CONCEPT NOTE

NATIVE FOREST BOND SCHEME

A better way to finance continuous native forest in Aotearoa New Zealand.

David Hall
Sam Lindsay

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MōHIO

With support from:

G.I.F.T Gulf Innovation Fund Together 〉 A Foundation North initiative

ABOUT

The New Zealand Government is committed to increasing forest planting through its Billion Trees Programme, funded by the Provincial Growth Fund.

This should include continuous native forest on marginal erosion-prone land to enhance the mauri and resilience of the land, and to create carbon sinks to help New Zealand meet its international emissions targets.

THE OPPORTUNITY

A 2017 analysis for the Ministry for Primary Industries puts the scale of moderate to extremely erosion-prone land suitable for afforestation at 1.131 million hectares, about 4.2% of New Zealand's total land area.

The Parliamentary Commissioner for the Environment (2016) estimated that regeneration of native forest on at least one million hectares of marginal land would offset about 17% of all the agricultural methane and nitrous oxide currently emitted annually, into the indefinite future. Through intervention and innovation, this carbon sequestration potential could be even higher.

1.1 MILLION HECTARES OF EROSION-PRONE LAND

PROPOSAL

The Native Forest Bond Scheme is underpinned by a unique financing structure, guaranteed by the New Zealand Government, which provides urgently needed upfront capital for large-scale native forest establishment.

OBJECTIVE

To create a scalable, national level scheme that enables landowners to create forest carbon sinks to reduce New Zealand's net greenhouse gas emissions and enhance land resilience.

PAY FOR PERFORMANCE

The NFBS can establish forest more cost-effectively and efficiently by the private sector under environmental outcomes-based, pay-for-performance contracts that guarantee results for the Government and attractive financial returns for investors.

INTEGRATED OUTCOMES

The forest established through the NFBS creates a rich stack of social, environmental and economic benefits – both quantifiable and unquantifiable – which generates value for investors, landowners, regional communities, and the New Zealand public.

THE OUTCOMES

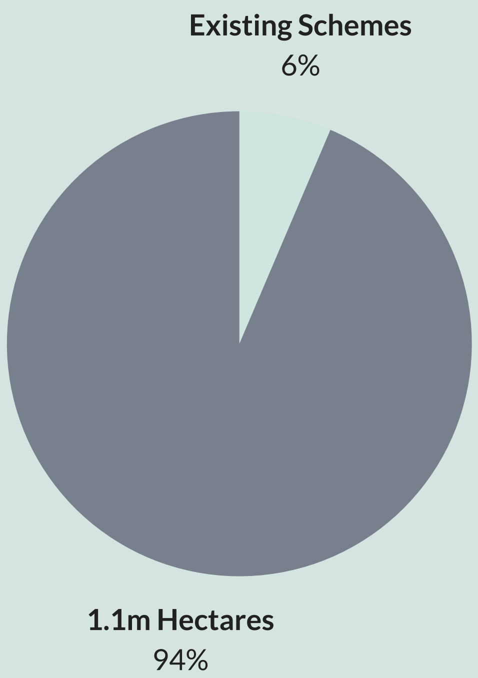
01 **MORE TREES**
Number of trees (stems per hectare)

02 **MORE CARBON**
Volume of carbon sequestered (tonnes of carbon per hectare)

03 **MORE CO-BENEFITS**
Avoided terrestrial erosion, reduced sediment in waterways, increased biodiversity, more regional jobs

WHAT IS AN IMPACT BOND?

"An Environmental Impact Bond is “a ‘pay-for-performance’ (PFP) contract that addresses an environmental issue. The PFP mechanism inherent in Environmental Impact Bonds (EIBs) will be similar to that of Social Impact Bonds (SIBs), whereby the government (or another contracting entity) pays an agreed-upon return if impact performance targets, as specified in the investment contract, are met. EIBs tend to represent a ‘monetization’ of future costs savings, whereby investors are paid a return based on the amount of cost savings generated by a particular project." – David Nicola (2013)



EXISTING SCHEMES ARE NOT REACHING THE POTENTIAL SCALE

Existing schemes (such as the AGS, PFSI and ECFP) do not yet reach the scale of the problem identified. Moreover, commercial forestry will not bridge the gap, because much of this steep and remote land is marginal for forestry as well as agriculture, due to the additional transport costs and logistical challenges of removing timber.

