Data Management, Analysis & Sharing (ICRISAT)

CGIAR Research Program on Dryland Systems

29th September, 2014, Dubai, UAE

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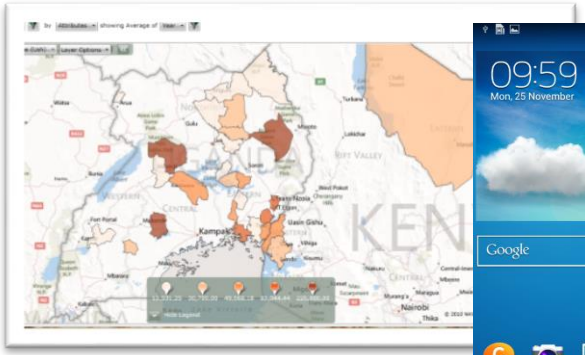

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International Crops Research Institute for the Semi-Arid Tropics

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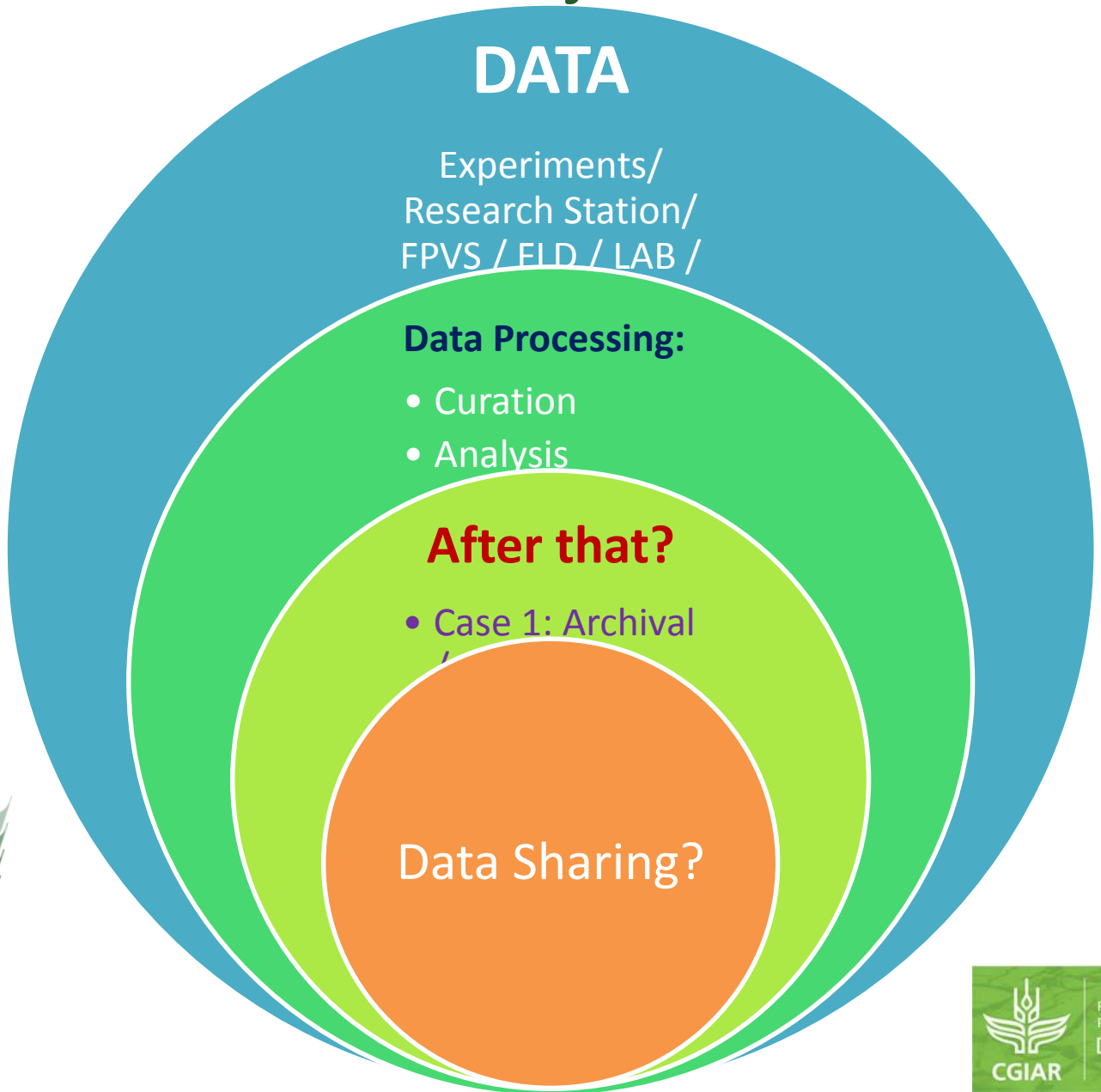
Usual Project Dataflow



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We Share Data!

Most Common

Requests by email?

- May not find when requested (After 3-4 years)!!!
- Very narrow user base for data
- Only active Googlers may find you (Through Publications?)
- High probability of data loss!

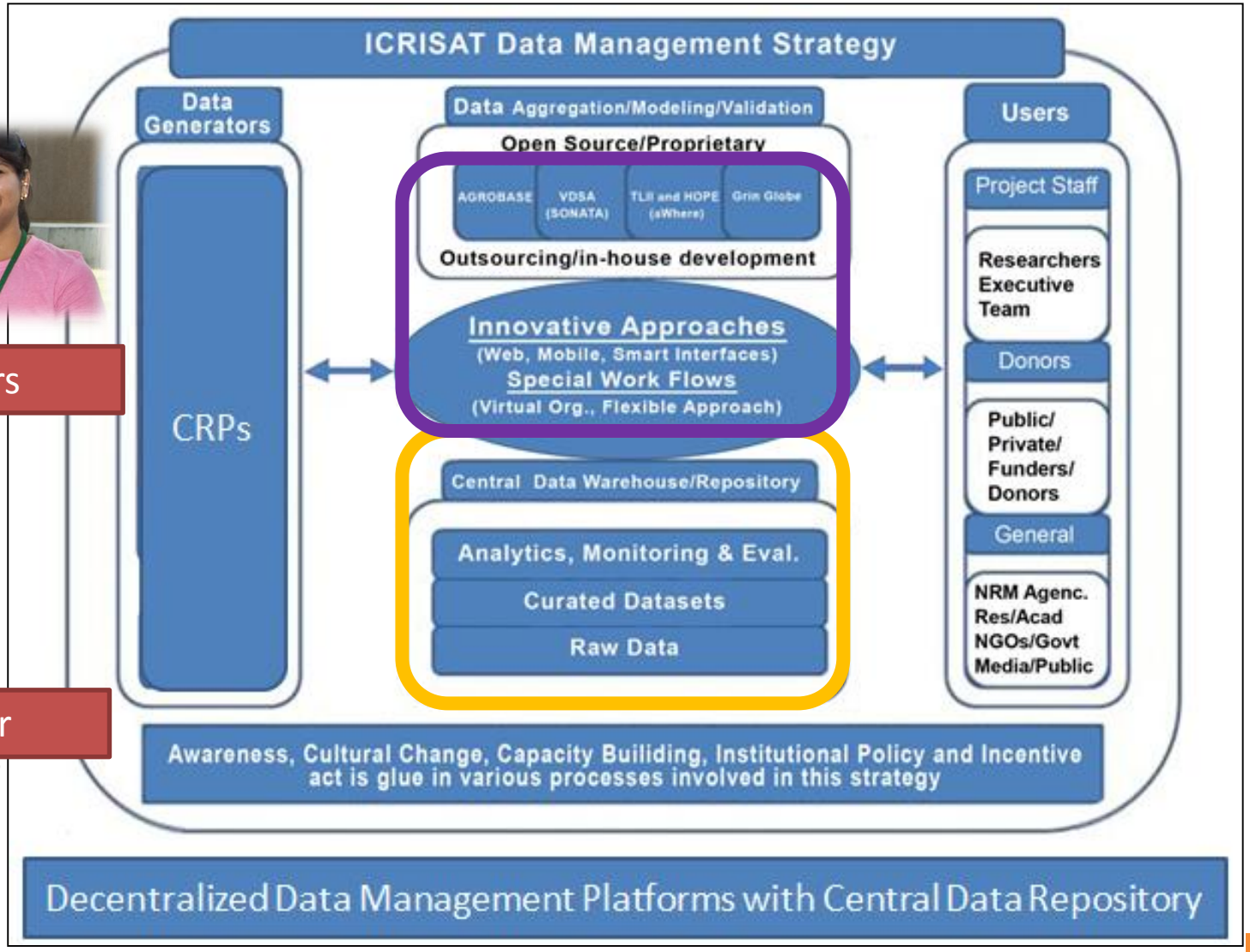
Research Resources &
Generated Data Not Used to

Full Potential !

ICRISAT Data Management Strategy

Data Curators

Data Manager



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We Share Data!

