

**For discussion on  
20 January 2000**

**Legislative Council  
Panels on Environmental Affairs and Transport**

**Strategies to Promote Better Maintenance of Vehicles  
and to Reduce Smoky Vehicles**

**INTRODUCTION**

At the joint meeting of the Panels on Transport and Environmental Affairs on 16 December 1999, Members considered submissions made by a number of deputations concerning the issue of vehicle maintenance. In addition to the paper already submitted by the Administration before that meeting, Members requested the Administration to provide its views on the following to facilitate further discussions:

- (a) response to submissions put forward by the deputations;
- (b) the implementation of a licensing/certification scheme for the maintenance trade;
- (c) the training programme for vehicle mechanics;
- (d) release of service documents and technical data to repairers and the motoring public;
- (e) establishment of a diagnostic testing centre by a self-financing agency with initial capital from the Government. If the former is not feasible, whether the Administration is prepared to render some form of assistance to the private sector with a view to speeding up the provision of such facility; and
- (f) the findings and recommendations of the working group to consider ways to assist the trade to raise the standards of vehicle maintenance including details of the implementation programme.

2. The attached paper sets out the Administration's response on the above issues.

**Environmental and Food Bureau**  
**January 2000**

**Administration's Response to the Issues raised at the  
Meeting of the Panels on Environmental Affairs and Transport  
On 16 December 1999**

**A. Views/Comments related to vehicle maintenance and vehicle testing**

	<b>Deputations' Views/Comments</b>	<b>Administration's Response</b>
<b>1.</b>	<b>Training and licensing of vehicle mechanics</b>	
1.1	<p><u>Better Environment Hong Kong</u></p> <p>To license mechanics with advanced on-going education. Advanced on-going education is essential in order to keep vehicle mechanics update with more advanced technological vehicles such as Euro III computerised vehicles</p>	<p>We agree that there is a need to provide better training programmes to equip vehicle mechanics and technicians with the necessary knowledge and skills in properly servicing vehicles. The Vocational Training Council (VTC) runs a wide range of training programmes for new entrants as well as upgrading training to in-service vehicle mechanics and technicians. The Council will regularly review the training needs for the vehicle maintenance trade and provide the necessary training courses to meet the demand. Annex 1 sets out the training programme in more detail. The Working Group on Vehicle Maintenance Service will also look into the training needs of vehicle maintenance trade and make appropriate recommendations on how the training programme for vehicle maintenance trade could be further improved.</p> <p>The Working Group is also reviewing the need for introducing a licensing/certification scheme for the vehicle maintenance trade. It will look into the benefits and impacts of a regulatory system to the trade, and will make reference to overseas experience on licensing vehicle maintenance trade, as well as local practices on licensing of other trades such as the electricians, gas workers, etc., to examine in details the technical feasibility and the possible framework of a licensing/certification system.</p>

1.2	<p><u>Environmental vehicle (Taxi) Repairers Association Ltd</u></p> <p>The government should have a plan to train up vehicle mechanics more quickly. At present, VTC does not provide adequate classes for vehicle servicing. Nor can it provide adequate vehicle servicing training in particular in the tuning of vehicle engines for the dynamometer test. For example, while there is a high demand on the training of LPG vehicle mechanics and that more than 800 vehicle mechanics have enrolled the courses, VTC could only train 180 mechanics a year.</p>	See response to section 1.1
1.3	<p><u>Hong Kong Automobile Association</u></p> <p>At the moment, there are no standardised qualification requirements for competent vehicle mechanics. It is suggested that standardised qualifications should be established to help vehicle repair workshops identify competent vehicle mechanics. This can ensure that vehicles after being serviced will comply with requirements such as emission requirements. This helps vehicle owners to choose suitable vehicle repair workshops.</p>	See response to section 1.1
1.4	<p><u>Hong Kong Vehicle Repair Merchants Association Ltd</u></p> <p>To improve auto technician`s quality, training is very important. The vehicle mechanics are the main work forces of all the automotive service depots. It is suggested that the government establish the relevant regulations for licensing all vehicle mechanics so as to improve their quality which in turn enhances the environmental protection and road safety.</p>	See response to section 1.1

