Vassar LABS

PLATFORM FOR SUSTAINABLE WATER RESOURCES MANAGEMENT

aquaWISE™

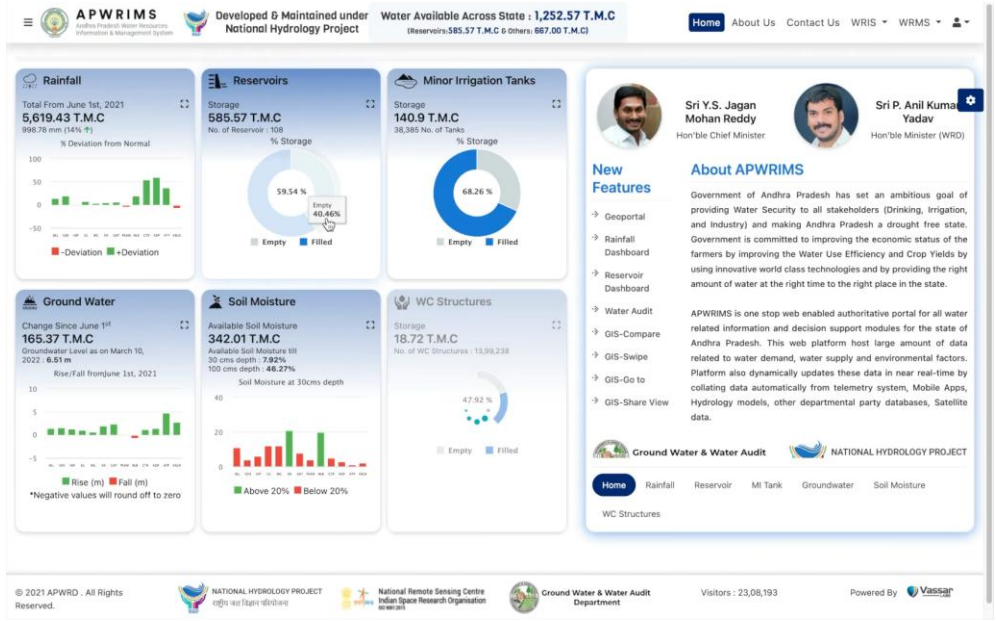
Nikhilesh Kumar
Co-Founder & CEO-APAC
Vassar Labs
nikhilesh@vassarlabs.com

Vassar Labs, is a Technology company **building products** and solution for global problem of **Climate Change** impact on vulnerable sectors like Water, Cities, and Agriculture, by making use of latest technologies like **IoT, AI/ML, GIS, Cloud computing, Remote Sensing, Big Data** etc

Real-time visibility to understand water, food & energy nexus

No more reports or standalone system

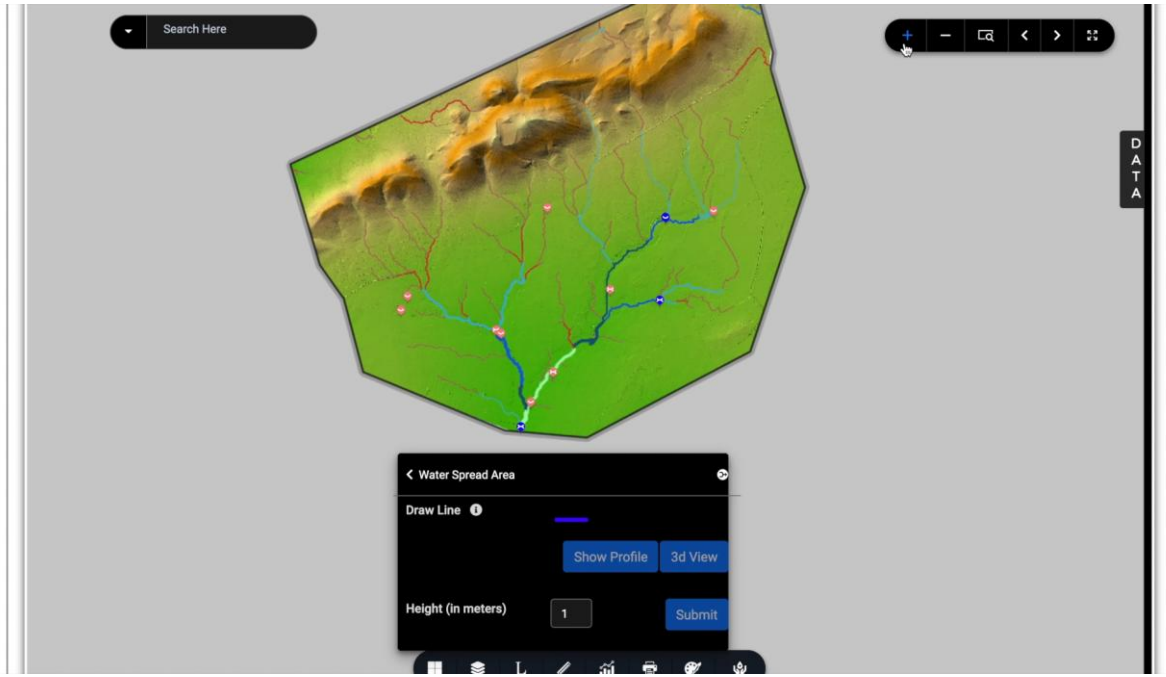
Unifying various siloed system and creating one authoritative system