GIGO

Desired Way

- **Must Haves**
  - Shared in online repositories
  - Accessible to everybody as IPG
  - Data Quality Ensured
  - High Standers of Data Curation

  60-70% Time
  - Compressed Files / Raw Data
  - Links to Publications

Good to have

- Summary Tables (various perspectives)
- Data Querying Tool
- Say Success Story
- Point to Lesson Learned
- Show impact

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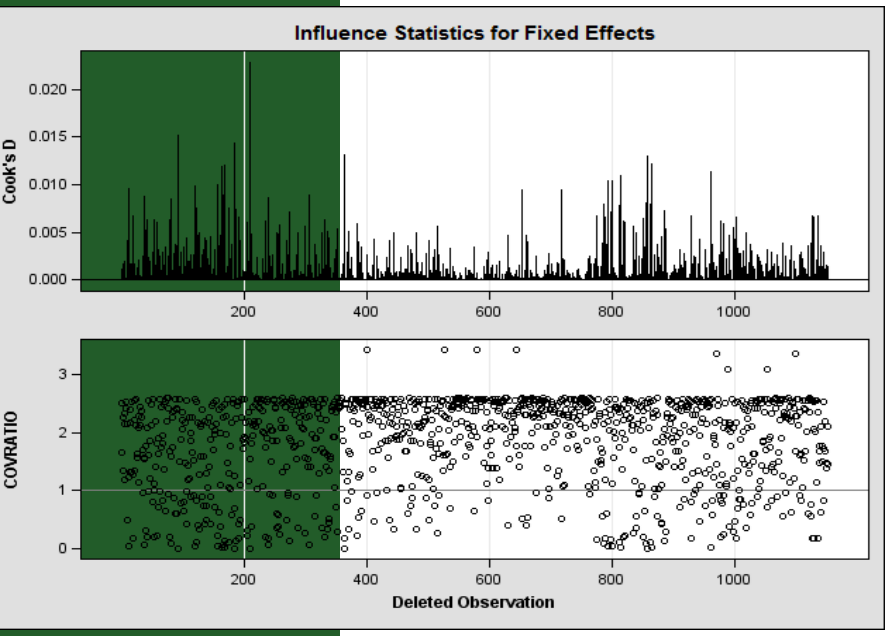
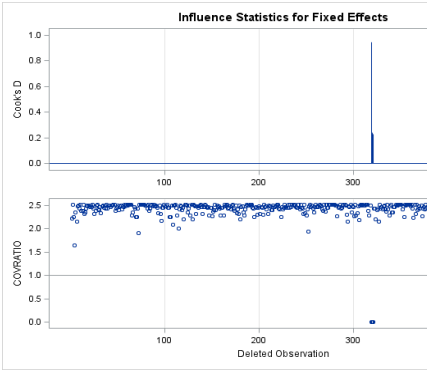
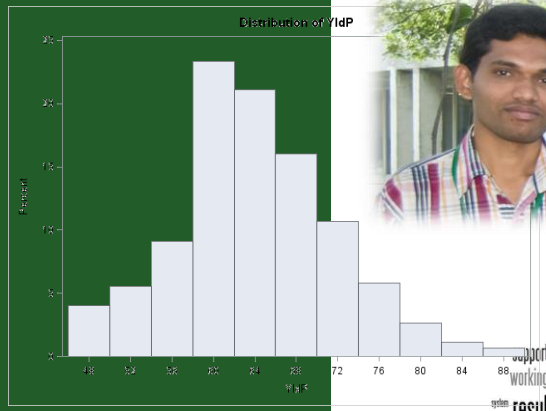
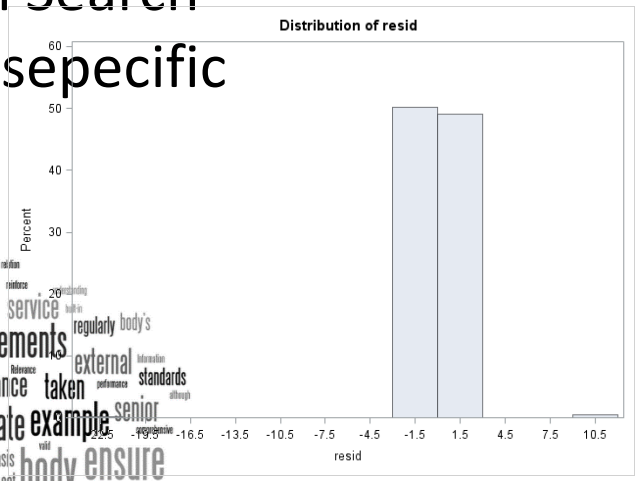


Data Quality: Little Complicated

- Supervised Algorithms/ Scripts
  - SAS, R , GenStat
- Leverage
- Cook's D
- Residual Analysis
- Diagnostic Plots
- Rep/Season - Rep/Season difference
- Text Pattern Search
- Other Data sepecific







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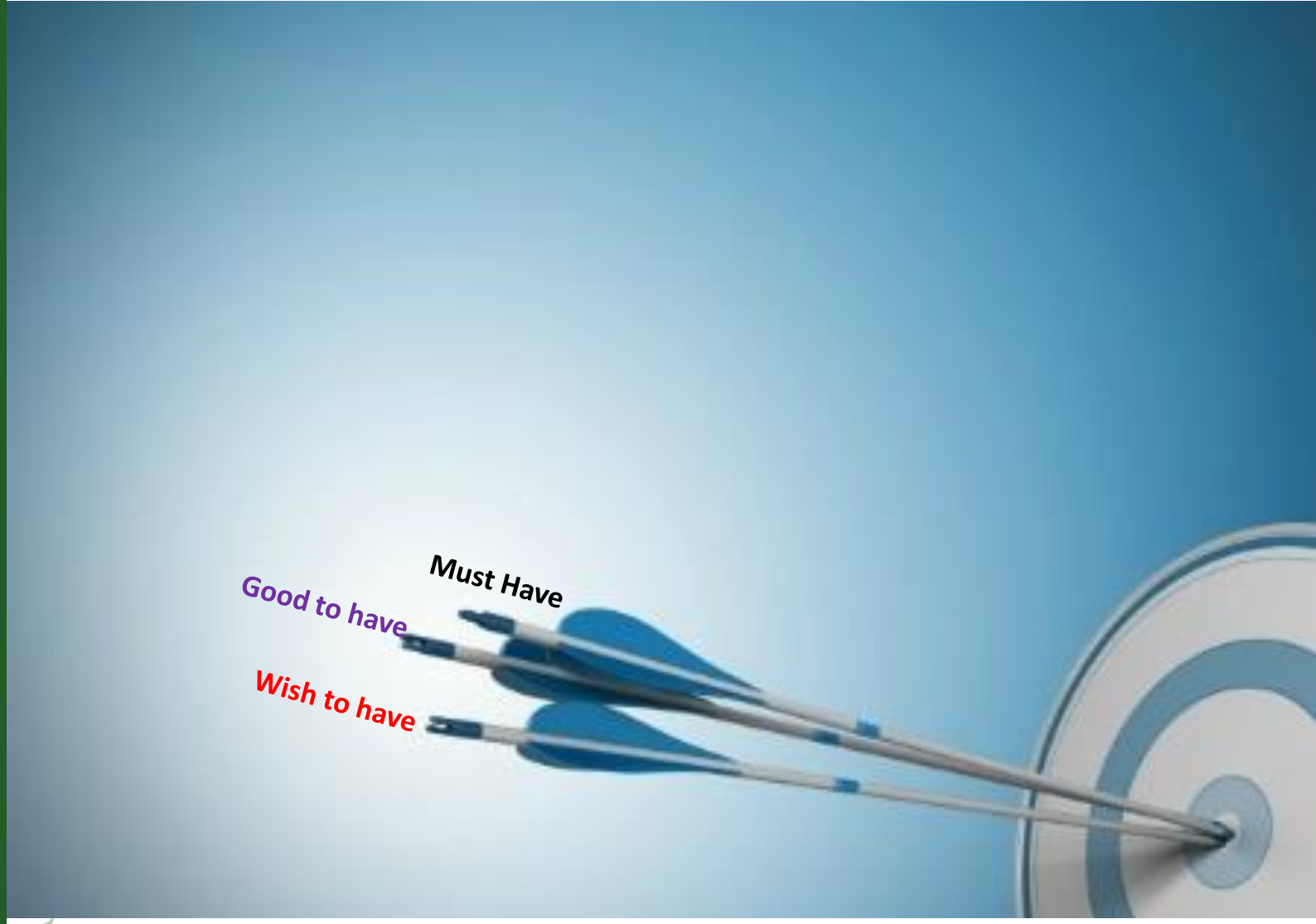
We Share Data!

Wish to have…

- A user friendly browse-able online system
  - Gives information in a glance
  - Graphical representation of Story
  - Complete insight in to data
    - With availability of Raw / Mean data
    - Subset selection and download
    - Maintenance free (PI submits & forget), Cloude?
    - User control over what is being shared?
      - Can share only few varieties for few location
    - And in what form (*.xls, jpeg, pdf etc?



Achieved !!!

