CARE COMPONENT 1: CONTRIBUTIONS TO RIMES TRIPPLE M EARLY WARNING SYSTEM

RUBY ROSE POLICARPIO

LEAD, Societal Applications

and Director, CARE Component 1, RIMES

RIMES

4th MINISTERIAL CONFERENCE

Five Pillars of the Early Warning/Climate Information Value Chain

PILLAR 1

Enhancing Data Availability and Accessibility

PILLAR 2

Modeling and Forecasting

PILLAR 3

Translating Data into Actionable Information

PILLAR 4

Societal Engagements and Feedback

PILLAR 5

Research and Development

Integration of hydro-meteorological and sectoral data: the core of impact-based forecasting and climate services

5

Enhancing Data Availability and Accessibility

Enhancing observation and monitoring systems to generate and seamlessly integrate data in a single platform that can be easily accessed and used by NMHSs

4

Modeling and Forecasting

Enhancing forecast skill, and forecast spatial and temporal resolutions, as required by stakeholders/user institutions and communities

3

Translating Data into Actionable Information

Co-production of services between NMHSs and sectoral institutions for impact-based forecasting and climate services

2

Societal Engagements and Feedback

Capacity building of stakeholders in application of multi-hazard, multi-scales decision guidance information and obtaining feedback for fine-tuning services to users' requirements

1

Research and Development

Connecting advances in science, technology, and innovations to users requirements for cost-effecient and efficient solutions

5

Sectoral observation data

Enhancing integration of standardized and disaggregated sectoral observation data for analysis with hydro-met datasets

4

Thresholds determination

Determination of sectoral thresholds to enhance risk analysis

CARE | SOUTH ASIA

Global/regional data downscaled to national, provincial, and district levels and connected to DSSs, to readily support various DSSs analysis

RDAS
Regional Resilience Data and Analytics Service

Regional tools ready for national/sub-national customization

Cutomized tools provide iinovation perspectives for regional tools

National/Sub-national in-situ datasets assimmilated in RDAS for cutomizing tools

DSSs

CLIMATE AND SECTORAL DATA

IMPACTS ANALYSES

DECISION GUIDANCE

Intervention Focus

BANGLADESH — NEPAL — PAKISTAN

AGRICULTURE

DISASTER RISK MANAGEMENT

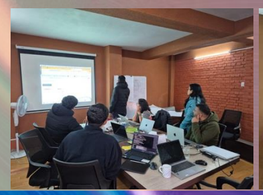
LIVESTOCK

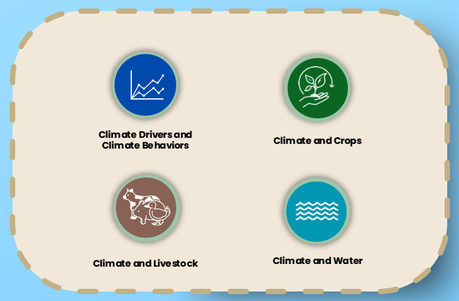
PLANNING AND DEVELOPMENT

TRANSPORT

WATER

co-development process pursued with stakeholder institutions





Stand-alone data that can be downloaded, and on which stakeholders can have a number of analysis either on its own or paired with other data.

In this panel, stakeholders can also upload their data, sector-wise, after quality checks.

Easy to understand analyses of time-series climate and sectoral datasets to identify behaviour patterns, and relationships between climate and sectoral parameters

Analyses of potential impacts of anticipated weather/climate phenomena per assessment of historical sectoral impacts, forecast data, and other prevailing conditions

DATA

Dynamic regional data repository for climate and sectors

- **About 228 climate and sectoral datasets/library of datasets available in RDAS**

ANALYTICS

Analyses of time-series climate and sectoral datasets

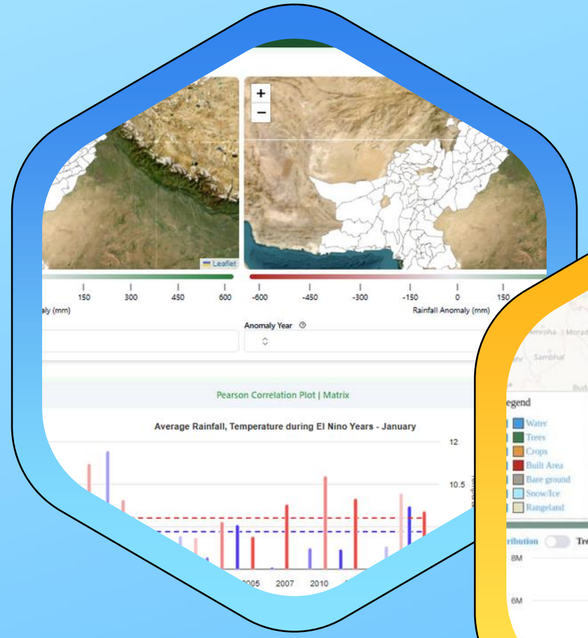
- **4 analytics tools developed and operational**