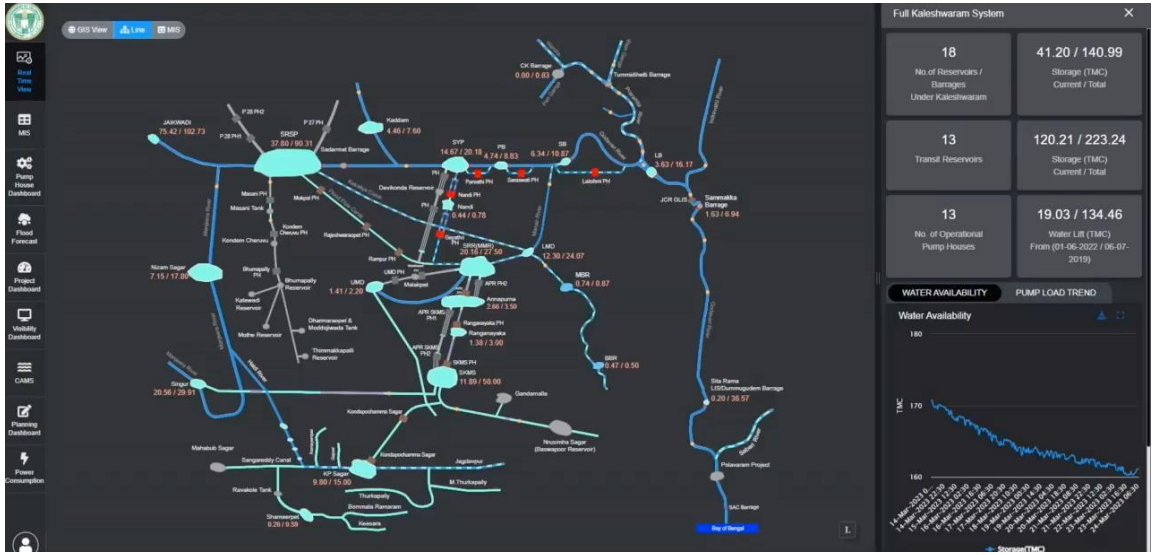
Enable water conservation by enabling people with technology

Eliminating time consuming audits, and hydrological assessments

Cloud based system to enable everyone with power of AI to run hydrological assessment and identify conservation potential in no time



