MSC (MicroSave Consulting)

The world's local expert in financial, economic, and social inclusion in the digital age

Rajarshi Dutta Barua | Associate Partner, MSC

MCPI Annual Conference • 13 August 2026 • Manila

MSC

We are MSC

MSC is a global consulting firm that drives financial, economic, and social inclusion.




Our 27+ years of cutting-edge experience, combined with cross-functional expertise and deep thought leadership helps us provide integrated solutions to our 600 clients.

Our solutions empower our clients to tackle complex global challenges, seize the next big opportunity, and drive impact through localized, on-the-ground action.

As trusted partners, we help our clients future-proof their mission, embrace bold transformation, and achieve meaningful growth.

450
global professionals at MSC's growing team

4,000
projects implemented

600
clients served

70
countries worked in

2,000
papers, focus notes, briefing notes, and other documents published

25 million
people engaged with the MSC library content

3.7 billion people have benefitted from MSC's work*

*Counts represent the total number of people served under MSC-supported interventions; individuals may appear more than once across projects.

MSC

What we do

Impact-oriented consulting

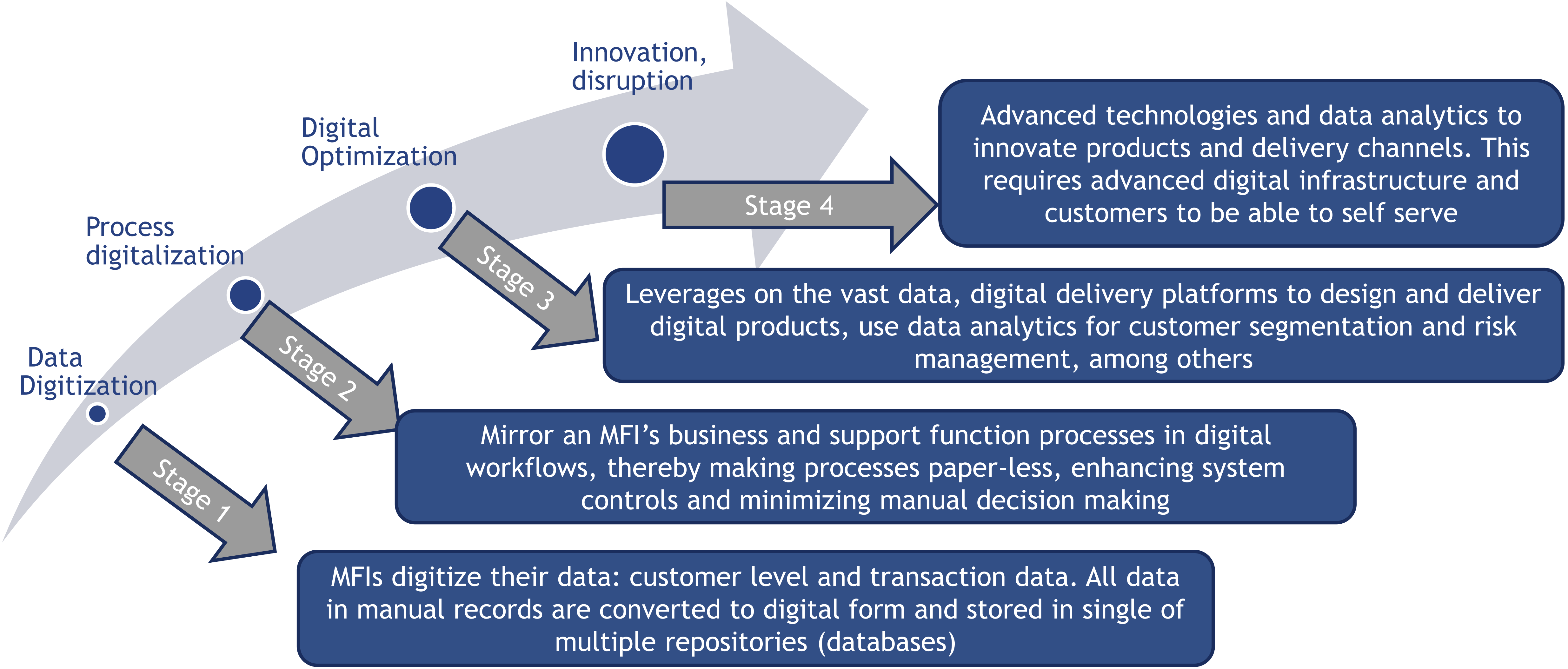
- Agriculture and food systems
- Climate change and sustainability
- Enterprise & livelihood
- Ethical AI and data solutions
- Evidence and impact measurement
- Financial services
- Digital financial services
- Gender equality, disability, and social inclusion
- Government advisory
- Health and nutrition
- MSME development
- Skilling and jobs
- Startup innovation and acceleration
- Technology and digital public infrastructure