PREDICTIVE TOOLS

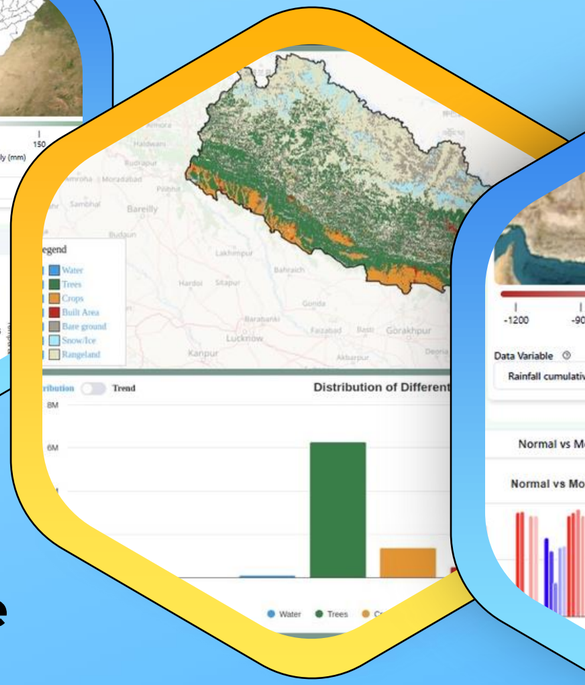
Predictive climate impacts tools

- **3 predictive tools developed and operational**

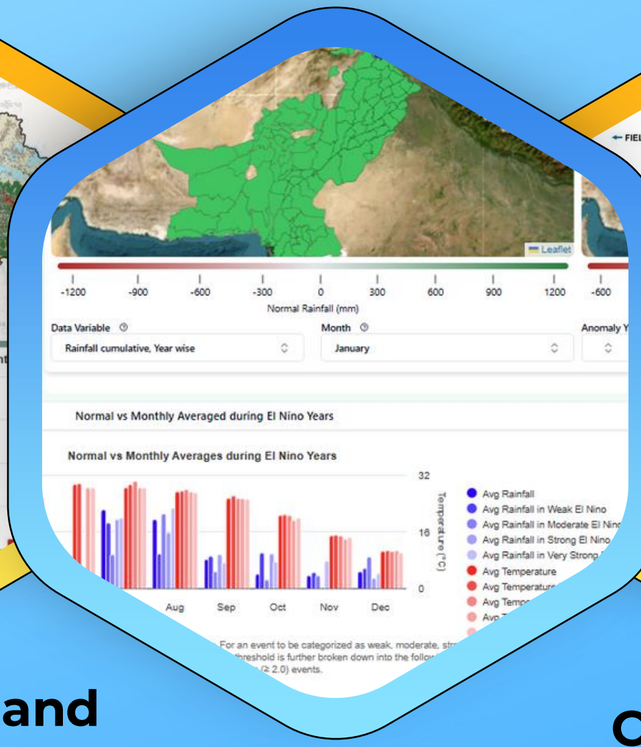
Analytics Tools in RDAS



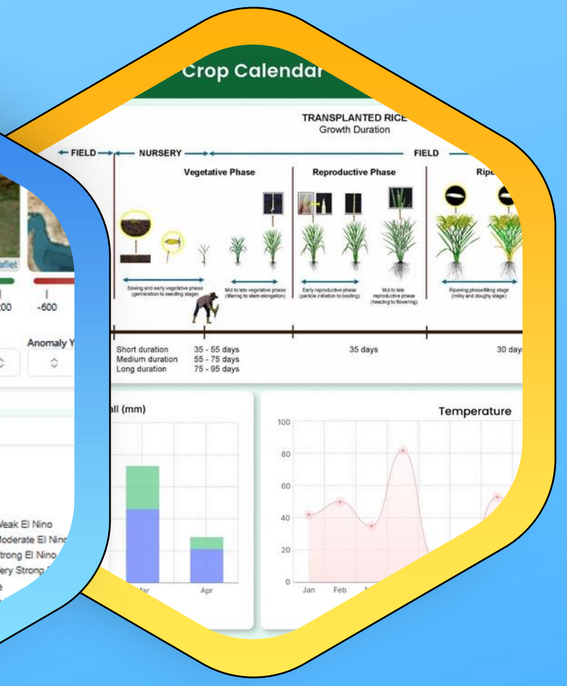
La Nina and Local Climate



Land Use and Land Cover Change

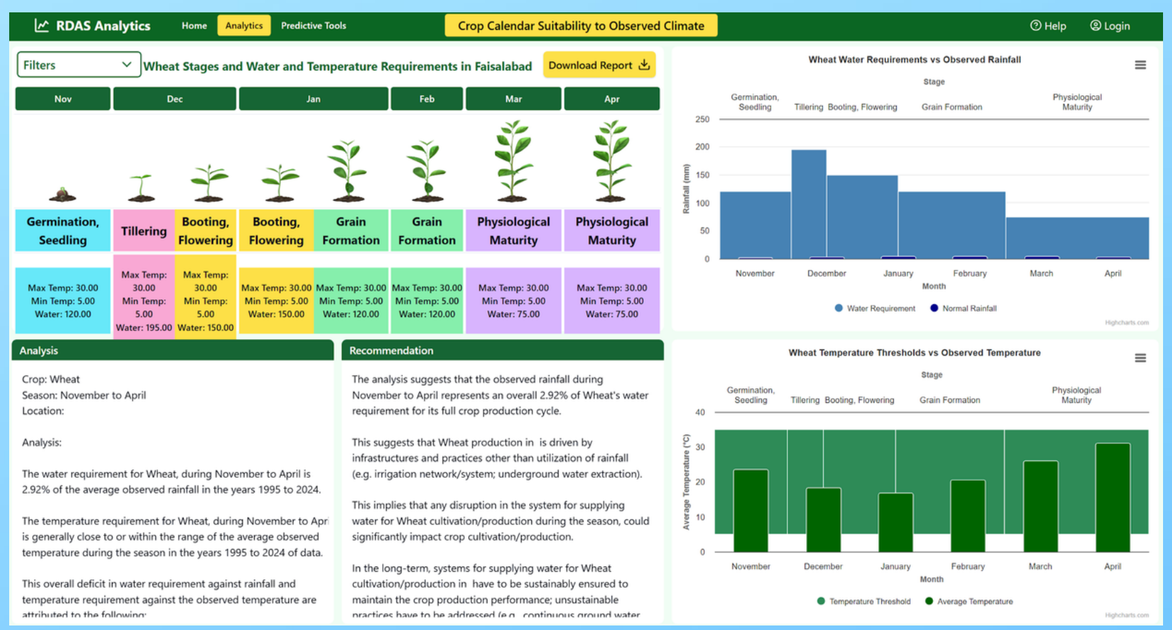


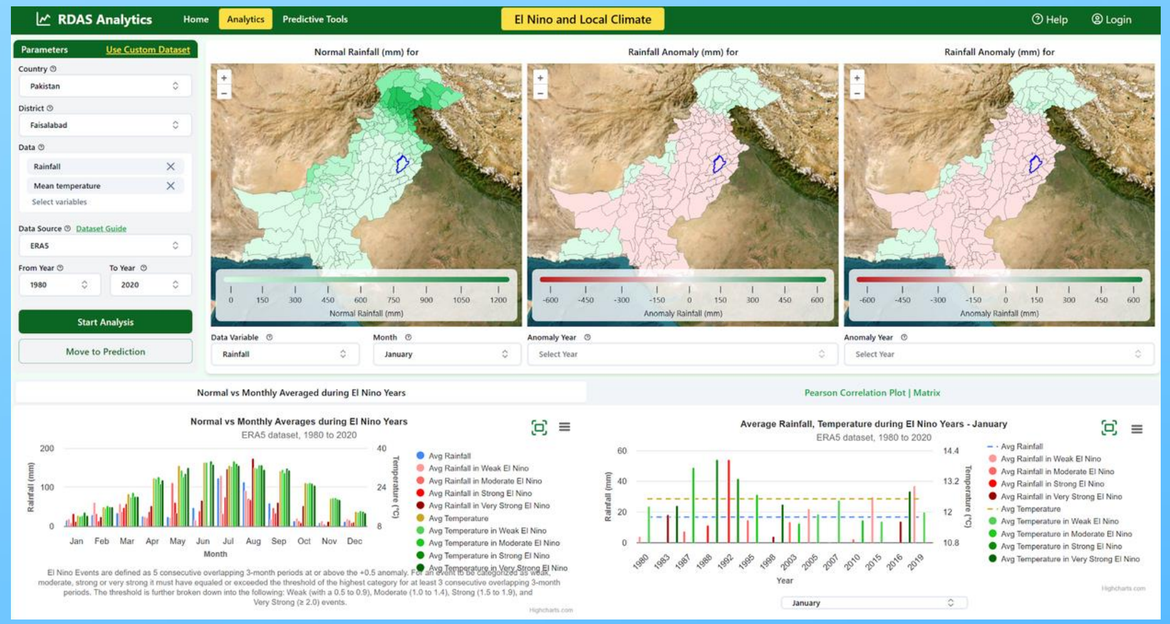
El Nino and Local Climate

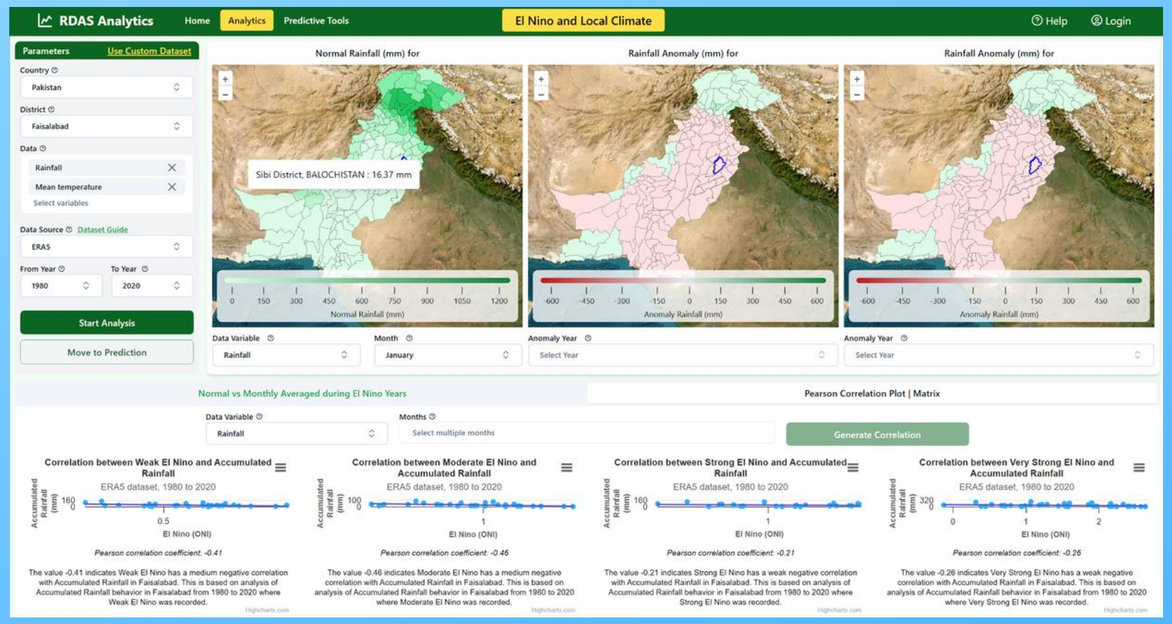


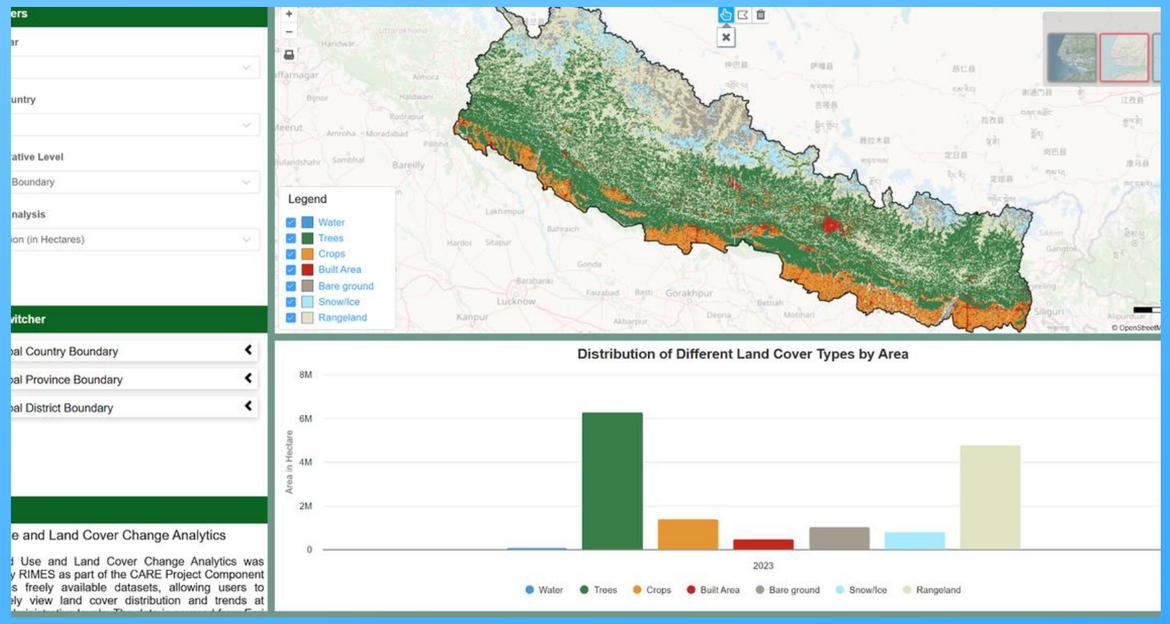
Cropping Calendar and Local Climate

RDAS Analytics Tools



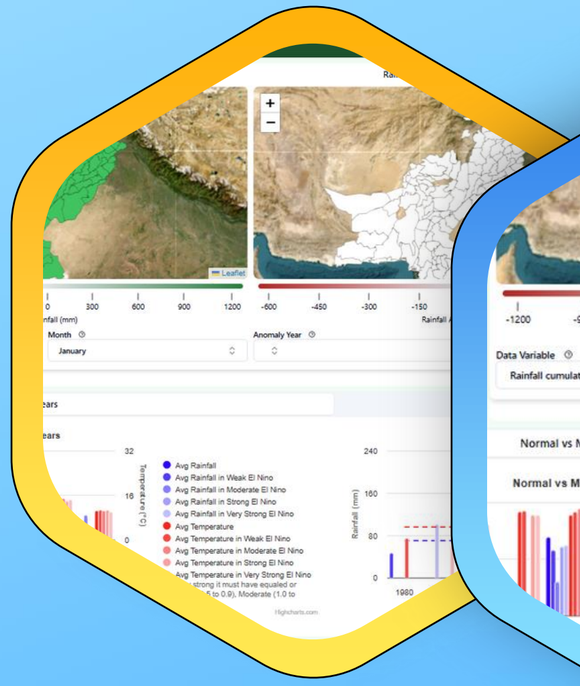






Predictive Tools in RDAS

?

