

InVEST: A New Tool for Mainstreaming Conservation

The Natural Capital Project is a new collaboration among 3 partners



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Working together to
make conservation
mainstream...

a part of everyday life
and everyday decisions

Our first product
is a new tool
called ***InVEST***:

Integrated

Valuation of

Ecosystem

Services and

Tradeoffs

InVEST is a *free* software package
that brings together

nature and economics



InVEST puts together data on the *biophysical* landscape, such as....

Landuse



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Soil type

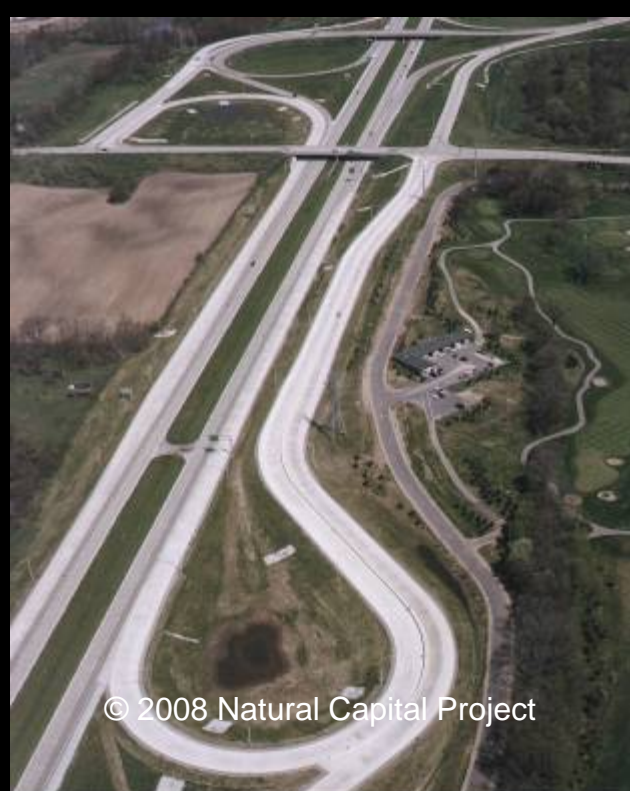


Topography



With data on the *human* landscape,
such as....