Our expertise

Advisory to succeed in a rapidly evolving market

- Capacity building
- Channel development
- Design thinking and innovations
- Institutional development
- Marketing and communication
- Policy and regulation
- Product development
- Program management
- Research
- Responsible financial systems
- Risk management
- Strategy development

The digital transformation journey for MFIs: four key stages of growth



A data-powered, AI-enabled credit decisioning and portfolio risk intelligence solution

Climate-integrated credit risk intelligence

Use data to detect risk earlier, act sooner, and make better credit decisions

MFIs have the data; but not fully used before borrower stress is evident

Many risk indicators already exist (from borrower, credit, repayment and field data)—need to be connected

DATA ALREADY EXISTS

- Repayment behaviour
- Borrower & Loan Data
- Branch & Center Patterns
- Bureau & Indebtedness
- Action Outcome History
- Field Observations
- Livelihood and External Signals

Can be connected at borrower level

THE SIGNALS DO NOT COME TOGETHER EARLY ENOUGH

- **Signals scattered across different systems:** Borrower, credit, operations and collections
- **Monitoring relies on limited set of indicators:** Important signals can remain outside the view
- **Rules & analyses are often siloed:** Patterns across variables are difficult to see
- **Reports are largely backwards looking:** Stress is clearest once repayment is affected

Partial view of borrower risk

BORROWER STRESS can be assessed before defaults

- **Borrower pressure** – Income, Business, Debt, Livelihood
- **Early signals** – Behavior, Field, Repayment pattern
- **Repayment friction** – Partial payment, Delayed payment, Borrowing to repay
- **Missed installment**
- **Delinquency / PAR rises**

Best window for targeted action (Borrower pressure, Early signals, Repayment friction)

Fewer, more reactive options (Missed installment, Delinquency / PAR rises)

The gap is not more data—it is connecting risk signals early enough to decide and act.

topFROG connects the credit decision with what happens after disbursement

Borrower-level intelligence supports the decision today—and subsequent outcomes can strengthen the next decision.

DECIDE

Before / at lending

Bring together:

- Borrower profile
- Affordability & indebtedness
- Bureau / credit history
- Previous repayment behavior
- Field information
- Relevant portfolio / external context

Outputs

- Better credit decision support
- Risk band
- Amount
- Tenor
- Reason codes
- Review/escalation

MONITOR → ALERT → ACT

After disbursement

1. MONITOR
Repayment, borrower behavior, center/branch patterns, field signals

2. ALERT
Who is showing emerging stress—and why?

3. ACT
Prioritize follow-up, assign owner, track intervention

LEARN

What happened?

- Repayment outcome
- Action outcome
- Credit override outcome
- Portfolio performance