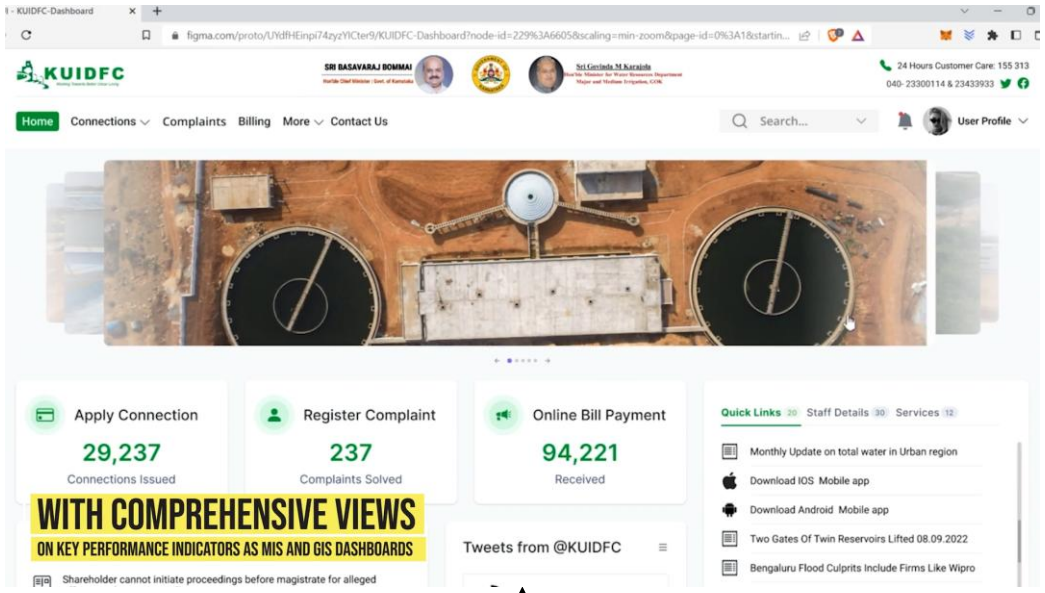
Digital twin for natural and conveyance system to manage bulk water



Optimizing energy utilization and water use efficiency to ensure climate resilience operations by creating digital twin for natural and conveyance systems

Complex bulk water transfer schemes heavy on energy and fragile to climate change

Making city climate resilient with smart water distribution & asset management



Ensure Water quality, SLA monitoring, connection, workflows, Non-revenue water, billing & collections with interactive GIS to have one truth for administrator and citizens

Aging infrastructure and rapid population growth, are creating stress on distribution system and assets

Ensuring irrigation to crops with advance planning and real-time management

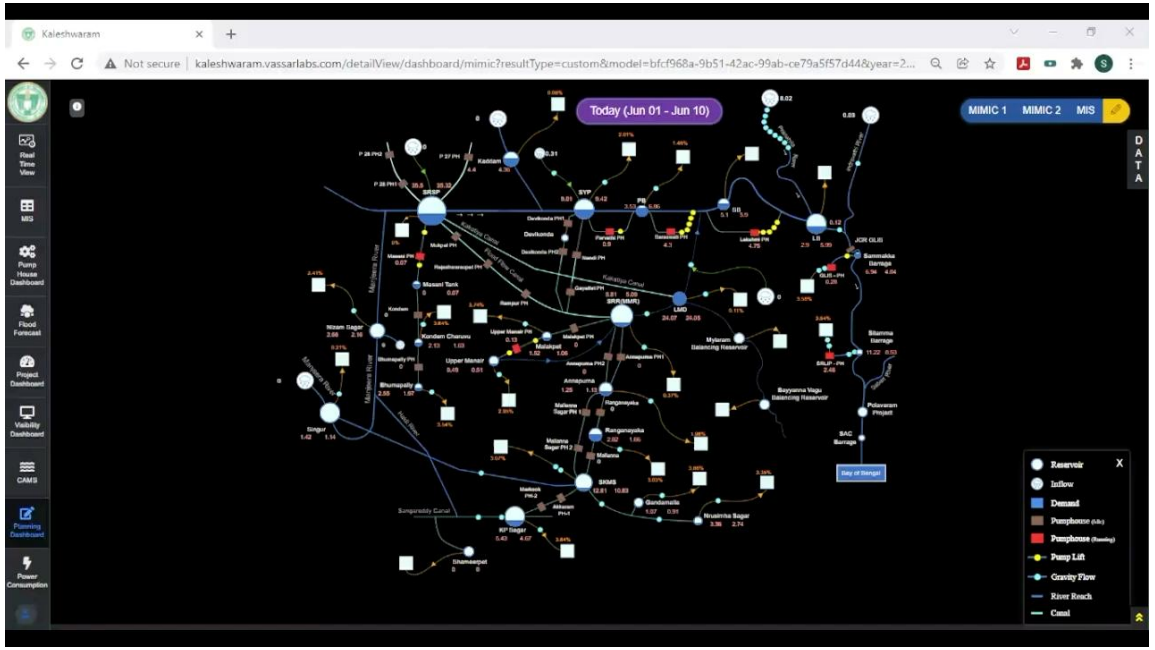
Optimizing energy utilization and water use efficiency to ensure climate resilience operations by creating digital twin for natural and conveyance systems

