Can private investment support sustainable forestry, climate action and community development?

David Brand, CEO, New Forests Pty Ltd
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Harnessing private investment to support sustainable forestry, climate action and community development
About New Forests

- Founded in 2005 to manage institutional investments in the forest sector
- Head office in Sydney; 80 employees in Australia, New Zealand, Singapore and San Francisco
- Managing investments in approximately USD 5.0 billion of assets including over 950,000 hectares of forests and rural land, timber processing facilities, infrastructure and conservation investments across Asia-Pacific and USA
- Clients are pension funds, reinsurance companies, medical benefits trusts, etc.
- Company mission is strongly oriented to sustainable forest management and role of forests in addressing climate change
Institutional Investment in Forestry

About $100b has been invested in forestry, but 90% is in the United States, Australia and New Zealand—that may be changing

- Institutional Investors include Pension Funds, Insurance and Re-Insurance companies, Medical Benefits Trusts, Sovereign Wealth Funds, Foundations and Endowments—approximately $70trillion
- Many of these investors control $100s of billions of dollars and can be considered ‘universal investors’ because they invest across the entire global economy
- They design portfolios of investments to meet their future liabilities—pensions, insurance payouts, medical costs, government initiatives, etc
- Forestry has been seen as a ‘real asset class’ alongside real estate, infrastructure and farmland
- Forestry has attractive characteristics of low risk relative to returns, cash yield, and low correlation with other assets
- Main issue for investors has been limited size of forestry asset class—all investible forests in the world would represent a fraction of the value of Manhattan real estate—is it worth the time and effort to invest in these scarce assets?
Investment Strategy is Shifting in Forestry

*Climate Change will come to dominate*

- Interest in the forestry sector is increasing because of the rising demand for decarbonization of the global economy
- Europe, the UK, the USA, Canada, Japan, Korea, New Zealand and China have made net zero commitments
- Thousands of corporations have pledged to net zero, and the oil and gas majors are seeking to transition their businesses
- Investors controlling $trillions of dollars have made the commitment to align their investments with the Paris Agreement goal of Net Zero by 2050.
- This is a significant opportunity for the forestry sector worldwide
- Two key areas are of interest to investors:
  - The role of forests and land use in reducing emissions and increasing ‘removals’ of CO2 from the atmosphere
  - The transition to a circular bio-economy
Natural Climate Solutions

Sustainable Forestry and Agriculture, conservation and restoration are now seen as central to climate change mitigation

• Deforestation, degradation of ecosystems, and agriculture represent 25% of global emissions
• This represents 10b tonnes of CO2 equivalent per annum—this needs to be urgently reduced
• Restoration and sustainable forestry and agriculture can also absorb CO2 in vegetation, soils and peatlands—goals of several billion tonnes per annum by mid-century
• Collectively this is a bigger transition than the shift from fossil fuels to clean energy
Implications of the Rising Bioeconomy for the Forestry Sector

Demand for sustainable, re-usable, recyclable, and renewable materials is rising.

By comparison the world produces 10b tonnes of concrete, 2b tonnes of steel and 400m tonnes of plastics each year - How much of this could be substituted with wood and wood fibre?
The Forestry Sector and the Transition to a Bio-economy

How does the forest sector contribute to the bio-economy?

- Systematic substitution of biomass-based materials for existing petroleum-based or high embodied energy materials (e.g. concrete and steel)

- Multiple opportunities are emerging in parallel:
  - Sustainable packaging
  - Cellulosic fabrics
  - New engineered wood materials and multi-story wood construction systems
  - Biochemicals and bioplastics
  - Biomass energy and fuels
Example: Stora Enso – The Renewable Materials Company

Motto: “Anything made from fossil-based materials today can be made from a tree tomorrow”

- Stora Enso is a leading example of a company leading the transition to a circular bio-economy
- 70% of the sales revenue of the company today is from products it did not make ten years ago.
Mass Timber Construction in the USA is expected to double every two years

- Substantial increase from dozens of buildings per annum now to thousands by 2030’s.
- Entire US construction industry could become carbon neutral by 2034
- Linked with the prefabrication trend, could be one of the most significant transitions ever seen in the construction industry

Demand for Wood Fibre and Woody Biomass in a Bio-economy Transition

A substantial increase in demand for both climate change mitigation and biomass-based materials and energy will drive a need for expansion in reforestation and forest sector production.

This will need to come largely from sustainably managed plantations in the southern hemisphere and tropics.
Example—Chinese Demand Growth

Chinese Softwood Log Imports have doubled since 2009

Chinese Woodfibre Imports have increased almost 5-fold since 2009

• Chinese demand growth has substantially restructured global timber markets.
• Imports of Lumber and Wood Pulp have risen even faster than logs and woodfibre
• Asia and Africa may be huge growth markets in the coming decades
Climate Finance for Forests

*Multiple programs to create a carbon price signal in forestry are now operating*

There are opportunities for investors, but rules vary from scheme to scheme. Paris Agreement is ‘bottom up’. New Forests has undertaken dozens of transactions in these markets

