



Tipa And Associates



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Overview

In this presentation we will –

- Explain why you may choose to use report cards
- Give examples of report cards in use
- Explain how traditional knowledge can “add value” to the design and use of report cards

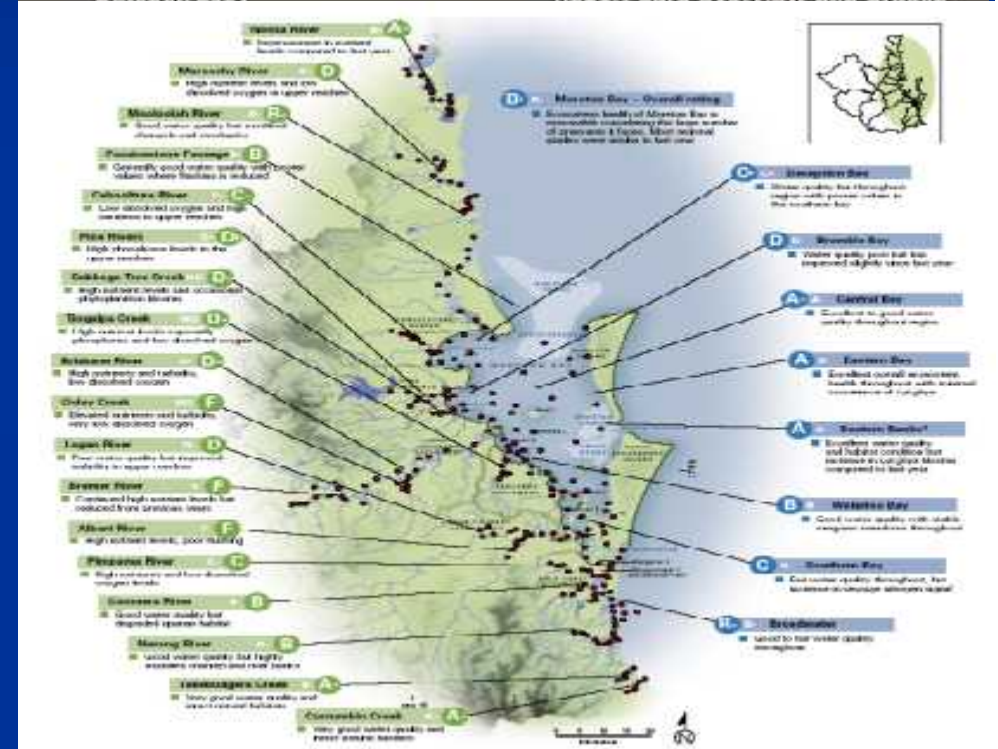
Why use report cards

Report cards

- Enable large and often complex amounts of information to be communicated to a broad audience
- Provide a framework for monitoring and communication activities
- Can provide accountability; measuring the success of a particular effort
- Identify regions or issues of concern
- And others...

Examples of existing report cards

- Australia
 - Moreton Bay
 - Great Barrier Reef
- United States
 - San Francisco Bay
- New Zealand
 - Tamaki Estuary

