



Next Generation Forest Plantation Investment

Financial Sector Report

March 2019 |
Report 7. Next Generation Forest Plantation Investment Research Project

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Executive Summary

This financial sector research report forms part of the *Next Generation Forest Plantation Investment* project funded by forest industry partners and the Australian Government through Forest and Wood Products Australia. This aspect of the project research was conducted with the intent of exploring the finance and investor landscape in the forestry context. The overarching goal was to understand investor motivations, requirements and conditions that would foster greater investment in planted trees.

Study methods

The financial sector research was conducted between October 2017 and September 2018 and involved:

1. **An online survey** — to investigate the finance and investment sector interest of, and awareness about, investment in planted trees. This exploration extended to sector knowledge of plans, perceived benefits and risks, and the role of ‘impact’ in investment decisions. The survey was completed by 52 respondents from the financial and investment sector in Australia and overseas. It is worth noting that the low survey response rates can indicate a low level of current interest and knowledge about planted trees as an investment and finance opportunity.
2. **Interviews** — to deepen our knowledge about the finance and investment sector interest and awareness of tree investment, learn about finance and investment decision making, and better understand the investment landscape. Interviewees included 43 professionals including fund managers, advisors, private investors, banking professionals, top executives of financial institutions, as well as plantation owners, operators, and other ‘innovators’ in forest investment. Approximately half of the respondents were currently, or had recently, invested in growing trees for harvest, or invested in a company that did so.
3. **Desktop research** — to provide broader context to our research domain and identify investment or investor opportunities for new capital for forests. The bibliography included reports, statistical data, professional and research publications related to the Australian and global investment sectors.

Current status of investment in planted trees

New investments leading to new plantations in Australia have been at a standstill for nearly a decade. The establishment rate decreased from 86,600 hectares in 2006–07 to 200 hectares in 2016–17, the lowest ever recorded under the National Plantation Inventory (ABARES 2018). While very few new plantations were planted during the last decade, the relative mix of non-government plantation owners has shifted substantially. The biggest movements have been the redistribution of MIS assets (33% of the plantation estate in 2006–7 and 5% in 2016–7) to institutional ownership, which increased from 12% in 2006–7 to 49% in 2016–7 (ABARES 2018). Because of the market opportunity created by the collapse of the MIS companies during the global financial crisis, these assets were purchased by institutional investors at very favourable prices that are no longer available in the current market.

Our research has identified that there are constraints for both private investors and professional managers (of collective or private funds) at the awareness, interest, willingness and ability stages that reduce their likelihood of investing in forestry. Awareness does not translate into interest for many investors. In the absence of direct experience, negative stories contribute to a generalised perception of higher risk and difficulty than other investments generating comparable return that dissuades investors when there are ‘easier’ options available. Even when investors are aware and interested in forestry investment, it is difficult to make an investment case for new investment in forestry with land prices at their current levels. Additionally, at this time, the level of investment required in forestry in its current form is too high for most of private investors. There are very few retail opportunities for private investors to gain exposure to forestry in the Australian market.

A premise of this project is that integrating trees with existing land uses is a key avenue for increasing the planted forest estate. Professional fund managers are generally interested in optimising the use of capital, rather than optimising use of land. Hence, most are not receptive to mixing forestry with other land uses, expressing strong preferences for specialised managers and specialised investment products. They hold the belief that specialisation is critical for optimising financial results, and that lack of specialisation is a breach of fiduciary responsibility. Thus, they diversify across portfolio but keep products and land parcels separate. By contrast, smaller investors and specialised agricultural funds are more receptive to mixing land use, and more likely to be motivated by diversification opportunity offered by integrating forestry into agricultural land use. Private investors are likewise less focused on specialisation than professional investors and, more open to trying new ideas including mixed uses of land.

Similarly, a longer-term perspective is required to achieve results in agriculture and forestry, which are subject to weather patterns and other fluctuations. Currently most institutional investors and lenders approach financial outcomes of their portfolios with a short-term perspective. Private investors and private fund managers are more able to adopt a long-term perspective to their investment returns.

Research findings

We have found that while *financial return on investment* is a key motivator for investors, many are seeking opportunities that also have *measurable social or environmental impact to be realised* by the investor in addition to financial return.