<table>
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<tr>
<th>Offset Program</th>
<th>Current Pricing</th>
<th>Main Protocols</th>
<th>Market Features</th>
<th>Outlook</th>
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<tbody>
<tr>
<td>California incl. Quebec (Western Climate Initiative)</td>
<td>USD 13</td>
<td>Improved forest management across USA</td>
<td>Price floor rising annually reduces volatility</td>
<td>Extended to 2030 with supermajority in legislature</td>
</tr>
<tr>
<td>New Zealand Emissions Trading Systems</td>
<td>USD 30</td>
<td>Reforestation</td>
<td>Market price sensitive to recent lifting of price cap to about USD 36</td>
<td>Linked to NZ Gov’t 2030 Target under Paris Agreement, but subject to revisions by future governments</td>
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<tr>
<td>Australian Emission Reduction Fund and Safeguard Mechanism</td>
<td>USD 12</td>
<td>Reforestation and extended rotations</td>
<td>Reverse auction with Government as primary buyer, but with increasing corporate secondary demand supporting market</td>
<td>Re-elected Coalition government has recommitted to funding of program, pressure on government to lift climate ambition</td>
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<td>REDD+ and other voluntary credits including CORSIA</td>
<td>USD 3-5</td>
<td>Conservation, reduced impact logging, restoration and reforestation</td>
<td>Voluntary or Government contracts have been insufficient to support meaningful price; too many low quality projects</td>
<td>Task Force on Voluntary Carbon Markets seeking to increase credibility and transparency; CORSIA, major corporate commitments will drive demand</td>
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Current total market size is in the $100s of millions per annum but forecast by McKinsey and the World Economic Forum to rise to $50b per annum in 2030, and $100s of billions per annum by 2050.
Communities and Forestry Investment

Forestry is transitioning from a Government-led to a Private Sector-led sector of the economy.

- Historically, forestry was based on large reservoirs of government-controlled timber, supplemented with some private timber supply
- As most economic timber was exploited, there has been a shift towards private investment in forestry plantations
- Rising emphasis on sustainability and recognition that access to land depends on providing benefits to communities, and creating investment models based on ‘shared value’
- Shared value is a concept where investors seek to create both appropriate investment returns and community development benefits as equal objectives
- Natural Climate Solutions, 1 trillion trees initiatives, corporate emissions reduction commitments will require substantial capital in reforestation
- Increasing opportunity to encompass conservation finance, community forestry and commercial forestry investment

Harnessing private investment to support sustainable forestry, climate action and community development
Large Scale Reforestation will only occur in partnership with Communities

Much of the southern hemisphere and tropics has suffered from disputed land rights.

- Uncertain or disputed land rights affects regional economies, and makes productive investment difficult
- Conflicts over land use lead to lack of capital and short-term behaviours
- New models to attract investment and benefit communities are emerging—out-grower schemes, agro-forestry, community benefit sharing
- While sometimes complex, these models are central to getting productive and sustainable land use systems in place at scale

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<tr>
<th>System</th>
<th>Key Characteristics</th>
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<tr>
<td>Out-grower Scheme</td>
<td>Individual farmers are provided with trees to plant and have timber marketed by core forestry manager</td>
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<tr>
<td>Agro-forestry</td>
<td>Core forestry manager either leases land to plant trees or integrates trees with cropping and grazing systems</td>
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<tr>
<td>Community Benefits</td>
<td>Community partnerships where forestry manager shares profits or agrees community funding in return for land use</td>
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<tr>
<td>Whole Farm Management</td>
<td>Forestry manager provides a mix of revegetation and commercial forestry, providing carbon neutrality, land leasing and/or crop shares</td>
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### Blended Finance for Sustainable Forest Management

*Blended finance refers to structures where traditional equity investment is linked to concessional capital to deliver social and environmental co-benefits and to reduce risk*

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<tr>
<th>Technical Assistance/Grant Facility</th>
<th>Equity Investment at Concessional Rates</th>
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<tr>
<td>Pay for Performance</td>
<td>Blended Equity and Performance Investment</td>
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<tr>
<td>First Loss Risk Capital</td>
<td>Anchor Capital</td>
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- Blended finance structures are used to address barriers to investment
- In the case of forestry and climate, blended finance offers potential to:
  - Catalyse additional finance
  - Overcome barriers to make more deals investable
  - Shift the risk-return profile of investments
  - Generate additional impact in investments
- Blended finance concepts are rapidly developing and being tested, largely in support of driving investment in emerging economies aligned with the Sustainable Development Goals.

An Example of Blended Finance is New Forests’ Tropical Asia Forest Fund 2 which has institutional investors and DFIs as class A commercial investors; and corporate and foundation investors as Class B impact investors who support climate, biodiversity and community benefits, and buy carbon offsets.
Conclusions

• Conservation, sustainable land use and reforestation have a key role to play in addressing climate change — potentially 25-33% of mitigation by 2050.

• Two key elements are carbon sequestration and storage, and substitution of wood, biomass, and bio-materials for high emission or high embodied energy materials

• Investment Opportunities include:
  o Exposure to climate finance to increase returns
  o Forestry expansion in emerging markets linked to community social and economic benefit programs
  o New investment structures including blended finance and conservation finance to integrate conservation, production and community development

• Resilient sustainable landscapes are also central to adaptation to climate change