

Asia-Pacific 50ppm Diesel Sulphur Matrix

COUNTRY	Sulphur (Max, ppm)		50ppm Target Date	COMMENT	Source
	Diesel	Petrol			
Afghanistan	10,000		No date	No standards or ongoing plans	MW
Bangladesh	5,000		No date	The country adopted Bangladesh 1 and 2 emission standards in line with the Euro emission norms (Euro 1 and 2) in March 2006.	CAI-Asia, cse.polyu.edu.hk
Bhutan	500		Unknown	Euro 2 Vehicle emission standards came into force in March 2008. Import licenses only given for vehicles that meet the Euro 2 standards or above.	kuenselonline.com
Brunei Darussalam	1,000		Unknown	By law it is 5,000ppm	ASCOPE
Cambodia	1,500		No date	Formal emission standards for petrol and diesel fuels exist. Emission standards for 2 and 4 stroke motorcycles and vehicles are provided for under Cambodian law.	CAI-Asia
China (nationwide)	2000	150	2016	Average commonly in-use diesel is between 600-1000ppm. The State Council on 18/05/2009 released and issued detail plan to boost the petrochemical industrial sector. Plan stated would implement China III gasoline (150ppm) in 2009 and China III diesel (350 ppm) in 2010 (postponed to 2013); see details in Chinese at: http://www.gov.cn/zwgk/2009-05/18/content_1317790.htm ; updates of plan: http://www.f-paper.com/?i876976-Implementation-of-the-national-IV-standard-fuel-and-then-five-second-delay-or-affect-the-environmental-indicators#	dieselnet.com, CAI Asia, http://www.theicct.org/pubs/china_rpt/4_fuelstandards.pdf ,
China (Beijing)	50		Done	Adopted 50 ppm in 2008. Plans to adopt Euro 5 emission standards by 2012 (Fuel sulphur level 10ppm)	dieselnet.com
China Hong Kong	50	50	Done	Plans to adopt Euro 5 emission standards are under discussion (Fuel sulphur level at 10ppm)	dieselnet.com
China, Macao Sar	50		Done	The Government passed an Administrative Order – No. 4/2006– to further limit the sulphur content of commercial light diesel oil for car use from no more than 0.05% (500ppm) to under 0.005%(50ppm) of its weight.	Macao government website
China, Taiwan	50	50	Done	The allowable sulphur content in diesel fuel was gradually reduced from 5,000ppm in 1989 to 50 ppm in 2005. A 50ppm cap was put on gasoline fuel, effective 1 January 2007. Gasoline vehicles: Phase 4 emission standards went into effect on 1 January 2008. Diesel engine vehicles: Phase 4 standards went into effect on 1 October 2006. Motorcycle standards: Phase 5 standards went into effect on 1 July 2007. inspection and maintenance programmes and	Taiwan environmental protection agency (EPA) website

