

Chapter 2: Noise Monitoring

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Chapter 2: Noise Monitoring

NATIONAL AMBIENT NOISE MONITORING PROGRAMME

The Department of Environment (DOE) continues to monitor the ambient noise level more in 2009 at five (5) different types of receiving land use. They are in noise sensitive areas namely schools and hospitals, suburban residential areas (medium density), urban residential areas (high density and residential-commercial), commercial business zones and designated industrial zones. Traffic noise in areas that are planned for future development or redevelopment of existing roads were also measured. For monitoring purposes, 'a single 60 minutes sample' on noise level are measured in the morning, afternoon and evening.

Figure 2.1, Figure 2.2, Figure 2.3, Figure 2.4, Figure 2.5 and Figure 2.6 show the L_{Aeq} noise levels

recorded for selected areas in the various states. The data collected from this National Ambient Noise Monitoring Programme would be beneficial as a baseline data for planning purposes and new development in the future.

In 2009, most of the data collected exceeded the level specified in The Planning Guidelines for Environmental Noise Limits and Control, 2004. This could be attributed to insufficient buffer zone.

The Planning Guidelines for Environmental Noise Limits and Control 2004, specify maximum permissible noise levels for different category of receiving land use as shown in **Schedule 1 and 2** for any new development and **Schedule 3** for road traffic (for proposed new roads and/or redevelopment of existing roads).