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Must Have

CRP- DS Dataverse

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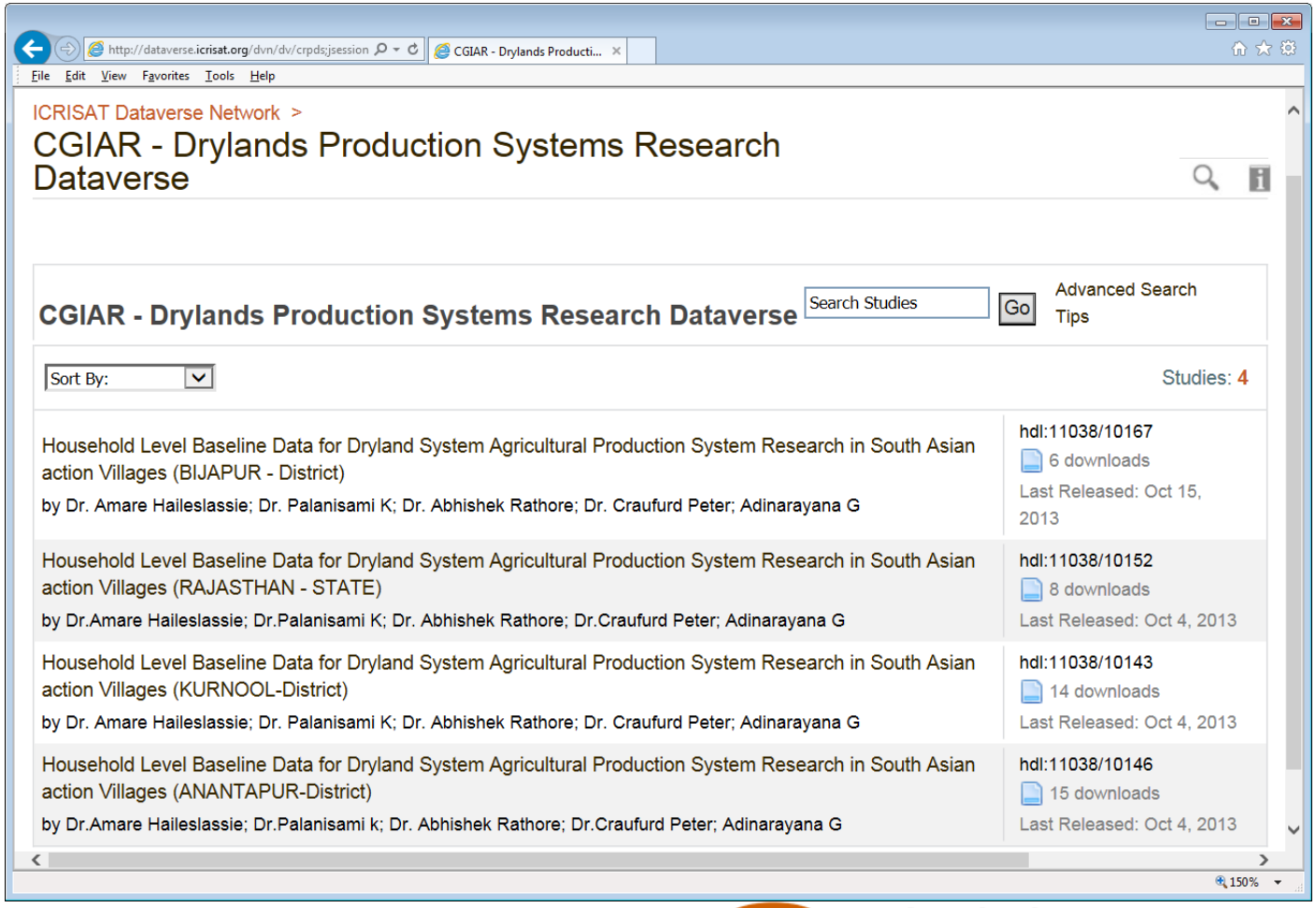
ICRISAT Dataverse Network - Open Source



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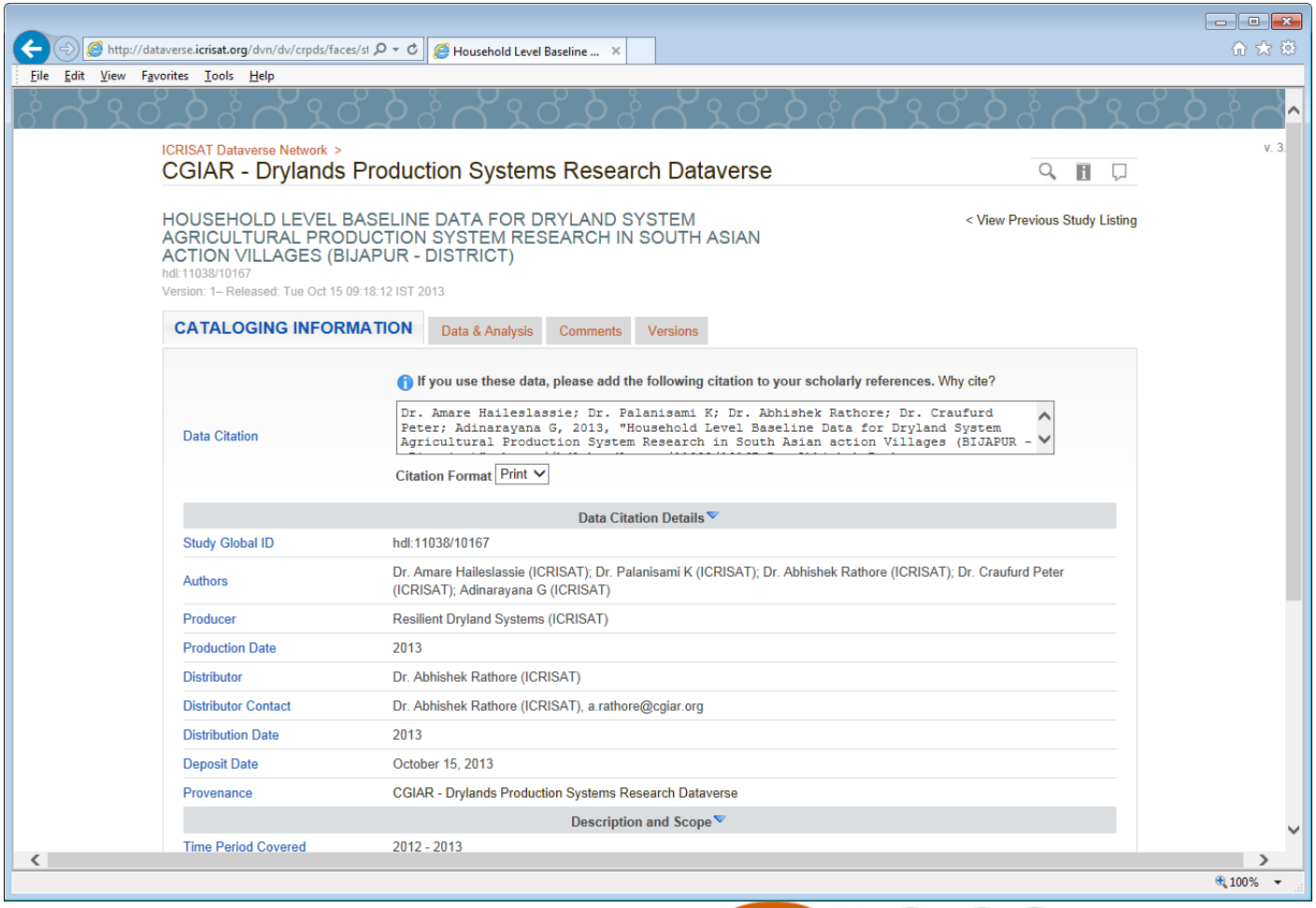

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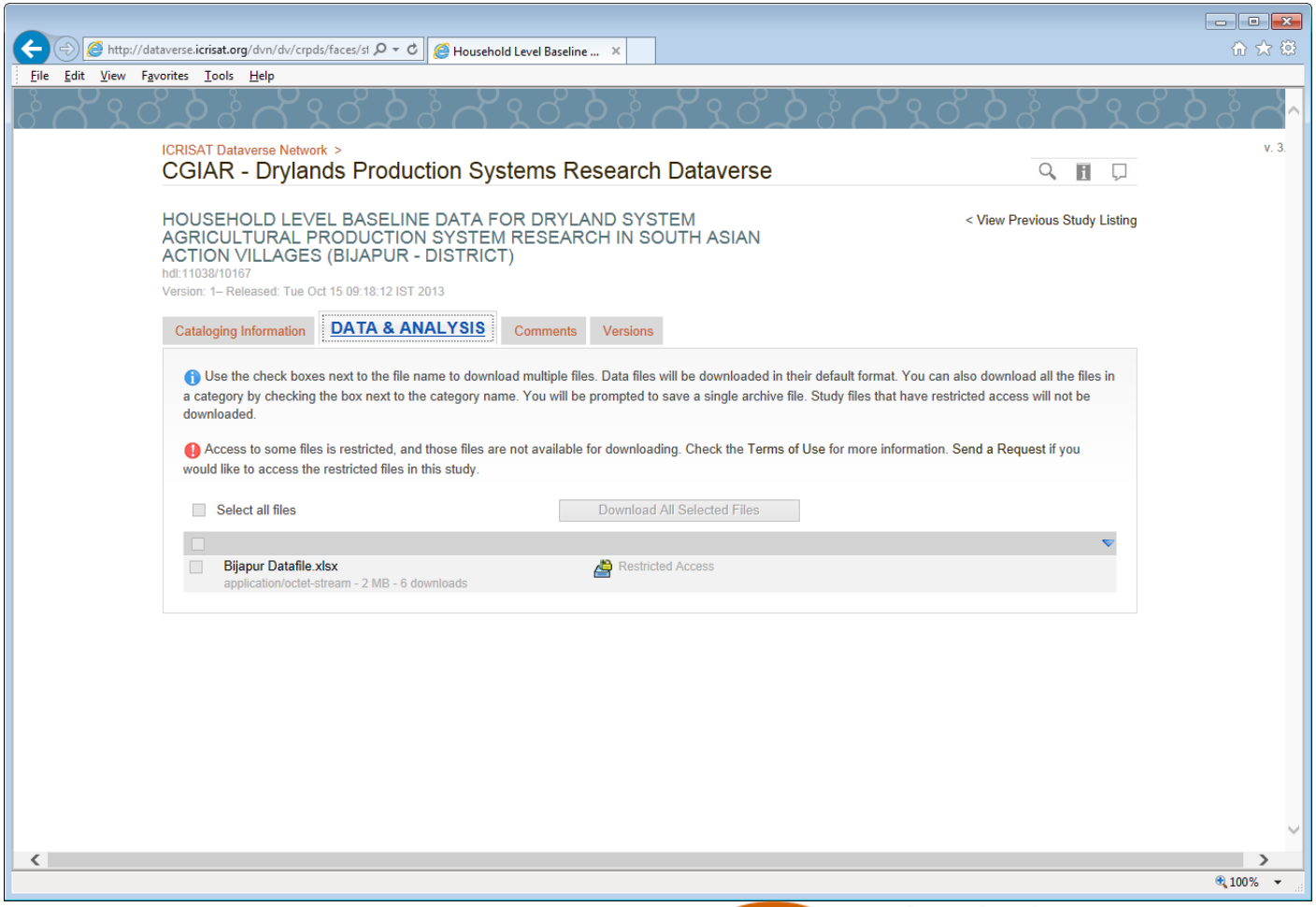