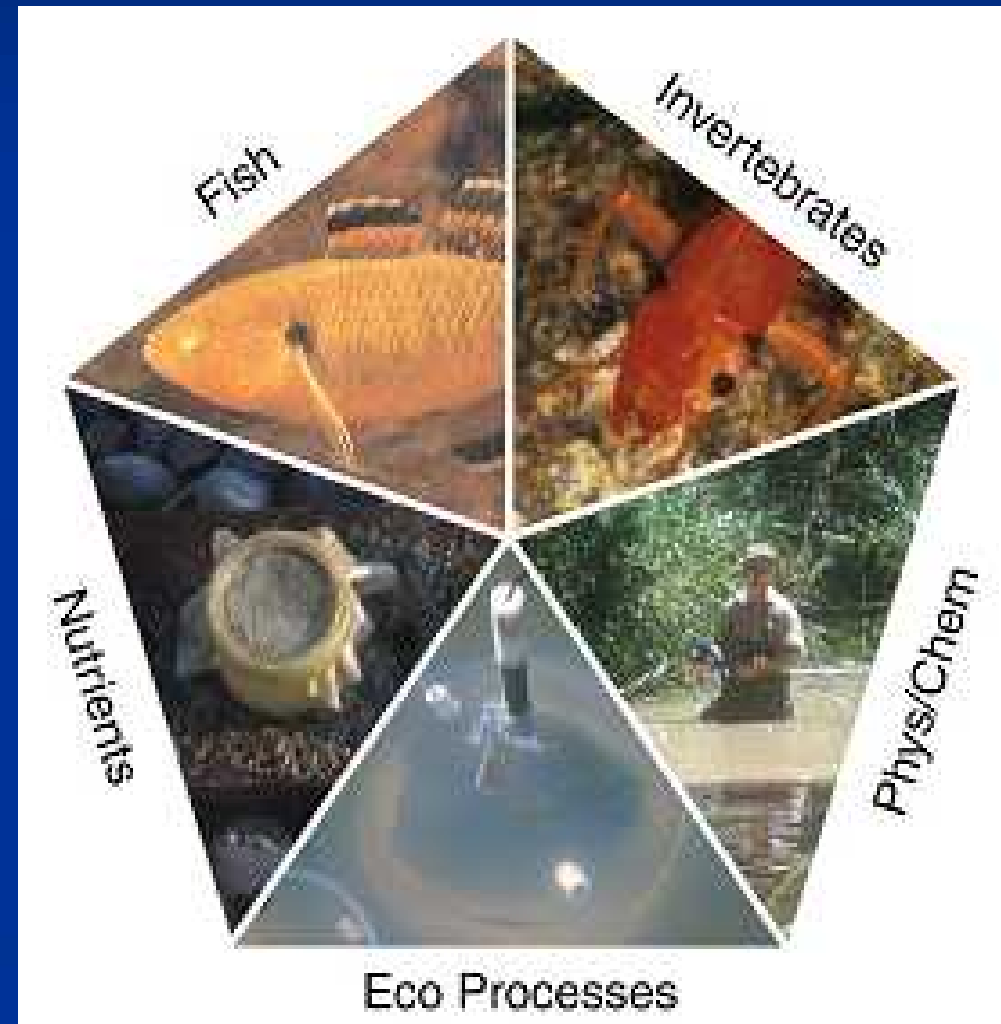


What do they report?

Typically ecological or water quality data

Five freshwater indicators

1. Nutrient cycling
2. Ecosystem processes
3. Aquatic macroinvertebrate communities
4. Fish communities (diversity of native fish)
5. Physical & chemical



Report

STATE	State Indicator	Prognosis	Grade
	Zinc (Zn)	Red	
	Copper (Cu)	Amber - Red	
	Lead (Pb)	Green - Red	
	Polynuclear Aromatic Hydrocarbons	Green	
	Organochlorine pesticides	DDT and dieldrin Green - Red	
	Rate of deterioration	Fast	
	Benthic Community Health	Poor in upper reaches, good lower reaches	
	Overall sediment quality		D -
	Water Quality	Good in dry weather, probably poor during wet weather	C
	Estuary infilling	Past high rates, probably moderately high from continual development and flood plain storage	D -

D-

Overall Grading of the Upper Tamaki Estuary

The Upper Tamaki estuary has been assigned a "D -" grade because:

- ★ sediment quality is 'red'
- ★ zinc concentrations are predicted to increase rapidly
- ★ benthic animal community health is poor in parts of the estuary, but OK in others
- ★ the estuary has infilled and is susceptible to further infilling
- ★ the water quality is good during dry weather in the main body of the estuary, but probably poor during rain events

Challenges for Maori

Usually report cards –

- are “top down”
- are not explicitly driven by values – let alone cultural values
- are informed by scientists / managers as “experts”