Roads



Cities

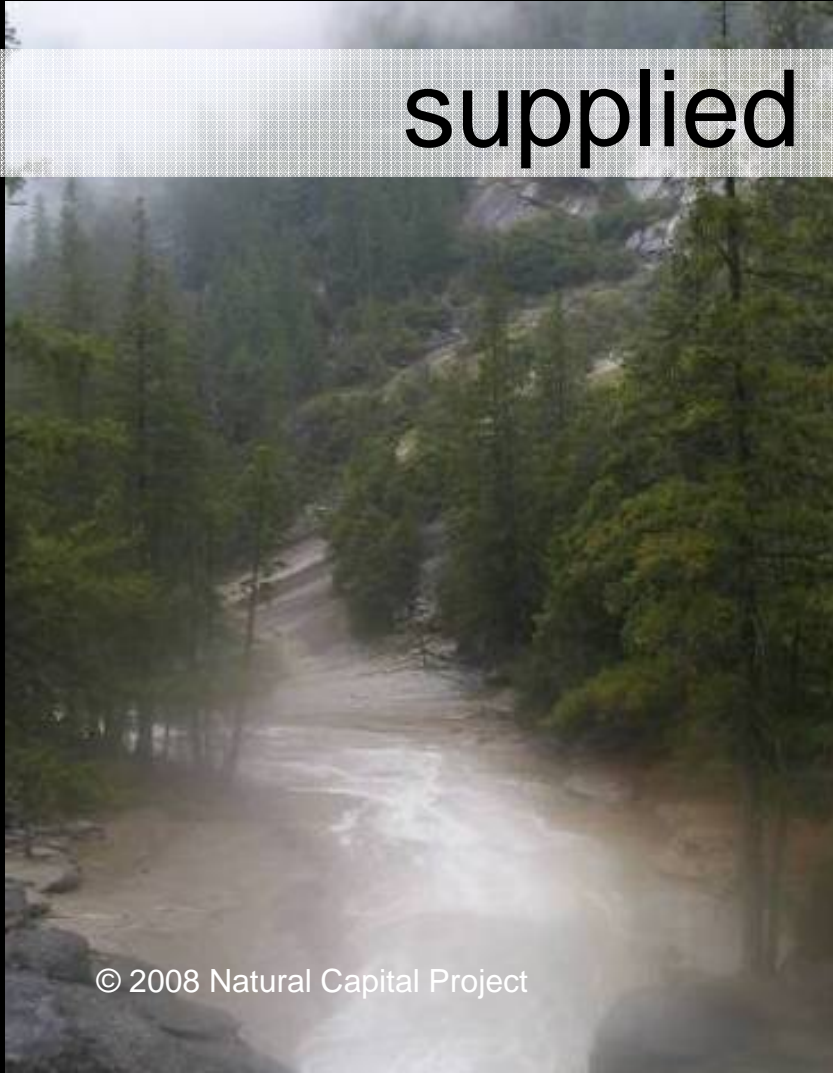


Infrastructure



To predict *how much* ecosystem service will be

supplied and demanded



InVEST 1.0 Beta can map

Biodiversity



Water pollution regulation



Carbon sequestration



Managed timber production



Crop pollination



Avoided reservoir sedimentation



The next version of InVEST will add

Tourism and recreation



Agricultural production



Flood mitigation



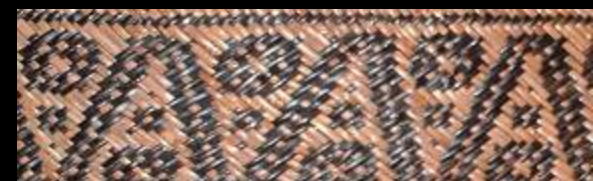
Hydropower production



Irrigation



Open access products



You can download
InVEST 1.0 Beta today

at

<http://invest.ecoinformatics.org>

You will get a set of ArcGIS 9.2 toolboxes to install on your computer.

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capital
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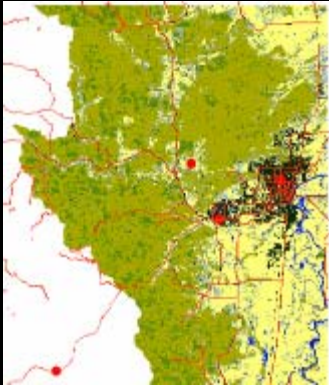
InVEST Tier 1 Tools

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The program comes with...



