

# Health Benefits of Accelerated Electric Vehicle Adoption in Asia

**Lingzhi Jin**

Senior Researcher, The International Council on Clean Transportation

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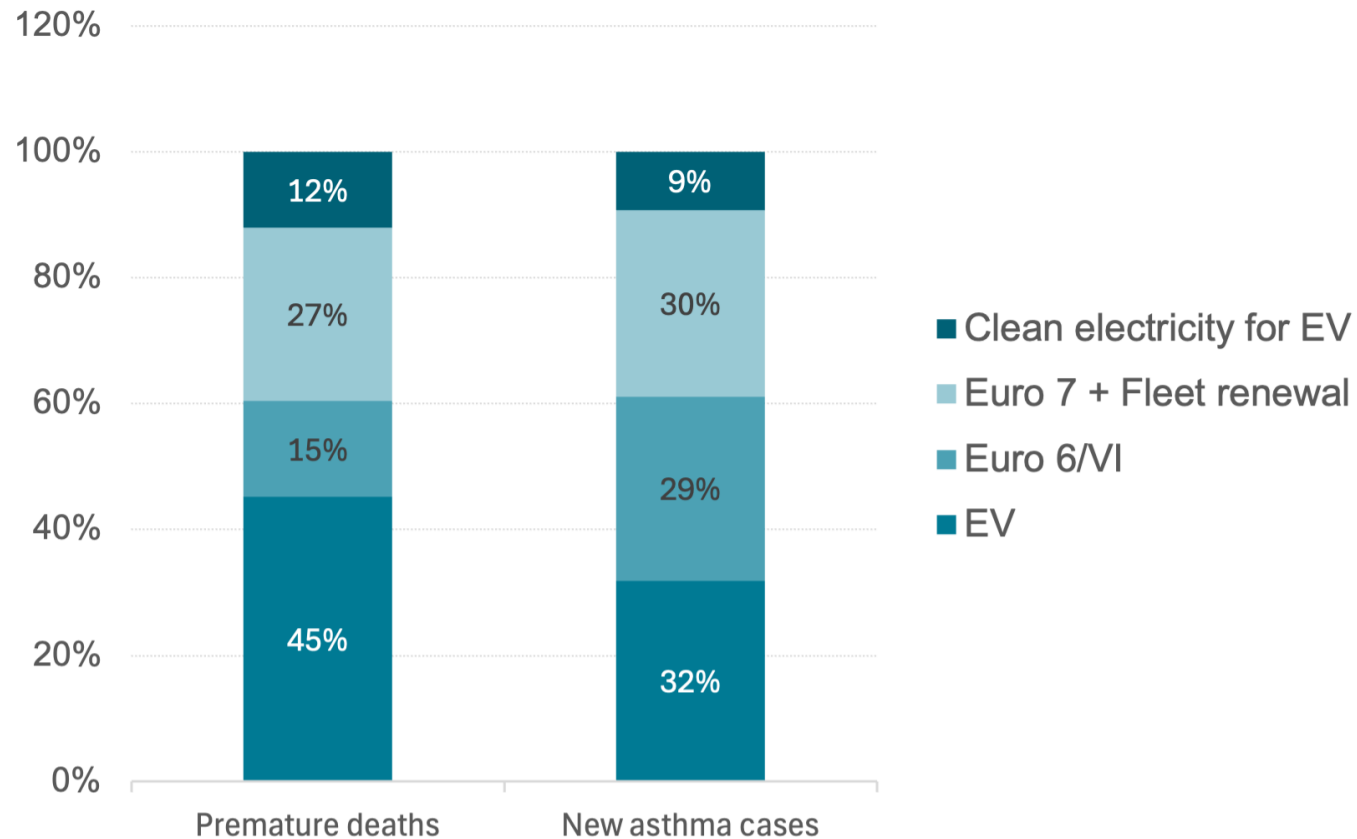


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# Electric vehicles are the single largest contributor to avoidable health impacts from road transport policies in Asia