AGS

The Afforestation Grant Scheme (AGS) is a $20 million fund that targets 15,000 hectares between 2015 and 2020.

PFSI

The Permanent Forest Sink Initiative (PFSI) has 15,900 hectares registered since 2006.

ECFP

Erosion Control Funding Programme (ECFP) funds the establishment of forest on highly erodible land in the Gisborne district. By 2016, $49 million was paid to treat 41,251 hectares.

WORK FLOW

A COMMUNITY FACES A CHALLENGE

Meet climate targets, reforest erosion-prone land, reduce sedimentation, halt biodiversity loss, and create regional jobs.

THE GOVERNMENT MAKES IT A PRIORITY

Policymakers recognise the challenge but the Government may lack the resources and capacity to address it.

CONTRACTORS HAVE A SOLUTION

Plant continuous native forest on erosion-prone land to stabilise slopes and create carbon sinks.

PRIVATE INVESTORS STEP UP

A group of private Investors loan money to finance the up-front and continuing costs of the program.

INTERMEDIARY BRINGS IT ALL TOGETHER

The Intermediary uses the proceeds to fund the Contractors and ongoing operations.

THE CONTRACTORS GO TO WORK

To succeed, Contractors will need to meet a set of clear metrics: contracted outcomes and non-contracted KPIs.

