



# Blue Skies Jakarta: Pathways for Integrated Air Quality Improvement

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Meta Study Key Findings Presentation  
Asian Development Bank  
26 February 2026



**Solving Complex  
Challenges Together**



# Meta-study has undergone a process of consultations and engagements

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**April 2025**  
Blue Skies Jakarta  
initiation



**June 2025**  
Engagement with Jakarta Provincial  
Government and Executive Office of  
the President (KSP)



**24 July 2025**  
National and Local Government  
Engagement Session



**August – November 2025**  
Finalization of meta-study report



**August 2025**  
City exchange session at ASEAN  
Governors and Mayors Forum 2025

**August 2025**  
Engagement with Coordinating Ministry  
of Infrastructure and Regional  
Development



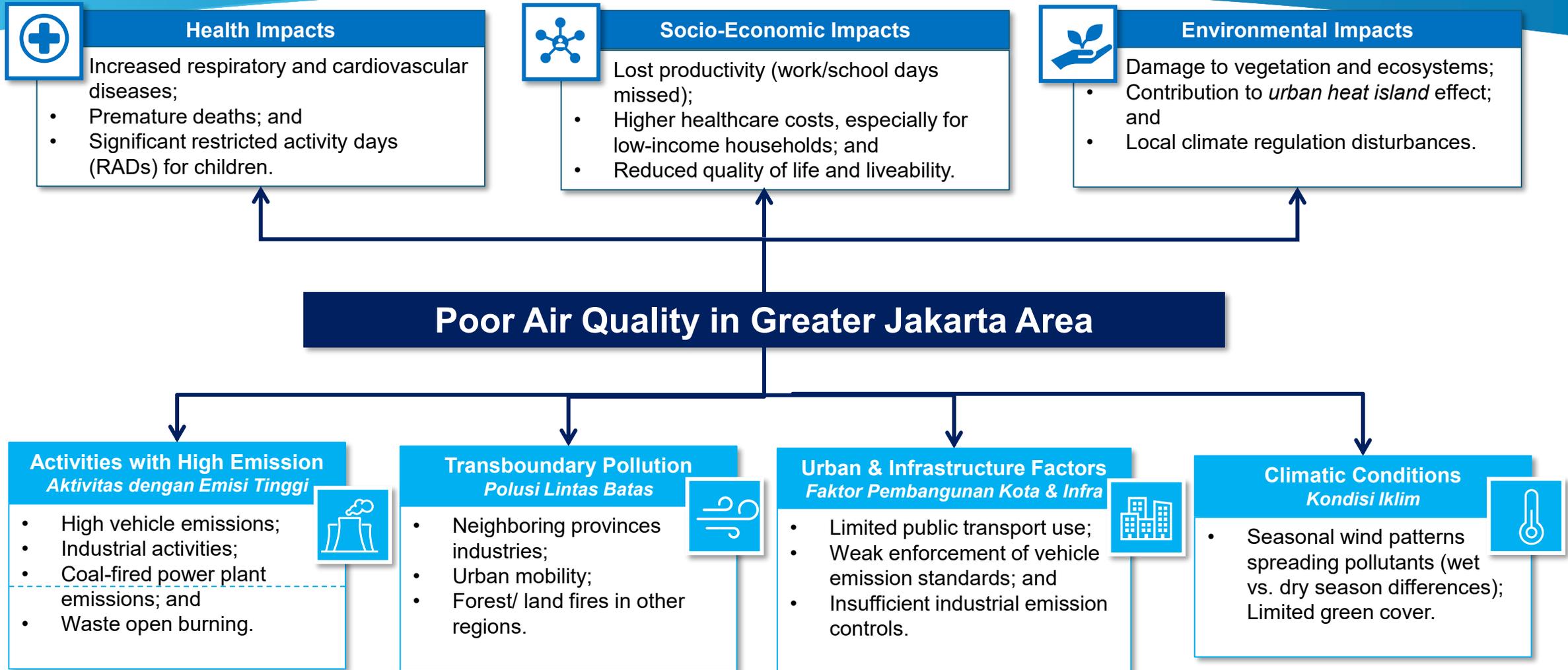
**26 February 2026**  
Meta-study final report  
dissemination to stakeholders

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# Air quality in Greater Jakarta is caused by integrated drivers

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# Air quality improvement efforts still have several gaps

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## Fragmented Initiatives Across Sectors, Jurisdictions, and Actors

Efforts to address air pollution in Greater Jakarta remain fragmented, with ministries, municipalities, and nongovernment actors often working in isolation. Limited coordination and integration undermine synergy and prevent system-wide impact.



