

Improving River Basin Management via Digitalization

Dr. Ole Larsen
Director Strategic Partnerships
ola@dhigroup.com



What digitalization brings to river basin management:

Better data and better models enhance decision support:

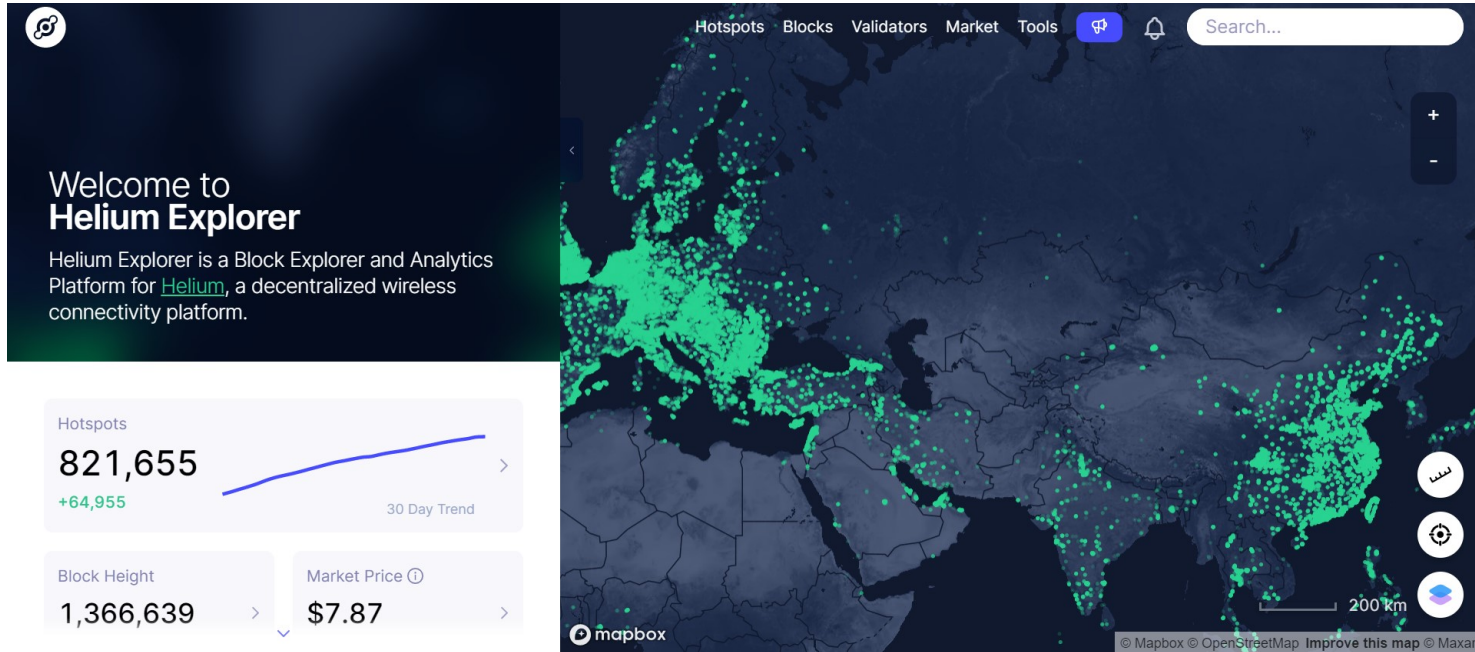
Much ***lower price*** than before:

- Inexpensive sensors eg. water levels
- Inexpensive and easy data communication/telemetry
- Inexpensive data storage

Much ***better*** than before:

- Global data from remote sensing
- Novel water quality sensors
- Improved methods for Quality Assurance
- Better integration of data and models
- Citizen involvement

Communication: Helium



"Turn-key solutions"