These findings reflect a global trend of large investors rapidly adopting responsible and ethical principles to inform their decision making processes. This adoption of ethical principles in financial investment decision making in turn increases the availability and amount of capital available, and seeking, to create socio-environmental impact. We have also found that despite its potential forestry sector is not currently perceived and considered as ethical or impact investment.

Given its potential to deliver socio-environmental impact, planted trees have the potential to attract socio-environmentally informed capital. In turn, forestry has an opportunity to position itself strategically for the impact-oriented investment landscape.

Opportunities

Based on the findings, we identified the following opportunities to attract new sources of capital for investment in tree planting for harvest:

1. As there is increasing interest from the finance and investment sector in achieving socio-environmental impact from investment, **previously unavailable sources of equity and debt capital have potential to be unlocked for forestry investments**. These sources include significant pools of private capital concentrated in the accounts of wholesale private investors such as high net worth individuals (HNWIs), ‘mass affluent’ individuals investing \$100,000 to \$500,000 by way of self-managed superannuation funds (SMSF), and specialist investment funds.

2. Most large investors, and their sources of capital, are **considering the social and environmental impact of investment alongside financial returns**. Currently, apart from one forest company, planted tree investments are not generally regarded by the finance and investment sector as meeting the requirements of this investment class. This represents a new opportunity for attracting an impact-informed pool of capital into trees for timber production.
3. Respondents indicated that **integrating trees in rural landscapes and optimising the use of land can increase investment returns**. This is achieved through the flow-on effects of tree planting which can improve soil, reduce pesticide usage and increase water quality within the areas surrounding the planted trees. Where investors have a diversified portfolio of interests across the forestry and agricultural sectors, they can achieve increases in value beyond that invested in the trees themselves. Some leading financial institutions have started recognising the value of these effects and are looking to provide incentives- for example by exploring how to discount the cost of capital for farmers who successfully improve the soil quality and productivity.
4. It is clear that the **finance and investment sector, along with the broader community, feel that there is little reason to trust the intent, actions and processes of the forestry industry**. There are low levels of trust towards the sector's ambitions for tree planting, and this negatively impacts on risk-return assessments made by investors. There is a need to overcome negative past experiences and negative perceptions, through strengthening of ties between the forestry industry, landowners, local communities and investors. This can be done by positioning the industry as a key partner in building local communities' resilience.

Recommendations

In light of the research findings, understandings of the current problem domain and the various opportunities presented, we recommend the following five actions to attract new capital in planted trees:

1. **Implement impact measurement and reporting for tree planting.** This has potential to unlock all opportunities identified in this research. Impact measurement is the basis of new financial instruments such as climate and social impact and bonds, and of emerging valuation processes that recognise the value of environmental services provided by trees. Impact measurement activities may also provide information and tools for building new relationships- for example with responsible and ethical investors who expect solid evidence of the way in which their money makes a difference. Impact measurement is also required by financial institutions that seek to introduce new valuation methods and can therefore open possibilities for lower-cost capital. Finally, impact measurement and reporting are an excellent tool for managing performance and risk, and can help improve the image of the industry and position it strategically in the new investment landscape. As such, it is also a useful tool for current investors in forestry who are increasingly expected to demonstrate the socio-environmental impact of their investments.
2. **Increase awareness of forestry as an investment class,** especially among financial intermediaries such as financial advisors and the managers of responsible, ethical and impact funds. These gatekeepers of financial opportunities provide access to this new class of investors, and our research suggests that the current awareness of forestry among these groups is low and based on unfounded assumptions.