Noise isolating barrier walls installed along the highway

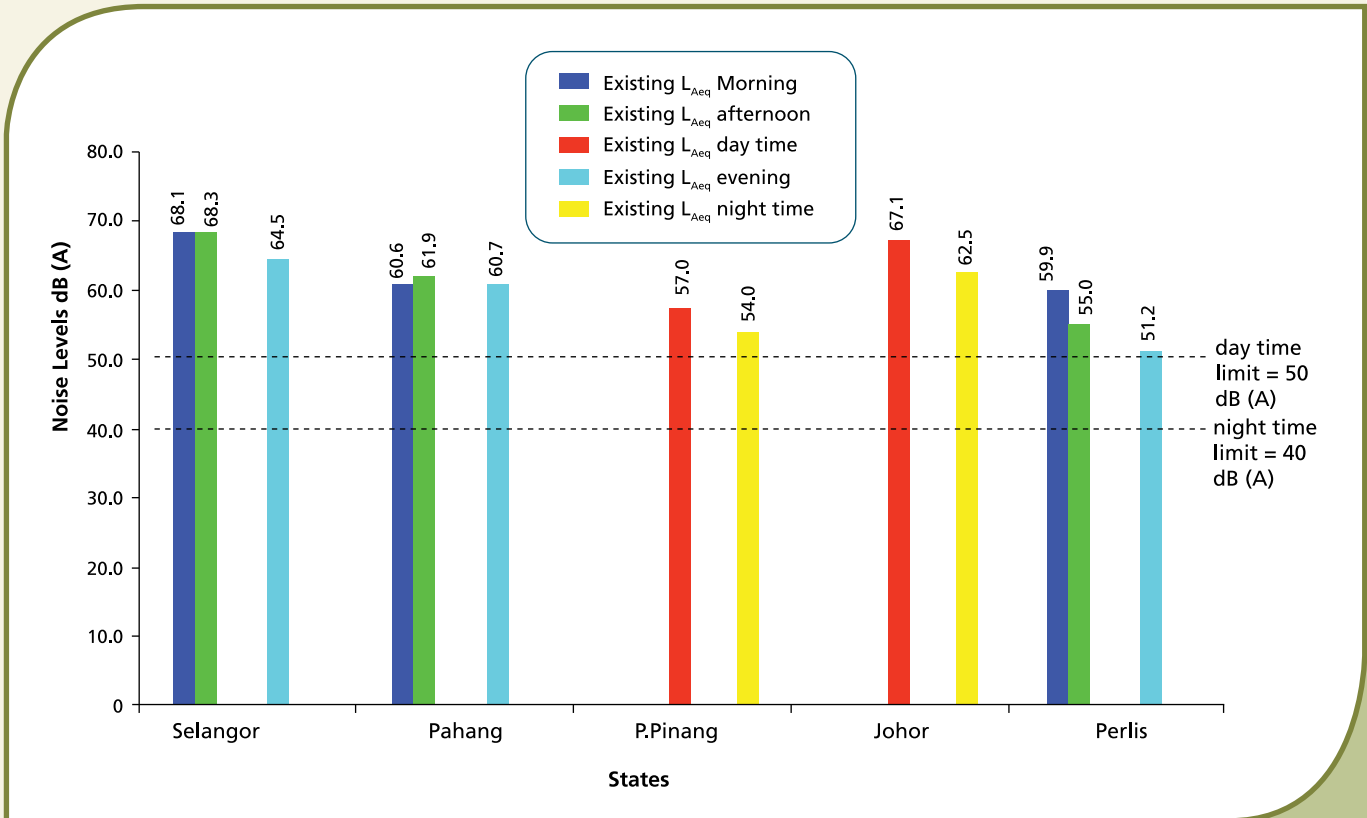


Figure 2.1 Malaysia : Noise Level for Selected Noise Sensitive Areas in various states

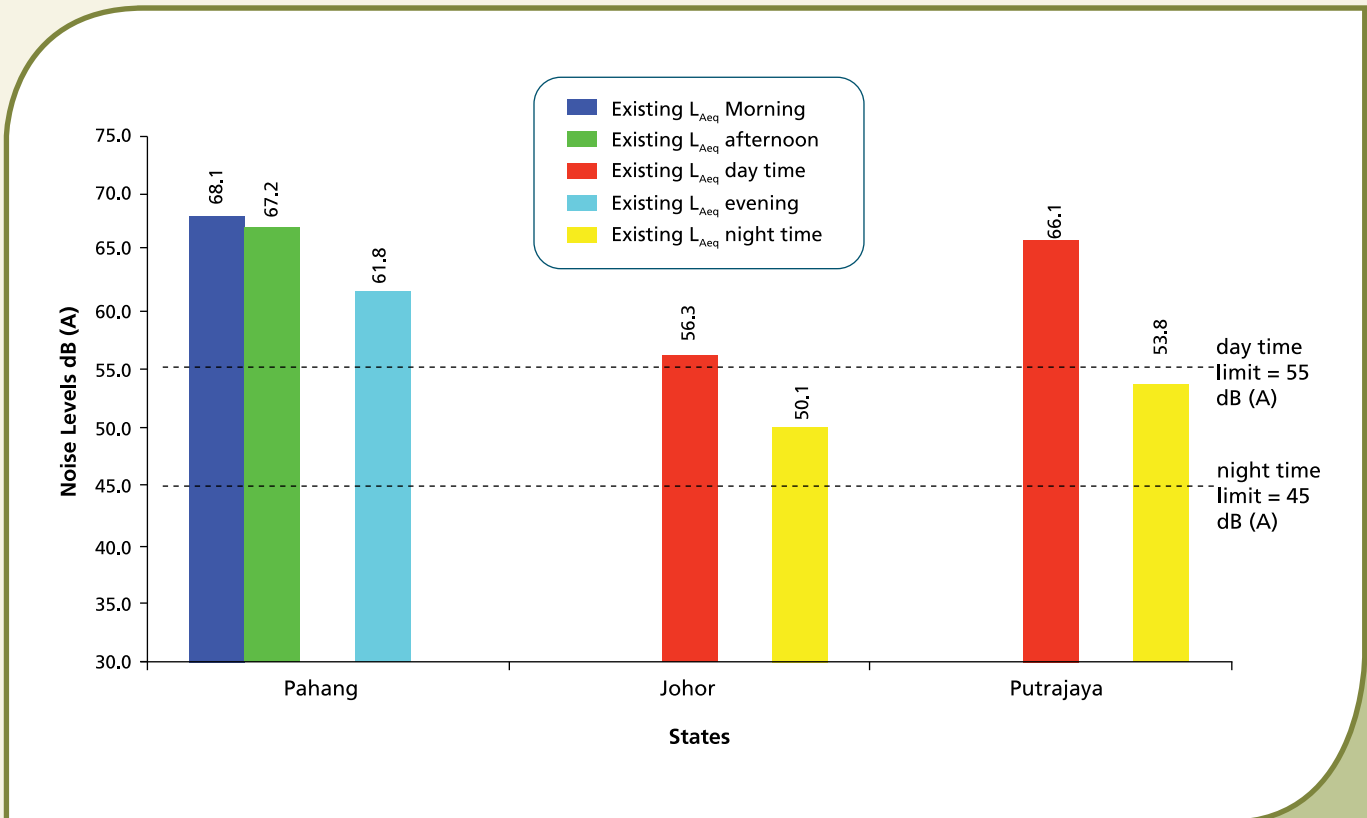


Figure 2.2 Malaysia : Noise Level for selected Sub Urban Residential Areas in various states

