



Integrated Catchment Management: Indigenous values, knowledge and collaboration

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Why are indigenous Māori so important in stakeholder engagement?

- 1000 yrs of history and knowledge in New Zealand, 5000 yrs Polynesia, Māori culture evolved
- NZ place of cultural belonging, stories – widespread, living in all parts of NZ
- Treaty of Waitangi (1840) – 2 peoples in NZ
- New Zealand legislation e.g., RMA, LGA, etc.
- International frameworks, rights, conventions, UN
- Complex multi-faceted issues (latter 20th, 21st century)
- Indigenous issues
- Indigenous perspectives

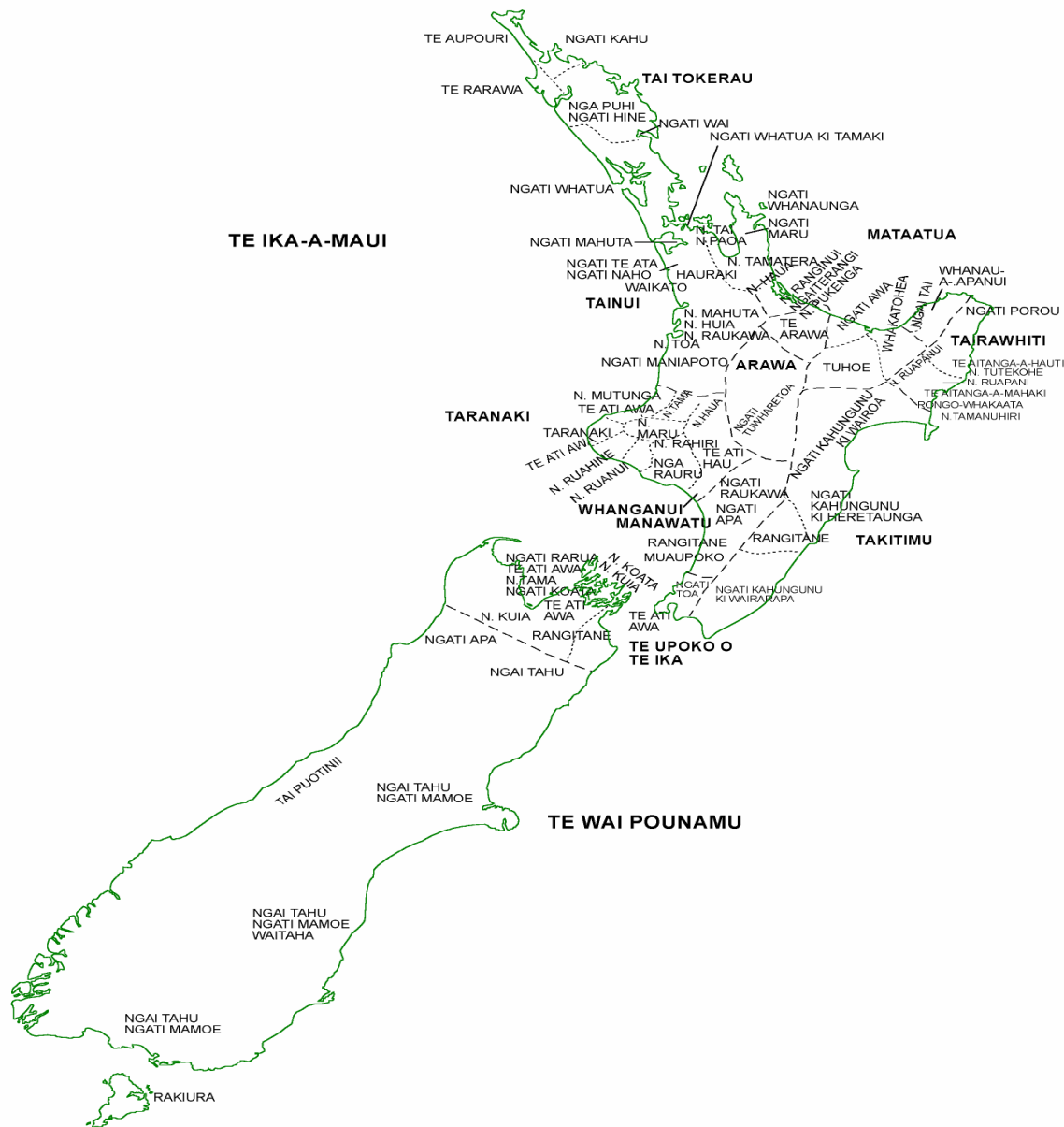
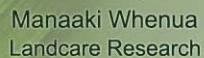


