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Table 40 - Non-financial measures for the creation of hybrid vehicle market and favoring sale of fuel efficient vehicles.

Market development		
Implement a vehicle retirement programme with incentives	Create a car termination plant	<ul style="list-style-type: none"> Create a plant that deals with the car termination process after the swap in the scrappage programme (interested customers in swap shall not have a grant salvage value for their old car or any incentive unless they got the certificate of car termination from the MoE or other special entity in charge). Car termination process is one of the success key of the scrappage programme; therefore, old car termination options should be clearly stated and formulated.
Policy, legal and regulatory		
Set up legal and regulatory framework to create HEV market and promote fuel efficient vehicles	Issuance of law exempting these cars from customs, registration and road-usage fees at registration in order to amend vehicle taxation system into a more balanced environmentally oriented scheme	<ul style="list-style-type: none"> Exemption of new HEV from customs and excise fees, and from registration and road-usage fees at registration. Exemption/reduction of new fuel efficient vehicles from custom and excise fees. Payment of minimum salvage value (ex. USD 2,500) as down payment for hybrid vehicle loan. Exemption of salvage old cars from unpaid road-usage fees in order to encourage their owners to swap their old cars (as in the law, these owners cannot sell their cars if they do not pay all due road-usage fees). Full subsidy of loan interests over loan period for taxi drivers, students and disabled persons swapping for hybrid cars.
	Implement legislation governing vehicle emissions	<ul style="list-style-type: none"> Update and implement decree like that of 6603/1995 relating to standards on permissible levels of exhaust fumes and exhaust quality. Enforce/update the vehicle inspection programme requirements taking into consideration the special requirements for hybrid cars' inspection, in addition to mandating the presence of catalytic converters on conventional gasoline vehicles.
Set up new coherent tax policies	Issuance of law modifying the current tax figure in order to cope with the high demand for high fuel consuming pre-owned vehicles	<ul style="list-style-type: none"> Adopt a Bonus-Malus tax policy where polluters pay more annual road-usage fees.
Institutional and organizational capacity		
Create professional institutions	Create institutions to support technical standards for transportation	<ul style="list-style-type: none"> Set up a mechanical inspection unit at the port of Beirut in charge of checking up the emissions and safety standards of imported pre-owned cars before entering the country.
Promote technological development	Promote R&D culture in transportation in order to adopt knowledge-intensive high-tech management approaches for solving complex urban transport problems in GBA	<ul style="list-style-type: none"> Encourage local industry to develop and manufacture spare parts Give incentive to R&D institutions which play an essential role in mitigating transport technologies Encourage universities to create engineering mobility programmes.

Social awareness		
Awareness campaign to promote hybrid and fuel efficient cars	Dissemination of information to consumers on these cars' performance, environmental and economical benefits	<ul style="list-style-type: none"> Enforce new car dealers to include factsheets on all vehicles, clearly displaying information on vehicle average fuel consumption and annual fuel costs, in addition to average CO₂ emissions. Enforce marketing campaign (billboards, TV, etc.) to include the mentioned above consumption and emissions labeling of the car. Enforce all government vehicles to switch to HEV when buying new cars, in order to take the lead as a reference project.
	Dissemination of information to particular consumers which have high annual mileage like taxi drivers and commercial vehicle users	<ul style="list-style-type: none"> Present additional financial incentives like the full subsidy of loan interests over the loan period.
Data and information		
Set up a mobility monitoring organism (with an easy and free access to data, particularly for R&D institutions)	Create Mobility Monitoring Indicators (MMI) framework to support transport studies aiming at the development of sustainable transportation strategies	<ul style="list-style-type: none"> Delegate the CAS with additional experienced personnel and authority to provide on yearly basis the complete MMI set. Enforce cooperation and communication on transport studies between relevant authorities resource savings.

5.5.4. Action Plan for deployment of hybrid and fuel efficient gasoline-powered vehicles through a scrappage programme

Target for technology transfer and diffusion

The aim from promoting and deploying hybrid and fuel efficient vehicles is not introducing additional passenger cars to the fleet (1.5 million cars are officially registered in 2010) but replacing non efficient vehicles. Therefore, the target consists of developing and implementing a complementary, integrated car scrappage programme aiming at reducing emissions from the existing fleet, where old, illegal, highly emitting, non fuel efficient vehicles would be bought by the Government and scrapped. In return, owners of scrapped cars are allocated an incentive to buy a new hybrid or fuel efficient car. Incentives can have various forms, such as custom and excise exemption, exemption from registration and road usage fees, payment of minimum salvage value (ex. USD 2,500) as down payment for new car

loan, reduce loan interest and/or full subsidy of loan interests for heavy mileage drivers like taxi owners.