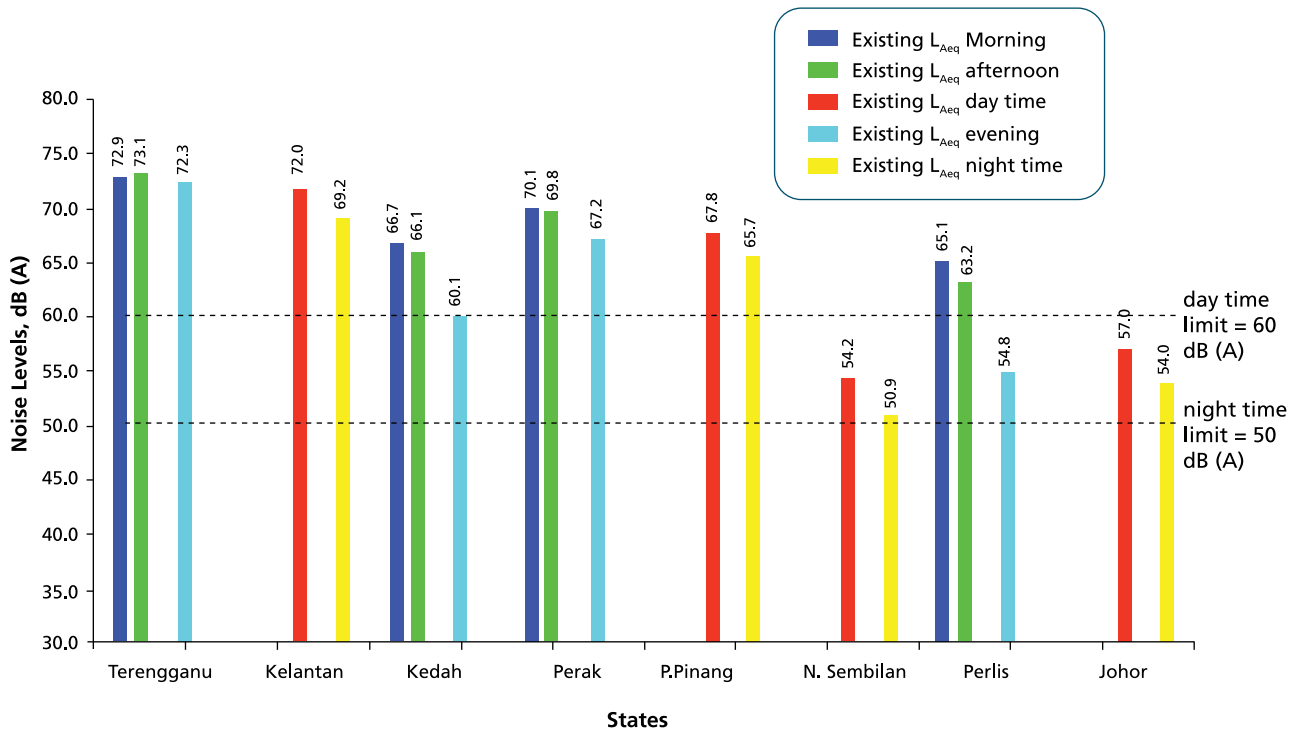


Figure 2.3 Malaysia : Noise Level for selected Urban Residential Areas in various states

