An aerial photograph of a coastal catchment area. A river flows from the top left towards the bottom center, where it meets the sea. The surrounding land is covered in dense green forest. The sky is a clear, deep blue. The text 'TANE AND TANGAROA catchments and coasts' is overlaid in white, bold, sans-serif font in the upper half of the image.

TANE AND TANGAROA catchments and coasts

Clare Feeney and Peter Gustafson
Matthew Davis and Claudia Hellberg

Northland is the future: see it here first!



New Zealand: a potted history

- Māori rapidly identified some ecological limits
- European colonists pushed the limits further
- growing focus on ecosystem integrity – mauri – parallels global trends
- catchment management has a long history
 - rural focus: erosion and flooding “control” due to forest clearing
 - urban catchment management: Auckland-only phenomenon until very recently
- integrated catchment management (ICM) suffered with:
 - central government and research reforms in 1980s
 - local government reform in 1990
 - introduction of RMA in 1991
- current resurgence of interest in ICM and ICCM

International best practice

Recurring themes for successful ICM: theory and observation

- political leadership
- collaboration: public and private
- genuine community participation: bottom-up
- capacity building: public and private, present and future
- adequate resourcing and investment over the long term
- strong governance/clear institutional roles and responsibilities
- measurable objectives and targets to focus management programmes
- triple and quadruple bottom lines \cong the four wellbeings in RMA and LGA
- adaptive management driven by monitoring and evaluation
- ICM champions and succession planning to maintain development, implementation, review and evolution of effective plans
- ICCM less commonly documented

International best practice

- also something of a rural-urban split
- long history of endeavour
- short list of successful implementation examples
- why?
 - “planning” phase often well resourced and completed to a high standard
 - on-ground implementation often less developed and has less long term financial and community support



Legislative and institutional framework



New Zealand legislation

- in principle:
 - supports ICM and ICCM
- in practice:
 - tension remains between managing land use vs its effects on water
 - instruments with rules draw an administrative barrier along MHWS
 - policy statements are the only bridge from mountain top to coastal limit – but don't have rules



Scale

- nation- or region-wide approaches
- macro scale: harbour-based primary catchment
- meso: local catchment
- micro: subcatchment
- subdivision / site scale
- other:
 - ecological districts
 - groundwater catchments
 - regional infrastructure e.g. transport, water supply and wastewater networks.



Harbour catchments	
Hibiscus Coast	Tamaki
Kalpara	Wairoa
Manukau Harbour	Waitemata
Northeast	West Coast
	Mahurangi

Natural boundaries for integrating catchment and coastal management in the Auckland Region



Collaborative models

- “top-down” models do not always deliver good outcomes
 - good catchment managers’ skills will be “more associated with human resource and project management – the power of engagement” (Simon Stokes)
- partnership models include (Allen et al 2002):
 - agency-led
 - community-led
 - joint
 - ☞ joint partnerships have greatest capacity for long-term sustainability: sharing resources and decision-making power leads to the most effective long-term commitment to changing environmental management outcomes
- examples:
 - Māori-led - Integrated Kaipara Harbour Management Group (IKHMG)
 - community led - urban ICM projects e.g. Tamaki Estuary Protection Society, Project Twin Streams
 - agency led: Auckland Sustainability Framework - joint project with regional, city and district councils, government agencies, private and public sector stakeholders
 - council-community partnership - Mahurangi strategic catchment plan

International best practice: how did Auckland stack up?

Globally we see:

- something of a rural-urban spilt
- a long history of endeavour but a short list of successful implementation
- ICCM newer and weaker than ICM
- reflected in Auckland:
 - we've got the vision
 - top performance improvement need is sustained practice

Always planning, never doing:
best practice ICCM is an elusive goal

Sustained practice: closing the gap

- three golden rules of implementation:
 - resourcing = commitment
 - resourcing = commitment
 - resourcing = commitment

Implications for Northland

A look at the Kaipara:

- issues
- solutions
 - commitment
 - community
 - capacity
- change

Issues

- small, low density population
- low rating base
- seasonal influx of tourists
- coastal development pressures
- resource extraction pressures
 - on land
 - for freshwater
 - in coastal and offshore waters
- resource quality issues



Commitment

Long-standing need for

- institutional alignment and joint planning
- sustained commitment and engagement
- long term resourcing

Community

Te Uri o Hau and stakeholders formed IKHMG, the Integrated Kaipara Harbour Management Group

- signed protocols with DoC, MFish, MED, Ministry for Culture and Heritage
- signed MOUs with NRC, ARC, KDC and RDC
- interim steering committee
 - Kaipara Harbour Sustainable Fisheries Management Group (KHSFMG)
 - Dept. of Conservation (DoC)
 - Manaaki Whenua Landcare Research
 - Kaipara District Council
 - Rodney District Council
 - Northland Regional Council
 - Auckland Regional Council
 - Te Puni Kokiri
 - Forest & Bird
- other participants
 - Te Runanga o Ngati Whatua
 - Carter Holt Forest Resources
 - Firth Industries Ltd
 - Fonterra Cooperative Ltd
 - Kaipara Water Transport
 - Ministry for the Environment
 - Ministry of Fisheries
 - Mt Rex Shipping Ltd
 - NIWA
 - Winstone Aggregates

Capacity

- this iwi-led initiative will need support!
- not a takeover but resourcing from institutional players for the community players
 - learning about issues as defined by locals
 - targeted research
 - facilitation and follow-up of community meetings
 - support to help community and other players implement agreed actions
- capacity-building for all institutional and corporate players to work with the community