Figure 1: Location of main iwi throughout Aotearoa - New Zealand

Indigenous perspectives, what are they?

- Mix of traditional and modern (a worldview – spiritual, physical; tangible, intangible)
- Humans connected to land, water, air, forests – integral part of ecosystems (whakapapa), integrated philosophy
- Issues, often revolve around cultural values
- Holistic, inter-connected, need to understand whole systems, big picture, processes, not one part or component
- Cause and effect, cumulative effects, change
- Requires multi-disciplinary, inter-disciplinary, trans-disciplinary approaches
- Environmental issues, take place within social, cultural, economic issues – frameworks
- Relationships based on respect, trust, goodwill – understanding the other culture
- Human health and wellbeing significant (ecosystems to support life)
- Make decisions through the collective, consensus
- Empowerment (individuals, families, and communities)
- Action and association



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Māori environmental management concepts, beliefs

- Māori knowledge (mātauranga) complementary to science knowledge
- Māori values used in practice – kaitiakitanga (guardianship), mauri (life force), taonga (treasures)
- Cultural frameworks and classifications often used (based on values, domains, gods – deity, atua, e.g., landscapes, ecosystems, iconic species)
- Strive for balance in all systems between humans and nature
- Goal to achieve sustainability – inter-generational equity – resource use – to give back what you take (tau utuutu principle)
- Regulated environmental practice – tapu (sacred), noa (open access), rahui (restricted)

Indigenous issues (examples)

- Pollution, degradation of cultural resources - effects on resources and local mana (status, authority)
- Damage, modification to cultural sites, areas
- Undermining cultural values
- Low levels of indigenous participation, lack of respect, goodwill
- Low levels of capacity and resources to engage appropriately (dis-empowerment, alienation)
- Difficulties in accessing equal science and technical information in appropriate forms – limits decision-making

Integrated Catchment Management, Motueka

- Building the relationship, trust, respect
- Issues analysis
- Working in with the lives and issues of indigenous groups (Māori) – rather than fitting them into a research agenda
- Alignment between Māori issues and ICM research, identifying research needs
- Participation, developing collaborative projects
- Learning together, working together, sharing info.
- Integrated knowledge forms and systems
- Environmental – cultural projects
- Improved decision-making – desired goals for sustainability



