



InVESTing
in Hawai`i's
Natural
Capital



Founded in 1887,

Kamehameha Schools embodies a rich cultural legacy of Hawai`i lands and a mission to sustain the well-being of a people in perpetuity



Today,



they educate 38,000
students each year



© 2008 Natural Capital Project

And,
they are the state's *largest*
private landowner

An aerial photograph of Honolulu, Hawaii, showing a dense urban skyline with numerous high-rise buildings. The city is situated on a peninsula, with a clear view of the turquoise ocean in the foreground. In the background, there are lush green mountains, including the prominent Diamond Head. The text "Kamehameha Schools owns 8% of the land in Hawai`i" is overlaid in white on the lower half of the image.

Kamehameha Schools owns 8%
of the land in Hawai`i

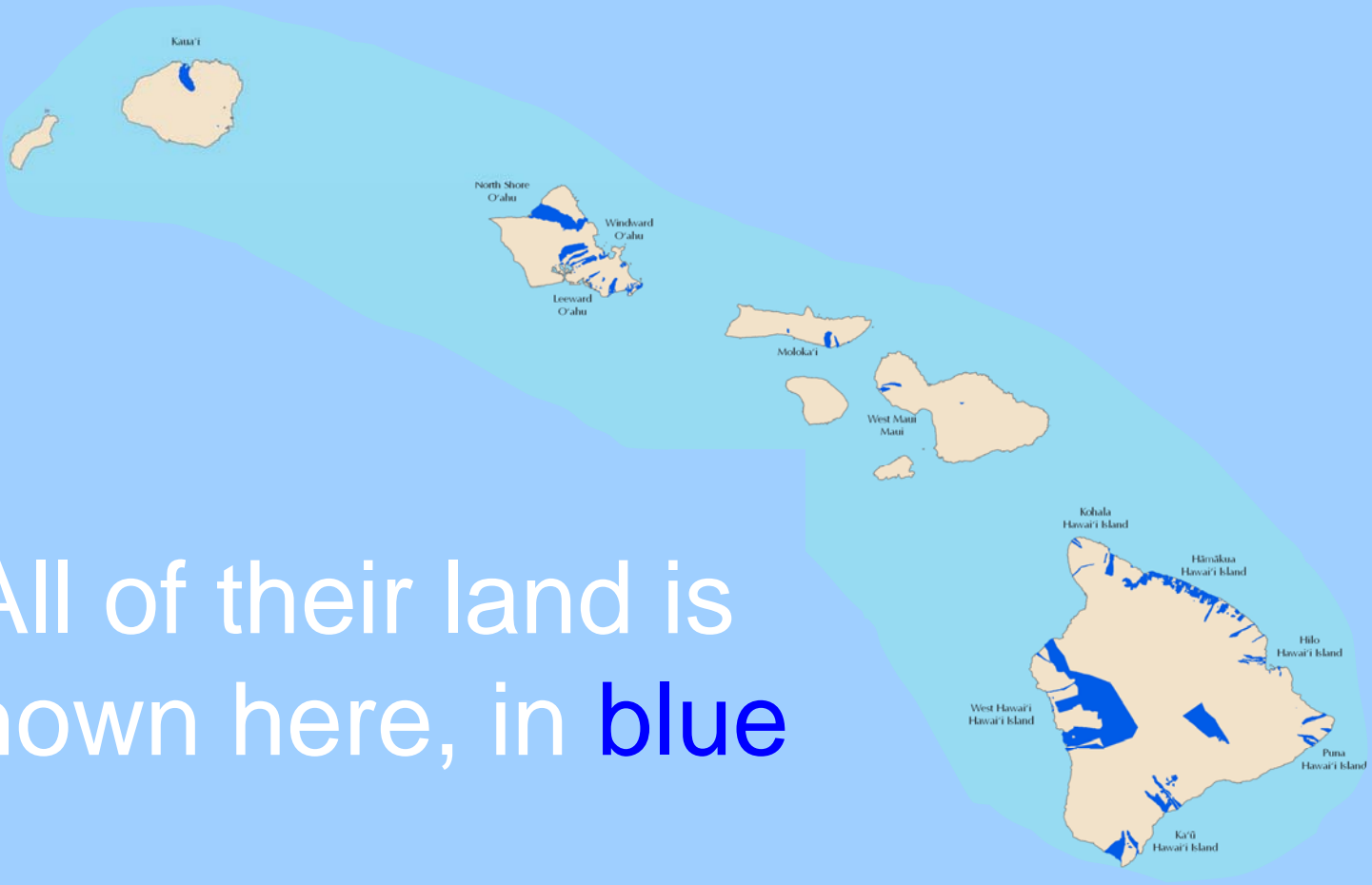
TNC Hawai`i has
protected 200,000 acres
of land.

Hawai`i



Kamehameha Schools' holdings
are nearly double that.

All of their land is shown here, in **blue**



In the past,

Kamehameha Schools managed
this land primarily to maximize
revenue to run the schools

Which meant investing
in a lot of development.



But today,



they have a new approach.

Their approach: to achieve a balance of

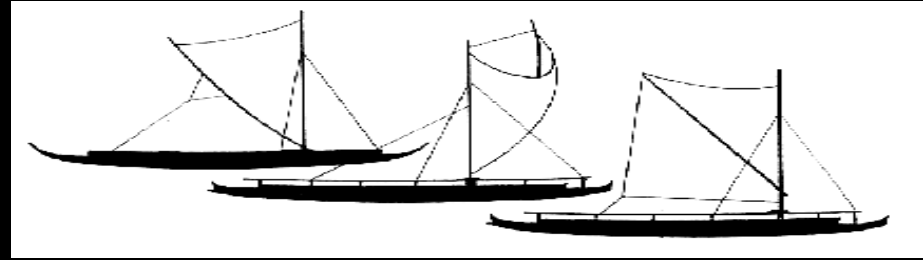
Economic value



Environmental value



Cultural value



Educational value



Community value



This change in
approach could
change the face
of Hawai`i...

And light the way
for the world.




But, how can these land asset values be measured?



