
	Valid		Missing		Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
\$q21(a)	1053	1.3%	80059	98.7%	81112	100.0%		
-								

a Group

#### \$q21 Frequencies

		Respo	onses	Percent of
		N	Percent	Cases
Q21. What	Green roof of buildings	8	.7%	.8%
changes in	Green building walls	8 2	.7%	.8%
Government	Green pedestrian walkway or roadsides	37	3.3%	3.5%
spending or	Increase plantation in urban districts or green urban area	22	2.0%	2.1%
taxes would	Plant more trees	48	4.3%	4.6%
you support,	Enhance greening	40 30	4.3% 2.7%	2.8%
if road	Plant more trees at polluted or congested area	30 4	.4%	.4%
pricing is	More parks	4	.4%	.4%
introduced?	Subsidize use of environmentally-friendly forms of	0	.570	.070
	transport, e.g. hybrid vehicles	23	2.1%	2.2%
	Subsidize people who travels by public transport	25	2.3%	2.4%
	Subsidize people who davels by public datisport	6	.5%	.6%
	Introduce electric bicycles	3	.3%	.3%
	Subsidize replacing vehicles by environmental-friendly	_		
	vehicles, e.g. convert buses into electric vehicles	27	2.4%	2.6%
	Subsidize the research or development of technology to			
	reduce air pollution, e.g. renewable energy,	10	1.0.1	
	environmentally-friendly products / measures / vehicles /	48	4.3%	4.6%
	fuel			
	Subsidize public transport routes which make loss under	0	90/	00/
	the road pricing scheme	9	.8%	.9%
	Offer reward or discount to people who use walking,	27	2.4%	2.6%
	cycling and railway transit as transport mean	27	2.4%	2.0%
	Subsidize construction of parking space of bicycle	17	1.5%	1.6%
	Subsidize driver or driver who need to pay for the road	2	.2%	.2%
	pricing			
	Subsidize increasing ferry service	1	.1%	.1%
	Subsidize environmental protection measures / industry	2	.2%	.2%
	Subsidize prosecution of vehicles which causes much air	6	.5%	.6%
	pollution / not turn off engine when stop	-		
	Subsidize improvement on air ventilation system in bus	1	.1%	.1%
	stop, parking area and tunnel	2	20/	20/
	Subsidize providing more recreational facilities Subsidize cleaner power generation	32	.3% .2%	.3% .2%
	Provide subsidies (to students or needy)	11	.2% 1.0%	.2% 1.0%
	Subsidize improving the overall public transportation	11	1.0%	1.0%
	system in HK	7	.6%	.7%
	Subsidize the cross harbor tunnels to ma	1	.1%	.1%
	Extend construction of railway network to other districts	46	4.2%	4.4%
	Review and extend the coverage of the tramlines	-10	.6%	.7%
	Build windmill	1	.1%	.1%
	More construction of covered walkways	6	.5%	.6%
	More system or constructions which use natural energy			
	such as solar energy	5	.5%	.5%
	More construction of footbridge	7	.6%	.7%
	Introduce or construct huge vacuum cleaner or air filter	7	.6%	.7%

	Improve the construction or connection of walkways, cycle lanes and roads	8	.7%	.89
	More construction of walkways or pedestrian only zones	10	.9%	.99
	Construction of underground walkways or subways	7	.6%	.79
	Construction of escalators, e.g. escalator in Central	3	.3%	.39
	Construction of elevated roads	4	.4%	.49
	Reduce fuel tax of vehicles of public uses	7	.6%	.79
	Reduce salary tax	19	1.7%	1.8
	Reduce tax for affected industry, e.g. bus company	10	.9%	.9
	Reduce fuel tax of public transports that meet the emission standard or use clear fuel	13	1.2%	1.2
	Reduce road tax of public transport vehicle	4	.4%	.4
	Reduce import duty for environmentally-friendly vehicle, e.g. electric bikes or hybrid vehicles	8	.7%	.8
	Reduce tax (fuel tax or road tax) for drivers who use environmentally-friendly vehicles	3	.3%	.3
	Reduce tax	29	2.6%	2.8
	Increase resources in environmental-protection education	18	1.6%	1.7
	More promotion and encouragement to public for performing actions to reduce air pollution	37	3.3%	3.5
	Promotion on cycling	7	.6%	.7
	Reduce public transportation fee	30	2.7%	2.8
	Reduce vehicles registration fee or license fee	19	1.7%	1.8
	Reduce tunnel fee	7	.6%	.7
	Oppose road pricing	407	36.8%	38.7
otal		1107	100.0%	105.1

### D. Demand Side Management / Energy Saving

Q22. What things would you be prepared to do at a personal level to manage your energy demand or save energy? You may tick more than one box.

### **Multiple Response**

manp								
Case Summary								
		Cases						
	Valid		Missing		Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
\$q22(a)	79203	97.6%	1909	2.4%	81112	100.0%		

a Dichotomy group tabulated at value 1.

	\$q22 Free	quencies		
		Resp	onses	Percent of
		Ν	Percent	Cases
Q22. What things would you be prepared to do at a personal level to	Persuade your household to purchase energy efficient household appliances	49604	20.2%	62.6%
manage your energy demand or	Turn off unnecessary lights and air conditioning	63112	25.7%	79.7%
save energy? You may tick more than one box.(a)	Encourage friends and relatives to adopt energy efficiency and conservation practices	36053	14.7%	45.5%
	Avoid excessive electricity usage wherever possible	54321	22.2%	68.6%
	Replace existing lighting with energy-efficient light bulbs	41424	16.9%	52.3%
	Others	700	.3%	.9%
Total		245214	100.0%	309.6%

a Dichotomy group tabulated at value 1.

Q22. What things would you be prepared to do at a personal level to manage your energy demand or save energy? You may tick more than one box. (Others)

### Multiple Response

	Case Summary								
		Cases							
	Valid		Missing		Total				
	Ν	Percent	Ν	Percent	Ν	Percent			
\$q22(a)	700	.9%	80412	99.1%	81112	100.0%			

a Group

#### **\$q22 Frequencies**

		Responses		Percent of Cases
		Ν	Percent	
Q22. What	Turn off computers in office or at home when unnecessary	10	1.4%	1.4%
things	Stop or reduce using air conditioner	71	9.6%	10.1%
would	Turn off un-used or unnecessary electric appliances	50	6.8%	7.1%
you be	Reduce consuming energy	31	4.2%	4.4%

prepared to do at a	Keep indoor temperature to a certain level, e.g. at 25 degree	11	1.5%	1.6%
personal	Travel by public transport, e.g. bus	49	6.6%	7.0%
level to manage	Keep the temperature of air-conditioner as a certain level, e.g. 25 degree	13	1.8%	1.9%
your energy	Use solar or wind energy devices	25	3.4%	3.6%
demand or save	Use environmentally-friendly or energy efficient electrical appliances	13	1.8%	1.9%
energy?	Remove the power plugs for un-used electrical appliances	9	1.2%	1.3%
	Use environmentally-friendly vehicles, e.g. hybrid / electric vehicles	25	3.4%	3.6%
	Reduce traveling	9	1.2%	1.3%
	Reduce purchasing or using electrical products	3	.4%	.4%
	Reduce using public electrical facilities, e.g. lift	7	.9%	1.0%
	Turn off vehicle engine when waiting	6	.8%	.9%
	Reduce using private vehicle or taxi	16	2.2%	2.3%
	Reduce using water heater	10	1.4%	1.4%
	Car pool	3	.4%	.4%
	Reduce unnecessary construction work	1	.1%	.1%
	Not always switch on and off electrical	1	.1%	.1%
	Automatic sensor for electrical appliances	4	.5%	.6%
	Adopt energy saving flat design	4	.5%	.6%
	Avoid consume energy at peak hour	1	.1%	.1%
	Avoid using coal gas or petroleum gas	2	.3%	.3%
	Avoid using delivery services	1	.1%	.1%
	Use of clean energy	1	.1%	.1%
	Educate people about meaning of energy saving	7	.9%	1.0%
	Educate children the right concept or educate the next generation	17	2.3%	2.4%
	Advocate energy saving in office	4	.5%	.6%
	Join environmental improvement or protection activities and promotion / support environmental protection group	7	.9%	1.0%
	Use fan instead of air conditioner	41	5.5%	5.9%
	Use candle to replace light bulbs	3	.4%	.4%
	Use alternative energy	26	3.5%	3.7%
	Use manual operation equipment to replace electric	20	.3%	.3%
	operation			
	Use walking or cycling as a replacement	39	5.3%	5.6%
	Use natural resources instead, e.g. sunlight, wind Adopt simple life style, e.g. reduce consumption to save	18	2.4%	2.6%
	resources Wear proper or suitable clothing to reduce usage of	21	2.8%	3.0%
	air-conditioning	19	2.6%	2.7%
	Give suggestions to the government	3	.4%	.4%
	Enhance greening or plant more trees	24	3.2%	3.4%
	Reduce using disposable items or reuse or recycle	62	8.4%	8.9%
	Check electrical appliances regularly	2	.3%	.3%
	Record energy consumption pattern	6	.8%	.9%
	Do more outdoor activities	2	.3%	.3%
	Reduce material consumption and waste production	19	2.6%	2.7%
	Improve home interior design	1	.1%	.1%
	Reduce going outside or stay at home or work from home	5	.7%	.7%
	Set energy saving target at home or at work	2	.3%	.3%
	Go outside more often	4	.5%	.6%
	Make activities' area more concentrated	4	.1%	.1%
	None	29	3.9%	4.1%

a Group

Q23. What things do you think should be mandatory to manage energy consumption? You may tick more than one box.

## Multiple Response

	Case Summary							
		Cases						
	Valid		Missing		Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
\$q23(a)	79246	97.7%	1866	2.3%	81112	100.0%		

a Dichotomy group tabulated at value 1.

	\$q23 Frequ	encies		
		Respo	onses	Percent of
		Ν	Percent	Cases
Q23. What things do you think should be	Street lighting turned off when there is low traffic	24893	7.2%	31.4%
mandatory to manage energy consumption? You may tick more	Advertising lights turned off in the early morning	56542	16.5%	71.3%
than one box.(a)	School/office lighting and air conditioning should be switched off in empty offices	57249	16.7%	72.2%
	School/office temperature should be maintained at 25.5 degrees or above in the summer	36282	10.6%	45.8%
	Purchase energy efficient office equipment in companies and corporations	41569	12.1%	52.5%
	Purchase energy efficient office equipment in all Government departments	42673	12.4%	53.8%
	Use environmentally friendly practices in building design and construction	42616	12.4%	53.8%
	Replace existing lighting with energy efficient light bulbs	40445	11.8%	51.0%
	Others	1112	.3%	1.4%
Total		343381	100.0%	433.3%

a Dichotomy group tabulated at value 1

Q23. What things do you think should be mandatory to manage energy consumption? You may tick more than one box. (Others)

## Multiple Response

	Case Summary								
		Cases							
	Valid		Missing		Total				
	Ν	Percent	Ν	Percent	Ν	Percent			
\$q23(a)	1112	1.4%	80000	98.6%	81112	100.0%			

a Group

#### \$q23 Frequencies

		Responses		Percent of Cases
		Ν	Percent	Cases
Q23. What	Prohibit excessive use of lighting facilities	8	.6%	.7%
things do you	Restrict using street light on daytime, night & midnight	109	8.7%	9.8%
think should	Use auto-sensor lighting in subways & roads	20	1.6%	1.8%
be mandatory	Restrict advertising or decorative light	238	19.1%	21.4%
to manage	Reduce or stop the laser show or firework performance	37	3.0%	3.3%
energy	Use auto-sensor for public place's lifts	23	1.8%	2.1%
consumption?	Restrict use of light / air conditioner in public places such as shopping malls and libraries	77	6.2%	6.9%
	More green zone in city or roadside	32	2.6%	2.9%
	Use auto-sensor lighting in public area	11	.9%	1.0%
	Turn off electrical appliances such as light and	4	20/	40/
	air-conditioner in public areas such as libraries when closed	4	.3%	.4%
	Close part of public facilities during night / mid-night	1	.1%	.1%
	Adopt green management policy in government department	6	.5%	.5%
	/ companies to save electricity	0	.570	.570
	School or office temperature should be maintained at a certain level, e.g. 22/23/24 degrees	55	4.4%	4.9%
	Remove air-conditioning facilities or restrict using air-conditioners at school / office when not using	32	2.6%	2.9%
	Switch off electrical equipment at school / office when not using	12	1.0%	1.1%
	Use auto-sensor lighting at school or office	5	.4%	.4%
	More plants at office or school	2	.2%	.2%
	Restrict the energy consumption of companies	2	.2%	.2%
	Restrict building lightings at night	10	.8%	.9%
	Restrict unnecessary building lightings	14	1.1%	1.3%
	Restrict lighting in residential buildings' lobby, corridor and staircases	24	1.9%	2.2%
	Plantation at building roof	50	4.0%	4.5%
	Increase plantation at residential housing estates / building	5	.4%	.4%
	Prohibit construction of building that would block the air flow / high building	34	2.7%	3.1%
	Use sensor lighting in building	8	.6%	.7%
	Enforce energy codes for building	3	.2%	.3%
	Reduce unnecessary building construction	1	.1%	.1%
	Restrict use of air-conditioner in residential housing estates / building	8	.6%	.7%
	Maintain the indoor temperature of vehicles at a certain level of temperature, e.g. 23/ 24 / 25 degree	40	3.2%	3.6%
	Change use of vehicles to environmental friendly vehicles, e.g. hybrid energy vehicles	24	1.9%	2.2%
	Turn off vehicle engines when stop or waiting	66	5.3%	5.9%
	Levy fuel tax or higher fuel tax	6	.5%	.5%
	Levy pollution charge for vehicles and fuel	11	.9%	1.0%
	Reduce import of vehicles	1	.1%	.1%
	Reduce number of vehicles	28	2.2%	2.5%
	Vehicle emission test every year	3	.2%	.3%
	Vehicle using cleaner fuel	7	.6%	.6%