A detailed user's guide

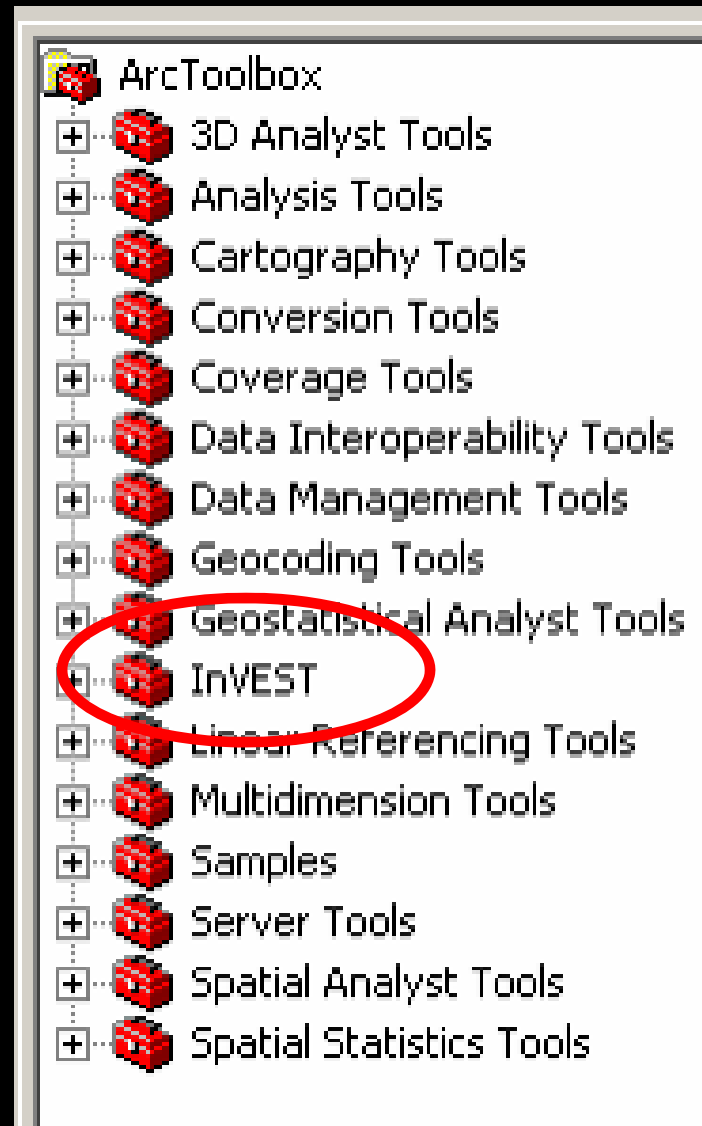


A sample data set and



Online technical support

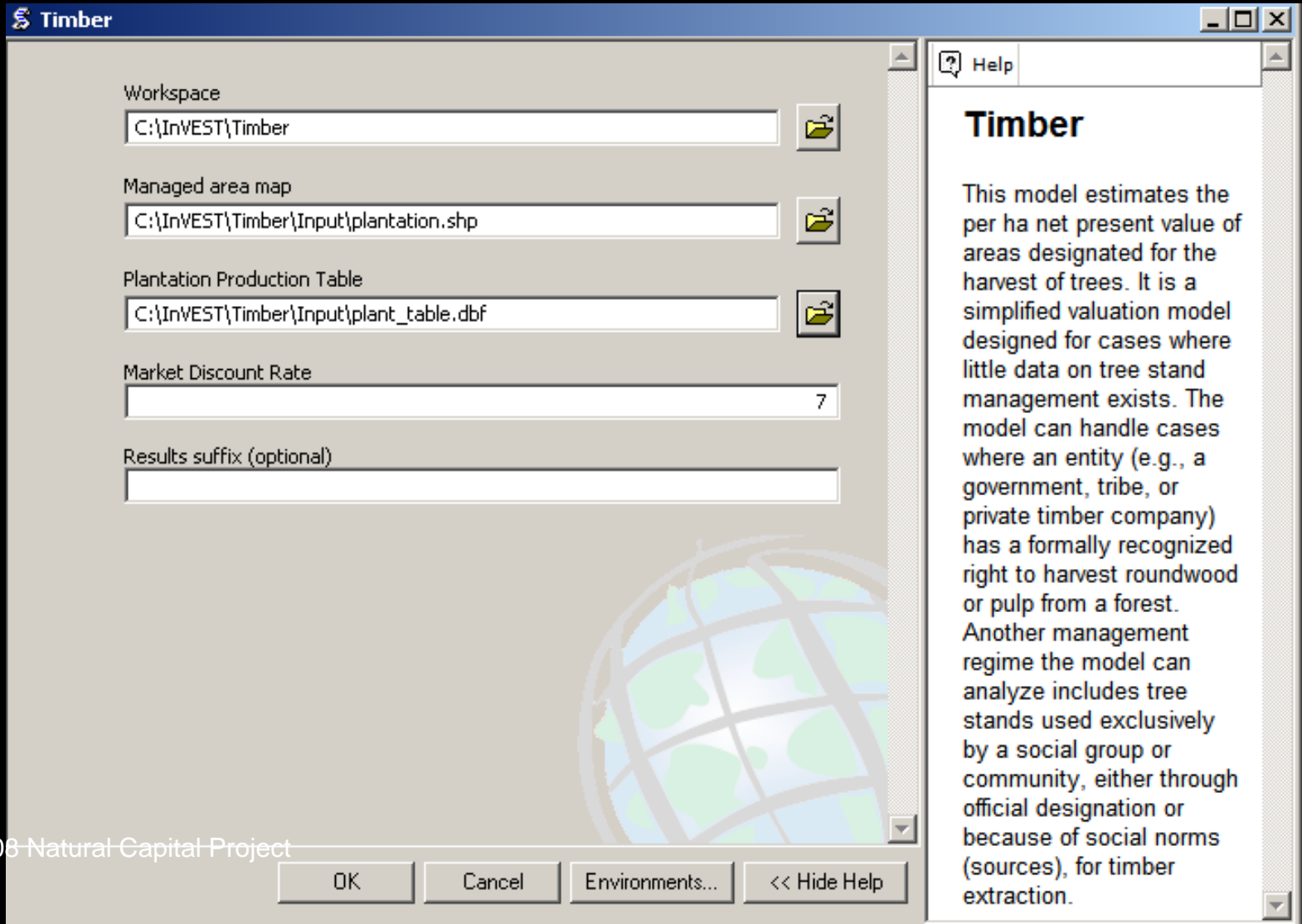
Once installed, InVEST will appear as an ArcToolbox



