



# Satellite Data to Climate Intelligence

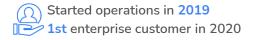
Contact : <u>partnerships@blueskyhq.io</u> for more info



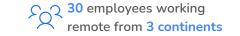
# About us: BSA at a glance



### A high growth DAAS company



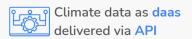


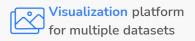




# Backed by Deep Tech





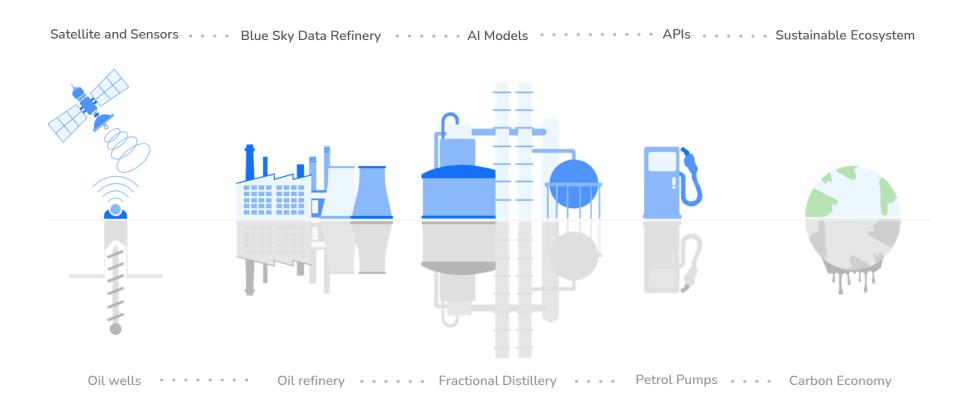




Mission: Satellite Data to Climate intelligence

# Building world's largest geospatial data refinery





# **Process: Monitor and Measure**



### Input latitude and longitude













#### Allow us to



To do the analysis and find satellite data



Build our proprietary models, work with domain experts and extract relevant intelligence

# Deliver the insights via



Visualization through our tool Spacetime



API calling through our tool

Dev Portal

# USP: Differentiated value for users at 3 different levels



#### **Technology**



### **Geospatial Data Refinery**

- Automated, scalable and reusable
- Ingest data from various different sources
- Required output in the minimal timeframe

#### **Platforms**



### **Configurable APIs**

- Data in spatial and temporal context
- Visualize multiple datasets on the same platform
- Datasets through API in standardized form

#### **Solutions**



### **Business insights**

- Asset level information
- Historical, near real time and predictive data
- Decision useful data for timely implementation

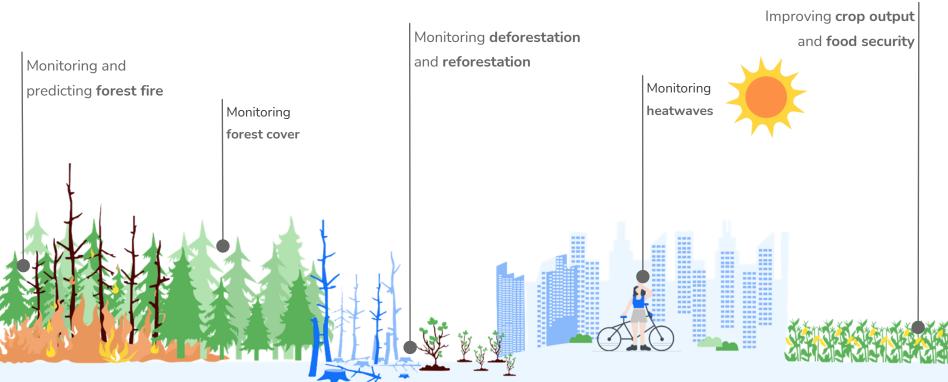
# Vision: Comprehensive climate datastack





# Vision: Comprehensive climate datastack





# Incoming datasets in 2022-23



#### Spatial AQ



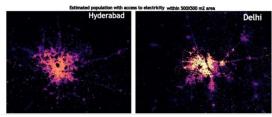
PM2.5 levels in North India

#### Water quality monitoring



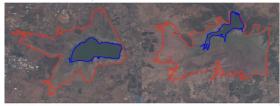
Water quality parameters for GB Pant Sagar, Singrauli

#### Electrification



Population with access to electricity using pixel-based classification on night-time light and population density data

#### Surface water quantification



POC with the city of Chennai, in light of zero-water day. Surface Water Extent for two lakes in Chennai, May 2019

#### Landfill detection



Chennai Corporation Landfill, Growth overtime 2021

#### Power-plant emission



Actual vs Estimated power generation using Blue Sky's dataset

#### **GHG** fire emissions



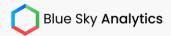
Global contribution of CO2 estimates from biomass fires for June 2022

#### Fire predictions



Predicted fires in Punjab, India on 16 November 2021

# **Industries**





**Asset Managers** 



Agriculture



Banking



Carbon Markets



Climate litigation



Disaster Management



**Electric Utility** 



Government



**Grants and Foundation** 



Insurance



Natural Capital



Real Estate



Reinsurance



**Smart Cities** 



Stock Exchanges

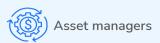
# Use Case: Evaluate wildfire risk for portfolio credit

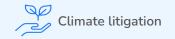


- More than 4 million km2 of wildfires were observed in 2021. It is estimated that climate change has amplified global wildfires by 600%, emerging as the largest and most critical climate risk.
- Major wildfires were observed in US, Canada, Greece, Turkey, Russia, Indonesia, and Australia. The phenomenon is endangering towns, energy infrastructure, industries, and economic markets.
- We have built one of the largest repository of global wildfires data, comprising of detailed parameters like area burnt, carbon emissions, with upto 5 year historical, near real time, and 7 day prediction data.
- Our data can be accessed via APIs, SMS alert, mail notifications, or daily or weekly reports. Clients can also request custom dashboard for their area of interest. Alternatively, clients can input their asset/portfolio location data and fetch relevant wildfire risk data.