What mix of land use strategies will help them meet *all* of their goals?



A misty landscape with a large tree in the foreground and a stone wall in the background. The scene is overcast and foggy, with a large, gnarled tree in the center-left foreground. The ground is covered in green grass and a low stone wall runs across the middle ground. The background is filled with more trees, all shrouded in a thick mist.

These questions were
hard to answer...

But now, we have a
new tool

The Natural Capital Project has created a software system, InVEST.



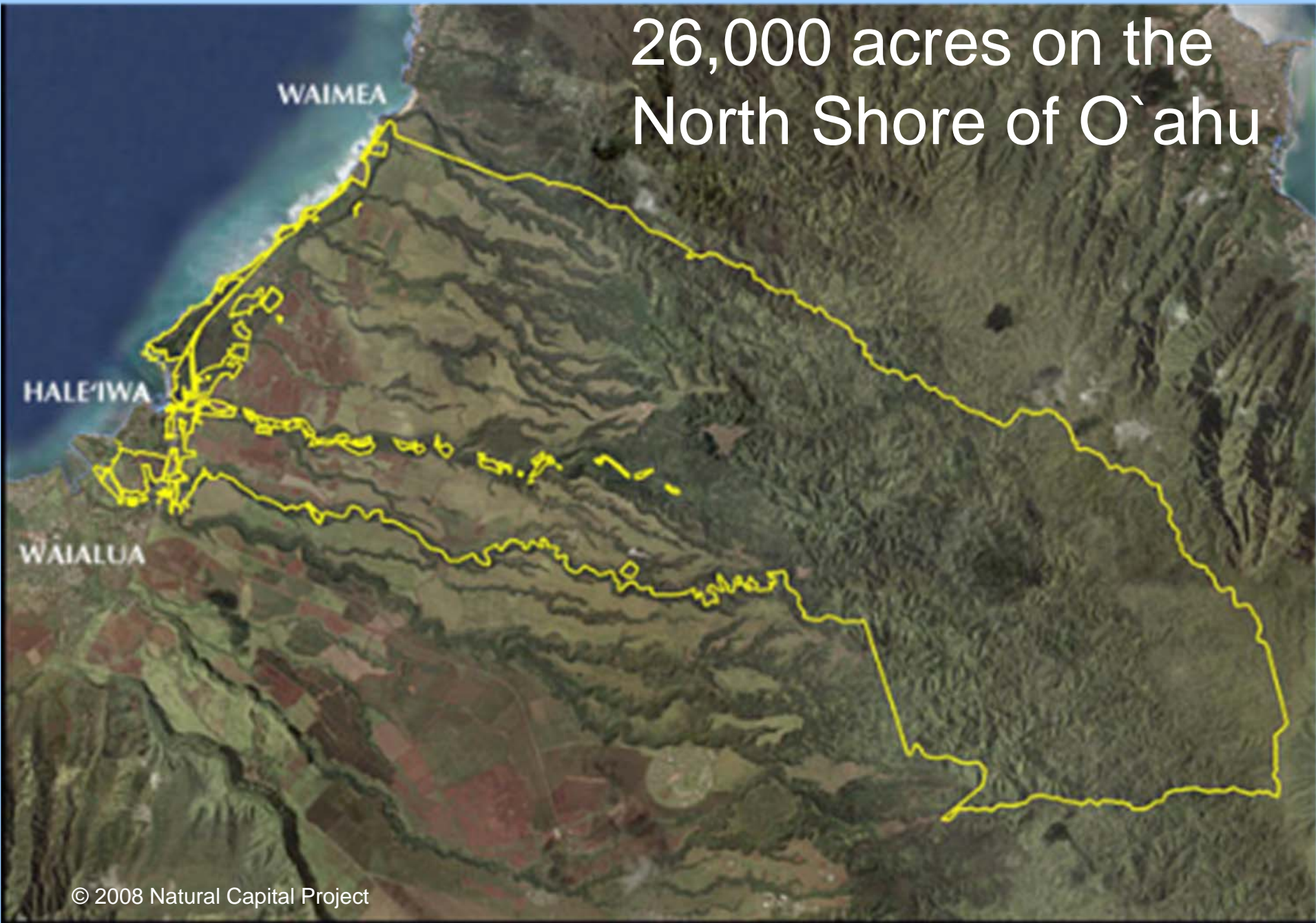
InVEST makes these questions easier.