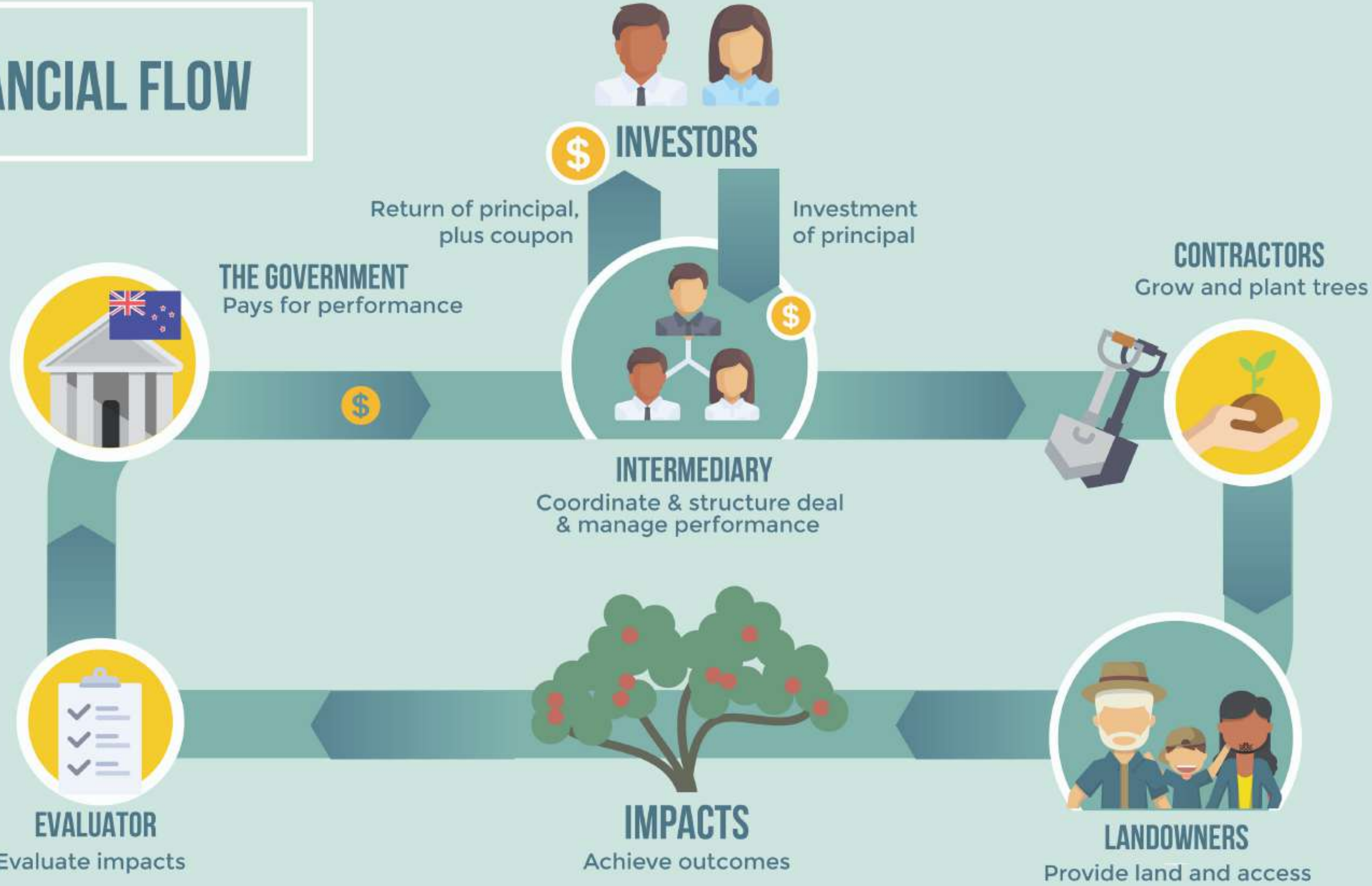
AN EVALUATOR MEASURES SUCCESS

After a fixed period, an independent Evaluator determines how effective the program has been, based on the agreed-upon metrics.

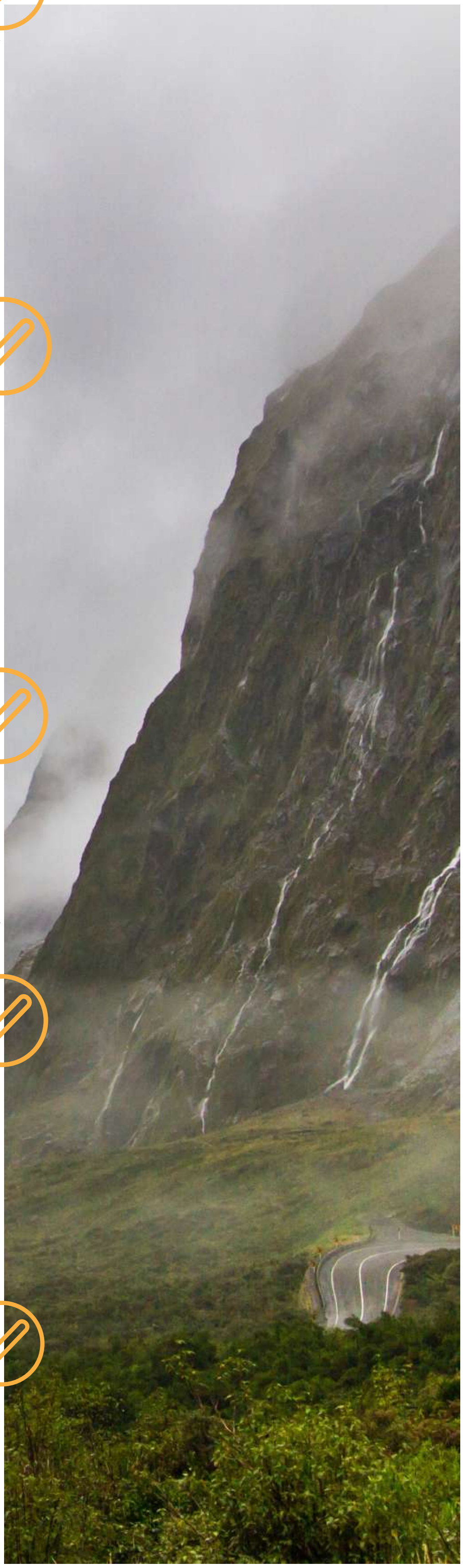
THE GOVERNMENT PAYS FOR RESULTS

Based on the demonstrated impact of the program, the Government pays the Intermediary who then repays the Investors loan, with interest.