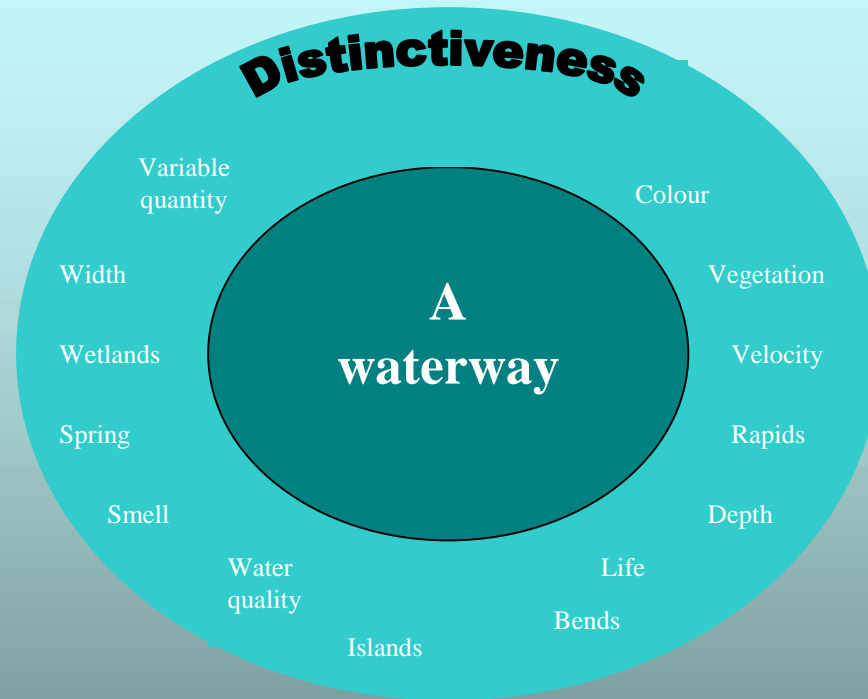
In contrast –

- Mataranga Maori provides “grass roots” data
- Whanau, hapu and iwi are the experts
- Planning is “bottom up”