Feed evidence back
Validate • recalibrate • retrain where appropriate

Decide Better

WHAT THE MFI GAINS

BETTER CREDIT DECISIONS
New • repeat • renewal • top-up decisions

EARLIER PORTFOLIO WARNING
From borrower level up to portfolio level

PRIORITIZED ACTION
Who needs what action in what time frame

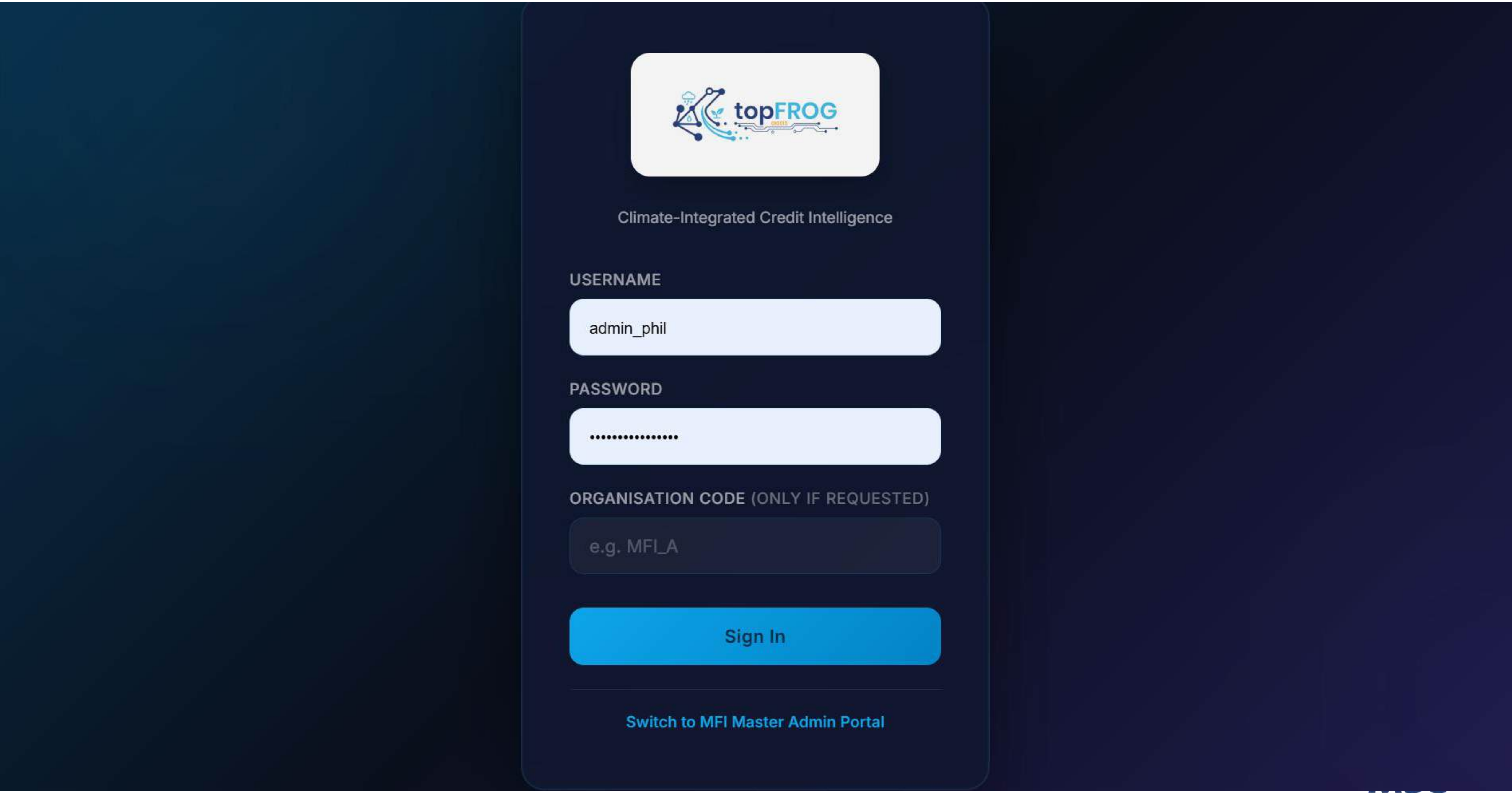
GOVERNANCE PRINCIPLE: topFROG provides scores, alerts and recommendations. | The MFI validates, approves and acts.