1.5	<p><u>Ir. Iain Seymour-Hart</u></p> <p>Motor mechanics/technicians need to be licensed. To best ensure good quality maintenance, mechanics and technicians need to be well qualified and appropriately skilled. A licensing system for motor mechanics and technicians, similar to that presently in place for electricians and gas installers, would therefore protect the public from the 'ill effects' of poor quality workmanship. The licence should require the holder to have (i) a well recognised academic qualification, (ii) be well trained/time served and, (iii) ensure a good level of skill.</p>	See response to section 1.1
1.6	<p><u>The institute of the Motor Industry Hong Kong</u></p> <p>To improve vehicle mechanic`s quality, training is a very important measure, especially the new technology training. In addition, a qualified licensing vehicle mechanic registration system must be set up by the government to establish the relevant regulations ensuring the vehicle mechanic's technical standard. So as to improve their quality which enhances the environmental protection and road safety.</p>	See response to section 1.1
1.7	<p><u>The Motor Traders Association of Hong Kong</u></p> <p>Hong Kong does not operate a recognised, compulsory registration of motor mechanics and technicians other countries do, notably Germany, France and the UK. Members of the MTA, however, regularly conduct training courses and all qualified technicians receive factory training from MTA members' principals. No such training is available to unauthorised repairers or their employees and manufacturers are understandably concerned about the capabilities of these relatively untrained technicians.</p> <p>The MTA suggests that a code of practice be adopted by all unauthorised repairers to advise the public of their capabilities, the standard of their equipment and the level of their staff training.</p>	See response to section 1.1

2.	<b>Making Vehicle Maintenance Manual/Data Available to Public</b>	
2.1	<p><u>Environmental Vehicle (Taxi) Repairers Association Ltd</u></p> <p>The government should seek to ask the vehicle dealers to provide manufacturers' vehicle maintenance information/data. Without vehicle maintenance information, vehicle mechanics could only provide services through trials no matter how much professional knowledge they have.</p>	<p>The Motor Traders Association (MTA) advised in their submission to the Legislative Council Panels on the Environmental Affairs and Transport Affairs on 16 December 1999 that their members were prepared to release relevant parts of the vehicle service manuals under certain conditions. The Working Group on Vehicle Maintenance Service will shortly arrange to meet the MTA to discuss in detail the necessary arrangements that can help the trade to obtain the service manuals.</p> <p>We are in parallel exploring the feasibility for a neutral party to establish a vehicle technical information database which can be accessible by the trade.</p>
2.2	<p><u>Hong Kong Vehicle Repair Merchants Associations Ltd</u></p> <p>Proper manpower training, free access to vehicle technical data/information and setting up of equipment centre would enable those medium and small size service depots to compete with their counter parts on a fair basis.</p>	<p>See response to section 2.1</p>
2.3	<p><u>Ir. Iain Seymour-Hart</u></p> <p>Vehicle manufacturers should be required to make all repair manuals openly available to the Hong Kong public. Such information is apparently 'open to the public' in many other countries where repair manuals may be purchased from a wide range of sources. (The Automotive Engineering Department of the Hong Kong Institute of Vocational Education has a wide range of such manuals but not all vehicle makes/types may be represented)</p>	<p>See response to section 2.1</p>