3. **Build the case for optimising land utilisation** by integrating trees with existing land uses. Many current institutional investors are disinterested in optimising land output through integrating forestry with other land uses, and have risk management approaches that require individual investment pools in defined asset classes. Integrating tree planting with existing land uses increases the size of the investment pie. Creating smaller scale pilot projects with HNWI, smaller impact investors, and other groups open to the idea, can help build new relationships and show the broader investor community the potential of this approach. Impact measurement can be used to document the benefits created.
4. **Collaborate with those entities that are pioneering the inclusion of natural capital** into the valuation and risk assessment activities of land-based enterprises. A number of investors and non-investing finance professionals indicated that current mainstream valuation methods are focused on the direct relationship between forest growth and financial returns and provide no path to include broader benefits such as environmental services. As a result, landowners may see a reduction in the capital value of their land when trees are planted, which impairs their access to capital for other activities. There are currently efforts in the financial community to change the ways valuation is conducted. Supporting the implementation and promotion of these efforts is in the best interest of the forest sector, and can build valuable relationships as well as open access to new capital.
5. **Bridge different scales of investment in trees planted for harvest.** The study has shown there is a scale mismatch in the investing market, in which institutional and impact capital struggles to find ‘investable’ deals of appropriate scale, and small scale forestry opportunities struggle to find capital and market. New investment products and arrangements developed with finance and investment community should help bridge this gap. Doing so will help unlock both new land and capital.

SUMMARY OF OPPORTUNITIES AND RECOMMENDED ACTIONS

Table 0.1: Actions (Recommendations by Opportunity Area)

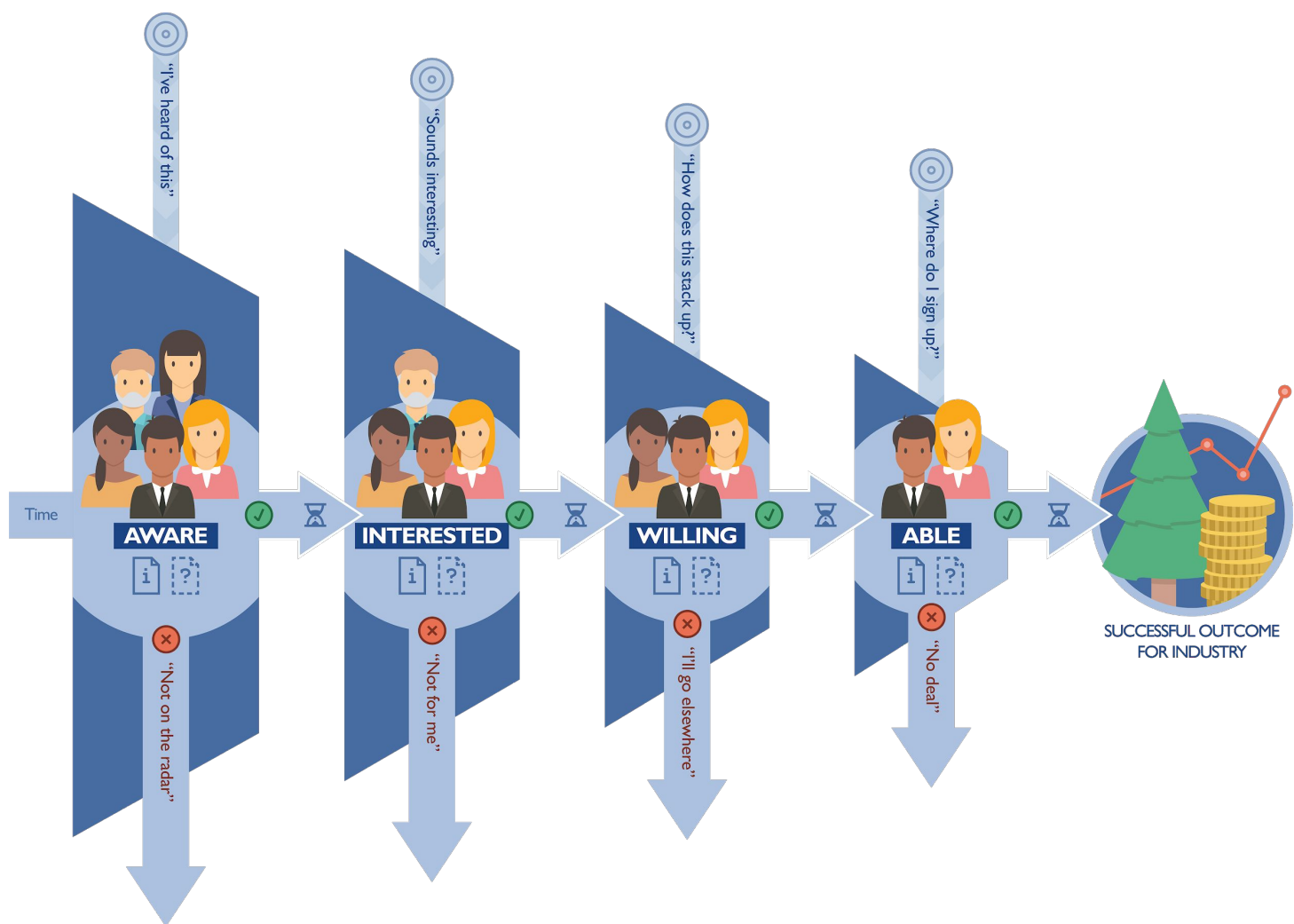
	Opportunity Areas			
	1. Access new sources of equity and debt capital	2. Access the emerging investor base of the future	3. Increase return on investment for industry and growers, and create indirect benefits up and down the value chain	4. Improve community trust (investors and growers)
Recommendation 1: Impact measurement	Impact measurement and communication is required by some new sources of capital (e.g. green and climate bonds, low carbon or impact funds) and would appeal to many others.	Responsible and ethical investors require evidence of the social or environmental impact of their investment, as well as its financial return.	Impact measurement creates an evidence base to better understand the the relationship between non-financial and financial outcomes. This information can help managers identify costs emerging from non-financial outcomes (e.g. areas with particularly low social license requiring more hands-on community engagement) as well as opportunities that have positive non-financial outcomes (e.g. recreational access that improves social license within the community).	Impact management allows for better problem identification and management in communities, documents the benefits the communities receive, providing tool for strengthening trust.
Recommendation 2: Increase the awareness of forestry as an investment class	Private wholesale investors controlling access to new sources of capital (e.g. HNWI and SMSF) and mainstream financial gatekeepers like financial planners and investment advisors have limited knowledge of forest as investments and/or have negative opinion about them.	Responsible & ethical investors currently do not consider forestry investment. Awareness of this investment class is low amongst these investors, and those who are aware of it do not see it as responsible and ethical investment. Some even exclude it from consideration on the outdated perception of environmental harm.		Strengthening awareness and knowledge about forestry industry among communities helps fight some negative opinions and myths. Communicating how forestry industry helps build resilient communities can be used in increasing the awareness of and positive image of the industry.

