

Network Survey Vehicle

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Network Survey Vehicle Latest News

Recently, the Ministry of Road Transport and Highways (MoRTH) announced that it has rolled out a nationwide deployment of advanced Network Survey Vehicles (NSVs).

About Network Survey Vehicle

- It is a **specialized infrastructure management tool** comprising vehicles equipped with advanced sensors and data acquisition systems.
- These vehicles systematically collect data on road inventory and condition of National Highways.

Key Features of Network Survey Vehicle

- It is equipped with **laser profilers, GPS and cutting-edge imaging technology**.
- It is equipped with **advanced 3D laser-based systems** across all states and its network.
- With advanced technology, NSV **surveys up to 300 km daily**.
- It is usually a specialised van or SUV **equipped with multiple sensors and instruments**.

- It consists of Laser, **Global Positioning System (GPS)**, Video image processing tools, High-resolution cameras, Inertial Measurement Units (IMU), and DMI (Distance Measuring Indicator).

Working of Network Survey Vehicle

- The survey will capture **13 types of defects**, including crack measurement, ravelling, patch area, potholes, edge break, roughness, rutting, lane marking, etc.
- It will also cover details like **carriageway type, road type, pavement and shoulder width**, topography, median details, right of way, utilities, land use, etc.
- The data will be **collected for all projects involving 2/4/6 and 8 lanes** with NSV before the start of work and thereafter at regular intervals of six months.
- Data collected through NSV survey will be **uploaded on NHAI's 'AI' based portal Data Lake**, where it will be analysed to transform data into knowledge and subsequent actionable insights.
- **Raw survey data is encrypted and transmitted** to the centralised NSV centre within 48 hours.
- Expert teams, strategically **deployed across five zones**, monitor and report findings systematically.
- Within 10 days, raw data is transformed into actionable insights — a process that earlier stretched to 4-6 months.

Source: PIB

Source: <https://vajiramandravi.com/current-affairs/network-survey-vehicle/>

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