2.4	<p><u>The institute of the Motor Industry Hong Kong</u></p> <p>Government/VTC should establish a Vehicle Technology Information Centre to keep all kinds of vehicle technical data materials for open enquiry by the vehicle repair and maintenance trade persons. This information centre can provide the necessary, useful and correct technical information for the vehicle repairing process.</p>	See response to section 2.1
2.5	<p><u>The Motor Traders Association of Hong Kong</u></p> <p>While the MTA its members will readily agree to make the service manuals and relevant technical data available (at a market price), it must be stressed that the MTA, its members and members' principals cannot be held responsible for the safety of vehicles maintained by unauthorised personnel. Furthermore, in some cases it may invalidate the manufacturer's warranty if the vehicle receives attention from an unauthorised repairer.</p> <p>To receive technical data an unauthorised repairer would have to demonstrate to the relevant manufacturer that its employees possess sufficient skills and technical knowledge to satisfactorily maintain the vehicle. While the technical data may be made available, confidential information relating to design and construction will not be released.</p> <p>The MTA suggests that unauthorised repairers make contact directly with the manufacturer if they wish to avail themselves of these data. However, the MTA would urge the government to implement sufficient safeguards in order that public safety is not compromised.</p>	See response to section 2.1

<b>3.</b>	<b>Establishment of diagnostic testing centre</b>	
3.1	<p><u>Better Environment Hong Kong</u></p> <p>A diagnostic testing centre can help to identify problem components from problem vehicles. Data will be important to the repair trade and for inspection/maintenance evaluation purpose.</p> <p>With more than 2,300 autoshops in Hong Kong, it is impossible to require all workshops to equip with different diagnostic equipment due to size and the cost. Therefore, a centralised diagnostic testing centre may be needed in Hong Kong to enable the repair trade to share such equipment at a reasonable cost.</p>	<p>We welcome the proposal for the setting up of diagnostic testing centres. But we consider that any such initiatives should be driven by the market itself and it would not be appropriate for the government to provide any subsidies for the establishment of such testing centres. We are however prepared to look into ways to encourage and facilitate the provision of such facilities.</p>
3.2	<p><u>Environmental Vehicle (Taxi) Repairers Association Ltd</u></p> <p>The government should work closely with the vehicle maintenance trade to understand the problems that the trade is facing. In addition, the government should allocate suitable place and help the trade set up a vehicle maintenance information centre. This information centre should provide manufacturers' vehicle maintenance data/information, and equip with advanced vehicle tuning equipment (such as chassis dynamometer), etc..</p>	<p>In addition to the response to section 3.1, we are considering a pilot scheme in conjunction with the designated emission testing centres to allow vehicle owners/mechanics to test the smoke emissions of their vehicles on the dynamometers as a preventive measure, before their vehicles are spotted as smoky vehicles.</p>

<b>4. Registration of vehicle repair workshops</b>	
4.1	<p><u>Ir. Iain Seymour-hart</u></p> <p>To further protect the public and also to introduce an enforceable 'minimum maintenance' policy, vehicle repair enterprises (garage workshops) need to be registered. In order to comply, garages should be required to:</p> <ol style="list-style-type: none"> <li>a. employ properly qualified and skilled (licensed) mechanics and/or technicians;</li> <li>b. have adequate levels of equipment and appropriate maintenance data (Manufacturers Specifications) to suit the vehicle types to be repaired;</li> <li>c. provide regular upgrading courses for their mechanics/technicians;</li> <li>d. adhere to all health, safety and environmental protection regulations;</li> <li>e. maintain premises which are suitable for the purpose and have sufficient internal space, and</li> <li>f. put in place an 'IT' system capable of interfacing with the Transport Department computer (for service data transfer)</li> </ol>
	<p>For the suggestion on registration of vehicle repair workshops, please see response to section 1.1. Suggestions on specific requirements for garages are noted and will be drawn to the attention of the Working Group on Vehicle Maintenance Service.</p>