Such programme pursues a range of social and economic goals in addition to reducing emissions, such as preventing vehicle abandonment, lowering consumer spending on gasoline, and stimulating new vehicle sales. As a result, the vehicle turnover rate increases by incentivizing vehicle retirement.

The implementation of a car scrappage programme in Lebanon is a top priority measure that needs to be undertaken in parallel to implementing a bus mass transit system on dedicated lanes. However, car scrappage can have various forms of incentive-based applications. For heavy mileage drivers like taxi owners, where swapping to hybrid or fuel efficient vehicles have a high impact on enhancing air quality and reducing emissions, maximum incentives should be allocated. The estimated size of the taxi drivers interested by a car swap under scrappage programme is around 12,000 over 8 years, with driver age lower than 55 and car

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model year older than 2007. However, for private passenger car owners, estimated size depends largely on the incentives to be allocated: a well-defined programme could target a car fleet renewal between 8% and 10% by 2020.

Strict control needs to be exerted simultaneously in order to enforce the ban on old cars and therefore prevent the illegal import of such old cars that need scrapping. In parallel, strict emission standards need

to be defined and enforced, in addition to amending the vehicle taxation system and registration fees into a more balanced environmentally oriented scheme. A comprehensive feasibility study needs to be carried out to assess and well-define such programme.

The technology Action plan for the deployment of hybrid and fuel efficient gasoline-powered vehicles through a scrappage programme is presented in Table 41.

Table 41 - Technology Action plan for hybrid and fuel efficient gasoline-powered vehicles through a scrappage programme

Measures	Priority	Objectives	Responsible parties	Time scale	Monitoring & Evaluation indicators	Estimated cost (USD)
Exemption from customs and excise fees, exemption from registration fees, exemption from road-usage fee at registration	1	- Create appropriate financial incentives for hybrid and fuel efficient cars. - Reduce car purchase and ownership costs.	MoF	Short term	Law on tax exemption by government.	0
Payment of minimum salvage value (ex. USD 2,500) as down payment for car loan, extension of loan period to 8 years, reduce loan interest	1		MoF BDL. Commercial Banks	Short term	Car loan package and facilities for hybrid and fuel efficient cars.	2,500 per car
Reduce gradually maximum age of imported pre-owned vehicles to 3 years with a mileage lower than 100,000 km, rather than 8 years as the current figure	1	- Create disincentives for import of non efficient pre-owned cars - Limit the import of pre-owned non fuel efficient vehicles.	MoM	Short/ Medium term	Law on import of pre-owned cars.	0
Adopt a Bonus-Malus tax policy where polluters pay more annual road-usage fees, and where taxes like the road usage fees are reconsidered according to fuel efficiency and/ or emissions rather than engine displacement as the current figure	2	Set up new coherent tax policies to cope with the high demand for high fuel consuming pre-owned vehicles.	MoF	Short term	Bonus-Malus tax scheme.	10,000 (for the preparation of the bonus-malus draft policy)

Measures	Priority	Objectives	Responsible parties	Time scale	Monitoring & Evaluation indicators	Estimated cost (USD)
Create a car scrappage programme based on swapping current passenger cars with hybrid and fuel efficient cars	2	Renew the passenger car fleet Enhance the efficiency of the passenger car fleet.	MoF New cars dealers	Short term	Car scrappage program.	30,000
Create a car termination plant that deals with the car termination process after the swap in the scrappage programme	3	Implement a vehicle retirement programme to remove old cars from the fleet.	MoPWT MoIM MoE	Short/ Medium term	Car termination plant.	-
Update decree 6603/1995 relating to standards on permissible levels of exhaust fumes and exhaust quality to cover all types of vehicles	4	Improve air quality as transport sector is the main air polluter.	MoE	Short/ Medium term	Updated law 6603/1995.	0
Update the vehicle inspection programme requirements taking into consideration special requirements for hybrid cars' inspection, in addition to mandating the presence of catalytic converters on conventional gasoline vehicles	4	Improve the vehicle inspection programme.	MoE MoIM	Short/ Medium term	Updated vehicle inspection programme.	50 per trained person
Set up a mechanical inspection unit at the port of Beirut in charge of checking up the emissions and safety standards of imported pre-owned cars before entering the country	5	- Create institutions to support technical standards for transportation - Limit the import of deficient and crashed pre-owned cars.	MoPWT MoE	Short/ Medium term	Mechanical inspection unit at the port of Beirut.	-
Establish awareness campaign	6	Promote hybrid and fuel efficient cars.	MoPWT MoE	Short/ Medium term	Awareness campaign.	50,000 (full awareness campaign)
Create Mobility Monitoring Indicators (MMI) framework	7	Develop sustainable transportation strategies.	MoPWT MoE CAS	Short/ Medium term	Mobility monitoring indicator framework delegated to CAS.	0