

Connecting Communities Through HUBzero

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Intercomparison of multiple global gridded crop models (GGCMs) within the framework of the Agricultural Model Intercomparison and Improvement Project and the Inter-Sectoral Impacts Model Intercomparison Project.

- Output for
 - 5 Crop Models
 - 5 Global General Circulation Models
 - 5 Representative Concentration Pathways
 - CO2 Fertilization and irrigation
 - 12 Crops
 - All the combinations ran from 1971 to 2099
- + 35,000 0.5°x0.5° grids with crop yields



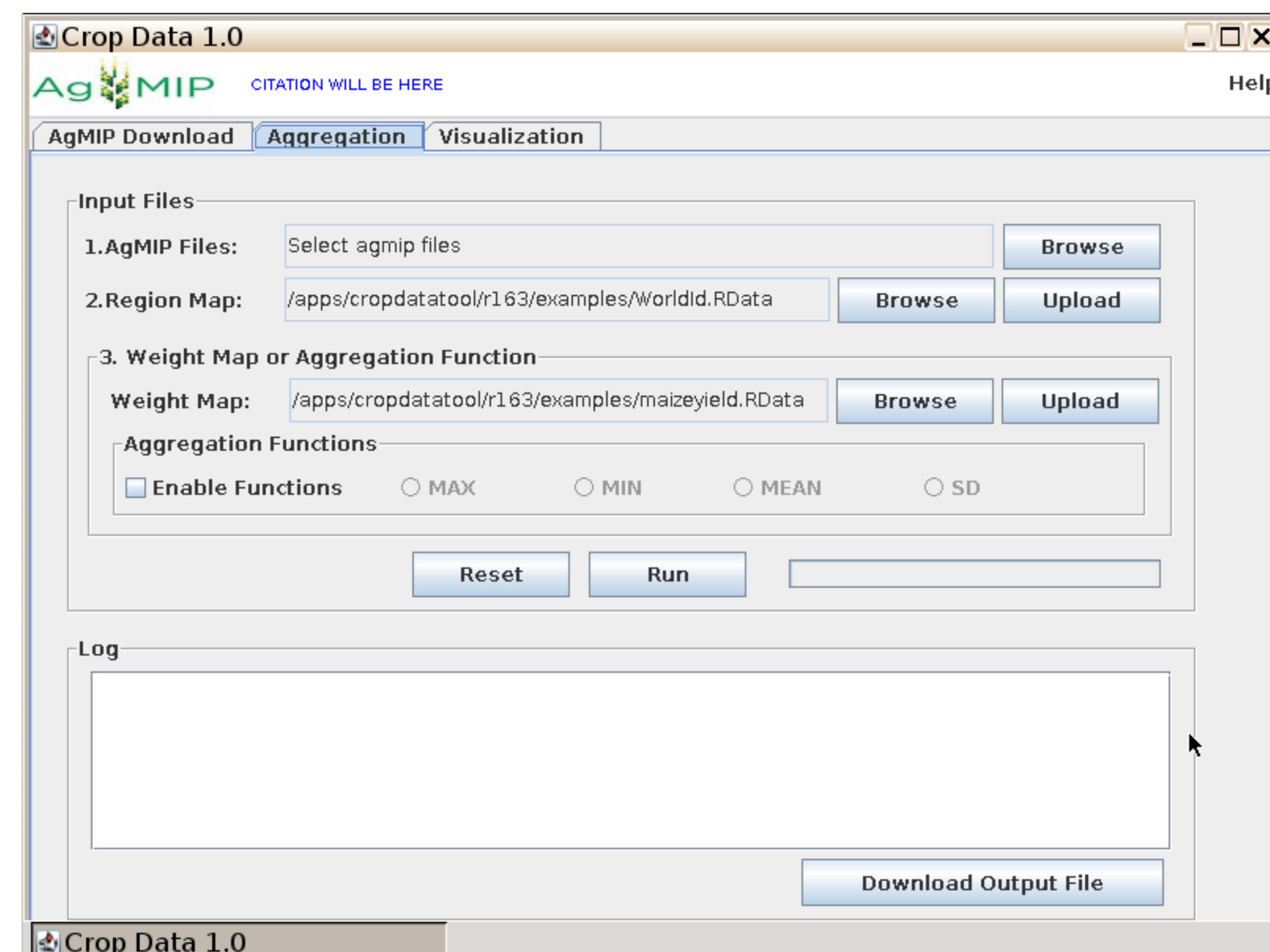
The Problem

- Economic modelers use data aggregated to the country level
- NetCDF and other spatial data delivery formats are foreign to non-specialists
- Download of large grids is challenging even with good bandwidth
- Storage is challenging for otherwise very good PCs
- How to make the data available to Users