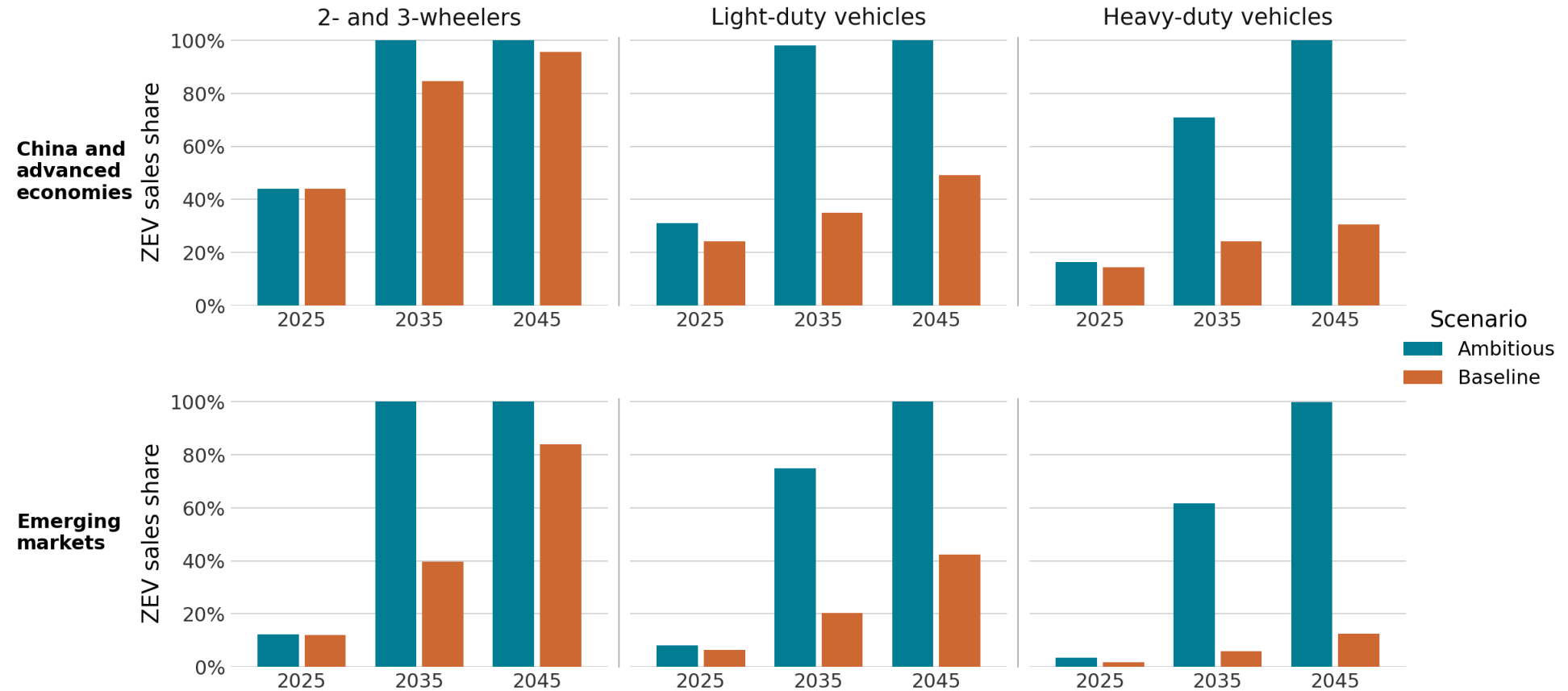
Share of cumulative avoidable road transport health impacts by policy measure in Asia, 2024-2040