Reduce number of air-conditioned buses / vehicles	11	.9%	1.0%
Increase tax for vehicles	2	.2%	.2%
Restrict use of air-conditioner in vehicles	9	.7%	.8%
Installing system which can reduce pollutant output from the vehicles	1	.1%	.1%
Restrict use of lighting facilities in public transport	1	.1%	.1%
Electrical products should be shown with energy efficiency label	11	.9%	1.0%
Restrict using non-energy efficient product / replace existing product by energy efficient product	27	2.2%	2.4%
Wear causal clothes	30	2.4%	2.7%
Increase sale tax on non-energy efficient electrical appliances	3	.2%	.3%
Increase electricity fee or adopt progressive electricity fee scale / levy electricity tax	28	2.2%	2.5%
Adopt auto-sensor facilities	14	1.1%	1.3%
Restrict using air-conditioners during winter or under a certain degree of temperature	23	1.8%	2.1%
Restrict using disposable materials or equipments	3	.2%	.3%
Use of florescent tube or LED lighting	13	1.0%	1.2%
Restrict or impose charge to pollution causes by power generation company	13	1.0%	1.2%
Restrict the use of renewable energy for power generation company	1	.1%	.1%
No mandatory policy required	19	1.5%	1.7%
Oppose any mandatory policy	22	1.8%	2.0%
Total	1248	100.0%	112.2%

a Group

Q24. What policies would you support to encourage greater energy efficiency? You may tick more than one box. You may tick more than one box.

## **Multiple Response**

#### **Case Summary**

		Cases								
	V	alid	Mis	sing	Total					
	Ν	Percent	Ν	Percent	Ν	Percent				
\$q24(a)	78073	96.3%	3039	3.7%	81112	100.0%				

a Dichotomy group tabulated at value 1.

	\$q24 Frequencies									
		Respo	onses	Percent of						
		Ν	Percent	Cases						
Q24. What policies would you support to encourage	Cheaper off-peak electricity for consumers	47265	34.4%	60.5%						
greater energy efficiency? You may tick more than one box. You may tick more than one box.(a)	Incentives for building managers who achieve energy performance targets	43609	31.8%	55.9%						
	Incentives for professionals who design buildings with superior energy performance	44917	32.7%	57.5%						
	Others	1463	1.1%	1.9%						
Total		137254	100.0%	175.8%						

a Dichotomy group tabulated at value 1.

Q24. What policies would you support to encourage greater energy efficiency? You may tick more than one box. You may tick more than one box. (Others)

## **Multiple Response**

Case Summary									
Cases									
	V	alid	Mis	sing	Total				
	Ν	Percent	Ν	Percent	Ν	Percent			
\$q24(a)	1463	1.8%	79649	98.2%	81112	100.0%			

a Group

#### **\$q24 Frequencies**

		Resp	onses	Percent of Cases
		Ν	Percent	Cuses
Q24. What policies	Incentives for professionals who design / create energy efficient products / measures / systems	32	2.0%	2.2%
would you support to	Incentives for individuals / households / companies who practice energy saving	249	15.5%	17.0%
0	Incentives for expanding or building roof garden at the top of building	30	1.9%	2.1%
energy efficiency?	Incentives for or reduce the tax of or using energy efficient products / equipments	52	3.2%	3.6%
	Competition among building managers	3	.2%	.2%
	Competition on energy saving	18	1.1%	1.2%
	Set up funding to explore alternatives energy / renewable energy	18	1.1%	1.2%
	Incentives for adopting alternatives energy / renewable energy	32	2.0%	2.2%
	Incentives for people the use of public transport	5	.3%	.3%
	Increase education or promotion to enhance people awareness of energy saving	227	14.2%	15.5%

	Environmental or Energy saving day	16	1.0%	1.19
	Enhance or promote greening	50	3.1%	3.49
	Promote the use of public transport	13	.8%	.9%
	Promote the use of walking or cycling to replace using vehicles	12	.7%	.8%
	Promote the purchase or use of energy-efficient products	13	.8%	.9%
	Promote causal wear	12	.7%	.89
	Encourage the use of renewable energy e.g. solar energy	6	.4%	.49
	Provide energy audit service or install energy usage measurement to household / companies	5	.3%	.3%
	Setting a guideline on energy saving or proper energy usage standard for public	9	.6%	.6%
	Provide more public recreational facilities to attract people to stay outdoor	2	.1%	.19
	Promote 5-day work, no overtime, flexible working hours, work at home	4	.2%	.39
	Promote car pool	2	.1%	.19
	Provide channels for public to complaint or report excessive energy consumption / energy inefficiency	3	.2%	.29
	Explore the use of renewable energy, e.g. solar energy and wind energy	87	5.4%	5.99
	Explore or develop technology in energy saving	25	1.6%	1.79
	Restrict unnecessarily electricity / energy consumption by fines / progressive charging scale / increase electricity fee	255	15.9%	17.49
	Restrict use of non-energy saving light bulb / mandatory use of energy / efficient light bulb	13	.8%	.99
	Reduce building density/restrict on building's height Enforcement on using energy-efficient appliances /	44	2.7%	3.09
	Restriction on using non-energy- efficient appliances / Mandatory energy efficient labeling scheme	70	4.4%	4.8
	Legislation on energy code for buildings	7	.4%	.5
	Restriction on temperature of air conditioner / using air-conditioning	48	3.0%	3.3
	Restriction on advertising lights	28	1.7%	1.9
	Adopt Polluter Pay Principle or levy pollution tax	42	2.6%	2.9
	Restriction on public lighting	23	1.4%	1.6
	Environmentally friendly practices in building design and construction	41	2.6%	2.8
	Cancel laser light or firework performance	8	.5%	.5
	Restriction on no. of vehicles or reduce bus routes	24	1.5%	1.6
	Restriction on power generation companies	29	1.8%	2.0
	Higher peak electricity for consumers	3	.2%	.2
	Use auto-sensor electrical facilities, including light & lift	2	.1%	.1
	No policy needed	41	2.6%	2.8
Fotal		1603	100.0%	109.6

# Appendix 5

# **Selected Crosstabulations for Feedback Form**

## **Contingency Coefficients for all Crosstabulations by Demographic Variables**

contingency coefficient	Q6	Q7	Q8	Q9	Q10	<u>Q11</u>	<u>Q12</u>	<u>Q13</u>	<u>Q14</u>	Q15	Q16	<u>Q17</u>	<u>Q18</u>	Q19	<u>Q20</u>	<u>Q21</u>	<u>Q22</u>	<u>Q23</u>	<u>Q24</u>
gender (Q1)	0.055	0.016	0.060	0.050	0.060	0.061	0.005	0.024	0.090	0.149	0.114	0.072	0.010	0.023	0.067	0.059	0.098	0.100	0.006
Age (Q2)	0.045	0.062	0.061	0.102	0.111	0.083	0.074	0.069	0.066	0.169	0.182	0.056	0.047	0.040	0.116	0.089	0.117	0.117	0.033
occupational status (Q3)	0.048	0.059	0.069	0.090	0.106	0.061	0.060	0.059	0.066	0.167	0.190	0.048	0.045	0.028	0.097	0.101	0.118	0.117	0.034
Industry (Q4)	0.041	0.091	0.098	0.089	0.088	0.071	0.048	0.043	0.095	0.142	0.124	0.086	0.099	0.094	0.124	0.125	0.141	0.103	0.027
Living area (Q5)	0.079	0.050	0.045	0.038	0.036	0.017	0.014	0.015	0.023	0.035	0.045	0.013	0.015	0.015	0.029	0.026	0.035	0.028	0.015

*Shaded: contingency coefficient >0.1* 

Question no. with underline: multiple response answer, and the most commonly chosen option was used.

### List of Questions

Q6. Should we have a more active response to high air pollution day alerts than we do currently?

Q7. What sort of alert system should be used to identify how safe the air quality is?

Q8. How long before a high air pollution alert day should a notice be issued (assuming that longer notice would be less accurate)?

Q9. On high air pollution alert days, what sort of outdoor events organised by the Government should be cancelled?

Q10. On high air pollution alert days, what sort of outdoor events organised by the private sector should be cancelled?

Q11. In addition to warnings, possible mandated actions and education, what should we do on a high air pollution day?

Q12. In addition to warnings and education, what should the Government do on a high air pollution day?

Q13. What should employers do on a high air pollution day?

Q14. If road pricing is introduced, in what ways would it affect you?

Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong?

Q16. What single most important factor would lead you to oppose road pricing?

Q17. What factors do you support when determining the fees for road pricing?

Q18. What types of vehicles should be given reduced road pricing after accounting for the above?

Q19. Would you support some increase in road transport costs for the community, if it led to a measurable improvement in air quality?

Q20. What would you be prepared to do at a personal level to reduce air pollution from road transport?

Q21. What changes in Government spending or taxes would you support, if road pricing is introduced?

Q22. What things would you be prepared to do at a personal level to manage your energy demand or save energy?

Q23. What things do you think should be mandatory to manage energy consumption?

Q24. What policies would you support to encourage greater energy efficiency?

## **Two-way Tables with Contingency Coefficients Greater Than 0.1**

Q2. How old are you? (recoded) \* Q9. On high air pollution alert days, what sort of outdoor events organised by the Government should be cancelled? Crosstabulation

			Q9. On high air pollution alert days, what sort of outdoor events organised by the Government should be cancelled?						
			All events involving large	All events involving physical activity					
		All outdoor	crowds such as	such as sports					
		events	outdoor concerts	days	None at all	Total			
Q2. How old are	<=18	24.6%	23.3%	35.9%	16.3%	100.0%			
you? (recoded)	19-29	18.9%	24.2%	43.3%	13.6%	100.0%			
	30-49	21.6%	22.7%	43.2%	12.5%	100.0%			
	50-59	23.6%	23.9%	41.0%	11.4%	100.0%			
	60+	38.4%	22.6%	28.2%	10.7%	100.0%			
Total		23.1%	23.3%	39.1%	14.5%	100.0%			

% within Q2. How old are you? (recoded)

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.102	.000
N of Valid Cases		75453	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q2. How old are you? (recoded) \* Q10. On high air pollution alert days, what sort of outdoor events organised by the private sector should be cancelled? Crosstabulation

% within Q2. How old are you? (recoded)

		- 0	Q10. On high air pollution alert days, what sort of outdoor events organised by the private sector should be cancelled?						
		All outdoor	All events     All events       All events     involving       involving large     physical activity       All outdoor     crowds such as     such as sports						
		events	outdoor concerts	days	None at all	Total			
Q2. How old are you? (recoded)	<=18 19-29 30-49 50-59 60+	25.1% 18.5% 20.9% 22.7% 37.7%	23.1% 24.0% 23.3% 25.2% 22.5%	32.9% 39.9% 41.5% 38.3% 26.9%	19.0% 17.6% 14.2% 13.8% 12.9%	100.0% 100.0% 100.0% 100.0%			
Total		23.0%	23.4%	36.4%	17.1%	100.0%			

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.111	.000
N of Valid Cases	75430	

a Not assuming the null hypothesis.

## Q3. What is your occupational status? (recoded) \* Q10. On high air pollution alert days, what sort of outdoor events organised by the private sector should be cancelled? Crosstabulation

			Q10. On high air pollution alert days, what sort of outdoor events organised by the private sector should be cancelled?					
		All outdoor events	All events involving large crowds such as outdoor concerts	All events involving physical activity such as sports days	None at all	Total		
Q3. What is	Employees	19.9%	22.4%	42.2%	15.5%	100.0%		
your	Employers	28.8%	20.3%	34.5%	16.4%	100.0%		
occupational	Self-employed	23.5%	21.3%	39.4%	15.7%	100.0%		
status?	Unemployed	27.2%	21.8%	34.2%	16.8%	100.0%		
(recoded)	Students	23.7%	23.5%	34.1%	18.8%	100.0%		
	Home-makers	24.6%	27.4%	37.7%	10.3%	100.0%		
	Retirees	37.3%	24.0%	26.9%	11.8%	100.0%		
	Others			66.7%	33.3%	100.0%		
Total		23.1%	23.3%	36.5%	17.1%	100.0%		

#### % within Q3. What is your occupational status? (recoded)

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.106	.000
N of Valid Cases		74951	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q1. Gender: \* Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong? Crosstabulation

% within Q1. Gender:

	Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong?						
						Strongly	_
		Strongly agree	Agree	Neutral	Disagree	disagree	Total
Q1. Gender:	Male	19.5%	24.6%	32.7%	11.4%	11.9%	100.0%
	Female	12.6%	27.1%	40.8%	13.3%	6.1%	100.0%
Total		15.8%	25.9%	37.0%	12.4%	8.8%	100.0%

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.149	.000
N of Valid Cases	73350	

a Not assuming the null hypothesis.