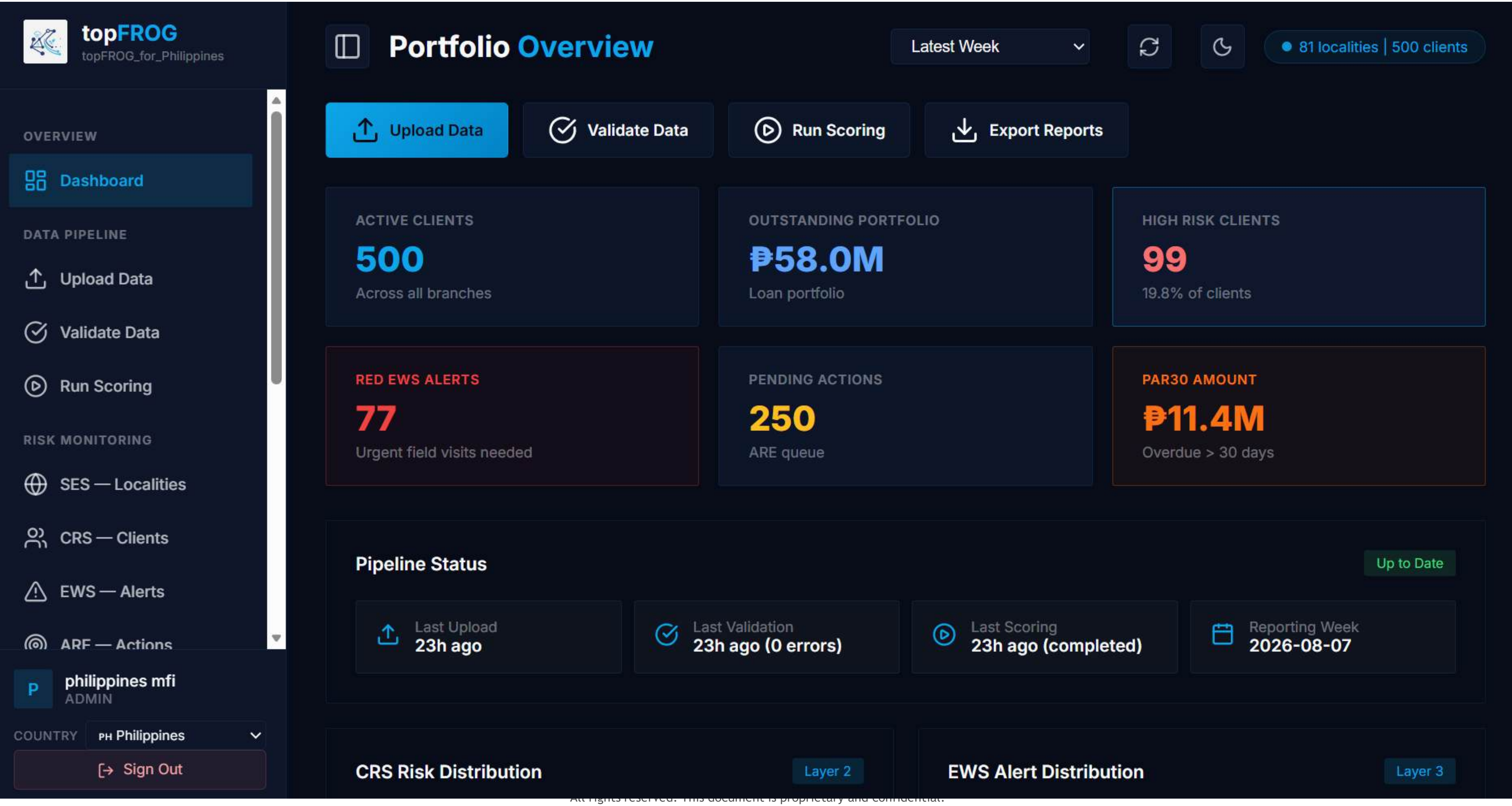
MSC

Platform Demonstration:

From credit decision to portfolio monitoring, early warning, and action

topFROG.app


topFROG
Climate-Integrated Credit Intelligence
USERNAME
admin_phil
PASSWORD
ORGANISATION CODE (ONLY IF REQUESTED)
e.g. MFI_A
Sign In
Switch to MFI Master Admin Portal


topFROG
topFROG_for_Philippines
Portfolio Overview
Latest Week
81 localities | 500 clients
OVERVIEW
Dashboard
DATA PIPELINE
Upload Data
Validate Data
Run Scoring
RISK MONITORING
SES — Localities
CRS — Clients
EWS — Alerts
ARE — Actions
philippines mfi
ADMIN
COUNTRY
PH Philippines
Sign Out
Upload Data
Validate Data
Run Scoring
Export Reports
ACTIVE CLIENTS
500
Across all branches
OUTSTANDING PORTFOLIO
₱58.0M
Loan portfolio
HIGH RISK CLIENTS
99
19.8% of clients
RED EWS ALERTS
77
Urgent field visits needed
PENDING ACTIONS
250
ARE queue
PAR30 AMOUNT
₱11.4M
Overdue > 30 days
Pipeline Status
Up to Date
Last Upload
23h ago
Last Validation
23h ago (0 errors)
Last Scoring
23h ago (completed)
Reporting Week
2026-08-07
CRS Risk Distribution
Layer 2
EWS Alert Distribution
Layer 3

How Climate Becomes Credit Risk

Climate Event
Flood, drought, or extreme heat strikes

Output Drops
Agricultural yields fall, livelihoods disrupted

Income Falls
Borrower cash flow becomes irregular

Too Late
MFI detects problem after intervention window closes

Correlated Default Risk
A climate shock creates **correlated default risk**. It hits geographically concentrated borrower clusters simultaneously, potentially threatening an MFI's solvency.

What Current Systems Miss

CURRENT (BACKWARD-LOOKING)	MISSING (FORWARD-LOOKING)
Historical income data	**Geographic climate exposure**
Repayment history & PAR	**Seasonal hazard patterns**
Credit bureau scores	**Climate-sensitive livelihoods**
Field officer judgement	**Forward-looking volatility**
Past cashflow stability	**Correlated regional stress**

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The 6-Steps Operating Framework