**WE COMBINE HYDROLOGY & DATA SCIENCE AS
A BASIS FOR SMART WATER MANAGEMENT.**

DRYP'S OFFER



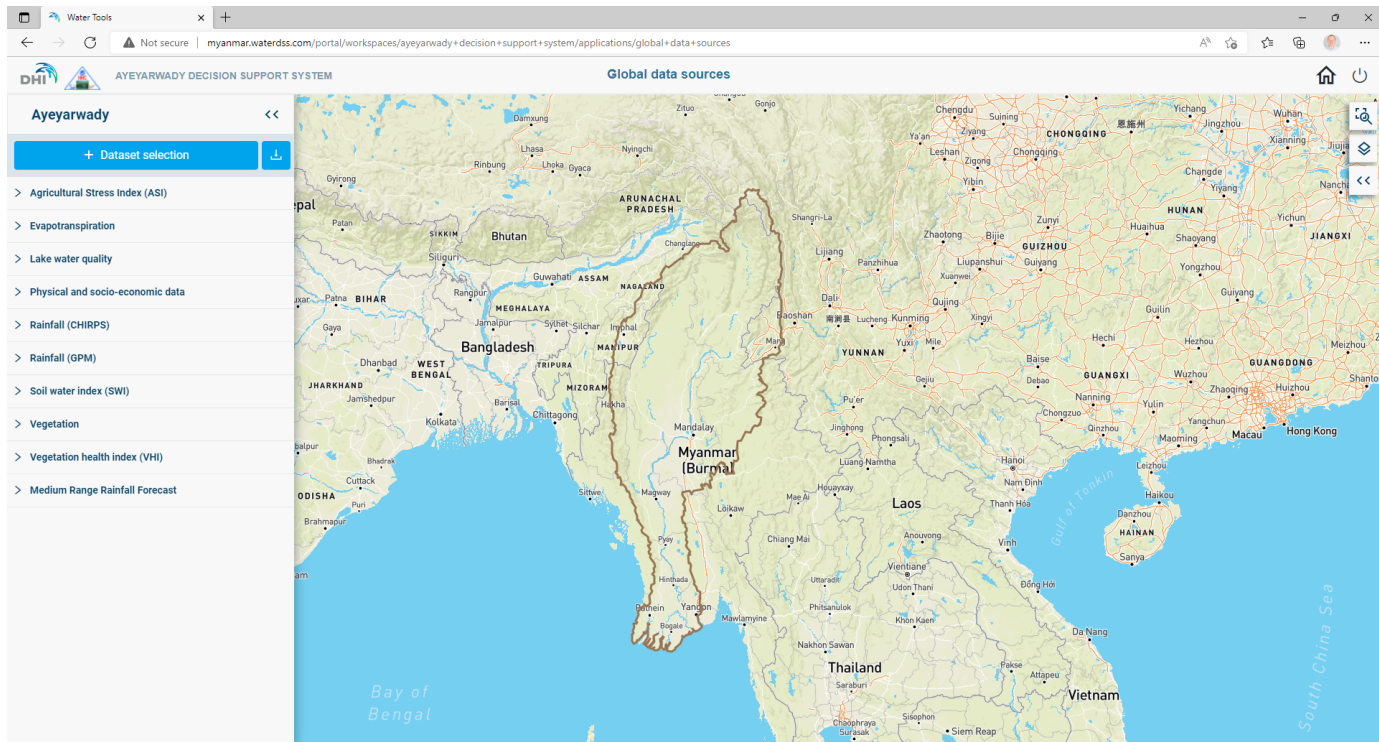
**BEHIND
THE CURTAIN**

Collect water data, which are
sent live to the cloud

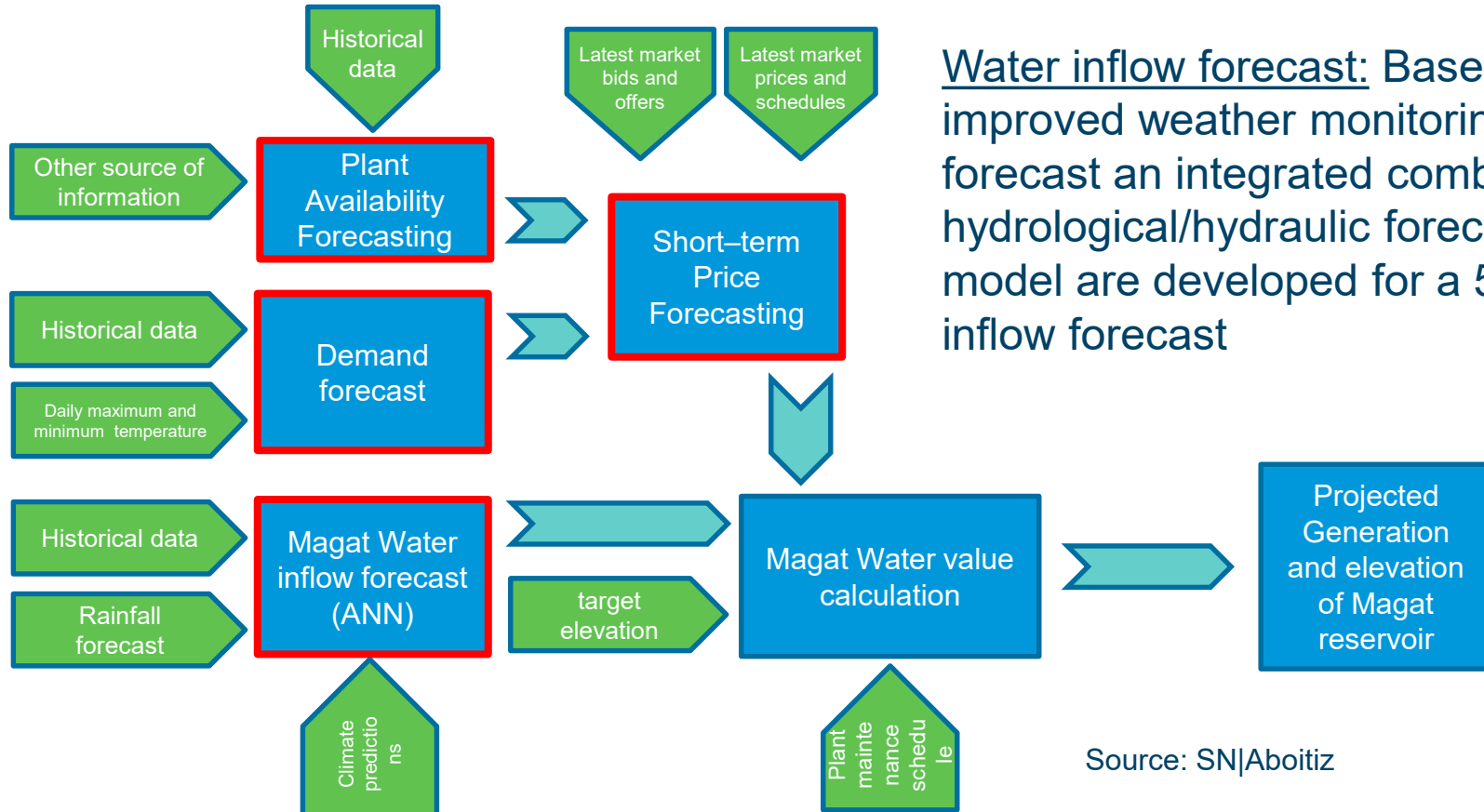
Ensures high quality data are
screened & selected

This data is visualized in intuitive
software platform

Global data sources



Short Term Planning Process