Lingzhi Jin *et al* 2025 *Environ. Res. Lett.* **20** 064005

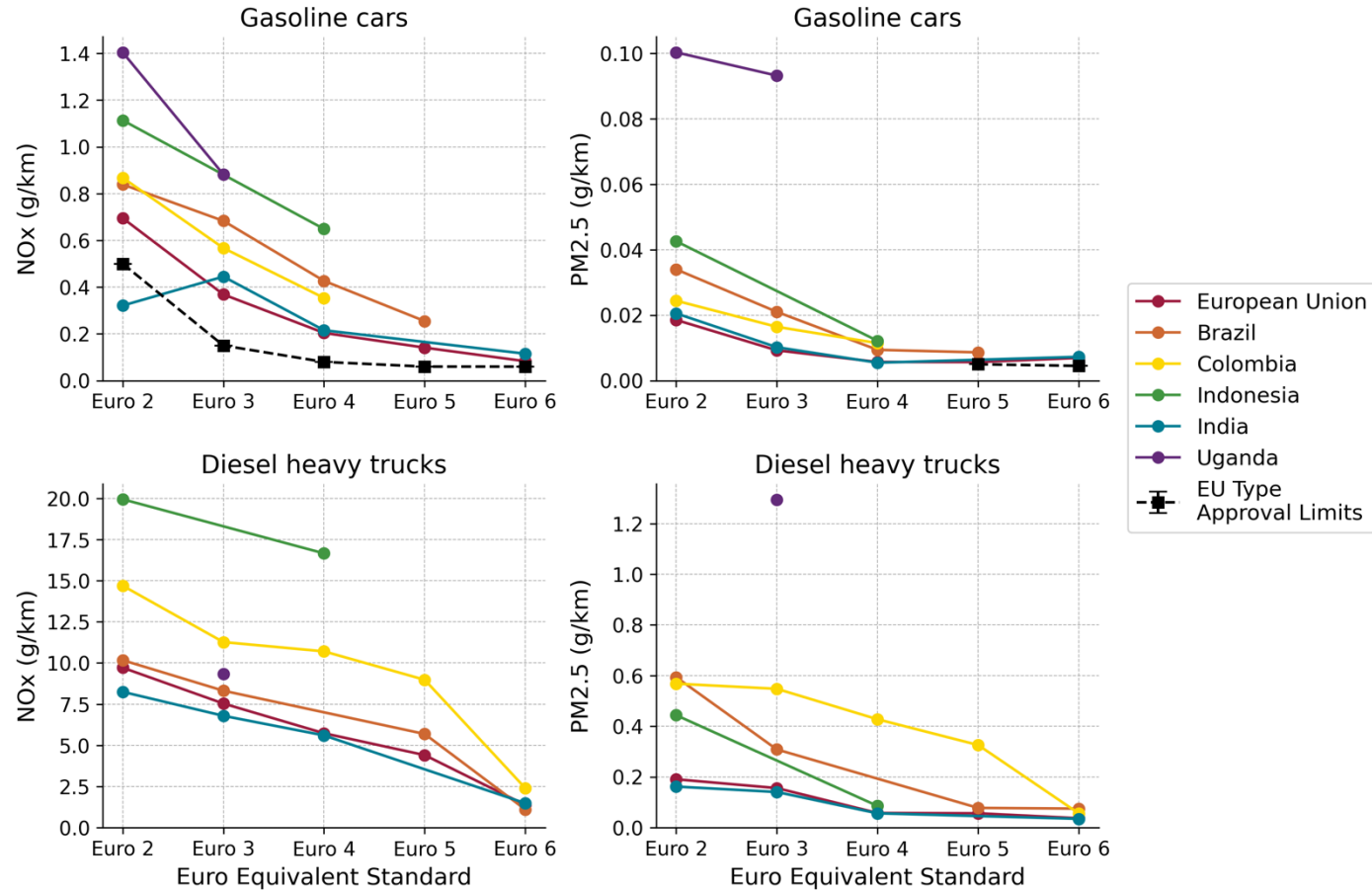
# EV adoption in Asia varies by vehicle type and market