FINANCIAL FLOW



ROLE OF EACH PARTY



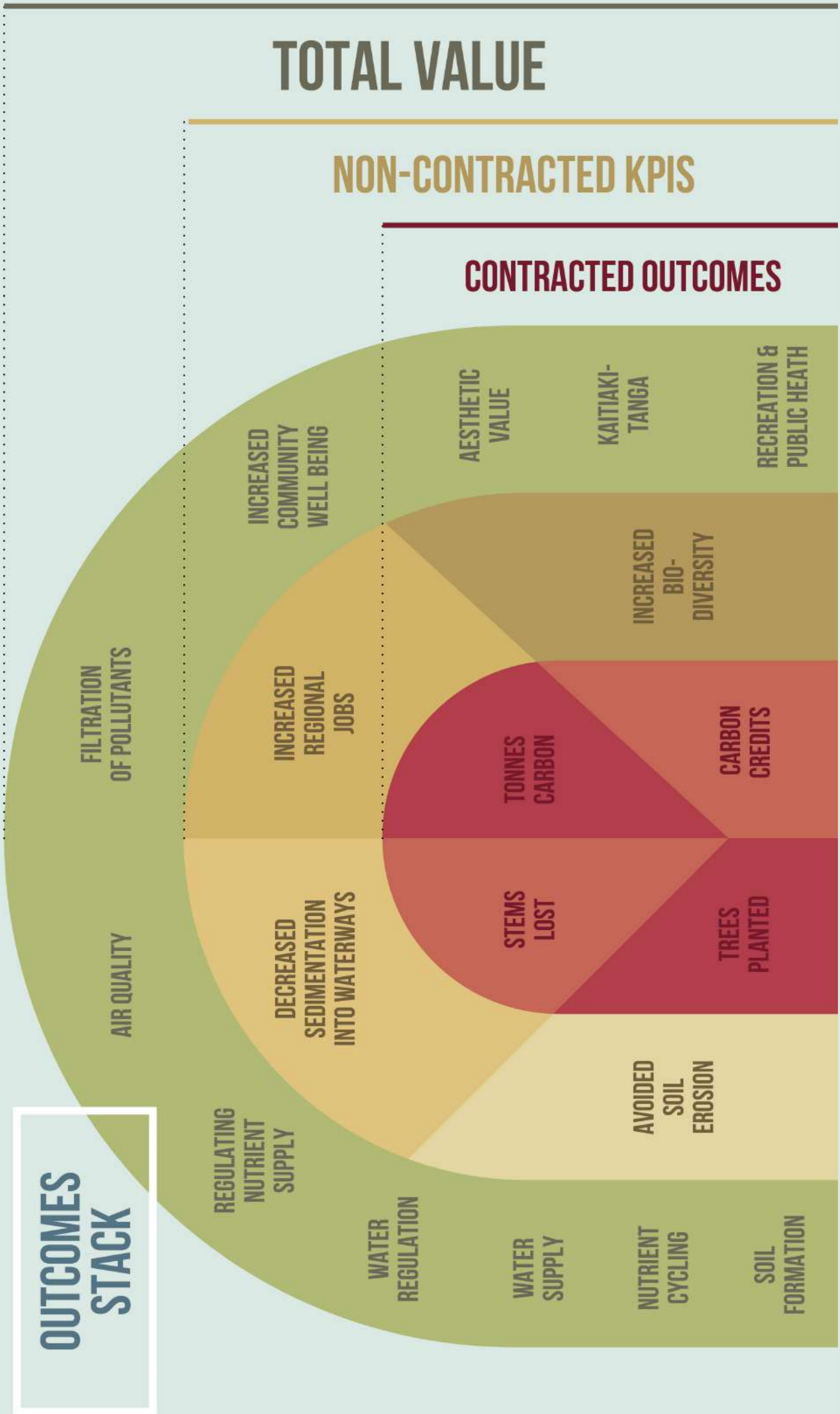
Contracting Agency: On behalf of the Government, the Contracting Agency makes a promise to pay the Intermediary for managing a successful intervention with agreed-upon impacts. In this case, the outcome is continuous native forest which will remove carbon dioxide from the atmosphere, enhance the mauri and resilience of erosion-prone land and associated waterways, create meaningful employment opportunities in the regions, and enhance native biodiversity.

The Intermediary: This guarantee to pay for outcomes, formalised through a pay-for-performance contract between the Intermediary and the Contracting Agency, provides the Intermediary with the commercial conditions required to raise investment capital from private sector investors through issuing the Bond. Typically, the Intermediary is also tasked with coordinating and structuring the deal and managing performance of contractors.