## Key Findings:

1

No clear leadership or coordinating body, leading to fragmented planning and implementation.



## Absence of Lead Institution, Coordinated Management and Unified Target

The absence of a mandated lead institution leaves air quality management fragmented and uncoordinated, hindering joint policies, resource mobilization, and the development of a clear, stakeholder-endorsed road map with defined targets.



2

Lack of a unified roadmap with measurable targets and alignment between national and subnational governments.



## Heavy Fiscal Burden on Government Budget

Air quality improvements demand large, long-term investments with limited short-term returns. Capital-intensive measures—such as monitoring systems and clean energy transitions—rely heavily on public funding, creating fiscal pressure amid competing national priorities.



3

Most initiatives lack direct financial returns, limiting potential interest from private sector.

4

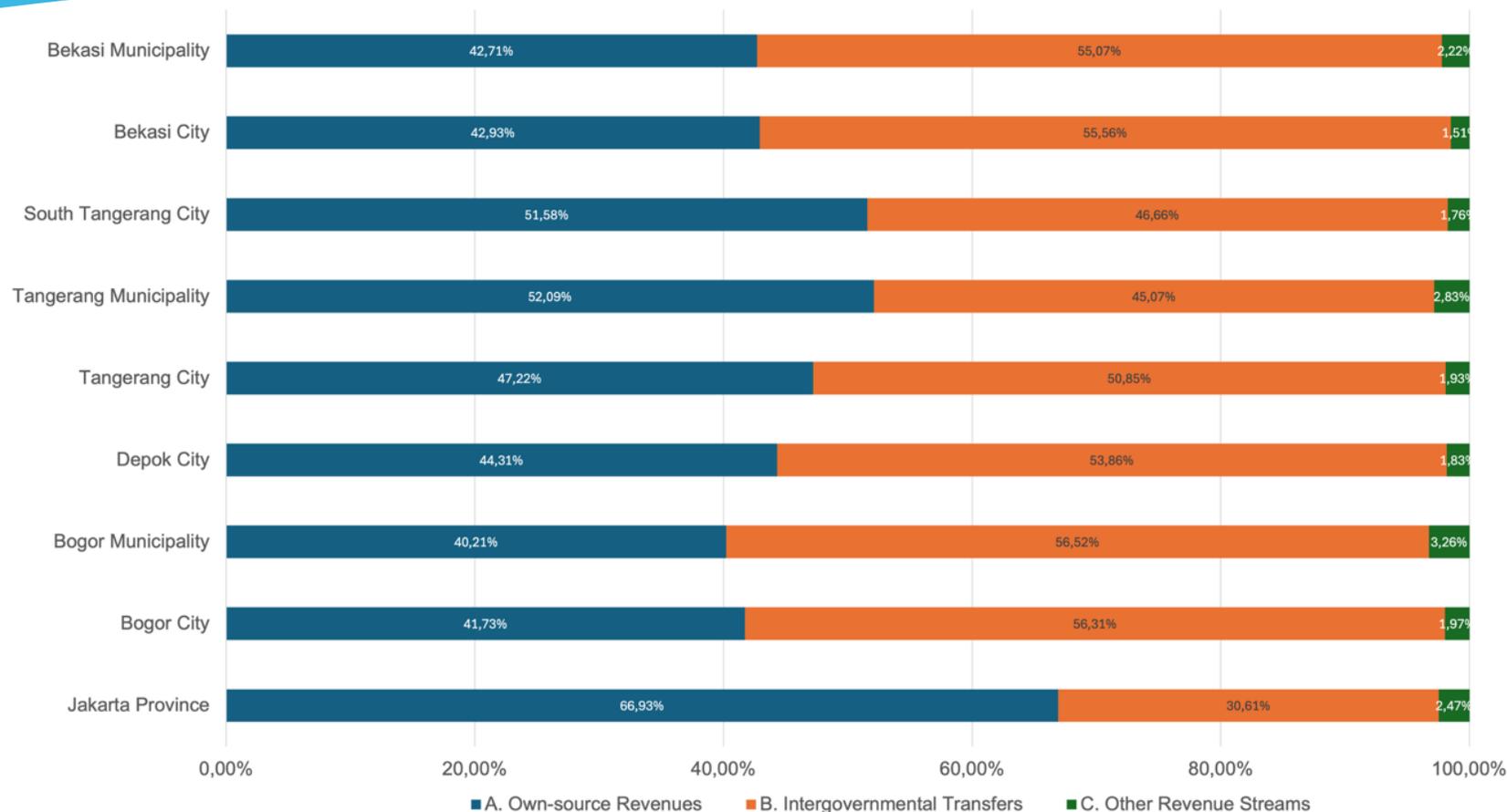
Budget allocation is focused on transport sector.

