

## **eArthpIx**

Geospatíal consultant



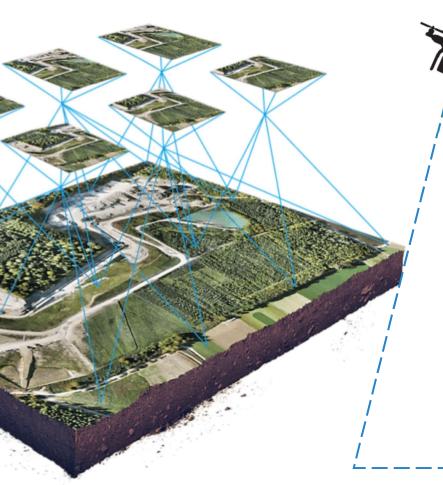
### About us

We build and deliver world-class professional consultancy, advisory and solution services to both public and private sectors in the areas of geoinformatics where Artificial intelligence (AI) and GIS intersect. All our expertise also offers services in the automation of UAV drone/LiDAR surveying and mapping in infrastructure, agriculture, industrial, mining and surveillance sectors.



### **Aerial survey**

An aerial survey refers to the capturing the aerial photos using unmanned aerial vehicle (UAV), with respective sensors, such as RGB or multispectral cameras, and LIDAR payload. In case of a drone survey with an RGB camera, the ground is photographed several times from different angles, and photogrammetry technique uses coordinates tagged in image and combines images that contain the same point on the ground from multiple vantage points to yield detailed 2D and 3D maps



### **MAIN ADVANTAGES**

- Reduce field time (approx. 7x)
- Reduce survey cost
- Surveying in inaccessible area
- Accurate measurements at millions of points
- Different kind of data can be generated
  - ✓ Orthomosaic
  - ✓ DSM, DTM
  - ✓ Contours
  - ✓ 3D Models

# **SERVICES**

- **\*** Topographical surveys
- **\$** Land management and development

**❖** Urban Planning

**Assessing the impact** 

of extreme events

(cyclones/floods/tsun

-ami)



### **\*** CONSTRUCTION

- Tracking construction progress
- 3D models of sites

### **\*** INSPECTION

- Structures like
  bridges, buildings
  and monuments
  inspection
- o Road/Rail monitoring
- Slope monitoring

### **\*** AGRICULTURE

- Monitor plant health
- Perform plant count

#### MINING

- Inventory and management of stockpile volume
- Mine or quarry monitoring and operation planning
- o Assessment before drilling or blasting

# **PROJECTS**



### **Aerial survey of Auranga River and Valsad city**

#### **Abstract:**

The city named Valsad in Gujarat state of India is under substantial erosion of beaches and coastal wetlands. This city coastal region is sandwiched between Arabian sea and Wanki River, due to which it is highly vulnerable to coastal flooding by extreme events (storm, wave) and long-term sea level rise. The DEM, 3D view and orthomosaic is required for further coastal protection measures. More than 20000 photos covering 33.66 km² are captured and processed within 30 days.

#### **Application:**

- Impact of climate change on coastal environment
- Coastal zone management
- Potential source of information for coastal policy planner and decision makers



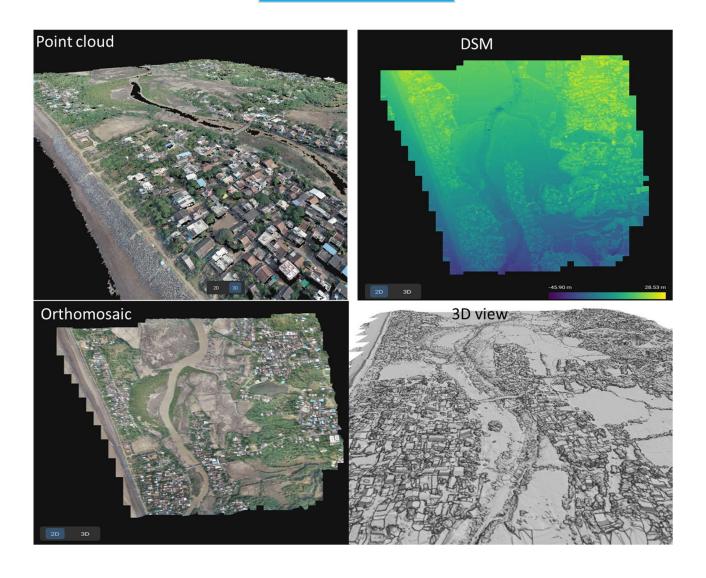


# **PROJECTS**



**Aerial survey of Auranga River and Valsad city** 

### Sample outputs

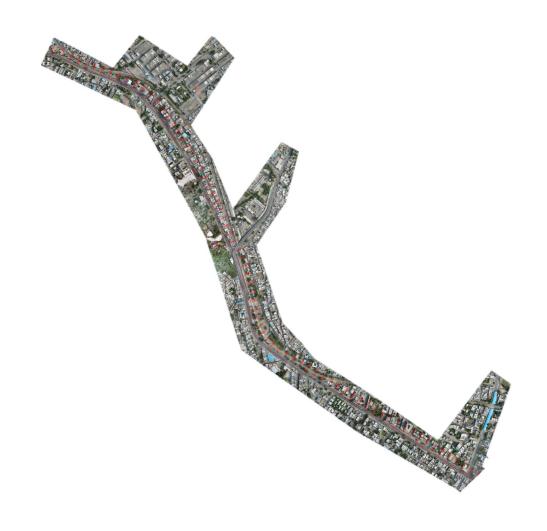


# **PROJECTS**



### Aerial survey of Jodhpur elevated corridor using drone

Camera Model Name(s)	FC6310_8.8_4864x3648 (RGB)
Average Ground Sampling Distance (GSD)	2.55 cm / 1.00 in
Area Covered	4.844 km2
Data set	>3000 images
Project duration	3 days







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## WE ARE HAPPY TO PROVIDE OUR SERVICE