## Q2. How old are you? (recoded) \* Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong? Crosstabulation

			Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong?					
					D.	Strongly	Total	
		Strongly agree	Agree	Neutral	Disagree	disagree		
Q2. How old are you? (recoded)	<=18	14.0%	22.5%	44.4%	10.9%	8.1%	100.0%	
	19-29	16.4%	32.4%	32.7%	12.0%	6.5%	100.0%	
	30-49	17.1%	27.4%	28.9%	15.2%	11.4%	100.0%	
	50-59	20.6%	28.3%	25.8%	15.2%	10.1%	100.0%	
	60+	23.4%	24.1%	31.4%	11.8%	9.2%	100.0%	
Total		15.8%	25.9%	37.1%	12.5%	8.8%	100.0%	

#### % within Q2. How old are you? (recoded)

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.169	.000
N of Valid Cases	73250	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q3. What is your occupational status? (recoded) \* Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong? Crosstabulation

#### % within Q3. What is your occupational status? (recoded)

		y do you agree/disagree that road pricing should mment policy to address air pollution in Hong					
				Kong?		Ctuou olar	Total
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Q3. What is	Employees	18.2%	28.4%	26.4%	15.3%	11.6%	100.0%
your	Employers	27.3%	26.5%	22.1%	12.4%	11.7%	100.0%
occupational	Self-employed	19.6%	24.6%	26.9%	14.9%	14.1%	100.0%
status?	Unemployed	18.9%	27.3%	29.1%	14.5%	10.2%	100.0%
(recoded)	Students	14.2%	24.6%	42.7%	10.9%	7.6%	100.0%
	Home-makers	13.8%	27.1%	39.4%	14.0%	5.7%	100.0%
	Retirees	22.8%	26.8%	30.3%	11.5%	8.6%	100.0%
	Others			33.3%	33.3%	33.3%	100.0%
Total		15.8%	25.9%	37.0%	12.5%	8.8%	100.0%

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.167	.000
N of Valid Cases		72778	

a Not assuming the null hypothesis.

Q4. What industry you are working in? \* Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong? Crosstabulation

			Q15. How strongly do you agree/disagree that road pricing should be part of Government policy to address air pollution in Hong Kong?						
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total		
Q4. What	Government	23.1%	30.4%	22.3%	14.6%	9.7%	100.0%		
industry	NGOs	17.0%	29.3%	28.9%	15.3%	9.6%	100.0%		
you are	Education	20.3%	31.5%	26.3%	14.0%	7.8%	100.0%		
working	Environmental	29.4%	27.7%	21.4%	10.5%	10.9%	100.0%		
in?	Power	15.5%	28.0%	29.0%	17.8%	9.7%	100.0%		
	Transport	14.1%	20.3%	25.6%	17.8%	22.1%	100.0%		
	Manufacturing	17.0%	28.5%	29.6%	15.3%	9.6%	100.0%		
	Services	17.0%	27.8%	26.7%	15.1%	13.5%	100.0%		
	Other private sector	19.6%	27.9%	24.6%	13.5%	14.4%	100.0%		
	Others	17.5%	23.8%	29.7%	16.4%	12.6%	100.0%		
Total		18.8%	28.1%	26.3%	15.1%	11.8%	100.0%		

% within Q4. What industry you are working in?

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.142	.000
N of Valid Cases	22579	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

#### Q1. Gender: \* Q16. What single most important factor would lead you to oppose road pricing? Crosstabulation

% within Q1. Gender:

		Q16. What	Q16. What single most important factor would lead you to oppose road pricing?						
		The							
		Government is							
		unable to	There are		Impact on				
		provide	insufficient	High	delivery		No factor		
		sufficient	alternative	additional	services		would lead		
		alternative	forms of	transport	during peak		me to oppose	Total	
		routes	transport	costs	hours	Others	it		
Q1. Gender:	Male	21.4%	14.3%	43.7%	6.3%	2.0%	12.4%	100.0%	
	Female	16.1%	12.1%	54.9%	5.4%	1.3%	10.1%	100.0%	
Total		18.6%	13.1%	49.6%	5.9%	1.6%	11.2%	100.0%	

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.114	.000
N of Valid Cases	66107	

a Not assuming the null hypothesis.

#### Q2. How old are you? (recoded) \* Q16. What single most important factor would lead you to oppose road pricing? Crosstabulation

		Q16. What	Q16. What single most important factor would lead you to oppose road pricing?						
		The							
		Government is							
		unable to	There are		Impact on				
		provide	insufficient	High	delivery		No factor		
		sufficient	alternative	additional	services		would lead		
		alternative	forms of	transport	during peak		me to oppose	Total	
		routes	transport	costs	hours	Others	it		
Q2. How old are	<=18	15.4%	11.1%	54.5%	7.4%	.5%	11.2%	100.0%	
you? (recoded)	19-29	19.9%	14.5%	50.3%	4.9%	2.0%	8.5%	100.0%	
	30-49	22.1%	14.6%	43.4%	3.9%	3.5%	12.5%	100.0%	
	50-59	25.1%	15.6%	38.0%	4.1%	3.0%	14.2%	100.0%	
	60+	21.8%	27.0%	32.5%	4.9%	.9%	12.9%	100.0%	
Total		18.5%	13.1%	49.7%	5.8%	1.6%	11.2%	100.0%	

% within Q2. How old are you? (recoded)

Symmetric Measures					
		Value	Approx. Sig.		
Nominal by Nominal N of Valid Cases	Contingency Coefficient	.182 66015	.000		

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q3. What is your occupational status? (recoded) \* Q16. What single most important factor would lead you to oppose road pricing? Crosstabulation

% within Q3. What is	your occupationa	l status? (recoded)	

		Q16. What si	ngle most impor	tant factor wou	ıld lead you to	oppose road	pricing?	
		The						
		Government						
		is unable to	There are		Impact on		No factor	
		provide	insufficient	High	delivery		would	
		sufficient	alternative	additional	services		lead me	
		alternative	forms of	transport	during		to oppose	Total
		routes	transport	costs	peak hours	Others	it	
Q3. What is	Employees	23.5%	14.7%	42.1%	3.8%	3.7%	12.2%	100.0%
your	Employers	27.1%	19.3%	27.6%	6.5%	3.8%	15.7%	100.0%
occupational	Self-employed	26.4%	15.1%	33.4%	7.6%	3.7%	13.9%	100.0%
status?	Unemployed	20.1%	19.0%	41.0%	6.3%	3.0%	10.5%	100.0%
(recoded)	Students	15.9%	11.5%	54.2%	6.9%	.7%	10.7%	100.0%
	Home-makers	17.3%	13.7%	53.1%	4.0%	.6%	11.3%	100.0%
	Retirees	20.5%	28.1%	35.0%	4.2%	1.1%	11.2%	100.0%
	Others			100.0%				100.0%
Total		18.5%	13.0%	49.7%	5.8%	1.6%	11.3%	100.0%

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.190	.000
N of Valid Cases		65622	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q4. What industry you are working in? \* Q16. What single most important factor would lead you to oppose road pricing? Crosstabulation

		Q16. What size	ngle most impor	tant factor wou	ıld lead you to oj	ppose road p	ricing?	
		The						
		Government is						
		unable to	There are		Impact on		No factor	
		provide	insufficient	High	delivery		would	
		sufficient	alternative	additional	services		lead me	
		alternative	forms of	transport	during peak		to oppose	Total
		routes	transport	costs	hours	Others	it	
Q4. What	Government	25.6%	15.0%	37.2%	3.7%	4.2%	14.2%	100.0%
industry	NGOs	23.5%	14.7%	45.6%	3.4%	3.2%	9.6%	100.0%
you are	Education	22.0%	17.1%	37.7%	3.4%	4.7%	15.2%	100.0%
working	Environmental	25.8%	21.7%	33.6%	4.6%	3.2%	11.1%	100.0%
in?	Power	30.9%	15.4%	38.2%	3.5%	2.8%	9.2%	100.0%
	Transport	27.0%	11.5%	43.7%	7.3%	2.4%	8.1%	100.0%
	Manufacturing	23.6%	15.1%	42.9%	4.2%	2.6%	11.6%	100.0%
	Services	22.7%	13.9%	45.0%	4.1%	2.9%	11.3%	100.0%
	Other private sector	21.8%	17.2%	37.2%	4.2%	5.6%	14.1%	100.0%
	Others	21.7%	14.0%	44.4%	5.2%	2.9%	11.9%	100.0%
Total		23.7%	15.1%	41.0%	4.1%	3.7%	12.4%	100.0%

% within Q4. What industry you are working in?

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.124	.000
N of Valid Cases		19846	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q2. How old are you? (recoded) \* Q20. What would you be prepared to do at a personal level to reduce air pollution from road transport? Use public rail Crosstabulation

% within Q2. How old are you? (recoded)

( constant de la constant						
		Use pul				
		No	Yes	Total		
Q2. How old are	<=18	34.4%	65.6%	100.0%		
you? (recoded)	19-29	21.5%	78.5%	100.0%		
	30-49	25.3%	74.7%	100.0%		
	50-59	31.1%	68.9%	100.0%		
	60+	37.5%	62.5%	100.0%		
Total		29.7%	70.3%	100.0%		

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.116	.000
N of Valid Cases		74212	

a Not assuming the null hypothesis.

Q4. What industry you are working in? \* Q20. What would you be prepared to do at a personal level to reduce air pollution from road transport? Use public rail Crosstabulation

		Use pub		
		No	Yes	Total
Q4. What	Government	19.2%	80.8%	100.0%
industry	NGOs	23.6%	76.4%	100.0%
you are	Education	18.6%	81.4%	100.0%
working	Environmental	36.0%	64.0%	100.0%
in?	Power	24.0%	76.0%	100.0%
	Transport	38.7%	61.3%	100.0%
	Manufacturing	26.9%	73.1%	100.0%
	Services	26.8%	73.2%	100.0%
	Other private sector	20.5%	79.5%	100.0%
	Others	28.6%	71.4%	100.0%
Total		24.2%	75.8%	100.0%

% within Q4. What industry you are working in?

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.124	.000
N of Valid Cases	22284	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

Q4. What industry you are working in? \* Q21. What changes in Government spending or taxes would you support, if road pricing is introduced? To subsidise use of more environmentally friendly forms of transport, e.g. hybrid vehicles Crosstabulation

% within Q4. What industry you are working in?

		environment forms of tra	To subsidise use of more environmentally friendly forms of transport, e.g. hybrid vehicles	
		No	Yes	Total
Q4. What	Government	34.6%	65.4%	100.0%
industry	NGOs	42.3%	57.7%	100.0%
you are	Education	33.4%	66.6%	100.0%
working	Environmental	50.8%	49.2%	100.0%
in?	Power	42.7%	57.3%	100.0%
	Transport	50.5%	49.5%	100.0%
	Manufacturing	42.0%	58.0%	100.0%
	Services	46.5%	53.5%	100.0%
	Other private sector	31.1%	68.9%	100.0%
	Others	41.6%	58.4%	100.0%
Total		39.9%	60.1%	100.0%

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.125	.000
N of Valid Cases		22367	

a Not assuming the null hypothesis.

Q2. How old are you? (recoded) \* Q22. What things would you be prepared to do at a personal level to manage your energy demand or save energy? Turn off unnecessary lights and air conditioning Crosstabulation

// Whitin Q2. How old the you. (recould)						
		Turn off unnecessary lights and air conditioning				
		No	Yes	Total		
Q2. How old are	<=18	25.1%	74.9%	100.0%		
you? (recoded)	19-29	17.1%	82.9%	100.0%		
	30-49	14.3%	85.7%	100.0%		
	50-59	19.7% 80.3%		100.0%		
	60+	27.4% 72.6%		100.0%		
Total		20.7%	79.3%	100.0%		

% within Q2. How old are you? (recoded)

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.117	.000
N of Valid Cases		74955	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

## Q3. What is your occupational status? (recoded) \* Q22. What things would you be prepared to do at a personal level to manage your energy demand or save energy? Turn off unnecessary lights and air conditioning Crosstabulation

% within Q3. What is your occupational status? (recoded)

		Turn off unne and air co		
		No	Yes	Total
Q3. What is	Employees	13.0%	87.0%	100.0%
your	Employers	23.1%	76.9%	100.0%
occupational	Self-employed	23.4%	76.6%	100.0%
status?	Unemployed	30.0%	70.0%	100.0%
(recoded)	Students	23.7%	76.3%	100.0%
	Home-makers	20.1%	79.9%	100.0%
	Retirees	26.8%	73.2%	100.0%
	Others		100.0%	100.0%
Total		20.7%	79.3%	100.0%

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.118	.000
N of Valid Cases		74491	

a Not assuming the null hypothesis.

Q4. What industry you are working in? \* Q22. What things would you be prepared to do at a personal level to manage your energy demand or save energy? Turn off unnecessary lights and air conditioning Crosstabulation

		Turn off unnecessary lights and air conditioning		
		No	Yes	Total
Q4. What	Government	10.1%	89.9%	100.0%
industry	NGOs	14.7%	85.3%	100.0%
you are	Education	8.5%	91.5%	100.0%
working	Environmental	31.7%	68.3%	100.0%
in?	Power	17.2%	82.8%	100.0%
	Transport	25.4%	74.6%	100.0%
	Manufacturing	14.9%	85.1%	100.0%
	Services	17.8%	82.2%	100.0%
	Other private sector	9.5%	90.5%	100.0%
	Others	16.6%	83.4%	100.0%
Total		14.3%	85.7%	100.0%

% within Q4. What industry you are working in?