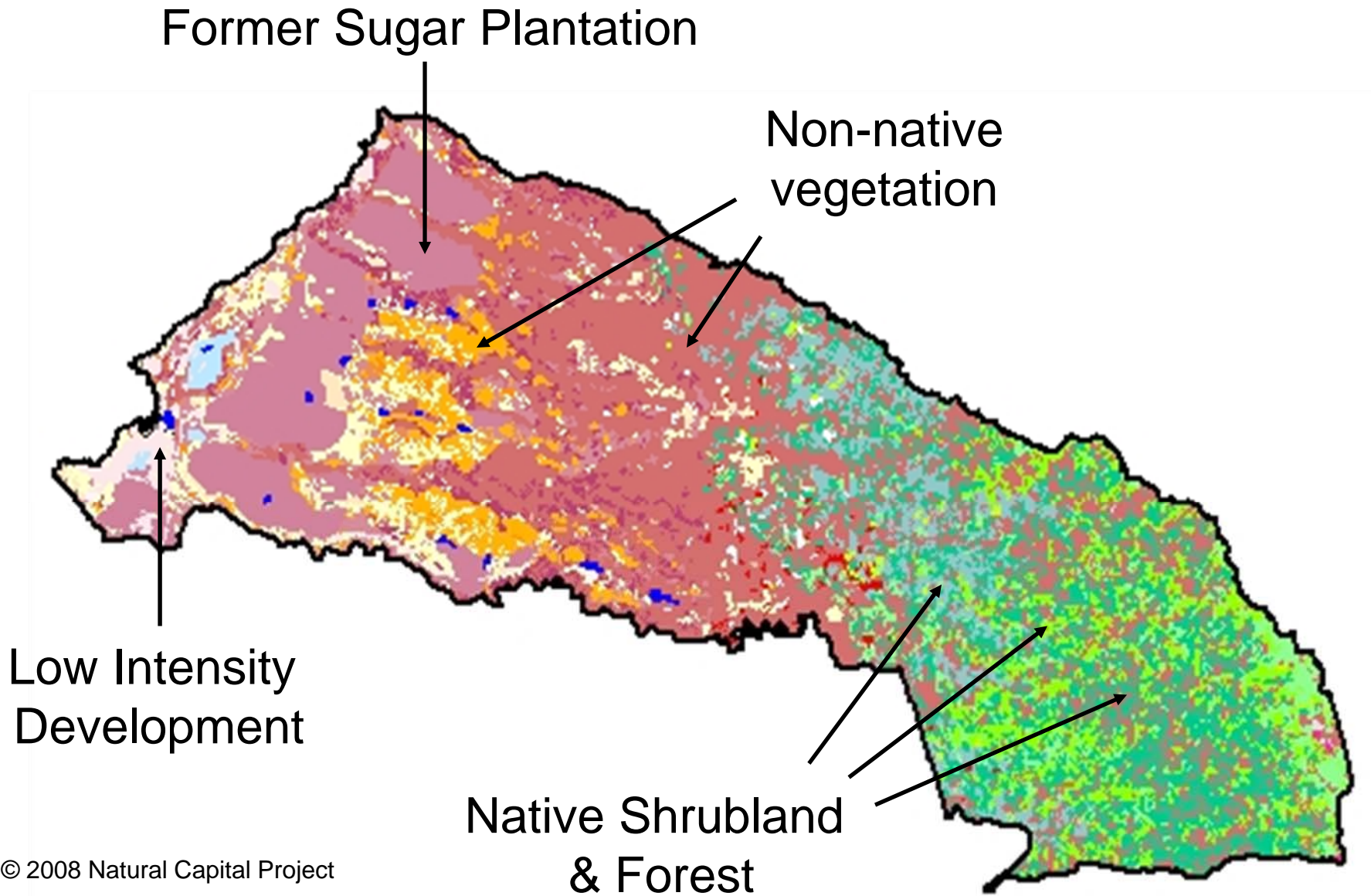
InVEST looks at a landscape,

and tells you *where*, and *how much*
ecosystem services are produced.

26,000 acres on the
North Shore of O`ahu



The landscape today is a mix



They want to use this land to:

Produce food and energy sustainably

Restore native species and habitats

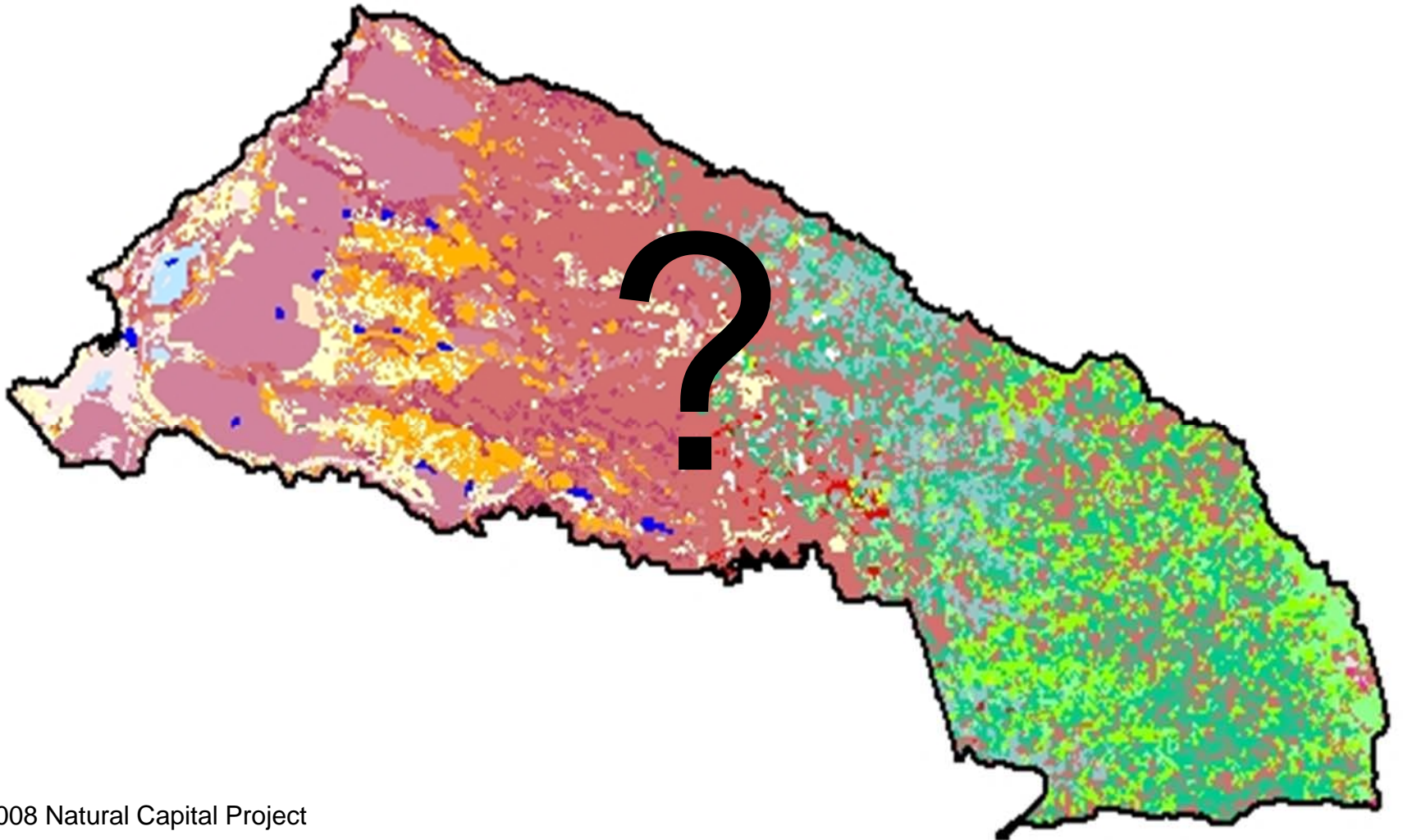
Help stabilize the climate

Provide cultural opportunities

Provide clean water

Create revenue

But, what should this landscape look like in the future to meet all these goals?



