



**THE POLICY OBSERVATORY**

# Greening the Future: A Social Investments Approach to Environmental Problems

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# Overview

1. Points of convergence
2. Case studies (real and hypothetical)
3. Points of distinction
4. Risks and limitations



# What is social investment?

“a programme funded by the Government that entails applying resources today in the expectation that a measurable improvement in a dimension of policy interest will result at some point in the future”.

—NZIER & IGPS (2016), *Defining social investment, Kiwi-style*.





# What is Kiwi-style social investment?

- Intertemporal (near-term interventions for long-term outcomes)
- Effectiveness (outcomes-oriented)
- Evidence (data in, data out)

—NZIER & IGPS (2016), *Defining social investment, Kiwi-style*.



# Old-wine-in-new-bottles syndrome

You say, “Forward liabilities.”



# Old-wine-in-new-bottles syndrome

You say, “Forward liabilities.”

I say, “Negative temporal externalities.”





# Points of convergence

- Future-oriented
- Focus on prevention (also remediation)
- Prioritises outcomes over outputs
- Focus on measurement
- Informationally rich (data in, data out)
- Lean toward public-private arrangements



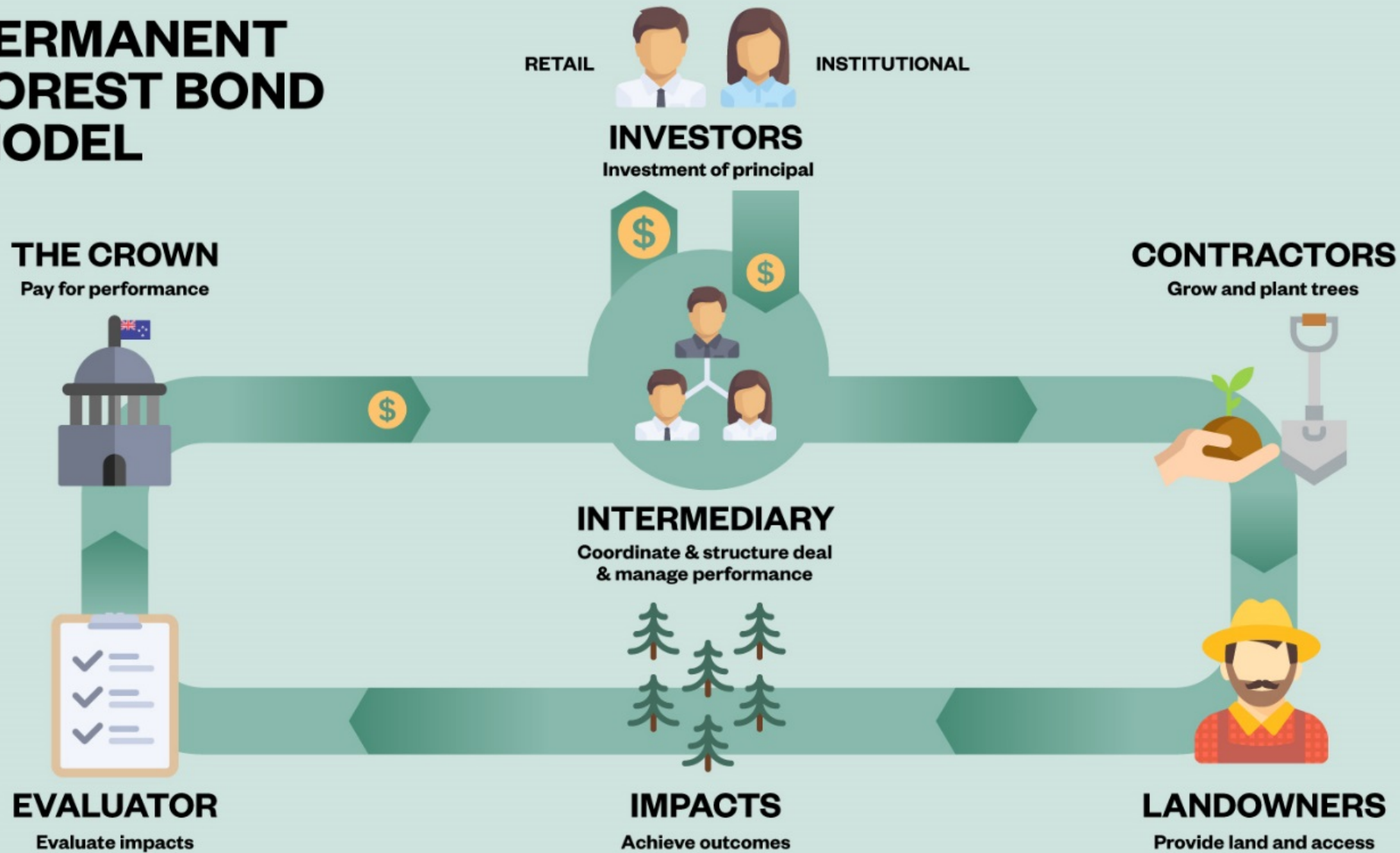
# Social Impact Bonds

- SIBs an auxiliary to social investment approach
- “At its core, a Social Impact Bond is a public-private partnership which funds effective social services through a performance-based contract.”  
Social Finance (2016).
- Government isn't investor, but bond issuer.