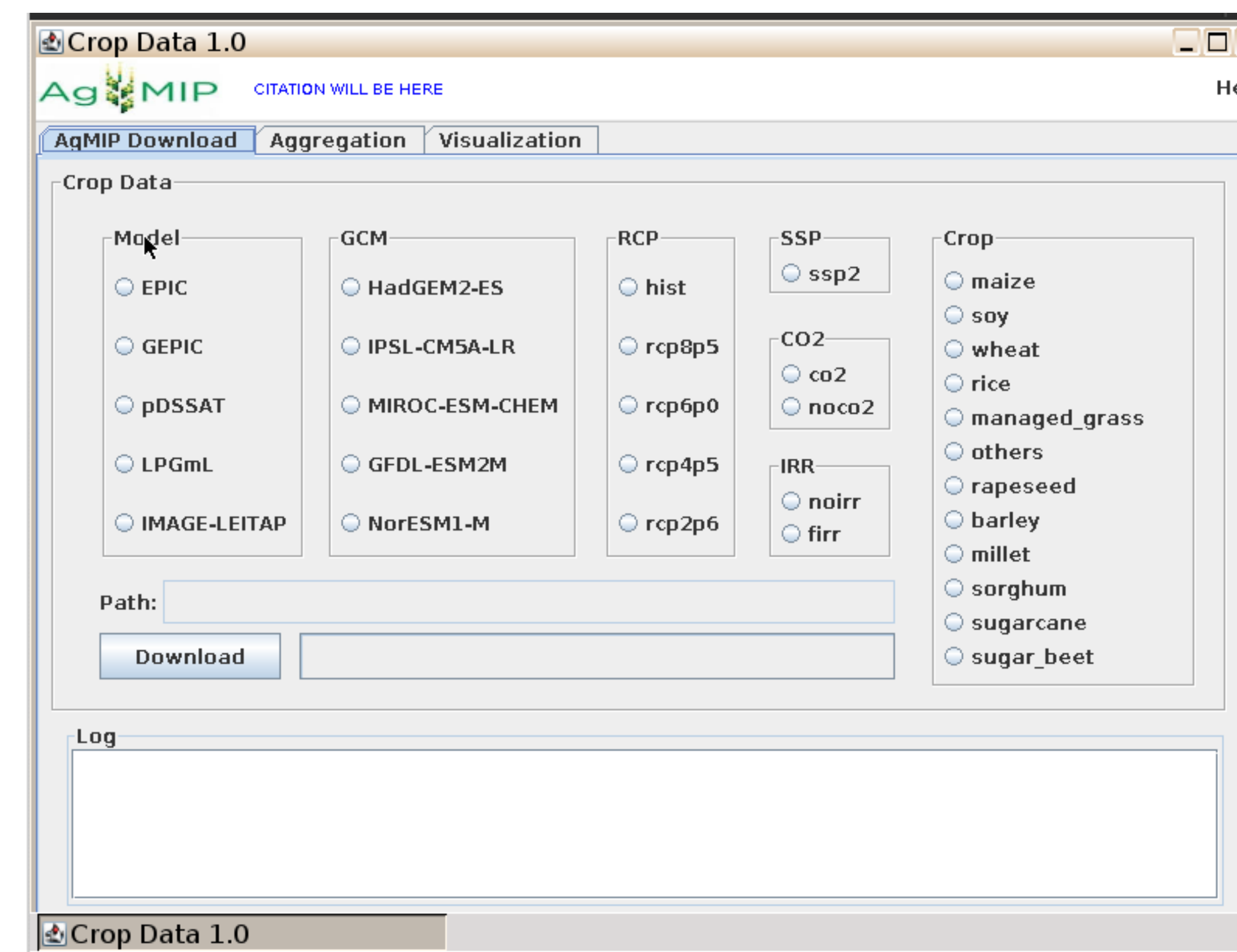
The Solution

- Good all-around R Code:
- Reads data from Globus Online to the HUB
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- Use aggregate() function
- Aggregates using mapping from XY coordinate to country, AEZs, up to the user.
- Calculate summary statistics (mean, etc.) or weighted averages using user provided weights (production, area, population, etc.)
- Wrap the R function around a Graphical User interface