Each ecosystem service has its own script



Each script opens an interface where you can easily enter your data



The screenshot displays the 'Timber' software interface. The main window has a title bar with the 'Timber' logo and standard window controls. The interface is divided into two main sections. The left section contains five input fields with labels: 'Workspace' (containing 'C:\InVEST\Timber'), 'Managed area map' (containing 'C:\InVEST\Timber\Input\plantation.shp'), 'Plantation Production Table' (containing 'C:\InVEST\Timber\Input\plant_table.dbf'), 'Market Discount Rate' (containing '7'), and 'Results suffix (optional)' (empty). Each of the first three fields has a folder icon to its right. The right section is a help panel titled 'Timber' with a question mark icon. It contains a paragraph of text describing the model's purpose and capabilities. At the bottom of the window are four buttons: 'OK', 'Cancel', 'Environments...', and '<< Hide Help'. A faint globe graphic is visible in the background of the main window.

Timber

Workspace
C:\InVEST\Timber

Managed area map
C:\InVEST\Timber\Input\plantation.shp

Plantation Production Table
C:\InVEST\Timber\Input\plant_table.dbf

Market Discount Rate
7

Results suffix (optional)

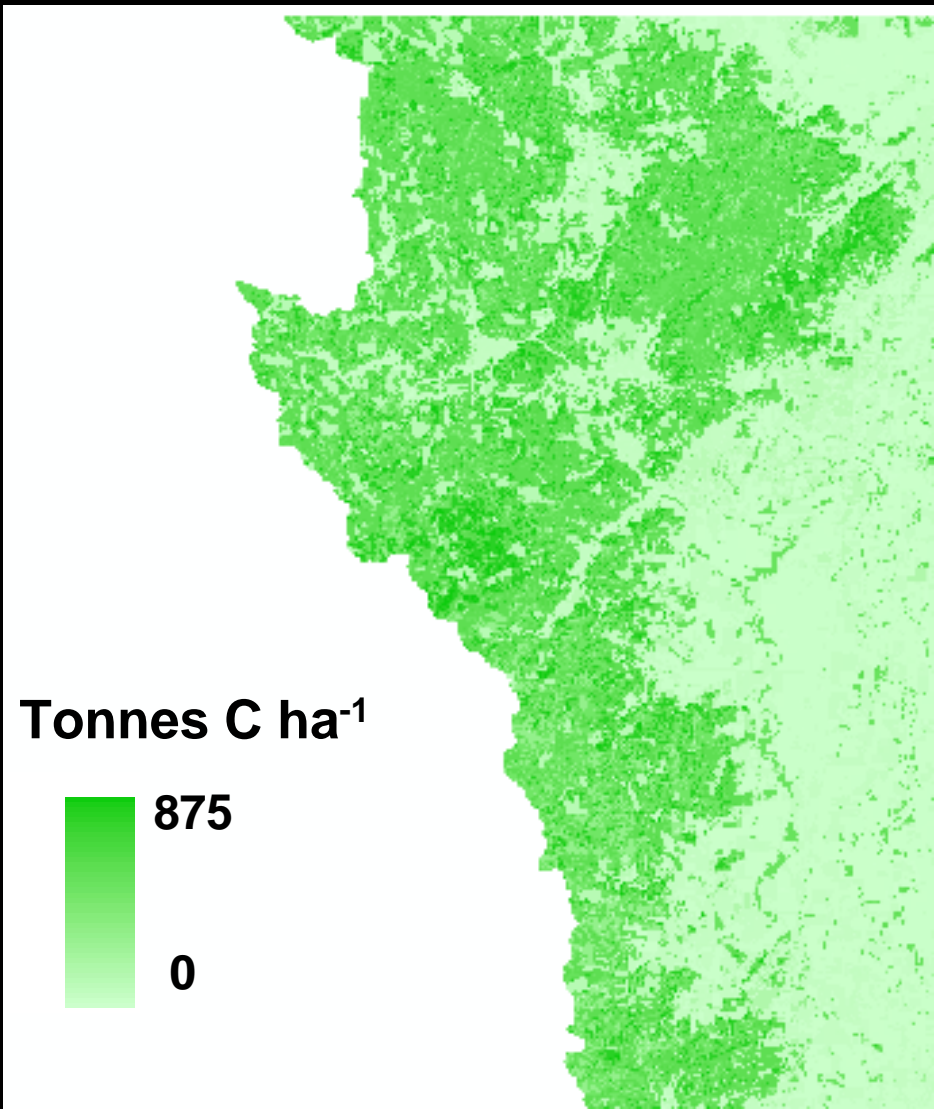
Timber

This model estimates the per ha net present value of areas designated for the harvest of trees. It is a simplified valuation model designed for cases where little data on tree stand management exists. The model can handle cases where an entity (e.g., a government, tribe, or private timber company) has a formally recognized right to harvest roundwood or pulp from a forest. Another management regime the model can analyze includes tree stands used exclusively by a social group or community, either through official designation or because of social norms (sources), for timber extraction.