Zero-emission vehicle share of new sales in Asia, 2025-2045



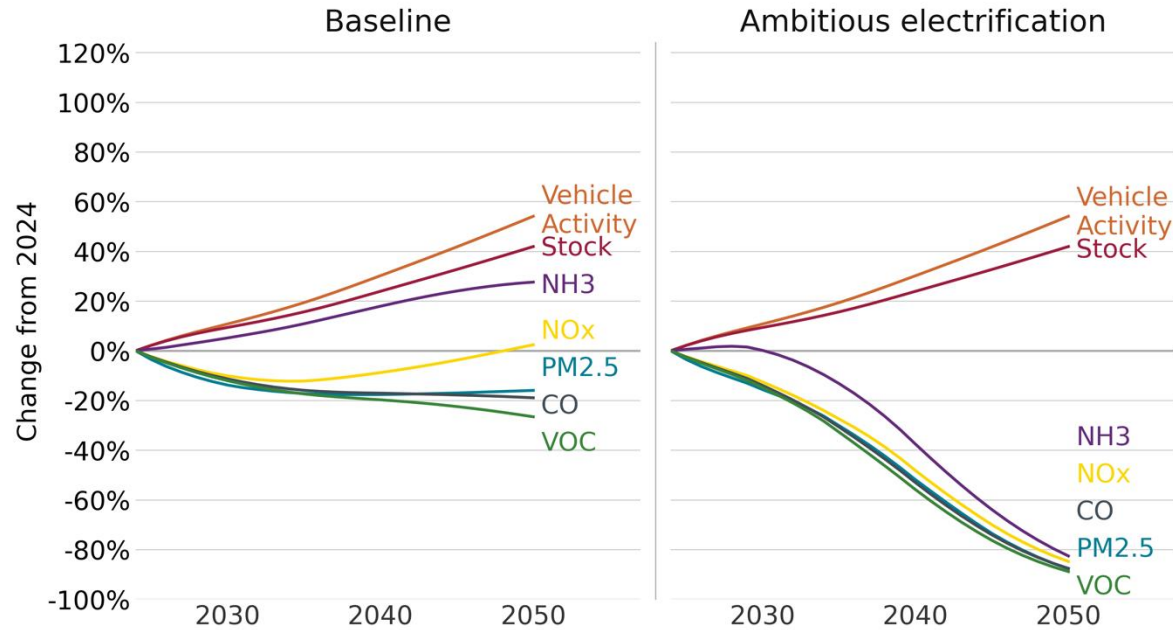
# Real-world vehicle emissions monitoring reveal higher emissions than previously estimated

**Average nitrogen oxides and fine particulate matter emission rates by Euro-equivalent standard (2024 data)**

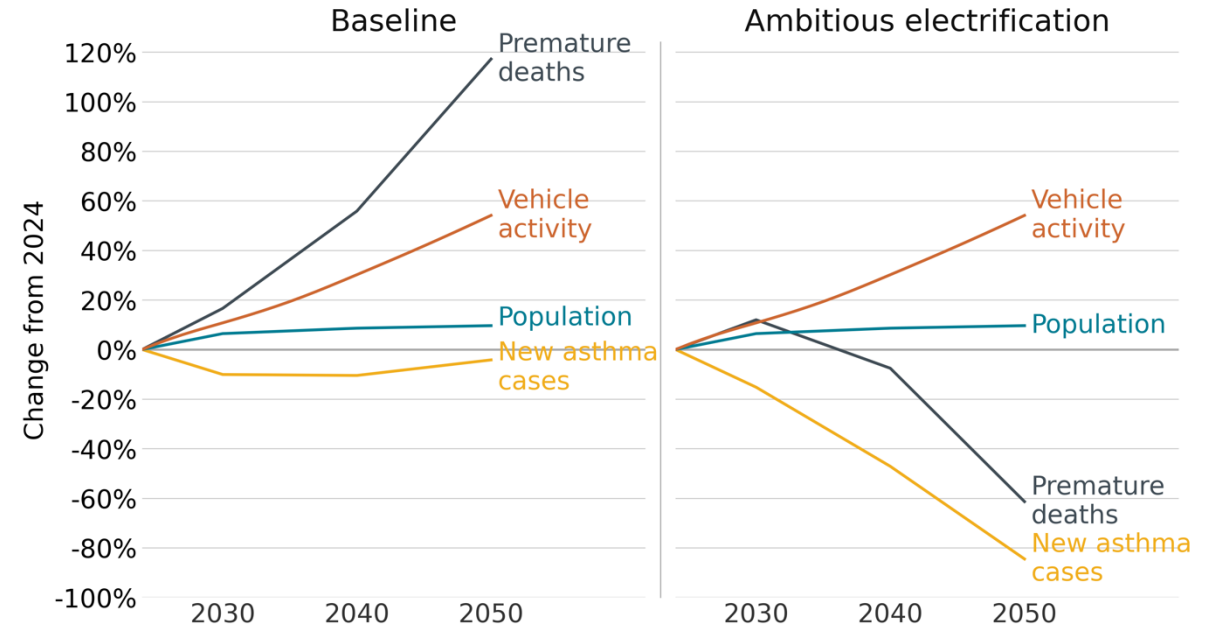


# Accelerated electrification could decouple emissions and health impacts from vehicle growth in Asia

**Vehicle electrification could decouple well-to-wheel emissions from fleet growth and vehicle activity in Asia**



**Vehicle electrification could decouple pollution-related health impacts from population and vehicle activity in Asia**



# Road transport pollution causes nearly one premature death every minute and one new childhood asthma case every 4.3 minutes in Asia

