Agmay
TECHNOLOGIES



SERVICE BROCHURE

Drone Survey and Mapping

Maps, models and drawings tied to real-world coordinates

Every kind of drone survey from one team: topographic and land surveys, corridors, mines, construction sites and cities. We choose photogrammetry or LiDAR for the site, tie it to ground control, and deliver maps, models and drawings ready for design, records and planning.

- Photogrammetry and LiDAR
- DGPS, RTK and PPK
- 1,000+ acres a day
- Files for CAD and GIS

OVERVIEW

Every kind of drone survey, from one team

Agmay Technologies plans, flies, processes and checks drone surveys from Hyderabad, for builders, planners, utilities, mines and government departments.

We choose photogrammetry or LiDAR for each site, tie the data to ground control, and deliver files your engineers and GIS teams can use straight away.

1,200+	150+	1,000+
Linear kilometres mapped	Villages and townships surveyed	Acres mapped in a working day

Why Agmay

- One team plans the survey, flies it, processes it and checks it, so nothing is lost between contractors
- The method chosen for the site: photogrammetry for open ground, LiDAR where vegetation or wires matter
- DGPS ground control, RTK and PPK corrections tie every map to real-world coordinates
- A complete record of the site, not just measured points, for checking later
- Files ready for AutoCAD, ArcGIS, QGIS and civil design software
- DGCA-certified pilots, with airspace checked on Digital Sky before every flight

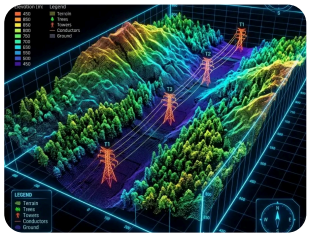
METHODS

How we capture the site



Photogrammetry

Overlapping images processed into orthomosaics, elevation models and 3D models.



LiDAR

Laser scanning that measures the ground under vegetation and captures wires.



Ground control, RTK and PPK

DGPS control and check points, with RTK or PPK positioning on the aircraft.



Processing and QA

Data processed, checked against check points and reviewed by a second person.

SURVEY SERVICES

Choose the survey you need

Each service has its own page on agmay.in with the full detail, equipment and questions answered.

Topographic and land surveys

Ground levels, features and boundaries for layouts and design.

- Topographic surveys
- Layouts, housing schemes and industrial estates
- Village and township mapping

More: Drone land survey · agmay.in/services/drone-land-survey/

Cadastral and property surveys

Plot boundaries and property records from one georeferenced map.

- Plot and property boundaries
- Construction stage of each plot
- Records for revenue and housing departments

More: Arempula housing case study · agmay.in/case-studies/indiramma-housing-drone-survey-arempula/

Orthomosaics, contours and DEMs

The core mapping outputs, from your data or ours.

- Orthomosaics
- DSM, DTM and DEM elevation models
- Contours and cross-sections

More: Drone data processing · agmay.in/services/drone-data-processing/

Corridors

Long, narrow sites mapped without closing them.

- Roads and highways
- Railways, canals and pipelines
- Power lines, with LiDAR for clearances

More: Corridor mapping · agmay.in/services/drone-mapping-photogrammetry/

LiDAR surveys

Terrain under vegetation, wires and classified point clouds.

- Bare-earth terrain under trees
- Power-line and utility corridors
- Flood and drainage studies

More: LiDAR drone mapping · agmay.in/services/lidar-drone-mapping/

Mining and stockpiles

Volumes and pit models without surveyors in the pit.

- Stockpile volumes
- Pit and bench mapping
- Lease boundary checks

More: Mining survey · agmay.in/services/mining-drone-survey/

Construction and progress

Repeat surveys of live sites.

- Progress against the design surface
- Cut and fill quantities
- Visual records for project reviews

More: Construction inspection · agmay.in/services/drone-inspection/

Urban and smart-city mapping

City base maps turned into GIS layers.

- Base maps for planning
- Property, road and drain layers
- Smart city digitisation

More: GIS services · agmay.in/services/gis-services/

3D mapping

Measurable 3D models of buildings and sites.

- 3D models of houses and structures
- Construction status, plot by plot
- Models to compare survey to survey

More: Indiramma house mapping, page 5

HOW IT WORKS

From enquiry to delivered data

1

Scope the job

We agree the site boundary, outputs, accuracy and schedule, and visit or review the site on maps.

2

Plan and clear the flight

Airspace is checked on Digital Sky, permissions are arranged where needed and the flight plan is loaded.