1 SEE

Detect Exposure Early

SES map reveals structural climate risk before shocks hit

2 SENSE

Monitor Emerging Stress

EWS runs weekly; precipitation anomaly + repayment signals

3 SCORE

Understand Vulnerability

CRS segments every borrower by personal + geographic sensitivity

4 DECIDE

Manage Proactively

ARE and CST translate risk into specific field decisions

5 SUPPORT

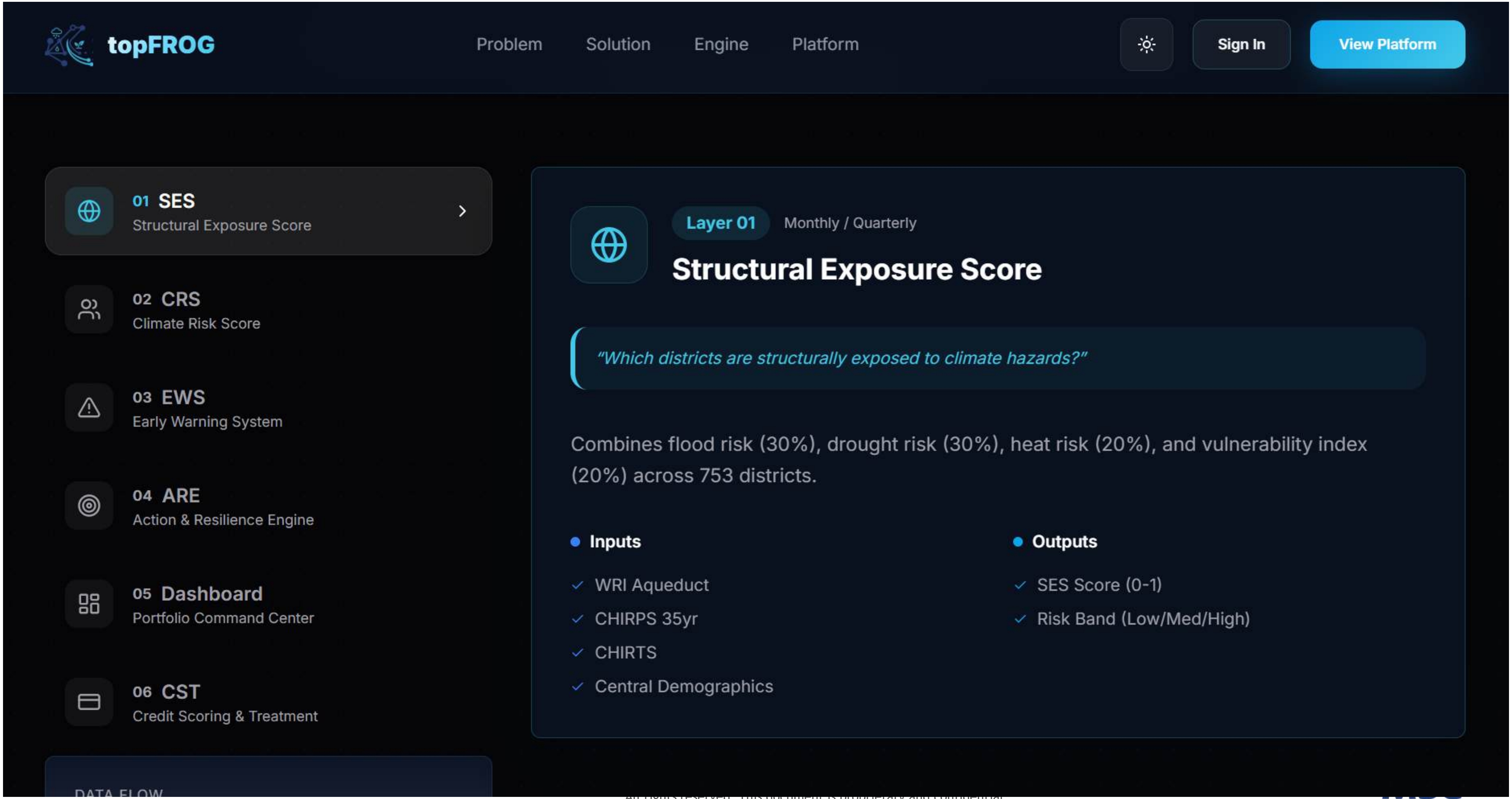
Act Before Deterioration

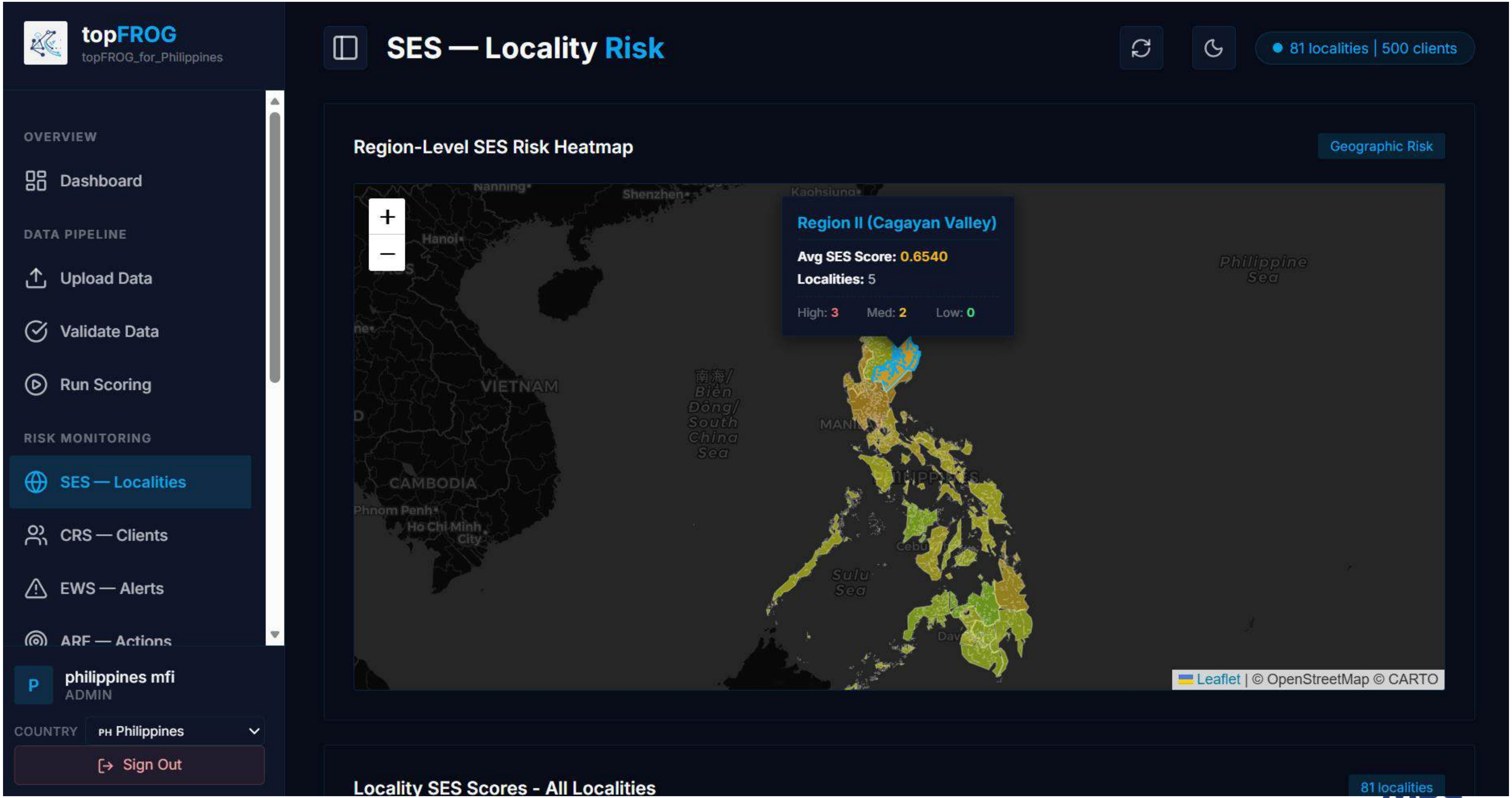
Field teams execute ARE interventions within SLA

6 REPORT

Ensure Accountability

Dashboards track outcomes for board, management, and donors


topFROG
Problem
Solution
Engine
Platform
Sign In
View Platform
01 SES
Structural Exposure Score
02 CRS
Climate Risk Score
03 EWS
Early Warning System
04 ARE
Action & Resilience Engine
05 Dashboard
Portfolio Command Center
06 CST
Credit Scoring & Treatment
DATA FLOW
Layer 01
Monthly / Quarterly
Structural Exposure Score
"Which districts are structurally exposed to climate hazards?"
Combines flood risk (30%), drought risk (30%), heat risk (20%), and vulnerability index (20%) across 753 districts.
Inputs
WRI Aqueduct