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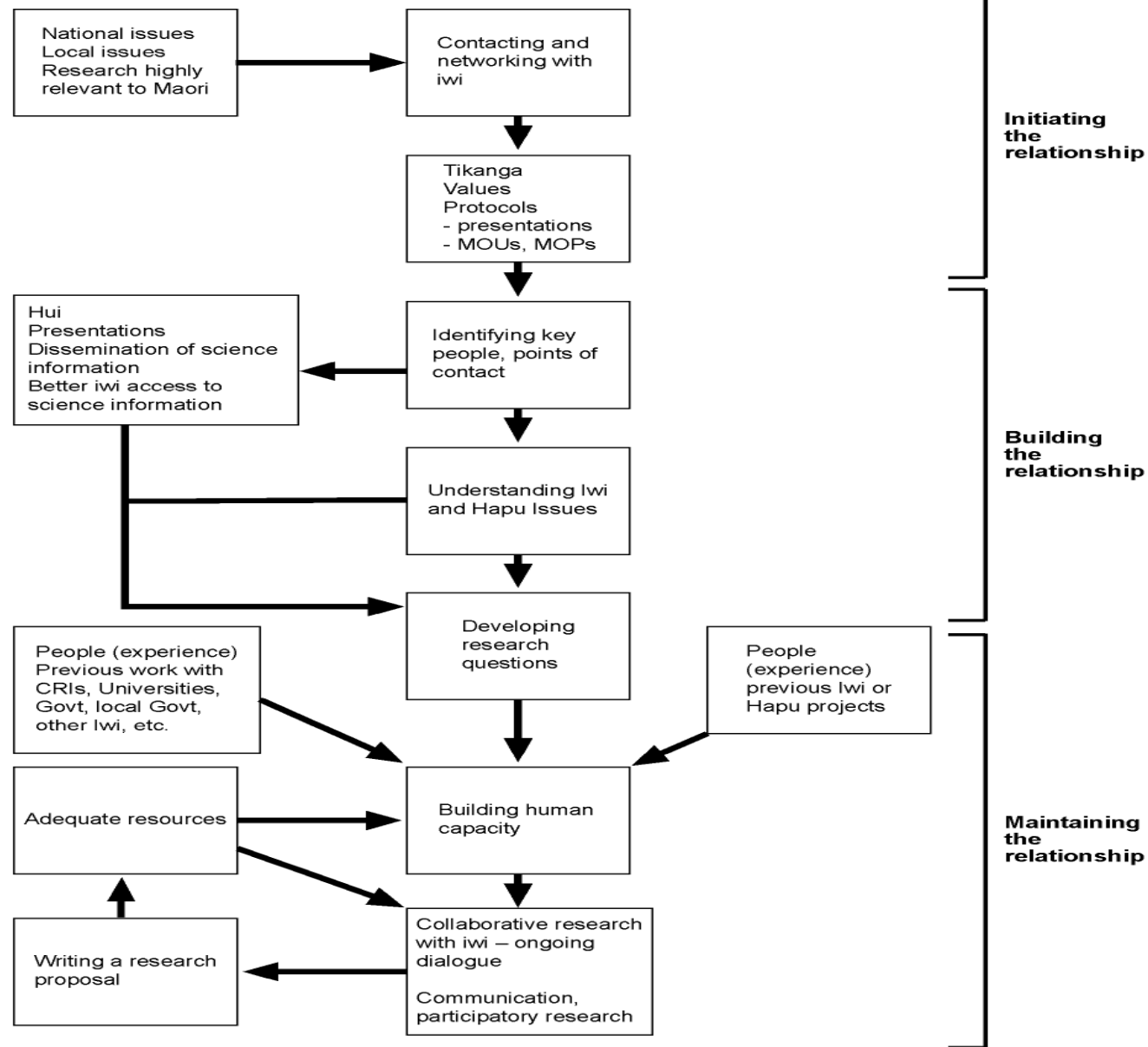


Figure 1: The key steps to developing collaborative research with iwi



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Te Awhina Marae



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Collaborative projects, partnerships

- Creating a learning environment, based on respect, trust and goodwill
- Development in ICM of generic collaborative guidelines, best practice (e.g., based on reflection and evaluation)
- Opportunities for collaborative – joint projects with indigenous groups e.g., iwi and hapu
- Links to social, economic, and biophysical projects
- Indigenous knowledge research – adding the cultural dimension to ICM
- Building capacity (skills, resources empowerment)
- Understanding integrated systems for knowledge management to improve decision-making
- Tools, methods, approaches, lessons for working in other catchments
- Projects and actions



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Iwi led Puketawai restoration project



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Cultural-environmental projects



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Māori knowledge and information systems

The GIS project, Motueka

- Spatial database and mapping model for recording cultural heritage, Māori values, and taonga
- Complementary to existing Māori knowledge systems and science knowledge
- Recording cultural histories and values
- Accessing science and technical information
- Taking into account intellectual property rights, confidentiality and sensitivity of information
- Helping decision-making, goals for sustainability
- Building capacity for indigenous groups
- Promotes collaboration



