FINE-SCALE LAND ALLOCATION TOOL FOR GLOBAL LAND USE ANALYSIS

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Background

- An important challenge for applied research is a lack of data on cropland allocation below the national or subnational level over a wide geographic area.
- Pixel level data is important for research and policy related to cropland allocation because it reflects heterogeneity that is germane to land use decisions.

Tool Description

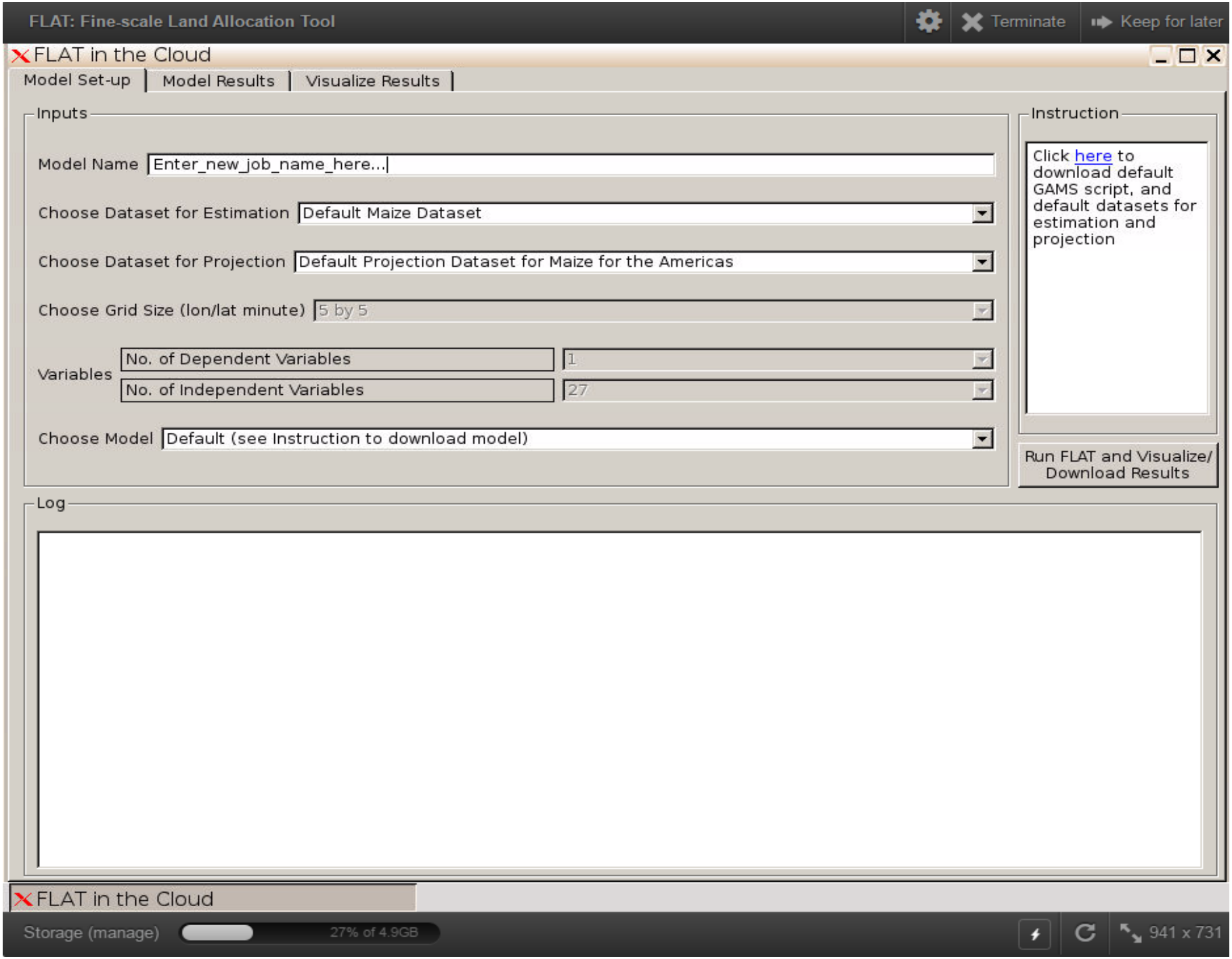
FLAT user interface:

- Model setup; Statistical results; Visualization

Two types of datasets:

- Dataset for estimation; Dataset for land share projections

FLAT is free, open access, and can be accessed using any standard Internet browser at: https://mygeohub.org/tools/flat


FLAT: Fine-scale Land Allocation Tool
Terminate
Keep for later
FLAT in the Cloud
Model Set-up
Model Results
Visualize Results
Inputs
Model Name
Enter_new_job_name_here...
Choose Dataset for Estimation
Default Maize Dataset
Choose Dataset for Projection
Default Projection Dataset for Maize for the Americas
Choose Grid Size (lon/lat minute)
5 by 5
Variables
No. of Dependent Variables
1
No. of Independent Variables
27
Choose Model
Default (see Instruction to download model)
Instruction
Click here to download default GAMS script, and default datasets for estimation and projection
Run FLAT and Visualize/ Download Results
Log
FLAT in the Cloud
Storage (manage)
27% of 4.9GB
941 x 731