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.141	.000
N of Valid Cases		22684	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

Q2. How old are you? (recoded) \* Q23. What things do you think should be mandatory to manage energy consumption? School/office lighting and air conditioning should be switched off in empty offices Crosstabulation

		School/office lighting and air conditioning should be switched off in empty offices			
		No	No Yes		
Q2. How old are	<=18	33.0%	67.0%	100.0%	
you? (recoded)	19-29	24.5%	75.5%	100.0%	
30-49		21.5%	78.5%	100.0%	
50-59		26.1%	73.9%	100.0%	
	60+	40.5% 59.5%		100.0%	
Total		28.4%	71.6%	100.0%	

#### Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Contingency Coefficient	.117	.000
N of Valid Cases	75022	

a Not assuming the null hypothesis.

Q3. What is your occupational status? (recoded) \* Q23. What things do you think should be mandatory to manage energy consumption? School/office lighting and air conditioning should be switched off in empty offices Crosstabulation

		School/office lighting and air conditioning should be switched off in empty offices		
		No	Yes	Total
Q3. What is	Employees	20.4%	79.6%	100.0%
your	Employers	30.7%	69.3%	100.0%
occupational	Self-employed	25.7%	74.3%	100.0%
status?	Unemployed	33.6%	66.4%	100.0%
(recoded)	Students	31.6%	68.4%	100.0%
	Home-makers	27.1%	72.9%	100.0%
	Retirees	42.7%	57.3%	100.0%
Others			100.0%	100.0%
Total		28.4%	71.6%	100.0%

% within Q3. What is your occupational status? (recoded)

Symmetric Measures					
		Value	Approx. Sig.		
Nominal by Nominal Conting	gency Coefficient	.117	.000		
N of Valid Cases		74548			

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

Q4. What industry you are working in? \* Q23. What things do you think should be mandatory to manage energy consumption? School/office lighting and air conditioning should be switched off in empty offices Crosstabulation

		School/office lighting and air conditioning should be switched off in empty offices		
		No	Yes	Total
Q4. What	Government	17.6%	82.4%	100.0%
industry	NGOs	21.4%	78.6%	100.0%
you are	Education	15.9%	84.1%	100.0%
working	Environmental	31.9%	68.1%	100.0%
in?	Power	26.4%	73.6%	100.0%
	Transport	30.0%	70.0%	100.0%
	Manufacturing	21.7%	78.3%	100.0%
	Services	24.4%	75.6%	100.0%
Other private sector		17.3%	82.7%	100.0%
	Others	23.8%	76.2%	100.0%
Total		21.3%	78.7%	100.0%

% within Q4. What industry you are working in?

#### Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.103	.000
N of Valid Cases		22714	

a Not assuming the null hypothesis.

# Appendix 6

# Analytical Framework: Themes, Categories and Sub-Categories

## Analytical Framework for Qualitative Data

#### 1 High Air Pollution Day Alert

- 1.1 General comments about alert system
  - 1.1.1 General about coding system
    - 1.1.1.1 Color coding
    - 1.1.1.2 Symbol coding
    - 1.1.1.3 Alphabets coding
    - 1.1.1.4 Number coding
    - 1.1.1.5 Similar to typhoon alerts
    - 1.1.1.6Other systems
    - 1.1.2 General about Air Pollution Index
      - 1.1.2.1 Statistics based
      - 1.1.2.2 Reporting specific pollutants
      - 1.1.2.3 Other aspects of API
    - 1.1.3 General about time frame for announcement
      - 1.1.3.1 Early forecast of HAP
      - 1.1.3.2 Regular/ Hourly reporting
      - 1.1.3.3 Immediate/ Real time announcement
      - 1.1.3.4 Others
    - 1.1.4 Anything about announcement channels
    - 1.1.5 Other aspects of alert system
- 1.2 General about policies for HAP days
  - 1.2.1 General about mandatory measures to HAP days
    - 1.2.1.1 Allow employee to work at home in HAP days
    - 1.2.1.2 Restrict the number of vehicles in HAP days
    - 1.2.1.3 Casual wear in HAP days
    - 1.2.1.4 Turn off engine when not traveling (in HAP days)
    - 1.2.1.5 High pollutant emission vehicles should be monitored
    - 1.2.1.6 No schooling on HAP days
    - 1.2.1.7 Outdoor activities needed to be cancelled
    - 1.2.1.8 Other mandatory policies on HAP days
  - 1.2.2 General about advisory measures to HAP days
    - 1.2.2.1 Advice/ guideline to avoid outdoor activities
    - 1.2.2.2 Provide guideline for private sector
    - 1.2.2.3 Work/Stay at home
    - 1.2.2.4 Other advisory measures to HAP days

- 1.2.3 General about education of HAP days
  - 1.2.3.1 Inform the public the health implication of HAP
  - 1.2.3.2 Education/ information about HAP alerts
  - 1.2.3.3 Other areas of education about HAP days
- 1.3 Support comments on HAP day alert
- 1.4 Oppose comments on HAP day alert
- 1.5 Other aspects of HAP day alert

#### 2 General comments about Road pricing

- 2.1 General support comments road pricing
- 2.2 General about Road pricing fee policies
  - 2.2.1 General about Road pricing zones
    - 2.2.1.1 In serious polluted areas
    - 2.2.1.2 On heavily congested roads
    - 2.2.1.3 Specific road pricing zone should be provided
    - 2.2.1.4 Other zones
  - 2.2.2 Road pricing periods
    - 2.2.2.1 During peak hours/ congestion time
    - 2.2.2.2 During High Air Pollution time
    - 2.2.2.3 Other pricing period
  - 2.2.3 Types of vehicle being charged
    - 2.2.3.1 Different fee scales for different vehicles
    - 2.2.3.2 Charge on vehicles with low usage
    - 2.2.3.3 Discount for environmental friendly vehicles
    - 2.2.3.4 Discount for public transportation
    - 2.2.3.5 Others aspect about types of vehicles being charged
  - 2.2.4 Adopt polluter pays principle
  - 2.2.5 Other fee policies
- 2.3 Measures complement road pricing
  - 2.3.1 Alternative transport means
  - 2.3.2 Alternative routes
  - 2.3.3 Pedestrian pathways/ Cycling lane
  - 2.3.4 Better transit measures for transportation connections between the charged and the non-charged zone
  - 2.3.5 Sufficient car parks
  - 2.3.6 Transit transport services at discount price
  - 2.3.7 Other complementary measures

- 2.4 Policies associated with road pricing
  - 2.4.1 Increase fuel tax
  - 2.4.2 Encourage use of environmental friendly cars
  - 2.4.3 Encourage use of public transport
  - 2.4.4 Encourage cycling/ walking
  - 2.4.5 Other Revenue/ income use of road pricing
- 2.5 General about oppose road pricing
  - 2.5.1 Road pricing is not effective to reduce air-pollution
  - 2.5.2 Many factors affecting road-side air quality except vehicles
  - 2.5.3 Road pricing is not the only measure
  - 2.5.4 Road pricing would affect related industries
  - 2.5.5 Road pricing would affect the economy
  - 2.5.6 Road pricing would increase travel cost of people
  - 2.5.7 Road pricing will increase the pressure of nearby districts
  - 2.5.8 Other oppose comments
- 2.6 Alternative of road pricing
  - 2.6.1 Reduce number of bus on road
  - 2.6.2 Restrict number of private vehicles on road
  - 2.6.3 Diversion of transport
  - 2.6.4 Use environmental fuel
  - 2.6.5 Reduction of building density
  - 2.6.6 Turn off engine when not traveling
  - 2.6.7 About vehicles' maintenance
  - 2.6.8 Other alternative of road pricing
- 2.7 Other aspects of road pricing

#### 3 General about Demand Side Management

- 3.1 General support comments on DSM
- 3.2 General comments about new policies achieving DSM
  - 3.2.1 General about Mandatory approach
    - 3.2.1.1 Environmental friendly practices in building design/ construction
    - 3.2.1.2 Reduce laser light performance
    - 3.2.1.3 Reduce street lights/ lamps
    - 3.2.1.4 Restrict use of air-conditioning
    - 3.2.1.5 Restrict use of advertising lights
    - 3.2.1.6 Restrict use of luxury electricity consumption items

- 3.2.1.7 Turn off public facilities when not necessary
- 3.2.1.8 Turn off street light when not necessary
- 3.2.1.9 Mandatory use of energy efficiency products
- 3.2.1.10 Mandatory use of energy efficiency light bulbs
- 3.2.1.11 Other mandatory approach
- 3.2.2 General about domestic energy saving schemes/ incentive approach
  - 3.2.2.1 Apply differential electricity pricing
  - 3.2.2.2 Provide energy audits to companies/ households
  - 3.2.2.3 Flexible working hours
  - 3.2.2.4 5-days work
  - 3.2.2.5 Increase using energy efficiency labeling
  - 3.2.2.6 Promote using energy efficiency products
  - 3.2.2.7 Promote roof gardening to save energy
  - 3.2.2.8 Use of water cooling system
  - 3.2.2.9 Use of solar energy
  - 3.2.2.10Provide more choices on energy efficiency products
  - 3.2.2.11 Energy saving competitions
  - 3.2.2.12Energy labels for outstandingly energy efficient buildings
  - 3.2.2.13 Subsidizes for buying energy saving devices
  - 3.2.2.14Punish those who fail to meet energy efficiency standards
  - 3.2.2.15Subsidies for companies initiating DSM energy saving schemes
  - 3.2.2.16Other incentive approach on DSM
- 3.2.3 Education on energy saving
- 3.2.4 Other new policies on DSM
- 3.3 Comments about opposing DSM policies
- 3.4 Other aspects of DSM approach

#### 4 General comments about engagement process

- 4.1 Comments on how the topics are chosen
- 4.2 Comments on methods to collect opinions
- 4.3 Concern on how the opinions are handled
- 4.4 Other comments about engagement process

#### **5** Others issues

- 5.1 Expressions of concern on air pollution
- 5.2 Comments about causes of air pollution

- 5.3 The report recommendations
  - 5.3.1 Institutional choices (Review of Air Quality Objectives)
  - 5.3.2 Electricity Generation choices
    - 5.3.2.1 Use of Clean coal
      - 5.3.2.2 Flue-gas desulphurization (FGD) pollutant control
      - 5.3.2.3 Use of liquefied natural gas
      - 5.3.2.4 Selling electricity to China
  - 5.3.3 Transport choices
    - 5.3.3.1 Converting light vehicles to cleaner fuel (light goods vehicles, light buses)
    - 5.3.3.2 Fitting catalytic converters and particulate traps onto medium and heavy vehicles
    - 5.3.3.3 Retrofitting particulate traps on franchised buses
    - 5.3.3.4 Prevent importing of high sulphur diesel from Shenzhen
    - 5.3.3.5 More hybrid vehicles
  - 5.3.4 Industry choices
    - 5.3.4.1 Shifting from industrial diesel to ultra-low sulpur diesel (e.g. ferry, construction, boats)
    - 5.3.4.2 Promotion of cleaner production
    - 5.3.4.3 Code of Conduct

#### 5.4 Other suggestions for improving air quality

- 5.4.1 Greening<sup>1</sup>
- 5.4.2 Building density<sup>1</sup>
- 5.4.3 Education<sup>1</sup>
- 5.4.4 Encouraging renewable energy
- 5.4.5 Emissions trading
- 5.4.6 Reduction of traffic
- 5.4.7 Encourage more use of rail
- 5.4.8 Adoption of cleaner form of transport
- 5.4.9 On-going studies on regional aspects of air pollution
- 5.4.10 Clean Air Charter
- 5.5 Government responsibility for action
  - 5.5.1 Against mandatory approach in general/legislation<sup>1</sup>
  - 5.5.2 Oppose air quality policies<sup>1</sup>
  - 5.5.3 Support government take a leading role

<sup>&</sup>lt;sup>1</sup> Topics not covered by the 2006 CSD Report

- 5.5.4 Other comments on government's role
- 5.6 Needs for individuals to act/ change behaviour
- 5.7 Complaints

Appendix 7

# **Quotations that Illustrate the Framework**

These quotations have been selected as typical (i.e. they are broadly representative) of the comments for each coding.

### 1 High Air Pollution Day Alert

#### **1.1** General comments about alert system (25 counts)

"We believe that even if HAP alerts were cost-effective in health terms, the business sector, the government and the wider public would see them as a source of reputational damage to the HKSAR in the Asia Pacific region."

"The proposal to create an alert system for high air pollution days (HAPs) is based on the assumption that exposures to air pollutants can be significantly reduced and bad health outcome avoided. There is no strong empirical evidence available from any studies to show that modification of usual activities of daily living will make a major difference o the harm caused to population health by air pollution at he uniformly high levels generally experienced in Hong Kong."

#### **1.1.1** General about coding system (4 counts)

"If a coding system is used, it should be easily understood by the public so that they may co-operate by reducing pollution-prone behaviours, such as switching off idling engines and commuting by public transport instead of by private cars."

