Exercise on systematic conservation planning tools

Scott Atkinson, UNDP

Empowered lives.
Resilient nations.

How can we identify or prioritise the best places for action?

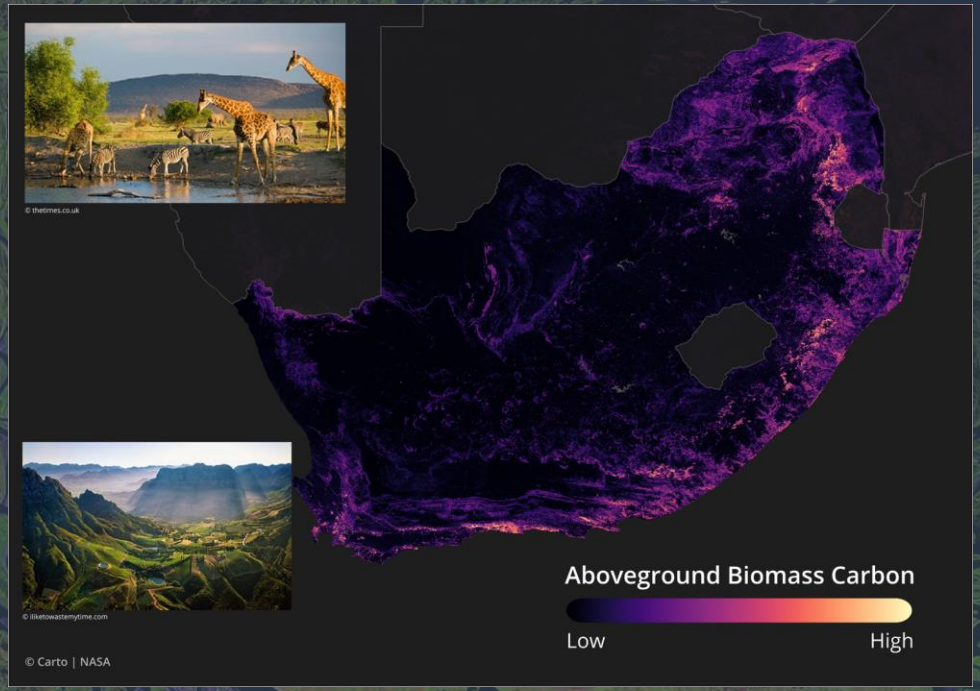
(and what does ‘best’ even mean?!)

Values

- What is important to us?
- Environment?
- Resources?
- Cultural heritage?

Decisions

- What are our targets?
- What are our constraints?
- Financially, Politically, Socially?



Time for some jargon...

- **Target**: think about conserving or restoring a percentage of *Cinclodes aricomae* habitat (quantify it - a real number)
- **Planning Unit (PU)**: units of land (or sea!) on which actions can be taken (parcels of land, watersheds, user-defined grids ,coral reefs.)
- **Boundary Length Modifier (BLM)**: the compactness of a reserve system (values greater than 0 result in more complex reserves).
- **Species Penalty Factor (SPF)**: the impact of not reaching a target in the scenario.

Basic Scoring of a Scenario:

Total Score of the Scenario Being Tested =

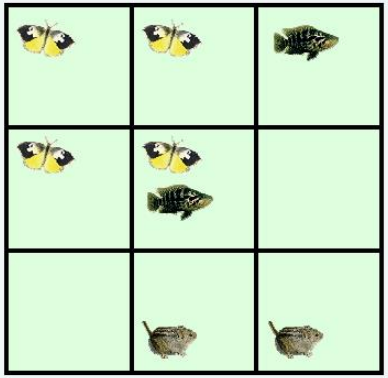
Cost (of PU)

+

(BLM * Boundary Length of the Reserve System)

+

(SPF * Penalty Incurred for Unmet Targets)



Each planning unit costs 1

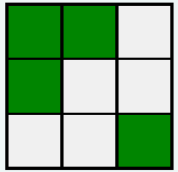
Boundary length modifier value = 1.5.