Constructing a bottom-up framework

Lets talk about a river

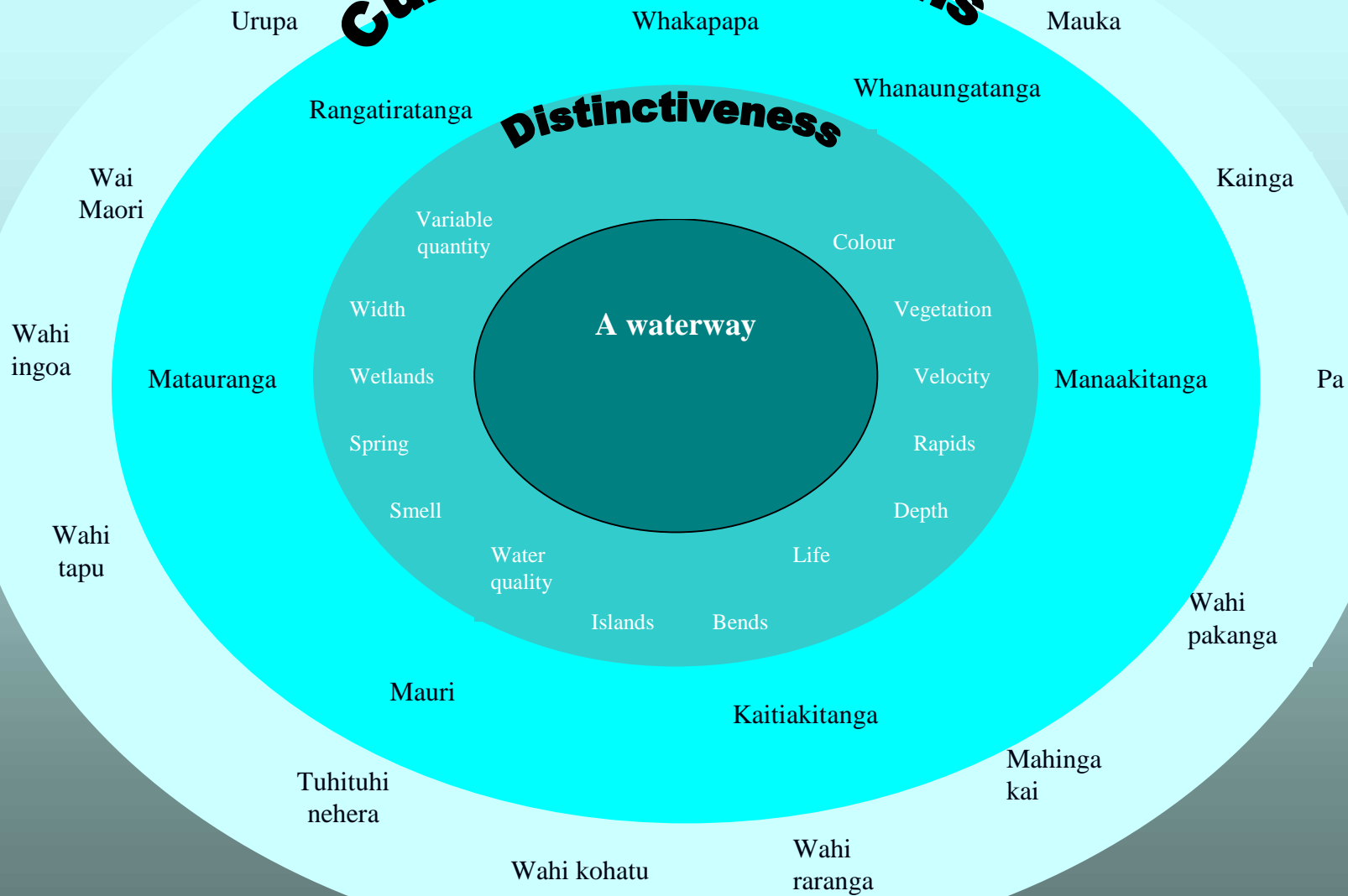




Cultural connections

Distinctiveness

A waterway



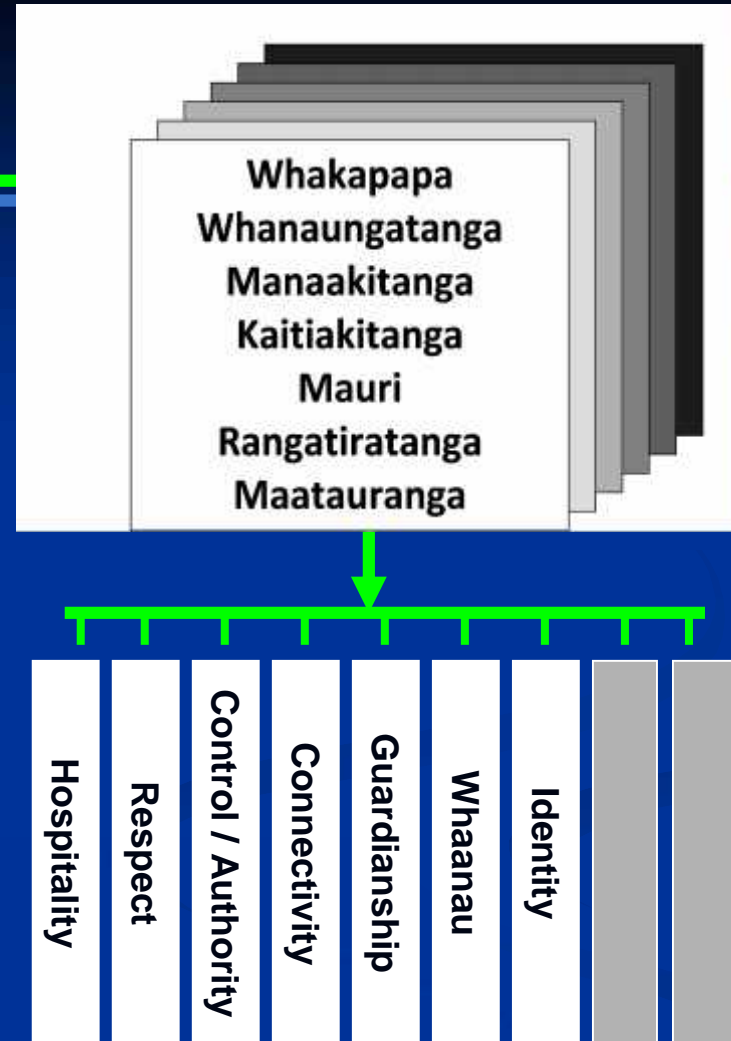
Constructing our framework

Maori can describe – via interviews, hui, visits:

- What is valued & why it is valued
- How a value is to be measured & where measurement is to take place
- When & how the measurement is to occur
- Who is to do the monitoring

Level 1: Values

- Whanau
- Connectivity
- Control / authority
- Guardianship
- Hospitality
- Respect
- Identity