3

Fly and capture

A certified crew flies the mission with the right aircraft and sensor, and checks the data on site.

4

Process and check

Data is processed, checked against control points or references and reviewed by a second person.

5

Deliver and review

You receive the agreed files and a short walkthrough, with support for follow-up questions.

CHOOSING THE METHOD

Photogrammetry or LiDAR?

	Photogrammetry	LiDAR
Best for	Open, well-textured sites	Vegetated ground, wires, surfaces with little texture
Main outputs	Colour orthomosaic, DSM, 3D model	Point cloud, bare-earth terrain, wire positions
Under trees	Sees the canopy top	Multiple returns reach the ground
Together	Some projects use both: LiDAR for the terrain, photos for the colour map	

ACCURACY YOU CAN CHECK

Tied to real-world coordinates

- ✓ DGPS ground control points, with independent check points to prove the result
- ✓ RTK or PPK positioning on the aircraft, which reduces how many control points are needed
- ✓ DJI D-RTK 3 kit available for precision mapping
- ✓ Target accuracy stated in the proposal; achieved accuracy reported against the check points

What you receive

Orthomosaic and elevation models	GeoTIFF
Point clouds and 3D models	LAS / LAZ
Contours, sections and plans	DWG / DXF
GIS layers and attribute tables	SHP / KML
Survey report, with the coordinate system and check-point results	

PROJECT SPOTLIGHT

Indiramma house mapping



3D model of a house under construction, made from overlapping drone images.

These 3D maps give a clear picture of the construction status of houses built by the Telangana Government under the Indiramma housing scheme. Each model is made from overlapping drone images, so walls, slabs, scaffolding and materials on the plot can be checked, measured and compared with the next survey.

At Arempula Village, Khammam District, one survey recorded the stage and plot area of every house:

60	13	26	21
plots verified in one project	at slab stage	walled	at basement stage

Average plot area 765.4 sq ft. Case study: agmay.in/case-studies/indiramma-housing-drone-survey-arempula/

EQUIPMENT

Aircraft and sensors we fly

Agmay AeroVTOL-X

Fixed-wing VTOL, built by Agmay

- Up to 120 minutes in the air from any clearing
- Up to a 40 km corridor in one flight
- Mapping camera, oblique rig or LiDAR in the payload bay

DJI Matrice 400

Heavy enterprise drone

- Up to 59 minutes of flight (DJI figure, still air)
- Carries up to 6 kg, including the Zenmuse L3
- IP55 protection for rain and dust

DJI Zenmuse L3

Aerial LiDAR with mapping cameras

- 3 cm vertical, 4 cm horizontal (RMSE) at 120 m
- Up to 16 returns per pulse, through vegetation
- Dual 100 MP mapping cameras

Long corridors are flown in sections within the pilot's line of sight unless a specific DGCA authorisation for flights beyond visual line of sight is in place. DJI figures are from DJI's published specifications.

WHO WE SURVEY FOR

Builders and developers
Layouts, topographic surveys and construction progress

Government departments
Village, township and housing surveys, and property records

Town planners and smart cities
Base maps and GIS layers for planning

Highways, rail and canals
Corridor maps and cross-sections

Power and utilities
LiDAR corridors and clearances

Mines and quarries
Stockpile volumes, pits and lease boundaries

QUESTIONS

Common questions

Which survey do I need?

Tell us the site, its size and what the survey is for: design, records, volumes or monitoring. We recommend the method and outputs in the proposal.

Photogrammetry or LiDAR?

Photogrammetry suits open, well-textured sites and gives a colour orthomosaic. LiDAR suits vegetated ground, wires and surfaces with little texture. Some projects use both.

How accurate is a drone survey?

It depends on the sensor, flight height, terrain and ground control. We state the target accuracy for your site in the proposal and report what was achieved against independent check points.

Do you need ground control points?

For survey-grade work, yes: DGPS control and check points tie the map to real-world coordinates and prove its accuracy. RTK or PPK on the aircraft reduces how many are needed.

Do you work outside Telangana?

Yes. Crews are based in Hyderabad and work across Telangana and Andhra Pradesh, and on projects elsewhere in India.

How do I get a quotation?

Send us:

- ✓ The location
- ✓ The size of the site, or the route length
- ✓ The outputs you need
- ✓ Your timeline

We reply with a scope and a price.

Plan your survey with Agmay

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Accuracy depends on the sensor, flight height, terrain and ground control, and is stated for each site in the proposal. © 2026 Agmay Technologies Private Limited.