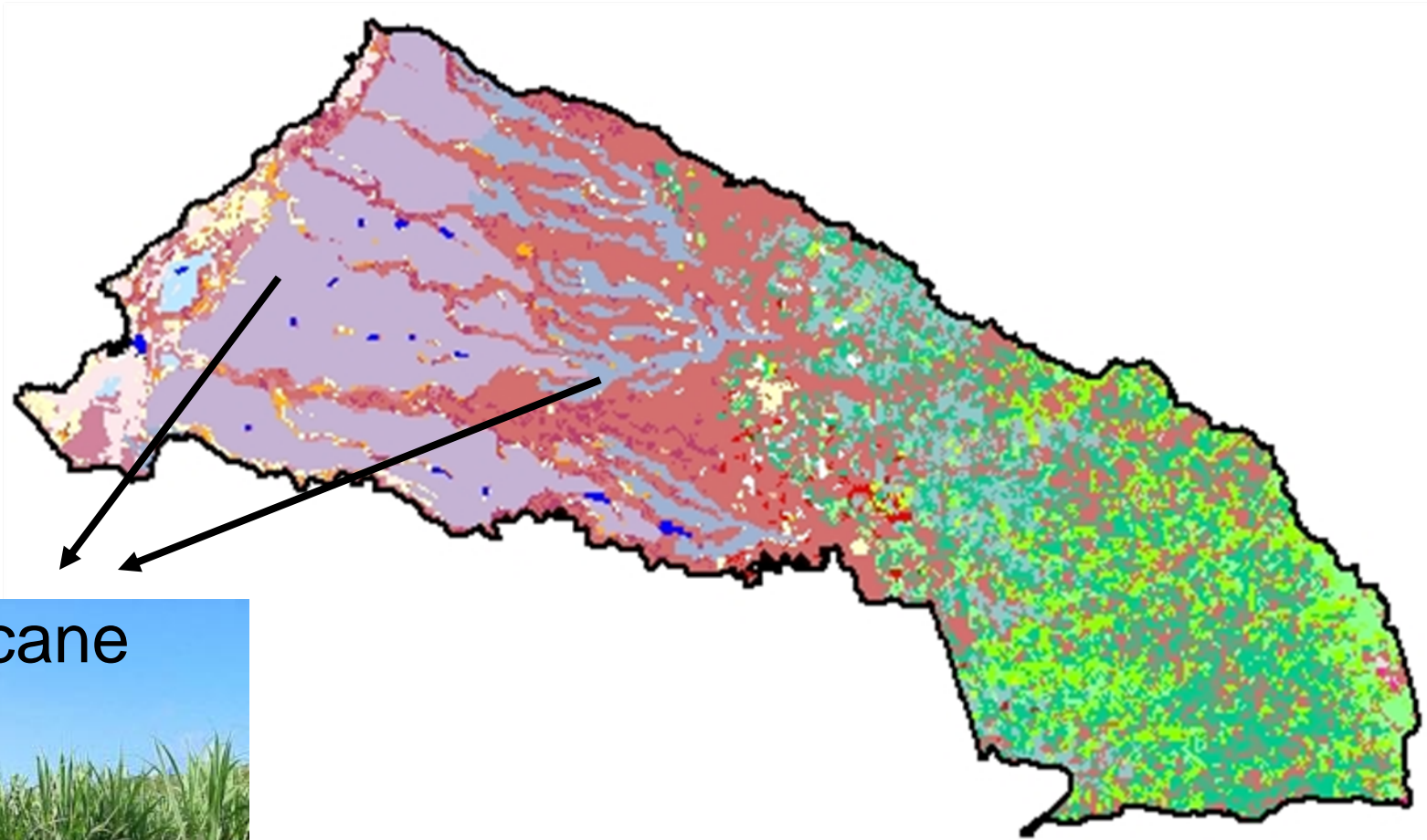
We went to Hawai`i



and listened to *their* challenges and ideas.

We explored a number of scenarios...