5.	Other views/comments related to vehicle maintenance and testing	
5.1	<p data-bbox="244 275 831 320"><u>Ir. Iain Seymour-Hart</u></p> <ul style="list-style-type: none"> <li data-bbox="244 331 831 846">● Poorly maintained vehicles should be barred from use on the road. One idea would be to require 'registered garages' to upload 'minimum maintenance' data to the Transport Department (TD) computer each time a vehicle is serviced (maintenance, safety and emission treatment). When an owner applies to the TD to renew his vehicle licence this will only be successful if the TD computer shows that the vehicle has received the required level of maintenance within the previous 4 months.</li> <li data-bbox="244 857 831 1305">● Government currently tightly monitors the quality of maintenance of franchised bus companies. However, this seems not to be the case regarding the vast number of goods vehicles, taxis and public light buses. A comparable set of controls should therefore be applied across all vehicles used for the purpose of hire or reward. (N.B. It should be noted that there are few regulations, which deal with the operational aspects of running goods vehicles.)</li> </ul>	<p data-bbox="839 331 1437 734">Noted. All commercial vehicles and private cars (over six years old) are required to undergo an annual inspection and roadworthiness test in order to ascertain that they are properly maintained and safe for driving on the roads. To ensure that vehicles are also properly maintained to meet the emission standards, emission tests will be introduced progressively for all commercial and private vehicles as part of their annual inspection or road worthiness examination.</p>

5.2	<p><u>Mr David Mckirdy</u></p> <ul style="list-style-type: none"> <li>● Commercial diesel operators need to be encouraged to spend their repair budgets on pro-active servicing rather than reactive repairs. Frequent oil changes are much cheaper than engine rebuilds.</li> <li>● Find out how much the main agents charge for regular servicing and what the recommended service interval is. If they charge \$20,000 every 10,000 kilometres service, then it is clearly too much but if it is \$3,000 every 20,000 kilometres, it is probably not. I am sure that the main agents can provide an affordable service package that includes an element of major repair insurance. (This is available for private cars).</li> </ul>	<p>Noted. Through the strengthened smoke tests, the introduction of more stringent emission standards, and publicity on the need for proper maintenance of diesel vehicles to reduce emissions, we believe that commercial diesel operators would take more active steps to ensure their vehicles are properly maintained.</p>
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**B. Views/Comments related to other measures to reduce vehicle emissions**

6.1	<p><u>Ir Iain Seymour-Hart</u></p> <p>All vehicle must be maintained properly, no matter what fuel they use. The manufacturers recommended preventive maintenance scheme should therefore be adhered to. A properly maintained vehicle will burn less fuel and hence exhaust less pollution to the atmosphere.</p>	<p>Agreed.</p>
6.2	<p>Strong enforcement of all relevant regulations must be put in place. Hong Kong currently has good vehicle 'Construction &amp; Maintenance', 'Safety, Health &amp; Environmental Protection' and 'Air Quality' regulations. However, these regulations can only be as good as the enforcement media applied. The relevant authorities must therefore explore ways of more effectively enforcing the current regulations.</p>	<p>The Administration regularly reviews the effectiveness in enforcing our legislation and will continue to do so.</p>
6.3	<p>A change in mindset/culture of the public at large is apparently urgently needed. If the public fail to gain an understanding and a strong empathy towards environmental protection it will be extremely difficult, if not impossible, to secure any lasting improvement. (N.B. It is now well established, by a growing number of prominent persons within our business community that we need a clean and healthy environment to attract experts to work in Hong Kong.)</p>	<p>Agreed. The Administration will continue to organise public education programmes to raise public awareness on environmental protection.</p>
6.4	<p>The age of the vehicle fleet (all types) needs to be kept</p>	<p>We are working on a proposal</p>