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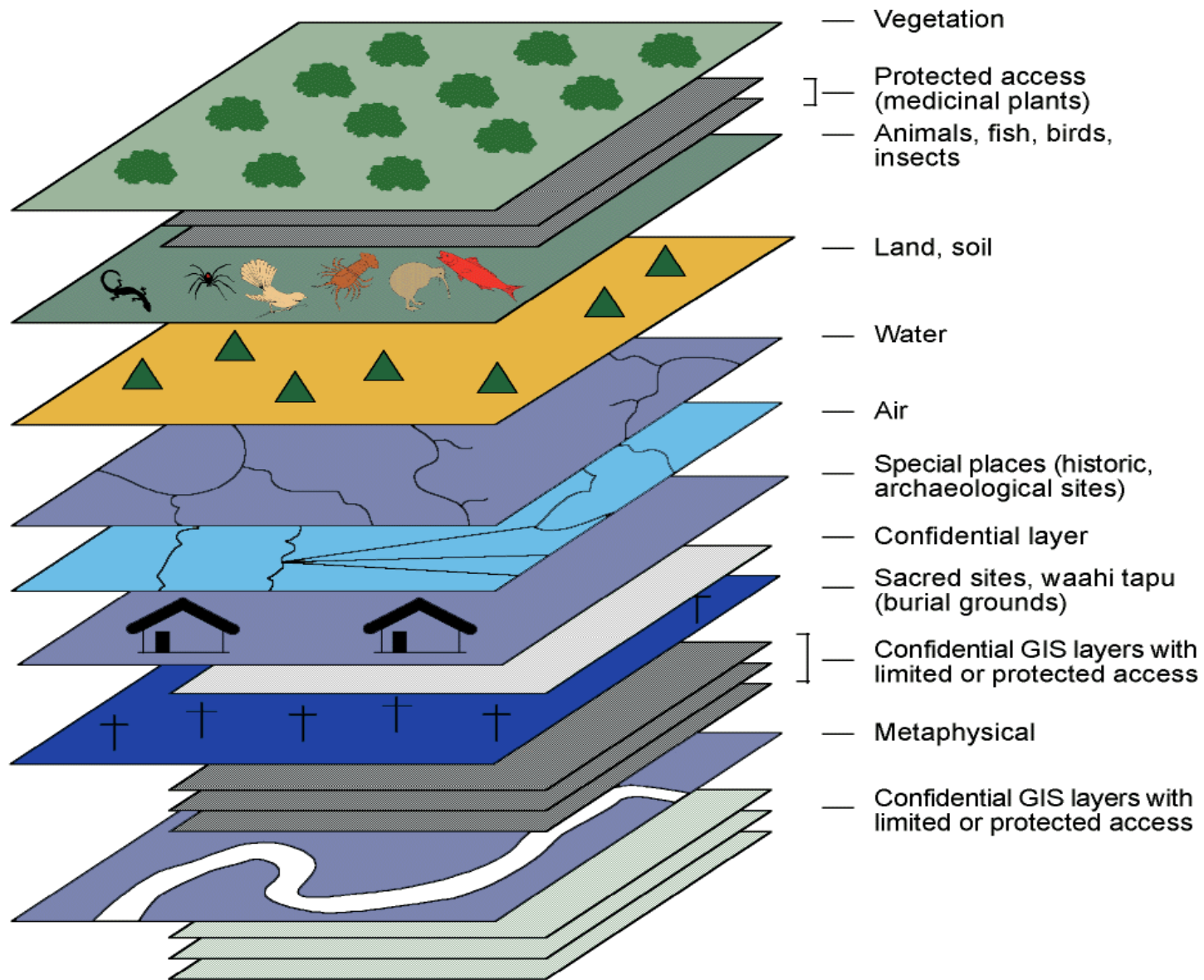


