

How drone technology is improving Gauteng construction efficiency

The construction of schools, clinics and libraries will be monitored using a drone, thanks to a new initiative launched by the Gauteng Department of Infrastructure Development (DID).



© Sorapong Chaipanya– [123RF.com](https://www.123RF.com)

Chief director of the Infrastructure Research and Planning Division Amanda Moletsane is the woman leading the pack in the implementation of the project.

She said adding cutting edge technology to service delivery adds a new dimension to the monitoring capability of the DID.

“When we came up with this project we were looking at how we could deliver in a timeous, cost-effective and more efficient manner when monitoring our projects around the province.”

63 sites being monitored

Moletsane and her team started piloting the drone programme in January this year. A total of 63 sites, including clinics, schools and community centres were selected to test the use of the drone in monitoring construction projects.

The drone has a camera and feeds live video and images to a remote computer or a mobile phone. That means an operator

can record a construction project to check on developments and identify possible problems.

“The drone checks if there were people on site, was there equipment and material for the work that needs to be done. It would also give feedback on how far the project was in its completion.”

The drone programme is being initiated by a team of seven people, one of whom is a licensed drone pilot.

Cost efficient

She said it cost her division about R55,000 to purchase the drone, train one of her team members to be a drone pilot and to ensure adherence to South African Civil Aviation Authority regulations to operate a drone.

Moletsane said it usually cost government about R2m to monitor infrastructure projects in the department.

“On average, for an official to physically go to the site to monitor the progress of work, they need to drive about 30km to 40km for one project. To manage a fleet of government cars costs about R2m. The use of a drone is cost-effective and efficient.”

She said when her team was looking at implementing this programme they were looking for something innovative that would keep up with current technological monitoring avenues in the construction industry.

“The use of drones in construction is something that is being implemented across the world at building sites.”

The drone is housed at the DID's nerve centre, Lutsinga Infrastructure House.

Combining human and business intelligence

DID MEC Jacob Mamabolo said the new intervention essentially combines human intelligence, business intelligence and now artificial intelligence to ensure that the entire value chain of project delivery is efficient and that projects are delivered in time, within cost and at the right quality.

“It is possible for the public sector to be efficient and to be productive in what we do and that is exactly what we are demonstrating,” said Mamabolo, during the launch of the programme on Monday, 21 May.

The drone also helps in the monitoring of safety compliance on construction sites to meet health standards.

The programme assists DID to identify blockages in the delivery of construction projects to visit sites, troubleshoot and intervene to improve project management performance as well as productivity.

“One of the things that we have looked at is that globally, infrastructure performance is lagging behind other industries. Therefore over the past two years we've been working hard to introduce efficiencies across the value chain of development,” Mamabolo added.

Article originally published on [Vuk'uzenzele](https://www.bizcommunity.com).