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Database @ ICRISAT Projects

Tropical Legumes-II

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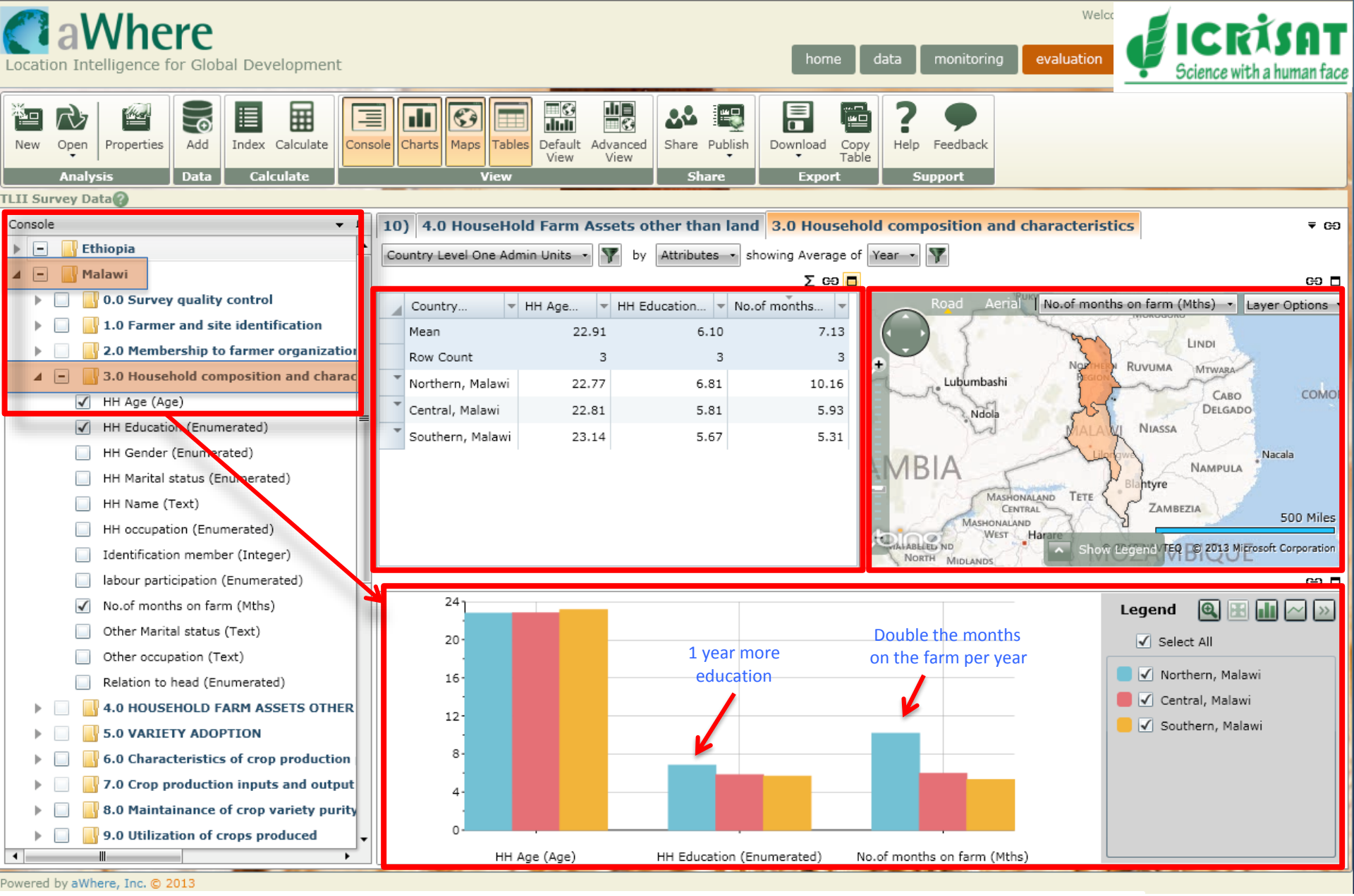
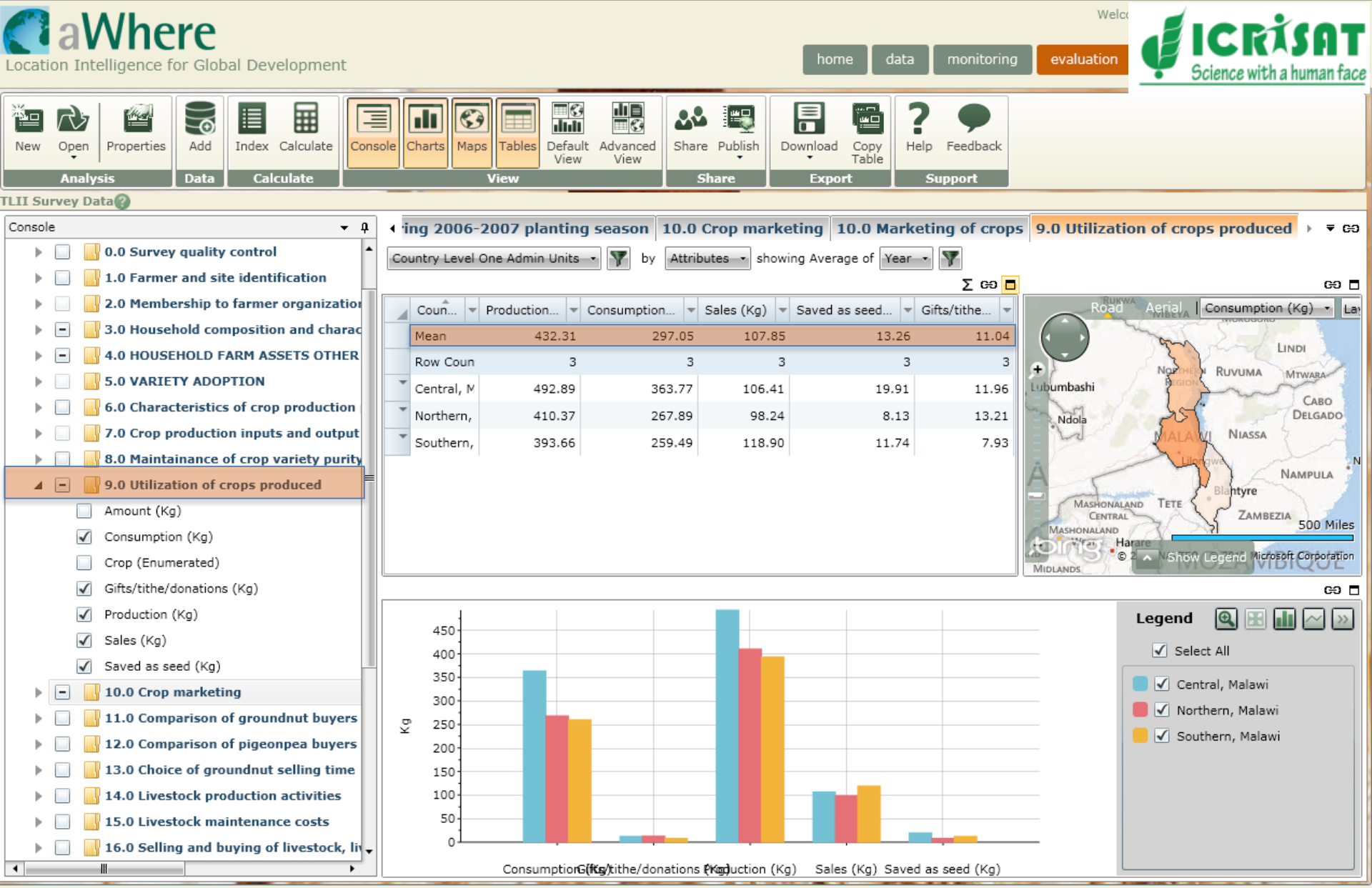
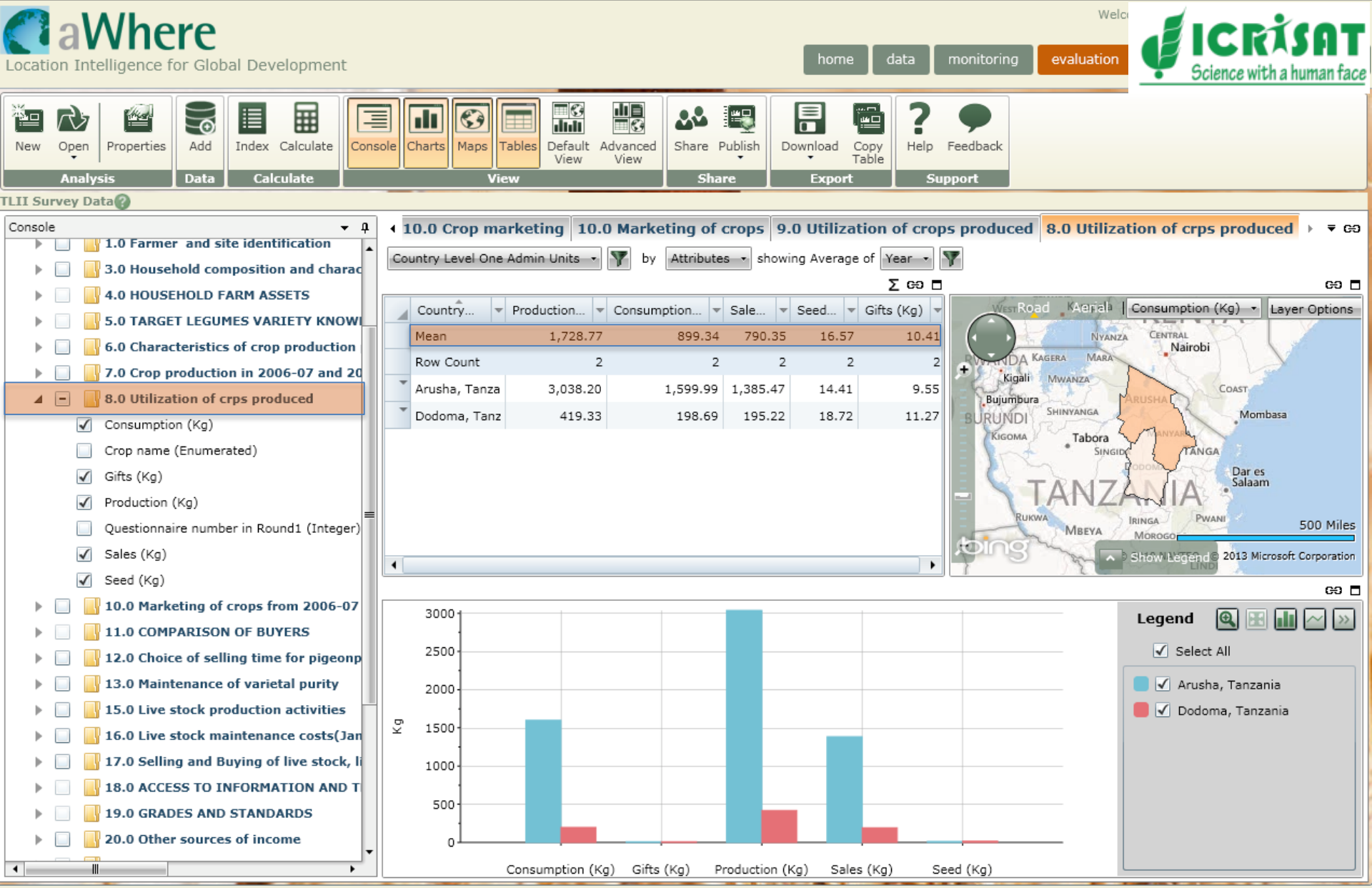