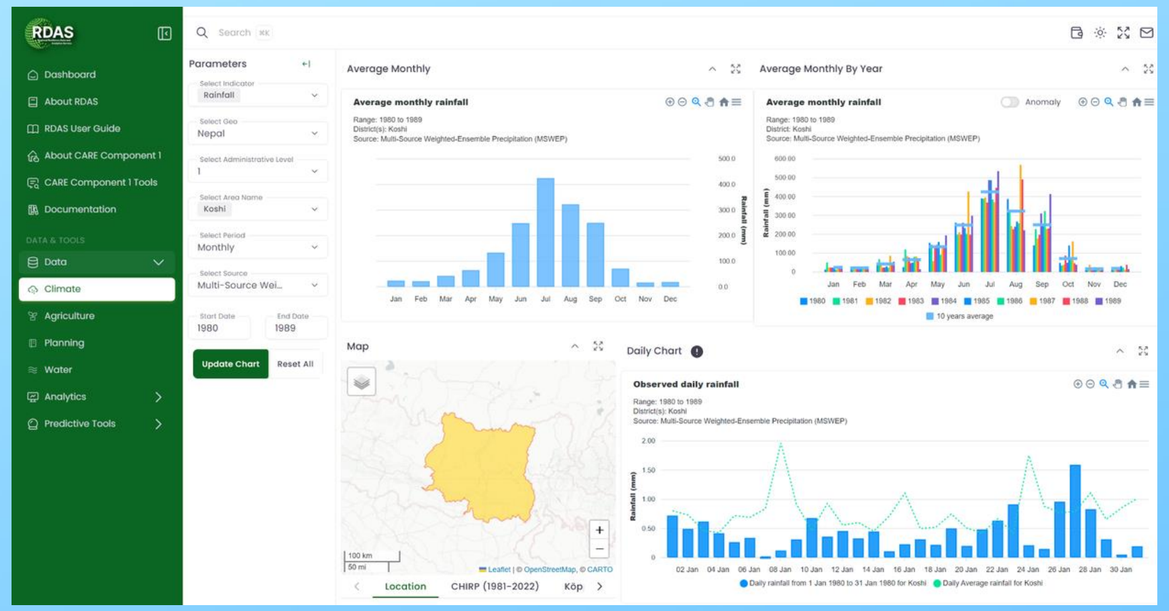


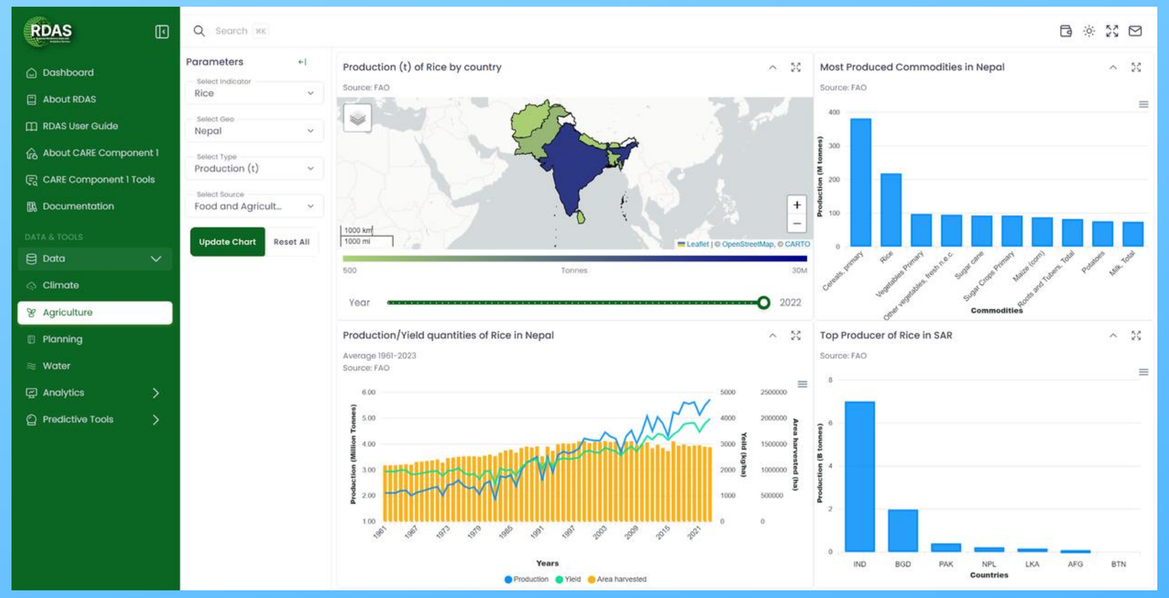
La Nina and Local Climate

El Nino and Local Climate

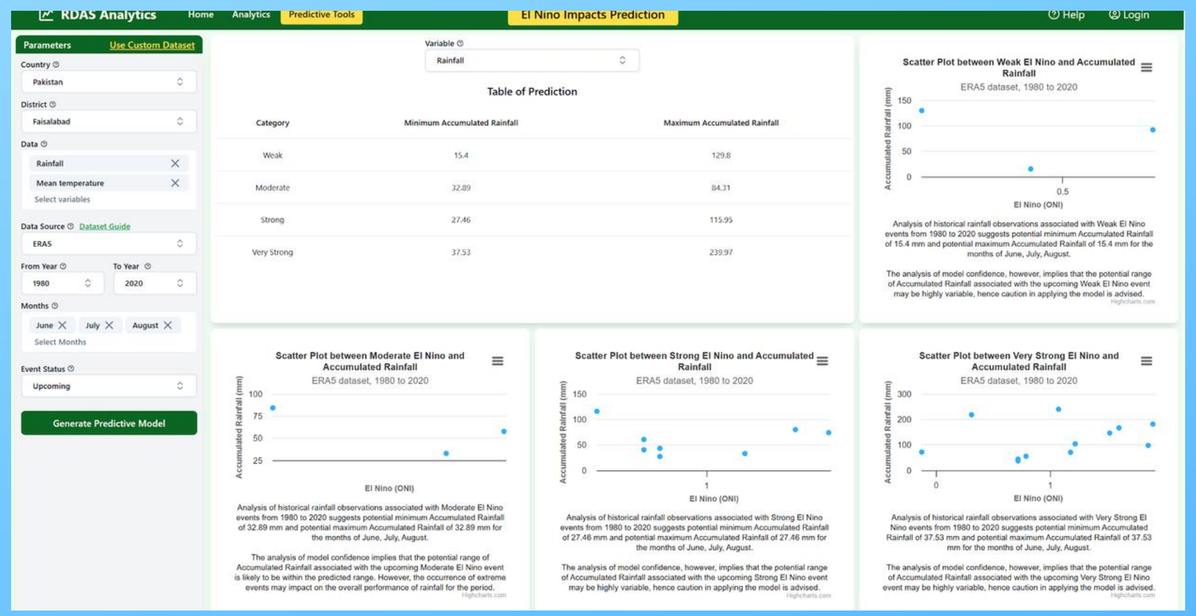
Temperature Sensitivity Alerting System

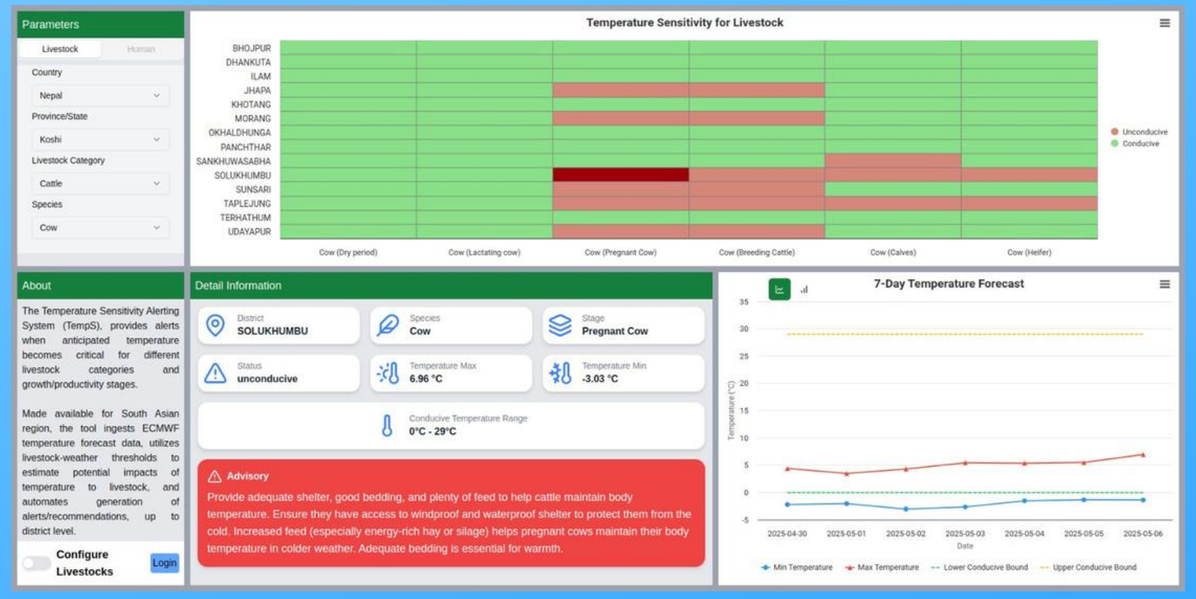
RDAS Predictive Tools



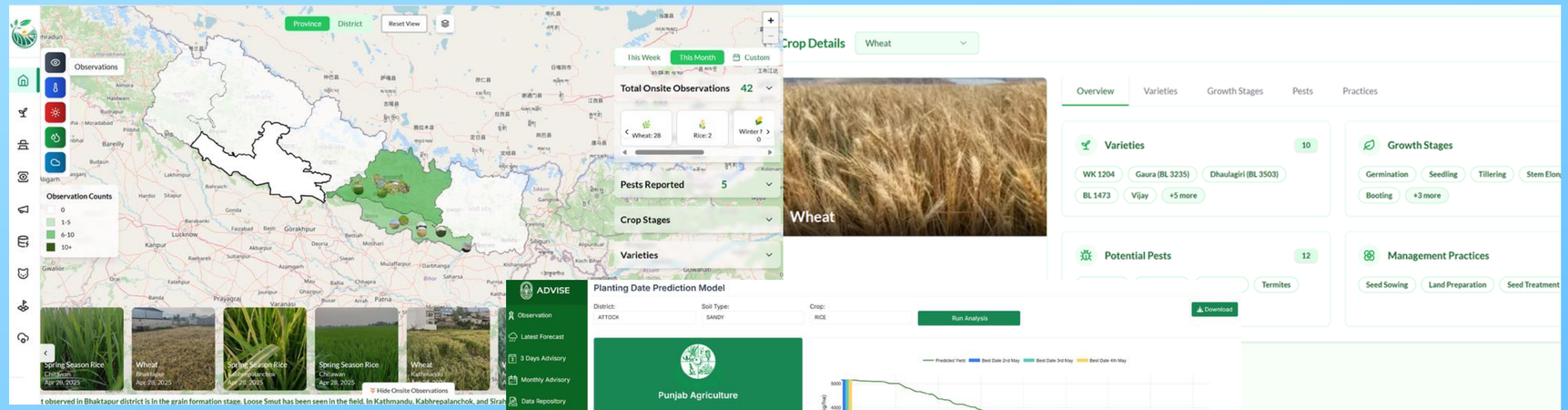


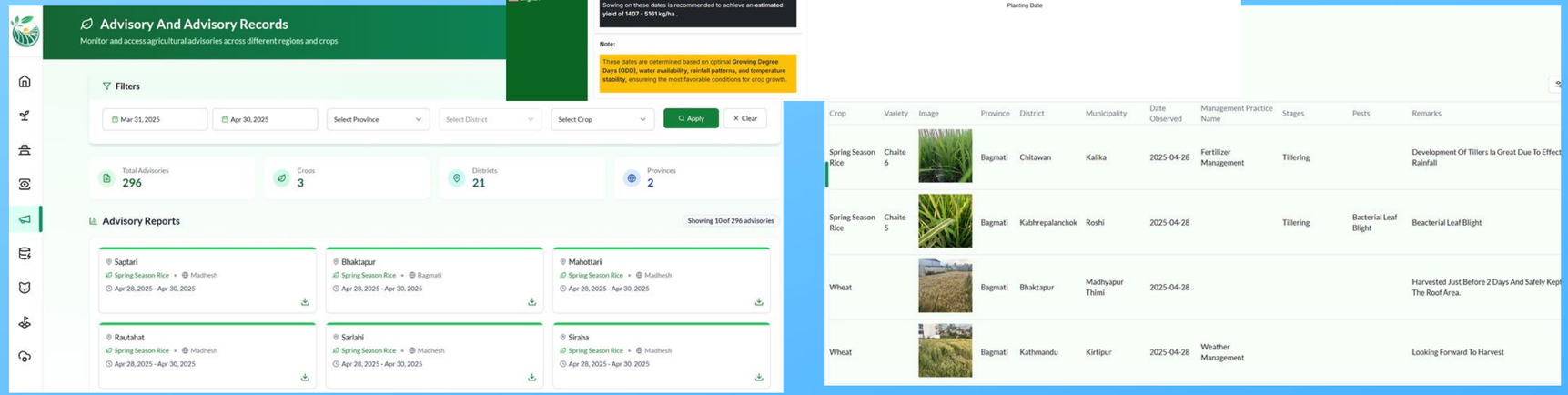
RDAS Predictive Tools





AGRO-ADVISORY SYSTEM (ADVISE)





DISTRICT QUETTA: 3-DAY SHORT-TERM ADVISORY FOR TOMATO CROP

2025-02-19 08:10:44

Observed Crop Conditions

Following are the crop conditions observed in district Quetta

Crop Stage	**Sowing**	**Crop Condition**	**Healthy**
Crop activities	**Planting**	**Crop Disease**	**Nil**
Water Resources	**Groundwater**	**Crop Pest**	**Nil**
Soil Condition	**Fertile**	**Crop Varieties**	**Nil**

Summary of crop condition

Tomato is mostly sowing stage in Quetta. The seeding is generally Healthy across the district and Groundwater is the main source of irrigation.

Three Days Forecast Weather Conditions

Date	Max Temp(°C)	Min Temp(°C)	Rainfall(mm)	Humidity (%)
2025-02-19	14.87	-3.26	11.59	72.62
2025-02-20	12.59	-3.26	0.00	51.97
2025-02-21	18.11	0.40	2.93	58.81

Optimal Weather Conditions for Tomato at Germination

For optimal Tomato growth at the Germination stage, the ideal conditions include temperatures between 19-21°C, daily rainfall of 25mm, and relative humidity levels of 65%. Adjust irrigation and fertilization to support crop growth under these conditions.

Crop Management Recommendations

Weather Management Measures

The temperature for the next 3 days is anticipated to be lower than the optimal weather conditions for Tomato at Germination. Temperatures <15°C may slow germination. Use row covers or soil warming techniques to maintain optimal temperatures.

Irrigation Management Measures

Water is critical at this stage of Tomato growth to maximize Germination. The expected rainfall in the next three days is 4.84mm. However, the crop requires 25-35mm of irrigation water at this stage in Quetta. There is sufficient soil moisture at this stage, so irrigation is not needed.