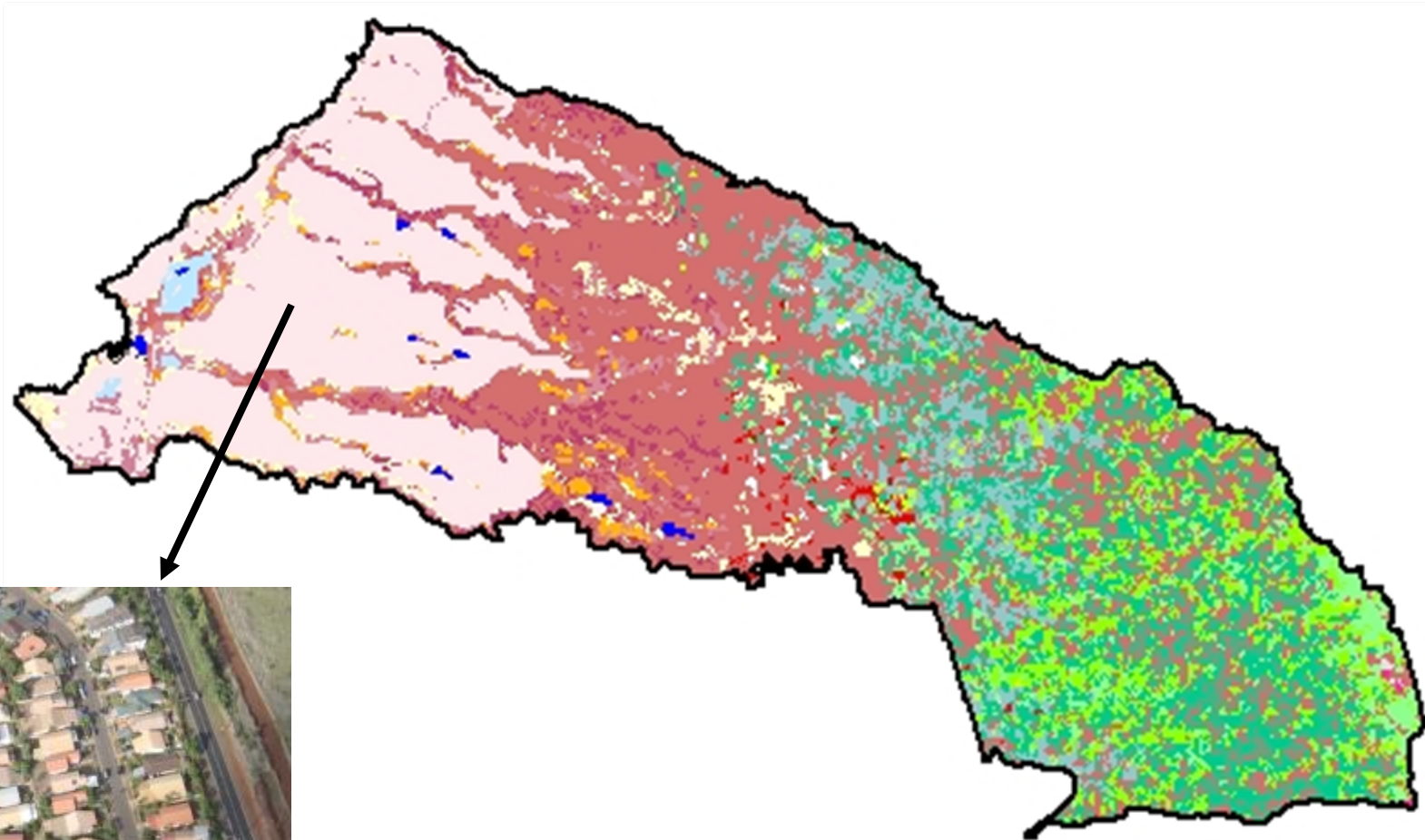
Growing a biofuels feedstock



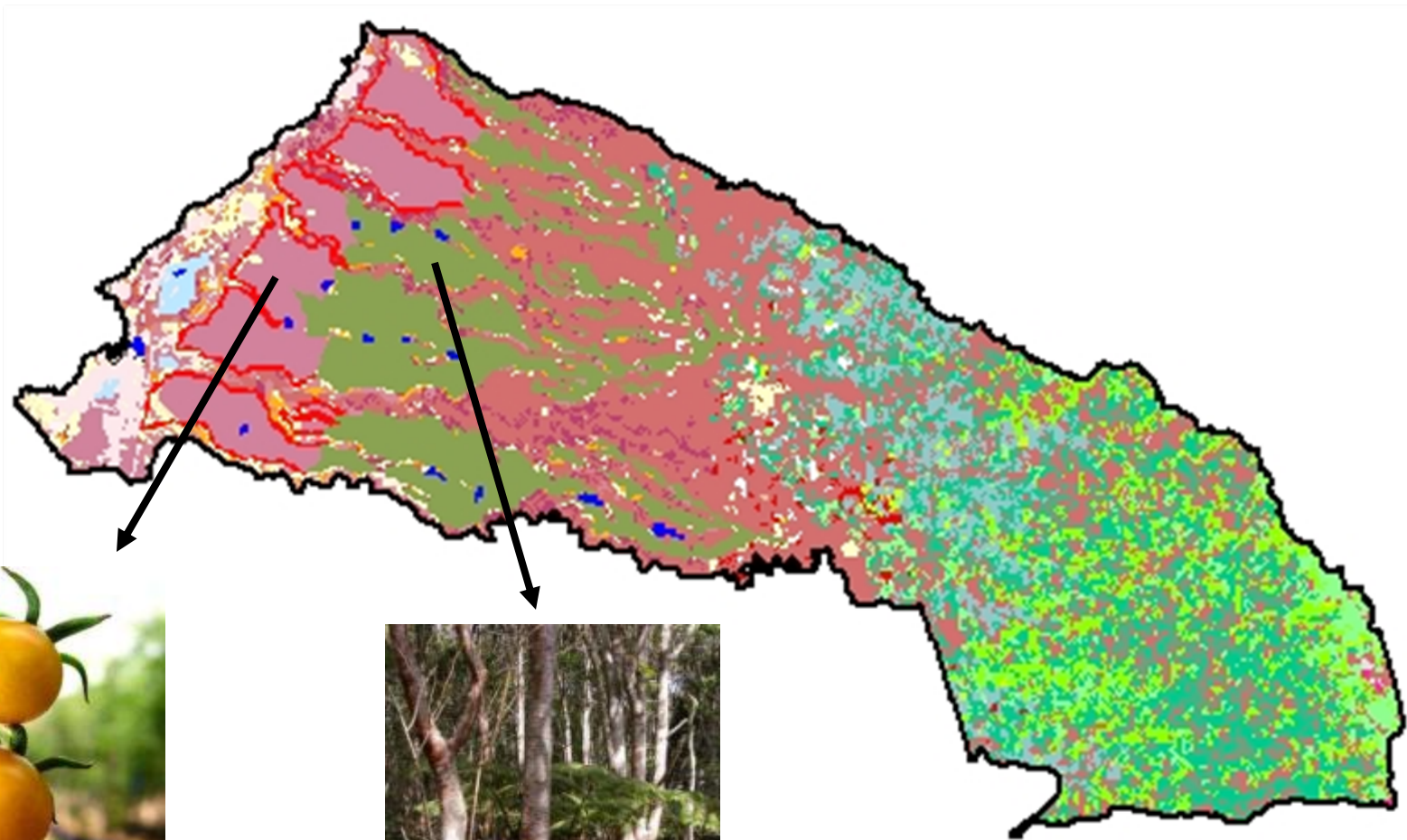
Sugarcane



Expanding residential development



Cultivating diversified agriculture & forestry



We used InVEST to measure the production of **these** services under each scenario:

Produce food and energy sustainably

Restore native species and habitats

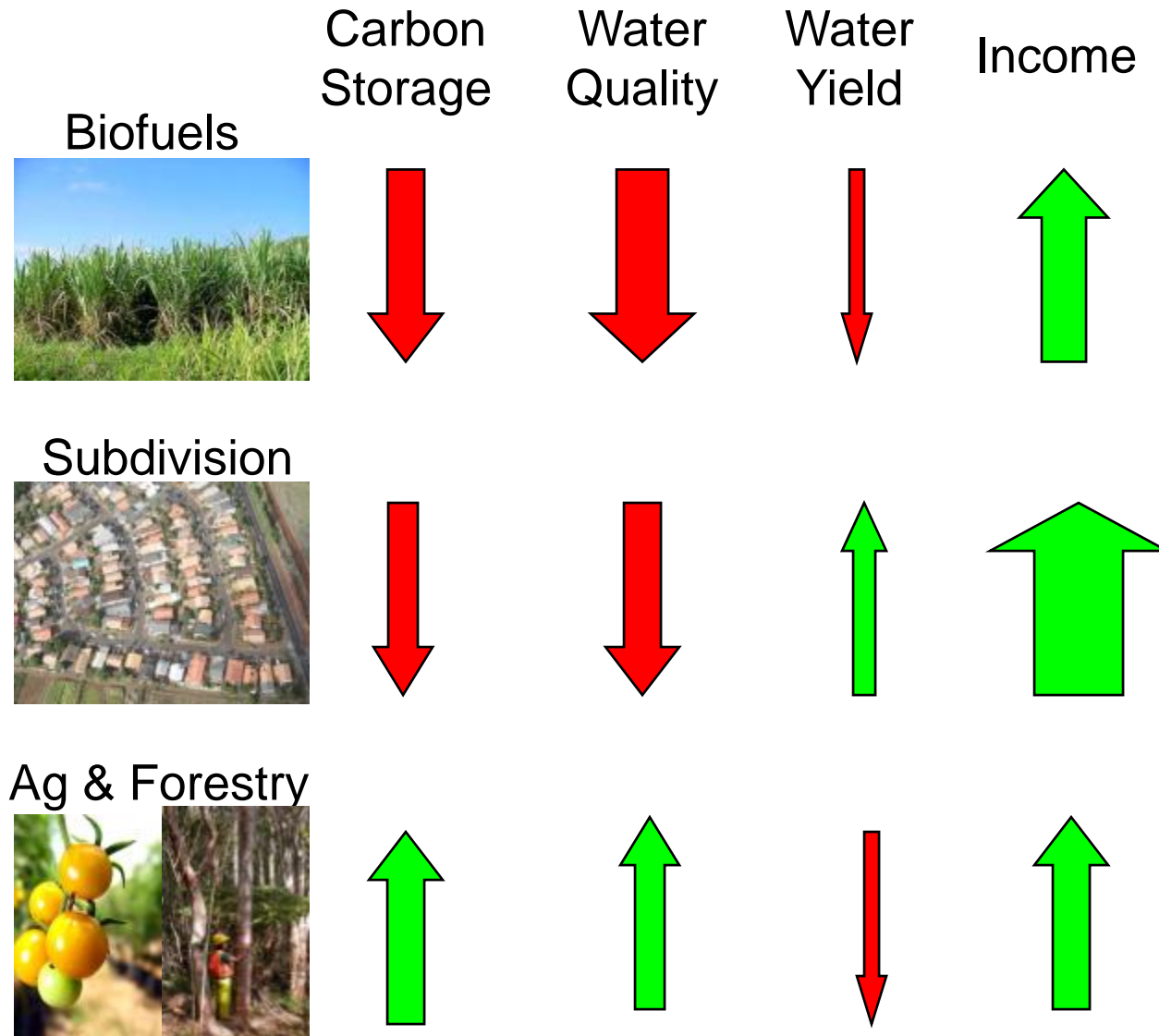
Help stabilize the climate

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Here's what InVEST told us:



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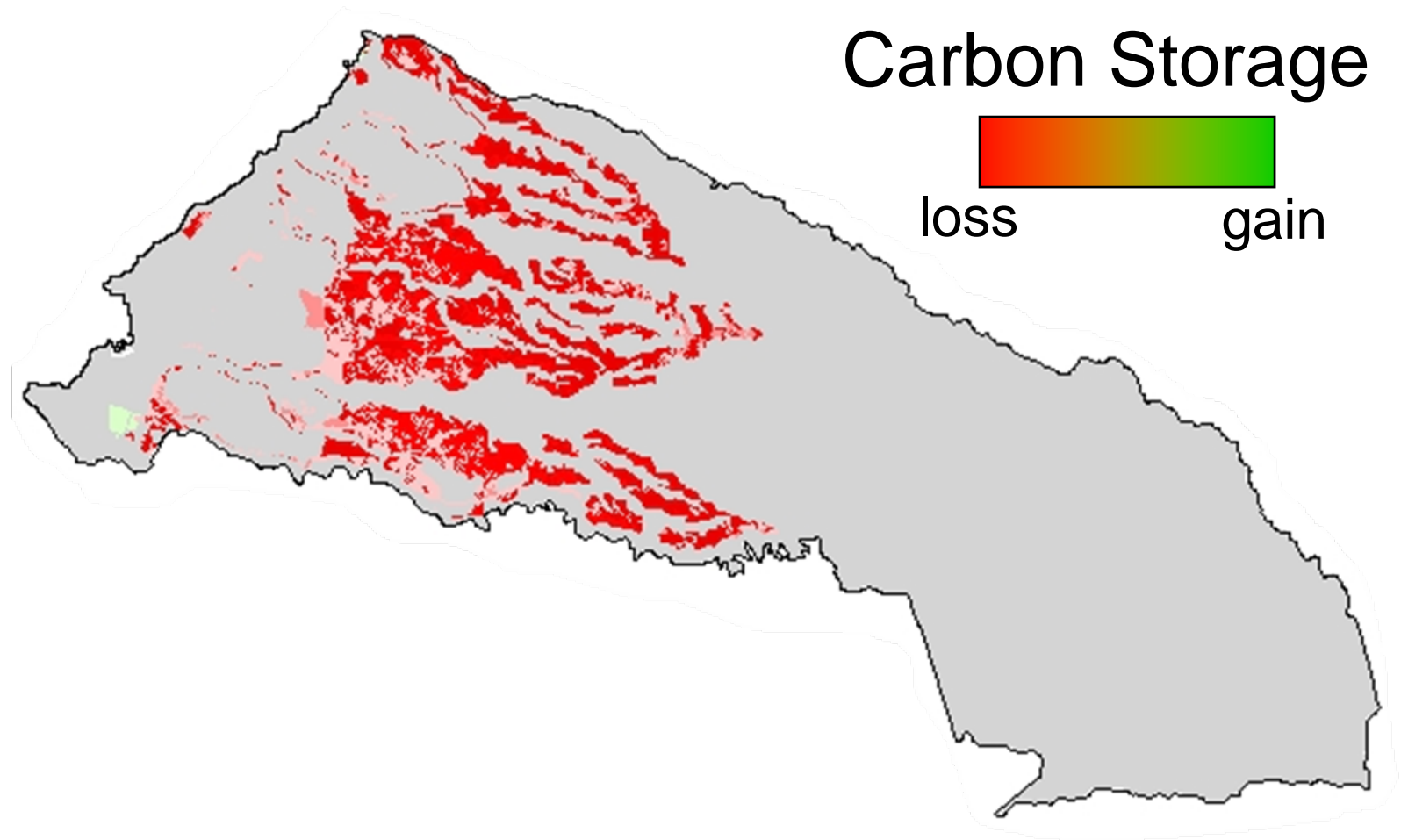
Big income from biofuels or development is paired with big losses for the environment and society.