**Rank table of road transport-attributable premature deaths and new asthma cases among countries in Asia (2024)**

Premature deaths			New asthma cases		
Rank	Country	Value	Rank	Country	Value
1	China	172,000	1	Indonesia	19,800
2	India	90,000	2	China	18,700
3	Indonesia	44,700	3	India	15,300
4	Pakistan	36,000	4	Iraq	12,200
5	Japan	10,100	5	Pakistan	12,000
6	Bangladesh	9,900	6	Iran	6,200
7	South Korea	9,300	7	South Korea	5,500
8	Iran	9,200	8	Bangladesh	4,100
9	Iraq	6,600	9	Saudi Arabia	3,400
10	Vietnam	6,500	10	Malaysia	3,300
11	Thailand	6,300	11	Thailand	3,100
12	North Korea	3,400	12	Japan	2,500
13	Myanmar	3,000	13	Afghanistan	2,000
14	Philippines	3,000	14	Philippines	1,900
15	Malaysia	2,600	15	Vietnam	1,800
16	Afghanistan	2,300	16	Singapore	1,300
17	Uzbekistan	2,200	17	Lebanon	1,200
18	Saudi Arabia	2,100	18	Syrian Arab Republic	1,100
19	Nepal	1,300	19	United Arab Emirates	900
20	Kazakhstan	1,300	20	Qatar	800
<b>Total for Top 20 Countries 421,800</b>			<b>Total for Top 20 Countries 117,100</b>		

Top 20 countries shown represent >96% of Asia total

# Accelerated EV adoption could prevent 719 premature deaths and 105 new childhood asthma cases per day through 2050 in Asia

Cumulative avoidable burden from 2024-2050					
Avoidable Premature Deaths			Avoidable New Asthma Cases		
Rank	Country	Value	Rank	Country	Value
1	India	1,700,000	1	Pakistan	232,000
2	China	1,560,000	2	Iraq	165,000
3	Pakistan	1,180,000	3	Indonesia	143,000
4	Indonesia	801,000	4	India	97,200
5	Bangladesh	468,000	5	Bangladesh	71,900
6	Iran	272,000	6	China	44,200
7	Iraq	162,000	7	Iran	40,100
8	South Korea	131,000	8	South Korea	34,700
9	Vietnam	97,800	9	Afghanistan	29,600
10	Afghanistan	73,400	10	Saudi Arabia	28,700
11	Saudi Arabia	67,400	11	Philippines	16,000
12	Myanmar	61,900	12	Malaysia	14,800
13	Thailand	58,800	13	Thailand	13,500
14	Japan	58,400	14	Japan	12,300
15	North Korea	48,000	15	Syria	11,100
16	Sri Lanka	46,100	16	Vietnam	10,300
17	Philippines	45,200	17	UAE	8,700
18	Uzbekistan	38,900	18	Qatar	6,900
19	Nepal	35,600	19	Jordan	6,200
20	Syria	26,400	20	Uzbekistan	6,000
<b>Total for Top 20 Countries</b>		<b>6,931,900</b>	<b>Total for Top 20 Countries</b>		<b>992,200</b>

Top 20 countries shown represent >96% of Asia total

# Real-world emission analysis, policy guidance, and public awareness across 5 continents and over 20 cities



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## Thank you !

### Resources:

<https://theicct.org/policies-targeting-road-transport-emissions-could-save-1-9-million-lives-globally-by-2040-new-study-finds/>

<https://iopscience.iop.org/article/10.1088/1748-9326/adcd87>

<https://acceleratingtozero.org/city-signatories-save-16000-lives/>

<https://trueinitiative.org/insights/true-cities-could-save-41000-lives-with-ambitious-emission-reduction-policies/>

<https://trueinitiative.org/>

For questions, contact [lingzhi.jin@theicct.org](mailto:lingzhi.jin@theicct.org)