Complex bulk water transfer schemes heavy on energy and fragile to climate change

Transboundary rivers and inter-basin transfers for mitigating deficit

Automation of annual water accounting , river basin planning and dynamic in season operations planning as per guidelines to ensure cohesion while meeting the key demands

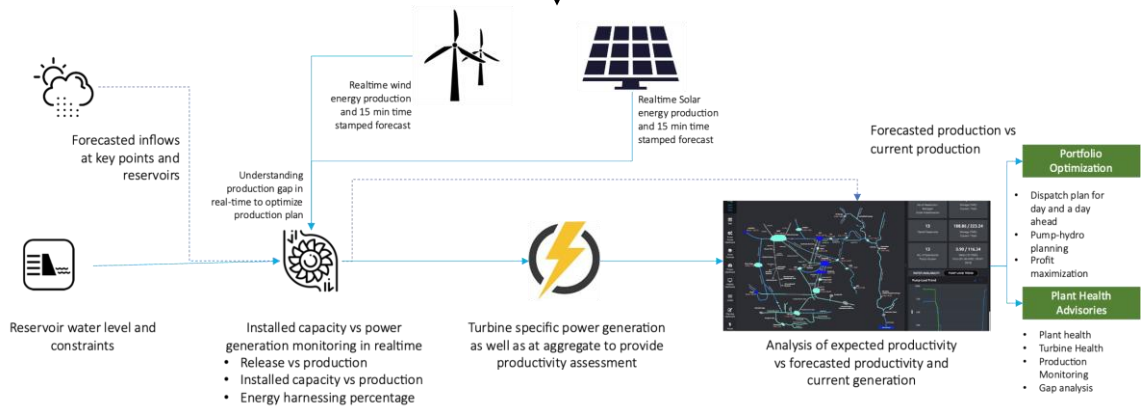
Conflicting stakeholders demand and equitable sharing of deficits and risks always create a rough situation among stakeholders



Decarbonization of energy by optimization of hydropower productivity

Real-time economic dispatch: generation allocation to the on-line units in a way that load may be supplied entirely and in the most economic manner.

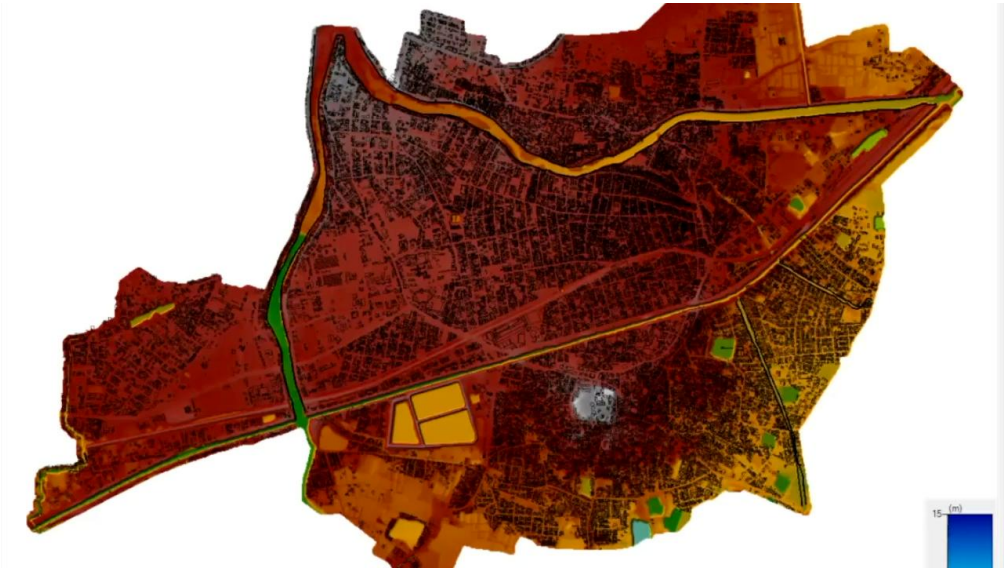
Multiple stakeholders, short term visibility and uncertainty always hinders to achieve planned capacity output from hydropower units