Here's what InVEST told us:



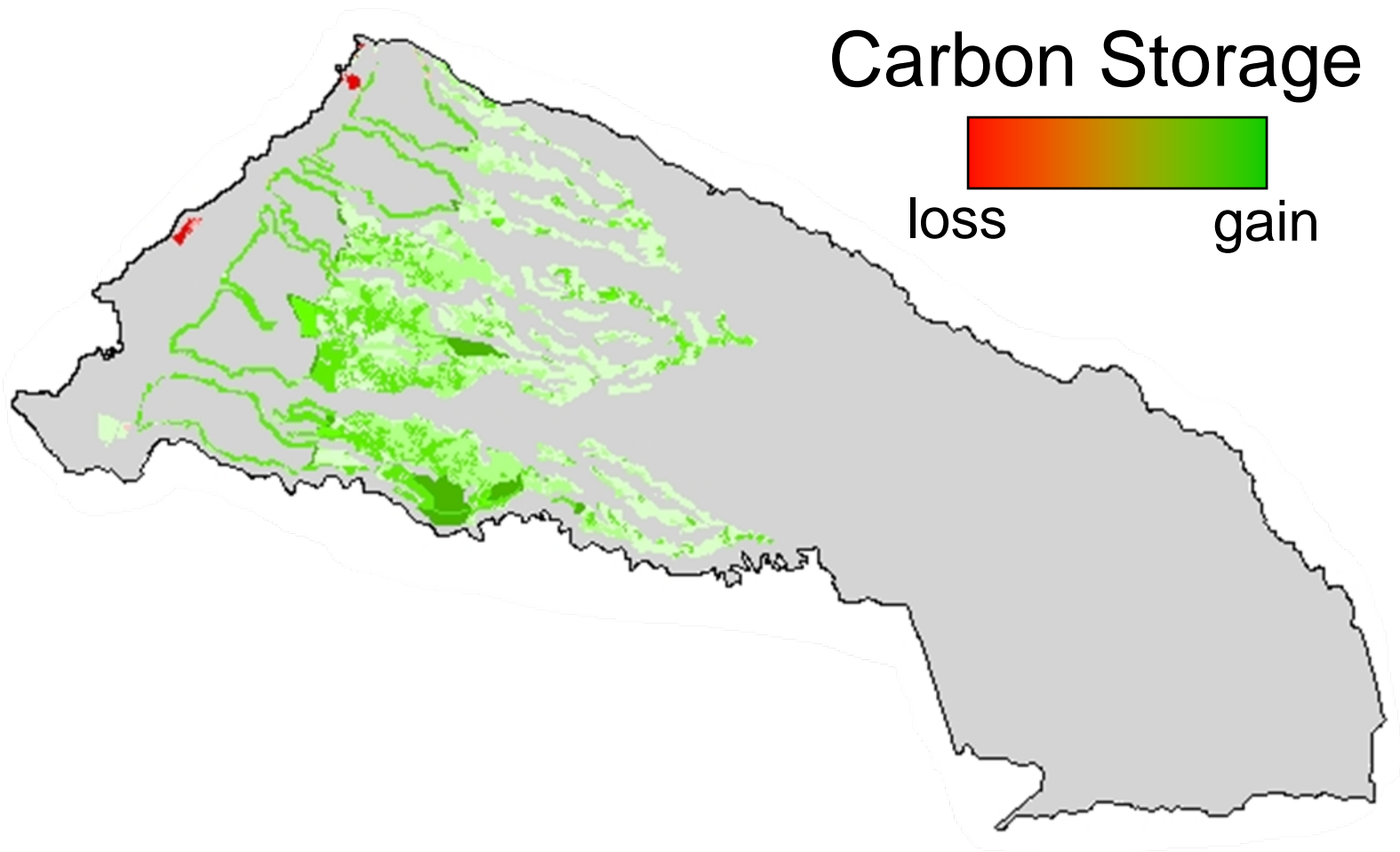
Diversified agriculture and forestry provide the desired balance, with income, climate control and clean water benefits.

InVEST can also **map** changes.



The **red** areas show where planting biofuels caused carbon **loss**.

InVEST can also **map** changes.



The **green** areas show where agriculture and forestry caused carbon **gain**. © 2008 Natural Capital Project

Looking at all maps together shows tradeoffs.

