**Practical Example Workflow**

Here’s a practical workflow for analyzing drone data from a survey of a glacial lake to assess GLOF (Glacial Lake Outburst Flood) risk:

1. **Data Collection:**
   * Use a drone equipped with a high-resolution RGB and multispectral camera to capture images of the glacial lake and surrounding terrain.
2. **Data Processing:**
   * Use Pix4D to stitch the images into an orthomosaic and generate a DEM of the lake and surrounding area.
   * Georeference the orthomosaic and DEM using GPS data collected during the flight.
3. **Data Analysis:**
   * Import the DEM into QGIS and perform terrain analysis to identify potential overflow points.
   * Calculate the NDVI using the multispectral data to assess vegetation health, which can influence the stability of the lake’s dam.
4. **Data Visualization:**
   * Visualize the results in QGIS, overlaying the NDVI map with the DEM to highlight high-risk areas.
   * Create a 3D model of the lake and its surroundings to present to stakeholders, helping them understand the potential risks.