

# How can the New Zealand Government Facilitate Bioprospecting Activities in New Zealand

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**Bioprospecting In NZ Seminar**

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# Overview

- **Scoping Bioprospecting**
- **Who is affected ?**
- **What is needed**
- **Factors to Keep in Mind**
- **Situation today**
- **Options for tomorrow**
- **Conclusion**

# Bioprospecting Scope

*“Bioprospecting is the examination of biological resources for features that may be of value for commercial development.”*

- **Biological resources**  
(plant, animal, fish, micro-orgs, sponge..)
- **Chemicals – anti-cancer drug**
- **Gene – drought resistance**
- **Material - fiber**
- **Plant trait – red colour in flower**
- **Food – novel flavour or form**

**International obligations**

# Market Sectors Involved

- **Pharmaceutical**
- **Botanical Medicinal**
- **Major Crops (seed industry)**
- **Horticulture**
- **Crop protection**
- **Other Biotechnology (enzymes)**
- **Personal-care - cosmetic**

# Interested Parties

- **New Zealand Public**
- **Maori**
- **Land Owners**
- **Researchers**
- **Commercial entities (NZ & Offshore)**
- **Government Departments (DOC)**
- **International Community**

# Perfect System

- Simple (one fits all situations)
- Inexpensive
- Adds value
- One stop shop
- Fare
- Flexible
- Facilitates New Zealand involvement (Co-ordinates)
  - “Sets the scene” “Creates an Environment”
  - Assists with understanding deal
  - Balances \$ & non \$ benefits
  - Satisfies international obligations
- Copes with Wai 262 outcomes

# What the Experts Say

## *Recommendations to Governments on access regulations,* (The commercial use of Biodiversity; Kate & Laird 1999)

- Participation (wide range of stakeholders)
- Team of industry advisors
- National Bioprospecting Strategy (integrated approach)
- Focal Point (must have)
- Simplicity & cost effectiveness
- Flexibility
- Clarity of scope & terms
- Legal certainty
- Confidentiality
- Conservation
- Enforcement

# Factors to keep in mind

## *Complexity*

- Researchers (academic v commercial)
- Land ownership (Gov v private)
- Environment (land v marine)
- Bioprospector Origin (NZ v offshore)
- NZ involvement (mandatory v optional)
- End use Types (chemical, gene, food...)
- Ability to pay (risk / return)
- Protection vs. development conflict
- Compliance: mandatory v optional
- Exclusivity

# The picture today

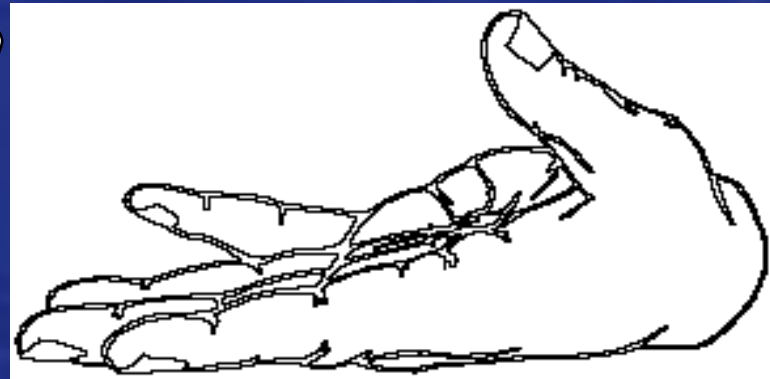
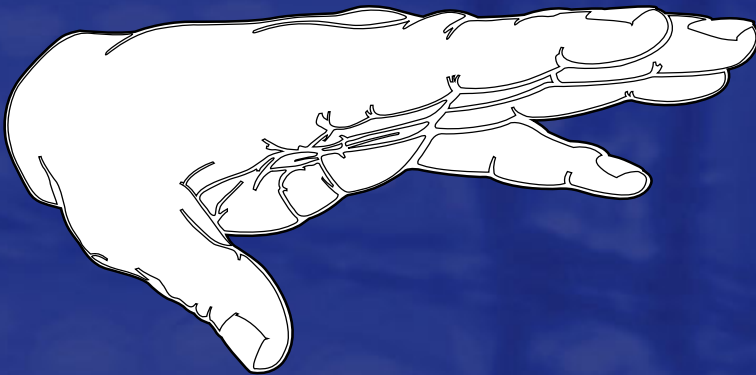
## *“Pizza”*

- Marine v Terrestrial
- Private Land v Doc estate
- Commercial v academic activity
- Co-ordination of activities ??
- Well understood ?
- Facilitates activity ?

# Balancing Act

*“It’s hard to find the perfect ...”*

- Bureaucratic rigid
- Middle path
- Simple non directive



- control v benefit
- \$ v involvement
- Simplicity v complexity (ROI)

# Extremophile One

## *“Mutton Roast”*

- Rigid
- Bureaucratic entity
- “This way or not at all”
- Co-ordination ?
- Agreement – prescribed & non-negotiable

# Extremophile Two

## *“Humble Carrot”*

- Very flexible
- Little direction (no co-ordination)
- No teeth
- Bioprospecting one of many activities
- Agreement – little direction or help

# The middle road *“Pasta”*

- Pro-active
- Brings parties together
- Works with NZ parties  
(Research, Landowners, Commercial)
- Maximizes NZ involvement
- Probably small entity Bioprospecting focus
- Agreement: Guide lines & assistance
  - Allows for differing end uses
  - Draft clauses for agreement

# Take Aways

## Government Facilitation through..

- One contact point
- Flexible
- Cost effective
- Pro-active (providing assistance & expertise)
- Maximise benefit to NZ (\$ + activity)