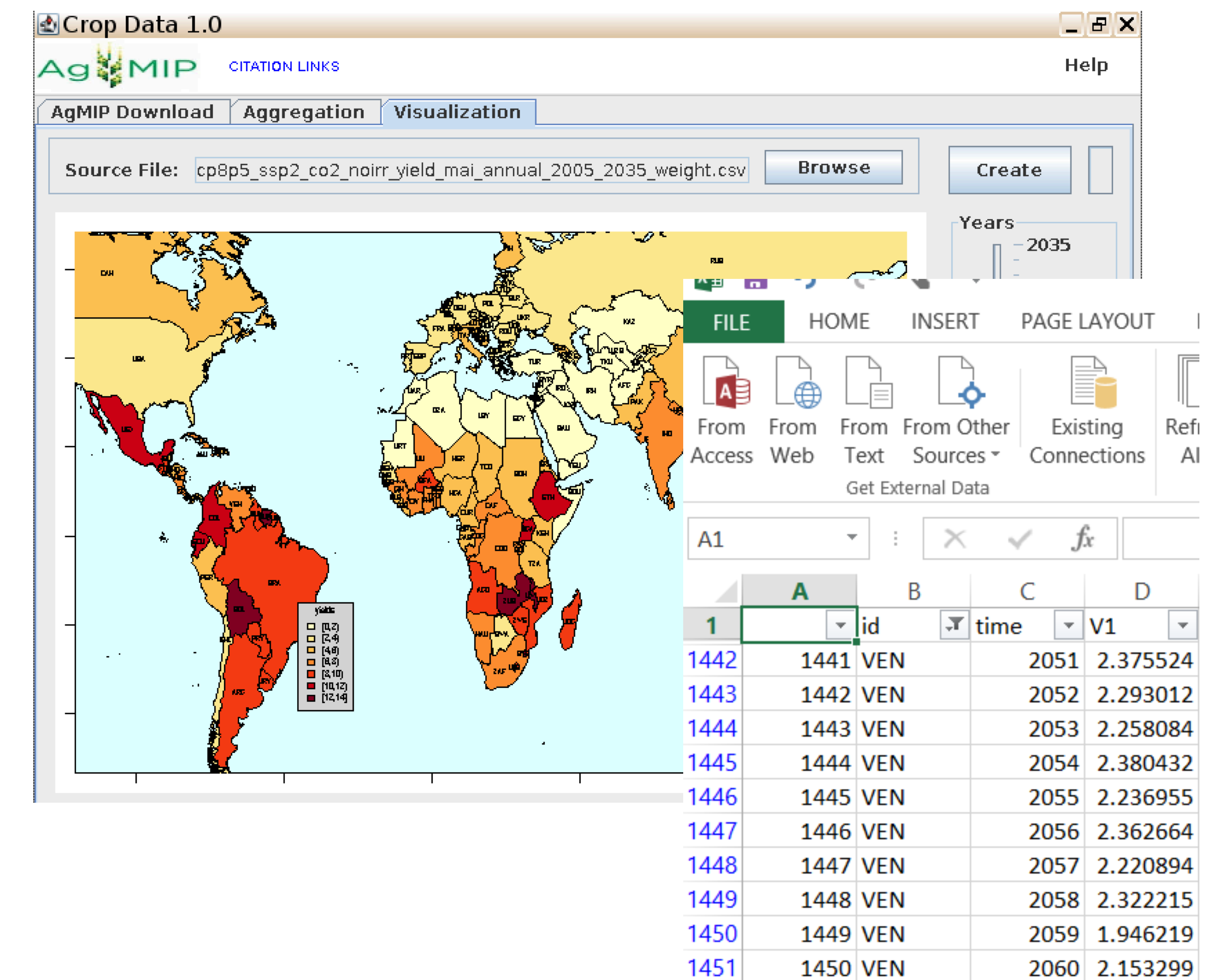
Aggregate...



Select and download data...



Visualize and download...



Nelson Benjamin Villoria; Joshua Elliott; Hongjun Choi; Lan Zhao (2014), "AgMIP Tool: A tool for aggregating outputs from the AgMIP's Global Gridded Crop Model Intercomparison Project," <https://mygeohub.org/resources/agmip>.