CHIRPS 35yr
CHIRTS
Central Demographics
Outputs
SES Score (0-1)
Risk Band (Low/Med/High)


topFROG
topFROG_for_Philippines
OVERVIEW
Dashboard
DATA PIPELINE
Upload Data
Validate Data
Run Scoring
RISK MONITORING
SES — Localities
CRS — Clients
EWS — Alerts
ARF — Actions
P
philippines mfi
ADMIN
COUNTRY
PH Philippines
Sign Out
SES — Locality Risk
81 localities | 500 clients
Region-Level SES Risk Heatmap
Geographic Risk
Region II (Cagayan Valley)
Avg SES Score: 0.6540
Localities: 5
High: 3
Med: 2
Low: 0
VIETNAM
CAMBODIA
Hanoi
Phnom Penh
Ho Chi Minh City
Philippine Sea
Sulu Sea
Leaflet | © OpenStreetMap © CARTO
Locality SES Scores - All Localities
81 localities

topFROG

Problem Solution Engine Platform

Sign In

View Platform

01 SES
Structural Exposure Score

02 CRS
Climate Risk Score

03 EWS
Early Warning System

04 ARE
Action & Resilience Engine

05 Dashboard
Portfolio Command Center

06 CST
Credit Scoring & Treatment

Layer 02 Monthly / On Change

Climate Risk Score

> *"Who is personally most vulnerable to climate shocks?"*

Blends district-level SES (40%) with borrower-specific sensitivity BSS (60%): occupation, assets, sector, and demographics.

