R4A - Dynamic Decision Support Data for Agriculturalists

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Aims from Netherland Space Office

Geo Data for Agriculture & Water (G4AW)
(Feeding the world - 9 billion people by the year 2050)

• To improve food security by using satellite data (proven technology)
• Use science & technology to provide farmers with right information at right time
• Reach 100,000 Small-Holder Farmers (50% women)
• Develop applications resulting in:
  – 10% increase of food production
  – 10% more efficient use of inputs
  – improved output for farmer
• Sustainable business model

Objectives of R4A

Rain For Africa Project (R4A)
(Feeding - South & southern Africa)

• Use best available weather & agricultural data
  Make available via applications / technology at right price/time
  Reach 125,000 Small-Holder Farmers (50% women)
• Smartphone application (10% effect):
  – Sowing advice
  – Spraying advice
  – Weather (impact) forecast
  – MyRainGauge
• Form sustainable business entity
APP Store for Weather & Agric. Services

For developers: SDK, R4A API

Historical, actual & forecast: rainfall estimates, temperature, ET, wind, relative humidity

R4A Platform
Software Development Kit (SDK)
App Programming Interface (API)

Information Services

Processed data

Application use & Data delivery

Data Services

Raw data: Weather station, Satellite data, Radar data, Community measured rainfall
Applications through use of Models

For Example:

Risk reduction: In-field Rainwater Harvesting

- SOI<-5: WHBM-0%
- -5<=SOI<=+5: WHBM-0%
- SOI>+5: WHBM-0%

- SOI<-5: CT-0%
- -5<=SOI<=+5: CT-0%
- SOI>+5: CT-0%

Cumulative probability

Yield (kg/ha)
Crowd Sourcing by Mobile Water Management

End Users
- Agri-Food

Extension/Service Agent

Platform Provider

Application Developers

Data Providers

Knowledge Providers
Every Raindrop counts

Expansion into Africa

- Weather Services
- Platform
- Crowd Sourcing
- Agri-Food industry
- Application developers
- Small-Scale Farmers
Can this be the new e-Agriculture for Africa?