Disclaimer

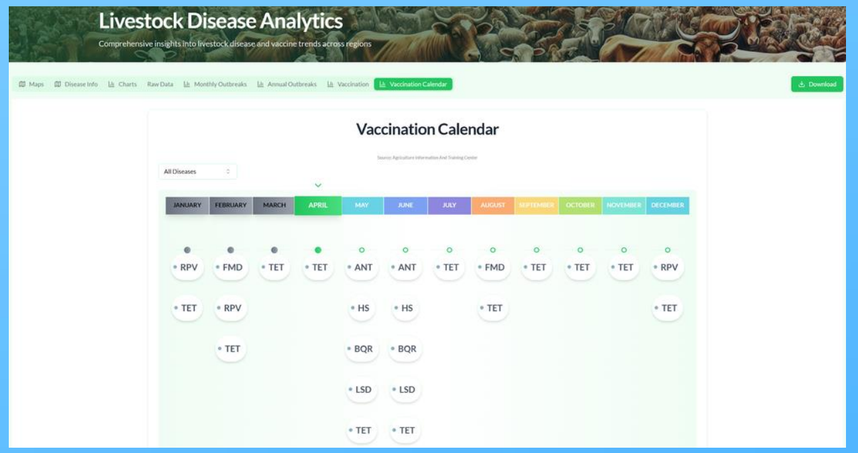
This advisory is based on the best available data and forecasts. While every effort has been made to ensure accuracy, unforeseen/fast-forming conditions may result in variations. It is recommended to verify local conditions and analyze risks before implementing any actions.

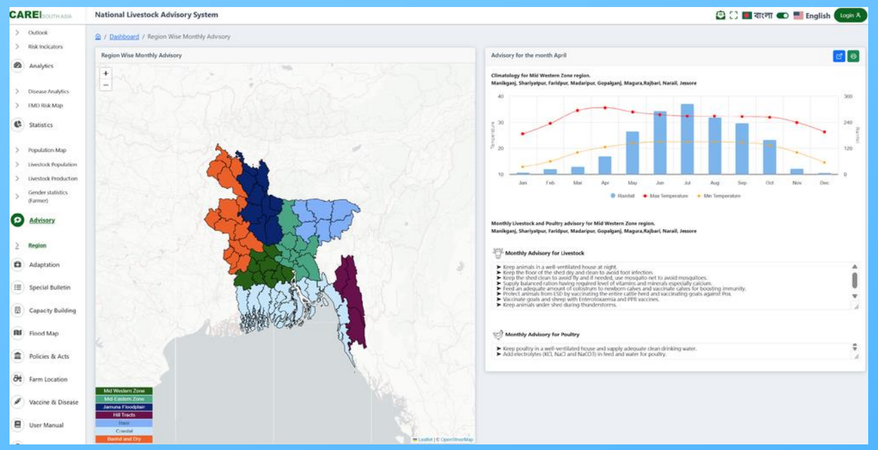
NLAS/TEMPS

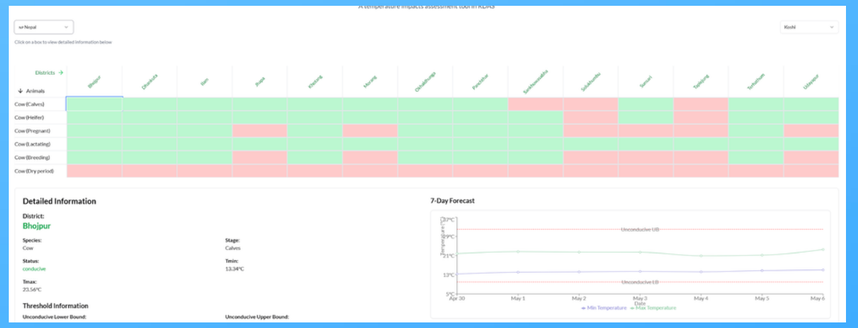
Rainfall Alert
22
Locations
THI Ruminant Alert
513
Locations
THI Boiler Alert
0
Locations
THI Layer Alert
0
Locations
Livestock and Poultry Contribution in GDP
Demand and Production (2022-23)
THI Forecast for Ruminant over Bangladesh
Dashboard
Weather
Climate
Analytics
Statistics
Advisory
Adaptation
Special Bulletin
Capacity Building
Flood Map
Policies & Acts
Farm Location

Livestock Disease Analytics
Comprehensive insights into livestock disease and vaccine trends across regions
Map
Disease Info
Charts
Raw Data
Monthly Outbreaks
Annual Outbreaks
Vaccination
Vaccination Calendar
Download
Month-wise Distribution of Foot and Mouth Disease in Nepal for the year 2001-2015
Vaccination Month + Total Outbreaks
Total Outbreaks

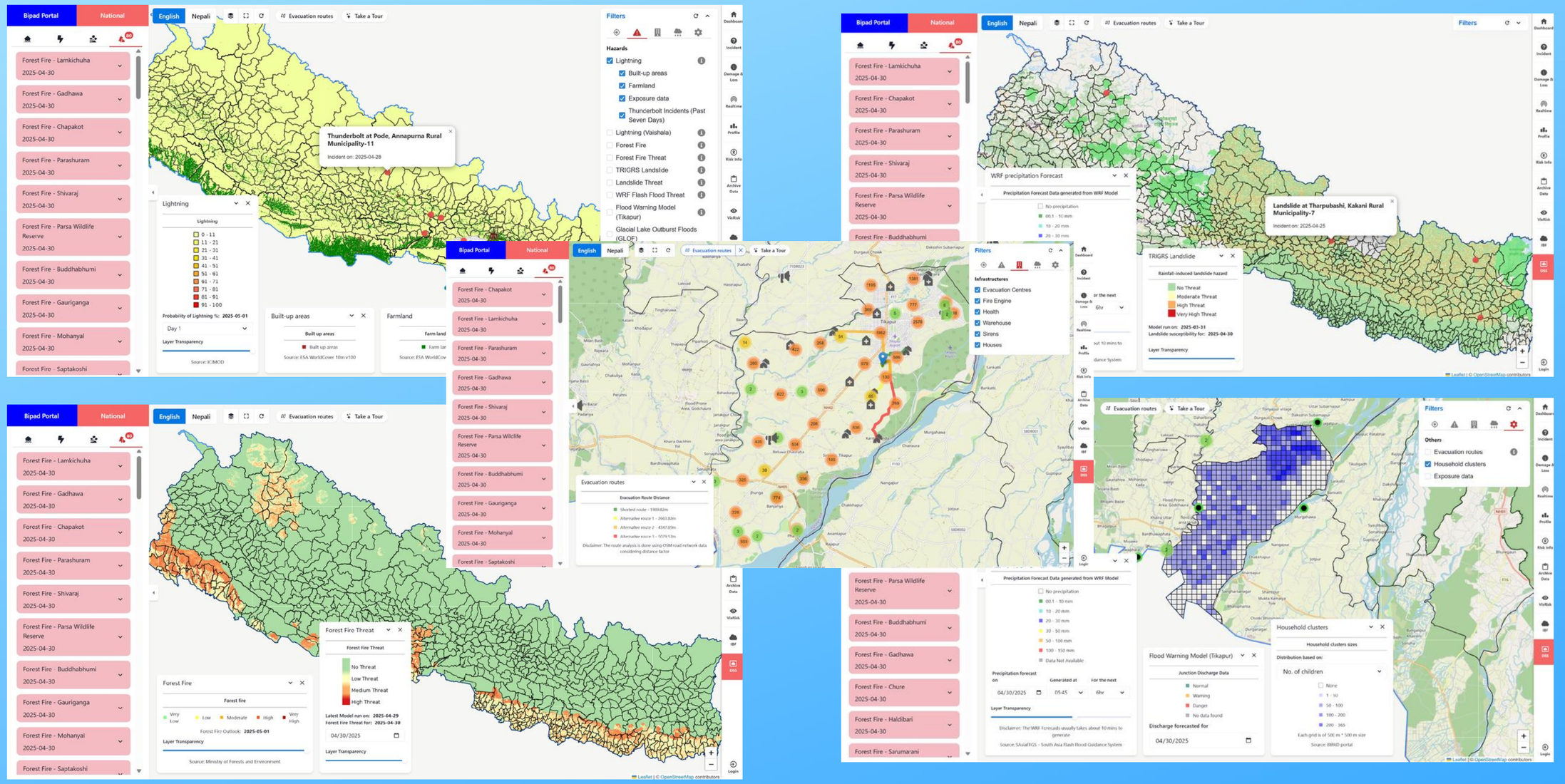
Ruminant THI
Poultry THI
THI Alerts for Ruminant over Bangladesh
Thermal Humidity Index
Bangladesh
Weather
Climate
Analytics
Statistics
Advisory
Adaptation
Special Bulletin
Capacity Building
Flood Map
Policies & Acts
Farm Location
Vaccine & Disease
User Manual
About Us


Livestock Disease Analytics
Comprehensive insights into livestock disease and vaccine trends across regions
Maps
Disease Info
Charts
Raw Data
Monthly Outbreaks
Annual Outbreaks
Vaccination
Vaccination Calendar
Download
Vaccination Calendar
All Diseases
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER

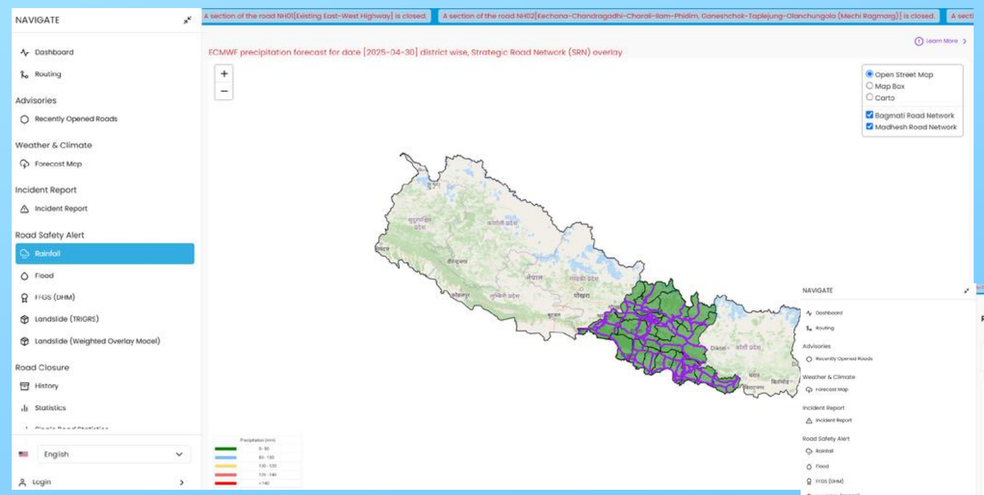

CAREI
National Livestock Advisory System
English
Login
Outlook
Risk Indicators
Analytics
Disease Analytics
FMD Risk Map
Statistics
Population Map
Livestock Population
Livestock Production
Gender statistics (Farmer)
Advisory
Region
Adaptation
Special Bulletin
Capacity Building
Flood Map
Policies & Acts
Farm Location
Vaccine & Disease
User Manual
Dashboard / Region Wise Monthly Advisory
Region Wise Monthly Advisory
Advisory for the month April
Climatology for Mid Western Zone region.
Manikganj, Shariyatpur, Faridpur, Madaripur, Gopalganj, Magura,Rajbari, Narail, Jessore
Monthly Livestock and Poultry advisory for Mid Western Zone region.
Manikganj, Shariyatpur, Faridpur, Madaripur, Gopalganj, Magura,Rajbari, Narail, Jessore
Monthly Advisory for Livestock
Monthly Advisory for Poultry
Mid Western Zone
Mid Eastern Zone
Jamuna Floodplain
Hill Tracts
Haor
Coastal
Barind and Dry

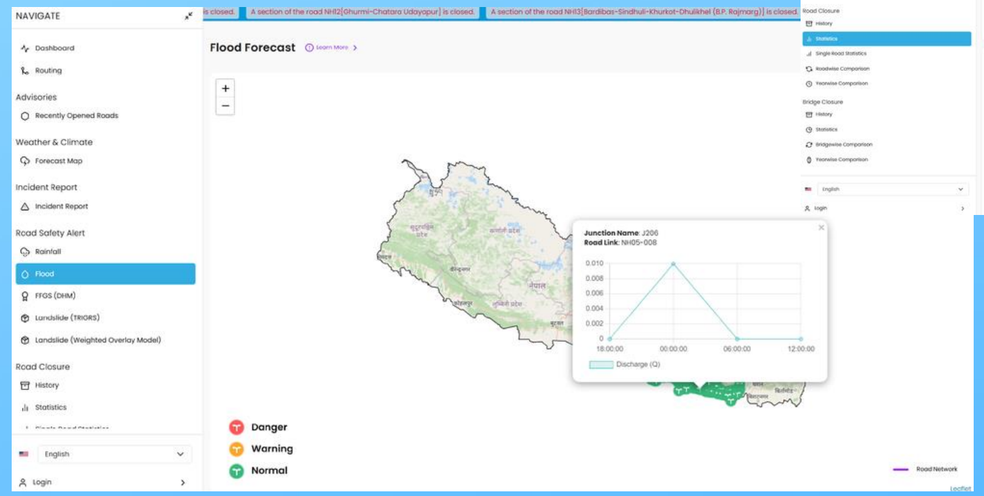

Districts
Animals
Cow (Calves)
Cow (Heifer)
Cow (Pregnant)
Cow (Lactating)
Cow (Breeding)
Cow (Dry period)
Detailed Information
District:
Bhojpur
Species:
Cow
Stage:
Calves
Status:
conducive
Tmin:
13.34°C
Tmax:
23.56°C
Threshold Information
Unconducive Lower Bound:
Unconducive Upper Bound:
7-Day Forecast
Unconducive UB
Unconducive LB
Min Temperature
Max Temperature

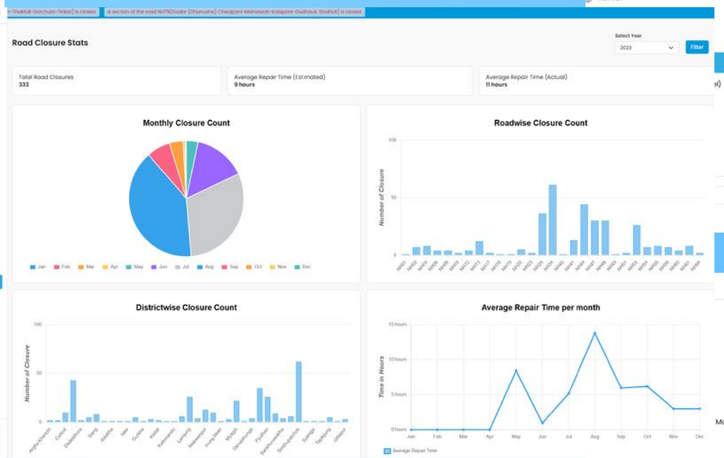
SATARK

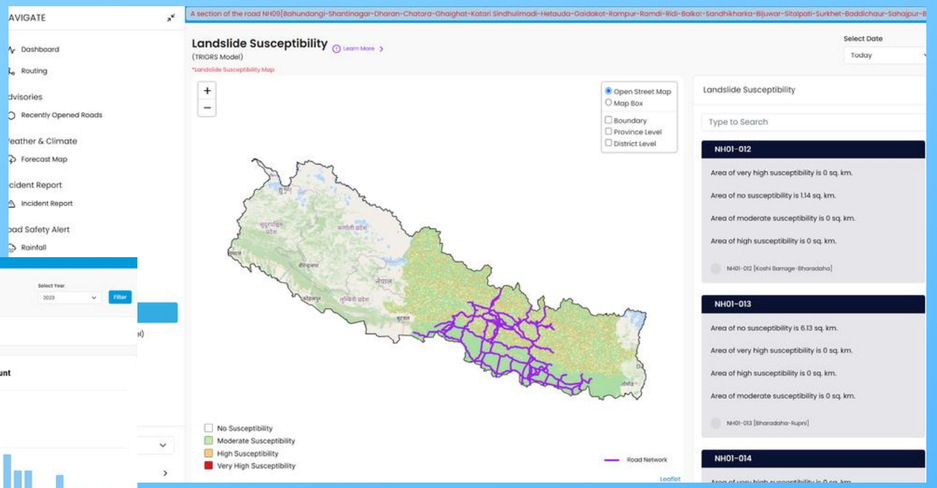

Bipad Portal
National
English
Nepali
Evacuation routes
Take a Tour
Filters
Hazards
Lightning
Built-up areas
Farmland
Exposure data
Thuncerbolt Incidents (Past Seven Days)
Lightning (Vaishala)
Forest Fire
Forest Fire Threat
TRIGRS Landslide
Landslide Threat
WRF Flash Flood Threat
Flood Warning Model (Tikapur)
Glacial Lake Outburst Floods (GLOF)
Thunderbolt at Pode, Annapurna Rural Municipality-11
Incident on: 2025-04-28
Lightning
Probability of Lightning %: 2025-05-01
Day 1
Layer Transparency
Source: ICIMOD
Built-up areas
Built up areas
Source: ESA WorldCover 10m v100
Farmland
Forest Fire - Lamkichuha 2025-04-30
Forest Fire - Gadhawa 2025-04-30
Forest Fire - Chapakot 2025-04-30
Forest Fire - Parashuram 2025-04-30
Forest Fire - Shivaraj 2025-04-30
Forest Fire - Parsa Wildlife Reserve 2025-04-30
Forest Fire - Buddhabhumi 2025-04-30
Forest Fire - Gauriganga 2025-04-30
Forest Fire - Mohanyal 2025-04-30
Forest Fire - Saptakoshi
Forest Fire - Chure 2025-04-30
Forest Fire - Haldibari 2025-04-30
Forest Fire - Sarumarani
WRF precipitation Forecast
Precipitation Forecast Data generated from WRF Model
No precipitation
00.1 - 10 mm
10 - 20 mm
20 - 30 mm
30 - 50 mm
50 - 100 mm
100 - 150 mm
Data Not Available
Precipitation forecast on
Generated at
For the next
04/30/2025
05:45
6hr
Layer Transparency
Disclaimer: The WRF Forecasts usually takes about 10 mins to generate
Source: SAnlaFFGS - South Asia Flash Flood Guidance System
Landslide at Tharpubashi, Kakani Rural Municipality-7
Incident on: 2025-04-25
TRIGRS Landslide
Rainfall-induced landslide hazard
No Threat
Moderate Threat
High Threat
Very High Threat
Model run on: 2025-03-31
Landslide susceptibility for: 2025-04-30
Layer Transparency
Evacuation routes
Evacuation Route Distance
Shortest route - 1989.82m
Alternative route 1 - 2663.83m
Alternative route 2 - 4147.09m
Alternative route 3 - 5079.53m
Disclaimer: The route analysis is done using OSM road network data considering distance factor
Filters
Infrastructures
Evacuation Centres
Fire Engine
Health
Warehouse
Sirens
Houses
Forest Fire Threat
No Threat
Low Threat
Medium Threat
High Threat
Latest Model run on: 2025-04-29
Forest Fire Threat for: 2025-04-30
04/30/2025
Layer Transparency
Forest Fire
Very Low
Low
Moderate
High
Very High
Forest Fire Outlook: 2025-05-01
Layer Transparency
Source: Ministry of Forests and Environment
Flood Warning Model (Tikapur)
Junction Discharge Data
Normal
Warning
Danger
No data found
Discharge forecasted for
04/30/2025
Household clusters
Household clusters sizes
Distribution based on:
No. of children
None
1 - 30
30 - 50
50 - 100
100 - 200
200 - 365
Each grid is of 500 m * 500 m size
Source: BIPAD portal
Filters
Others
Evacuation routes
Household clusters
Exposure data
Leaflet | © OpenStreetMap contributors