Ensuring climate risk resilience by assessing flood risks in real-time with great details

Enhance accessibility with a cloud-based flood risk tool, offering simulations of flood risks, contours, and protection measures. Designed for non-SMEs, it encourages wider adoption, enabling easy 'what-if' scenario testing for water levels and return periods

Complex data sets, proprietary software's and serious hydrology and hydraulic makes flood simulation a resource intensive and time taking job, who need SME's



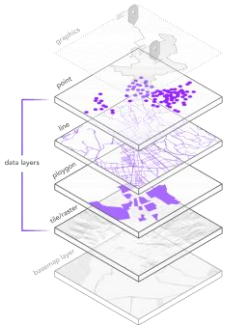
Platform for optimizing productivity & climate risk adaptation

Devices & Data

- Devices
- Geospatial
- Applications & Integrations
- Data
- Environment & Natural Resources

aquaWISE Platform

- AI/ML STACK
- mobileWISE
- Cloud



GIS STACK

- Real-time measurement
- Realtime transactions & Engagements
- Physics based models for real-time simulation

Not just study reports → Not a new siloed system → No additional workflows → A platform which creates its own data with daily workflows and empower decisions

Decision Support

- Large scale distribution optimizations
- What if scenario simulations
- Energy Efficiency & Decarbonization
- Climate and Risk Models for utility & assets……

Users

- Policy Makers
- Management Authorities
- Field Users
- Citizens/Academia/ Media/judiciary/NGOs etc.

Applications

- Digital Twins for natural & conveyance system
- Planning, Operations, Management & Optimization