The Simultaneous Triple-View of any data: Table, Map, Chart



Malawi Baseline Survey: Crop Utilization



Tanzania Baseline Survey: Crop Utilization

TL-II Trials (Station/FPVS)

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aWhere
Location Intelligence for Global Development

home | data | monitoring | evaluation

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New | Open | Properties | Add | Index | Calculate | Console | Charts | Maps | Tables | Default View | Advanced View | Share | Publish | Download | Copy Table | Help | Feedback

Analysis | Data | Calculate | View | Share | Export | Support

TLII FPVS Trials Demo

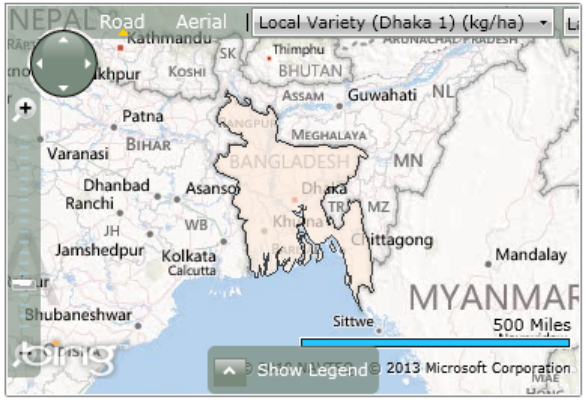
Console

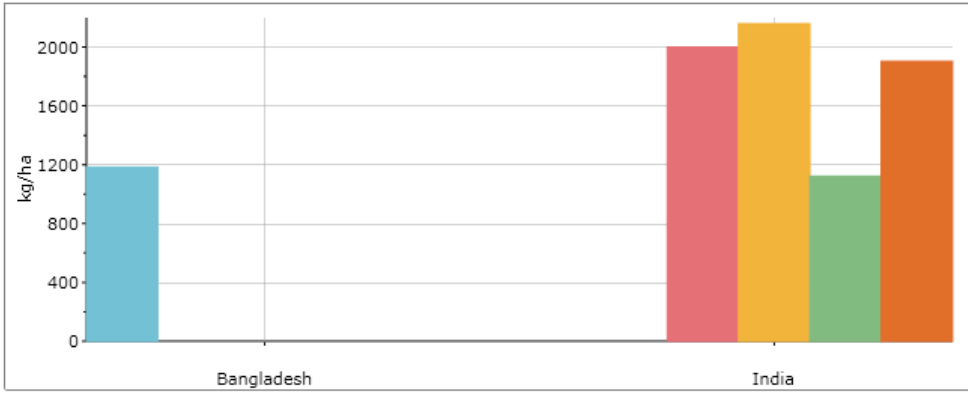
- TL-II Trials
  - FPVS Trials 2012-2013
    - Country (Text)
    - Admin1 (Text)
    - Admin2 (Text)
    - Local Variety (kg/ha)
    - Improved (kg/ha)
    - 2012 Avg Low Temp (Trial) (celcius)
    - 2012 Avg High Temp (Trial) (celcius)
    - 2012 Precip (Trial) (mm)
    - 10 Yr Avg Low Temp (Trial) (celcius)
    - 10 Yr Avg High Temp (Trial) (celcius)
    - 10 Yr Precip (10 Yr) (mm)
    - [x] Local Variety (Dhaka 1) (kg/ha)
    - [x] Local Variety (Tamil) (kg/ha)
    - [x] Local Variety (Smruti) (kg/ha)
    - [x] Local Variety (R 20) (kg/ha)
    - [x] Local Variety (TMV 2) (kg/ha)
    - BINA Chinabadam 4 (kg/ha)
    - BARI Chinabadam 8 (kg/ha)
    - DH 86 (kg/ha)
    - ICGV 00308 (kg/ha)
    - ICGV 00350 (kg/ha)
    - ICGV 00351 (kg/ha)
    - ICGV 02266 (kg/ha)

FPVS Trials 2012-2013

Attributes by Countries showing Average of Year

Attributes	Bangladesh	India
Mean	1,183.33	1,795.55
Row Count	5	5
Local Variety (Dhaka 1) (kg/ha)	1,183.33	
Local Variety (R 20) (kg/ha)		2,000.00
Local Variety (Smruti) (kg/ha)		2,157.50
Local Variety (Tamil) (kg/ha)		1,122.72
Local Variety (TMV 2) (kg/ha)		1,902.00