OK Cancel Environments... << Hide Help

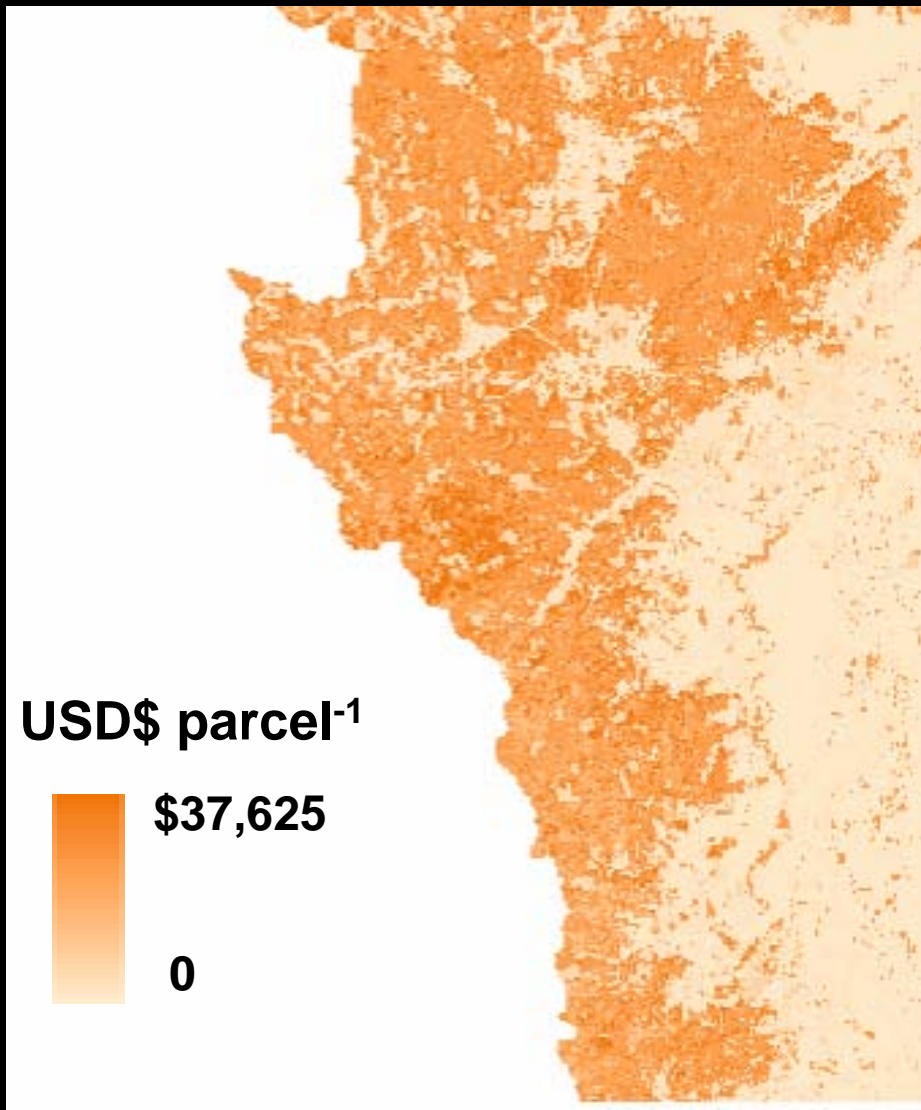
Run a script and you will get a map of your ecosystem service of interest