#### 1.1.1.1 Color coding (22 counts)

"The best 'system' to alert people about severe air pollution would be a color coded system that alerts people every hour to the pollution situation and to where is the worst/ best areas etc. Suggested colors include: red for danger/ black for unsafe/ green for ok and blue for good. Each color should have corresponding medical information and human health risks."

"I believe a color code would be more useful to indicate danger to the health so that members of the public can decide whether to wear masks which exclude the pollutants."

#### 1.1.1.2 Symbol coding (5 counts)

"the use of a symbol like 'Freddie' would be powerful in reaching out to the masses. This would help educate the public as well as provide better information on pollution sources."

#### **1.1.1.3** Alphabets coding (1 count)

"It is suggested that the coding system can be concluded as number or alphabet system, and the system should be simplified." (Translated from Chinese)

### **1.1.1.4** Number coding (9 counts)

"It is almost unanimous that an alert system is needed that color or number code would be easier for the public to recognize."

"I think the alert should be conveyed in a simple way. 0-500 is quite difficult to understand, especially for old people. Simplified to 1 - 5 would be better."

### 1.1.1.5 Similar to typhoon alerts (10 counts)

"Showing API as a typhoon signal is an effective way to do."

"Should set up high air pollution alerts and categorizes it like typhoon alerts." (Translated from Chinese)

### **1.1.1.6** Other systems (7 counts)

"Easy for the public to understand, e.g. colour coding, scale coding like high-medium-low."

"the Hong Kong Observatory can also discriminate the degree by 3 categories, such as High Risk, Moderate and Low Risk or by different colors."

## **1.1.2** General about Air Pollution Index (12 counts)

"Should continuously review the existing API system to establish a scientific reference to perfect the system with well-defined 'High Air Pollution Day'."

"No matter by any points of view, making adjustment for present air pollution index is needed as the quality of air really affecting the health of our citizens."

## **1.1.2.1** Statistics based (4 counts)

"There should be statistics showing pollutants within each district."

## **1.1.2.2** Reporting specific pollutants (11 counts)

"API varies from hour to hour that we should be informed about in a more detailed way, like indicating specific pollutants."

"Public needs a more informative API system. A general API mechanism should clearly indicate the components of pollutants to the public."

### 1.1.2.3 Other aspects of API (16 counts)

"The existing system is an index of HK's overall pollution status, but there is lack of regional difference among Mongkok, Causeway Bay and New Territories, it should consider having guideline for particular districts."

"I think there should be report of air pollution index of different districts. Although the length of the weather report may become a little bit longer, however I think we should let the public know the air pollution index of their living districts as the air pollution index of different districts are different. This can help them make arrangements on high air pollution day."

#### **1.1.3** General about time frame for announcement (1 count)

"the Government should consul the medical profession and environmental experts on the choice of benchmarks."

### 1.1.3.1 Early forecast of HAP (16 counts)

"High air pollution alert/forecast should be announced 24 hours in advance so that general public would have sufficient time to plan what they would like to do next."

"The most important consideration here however is if it is possible to predict say 24 hours in advance that the API is likely to be high."

## 1.1.3.2 Regular/ Hourly reporting (7 counts)

"As API raises and drops drastically hourly, it should be reported hourly instead of daily."

"An hourly report system of API might be more appropriate than a daily report system."

#### **1.1.3.3** Immediate/ Real time announcement (5 counts)

"The signal should be real-time."

## **1.1.3.4** Others (1 count)

"A clear and easily comprehensible alerting system should be designed for issuance to the public on high air pollution days such as when API higher than 100 for instance."

### **1.1.4** Anything about announcement channels (31 counts)

"If possible, a 24-hour report system is preferred. If not, at least a 3 to 5-hour report system in mobile mass media likes Roadshow, MTR etc to let public know the updated situation. Also, government can work with the mobile-phone network suppliers to provide air pollution index report through SMS especially for those who suffer respiratory illness."

"API should be made available to the public through different media channels like TV, radio or even road-side indication billboards, but not be restricted to the HK Observatory official website or any insider's report."

#### **1.1.5** Other aspects of alert system (22 counts)

"Announce the index by districts."

"The HAP alerts should cover the whole area of Guangdong province, when somewhere in the province suffers from high air pollution, a mechanism should inform the city governments of the whole province so that they can assess the situation more quickly." (Translated from Chinese)

## **1.2** General about policies for HAP days (7 counts)

"If it is urgent for us to take actions, we should have comprehensive policies and applied even those in non-HAP days."

"HK Electric is of the view that legislation forbidding the public to engage in certain activities during High Air-Pollution (HAP) days is not appropriate."

#### **1.2.1** General about mandatory measures to HAP days (9 counts)

"Have mandated actions when very high levels of pollution are experienced as there is no point in having a voluntary code of conduct which everybody ignores."

"Actually some of the component [actions] above has been encouraged by the government, but there is not many people follow. I think on the high air pollution day, government should make those components becoming a must in order to reduce the pollutant."

## **1.2.1.1** Allow employee to work at home in HAP days (6 counts)

"Business community will need a cultural shift to allow workers to work at home."

"the government should require employers to allow staff with special medical needs (like people with respiratory diseases) to work at home."

### **1.2.1.2** Restrict the number of vehicles in HAP days (23 counts)

"If private car is used during high air pollution day, the user needs to pay the penalty."

"Restricting numbers of private vehicles on the road on High Pollution Days. For example, vehicles with odd numbers would be prohibited on High Pollution Days."

### 1.2.1.3 Casual wear in HAP days (5 counts)

"For all firms, employers should allow their employees wear casual wear and let employees who have respiratory illness to work in their home. But for those who need to wear working uniform, they can be excluded."

### 1.2.1.4 Turn off engine when not traveling (in HAP days) (6 counts)

"Mandated to turn off the engine when stopping."

"Idling engine should be treated as the same as littering, offenders should be subject to a penalty of \$1500." (Translated from Chinese)

## **1.2.1.5** High pollutant emission vehicles should be monitored (4 counts)

"high air pollution alerts should be linked to activities like[.....] getting dirty diesel vehicles off the road."

#### 1.2.1.6 No schooling on HAP days (5 counts)

"All kindergarten, primary and secondary schools should suspend class until the API return to below 200."

## **1.2.1.7** Outdoor activities needed to be cancelled (16 counts)

"All outdoor work should be suspended."

"Policy to cancel outdoor events for schools – still attend school, but no outdoor events on the day."

## 1.2.1.8 Other mandatory policies on HAP days (57 counts)

"I think the government should ban or control BBQ in summer time, or ban at least on highly polluted day."

"Turn off decorative lighting system e.g. building roof lighting."

## **1.2.2** General about advisory measures to HAP days (13 counts)

"Provide clear guidelines based on different ways of living."

"It should provide guidance, but not adopt any mandatory action yet."

## **1.2.2.1** Advice/ guideline to avoid outdoor activities (20 counts)

"Elderly people with age above 65 are advised o stay home or indoor, keep away from busy traffic and avoid outdoor activities."

"Advice, but not obligation, should be given out to vulnerable groups such as children, elderly and individuals to avoid any strenuous outdoor physical activities on a high air pollution day."

## **1.2.2.2** Provide guideline for private sector (13 counts)

"the government should achieve prior agreement with the private sectors, and act proactively by giving guidelines and advices to the private sector."

"Also, the government should provide guidelines for different private enterprises or institutions to follow during high air pollution day."

## 1.2.2.3 Work/Stay at home (5 counts)

"Children with age nine or below are advised (or school children of primary three and below) to stay home, school lessons should be suspended."

## 1.2.2.4 Other advisory measures to HAP days (40 counts)

"This includes, inter alia, temporary anti-pollution shelters for people living in high impact areas during HAP days much similar to the provision of cold/hot weather shelters for those whose quarters are inherently polluted during HAP days."

"One incentive could be a financial one where the government and the MTRC work together to create a cheaper MTR ticket on High Alert Pollution Days."

## **1.2.3** General about education of HAP days (2 counts)

"It is possible to try some relatively mild policy to inform or educate the public about the

importance of air quality."

## **1.2.3.1** Inform the public the health implication of HAP (10 counts)

"Let them know serious the air pollution is and the effects on them and the environment."

"It was stressed that any signals should be accompanied by public health warnings so that people could decide for themselves on whether the risk of being exposed was acceptable or not."

## **1.2.3.2** Education/ information about HAP alerts (15 counts)

"Of course, that council can also set a promotion department to promote the changes of air pollution index when there are changes for the ways and meaning for the air pollution index."

"Of course the government has to educate the public how to interpret the scale and who should do (do not do) what in greater detail."

## **1.2.3.3** Other areas of education about HAP days (21 counts)

"the government should provide more information and educate the public by media, such as TV broadcasting, radio broadcasting and newspapers."

"Primary education to include environmental subjects with examinations to grow knowledge and concerns."

# **1.3** Support comments on HAP day alert (17 counts)

"We also favor the setting up of an early alarm system to warn the public of any imminent pollution episodes with practical advice for the sick, elderly and the children in particular and the public in general."

"We support an alert system for high pollution days. This will facilitate more active response when the Air Pollution Index is high, as stated in Commitment No. 5 of the Clean Air Charter: "Identify and encourage business-relevant measures to be taken on days when air pollution is high."

# 1.4 Oppose comments on HAP day alert (15 counts)

"Any alert system would be largely a waste of time and resources. The vast majority of people in Hong Kong are quite aware that the air is polluted (as we can't see or breath properly) and do need yet another alert system to restate the obvious."

"HAP alert days in Hong Kong would be a highly inefficient use of scarce resources. The estimated costs of any HAP alert system and the low level of benefits clearly indicate that these resources should be re-allocated to efficient pollution abatement strategies. They should particularly be allocated to mandatory actions on clean transportation and fuels and other interventions which need to be part of a comprehensive air quality strategy. HAP alert days will not work and will be rejected by an informed public, legislature and government when they understand the implications of cost-benefit equation."

## **1.5** Other aspects of HAP day alert (10 counts)

"Measures to be taken during High Air Pollution (HAP) Days are different for different industries."

"We suggest the government setting up a taskforce involving different government departments and under the direction of the Environmental Protection Bureau to run the alert system"

#### 2 General comments about Road pricing (15 counts)

"Motor Transport Workers General Union is concerned to this policy very much." (Translated from Chinese)

"More discussions on whether or not road pricing can really effectively reduce traffic congestion are needed." (Translated from Chinese)

## 2.1 General support comments road pricing (80 counts)

"Yes. I agree with that. I believe the market demand and supply theory. When the price is higher, there is less quantity demanded for it. It can apply to use of road. IF we charge a high price on the road, there are less private cars. More people will prefer taking the public transport. E.g. MTR. It will surely help to reduce the air pollution"

"I agree that the introduction of road pricing is essential in Hong Kong and the sooner this is put in the place the better."

## 2.2 General about Road pricing fee policies (13 counts)

"To be effective in alleviating traffic congestion and reducing roadside air pollution, it is important for the road pricing fee be high enough to become a substantial portion of the operational cost incurred by car users in any case." "The price should be at \$5 to \$25."

## 2.2.1 General about Road pricing zones (7 counts)

"Road pricing should be applied to all roads." (Translated from Chinese)

"On electronic road pricing, we tend to agree with its introduction to alleviate congestion in key areas at peak times."

## 2.2.1.1 In serious polluted areas (4 counts)

"Applying Road pricing ONLY within certain highly polluted districts."

## 2.2.1.2 On heavily congested roads (12 counts)

"In actual implementation, it is imperative that the pricing scheme be applied only to congested areas where alternative routes are available."

"Charge at peak district."

## 2.2.1.3 Specific road pricing zone should be provided (4 counts)

"This would presumably be done within defined areas, such as Causeway Bay, which are relatively small, or may be divided into relatively small sections and sub sections. Road pricing may be made in a highly focused manner, for example on streets which give access to the area....to illustrate, a possible location for such charging arrangements would be Yun Ping Road in Causeway Bay, which control access to Kai Chiu Road, Pak Sha Road and Lan Fong Road. Another possible location would be Queens Road Central between Theatre Lane and Pottinger Street."

## 2.2.1.4 Other zones (1 count)

"Parking space charge is relatively higher in high polluted area, it is the same as during peak period"

## 2.2.2 Road pricing periods (2 counts)

"For example, charge on Saturday and Sunday. Charging according the time."

## 2.2.2.1 During peak hours/ congestion time (13 counts)

"We can divide for rush hour or non-rush hour. The road users do not need to pay during the non-rush hour in order to separate the cars from rush hour."

"Applying Road Pricing ONLY within certain highly polluted districts (like Central & Causeway Bay) & seriously congested peak hours."

## 2.2.2.2 During High Air Pollution time (2 counts)

"During high pollution period."

## 2.2.2.3 Other pricing period (2 counts)

" 'TIME-BASED Road Pricing System' would be effective as well, that means to charge within specific time frame."

## 2.2.3 Types of vehicle being charged (2 counts)

"Take reference to the system in London and Singapore."

## 2.2.3.1 Different fee scales for different vehicles (13 counts)

"Nevertheless, we opine that differential fees should be charged for different vehicles types such that higher fee for private cars and less fee for taxi and good vehicles."

"The price can be set at a relatively high level, and then discount is offered to different groups according to vehicle types, or the extent of pollutants released by different vehicles."

# 2.2.3.2 Charge on vehicles with low usage (2 counts)

"Charge based on passenger per vehicle."