	low so that we may fully benefit from the latest technology designed to counter harmful emissions	to phase in age limits of vehicles and will consult the public within this year.
6.5	Discourage harsh driving, such as rapid acceleration and severe braking. By driving smoothly wear and tear is minimised, fuel consumption is reduced, emission levels are lowered and road safety is enhanced. The bonus for smooth driving is significantly lower operational costs. Driver selection mechanisms, training and professional development system especially for commercial drivers, should therefore be strengthened.	The Administration will continue to organise public education programmes on how individuals and different sectors can contribute to reducing air pollution and on eco-driving.
6.6	We must prevent poor quality fuel from entering Hong Kong. It appears that the present border checks are not sufficiently effective! One way to solve this would be to neutralise the financial gain presently enjoyed by the fuel smugglers. High sulphur, poor quality fuel increases the danger of respiratory ailments, produces more concentrated acid rain and even damages the engines in which it is used. In addition, modern vehicles with sophisticated engine and emission control systems must have high quality fuel (e.g., citydiesel) in order to operate efficiently/realise intended emissions levels.	We are establishing a working group with the Guangdong authorities to look into the feasibility of harmonising the fuel standards for the 2 places.  On our fuel standard, we plan to further reduce the sulphur content of motor diesel to 0.035% in 2001. We are also exploring the feasibility of introducing ultra-low sulphur diesel for use in Hong Kong.
6.7	We need to ensure that new vehicles are able, not simply to meet our present standards (Type Approval), but to continue meeting these over the service life of the vehicle.	Regular and proper maintenance is crucial in minimising emissions..
6.8	We need to introduce well proven LPG technology to taxis, light buses and vans as quickly as possible.	We are working on the detailed proposal to speed up the conversion of taxis to LPG. We will soon launch a trial on cleaner alternatives to light buses.
6.9	We should encourage the use of car and taxi sharing the overall number of vehicle journeys and thus reduce the number of vehicles entering urban areas. The fuel consumption per person, of a vehicle carrying two persons instead of one, is effectively halved! Furthermore, a bus carrying 90 or 100 passengers will have a better fuel consumption per person, compared to most cars.	The Administration has been encouraging private car users to switch to public transport. In addition, the Administration will improve the coordination of public transport services to better match demand and reduce the traffic in urban area.
6.10	There are ways to minimise the number of vehicles entering the urban area. In Paris, whilst the pollution index is high, the authorities only allow 'even' numbered (licence plate) vehicles one day and 'odd' numbered vehicles the next day, into the urban areas. In Germany, only vehicles with a 'low pollution' badges may be used	See response to section 6.9 above.

	when the pollution levels are bad.	
6.11	We should educate the public to avoid non-essential car journeys especially on days when the air pollution is at a critically high level. The public would need to be educated about the harmful and wasteful aspects of non-essential journeys.	The Administration will continue to organise public education programmes on how individuals and different sectors can contribute to reducing air pollution and on eco-driving.
6.12	Low priced (subsidised) car parking should be available at suburban MTR, KCRC, Bus and Ferry stations/piers to encourage drivers to use mass transport as the preferred means to enter urban areas.	A Park and Ride trial scheme has been implemented at Sheung Shui KCR station. Park and Ride facilities will be developed at major transport interchanges on the fringe of urban areas.
6.13	We should apply penalties to penalise any driver who excessively idle his engines whilst the vehicle is stationary.	A proposal on idling engines is under preparation. Our target is to consult the public on the proposal in early 2000.
6.14	We should strive to minimise traffic congestion/jams. Stationary vehicles waste 100% of their fuel by not moving and at the same time heavily pollute the surrounding environment. Likewise, slow moving vehicles suffer low fuel efficiency and hence pollute more. Such congestion is usually associated with the urban areas where there are large numbers of pedestrians adversely affected by such masses of pollution and heat released to the atmosphere. Traffic control and road planning systems must be put in place to keep vehicles on the move and if possible to provide information to drivers regarding the best times to use and routes to take to avoid congestion. Satellite navigation systems may be applied to assist drivers avoid such congestion.	The Administration has commissioned a feasibility study on the development of Transport Information System which aims to collect, process and disseminate transport information in Hong Kong. This would help improve traffic management and reduce congestion.
6.15	'Vehicle-free' shopping/urban areas need to be introduced to provide a safe, comfortable and healthy environment for pedestrians. Restaurant and café owners may provide services, in such new areas, which would become attractive to both tourists/shoppers alike. Pedestrian areas are now very popular in many cities around the world for shopping, resting and other leisure/dining activities.	Pedestrian schemes are being planned for Causeway Bay, Tsim Sha Tsim and Mong Kok in order to provide a more comfortable, safe and healthy environment for pedestrians. These schemes are expected to be implemented in phases starting from mid-2000.
6.16	The smoky vehicle spotter programme should be expanded and the penalties against the polluter greatly increased.	We will continue to train more spotters and are seeking to introduce legislative amendment to increase the fixed penalty for smoky vehicles.