In *biophysical* terms, such as this map of carbon storage in tonnes per hectare



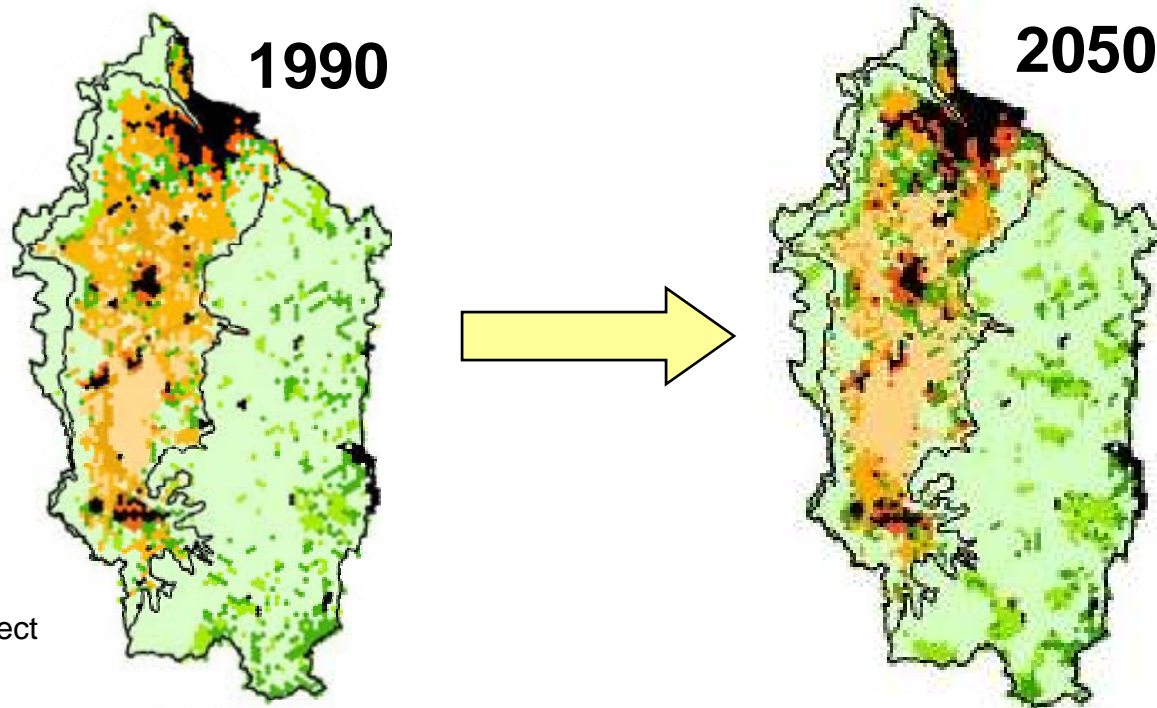
Run a script and you will get a map of your ecosystem service of interest

Or in ***economic*** terms, such as this map of the Net Present Value of carbon in US Dollars