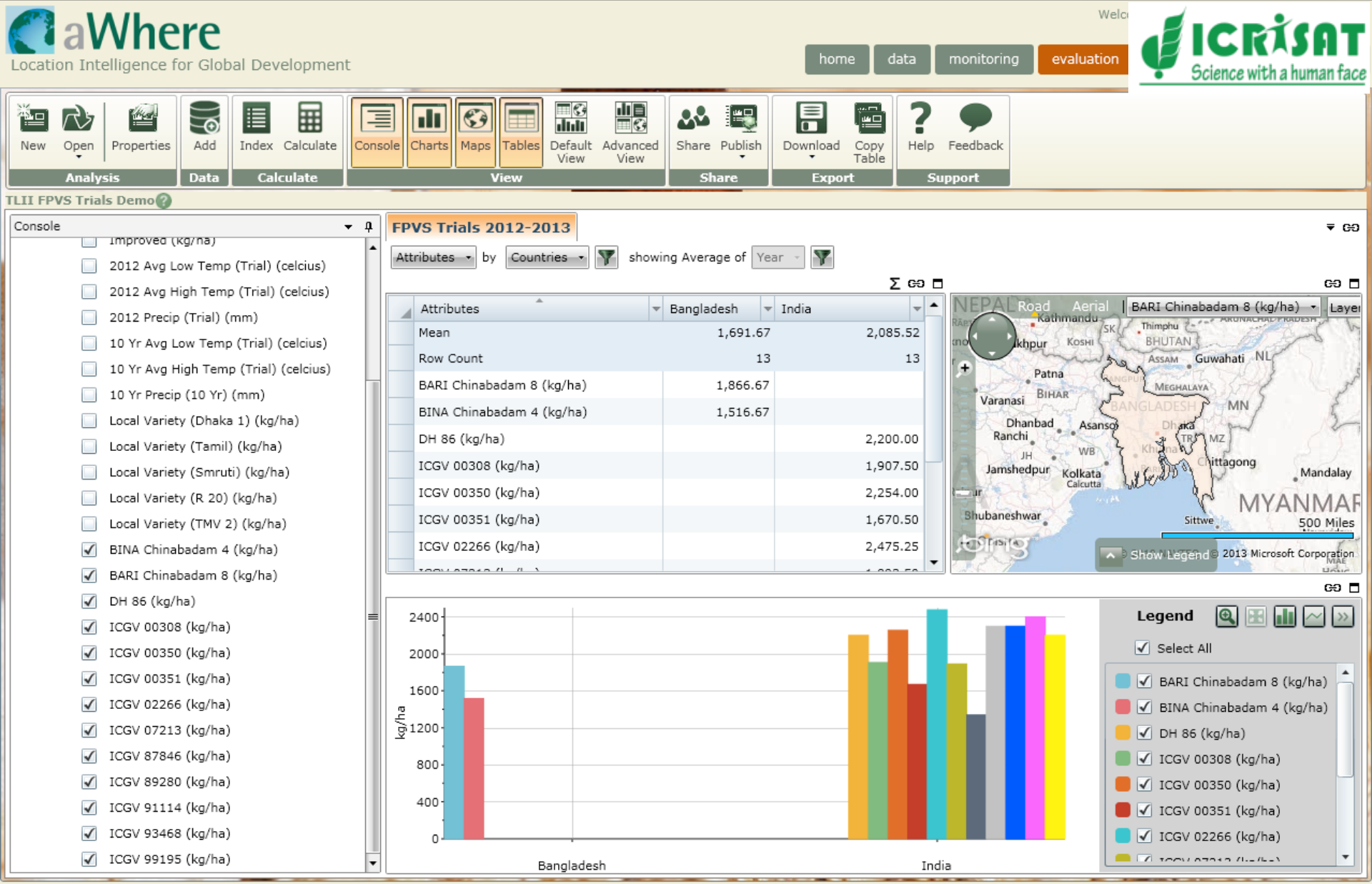




Legend

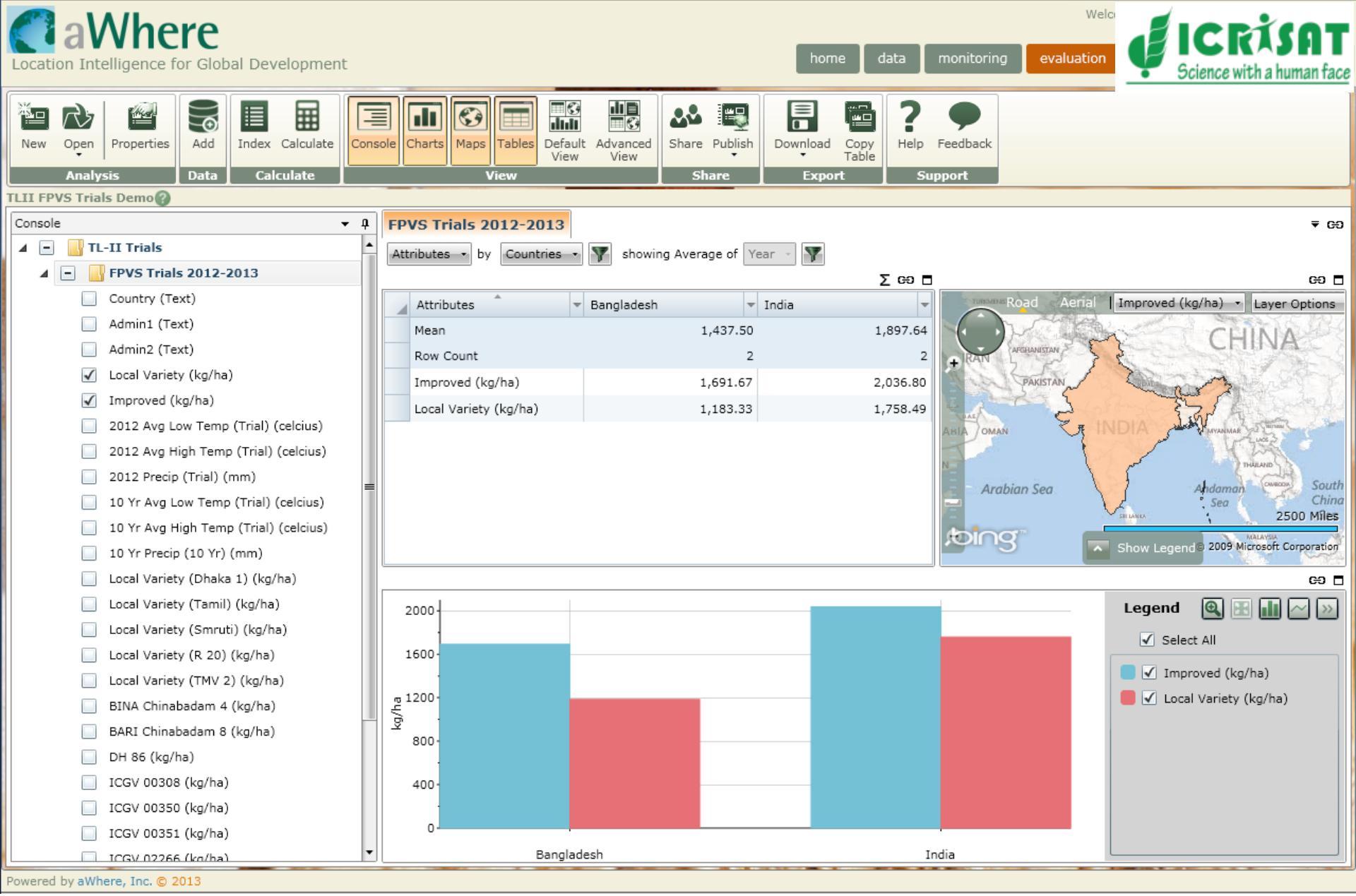
- [x] Select All
- [x] Local Variety (Dhaka 1) (kg/ha)
- [x] Local Variety (R 20) (kg/ha)
- [x] Local Variety (Smruti) (kg/ha)
- [x] Local Variety (Tamil) (kg/ha)
- [x] Local Variety (TMV 2) (kg/ha)

India & Bangladesh Trials
Comparing LOCAL variety performance summary.