# 2.2.3.3 Discount for environmental friendly vehicles (13 counts)

"Environmentally friendly vehicles should be exempted."

"I support the idea of offering discounts to more environmentally friendly vehicles."

# 2.2.3.4 Discount for public transportation (15 counts)

"Charges should be levied as they are for London. I believe that means that public transport and taxis are exempt from the charges."

"I think those public transport can be excluded as they help in reducing the number of car on the road."

## 2.2.3.5 Others aspect about types of vehicles being charged (15 counts)

"If road pricing scheme is to be adopted, exemption should be granted to vehicles for essential and emergency services including that of public utilities."

"But for some deliver car and people who have special purpose to go to some districts. Some specific arrangement can be made. For example, if a driver always needs to deliver gods in districts applying the road pricing, he may be able to claim back all or some of the fees at the end of the month after his purpose for going that place is confirmed."

## 2.2.4 Adopt polluter pays principle (26 counts)

"It is considered a fair way of charging those who have caused te pollution and congestion, according to he 'Polluter Pays Principle'."

"It is agreed to apply the Polluter Pay Principle in improving air pollution."

# 2.2.5 Other fee policies (13 counts)

"Higher fee should be paid after taking account of driving time."

"Measures should be imposed to avoid affecting occupational drivers' living"

# **2.3** Measures complement road pricing (4 counts)

"Simply imposing ERP without further offering reasonable alternatives will aggravate the public and disrupt business. Again, a comprehensive strategy needs to be work out."

# 2.3.1 Alternative transport means (15 counts)

"There should be sufficient alternative means of transport provided in order to motivate drivers to abandon the use of their vehicles."

"If we impose this system without any supporting transportation policies to attract the car owners to use the public transport. Then, it is expected the system will have no effect on air quality improvement if the number of cars maintained at he same level."

# 2.3.2 Alternative routes (17 counts)

"In actual implementation, it is imperative that the pricing scheme be applied only to congested areas where alternative routes are available."

"For ERP to work, there must be a comprehensive transport system, with alternative routes and bypasses. The traffic impact on the alternative routes must be acceptable."

# 2.3.3 Pedestrian pathway (2 counts)

"Hong Kong should be a far more pedestrian friendly – rather than, as at present, a pedestrian hostile – place."

# **2.3.4** Better transit measures for transportation connections between the charged and the non-charged zone (10 counts)

"Provide low priced parking space and transit means near the charging zone."

"Public transport connected to the car parks should be provided to enable people's access to these car parks."

#### 2.3.5 Sufficient car parks (10 counts)

"Private vehicle parking space is built near the public transit area."

"Provide more car parking space in rail station."

## **2.3.6** Transit transport services at discount price (8 counts)

"Increase discount of transit service."

"discounted bus transit service."

## **2.3.7** Other complementary measures (11 counts)

"Promote intelligent transport system to provide better traveler information."

"Government in the long run should regulate the toll of all tunnels."

## 2.4 Policies associated with road pricing (9 counts)

"In our view, the Government has abundant revenues and reserves and certainly does not need a new income source. Our support for ERP is therefore conditional on its being balanced by offsetting tax reductions elsewhere, i.e. the ERP strategy should be revenue-neutral." "Road pricing scheme should follow the 'revenue-neutral' principle. The government should not make use of the scheme to increase revenue. Despite the expense on the system maintenance, income from road pricing should be spent to reduce air pollution." (Translated from Chinese)

## 2.4.1 Increase fuel tax (7 counts)

"Increase fuel tax (gasoline) to reduce usage of cars, but simply increasing the fuel tax might lead to an increase in the fees and shift the burden in general public, so income from road pricing should be used to subsidize public transport to avoid any raising of fees."

"It is suggested to increase gasoline tax."

## 2.4.2 Encourage use of environmental friendly cars (34 counts)

"Revenue from road pricing should be used for tax rebate in using cleaner vehicle engine."

"The government can encourage usage of environmental-friendly buses by offering subsidy."

## 2.4.3 Encourage use of public transport (22 counts)

"As a further step to gain acceptance of the road pricing concept, the Government should consider using part of the road pricing fees to subsidize public transport operators so that they can offer fare concession to attract car users to switch to public transport. This should include franchise bus as it is a very low polluting mean of transport on a per passenger carried basis."

"Revenue of road pricing can be used to reduce public transport fee and provide diversified transport choices."

# 2.4.4 Encourage cycling/ walking (24 counts)

"Road pricing, I am strongly in favour of this in conjunction with more permanent and temporary pedestrianizing of streets."

"Revenues from road pricing in the future should be allocated to better pedestrian infrastructure (walkways, promenades and cycle paths)"

# 2.4.5 Other Revenue/ income use of road pricing (29 counts)

"The extra income due to road pricing should be reserved for other air quality improvement measures."

"The only important policy regarding road pricing is to make its revenue neutral."

# 2.5 General about oppose road pricing (27 counts)

"We vigorously oppose the proposal under consideration and urge you that you not include it in any forthcoming legislation."

"We [...] write to convey our strong objections to the proposal of adopting Electronic Road Pricing (ERP) in heavy traffic areas suggested by the Sustainable Development Unit."

# 2.5.1 Road pricing is not effective to reduce air-pollution (53 counts)

"It is our opinion that ERP simply cannot be the solution to effectively reduce the quantity of vehicles at specific periods and locations. The amount of air pollution will, therefore, not be reduced"

"Honestly this may not be very useful, given the private car creates less air pollution than the public transit, such as Buses, Min-Buses and commercial cars, such as trucks, pick-up trucks. Thoses public transit and commercial vehicles are still using deseil engine currently. Also, if you look at nathan road, Mongkok, queens road east, central, etc. The traffic congestion is not created by huge traffic volume for private cars. But, the traffic congestion is created by Buses (about 1/2 of bus is empty, especially during non-rush hr), Min-Buses, trucks, pick-up trucks. taxi, etc."

# 2.5.2 Many factors affecting road-side air quality except vehicles (10 counts)

"Air pollution is caused by many factors, please do not focus on certain areas and issues on vehicles only. The macro-environment should instead be faced and solved." (Translated from Chinese)

"Considering the situation in Hong Kong, there are many sources of roadside pollution. Nevertheless, it seems to us that public views only focus on the vehicle emissions and thus simply suggest relieving the problem by road pricing."

## 2.5.3 Road pricing is not the only measure (3 counts)

"I oppose road pricing as I do not believe that 'charging' is the only measure to be taken."

## 2.5.4 Road pricing would affect related industries (15 counts)

"We believe this ERP scheme would not only penalize the motor business but also fundamentally alter the longstanding independence of enterprises and companies to do business without government interference as ERP creates the disincentive and extra cost burden to motorists and all road users."

"The measure will increase the operation cost for small firms (e.g. Van-for-rent, food delivery) which may directly impact their survival."

## 2.5.5 Road pricing would affect the economy (10 counts)

"[...]additional cost will be passed to the ultimate user, creating inflation and affecting competitiveness."

"Transportation always grows with the economy of a city. It is difficult it limit our transportation on the one hand, and wanting to see HK's economy to grow on the other hand."

## 2.5.6 Road pricing would increase travel cost of people (22 counts)

"In case ERP is levied on taxis, then the additional cost will simply be passed on the passenger directly."

"The cost of public transportation has been repeatedly reported high. Road pricing will put up additional charges."

# 2.5.7 Road pricing will increase the pressure of nearby districts (12 counts)

"Oppose to road pricing that will lead to traffic congestion and shift pollution to other areas."

"Road pricing may be able to reduce the traffic in central busy zones but it just shifts the traffic to neighboring areas or outskirts, and unlikely to reduce air pollution."

## 2.5.8 Other oppose comments (46 counts)

"Vacant taxis will be reluctant to enter the region looking for passengers, which, as a result, will inconvenience the general public."

"Electronic Road Pricing is an unfair policy that discriminates against the grass root citizens and only benefits the wealthy businessmen."

## **2.6** Alternative of road pricing (1 counts)

"In short, while road pricing may certainly be one method to improve the environment in crowded urban areas, other existing and tested methods may achieve the same effect or more.

We envisage that it will take more effort to develop and secure community agreement for road pricing schemes rather than to press ahead with other methods."

#### 2.6.1 Reduce number of bus on road (25 counts)

"The number of buses should be reduced. There are too many buses on the road; there are many buses share the same route, and many of them are not even half full."

"For buses, we should control the number and route of buses, make better planning for connecting buses, so as to reduce the number of buses on the street at any one time."

#### 2.6.2 Restrict number of private vehicles on road (40 counts)

"If we want to control the road side air quality, we must control the number of vehicles on the road."

"Taking control of new private car registration would be the only effective way to reduce number of cars."

## 2.6.3 Diversion of transport (11 counts)

"The government must really do something to divert the traffic from Central Harbour Tunnel to the other two. The less traffic jam, the less air pollution. For key congested areas like Central, Mongkok, Causeway Bay, the government can consider some schemes like Shanghai and Manila to restrict some cars into these areas. For instance, on every Monday, car registration numbers ended with 1 and 2 are not allowed to drive in, 3 and 4 for Tuesday, so on and so far."

"I think the alternative way is providing better alternative for current drivers, improve the public transportation system and make them less crowded."

## 2.6.4 Use environmental fuel (19 counts)

"I would like to congratulate you that pollution in HK has improved in general in the last few years after the introduction of a few measures such as Taxi and 'Small Buses' are no longer using Diesel fuel. I am hoping these measures should extend to the public bus engine used by the existing Bus companies."

"Reduce fuel tax and mandate using environmentally friendly fuel"

## 2.6.5 Reduction of building density (6 counts)

"Stop letting companies to build 'wall-building', the air flow is absolutely affected by the city plan and that's the government's responsibility."

"Better urban planning, should not let the developers to construct buildings with 'wall-effect' which stopped the airflow to blow away the pollutants from vehicles." (Translated from Chinese)

## 2.6.6 Turn off engine when not traveling (17 counts)

"A more constructive measure may be to strictly implementing fines for cars parking without turning their engines off."

"Maybe the Government should impose some practical regulations such as turn off engines while waiting."

#### 2.6.7 About vehicles' maintenance (19 counts)

"Vehicles that release large amounts of pollutant should be strictly checked."

"Also the government should take seriously the inspection of maintenance of diesel engines in order to reduce pollutant emission."

## 2.6.8 Other alternative of road pricing (94 counts)

"Why are we talking about the road pricing program when there is a more root cause to the problem. I think the government should start to impose cars that use diesel. While there is a large discussion towards the advantages of hybrid vehicles and the BioDiesel cars, we seem to forget the greenest of them all now is actually the diesel engine. Diesel engines uses different technology compared to what it was 10 years ago. They now have better mileage, lower emission and lower total cost of ownership than gasoline engines."

"Mandatory adoption of car parks to new constructed buildings. This has proven to be very effective in Singapore, which reduce the time of driving around the area unnecessary to a minimum."

#### 2.7 Other aspects of road pricing (28 counts)

"This policy can be tried on the Central-Wan Chai Bypass first as it is still building. It is easy to add tollbooths. Also, this is another way to drive to Central. Then there will be two ways to drive to Central. After a few months the government can make adjustments on the policy and try to apply it in other districts. So, I think this will be a suitable place to try road pricing. If the reflection is good enough, the policy can be applied on others main roads."

"Road pricing may slow down the car speed, it is suggested to use electronic road pricing, such as the case in Toronto, a sensor is placed in the car front, when the cars pass the tollbooths, the system will automatically charge the users." (Translated from Chinese)

#### **3** General about Demand Side Management (7 counts)

"If we can use some methods to reduce the use of electricity, it can reduce the pollutants and also increase the useful life of those fossil fuels as they are non-renewable energy source."

"In Hong Kong electricity is massively wasted, of all rich cities, it is probably the most wasteful on the planet, on every aspect of consumption, (including buildings, being torn down after 14 years of existence, e.g Ritz Carlton hotel). As far as electricity is concerned, HK is still in the stone age of energy efficiency."

## 3.1 General support comments on DSM (47 counts)

"I would go one step further and suggest there is "growing panic" on climate change rather than only "growing concern." I strongly support legislation to curb over-use of energy by consumers."

"Demand side management is of course very much welcome. I am sure most electricity consumers are more than willing to reduce usage whenever possible. However, the consumers must be given the precise, comprehensible, honest and genuine information on energy consumption as labelled on the electric appliances."

## **3.2** General comments about new policies achieving DSM (17 counts)

"Policies should be combination of mandatory and voluntary."

"Policy options must/ should be presented with implementation options i.e. as 'package' and NOT in isolation as a high level concept."

## **3.2.1** General about Mandatory approach (11 counts)

"Legislation needed, enforcement essential self-awareness is a must."

"Ensure rigorous enforcement of mandatory policies."

## **3.2.1.1** Environmental friendly practices in building design/ construction (37 counts)

"For example, there should be good policies(codes)in new building (or any architecture) designs that natural light should be maximised, good thermal insulation if air condition is used. Most current building designs, heat penetrates easily through poor window & walls which are wasting a lot of cooling energy(about 30% from studies)."