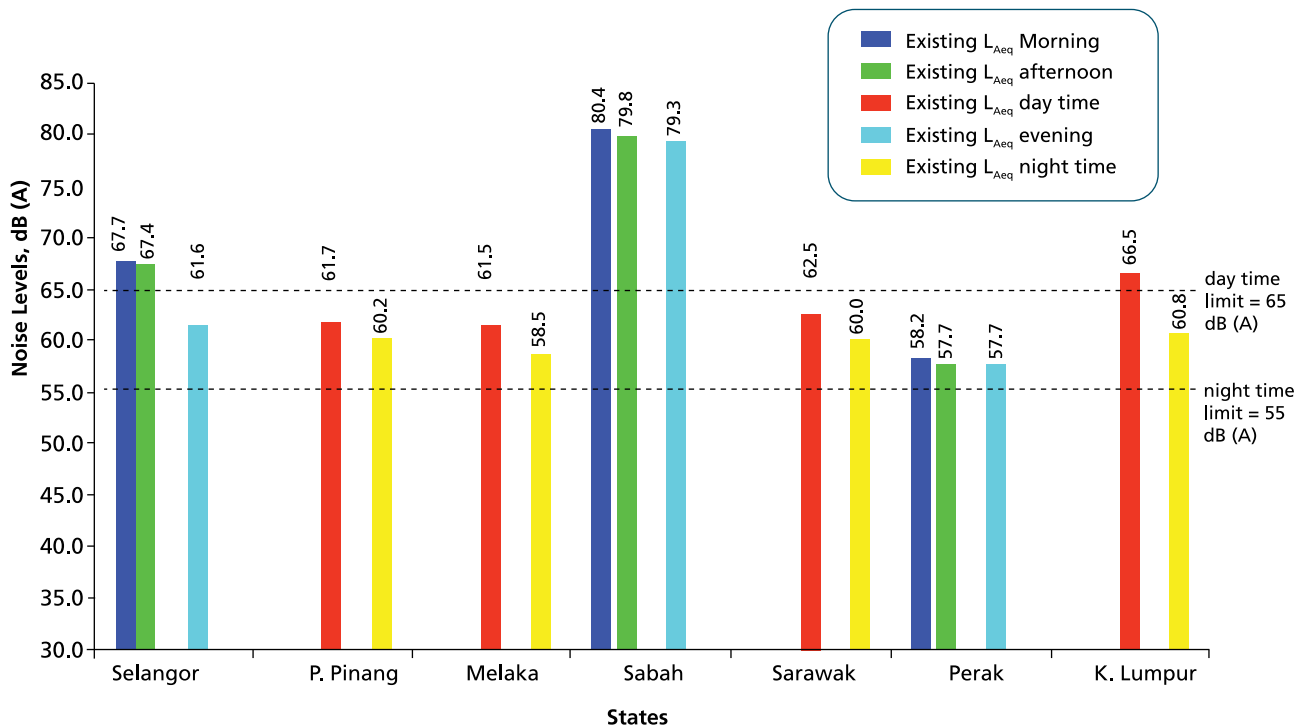


Figure 2.4 Malaysia : Noise Level for selected Commercial Business Zones in various states