The Investors: By purchasing the Bond, the Investors provide a loan (the principal) to the Intermediary which will be used as up-front capital for establishing new forest. The Investors are exposed to the risk that the Intermediary will not achieve the agreed-upon impacts, and are compensated for that risk by being paid an interest rate on the loan if the intervention is successful.

Contractors & Landowners: The Investors' capital (the principal) is used to pay the Contractors to identify and prepare planting sites, plant the trees, and maintain the sites afterwards. This enables the Landowners to make a land use conversion that they otherwise might not have had the time, resources or expertise to make.

The Evaluator: Once the forest is established, the Evaluator assesses whether the impact targets are successfully met. If the targets are met, payment is triggered from the Contracting Agency to the Intermediary, as per the pay-for-performance contract. This money is used to repay the Investors during the tenor (the lifetime) of the Bond.


TOTAL VALUE
NON-CONTRACTED KPIS
CONTRACTED OUTCOMES
AESTHETIC VALUE
KAITIAKI-TANGA
RECREATION & PUBLIC HEATH
INCREASED COMMUNITY WELL BEING
INCREASED BIO-DIVERSITY
FILTRATION OF POLLUTANTS
INCREASED REGIONAL JOBS
TONNES CARBON
CARBON CREDITS
AIR QUALITY
DECREASED SEDIMENTATION INTO WATERWAYS
STEMS LOST
TREES PLANTED
AVOIDED SOIL EROSION
REGULATING NUTRIENT SUPPLY
WATER REGULATION
WATER SUPPLY
NUTRIENT CYCLING
SOIL FORMATION
OUTCOMES STACK

PROPOSED STRUCTURE

- Note, any words or figures which are present between [brackets] are placeholder text which will form the basis of discussion with the Contracting Agency.

- A [10] year expected maturity bond to be issued by a special purpose vehicle (the "Issuer"). Two classes of bonds will be issued: senior bonds (Class A) and subordinated bonds (Class B).

- The Issuer will enter into an outcome agreement in the Contracting Agency under which it will be required to plant continuous native forest to an agreed standard in agreed areas. The Issuer will subcontract all its obligations under the outcome agreement to subcontractors agreed with the Contracting Agency. The Issuer will have the ability to replace the subcontractor for a breach of the subcontract which is not cured within any applicable grace period.

- The amount raised through the issue of bonds will be sufficient to cover the establishment costs of the bond and the project expenses and service interest payments up to the date by which the Government is expected to start making payments under the outcome agreement.

- Under the outcome agreement, the Government will make outcome payments depending on the actual performance of the project. No payments will be made unless minimum agreed performance is achieved.

- The outcome payments will comprise 2 components:

1. A payment per healthy tree which will commence in month [45] and step up as the healthy trees mature and carbon sequestration capacity increases; and
2. A payment per [unit of carbon sequestered] which will commence in month [66].

- The outcome payments will cease in month [120].

- The Government will be entitled to retain the AAUs from planting until month [120]; thereafter the AAU's will become NZU's and revert to the issuer for the benefit of the bondholders and finally the landowners.

- The proceeds of the bond and the outcome agreement payments will be deposited into a cash reserve and released periodically to pay agreed expenses in relation to the project including paying interest and scheduled principal payment amounts in respect of the bonds.

- At maturity of the outcome agreement, subject to the bondholders having been fully repaid any surplus balance in the reserve would be released to the Government as a reimbursement of previous outcome payments.

- If the outcome payments are not sufficient to fully repay the bonds, after month [120], the issuer will apply the proceeds of sale.

CONTACT INFORMATION

MISSION

Mōhio is passionate about research, policy & investment solutions that reflect Aotearoa: its circumstances, its values & its unique opportunities.

MŌHIO RESEARCH LTD

55 Wellesley Street East,
Auckland City, 1010
Auckland, New Zealand

DAVID HALL

w. LinkedIn
m. 022 0598 616
e. david.hall@aut.ac.nz

SAM LINDSAY

w. LinkedIn
m. 027 382 2697
e. sam.w.lindsay@gmail.com

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