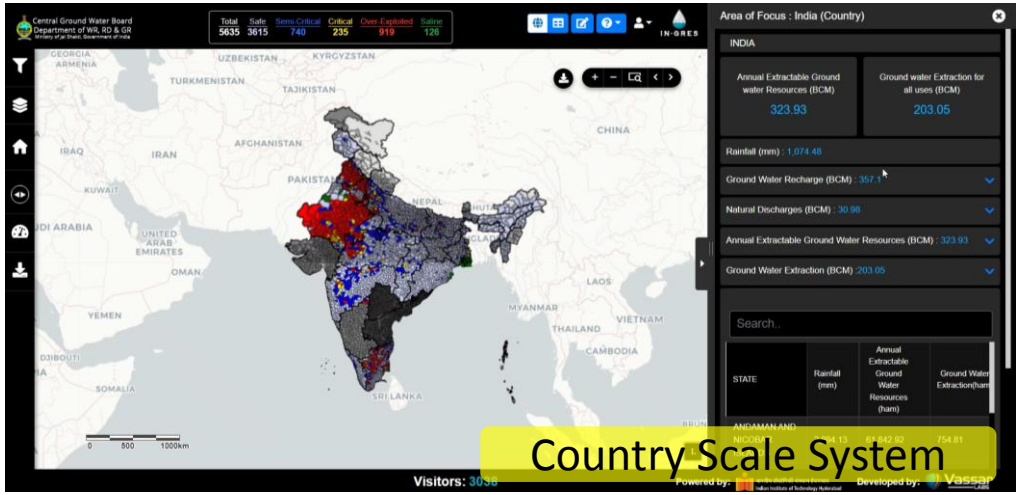
Reporting & Analytics

- Smart GIS, MIS, real-time alerts, escalations & many more

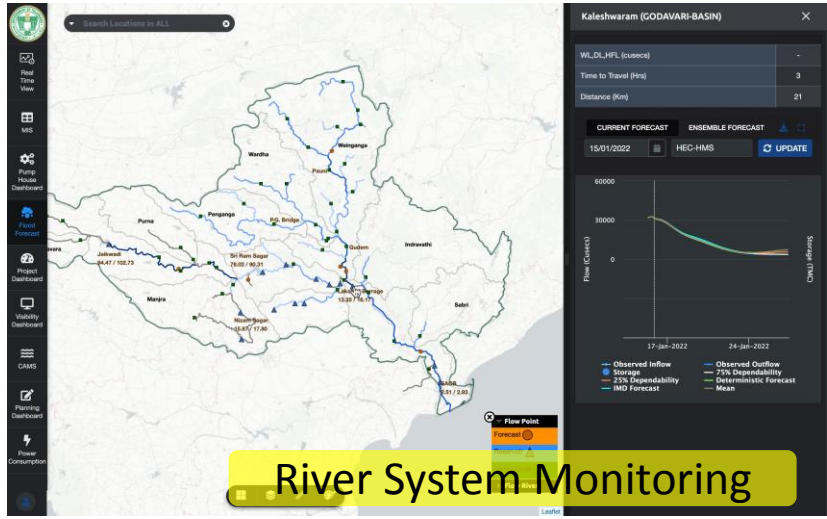
What have you seen is not event a sneak peak view

We have implemented more than 20 large scale solution towards sustainable water resources management

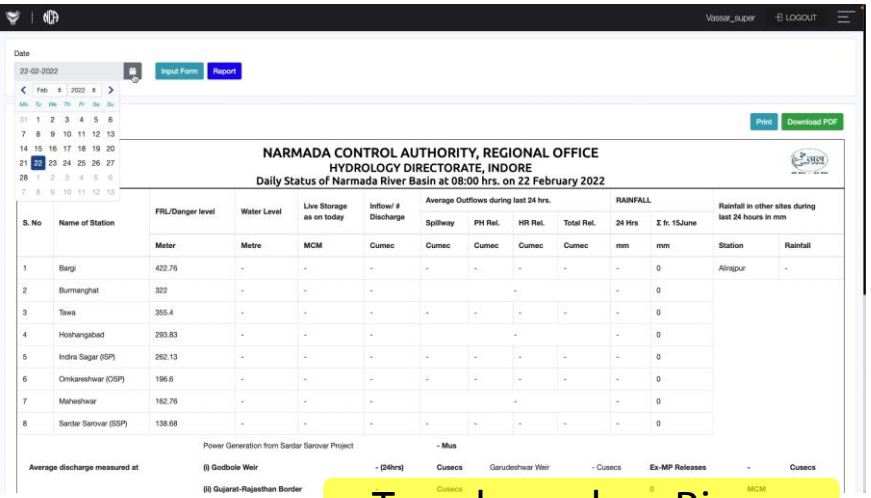
Water Quality



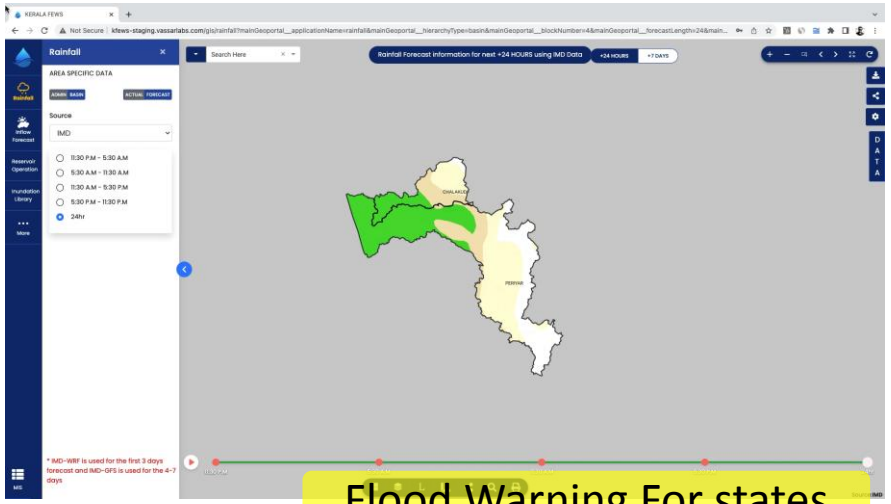
Country Scale System



River System Monitoring



Transboundary Rivers



Flood Warning For states

Crop Intelligence at field

TOWARDS SUSTAINABILITY – aquaWISE™

Managing nexus of water