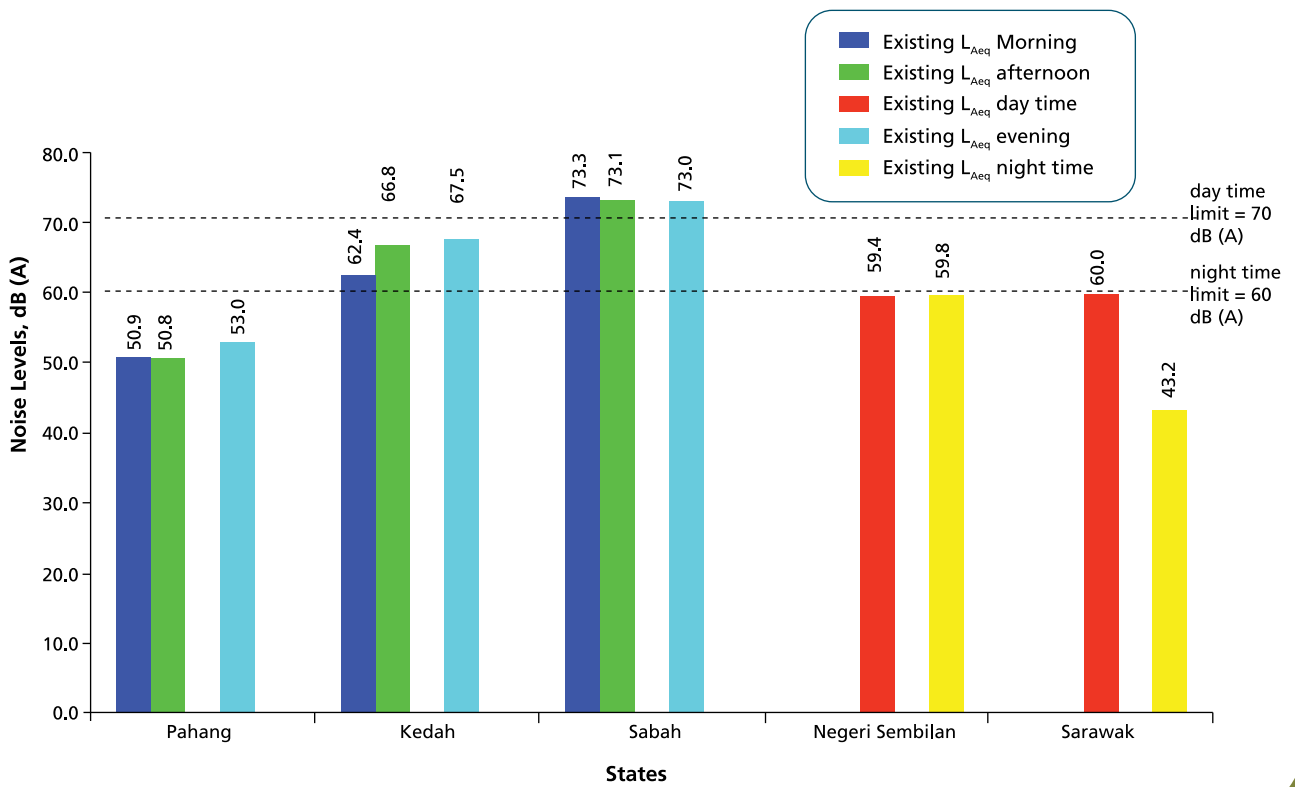


Figure 2.5 Malaysia : Noise Level for Selected Designated Industrial Zones in various states