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				clean vehicle technologies have been adopted. Diesel fuel to meet Euro 5 (10ppm) from 1 July 2011 and petrol to meet Euro 5 from 1 January 2012. Plan to implement Euro 5 diesel emission standards from 1 January 2012.	
Cook Islands			Unknown		
Democratic People's Republic of Korea			Unknown		
Fiji	500			In March 2007, the Cabinet approved the gazettal of the Trade Standards (Fuel Standards) Order 2007, which introduced mandatory standards for automotive diesel fuel and petrol fuel.	Fiji government website
India (nationwide)	500		No date	The adopted emission standards (Bharat standards) correspond to Euro emission standards. The Indian government in 2008 issued a notification to introduce Euro 3 emission standards (Fuel sulphur level at 350ppm) by April 1, 2010.	The gazette of India, Part II-section 3 sub-section (i) of 15 th July 2008
India (metros)	350		2010	The Indian government has issued a notification to introduce Euro IV standards and 50ppm sulphur fuel in eleven cities by April 1, 2010.	The gazette of India, Part II-section 3 sub-section (i) of 15 th July 2008
Indonesia	3,500 (average) / 500ppm	500	No date	Adopted the Euro 2 emission standards in 2007, but sulphur levels are above 4000ppm due to high sulphur imports and standard not met. Small amounts of Euro 2 (500ppm) fuel available in Jakarta only in packages. Plan to adopt Euro 3 standard in 2016.	Ministry of Energy & Mineral Resources, ACFA
Kazakhstan	2,000		2010	In 2008 Euro 2 fuel grade standard introduced, plans to move to 10 ppm by 2010.	
Kiribati			Unknown		
Kyrgyzstan	2,000 – 5,000		Unknown	In 2008 'Euro 3' grade fuels were introduced by Gazprom (150 ppm for petrol, 350 ppm for diesel). The country imports fuel from Russia, Kazakhstan, Turkmenistan and Azerbaijan.	
Lao People's Democratic Republic	2,500		No date	Imports from Thailand, Vietnam & Malaysia. Currently developing an environmental sustainable transport strategy where Fuel Quality Standards are to be addressed	PCFV workshop 4-5 th August, 2008.
Malaysia	500	500	2016	In 2005 adopted Plans to adopt Euro 4 standards (50 ppm) by 2010 and 10ppm by 2015; this is now changed to 2016 for Euro IV fuel.	CAI-Asia, ACFA
Maldives			Unknown		
Marshall Islands			Unknown		
Micronesia, Fed. States of			Unknown		
Mongolia	5,000		No date	In 2008 committed to consider moving to 500 ppm in own timeline.	PCFV workshop 30-31 st July 2008
Myanmar	2,000		Unknown		

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Nauru			Unknown		
Nepal	500		No Date	Imports from India at 500ppm (which will be 350ppm in 2010 – same as India) though National specifications as per standard still retains 10,000 ppm as sulphur limit. Vehicles at Euro 1 standards. Second Hand vehicle imports banned from 2005/6?	ADB
Niue					
Pakistan	5,000-7,000		No date	Refineries being upgraded to produce Euro II (500ppm) diesel by June 2012	CAI-Asia, cse.polyu.edu.hk
Palau			Unknown		
Papua New Guinea			Unknown		
Philippines	500	500	2010	Implementing Euro II. Discussions ongoing in 2009 on adopting Euro IV standards (50 ppm) by 2012	CAI-Asia, ACFA
Republic of Korea	50	10	Done	Plans to adopt Euro 4 standards (10-15 ppm) by 2010	CAI-Asia
Samoa			Unknown		
Singapore	50	500	Done	Adopted 50 ppm in 2007.	CAI-Asia, ACFA
Solomon Islands			Unknown		
Sri Lanka	500		No Date	Standards in place, no decisions to lower sulphur levels	CAI-Asia
Tajikistan	2,000		Unknown	Follows GOST standards.	CAI-Asia
Turkmenistan	2,000		Unknown	Follows GOST Standards.	CAI-Asia
Thailand	350	500	2012	In 2006 planned to adopt Euro 4 standards (50 ppm now modified to 2012.	CAI-Asia, ACFA
Timor-Leste			Unknown		
Tokelau			Unknown		
Tonga			Unknown		
Tuvalu			Unknown		
Uzbekistan	5,000		Unknown	Although the standard is 5,000 ppm, the measured levels are between 400 – 2,000 ppm	CAI-Asia
Vanuatu			Unknown		
Vietnam	500	500	2016	Vehicle emission standards for new vehicles: Euro II from 2005; Euro IV by January 2017; Euro V by 2022; Euro III for motorcycles by 2017. Fuel quality standards: Euro IV quality by January 2016; Euro V by 2021. No standards for in-use vehicles. Scrappage policy for 25yr old cars.	CAI-Asia, ACFA, http://cleanairinitiative.org/portal/node/7530
Total: 46 countries					

References:

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ASCOPE: Asian Council on Petroleum

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