TRAFFIC CONGESTIONS IN DAVAO CITY

1

TIME LOSS AND DELAYS

- Drivers experience significant delays during peak hours, with average congestion at 66.2% leading to hours wasted in traffic, disrupting daily routines and commutes.

2

ECONOMIC IMPACTS

- Congestion causes lost productivity, higher fuel costs, delayed deliveries, and increased business expenses due to slower operations and vehicle wear.

3

AIR POLLUTION AND HEALTH RISKS

- Idling vehicles from gridlock worsen air quality, contributing to environmental degradation and health issues like respiratory problems.

4

INADEQUATE INFRASTRUCTURE

- Poor road networks, narrow streets, lack of parking, and unsystematic development exacerbate jams, especially in downtown areas with flooding risks.

5

INCREASED ROAD ACCIDENTS

- Bad driving habits, weak enforcement, pedestrians jaywalking, and chaotic routes heighten crash risks amid heavy vehicle volumes.

INTEGRATED SOLUTIONS IN DAVAO CITY

1

REAL-TIME PUV TRACKING DASHBOARD:

- GPS-enabled tracking for all public utility vehicles, displaying live locations and ETAs on a commuter app to cut wait times by 25–30% during peak hours.

2

AI-POWERED ROUTE OPTIMIZATION:

- Machine learning algorithms analyze traffic patterns to suggest dynamic routes for operators and commuters, reducing 10km travel from 33 minutes to under 25 minutes.

3

COMMUTER FEEDBACK & ALERT SYSTEM:

- User-reported incidents (accidents, breakdowns) feed into live alerts, enabling authorities to reroute traffic and improve response times in downtown gridlocks.

4

TRAFFIC SIGNAL SYNCHRONIZATION MODULE:

- Integrates with city enforcers to adjust signals dynamically based on real-time data, easing 66.2% peak congestion levels across major arteries.

5

POST-PANDEMIC PUV CAPACITY PREDICTOR:

- Monitors reduced fleet (30% post-COVID) with predictive analytics to balance loads, boost public transport uptake, and lower private vehicle reliance

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