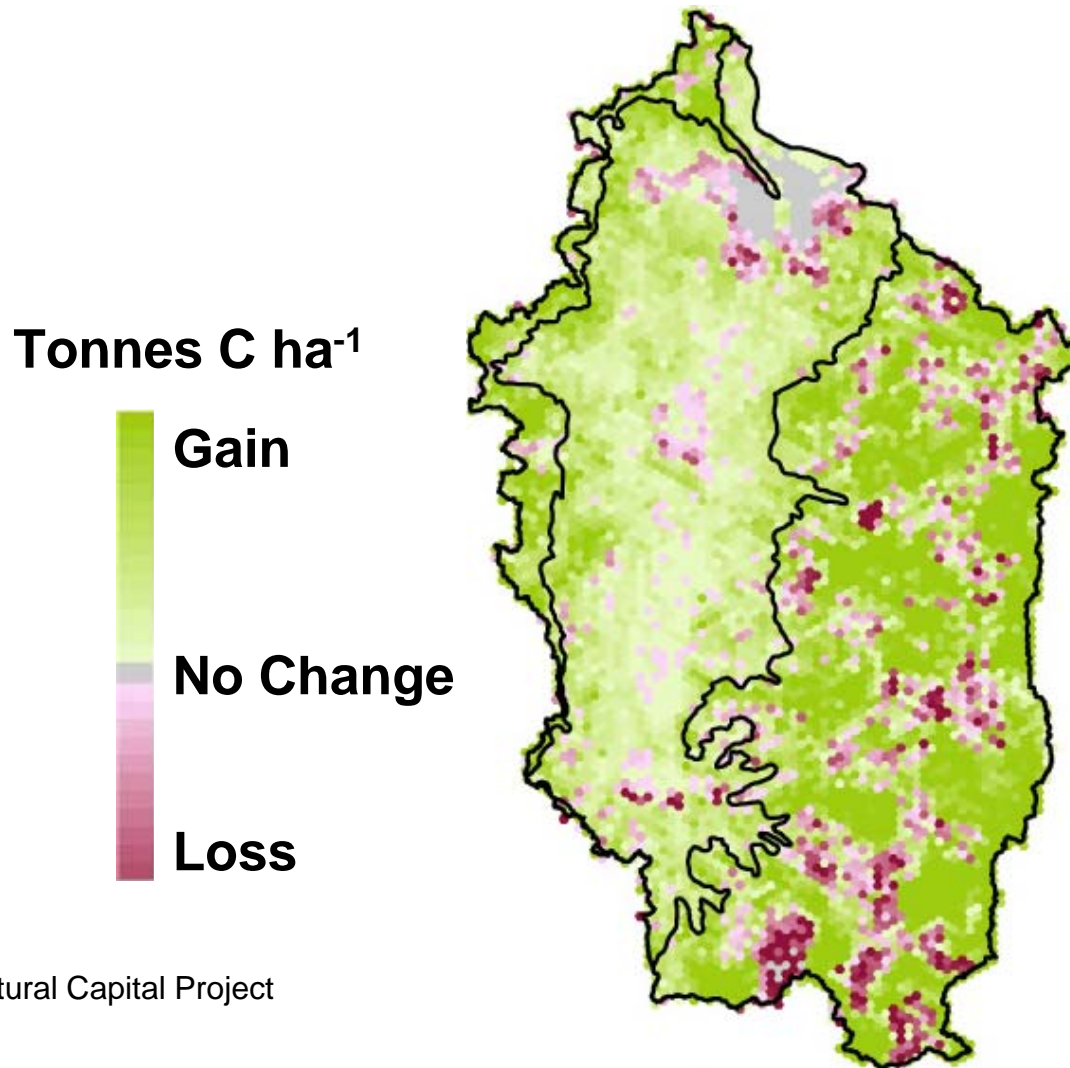


You can run the models again with a possible future landscape to see how services will change

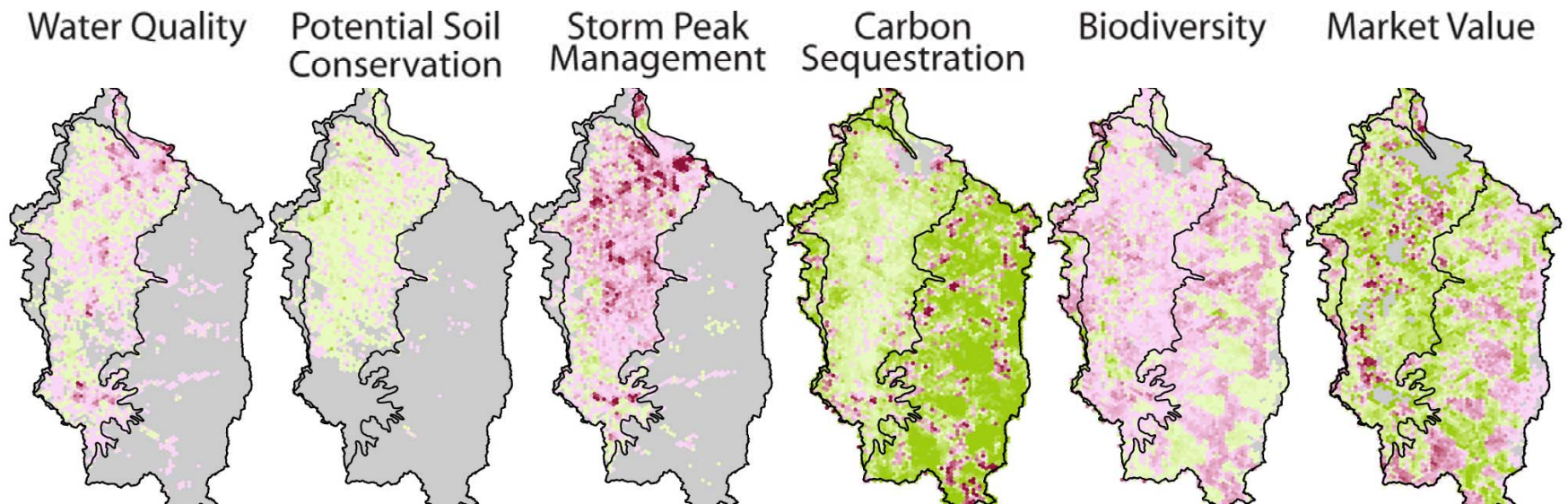
Here's an example from Oregon
Showing development over the next
50 years.