Model Set-up | Model Results | Visualize Results

Model Results

Select Model: demo

Coefficient estimates and standard errors

Crop	Variable	Coefficient	Standard Error
maize	intercept	-7.15516381	1.94882153
maize	latitude	0.04415694	0.01483674
maize	temp	0.58178463	0.15747996
maize	temp.sq	-0.02122825	0.00413322
maize	pre	-0.57802035	0.71334424
maize	pre.sq	-0.58409086	0.14067063
maize	temp.pre	0.11424255	0.02776816
maize	elevation	-0.06227552	0.28100204
maize	ph6.5_ph	-0.92271854	0.20311516
maize	ph_ph6.5	-1.62175842	0.38322244
maize	soilcarbon	0.15658545	0.04673051
maize	slope	-6.14227896	2.28845671
maize	lat.sq	0.00035630	0.00054377
maize	ARG	0.39237656	0.30011793
maize	BOL	0.61118887	0.51554130
maize	BRA	1.43203247	0.30035063
maize	CAN	-3.96502904	1.27709224
maize	CHL	0.37709309	0.52645686
maize	COL	-0.33323032	0.32738056
maize	CRI	-0.74271374	0.43865571
maize	GTM	1.15508463	0.57808861
maize	HND	0.13133645	0.53901557
maize	MEX	0.44997200	0.64130722
maize	NIC	0.74077603	0.46157189
maize	PAN	0.05184475	0.46148742
maize	USA	-1.88655379	1.15022784
maize	VEN	0.49956031	0.47983725

Download

Estimated Dependent Variable Fractions by Pixel — Download

Projected Dependent Variable Fractions by Pixel — Download

Covariance Matrix for Parameter Estimates — Download

Instructions for Calculations of Marginal Effects and Odds Ratio — Download

FLAT: Fine-scale Land Allocation Tool

Terminate | Keep for later

FLAT in the Cloud

Model Set-up | Model Results | Visualize Results

Select Model:

demo

Select Dependent Variable to Map:

maize

Select Estimated or Projected Fractions to Map:

Estimated

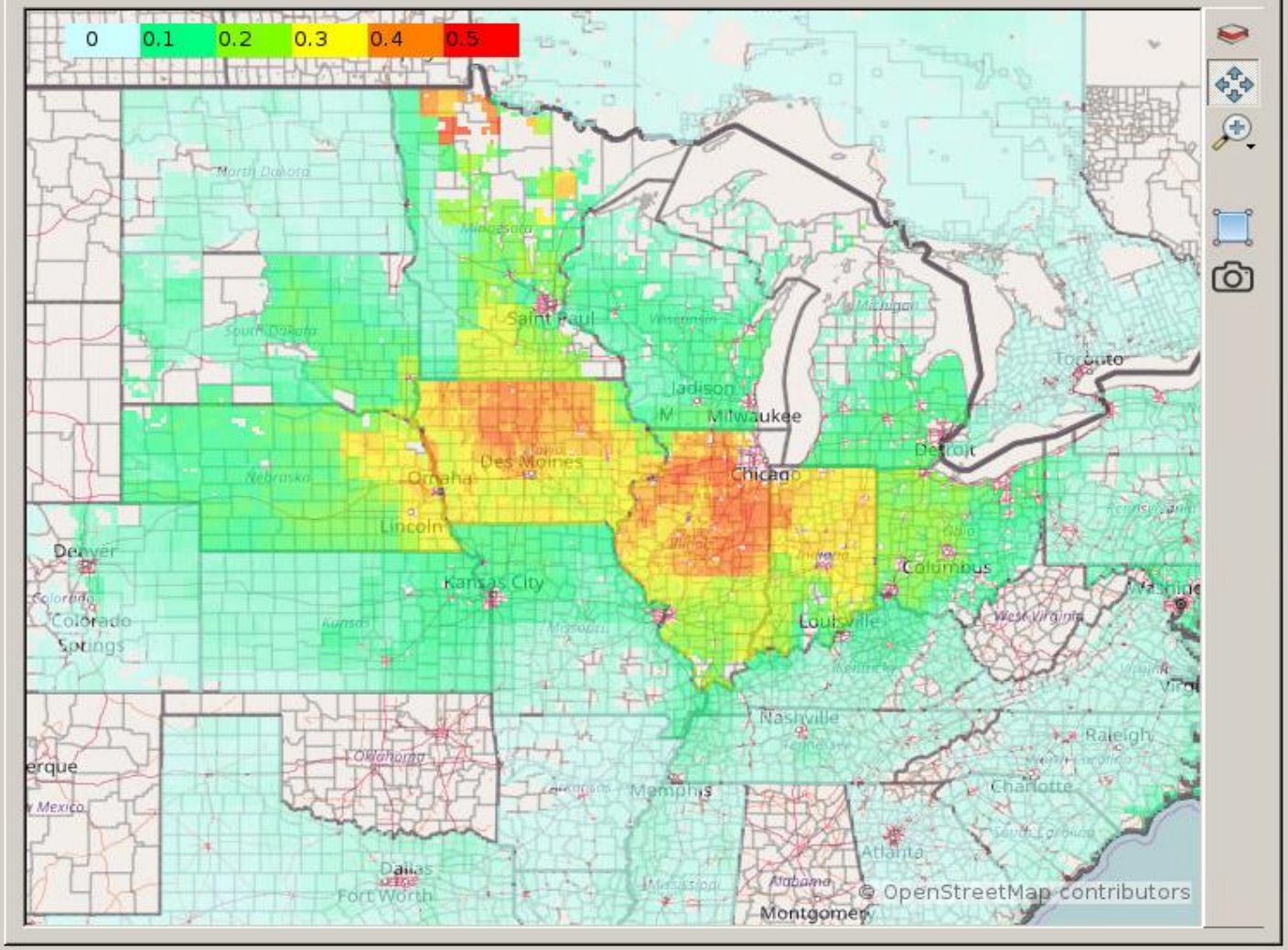
Use the "Drawing tool" (blue box icon) to crop when saving map.

To use the drawing tool, use left mouse button to select two corners of a bounding box. Use right mouse button to clear.

Compare

demo

Estimated



GeoTIFF

Save Map

FLAT in the Cloud

Storage (manage) 27% of 4.9GB

941 x 731

Contact Info

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