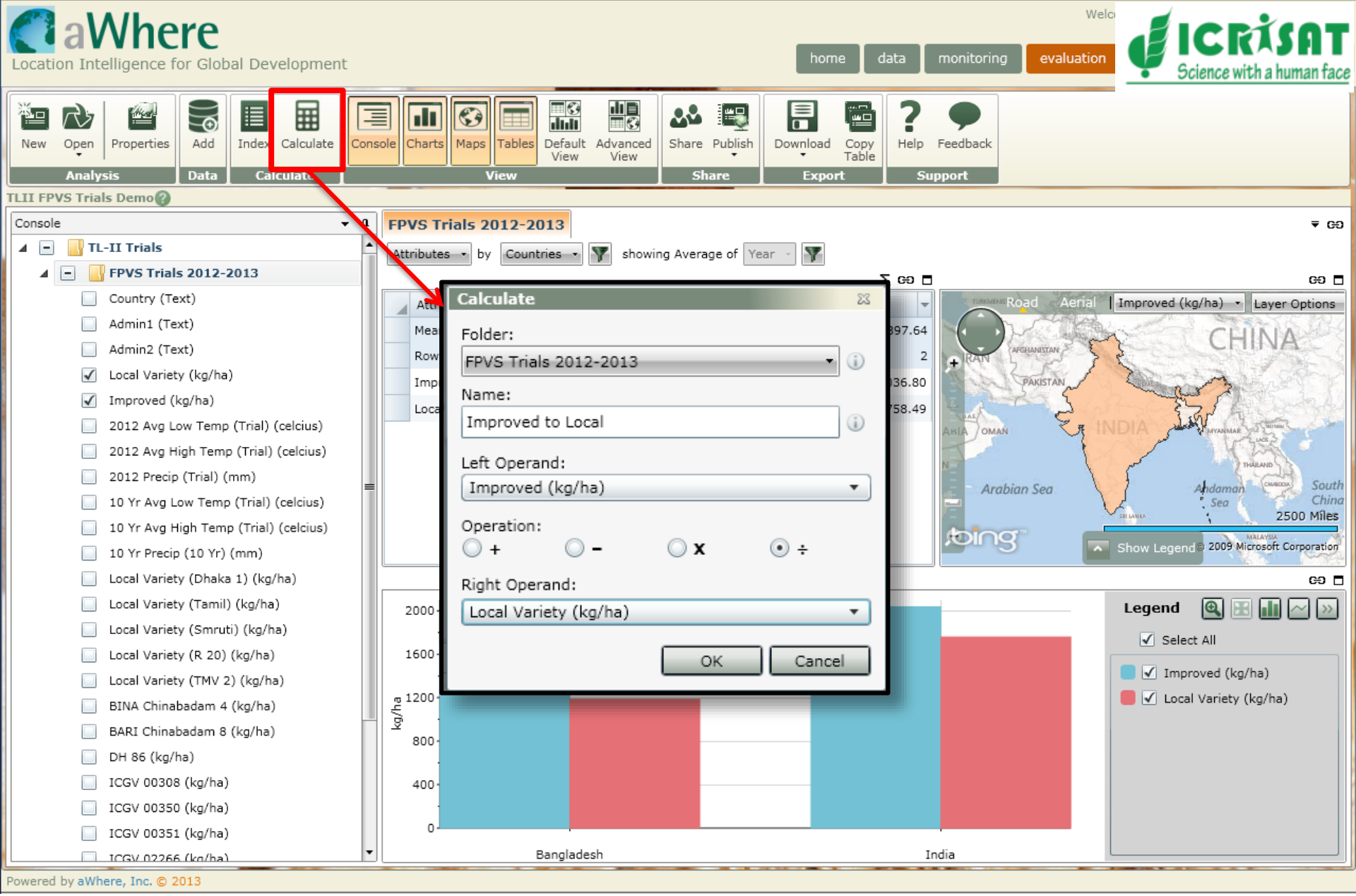


Improved Varieties

Summary of Improved Variety Performance



Create LOCAL and IMPROVED Summary Variables



Calculate Comparisons:
Improved to Local Performance Ratio

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HOPE

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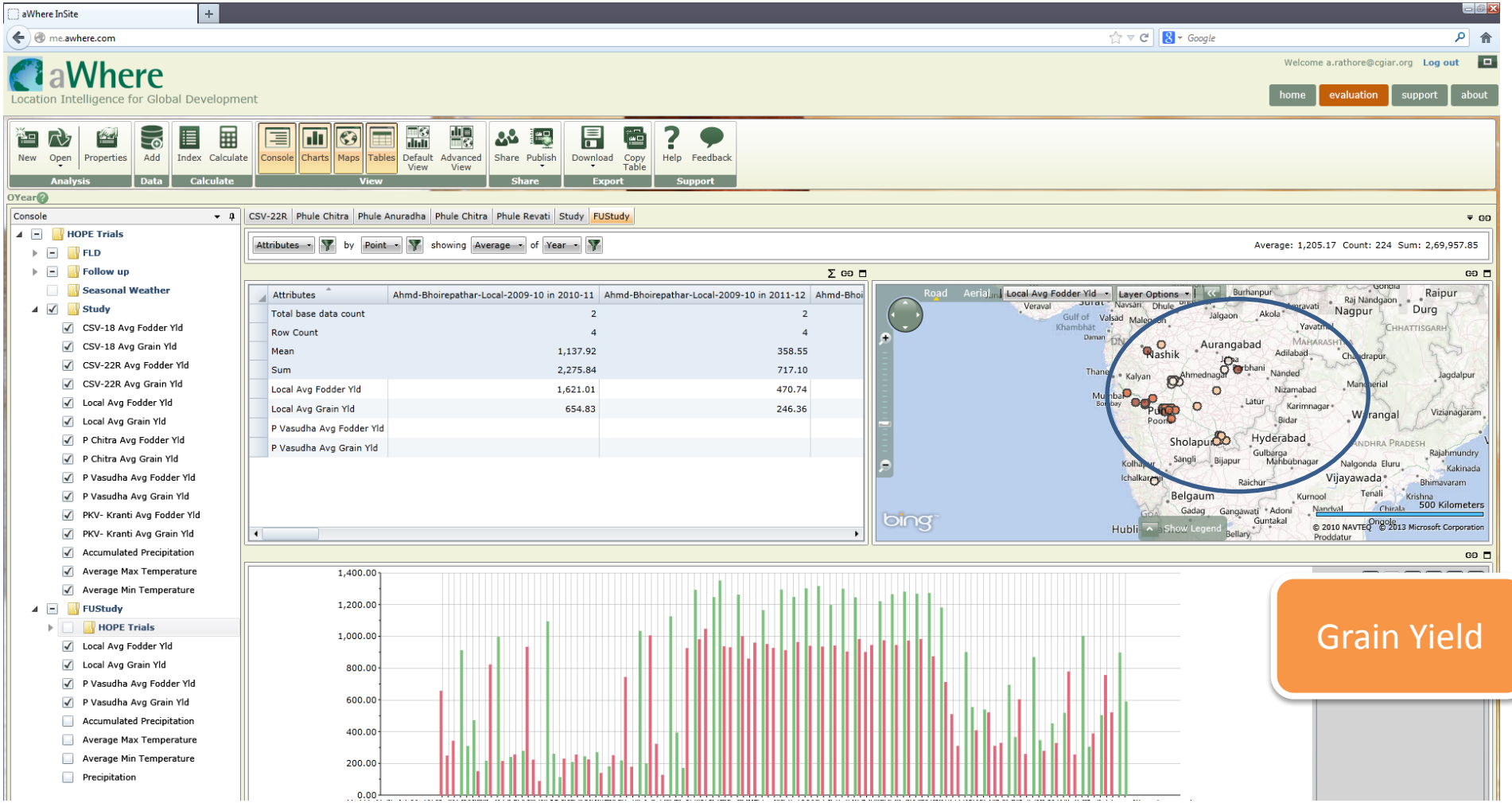
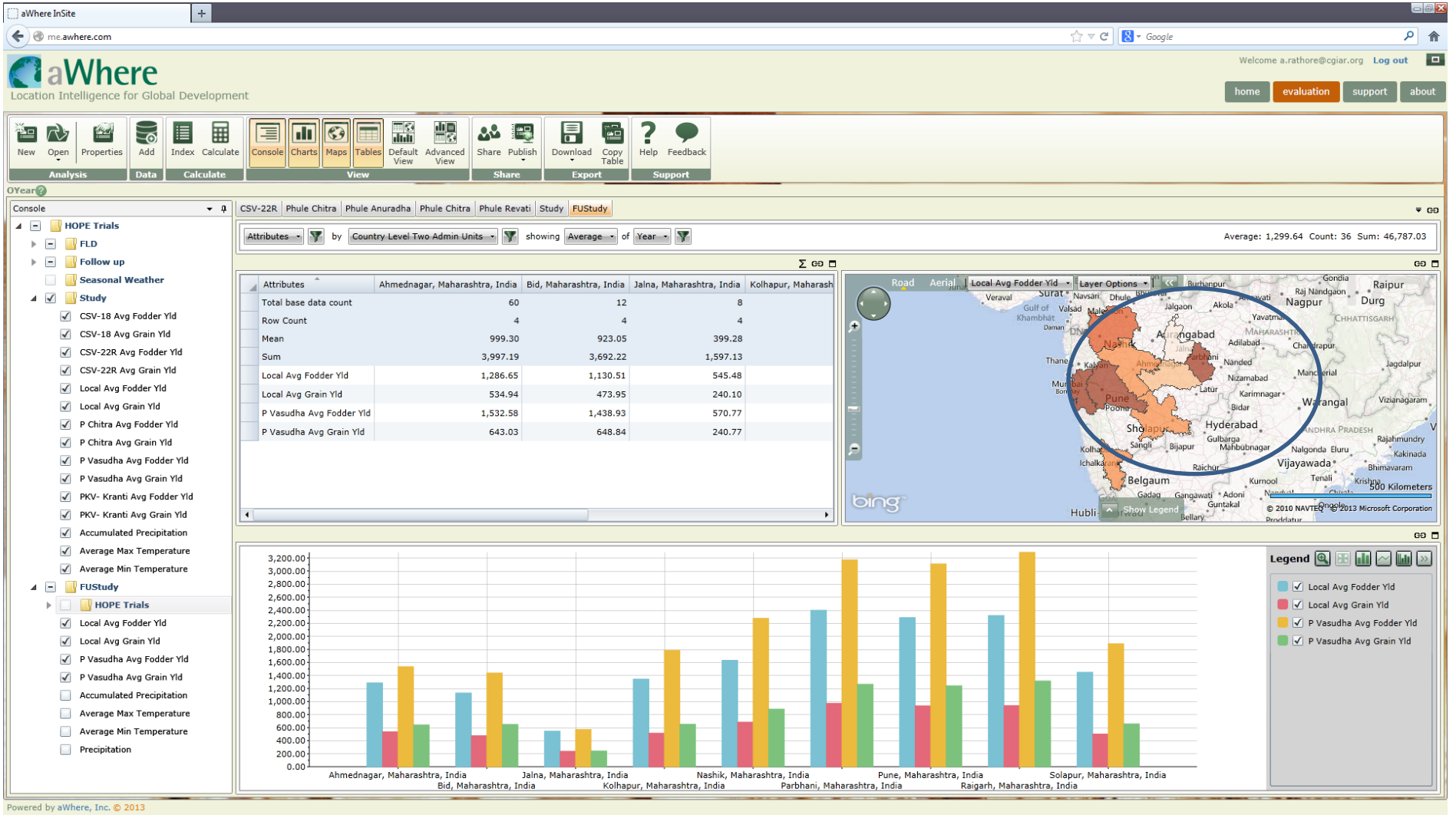
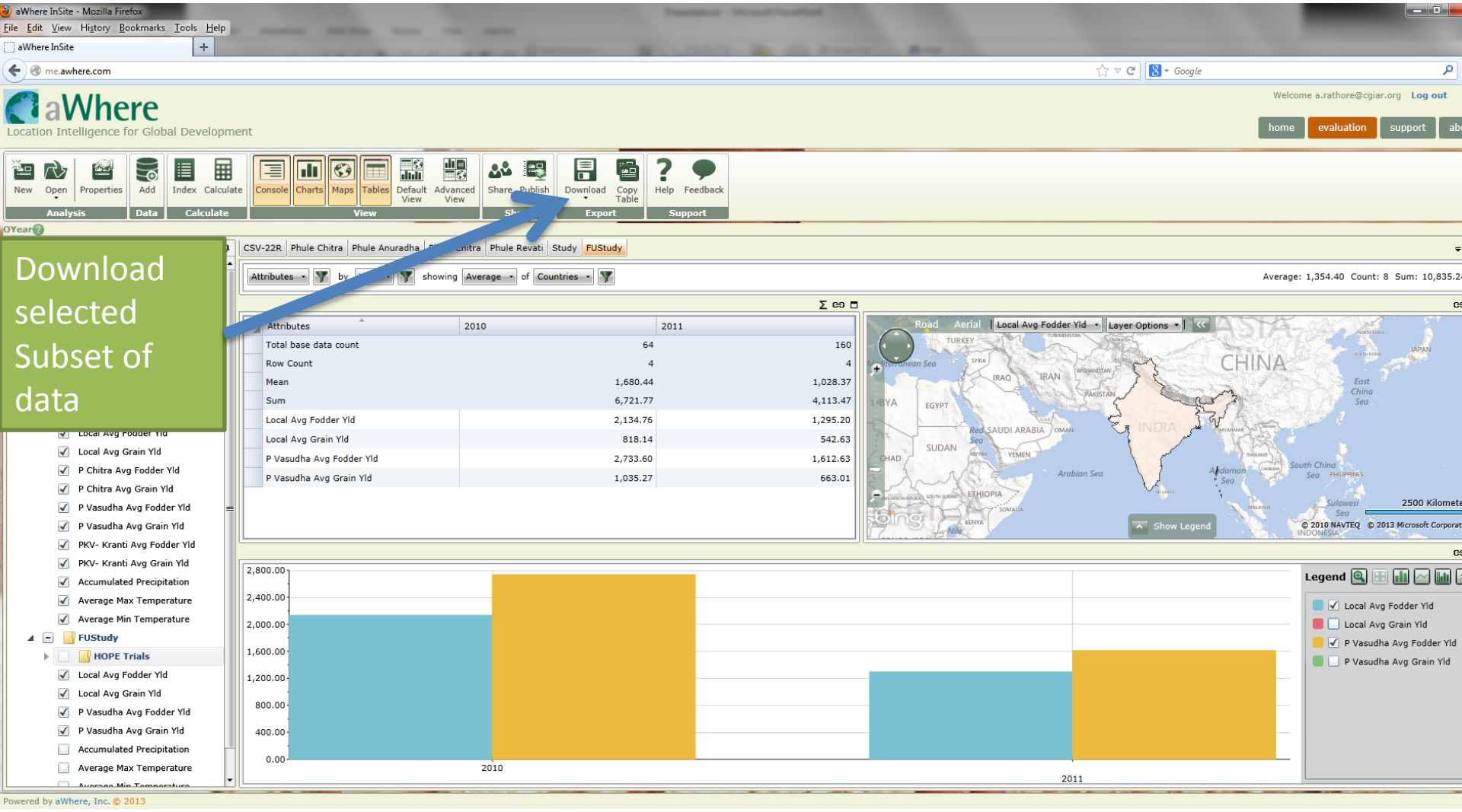
Village wise
local vs Improved varieties