"Building codes should be improved significantly to drive better buildings and lower energy use"

## **3.2.1.2** Reduce laser light performance (7 counts)

"Since the government proposed energy saving, the government should take the role. I think the government should stop the laser light performance." (Translated from Chinese)

"Cancel the laser light performance, it is wasting money and energy, and also causing light pollution." (Translated from Chinese)

## 3.2.1.3 Reduce street lights/ lamps (17 counts)

"Limit lighting brightness in some time slot."

"Diminished streetlights overnight"

# 3.2.1.4 Restrict use of air-conditioning (70 counts)

"Many buildings and vehicles set air conditioning too high. Correcting this alone may greatly reduce coal burning for electricity generation in Hong Kong. One way to help would be to require that all government buildings set temperatures to at least 25 C. Require that buildings and vehicles of all government associated organizations also set temperatures over 25 C. Such buildings include the hospitals (where my office is always too cold and where I have no thermostat to adjust the temperature higher. I need to wear a sweater in summer!), clinics, universities, all schools, all gyms, all libraries, trains and train stations, wet markets, public housing retail space, jails, etc. Buses, minibuses, and taxis would also be included since they are regulated by the government. Regularly inspect all these buildings with thermometers to make sure they comply."

"Many buildings and vehicles set air conditioning too high. Correcting this alone may greatly reduce coal burning for electricity generation in Hong Kong. One way to help would be to require that all government buildings set temperatures to at least 25C. Require that buildings and vehicles of all government associated organizations also set temperature over 25C."

## **3.2.1.5** Restrict use of advertising lights (45 counts)

"Restricting usage of Neon-lighting on street within certain period of time (for instance 3:00 - 6:00)"

"Legislation should be used to strictly control the over-use of billboard lighting & neon street lightings."

## **3.2.1.6** Restrict use of luxury electricity consumption items (4 counts)

"Luxury energy consumption items such as in omate lighting appliances should be banned."

## **3.2.1.7** Turn off public facilities when not necessary (9 counts)

"Escalator without people should be shut down. E.g. MTR, KCRC, Malls, Shopping centre. Lift in every building, lighting should be shut down if no body using the lift."

"Automatic sensor system should be applied on public escalators & street lighting to minimize usage of energy."

# **3.2.1.8** Turn off street light when not necessary (11 counts)

"Given the limited amount of night time traffic after a certain time, can street lights be staggered on/ off, within safety parameters of course."

"Turn off the street lamp at low traffic time." (Translated from Chinese)

# **3.2.1.9** Mandatory use of energy efficiency products (17 counts)

"I think we may only allow those electric with first class of Energy Efficiency Labeling can be imported and sold in Hong Kong. Although the choices for consumers may be reduced, but those first class electric really help in reducing the use of energy."

"We fully support the efficient use of energy. As I know that the Electrical and Mechanical Services Department of Hong Kong operates a voluntary "Energy Efficiency Labeling" Scheme for appliances and equipment used both at home and office as well as for vehicles. The government should make it a mandatory measure for public and private enterprises."

## **3.2.1.10** Mandatory use of energy efficiency light bulbs (23 counts)

"Certainly phasing out traditional incandescent light bulbs as soon as possible will be an effective way to decrease energy demand. There is no reason not to do this as the bulbs' long life certainly make up for the higher initial cost."

"In order to reduce resource wastage and enhance the effectiveness of energy use, the government should also adopt a mandatory energy-efficient lighting system."

# **3.2.1.11** Other mandatory approach (54 counts)

"EMSD's voluntary labelling scheme should become mandatory including schemes for refrigerators, room coolers and compact fluorescent lamps. These three products together account for over 70% of the electricity consumption in the residential sector."

"The government provides the law on labeling for electric appliances. The energy-efficiency labels is 10-20% more than no-labels."

## **3.2.2** General about domestic energy saving schemes/ incentive approach (14 counts)

"The government should introduce some incentive scheme to encourage community (e.g. waste pre-sort scheme) and citizen to use less energy."

"We likewise support the CSD's efforts by providing services and incentives on a voluntary basis to encourage energy efficiency at the consumer end."

# **3.2.2.1** Apply differential electricity pricing (39 counts)

"Tariffs on electricity should be increased significantly above a per capita limit per household to discourage sloppy over-usage."

"In addition, the price difference of electricity between peak and non-peak hours can be substantial in mainland China. We can consider it in HK."

# **3.2.2.2** Provide energy audits to companies/ households (14 counts)

"Subsidy by government for industry to carry out energy audit of premises"

"Setting a policy to reward the utilities to encourage DSM through providing energy audits."

## **3.2.2.3** Flexible working hours (4 counts)

"Should the government consider and encourage flexible working hours to relieve the problem slightly" (Translated from Chinese)

## **3.2.2.4 5-days work (3 counts)**

"Encourage 5 working days in Hong Kong."

# 3.2.2.5 Increase using energy efficiency labeling (14 counts)

"More promotion of the Energy Efficiency Labeling Scheme may increase the proportion of people using these appliances. But the current assessment standard of energy efficiency needs to be improved so that people are confident with the labels."

"There is great potential for further energy saving if the Energy Efficiency Labeling Scheme can be extended to cover appliances of other fuels."

## **3.2.2.6** Promote using energy efficiency products (29 counts)

"Supporting Government through running a 3-year DSM program which incentivized the use of energy efficient equipment."

"A design competition for electronic products should be launched to encourage more innovation on increasing energy-efficiency of the products and reducing carbon emissions during production so as to have a more positive impact on the environment. The winning entrant will receive US\$50,000, as well as support to bring the design into production."

# 3.2.2.7 Promote roof gardening to save energy (20 counts)

"Strengthen greening at building roof to reduce electricity"

"I agree with Demand side management or energy savings by planting more trees and plants particularly on the roofs of all buildings"

# 3.2.2.8 Use of water cooling system (7 counts)

"Encourage using water cooling air conditioning system"

"Air-conditioning uses 40% of total electricity production. Therefore, changing the air conditioners from air-cooling to water-cooling can also help energy saving."

## **3.2.2.9** Use of solar energy (13 counts)

"High rise buildings should be equipped with self-supplied hot water systems making use of solar energy. Solar panels should be installed on roof tops of the high-rise buildings."

"To use solar energy to reduce peak demand."

## **3.2.2.10** Provide more choices on energy efficiency products (6 counts)

"Government to host information sharing platforms for EE products and services."

"The consumer must be given the precise, comprehensible, honest and genuine information on energy consumption as labeled on the electric appliances."

## **3.2.2.11** Energy saving competitions (8 counts)

"Competition like energy saving building among different districts and housing estates"

"Rewards should be given to the companies and estates that had the best performance on energy saving at quarterly basis." (Translated from Chinese)

## **3.2.2.12** Energy labels for outstandingly energy efficient buildings (11 counts)

"Energy Efficiency Certification scheme for buildings"

"Supporting Government initiatives such as participating in the Hong Kong Energy Efficiency Registration Scheme for Buildings"

# **3.2.2.13** Subsidizes for buying energy saving devices (6 counts)

"DSM programs should offer rebates to all residential customers who buy energy efficient lighting, refrigerators and room coolers and to non-residential customers who buy energy efficient lighting or energy efficient air-conditioning equipment."

"Discount price for all energy saving grade I electric appliance."

## **3.2.2.14** Punish those who fail to meet energy efficiency standards (6 counts)

"Penalize big users for energy use beyond acceptable level."

"Penalise companies who do not reduce power usage by only allowing 80% of the previous year's power consumption costs to be charged as a business expense in the current year."

## 3.2.2.15 Subsidies for companies initiating DSM energy saving schemes (12 counts)

"DSM programs entail costs, including the rebates, the promotional expenses and DSM incentive earnings for the power companies. The right incentives should be therefore given to utility companies for reducing electricity demand and consumption and ultimately the return on investment in generating capacity."

"Incentive through subsidy or rebate"

## 3.2.2.16 Other incentive approach on DSM (74 counts)

"Encourage people to use stairs instead of elevators by charging for elevators using Octopus cards (I see many apparently-healthy people take elevators up or down a single floor!). If the price per ride were fixed no matter how many floors were traversed, the people would tend to walk up or down a few floors and ride elevators only for long trips."

"It is important to find a way to get tenants of buildings to pay their own electricity bills, instead of the landlord paying the electricity bills. This would send a cost signal to the tenant, and indicate that they should reduce costs by economizing, whereas at present they have no such direct variable signal, and evidently not much incentive to economize on electricity consumption."

## **3.2.3** Education on energy saving (43 counts)

"education for the younger generation. e.g. new schools with 'energy saving design'"

"We need serious education rather than a using few slogans and unsystematic publicity of energy saving."

## **3.2.4** Other new policies on DSM (17 counts)

"It is suggested that there is a policy to reward the utilities to encourage DSM through providing energy audits and having the cost of the exercise written off as tax deductions for the utility concerned."

"Quantify the effect of various DSM measures and disclose the information."

# 3.3 Comments about opposing DSM policies (5 counts)

"I think mandatory energy saving is difficult and not appropriate to apply in Hong Kong." (Translated from Chinese)

"HK Electric has reservations on the effectiveness of an off-peak tariff in peak shaving. It would unnecessarily complicate the tariff scheme and incur additional costs for metering and administration. With the migration of local industries to PRD, commercial and domestic consumers dominate the demand of electricity in Hong Kong and their loading patterns are unlikely to be substantially changed with the introduction of an off-peak tariff."

#### 3.4 Other aspects of DSM approach (25 counts)

"These facts by themselves seem to me to make a nonsense of the third topic on which our views are sought, namely 'demand side management which involves energy saving with energy efficiency and conservation measures to reduce burning of fossil fuels.' The fact is that the more we tighten our belts here, the more power will be sold over the border. Consumers have no control over this source of pollution. In any event, domestic and industrial consumption both fell last year; commercial consumption grew by a small amount, but that is not unreasonable given the overall increase in economic activity."

"When considering demand side management we should not just consider "energy efficiency" (e.g. better appliance), and shifting peak demand to off-peak hours (the CLP preference), but we should also consider how to achieve absolute reductions in energy consumption by reducing "luxury" consumption, which is very wasteful."

#### 4 General comments about engagement process (8 counts)

"If the council bring out more information about to what extent poor quality is harmful or even dangerous to children's health, it may definitely draw more attention from the parents group in Hong Kong."

"I write to congratulate the Council on the success of the Public Engagement Exercise on Better Air Quality; as I understand, already over 40,000 responses have been received from the community on the IR documents, the best in any government consultation. The Chamber is honored to be a collaborator organization to the public engagement, and we are pleased to have helped contribute through a series of forums including two site visits."

#### 4.1 Comments on how the topics are chosen (37 counts)

"The Canadian Chamber welcomes the questionnaire as a channel for gathering the public's view. However, the questionnaire did not explain why only a limited number of issues (High Air Pollution Days, road pricing, demand side management (DSM)) were addressed, nor provide an opportunity for other issues to be raised."

"The public consultation undertaken by the Council for Sustainable Development on Hong Kong's air quality policy focuses on three issues and three potential measures to address them (air pollution alert system, road pricing, and demand side management). This focus creates misunderstanding that these are the most urgent issues to address in improving Hong Kong's air quality management, while in fact they were produced by a system lacking adequate checks and balances."

#### 4.2 Comments on methods to collect opinions (31 counts)

"The limited scope of the questions did no allow for all appropriate answers to be provided (i.e. many people don't own a car but the question didn't allow us to state this – it only asked if we would leave a car at home) or addressed multiple aspects of n issue as they were too absolute (i.e. all outdoor activities is all encompassing)."

"You asked public if they would prefer to work at home on the high pollution day. Again, this should NOT be at the discretion of the public. This is a very risky question. Say, if the majority opts to work at home, but the medical practitioner advises otherwise. What would you conclude from this question? Why bother to include question of this type in the questionnaire."

## 4.3 Concern on how the opinions are handled (6 counts)

"I hope the Council will consider not only on the suggestions stated in the IR documents but also the opinions which are more proactive, so that we can see back our blue sky in Hong Kong." (Translated from Chinese)

"I hope the members of the Council can study my comments seriously, and not as hesitating as our Chief Executive Donald Tsang and his hibernating government." (Translated from Chinese)

#### 4.4 Other comments about engagement process (40 counts)

"Our main concern is that the initiatives set out in this document are too tentative and preliminary."

"I strongly recommend anyone responding to this topic to start with the original report 'Clean Air and Blue Skies – The Choice is Ours' rather than the 'Invitation and Response' document, which is far too narrow and as so often happens contains no relevant statistics."

## 5 Others issues

## 5.1 Expressions of concern on air pollution (126 counts)

"Every time I return to Hong Kong, I grow increasingly concerned about Hong Kong's air quality. I feel a gray mist overhanging the city that, in turn, depresses the people's health. After living and traveling around abroad for a couple of years now, I still find that the people of Hong Kong are more susceptible to illnesses compared to other countries I've seen."

"I also hope that companies in HK take more seriously reducing pollutants and emissions. HK is a fairly attractive place to live for companies EXCEPT for the choking pollution, which is pretty quickly and obviously discouraging many people from staying here or settling here (or encouraging some long-time residents to consider leaving). We don't want to lose talent and income from companies just because pollution is so bad.

## 5.2 Comments about causes of air pollution (105 counts)

"One of the primary contributors to the unacceptable level of air pollution in Hong Kong is the exhausted gas emissions from Diesel engines. This fact somehow never seems to be mentioned in many of the discussion on this very important topic regarding the pollution levels in Hong Kong, it seems so much easier to put nearly all the blame on pollution from the Pearl River Delta. This is not correct."

