

Geolytics.AGRO based Crop Monitoring Project

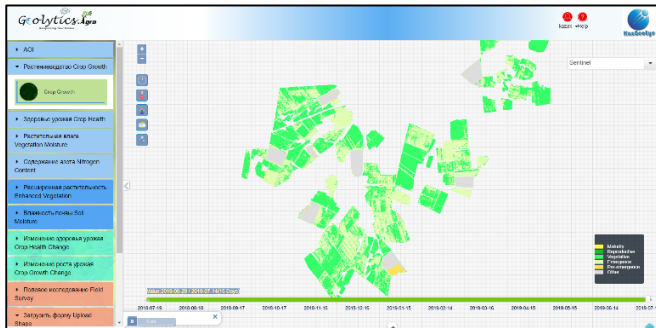


Figure1. Map showing the study area

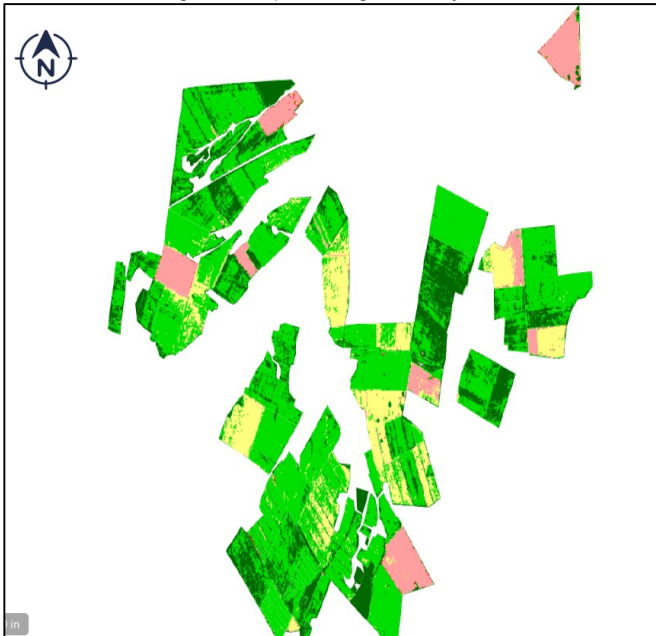


Figure2. Map showing Areas of GPS aided field-survey



Figure3. Field Investigations and Field Validation

Business Need:

Contract Farmers in Kazakhstan grow Wheat and Barley in large areas taken under lease in the North Western part of the country under rain-fed conditions. Due to vast area under cultivation, they face following problems in having timely and comprehensive information on-

- i) Crop Growth
- ii) Crop Health
- iii) Water Stress, if any
- iv) Areas with Nitrogen deficiency

They also spend lot of time, resource and money to gather such information from field workers.

Area Covered:

The area under cultivation for this study is spread across 22,700 Ha

Inputs Used:

Image type	Sentinel-2
No. of Images	On 5 Days Interval
No. of Bands	4
Resolution	10 m

Business Solution:

Web GIS based Online platform “**Geolytics™.AGRO**” was developed. This software gave Online access to temporal

- i) Satellite images
- ii) Real Time Weather Information
- iii) Online Analysis of to find out the status of
 - a. Crop Growth
 - b. Crop Health
 - c. Water Moisture Content
 - d. Nitrogen Content
- iv) Temporal Change Analysis
- v) Tool for Field Task Assignment
- vi) Cost Analysis
- vii) Generation of Online Report

Advantages of Geolytics™.AGRO:

Geolytics.Agro provided a handy tool to the contract farmers

- to take timely decision based on the field scenario.
- In bringing down the operational cost, as it drastically reduced the time, resource and money being incurred to investigate the situation in the field
- To help them the areas which need application of nutrient
- Identify water deficient areas etc.
- Keep tap of expenses against the estimated cost

Software Used:

- i) Geolytics.AGRO
- ii) Internet