6.17	The most important action should be to educate all concerned especially our children to encourage a strong empathy for environmental protection.	The Administration will continue to organise education programmes and outreaching activities to educate students on environmental protection.
7.	<u>The Institute of the Motor Industry Hong Kong</u> Government should invite and subsidise the local institutes and universities for some study projects, tests and experiment to develop some new technology for improving diesel smoke.	We welcome and are willing to work as partners with local institutes, universities and industries to conduct trials and develop new technology for improving diesel smoke. We have collaborated with a bus company to conduct trials on retrofitting buses with diesel catalyst and supported a local institute in developing a low cost particulate trap.
8. 8.1	<u>Mr. David Mckirdy</u> Encourage compliance of the law by punitive fines. The fines are not in place to make it more expensive to run a commercial vehicle but to dissuade all road users from breaking a law that affects all of society. Most of other traffic violators do not have a direct effect on society, so I would put pollution in a special bracket. Perhaps some 'horse trading' in other proposed traffic reforms could encourage a grudging acceptance of this particular and most important amendment!	We will propose a legislative amendment to increase the fixed penalty for smoky vehicles.
8.2	An increase in the level of fines will have no effect whatsoever if the law is not enforced. A fine of \$10,000 is affordable if you only have to pay it once in a blue moon. I drive at least 100 km per day and while I regularly encounter speed traps. I cannot remember having seen a single roadside emission/fuel check station within the last 5 years. In these austere times of budget constraints surely the revenue raised from more assiduous policing would adequately cover the cost of the additional resources needed, plus in true Hong Kong style generate a healthy profit. Additionally, since it seems that the South China Morning Post can buy illegal diesel on a daily basis in Causeway bay why can't the police catch the perpetrators of this crime on a daily basis?	We have been stepping up our control on smoky vehicles. The Police has been provided with 12 smokemeters last year to help step up their enforcement. EPD introduced the dynamometer test for diesel vehicles below 5.5 tonnes in September last year to enhance the effectiveness of its Smoky Vehicle Control Programme.  The Customs and Excise Department has stepped up enforcement against illegal importation of diesel.
9	Findings and recommendations of the Working Group on Vehicle Maintenance Service to consider ways to assist the trade to raise the standards of vehicle maintenance including details of the implementation programme.	See <b>Annex 2</b>

## **Training Programme for Vehicle Mechanics**

The existing automotive training courses provided by the Vocational Training Council (VTC) are set out in Appendix A and B.

2. To tie in with government's plan to introduce LPG taxis in large scale, the VTC has introduced the LPG vehicle servicing course in October 1998 and so far 235 LPG mechanics have been trained. In view of the high demand on the training of LPG vehicle mechanics, VTC is proceeding to increase its annual training capacity from 180 to 400 for LPG vehicle mechanics.

3. To help the vehicle maintenance industry to tackle emission problems from diesel vehicles, the VTC will introduce short courses for vehicle mechanics on the use of dynamometer for better vehicle maintenance in early 2000. VTC will organise more such courses depending on the demand.

4. In addition to the courses provided by the VTC, the Environmental Protection Department (EPD) has also organised a number of seminars on how to properly maintain vehicles to prevent smoke emission and to understand the dynamometer smoke test. EPD intends to organise more similar seminars for around 1000 members of the trade over the next 6 months. If necessary, additional seminars could be held to allow all vehicle workshops that are interested to send at least one of their mechanics to attend them.