Figure 1: GIS layers and confidential sub-layers



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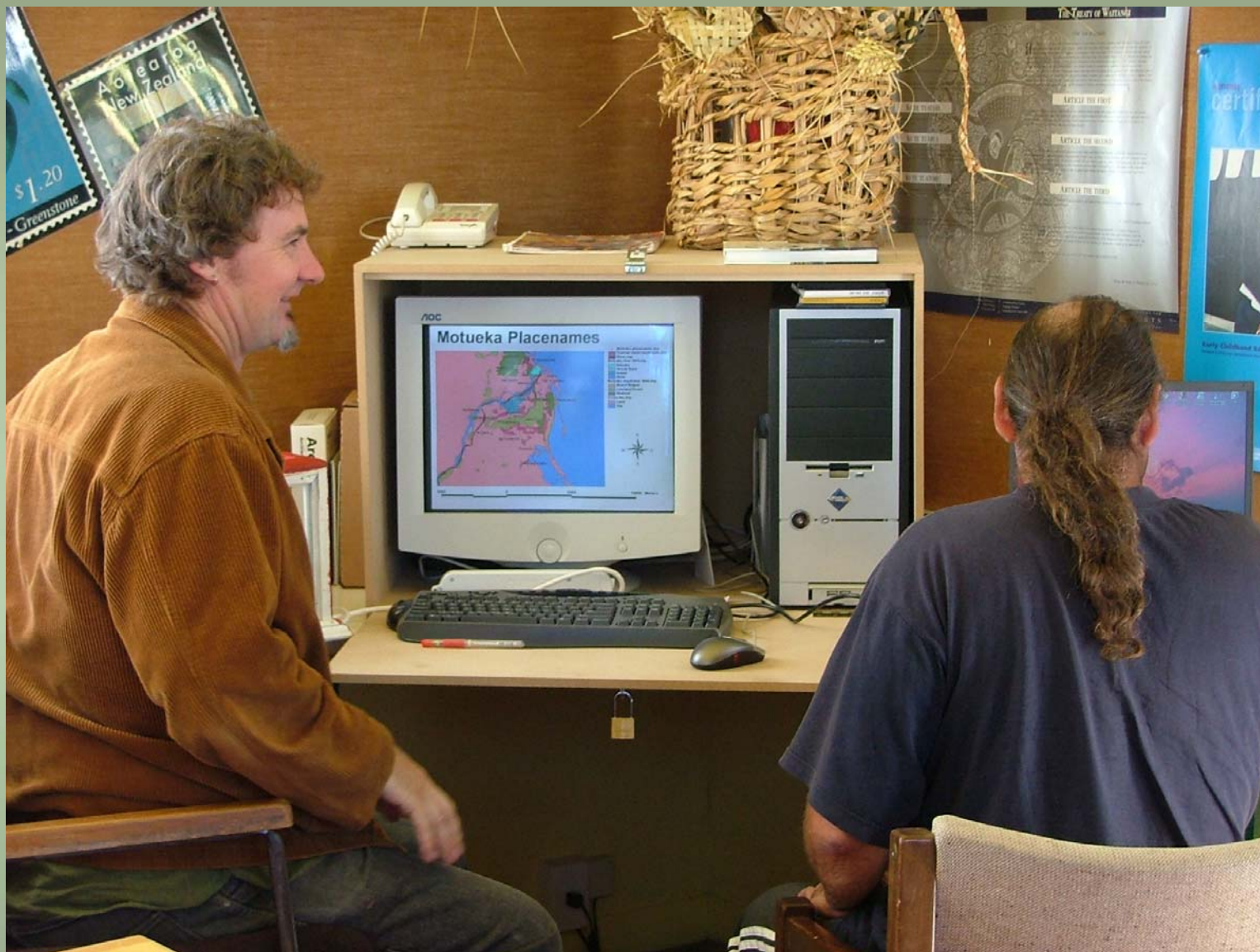
GIS hui/workshop 2005