# SpaceTime<sup>™</sup> - Asset - Forests





# Level 1: Country view

Presently, forests form 2% of global GDP, however with efforts around stopping deforestation, increasing land based carbon sequestration, the value of forest & hence management, monitoring services has exploded



### Level 2 : Asset view

Blue Sky Analytics digs deep down in global forest monitoring, starting with wildfires, to deforestation & reforestation



Level 3: High Resolution

Clients can load their concerned land & access series of parameters

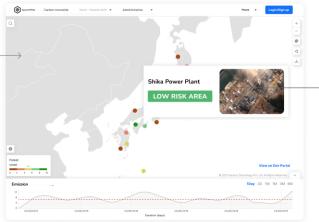
# SpaceTime™ - Asset - Power plant





# Level 1: Aggregated

With rising climate risk, often exceeding existing models and predictions, and increased conservation efforts across board has resulted in demand for near real time asset level monitoring



# Level 2 : Asset view

Monitoring assets for both their impact on the environment in terms of pollution or emissions, or effect of climate change on them is demanded across sectors



# Level 3: High Resolution

SpaceTime™ allows clients to monitor assets for series of use cases

# SpaceTime<sup>™</sup> - Asset - Rivers





# Level 1: Country view

Climate change poses one of the highest threats to global water security, in forms of extreme precipitation induced flooding and amplified droughts



### Level 2: Asset view

Various public & private organizations are actively engaging in river/lake monitoring for protection, risk mitigation, or long term planning



# Level 3: High Resolution

Access high resolution details of lakes and rivers on SpaceTime  $^{\text{TM}}\,$ 

# Mission: Satellite data to Climate intelligence





View multiple datasets together

Have a clear Spatio-temporal view

Select from a pool of 40+ datasets

View historic, real time and predictive data

# Personas: Developers, Analysts, and Layperson



### **API Gateway**

For Data scientists & Developers

Easy integration by data teams of organization into existing software, different models, algorithms, or data products



# **Analytics**

For Analysts & Operations

Bespoke reporting with insights, inferences for non-technical clients, project assignments in climate litigation/ investment due diligence.



# **SpaceTime**

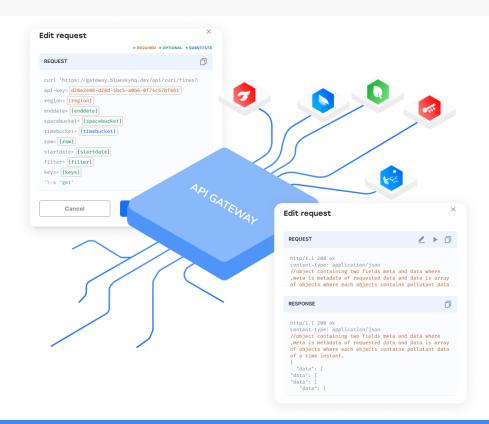
For World

Freemium visualisation tool for general population for increasing awareness, assisting journalists, exploration by clients, marketing, etc.



# **Developer Portal**





### Dev portal

Data forms backbone of various internal algorithms across organizations, or feeds into internal dashboard or is a critical component of industry or problem focussed solutions.

In each scenario, the users typically need to hook datasets to their algorithms or solutions or dashboards.

With Blue Sky developer portal, users can access datasets straight from APIs and focus on their models or calculations, leaving complex remote sensing for climate modelling to us

# About us: Team



**Founders** 



Abhilasha Purwar, CEO









Kshitij Purwar, CTO











#### Our team



#### **Advisors**



Kailash Nadh Co-founder Zerodha



Chandru Badrinarayanan Ex - MSCI Head





**Ashish Dhawan** Philanthropist, CEO of CSF



**Prof Sagnik Dey** Centre for Atmospheric Sci., IIT Delhi

# **Accolades**





- Since the founding days, Blue Sky has been repeatedly recognized for persistence, integrity and innovation at various global forums
- In 2019, Blue Sky won MIT Solve Healthy Cities Challenge, Space Oscars. In 2020, BSA won AI Innovation Award. In 2021, Blue Sky Analytics won Tech for Global Good Laureate.
- In 2022, BSA represented in various high level meeting with Dutch PM and Indian President for discussions on innovations and partnerships for Water & Climate Action.
- And, selected for 2022 AWS Space Accelerator,
   Fast Company Climate Innovation, & more

AWS Space Accelerator Program

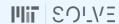
















# Blue Sky Analytics

### Reach out to me

in ishaan-kochhar

**Sochhar\_ishaan** 

# Find more about us

**5** blueskylab

in blueskyhq

blueskyhq.io