**Vocational Training Council**  
**Automobile Industry Training Centre**  
**Course Plan for 2000**

	Course Title	Course Type	Course Duration	No. of Class	Class Size	Total No. of Trainees
Pre-employment Course	Basic Craft Course (BCC) in Vehicle Servicing	Full-time Long	44 weeks	14	20	280
	Fundamental in Vehicle Servicing	Full-time Short	9 weeks	3	20	60
Up-grading Course	Upgrading Vehicle Painter	Full-time Short	5 days	2	12	24
	Automobile Air-Conditioning System Servicing	Part-time Evening	10 evenings	2	12	24
	Diesel Fuel Injection System Servicing	Part-time Evening	16 evenings	1	12	12
	Automobile Testing Equipment	Part-time Evening	10 evenings	2	12	24
	Vehicle Painting	Part-time Evening	25 evenings	2	12	24
	Automatic Transmission System Servicing	Part-time Evening	10 evenings	2	12	24
	Electronic Fuel Injection	Part-time Evening	8 evenings	1	12	12
	L.P.G. Vehicles Servicing	Mixed mode and Part-time Day	45 hours or 6 days	40	10	400
	Emission Control (diesel engine)	Part-time Evening and Day	3 evenings or 1 day	168	12	2016
				<b>Total</b>	<b>237</b>	

**Courses offered by the Hong Kong Institute of Vocational Education**  
**Automotive Engineering Department**

1. One-year, full time Technician Preparatory Certificate in Motor Vehicle Engineering [Phasing-out at the end of 1999-2000]
  2. Two-year, full time Diploma in Automotive Engineering
  3. Full-time Higher Diploma in Automotive Engineering [Due to be phased-in in 2001-2002]
  4. Two-year, part time evening Higher Diploma in Automotive Engineering [Due to be phased in 2001-2002]
  5. Three-year part time (Day & Evening modes) Craft Certificate Course:
    - for Motor Vehicle Mechanics
    - in Vehicle Body Repairs\*
    - in Vehicle Body Painting\*
    - for Motor Vehicle Electricians\*
- \* Day mode only.
6. Part time day release Advanced Craft Certificate in Vehicle Systems  
*N.B. This is a 'module accumulation' advanced course which is designed for both fresh graduates as well as 'return to learn' in-service mechanics. One of the advanced craft modules will deal with LPG fueled vehicles.*
  7. Two-year part time (Day & Evening modes) Certificate in Automotive Engineering
  8. Two-year, part time (Day & Evening modes) Higher Certificate in Motor Vehicle Engineering [To be replaced with a two-year programme in 2001-2002]
  9. Endorsement Certificate in Motor Vehicle Engineering Management
  10. Range of tailor-made self-financing Continuing Professional Development (CPD) / short courses for industry, operated as and when requested.

## **Terms of Reference and Timetable for the Working Group on Vehicle Maintenance Services**

The Working Group comprising representatives from relevant government departments/bureaux and vehicle maintenance trade has been formed and the first meeting was held on 5 January 2000. The terms of reference, major tasks and work schedule of the working group are as follows:

### **Terms of Reference**

- To study ways to raise the standards of service of the vehicle maintenance trade.
- To recommend practical improvement measures in the interim.
- To study the need for regulating the services provided by vehicle maintenance trade and to recommend ways to develop appropriate regulatory mechanism.

### **Major Tasks**

- To identify problem areas of the vehicle maintenance trade. Intention is to commence a more in-depth study on the trade.
- To identify and recommend both interim and longer term improvement measures which could help raise vehicle maintenance standards. Possible measures which have been identified for further discussions include:
  - training for vehicle mechanics/technicians
  - making available vehicle maintenance technical data/information
  - upgrading of equipment/facilities
  - licensing/certification system

### **Timetable**

The Working Group aims to complete its study and put forward a report setting out a list of recommended measures to improve vehicle maintenance in 12 months time (i.e. by early 2001). It also aims to produce an interim report within 6 months on the progress of its study.