Inputs

- SES Score
- Occupation Risk
- Asset Sensitivity
- Loan Profile

Outputs

- CRS Score (0-1)
- Risk Band (Low/Mod/High)


topFROG
topFROG_for_Philippines
CRS — Client Risk
81 localities | 500 clients
OVERVIEW
Dashboard
DATA PIPELINE
Upload Data
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RISK MONITORING
SES — Localities
CRS — Clients
EWS — Alerts
ARF — Actions
philippines mfi
ADMIN
COUNTRY
PH Philippines
Sign Out
CRS Score Distribution
Low Risk
Moderate Risk
High Risk
Livelihood-wise Climate Risk Profile
High
Moderate
60
50
40
30
20
10
0
Agricultural Daily...
Agriculture (Rainf...
Fishing / Aquacult...
Agriculture (Irrig...
Salaried Worker (P...
Street Vendor / Ha...
Animal Husbandry /...
Artisan (Tradition...
High-Risk Clients
99 high risk
Search...
csv
CLIENT ID
NAME
BRANCH
CRS SCORE
CRS BAND
MAIN RISK DRIVER
LOAN ₱
OCCUPATION

topFROG

Problem Solution Engine Platform

Sign In

View Platform

01 SES
Structural Exposure Score

02 CRS
Climate Risk Score

03 EWS
Early Warning System

04 ARE
Action & Resilience Engine

05 Dashboard
Portfolio Command Center

06 CST
Credit Scoring & Treatment

DATA FLOW

SES

Layer 03 Weekly (Monday)

Early Warning System

"Which borrowers are showing stress RIGHT NOW?"

Weekly flag combining rain anomaly (-30%/+50% thresholds) with payment behavior triggers. Green/Amber/Red classification.

Inputs

- 30-day Rainfall
- 5yr Benchmark
- Repayment Data
- DPD

Outputs

- EWS Flag
- Climate Flag
- Payment Trigger


topFROG
topFROG_for_Philippines
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SES — Localities
CRS — Clients
EWS — Alerts
ARF — Actions
philippines mfi
ADMIN
COUNTRY
PH Philippines
Sign Out
EWS — Early Warnings
81 localities | 500 clients
LOCALITY
All Localities
REPORTING WEEK
Latest Week
BRANCH
All Branches
OFFICER
All Officers
DPD BUCKET
All Buckets
CLIMATE FLAG
All
Reset Filters
RED ALERTS
311
₱31.1M
AMBER ALERTS
0
₱0
GREEN/CURRENT
0
₱0
PAR30 COUNT
203
₱21.1M
CLIMATE FLAGS
249
₱23.7M
Red = Urgent field visit required | Amber = Check-in call needed | Green = Monitor only | DPD 30+ can never be Green. DPD 90+ is always Red.
PAR TREND FOR THE LAST 6 WEEKS
No DPD
PAR30
PAR60
500
400
300
200
100
EWS RISK TREND FOR THE LAST 6 WEEKS
High Risk
Medium Risk
Low Risk
400
350
300
250
200
150
100

topFROG

Problem Solution Engine Platform

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View Platform

01 SES
Structural Exposure Score

02 CRS
Climate Risk Score

03 EWS
Early Warning System

04 ARE
Action & Resilience Engine

05 Dashboard
Portfolio Command Center

06 CST
Credit Scoring & Treatment

DATA FLOW

SES

Layer 04 Weekly (post-EWS)