Water inflow forecast: Based on improved weather monitoring and forecast an integrated combined hydrological/hydraulic forecast model are developed for a 5-8 day inflow forecast

Ayeyarwady DSS and Basin Master Plan

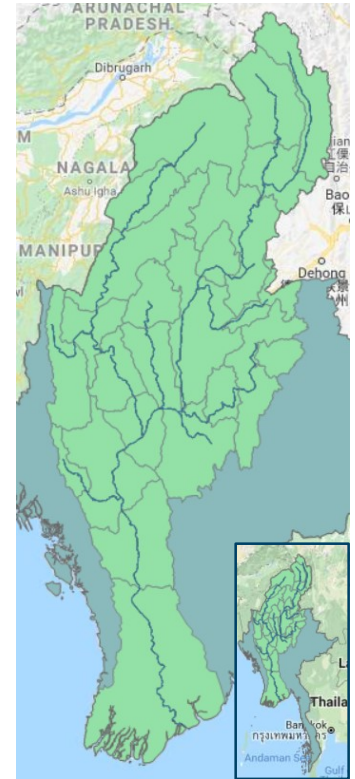
The immediate objectives of AIRBM C1.17 (2018-2021):

- Develop an Ayeyarwady Basin Decision Support System (**DSS**)
- Formulate and assess **development scenarios**
- Develop an Ayeyarwady Basin **Master Plan**
- Build **capacity** and transfer technology
- Support **stakeholder** consultations