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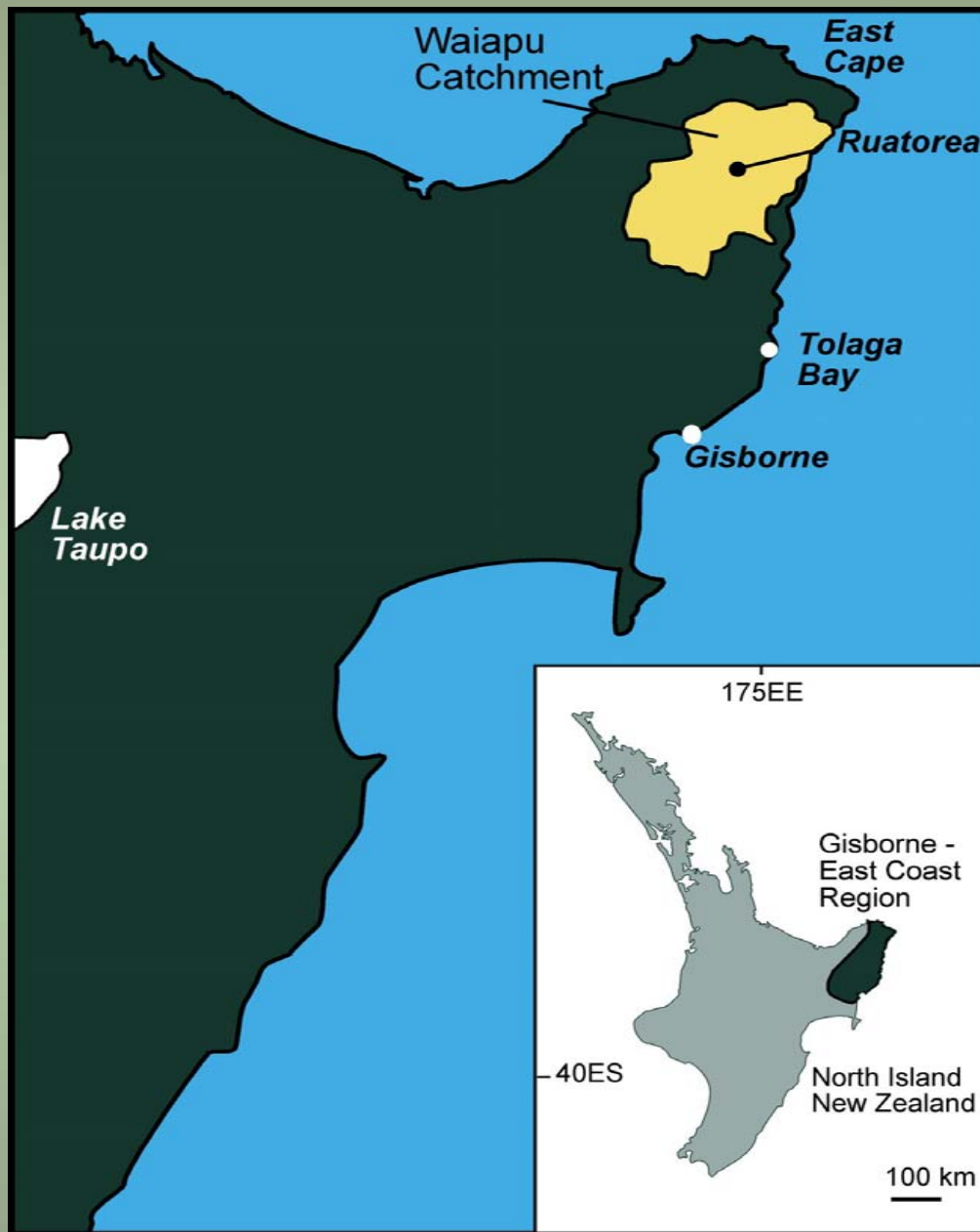
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Other catchments

- Research in the Waiapu catchment, East Coast North Island 1998-2003
- Collaborative learning
- Integrating Maori knowledge and western knowledge
- Community goals for ecosystem health
- Historical and Māori values information documented
- An indigenous catchment strategy developed
- Iwi research capability developed
- Empowering local communities
- Environmental – cultural projects



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Waipua River is bright
With health