5

Large fiscal disparities exist between SNGs.

# Air quality efforts remains dependent on state budget (especially at SNG level)

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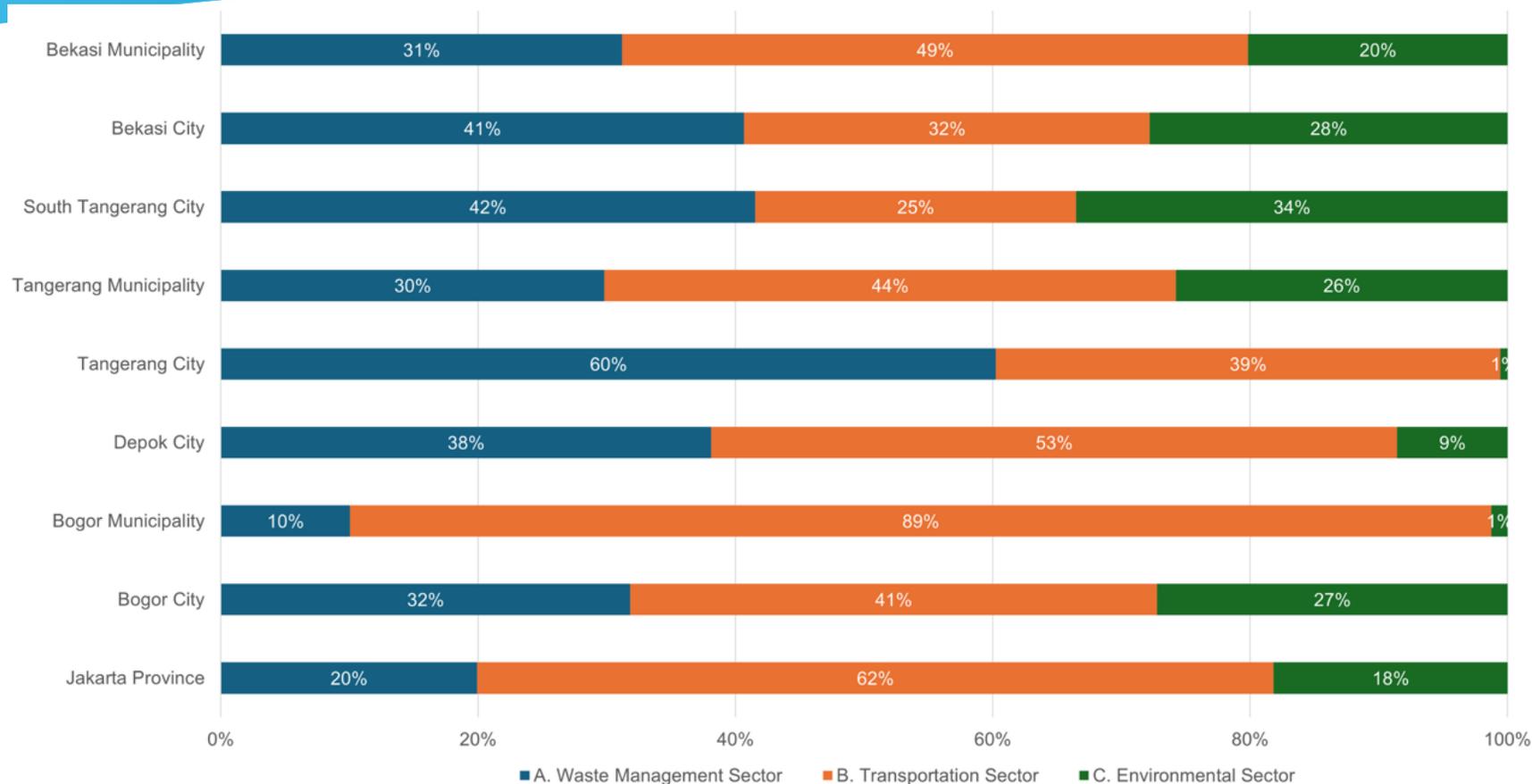
- Significant variation in fiscal independence across SNGs in the Greater Jakarta area exists with Jakarta Province stands out with the highest proportion of own-source revenues, indicating strong local revenue generation and reduced reliance on national government funding.
- In contrast, other SNGs in the Greater Jakarta area still rely heavily on intergovernmental transfers, which account for more than half of their total revenues.
- This data suggests that most SNGs in the area continue to depend substantially on national government support, including for financing programs and projects, with varying degrees of local fiscal capacity.
- Strengthening SNGs' capacity to identify alternative sources of financing can improve budgetary flexibility and reduce reliance on national government transfers