VALUES

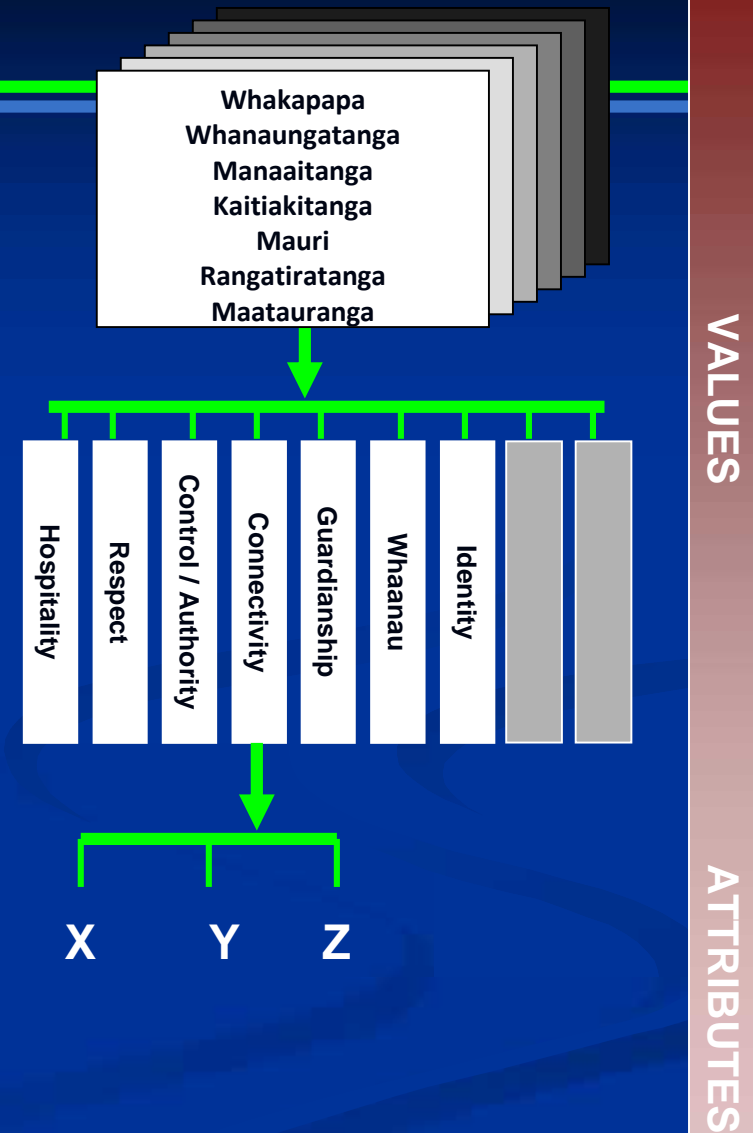
RISKS

- Narrowly defined cultural values
- Interpreting cultural values narrowly to align solely with other value systems
- Capture of the cultural space marginalises the future role of Maori
- Recognise the diversity of Maori
 - Grass roots practitioners
 - trained scientists, technicians, other
 - strengths in both

Level 2: Attributes

Attributes or
descriptors of the
values

List of attributes



Example: Connectivity

(Ki uta ki tai, Ahupua'a)

Attributes of the value 'Connectivity' include:

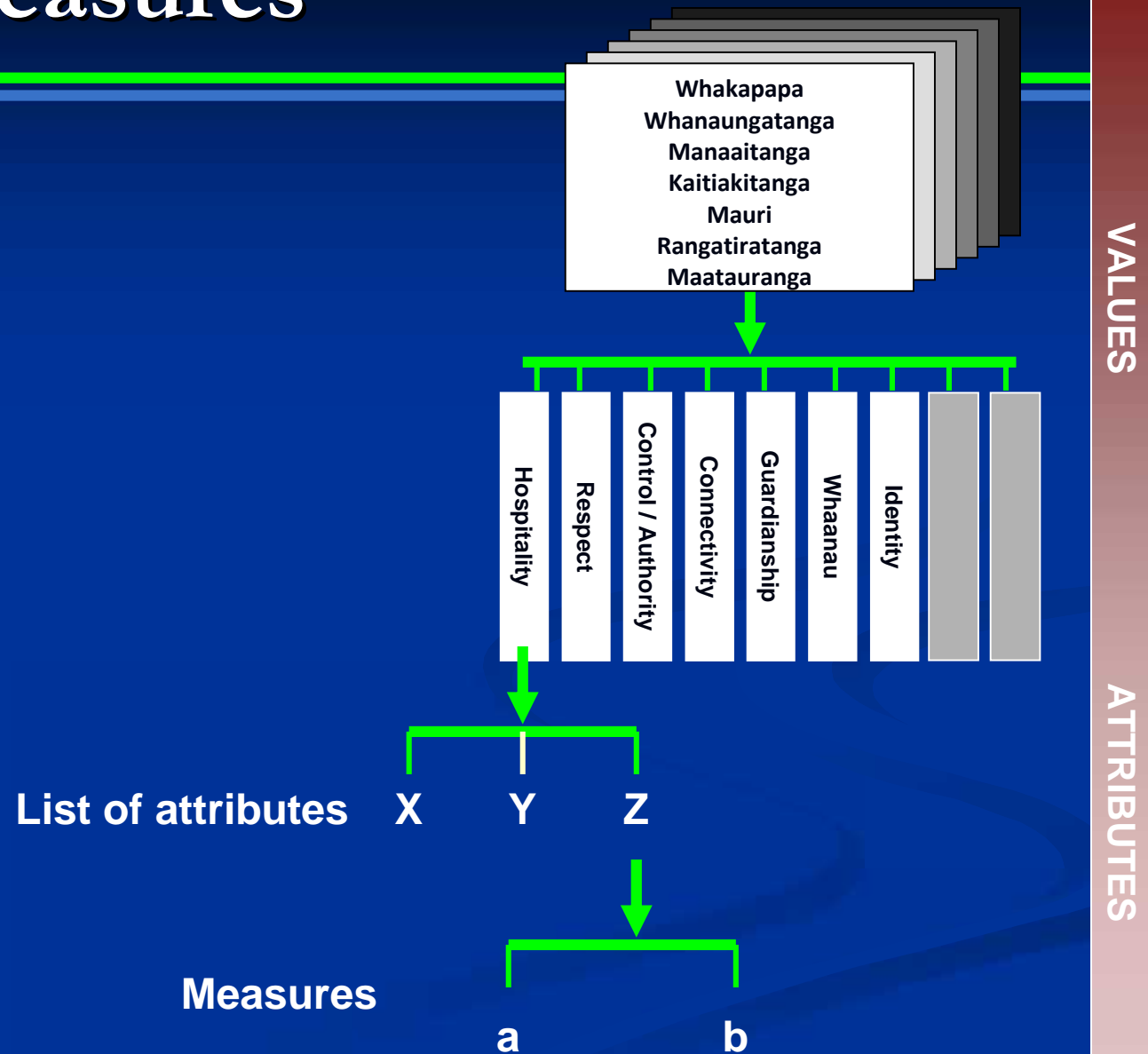
- Area specificity (e.g. cultural landscapes)
- Cultural resources / cultural materials
- Ecological integrity
- Historic sites
- Hydraulics
- River system connections
- Spiritual connection