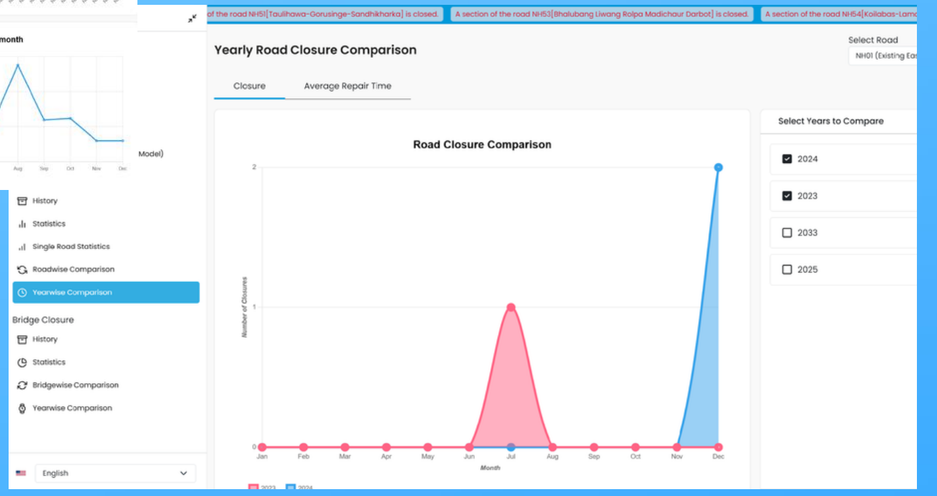
NAVIGATE


NAVIGATE
Dashboard
Routing
Advisories
Recently Opened Roads
Weather & Climate
Forecast Map
Incident Report
Incident Report
Road Safety Alert
Rainfall
Flood
FFGS (DHM)
Landslide (TRIGRS)
Landslide (Weighted Overlay Model)
Road Closure
History
Statistics
English
Login
ECMWF precipitation forecast for date [2025-04-30] district wise, Strategic Road Network (SRN) overlay
Open Street Map
Map Box
Carto
Bagmati Road Network
Madhesh Road Network

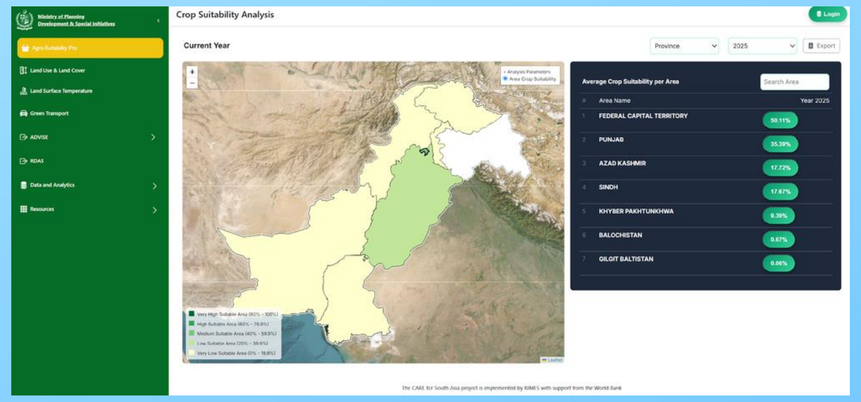

NAVIGATE
Dashboard
Routing
Advisories
Recently Opened Roads
Weather & Climate
Forecast Map
Incident Report
Incident Report
Road Safety Alert
Rainfall
Flood
FFGS (DHM)
Landslide (TRIGRS)
Landslide (Weighted Overlay Model)
Road Closure
History
Statistics
English
Login
Flood Forecast
Junction Name J206
Road Link: NH05-008
Discharge (Q)
Danger
Warning
Normal
Road Network

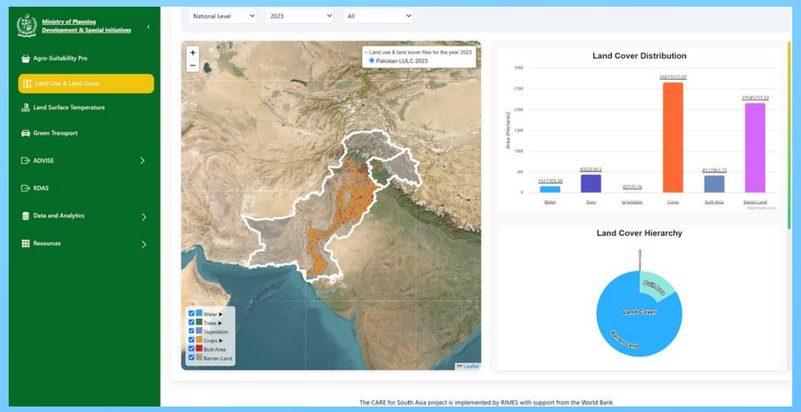

Road Closure Stats
Total Road Closures
333
Average Repair Time (Estimated)
9 hours
Average Repair Time (Actual)
11 hours
Monthly Closure Count
Roadwise Closure Count
Districtwise Closure Count
Average Repair Time per month

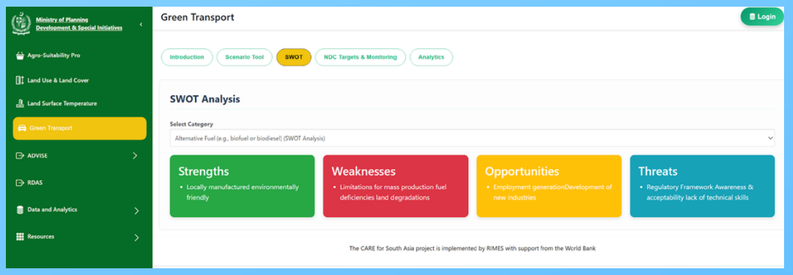

Landslide Susceptibility
(TRIGRS Model)
Select Date
Today
Open Street Map
Map Box
Boundary
Province Level
District Level
No Susceptibility
Moderate Susceptibility
High Susceptibility
Very High Susceptibility
Road Network
Landslide Susceptibility
Type to Search
NH01-012
Area of very high susceptibility is 0 sq. km.
Area of no susceptibility is 1.14 sq. km.
Area of moderate susceptibility is 0 sq. km.
Area of high susceptibility is 0 sq. km.
NH01-012 [Koshi Barrage- Bharadaha]
NH01-013
Area of no susceptibility is 6.13 sq. km.
Area of very high susceptibility is 0 sq. km.
Area of high susceptibility is 0 sq. km.
Area of moderate susceptibility is 0 sq. km.
NH01-013 [Bharadaha-Rupni]
NH01-014

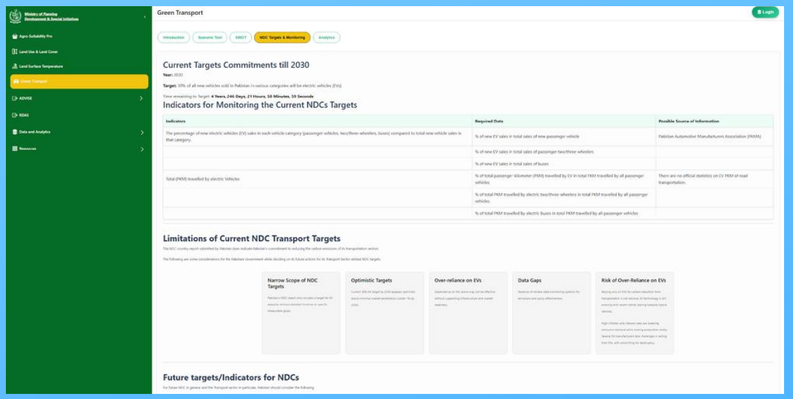

History
Statistics
Single Road Statistics
Roadwise Comparison
Yearwise Comparison
Bridge Closure
History
Statistics
Bridgewise Comparison
Yearwise Comparison
English
Yearly Road Closure Comparison
Select Road
Closure
Average Repair Time
Road Closure Comparison
Select Years to Compare
2024
2023
2033
2025
Number of Closures
Month