## Overview of the Financing Landscape of Subnational Governments in the Greater Jakarta Area, 2020–2024

Source: Average revenue 2020–2024 analysis from the Directorate General of Fiscal Balance Ministry of Finance Portal.

# Air quality management budget remains dominant for transportation sector

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- The budget tagging suggests that infrastructure and mobility are prioritized over other sectors at the subnational level in the Greater Jakarta area, even though sources of air pollution in the area are not limited to the transport sector.
- Adaptation actions—such as the expansion of green open spaces and air quality monitoring, which typically fall under environmental sector budgets—also remain limited.
- This indicates an urgent need for a unified road map to guide targets, actions, and resource allocation.

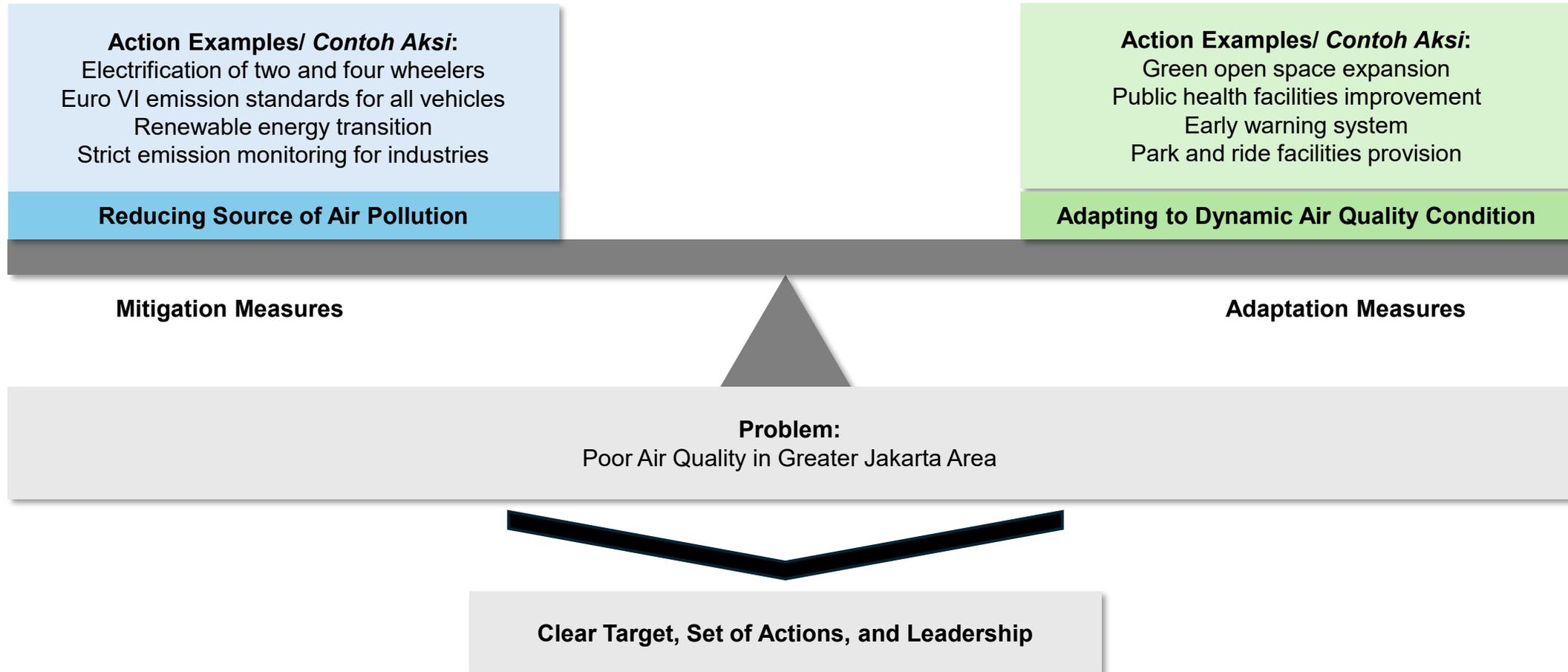
## Air Quality Improvement Budget Tagging in the Greater Jakarta Area