# PERMANENT FOREST BOND MODEL



# DC Water Environmental Impact Bond

- To install green infrastructure in the Washington D.C. area
- To avoid building more expensive grey infrastructure
- The switch from grey to green infrastructure is likely to save public money but carries risk of failure

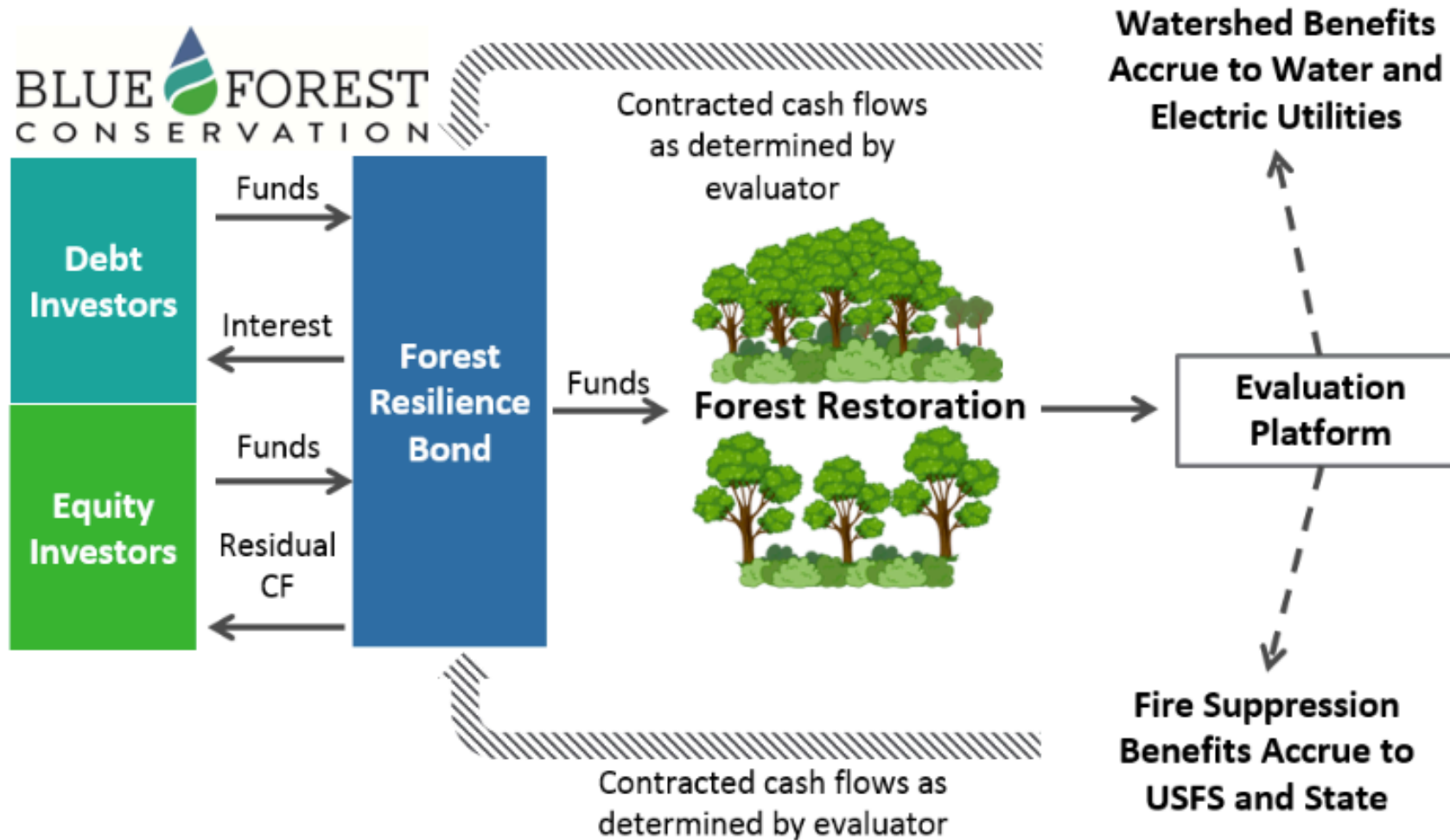




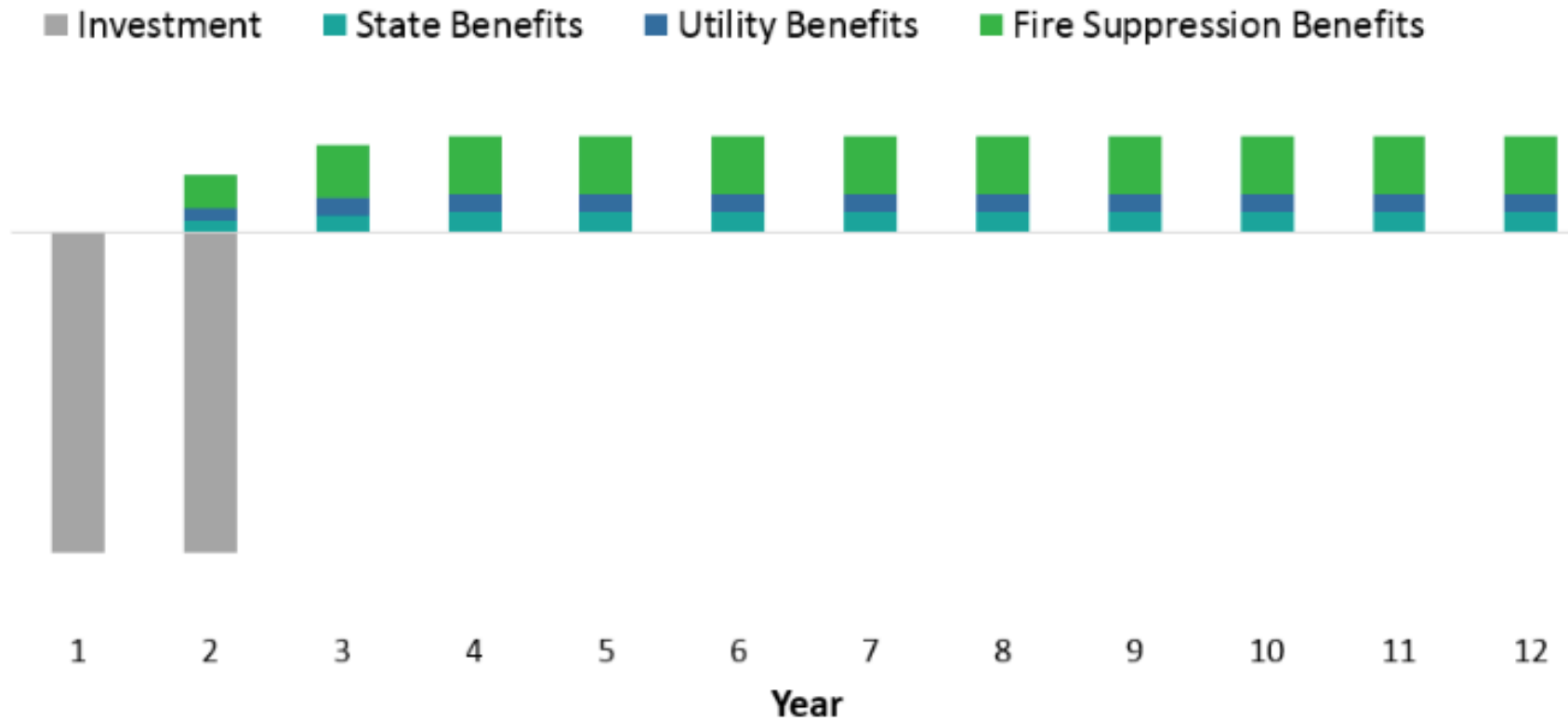
<b>Performance Tier</b>	<b>Outcome</b>	<b>Contingency Payment</b>	<b>Expected Likelihood</b>
1 (High Performance)	Runoff reduced > 41.3%	DC Water makes “Outcome Payment” of \$3.3 million to investors	2.5%
2 (Expected Performance)	Runoff reduced as expected (18.6% < reduction < 41.3%)	Neither party makes a contingent payment	95%
3 (Low Performance)	Runoff reduced < 18.6%	Investors make “Shared Risk Payment” of \$3.3 million to DC Water	2.5%



# The Forest Resilience Bond Structure



# Illustrative Cash Flows



# Points of distinction

... from social to environmental impact  
... from social to environmental science





# Point of distinction #1

- Social outcomes are challenging to measure



# Point of distinction #1

- Social outcomes are challenging to measure
- **Environmental outcomes are relatively easier to measure**



## Point of distinction #2

- Few “off-the-shelf” measures for social impact





## Point of distinction #2

- Few “off-the-shelf” measures for social impact
- Many “off-the-shelf” measures for environmental impact



# Point of distinction #3

- Social measurement raises various ethical issues



## Point of distinction #3

- Social measurement raises various ethical issues
- **Environmental measurement raises fewer ethical issues**





# Point of distinction #4

- Social phenomena are sensitive to observer effects



# Point of distinction #4

- Social phenomena are sensitive to observer effects
- **Environmental phenomena are less sensitive to observer effects**



# Point of distinction #5

- Social outcomes largely impact on government expenditure





# Point of distinction #5

- Social outcomes largely impact on government expenditure
- Environmental outcomes often create revenue independent of govt



# Point of distinction #6

- Social facts are often highly contingent and localised



## Point of distinction #6

- Social facts are often highly contingent and localised
  - **Scientific facts are often widely generalisable**





# Risks and limitations

- High initial transaction costs
- Not suitable for all environmental problems
- Impact targets might generate non-enduring solutions
- Focus on impacts targets diverts attention from underlying causes
- Is the investment approach a Trojan horse for underinvestment?



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