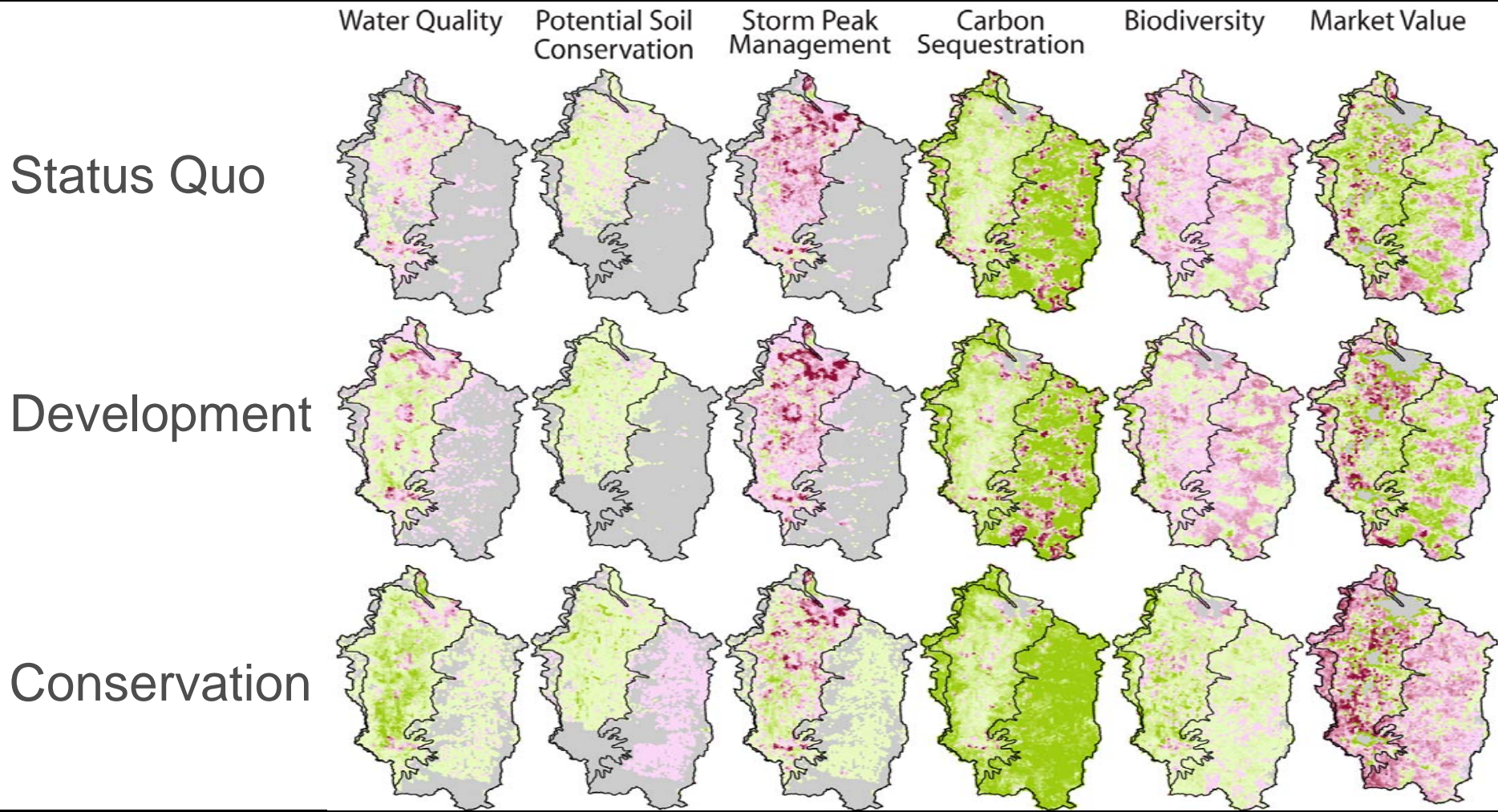
This map shows how carbon storage will change across the landscape



Maps of changes in multiple services can be viewed to reveal tradeoffs



And multiple scenarios can be lined up to find the best options for the future



InVEST is being applied around the globe to answer diverse questions



See our other demo for one example of how InVEST is helping mainstream conservation

InVESTing
in Hawai`i's
Natural
Capital