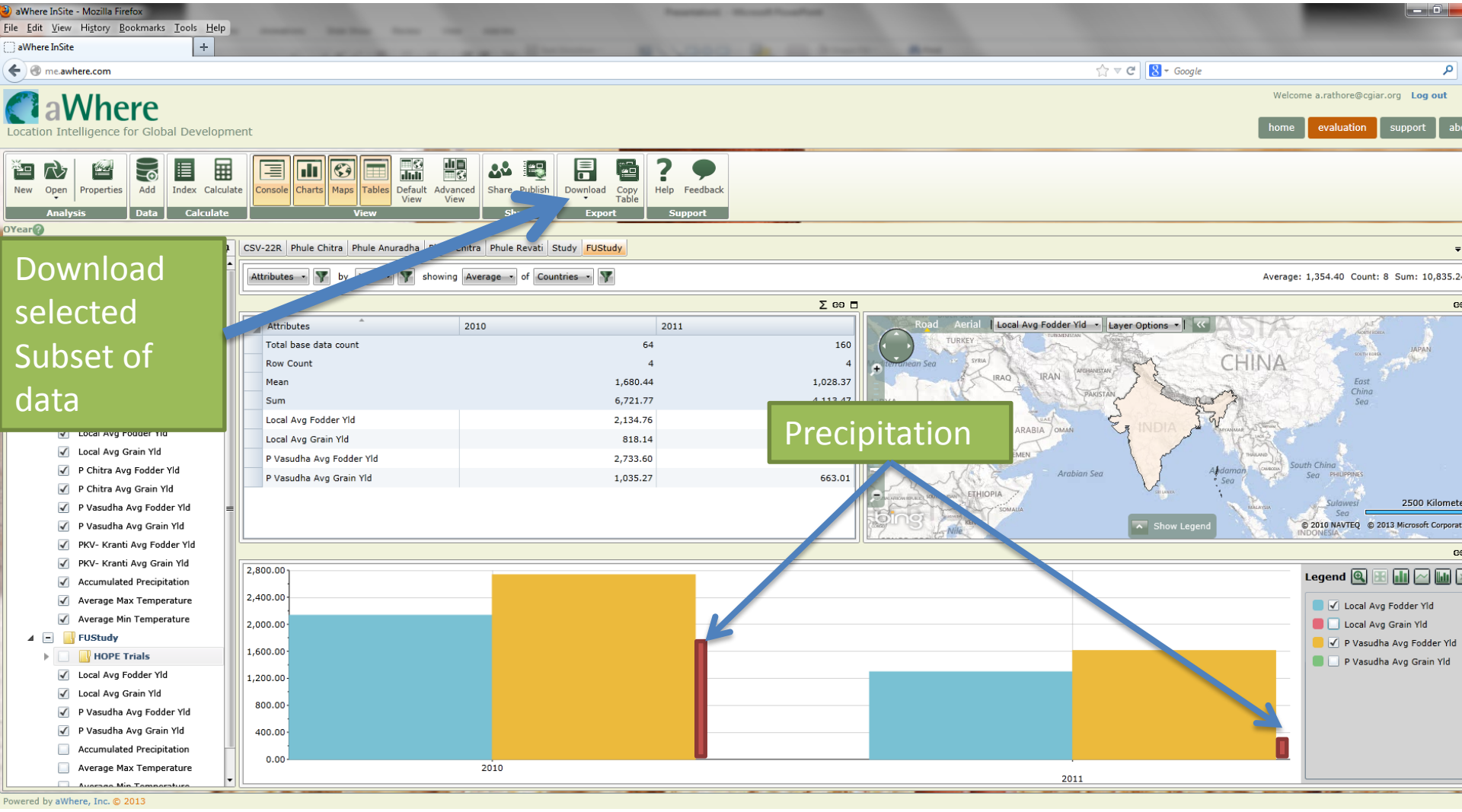
Follow-up (Pooled over Districts) local vs Improved varieties



Follow-up (Year Wise)
local vs Improved varieties



Follow-up (Year Wise)
local vs Improved varieties



Good & Wish to Have

CRP- DS aWhere

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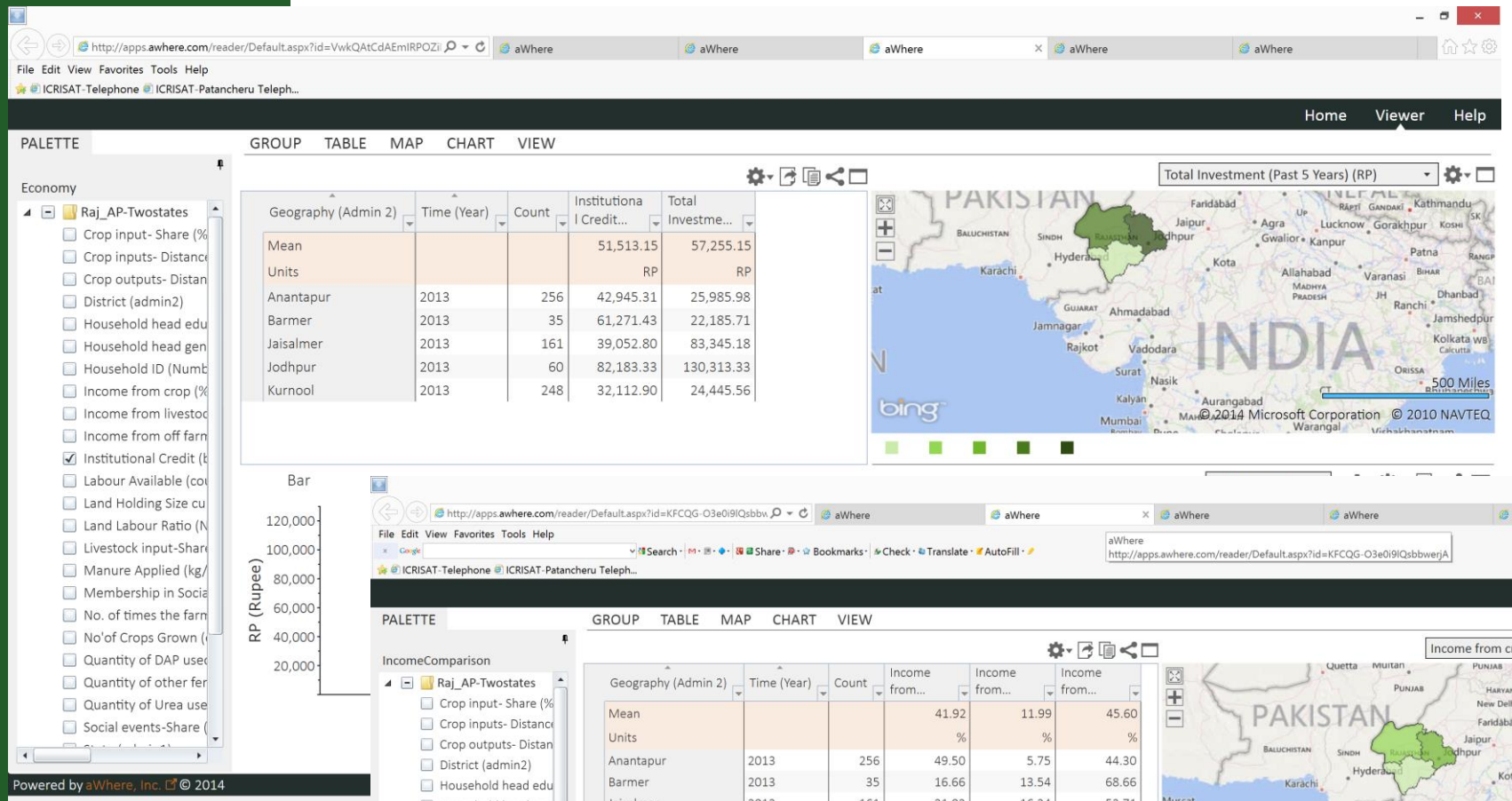

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Quantity of Fertilizer Used:
http://apps.awhere.com/reader/Default.aspx?id=wSSIU7DkTE6L6O-enOxanQ

Income Comparison:
http://apps.awhere.com/reader/Default.aspx?id=KFCQG-O3e0i9lQsbbwerjA

Economy:
http://apps.awhere.com/reader/Default.aspx?id=VwkQAtCdAEmIRPOZiHN94w

Land Size:
http://apps.awhere.com/reader/Default.aspx?id=ThKD4aciLEGkYksBFDaszg

Crop Input/Output Distance:
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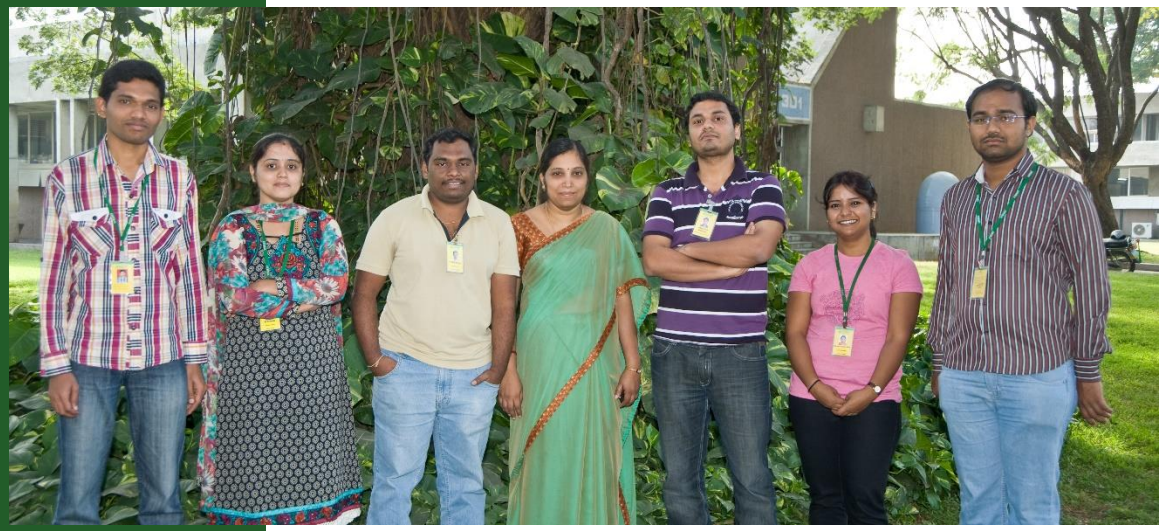

Thanks…

For more details please contact:

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