"Indeed, it is almost a consensus now that a significant (if not most) portion of the air pollution is coming from the Pearl River Delta."

# **5.3** The report recommendations (1 count)

"Stronger legislation is required to enforce the recommendations from the previous report on air quality"

# 5.3.1 Institutional choices (Review of Air Quality Objectives) (40 counts)

"The World Health Organization has introduced new standards for air quality last year. The Government should revise our outdated standards with a view to implement plans to reach such standards within the next 5 years."

"As a matter of urgency, the government should update its Air Quality Objectives (AQO) that reflect the health impact of our air pollution and are in line with WO guidelines and include sufficient health warnings. This should be part of an air quality management policy that includes stricter interim and long-term air quality targets as part of a broader sustainable development strategy (SDS)."

## 5.3.2 Electricity Generation choices (23 counts)

"Electricity companies should also explore other cleaner ways to produce energy."

"Work done by China Light and Power Company Limited include emission reduction, use of natural gas and nuclear power in generating energy, Flue Gas Desulphurisation controls, and introduction of LPG terminals in HK"

## 5.3.2.1 Use of Clean coal (3 counts)

"Consider to restrict the standard on the amount of sulphur contained in the coal used for power supply." (Translated from Chinese)

# 5.3.2.2 Flue-gas desulphurization (FGD) pollutant control (6 counts)

"Get ExxonMobile/ CLP to install as soon as possible fluegas desulphurization on its huge castle peak coal power station."

"Works done by Hong Kong Electric Company Limited include introduction of FGD"

## 5.3.2.3 Use of liquefied natural gas (5 counts)

"You mentioned in your website a few times that a major reason for poor air quality was due to burning of fossil fuels for electricity generation. Therefore, Gov't and electricity Company should not further delay the LNG project."

# 5.3.2.4 Selling electricity to China (1 count)

"It is better to supply energy to the mainland by the power companies in Hong Kong because their power generation process is more environmentally friendly than the mainland."

## **5.3.3** Transport choices (14 counts)

"It is important that Hong Kong adopts the most stringent vehicle emission standards that are practical and these measures should be enshrined in a sustainable transport strategy that is integrated with land use planning for long term sustainability."

"Although the government had already planned to sponsor the owners of environmental friendly vehicles, but we think the incentives are not strong enough for people to change their vehicles immediately. Most of them will change their vehicles only after their vehicles can no longer be used. If we can have mandatory policy, we deeply believe the progress will be much faster." (Translated from Chinese)

# 5.3.3.1 Converting light vehicles to cleaner fuel (light goods vehicles, light buses) (6 counts)

"Increase the number of LPG stations to attractive more taxi and minibus drivers to use LPG vehicles." (Translated from Chinese)

"Promote the use of LPG for private traffic - Most mini buses and all taxis are driven by energy efficient and clean LPG gas. Why does the Hong Kong government do not more to promote LPG for the private traffic as well? Many gas stations already are equipped with one or several LPG pumps and they could and would easily install more, if the demand increases. Promotion of LPG driven vehicles can easily be done by a lower fuel tax on LPG than on Diesel and Petrol."

# 5.3.3.2 Fitting catalytic converters and particulate traps onto medium and heavy vehicles (5 counts)

"More promotion on installing particulate traps"

#### **5.3.3.3** Retrofitting particulate traps on franchised buses (5 counts)

"Suggest also that there should be subsidies available for retrofitting of exhaust after-treatment devices such as catalysts and particle traps. There have been a number of major programmes in US and Europe that have demonstrated the potential benefits of retrofit programs."

## **5.3.3.4** Prevent importing of high sulphur diesel from Shenzhen (3 counts)

"As far as vehicular fuel is concerned, an imminent problem that need to be addressed is the emissions from cross boundary vehicles as many of them are filled with low grade diesel in Shenzhen with 0.1 - 0.2% sulphur compared with that in Hong Kong with 0.005% sulphur as per "Clean Air and Blue Skies – The Choice is Ours" by the Council for Sustainable Development."

#### 5.3.3.5 More hybrid vehicles (31 counts)

"For clean air to happen, efficient measures must be taken. Hybrid cars for private use should clearly be the next step, now that taxis and buses have switched to gas. Financial incentives should be given to encourage people to buy hybrid cars rather than fancy -and polluting- 4X4 and luxury cars."

"As for private cars, subsidy for private car owners to buy hybrid cars is a good start, and I am sure as more car makers produce better hybrid models, it will become a more popular choice."

#### 5.3.4 Industry choices (2 counts)

"Over 60% of the factories run in the PRD are owned or partially owned by Hong Kong businesses. Why do these companies not feel responsible for the worsening air in their home city? Those companies owning manufacturing businesses in the PRD should be held responsible by undergoing VERY strict emission control measures, filter applications to reduce smoke and particle emission."

# 5.3.4.1 Shifting from industrial diesel to ultra-low sulpur diesel (e.g. ferry, construction, boats) (1 count)

"In parallel with the 2007-08 Policy Address regarding the legislation to replace industrial diesel with ultra low sulphur diesel in all industrial and commercial processes, I hope the procedures of the application of "Marked Ultra-low Sulphur Diesel Verification Scheme on End-users" can be simplified."

## **5.3.4.2** Promotion of cleaner production (10 counts)

"Cleaner production should be implemented for large and heavy industries to reduce air pollutant emissions and energy consumption."

"As industry representatives, we particularly agree with the Council's view that it is now time for Hong Kong industries to play a proactive role in addressing he environmental issues in the PRD region – the manufacturing base for Hong Kong industries. The promotion of green production, which basically means industrial pollution prevention at sources through technology advancement as well as improved management in industrial and commercial operations, has become a core component of Mainland's industrial pollution control policy in recent years."

## 5.3.4.3 Code of Conduct (2 counts)

"voluntary initiatives include the "One Factory-One Environmental Project-One Year" Programme, Green Manufacturing Alliance, Green Mark Certification Scheme, and the Business Facilitation and Incubation Centre for SME Manufacturers to Enhance Environmental Excellence."

## 5.4 Other suggestions for improving air quality (151 counts)

"I would like to suggest stop smoking in all public area to get better air environment."

"In 2004, Boeing launched the development of the 787 dreamliner, that rolled out on July 8 this year and will be in the air of customers next year. It saves a fifth of the fuel of its predecessor but cost the same and it has therefore had the fastest order takeoff of any airplane in history....If Cathy buys more Boeing 787, fuel surcharge can be reduced or cut and we will have cleaner air from 2015."

## 5.4.1 Greening (56 counts)

"I agree that clean air policy should implement in Hong Kong, however, I view that our Hong Kong Government should do more work not only setting regulations to control air pollution but also building more green work, such as creating our Hong Kong environment in green grass. I observe that our City, tree are comparatively smaller than Singapore, if we can not create a green environment, I view that Hong Kong will no longer attract more people around the world come to Hong Kong."

"Plant more trees in around the city is one of the practical way to get instant effects"

# 5.4.2 Building density (44 counts)

"Better urban planning to control the height and density of the tall buildings will help to have better air quality."

"To help resolve the street canyon problem, it is important that during the planning stage of any urban neighbourhood:

- a) Avoid having tall buildings along narrow streets with busy traffic in all circumstances, have an aspect ratio (Height of building/Width of road) of less than 3, preferably much lower.
- b) Configuration of buildings: the flanking buildings should not be continuous and uniform gaps should be allowed in the building geometry to improve ventilation. Better still, garden plots can be created to achieve better effects."

# 5.4.3 Education (64 counts)

"Government should start educating the public when they were young. There should be topic about air pollution at different stages of their study. Let them know serious the air pollution is and the effects on hem and the environment." "There should be more public education to develop a correct mindset & better understanding of air pollution. People always have a wrong concept about air pollution. They tend to take good visibility as an indication of good air quality and pay less attention to air pollution when seeing blue sky but this is completely wrong. Only fine particles and nitrogen oxide affects visibilities greatly. The public should be educated that a blue sky indicates good visibility only, but not good air quality."

## 5.4.4 Encouraging renewable energy (41 counts)

"Sponsoring research and community programs on renewable and alternative energy."

"Hong Kong should try to use renewable energy resources such as solar power, wind power, power from biomass etc. Although there are different difficulties to use these renewable resources, for example, solar energy is difficult to collect and store. Also, we need a large place to build windmills if wind power is used. However, if these renewable energy resources can also be used, the amount of electricity that needs to be generated will be decreased The amount may not be large, but at least, the amount of pollutants can be reduced."

#### 5.4.5 Emissions trading (7 counts)

"Emission trading has been adopted to control industrial exhaust. CIWEM HK suggests caps on emission exhaust and pay for additional exhaust is useful to manage ever increasing industrial emissions. The HKSAR Government should work closely with the Guangdong Province Government on the emission trading pilot scheme for thermal power plants."

"Hong Kong should study the UK pilot personal emissions trading scheme with a view to implementing a similar scheme in HK. This could then be used as a mechanism for later introduction in China."

## 5.4.6 Reduction of traffic (79 counts)

"For existing streets already with a serious air pollution problem, temporary restrictions on vehicle use may need to be imposed under extreme conditions. Re-routing of part of traffic will reduce pollutant buildup."

"Government to place appropriate limits on the number of new private cars to be registered each year, thereby properly controlling vehicle growth particularly that of private cars (with discretionary exemption for the disabled and those who have special needs of private cars)."

## 5.4.7 Encourage more use of rail (15 counts)

"Promote usage of railway system by imposing financial incentive, such as discount in ticket prices for traveling during morning and evening busy hours."

"Another suggestion would be optimizing government's public transport policy towards achieving an increase in rail-led transport, including greater use of trams which require much less use of energy."

## 5.4.8 Adoption of cleaner form of transport (45 counts)

"We recommend that the Government implement pedestrian-centred planning at the strategic level through its usual planning mechanisms."

"How do we change those to more environmental friendly way to do it? There are many ways to improve. Some of them doesn't need to spend money, they save money. Bicycle, as short distance transportation. Why the government is loosing on this?"

## 5.4.9 Ban of idling engine (29 counts)

"[...]banning of idling engines help reduce automobile exhaust, the air quality would be improved especially at covered transport interchanges. [We] urge that the legislation of banning idling engines should be further enhanced."

"[I] also think that the government should come up with regulations to penalize leaving engines on while waiting. This should apply to commercial cars and private cars. Although we can imagine that it would be hard to define, such as how long the car has been left idle etc, but this problem is rather serious and I believe with such regulations, it will improve the situation."

# **5.4.10** On-going studies on regional aspects of air pollution (17 counts)

"To address the problem, SAR Gov't should also work closely with mainland China. We should not neglect the pollution problem in Pearl River Delta region whilst we are very close to them."

"The government should not ignore the up-stream measures like cooperating with mainland government to deal with the Pearl River Delta's pollution problem."

## 5.4.11 Clean Air Charter (1 count)

"Smaller corporations could sign up for Clean Air Charter (CAC) and implement measures recommended in the CAC"

## 5.5 Government responsibility for action (22 counts)

"Maintaining and promoting the health well-being of Hong Kong citizenry is one of the most important objectives that the Government needs to achieve in its sustainable development strategy."

"We appreciate that the Council and the Government will come up with more ideas and innovations to combat air pollution determinedly. Please do something and act speedily."

## 5.5.1 Against mandatory approach in general/legislation (2 counts)

"Against any legislation that addresses the air pollution problem. General public should be 'encouraged' to participate in improving air quality while they are not obligated to do so."

#### 5.5.2 Oppose air quality policies (3 counts)

"Not agree to ask Hong Kong Citizens to pay money to tackle the pollution problem."

## 5.5.3 Support government take a leading role (53 counts)

"Given the importance and urgency to improve Hong Kong's air pollution, steps must be taken by the government, in its stewardship role, to outline a clear energy policy that focuses efforts to reduce the amount of power consumed in Hong Kong by improving energy efficiency and more stringent emission reductions."

"We recognize that the primary responsibility for action lies with the Government."

## 5.5.4 Other comments on government's role (39 counts)

"As an eco-concern group, we urge the government to take the long term environmental interests of Hong Kong, China and also that of the world in its formulation of any concerned policy. Being a cosmopolitan member of the global community and a vital city of China, Hong Kong should tackle the environmental issues not only with a local perspective but rather a regional and global one. We owe it to ourselves and our future generations to engage this fight NOW with commitment, determination and commensurate policies and programs."

"The Government should invite more international professors or experts to share their views while promoting "Better Air Quality" ideas in Hong Kong."

## 5.6 Needs for individuals to act/ change behaviour (27 counts)

"With the growing awareness within our community that each member of society needs to play an active part in promoting the sustainability of our habitats, the public at large is increasingly prepared to adopt a life style and habits that ca minimize their footprints on the environment."

"We believe everyone has a part to play in improving air quality in Hong Kong. Business, Government and consumers must all be engaged. However there must be wider realization in the community that, as well as changing habits, there will inevitably be financial implications in order to achieve our efficiency goals."

# 5.7 Complaints (45 counts)

"If any member of the Council does not believe the public are fed up with the government inaction please ask the editor of the SCMP to send you copies of all the letters they have printed (not all they have received) on pollution and see how many think the government is doing a good job."

"Whilst I do not hold all the answers I do despair that the government is so lacking in imagination."