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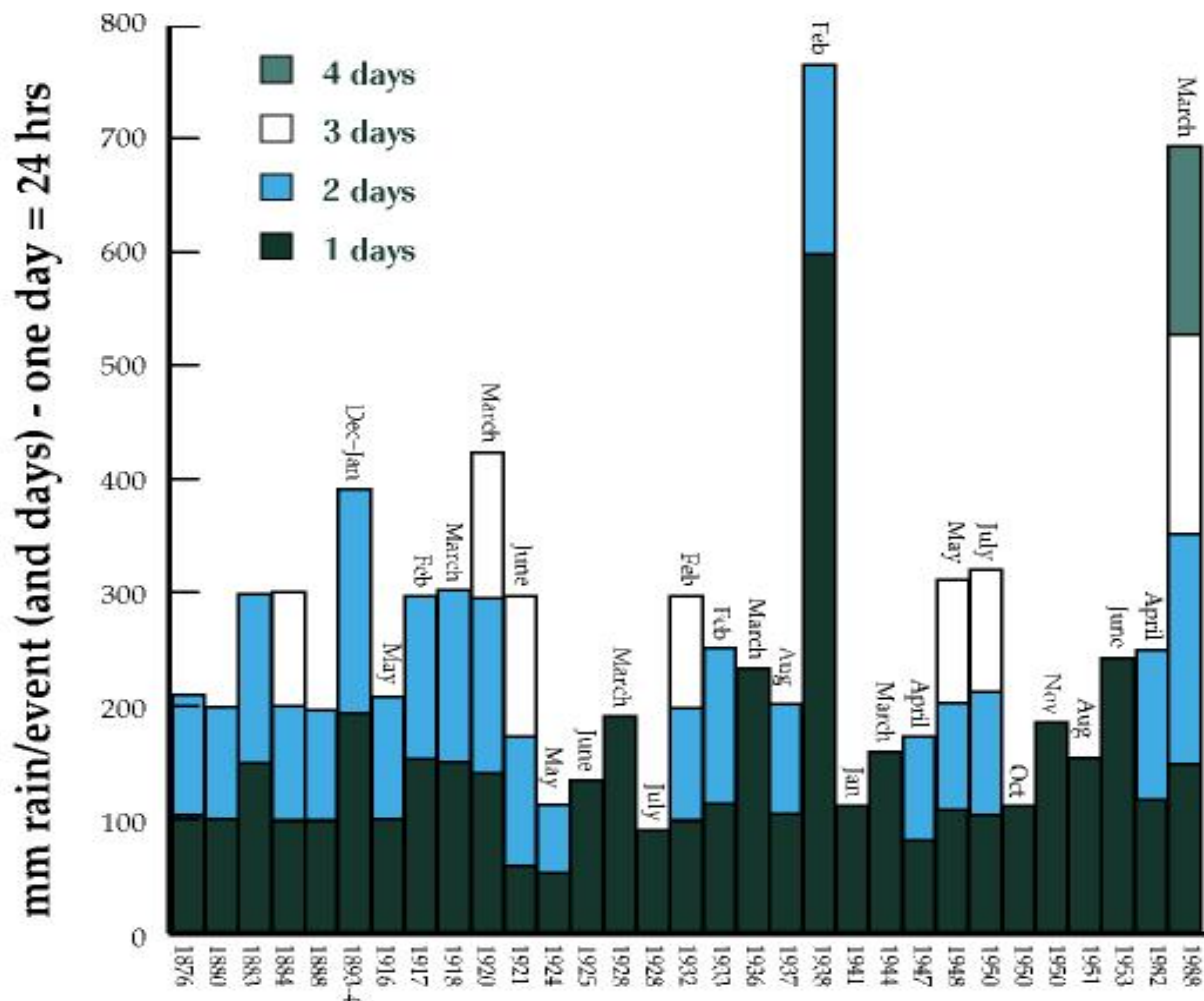
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Major Storm and Flood Events (since 1876)