Biofuels



Carbon Storage



Water Quality



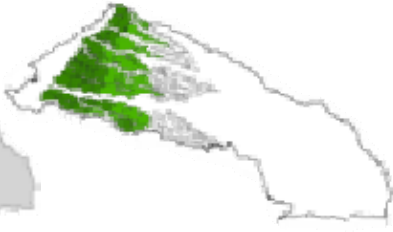
Water Yield



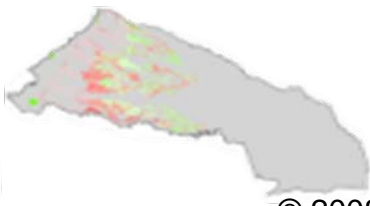
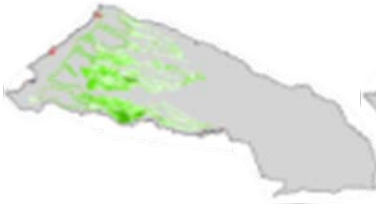
Income




Subdivision



Ag & Forestry



A tropical sunset scene with palm trees and a body of water. The sun is low on the horizon, casting a golden glow across the sky and water. The sky is filled with soft, wispy clouds, and the water reflects the warm colors of the sunset. Several palm trees are silhouetted against the bright sky, with some leaning over the water. The overall atmosphere is peaceful and serene.

Kamehameha Schools is now
refining their options with the
help of InVEST



They are considering kukui nut trees as a low input biofuels stock and a cultural icon.....



along with smaller scale development



and pioneering new ways to integrate cultural values ...

and Hawai`i's future is looking **greener.**

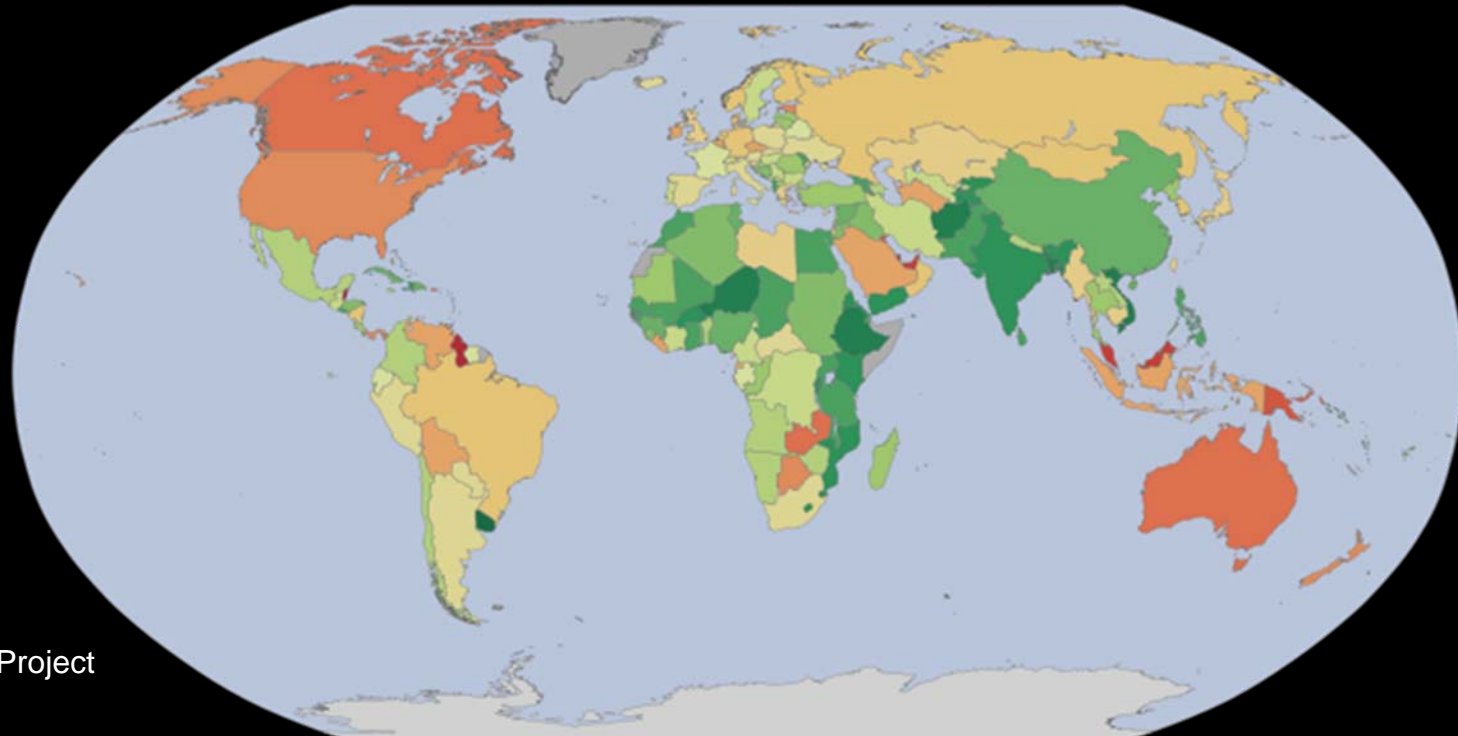
InVEST is being used by others around the globe



to answer questions about these, and other ecosystem services.

We're asking how achieving global food security will affect

biodiversity,
climate regulation and
water supplies.

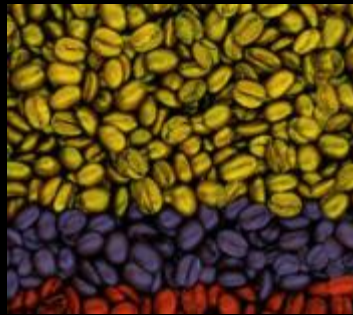


We're helping Colombia's Ministry of the Environment improve regulation of....

mining



agriculture



transportation



and other major sectors.

A large, leafy tree stands in a misty, grassy field. The tree is the central focus, with its branches spreading out. The background is a soft, hazy grey, suggesting a misty or foggy atmosphere. The foreground is a lush green field of grass, slightly out of focus. The overall mood is serene and natural.

Ask at the booth for more information
on what InVEST is doing for
conservation around the world.