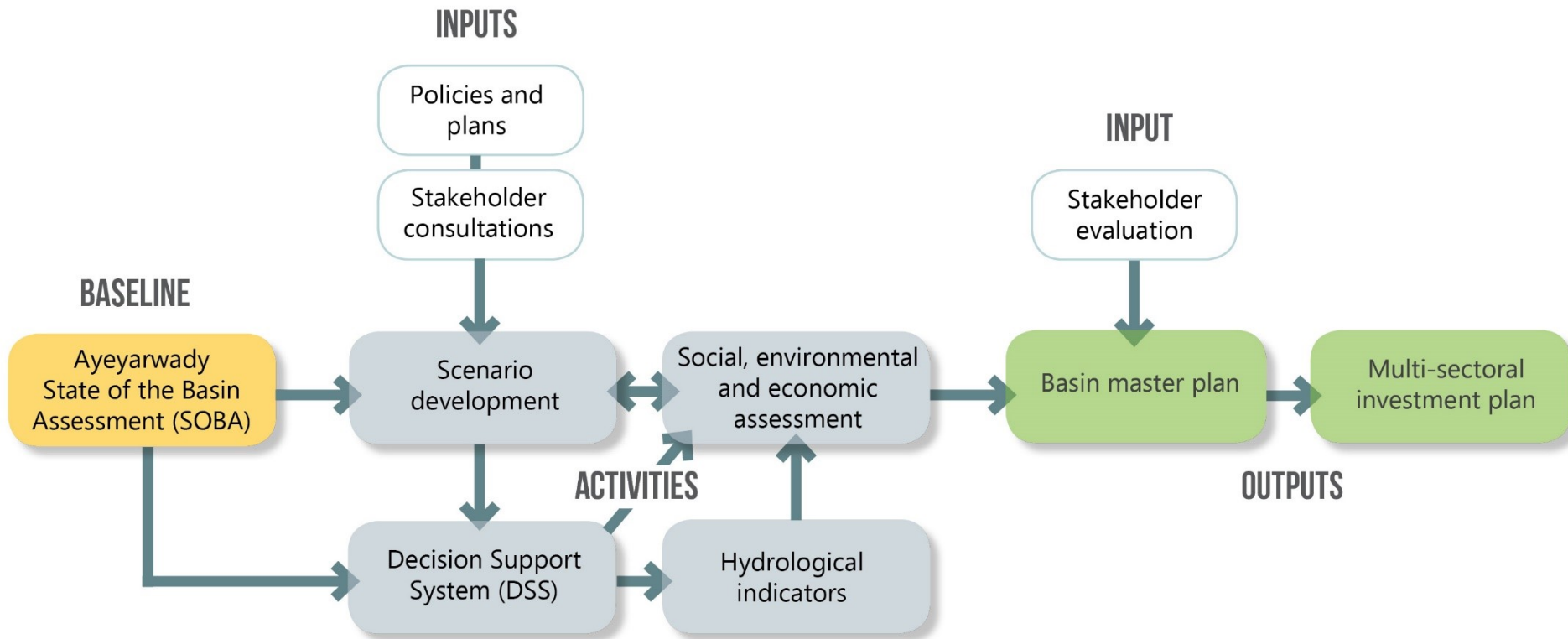
Client:

Directorate of Water Resources and Improvement of River Systems
(DWIR/MOTC), Myanmar

Financed by World Bank

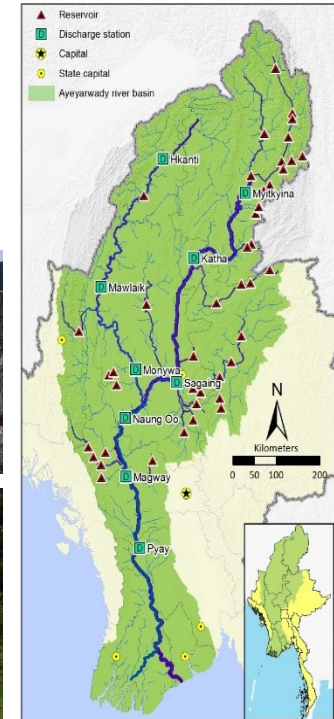


DSS Master Plan Concept



Ayeyarwady DSS and Basin Master Plan

- Detailed water use model developed in MIKE Hydro Basin
- Development scenarios analysed considering 62 potential hydropower plants, 24 large irrigation schemes, climate change etc.
- DSS comparison of scenarios in terms of :
 - Power and crop production
 - Reservoir sedimentation
 - River navigation
 - Sea water intrusion in the delta
 - Water Quality
 - Flooding
- Comprehensive capacity building
- Basin master plan prepared



A serene landscape featuring a calm body of water in the foreground, a sandy beach, and a clear blue sky. The water reflects the light, and the beach curves along the shore.

Thanks for your attention!

Dr. Ole Larsen
ola@dhigroup.com