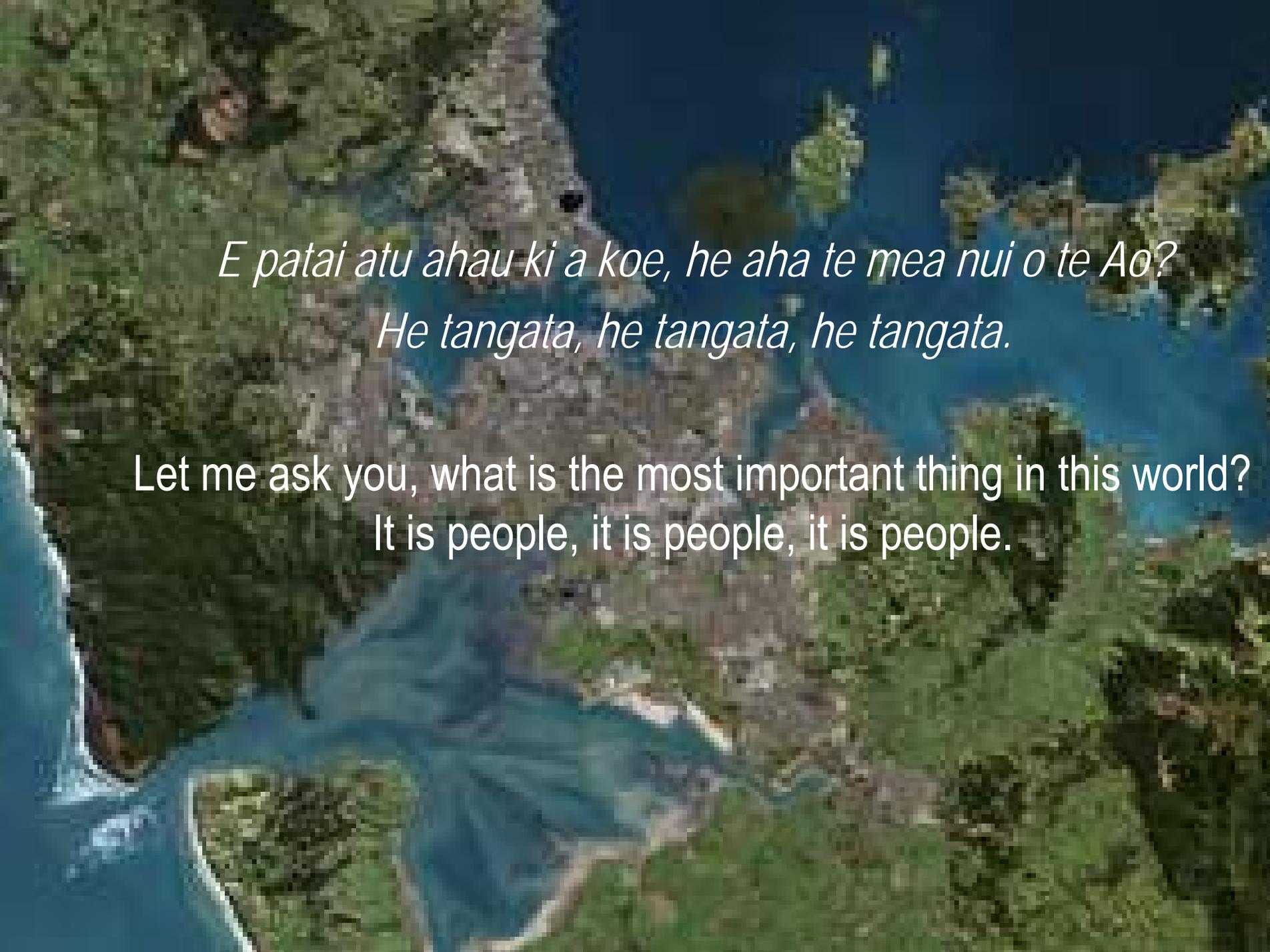


Change

“Structures are important, but it is people who count.”

Neil Ericksen

- two constants:
 - catchments
 - communities
- ☞ people and plans can help maintain continuity of ICCM during major government reforms and over normal electoral and bureaucratic cycles

An aerial photograph of a tropical coastline. The image shows a deep blue bay or inlet on the right side, bordered by lush green hills and vegetation on the left. The water is clear and vibrant blue, contrasting with the dense greenery of the land. The overall scene is serene and scenic.

*E patai atu ahau ki a koe, he aha te mea nui o te Ao?
He tangata, he tangata, he tangata.*

Let me ask you, what is the most important thing in this world?
It is people, it is people, it is people.

IAHR Congress in Vancouver

- a big thank you to NZARM, for awarding me a McCaskill Award of \$1500 towards my travel to Vancouver to attend the 33rd IAHR Congress
- I presented three papers, on
 - integrating catchment and coastal management
 - the ARC's erosion and sediment control programme
 - the use of logic models in evaluating the effectiveness of the ARC's integrated catchment management planning programme
 - these are available on my website www.clarefeeney.com
- some may appear in a special issue of the Journal of Hydroinformatics to showcase the best work presented in Theme E (Advances in Hydroinformatics for Integrated Watershed and Coast Management)
- about the week-long conference
 - the theme: "Water engineering for a sustainable environment"
 - 1,600 people attended, from 58 countries
 - 9 concurrent technical sessions with 5 papers each ~600+ papers + posters + keynotes
- themes E and F (Education, History, Economic/Social Impacts) were new and were well-received