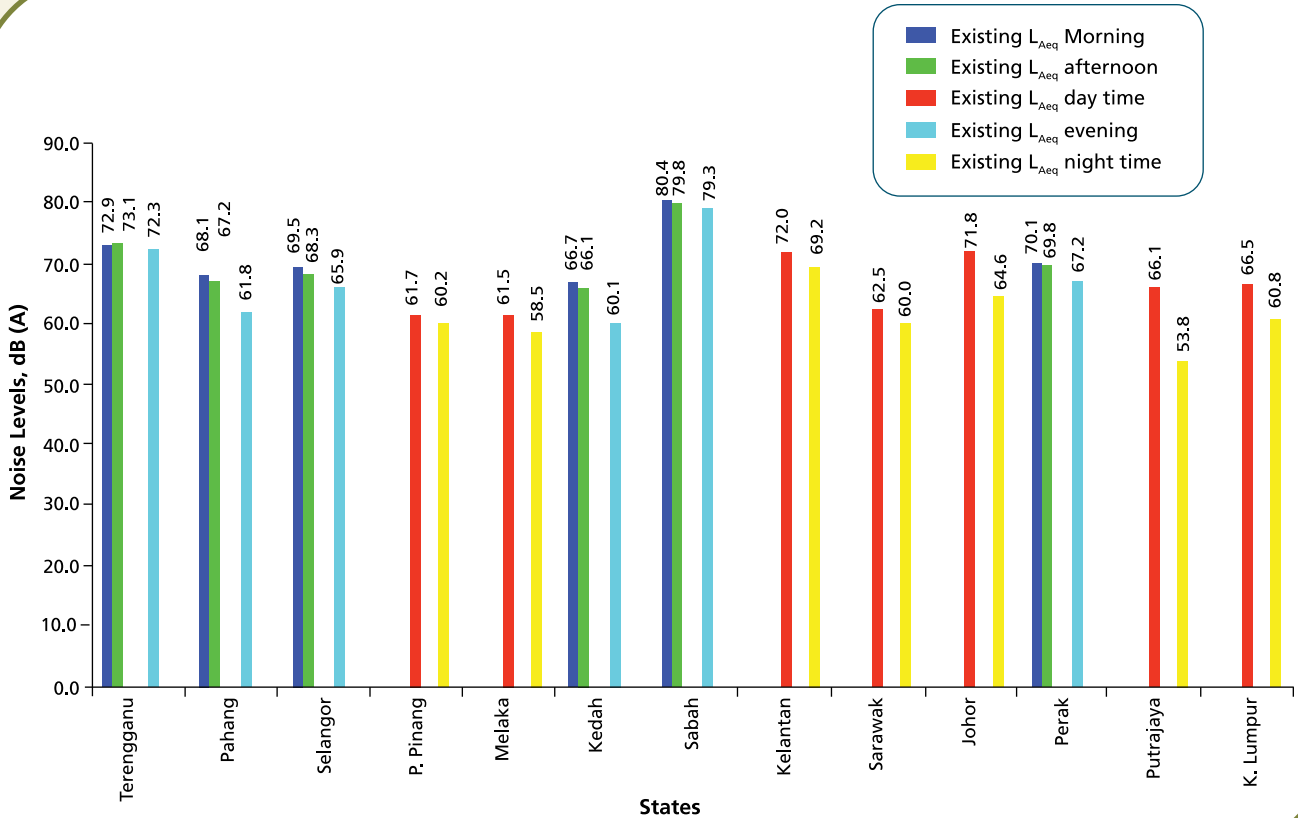


Figure 2.6 Malaysia : Noise Level due to traffic for selected areas in various states



Beautiful skyline of Kuala Lumpur

SCHEDULE 1
MAXIMUM PERMISSIBLE SOUND LEVEL (L_{Aeq}) OF RECEIVING LAND USE FOR PLANNING AND NEW DEVELOPMENT

Receiving Land Use Category	Day Time 7:00 a.m. – 10:00 p.m.	Night Time 10:00 p.m. – 7:00 a.m.
Noise Sensitive Areas, Low Density Residential, Institutional (School, Hospital) and Worship Areas	50 dBA	40 dBA
Suburban Residential (Medium Density) Areas, Public Spaces, Parks and Recreational Areas	55 dBA	45 dBA
Urban Residential (High Density) Areas and Designated Mixed Development Areas (Residential - Commercial)	60 dBA	50 dBA
Commercial Business Zones	65 dBA	55 dBA
Designated Industrial Zones	70 dBA	60 dBA

Source : The Planning Guidelines for Environmental Noise Limits and Control, 2004.

SCHEDULE 2
MAXIMUM PERMISSIBLE SOUND LEVEL (L_{Aeq}) OF NEW DEVELOPMENT (ROADS, RAILS AND INDUSTRIAL) IN AREAS OF EXISTING HIGH ENVIRONMENTAL NOISE CLIMATE

Receiving Land Use Category	Day Time 7:00 a.m. – 10:00 p.m.	Night Time 10:00 p.m. – 7:00 a.m.
Noise Sensitive Areas and Low Density Residential Areas	$L_{90} + 10$ dBA	$L_{90} + 5$ dBA
Suburban and Urban Residential Areas	$L_{90} + 10$ dBA	$L_{90} + 5$ dBA
Commercial and Business Areas	$L_{90} + 10$ dBA	$L_{90} + 10$ dBA
Industrial Areas	$L_{90} + 10$ dBA	$L_{90} + 10$ dBA

Source : The Planning Guidelines for Environmental Noise Limits and Control, 2004.

Note : L_{90} is the measured ninety percentile sound level for the respective time period of the existing areas of interest in the absence of the proposed new development.

SCHEDULE 3
LIMITING SOUND LEVEL (L_{Aeq}) FROM ROAD TRAFFIC (FOR PROPOSED NEW ROADS AND/OR REDEVELOPMENT OF EXISTING ROADS)

Receiving Land Use Category	Day Time 7:00 a.m. – 10:00 p.m.	Night Time 10:00 p.m. – 7:00 a.m.
Noise Sensitive Areas, Low Density Residential Areas.	55 dBA	50 dBA
Suburban Residential (Medium Density)	60 dBA	55 dBA
Urban Residential (High Density)	65 dBA	60 dBA
Commercial Business	70 dBA	60 dBA
Industrial Areas	75 dBA	65 dBA

Source : The Planning Guidelines for Environmental Noise Limits and Control, 2004.