2023

2021

2020

New Zealanders value our biological heritage, understand how it is changing, and are inspired to take action to protect it

By 2024, a majority of New Zealanders value our biological heritage, & are enabled to actively contribute to positive change

New Zealand's biosecurity system is world class

By 2024, New Zealand's biosecurity system is fit for purpose

New Zealand's natural and production ecosystems are resilient and thriving

By 2024, we understand social and ecological linkages in natural and production ecosystems, and will be designing technical, policy and governance frameworks to ensure our ecosystems are resilient to current & future threats

SO1: We report progress using a biological heritage scorecard for Aotearoa

SO2: We empower New Zealanders to demand and enact environmental stewardship and kaitiakitanga

SO3: We anticipate both emerging & latent biosecurity risks, and avoid new or recurring invasions

SO4: We have state-of-the-art biosecurity surveillance

SO5: We deploy novel tools, technologies & strategies for control or eradication of biotic threats

SO6: We quantify socialecological linkages for use in managing, protecting and restoring ecosystems SO7: We enable people to build biological heritage resilience with the right policy and governance instruments

We know what & how to measure

Influential, adaptive scorecards empower people

Local scorecards are catalysts for action

Local communities develop & realise BioHeritage aspirations

There is legislative and sociocultural licence supporting the tools, frameworks & tikanga protocols developed elsewhere in BioH Participation: Mana whenua & key participants active in risk ID

Values: Biosecurity risks prioritised through Te Ao Māori lens

Impact: Dynamic and adaptable biosecurity risk analysis Much earlier detection & realtime monitoring of system changes

systems

Surveillance systems co-designed with Māori; communities involved in surveillance

New tools for surveillance developed & used

New GIS technology

for large-scale

biosecurity surveillance

identified and piloted with partners

Virtual Biosecurity Hub for Aotearoa being used for 'fast fail' projects co-designed with mana whenua

2-3 new tools for border biosecurity pests and/or vertebrate & invertebrate legacy pests developed & used and deployment 'at scale' accelerated

PF2050 supported through partnerships

Diverse, successful, & practical pathways to regeneration identified

Connections between people and nature valued & characterised

Capability to reverse the decline lifted and sustained

Mana whenua enabled and resourced to participate as partner

New governance architecture for biological heritage resilience developed

Scorecards scaled nationwide & report against national bioheritage indicator set & vision

Impact of sector-specific Scorecards evaluated & Scorecards improved

Case study co-designers/investors in three major sectors engaged & their Scorecards developed

National 100-year bioheritage vision and bicultural indicator set developed

Barriers to undertaking biological stewardship are measured empirically

'Levers' for mobilising environmental stewardship are identified and tested.

A multi-layered, spatially explicit model of complex social-ecological feedbacks is developed.

The model is parameterised for at least one specific social-ecological system

At least one industry body has agreed in principle to adopt framework

Co-designed risk assessment framework is being implemented

Stakeholders and champions actively testing framework

Knowledge gaps prioritised and align with stakeholders

One tech tested against target species

Technology consultation completed

Simulations demonstrate potential of tech

Invert pest and technology identified through stakeholder survey Non-fence option for preventing small mammal predator movements is available

Novel tool or approach has been developed to target introduced predators

Agreed steps that incorporate tūturu Māori input for a novel tool are established

Artificial Intelligence in Pest Control working group has held its first workshop Methods that support effective collective action are being used

Ecosystem regeneration exemplars developed and showcased

Adaptive approaches to scale-up ecosystem regeneration developed

Barriers to enhancing the success of restoration initiatives identified

Different leadership models have emerged and are being used

New policies developed based on the models

Models of treaty-based governance across Aotearoa compared for success in delivery of transformative outcomes

System co-design principles developed

#### **Champions & Influencers**

Developing a network of BioHeritage Champions

# Early Career Network Ngā Pī Ka Rere ow/build capability & capaci

Grow/build capability & capacity in BioH ECs

#### Māori Rōpū (Te Aho Mātauranga)

Grow & build capability & capacity emerging Māori Leaders

### **Biosecurity Hub**

Streamline and collaboratively develop fast-fail approaches to combat pathogens and pests

# Crazy Ambitious Think Tank

High-Impact think pieces to support research excellence

### Measuring Impact

Critical reflections and impact measurement

## **Data Connectivity**

A technical tool for partner agencies to "pool" data sets