Example: Identity

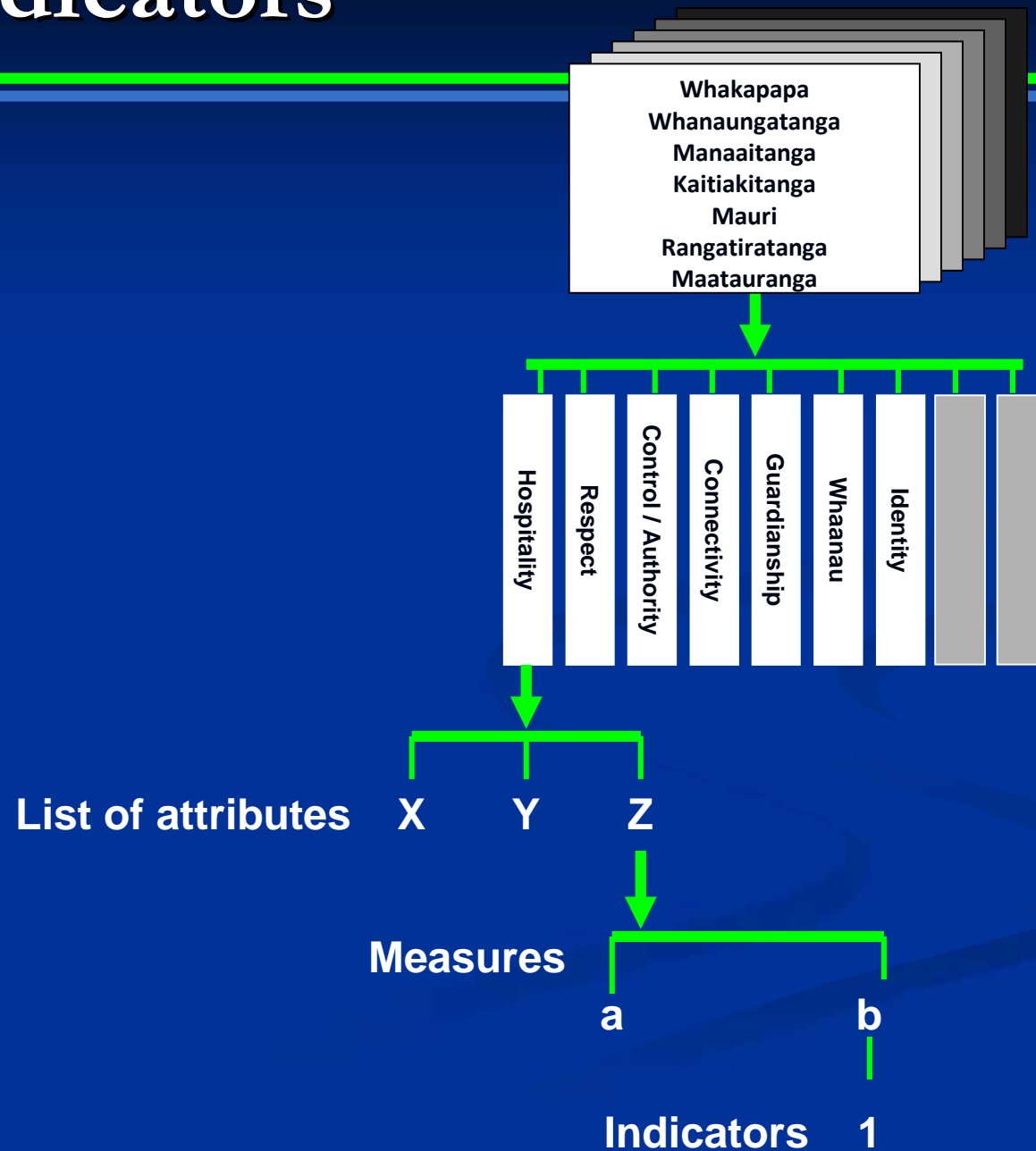
Attributes or descriptors of the value 'Identity' include:

- Change in morphology (e.g. bends & rapids)
- Cultural materials and kai
- Historic and significant sites
- Hospitality
- Placenames
- Respect for the Awa
- Spiritual connection
- Transfer of knowledge

Level 3: Measures



Level 4: Indicators



Value = Hospitality
Attribute = Access
Measure = boat launching

Boat launching

- (1a) Number of boat ramps
- (1b) Iwi satisfaction re: access to boat ramps, their location and condition
- (1c) Map of boat ramps locations
- (1d) Appropriate biosecurity and waste facilities at all boat ramps

Why is measurement important

The type of measure determines the role of Maori

- Some indicators must be informed by Maori (perception, preference or their satisfaction)
- enable whanau and hapu to utilise their own means of assessment rather than having a standardised unit of measurement artificially prescribed
- But don't isolate the role of Maori – recognise diversity
- At each stage there is validation of the integration through a robust process

Aggregating indicators

“Grouping” indicators enables us to reduce the number of indicators for the Report Card

Report Card Grade Descriptors

A

*Conditions meet all set values;
All key processes are functional and in near pristine condition*

B

Conditions meet all set values in most of the reporting region; Most key processes are functional & intact

C

Conditions meet some of the set values in most of the reporting region; Some key process are functional

D

Conditions are unlikely to meet set values in most of the reporting region; Many key processes are not functional and are impacted

F

*Conditions do not meet set values;
Most key processes are not functional and are severely impacted*

The framework needs to

- Allow scientists, managers and Maori to move backwards and forwards
 - forwards to calculate an overall score and complete a report card
 - backwards, if the score has changed, to determine what pressures have caused the change, and hence what action needs to be taken
- Be able to track management interventions and indicate whether or not they have been effective

Risks of report cards

- The starting point has to be equal weight to both knowledge systems which must be reflected in all stages of the process
- Allow time to discuss & agree on the framework
- Ensure that Maori are involved in all aspects of the process (formulating, implementing, reviewing)
- Be open to a range of new ways of measuring and assessing

In conclusion

- Report cards can aid communication
 - And enable large and often complex amounts of information to be conveyed simply.
- But to be meaningful to communities the next iteration needs to be value-based
- Knowledge held within indigenous communities can inform
 - Values
 - Attributes
 - Measures
 - Indicators