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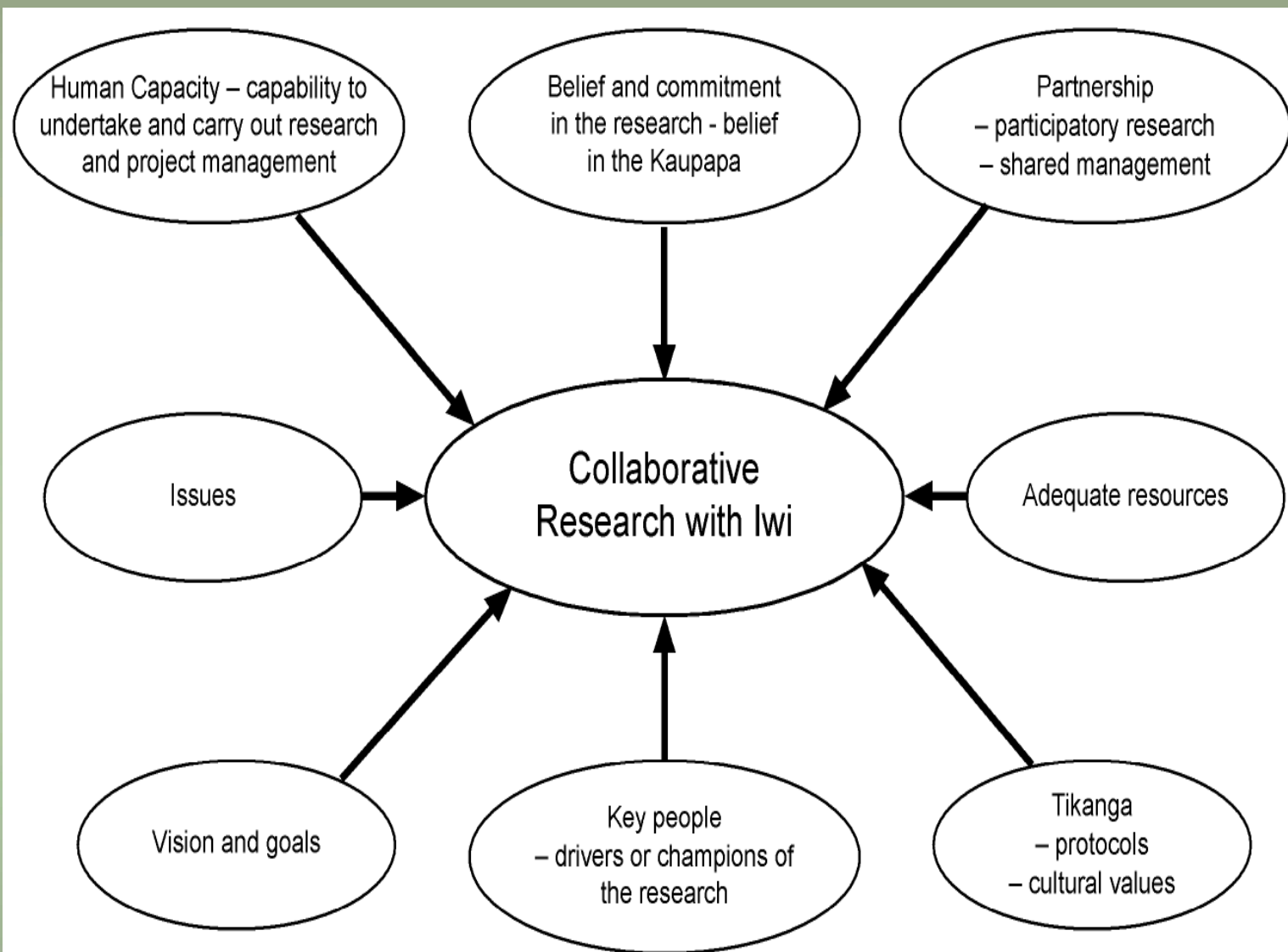


Figure 3: Making the 'collaborative research model' work: The key ingredients