Source: Analysis from Regional Budget in Regional Development Plans

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# Proposed approach: a balancing act in air quality improvement efforts

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# Proposed actions in balancing the acts

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## 6 Proposed Air Quality Mitigation Measures



Use Euro IV quality fuel



Truck fleet renewal



Electric vehicle adoption for 2 + 4 wheelers and buses\*



Replacement of coal with natural gas in industrial boilers



Renewable energy transition\*



Integrated waste management mechanisms\*



## Mitigation Measures

Aims to reduce the pollution level from various sources

## 4 Proposed Air Quality Adaptation Measures



Public transportation expansion\*



Low Emission Zone implementation\*



Air quality early warning system\*



Green open space expansion\*



## Adaptation Measures

Aims to help the communities to adapt to changing air quality conditions

\* Indications of measures that can be undertaken by subnational governments.

# Possible alternative financing schemes and best use of state budget

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Proposed Actions	Financial Benefits	State Budget	Alternative Financing Schemes				
			Lending	PPP	Blended Finance	Bonds	Others
M1 Use Euro IV quality fuel	Direct	Yes (catalyst)	Yes			Yes	
M2 Truck fleet renewal	Direct	Yes (incentive)	Yes				
M3 Electric vehicle adoption for 2W, 4W, and bus	Direct	Yes (incentive)	Yes	Yes			Yes (leasing)
M4 Replacement of coal with natural gas in industrial boilers	Direct	Yes (incentive)	Yes		Yes (lending + concessional funds)		
M5 Renewable energy transition	Direct	Yes (guarantee/ VGF)		Yes	Yes	Yes	
M6 Integrated waste management mechanism	Indirect	Yes (full)			Yes (lending + concessional funds)		
A1 Public transportation expansion	Direct	Yes (full / VGF for PPP)	Yes	Yes	Yes		
A2 LEZ implementation	Indirect	Yes (full)					
A3 Air quality early warning system	Indirect	Yes (full)	Yes		Yes		
A4 Green open space expansion	Indirect	Yes (full)	Yes				Yes (LVC or TDR)

2W = Two-wheel vehicle, 4W = Four-wheel vehicle, A = Adaptation measures, M = Mitigation measures, LEZ = Low Emission Zone, LVC = Land Value Capture, PPP = Public-Private Partnerships, TDR = Transfer of Development Rights, VGF = Viability Gap Fund.

Possible alternative financing schemes and opportunities for various air quality improvement efforts

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- The state budget is proposed as catalytic funding, or through incentives, partial subsidies, or guarantees, to de-risk projects and make them more attractive for external financing.
- For identified initiatives that have limited opportunity for financial returns, the state budget could be leveraged as the primary source of financing.
- Lending is considered for projects with clear revenue streams and measurable outcomes.
- PPP schemes are suited for larger, long-term interventions that require shared investment and risk between public and private partners.
- Bonds may be explored for financially viable projects with stable cash flows and strong national government backing.
- It should be noted that the alternative financing schemes presented in the following table are preliminary. Detailed project scoping and feasibility studies are required to accurately determine the most appropriate financing schemes and stakeholders for each project.

# Recommendation and Next Steps

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## Planning, leadership, and integration

### Short-term Steps (within 1 year)

- 1 Establish an **interagency leadership and coordination body** for Greater Jakarta air quality management.
- 2 Draft of a **unified road map for air quality improvement** and integrate the monitoring activities in the Greater Jakarta area.
- 3 Identify and prioritize **pilot projects** with potential for external financing and/or blended financing.



## Piloting

### Medium-term Steps (1 - 3 years)

- 4 **Prepare for pilot projects** and mobilize support for preparation, technical assistance, and capacity building.
- 5 **Implement pilot projects and develop robust monitoring, evaluation, and learning mechanism** to draw lessons learned from the implementation.



## Scaling-up Actions

### Long-term Steps (3 - 5 years)

- 6 **Scale up successful pilot projects** into long-term investment programs.
- 7 **Expand access to alternative financing instruments** to ease the burden of state budget in air quality improvement efforts implementation.



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