The species penalty factor for all three species is 10.

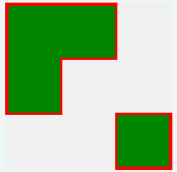
Illustrations by Bob Smith (DICE)

Measuring overall score

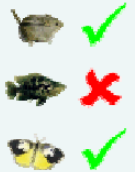
Total score



Total PU cost = 4

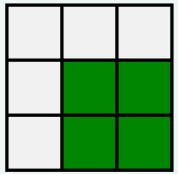


Boundary = 12 * 1.5

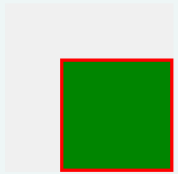


SPF = 10

32



Total PU cost = 4



Boundary = 8 * 1.5

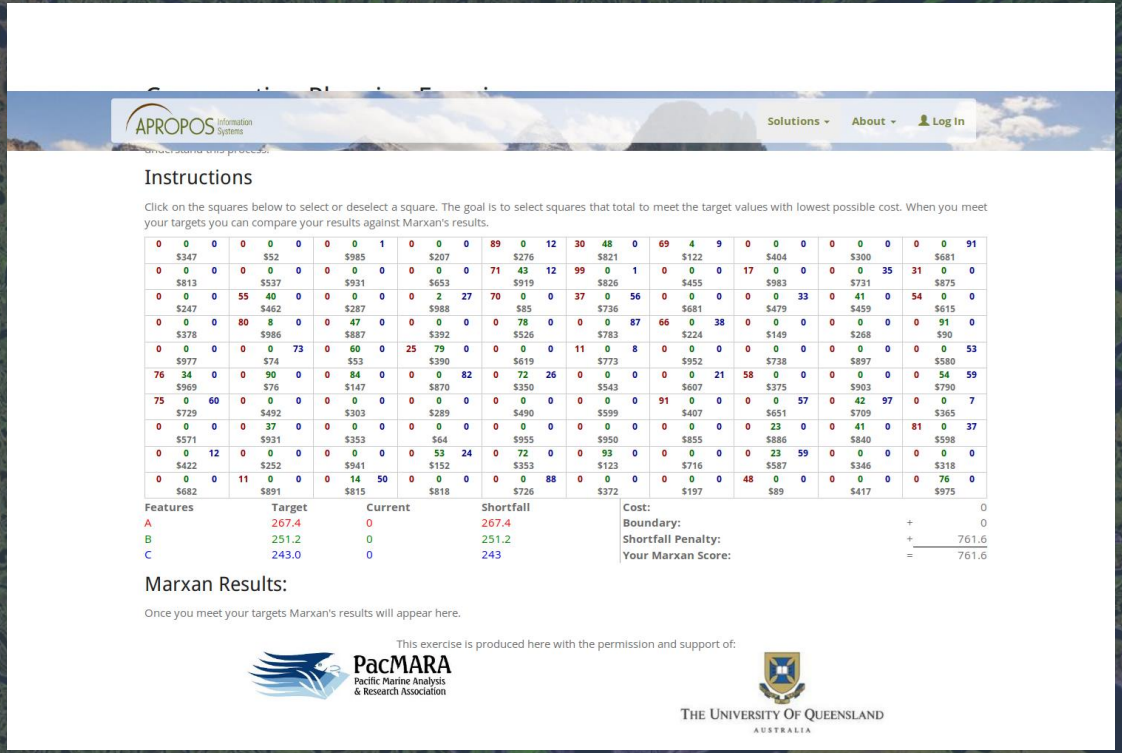
SPF = 0

16

Illustrations by Bob Smith (DICE)

Now a game...!

Can you design the most efficient system of protected areas?



https://aproposinfosystems.com/en/solutions/marxan-demo/

Comments or Questions?

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