Action & Resilience Engine

> *"What specific action should the MFI take, and by when?"*

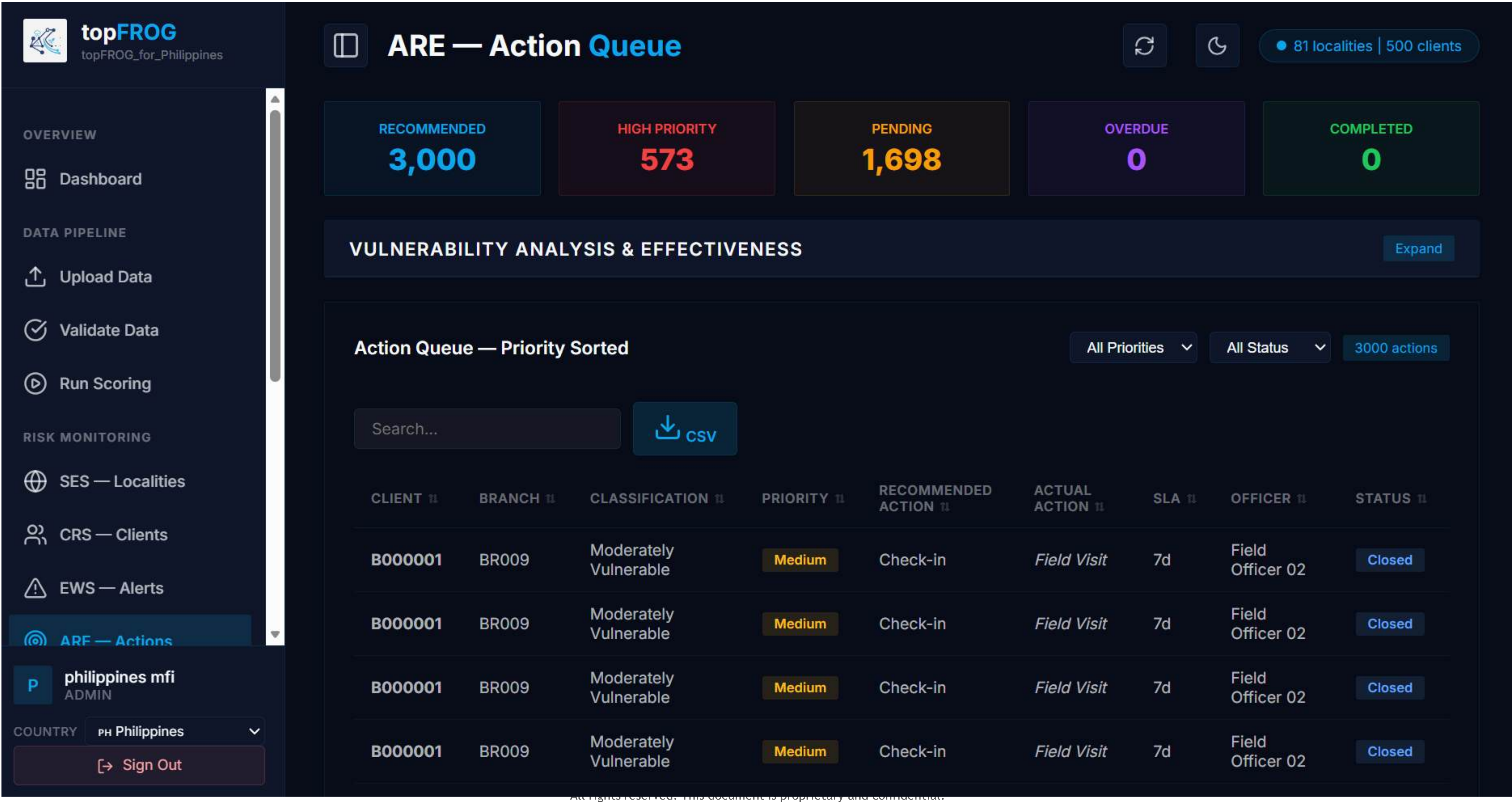
Classifies borrowers into vulnerability tiers and assigns specific actions with SLA timelines (3/7/14 days).

Inputs

- ✓ EWS Flag
- ✓ CRS Band
- ✓ Climate Flag

Outputs

- ✓ Action Label
- ✓ Priority
- ✓ SLA Days
- ✓ Status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ARE — Actions
P
philippines mfi
ADMIN
COUNTRY
PH Philippines
Sign Out
ARE — Action Queue
81 localities | 500 clients
RECOMMENDED
3,000
HIGH PRIORITY
573
PENDING
1,698
OVERDUE
0
COMPLETED
0
VULNERABILITY ANALYSIS & EFFECTIVENESS
Expand
Action Queue — Priority Sorted
All Priorities
All Status
3000 actions
Search...
CSV
CLIENT
BRANCH
CLASSIFICATION
PRIORITY
RECOMMENDED ACTION
ACTUAL ACTION
SLA
OFFICER
STATUS
B000001
BR009
Moderately Vulnerable
Medium
Check-in
Field Visit
7d
Field Officer 02
Closed
B000001
BR009
Moderately Vulnerable
Medium
Check-in
Field Visit
7d
Field Officer 02
Closed
B000001
BR009
Moderately Vulnerable
Medium
Check-in
Field Visit
7d
Field Officer 02
Closed
B000001
BR009
Moderately Vulnerable
Medium
Check-in
Field Visit
7d
Field Officer 02
Closed

Decide better. See stress earlier.
Act sooner.

Want to explore what topFROG could do with your portfolio?

Scan to request a demo or portfolio-fit conversation with the MSC team.

MSC

Contact Us: contact@topfrog.app