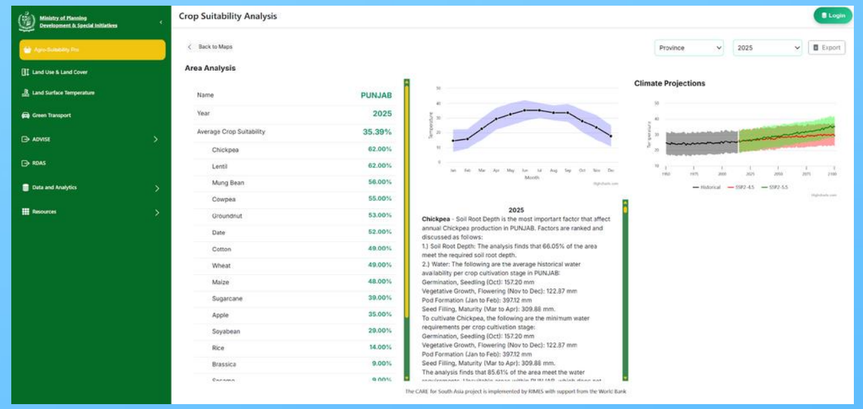
CLIM-PLANNED

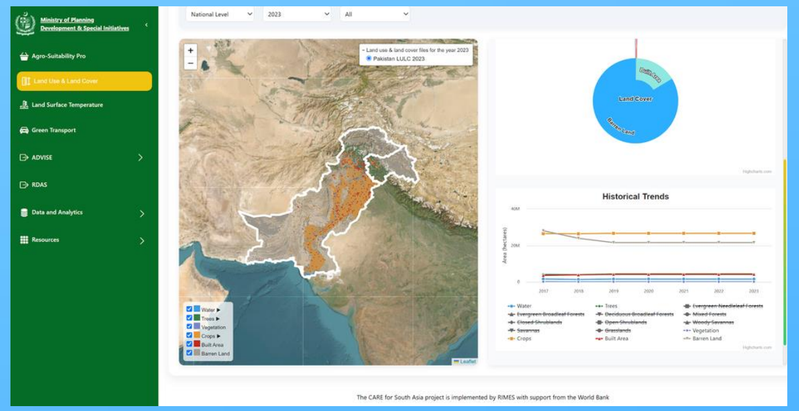


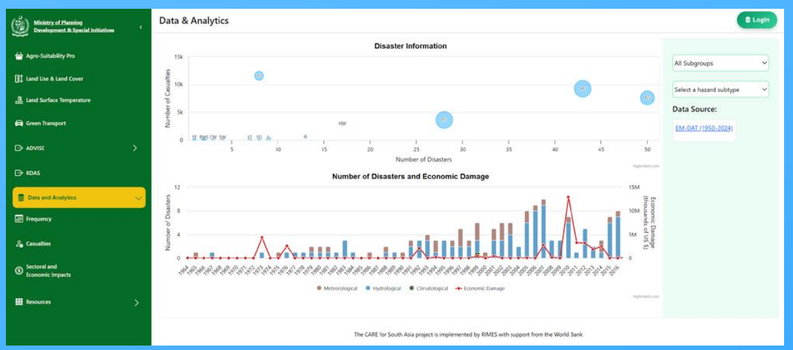




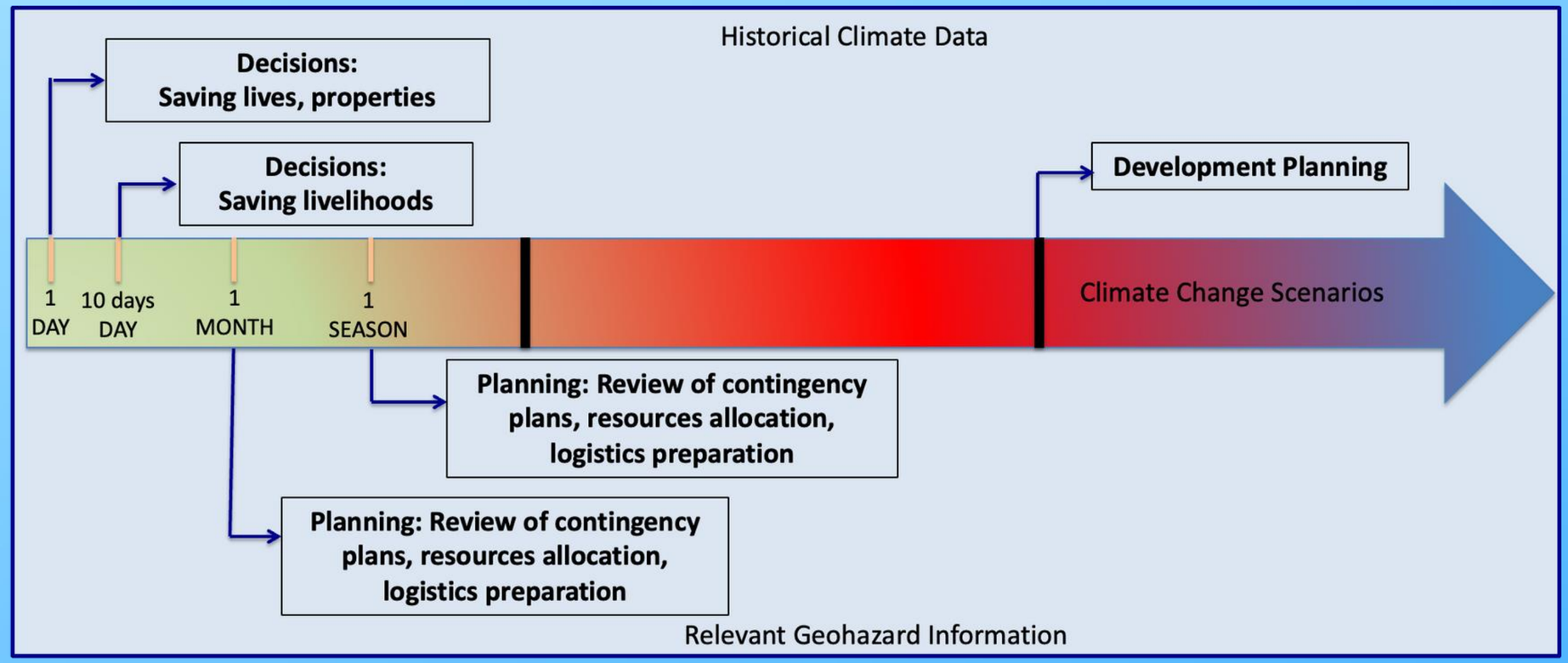








Early Warning/Climate Information Application for Tripple Dividends



RISK MANAGEMENT

Reducing casualties and immediate financial burdens from extreme weather events

RESOURCE MANAGEMENT AND OPTIMIZATION

Resources are efficiently used while informed decisions are undertaken for development planning

ENHANCED RESILIENCE

Disaster risks are strategically and tactically reduced, while economic benefits are stimulated

RIMES MASTER PLAN 2026 - 2030: LEVERAGING RIMES TRIPPLE M EARLY WARNING CENTER FOR TRIPPLE DIVIDENDS

RIMES

4th MINISTERIAL CONFERENCE

Economies of Scale

Advanced Technologies

Connectivity of the Climate/EW Information Value Chain

Global/regional data downscaled to national, provincial, and district levels and connected to DSSs, to readily support various DSSs analysis

RDAS
Regional Resilience Data and Analytics Service

Regional tools ready for national/sub-national customization

Cutomized tools provide innovation perspectives for regional tools

National/Sub-national in-situ datasets assimmilated in RDAS for cutomizing tools

DSSs

AGRICULTURE

DISASTER RISK MANAGEMENT

LIVESTOCK

PLANNING AND DEVELOPMENT

TRANSPORT

WATER

SOUTH ASIA HYDROMET FORUM

Common but Differentiated Services

Sustained Backup Support

Intergovernmental Mandate and Ownership

Global/regional data downscaled to national, provincial, and district levels and connected to DSSs, to readily support various DSSs analysis
RDAS
Regional Resilience Data and Analytics Service
Regional tools ready for national/sub-national customization
Cutomized tools provide innovation perspectives for regional tools
National/Sub-national in-situ datasets assimmilated in RDAS for cutomizing tools
SOUTH ASIA HYDROMET FORUM
DSSs
AGRICULTURE
DISASTER RISK MANAGEMENT
LIVESTOCK
PLANNING AND DEVELOPMENT
TRANSPORT
WATER
PILLAR 1
Enhancing Data Availability and Accessibility
PILLAR 2
Modeling and Forecasting
PILLAR 3
Translating Data into Actionable Information
PILLAR 4
Societal Engagements and Feedback
PILLAR 5
Research and Development

SCIENCE

INSTITUTIONS

SOCIETIES