SUMMARY OF OPPORTUNITIES AND RECOMMENDED ACTIONS ,CONT.

Table 0.1: Actions (Recommendations by Opportunity Area) (continued)

	Opportunity Areas			
	1. Access new sources of equity and debt capital	2. Access the emerging investor base of the future	3. Increase return on investment for industry and growers, and create indirect benefits up and down the value chain	4. Improve community trust (investors and growers)
Recommendation 3: Build a case for optimising land use by integrating trees with existing land uses	Most institutional investors are adverse to optimizing land utilisation through investment in trees integrated into other rural land use, but also struggle to find forest investment opportunities that generate the returns they require.	Many responsible and ethical investors were open to optimizing land utilisation and could be good candidates to partner with for building the case for optimizing land utilization.	Optimising land utilisation can increase ROI of both the forestry and agricultural uses. Some respondents in our research reported strong results from this approach.	Unlike institutional investors, rural landholders and other private investors are motivated to optimise the use and productivity of a particular land area. Optimising land utilisation by integrating trees into existing land uses creates clear benefits for communities by improving the state and productivity of land over time and thus strengthening economic resilience. Making this case will require working with agricultural advisors, to whom landowners turn for advice.
Recommendation 4: Collaborate with those pioneering the inclusion of natural capital into valuation and risk assessment	Those pioneering new valuation methods will be key allies in explaining the benefits of natural capital valuation methods to current and potential investors, and can facilitate access to capital by providing links to investors interested in natural capital.	Valuation that reflects the full economic value of natural capital is likely to attract responsible and ethical investors. Seeing forestry companies promote valuation and risk assessment methods based on natural capital is likely to create a positive image the industry amongst these investors.	Valuing natural capital captures a variety of factors affecting income (e.g. improved soil quality and biodiversity, as well as natural growth) and is key monetising these non-financial components of performance.	Promoting natural capital valuation helps improve the opportunities for grower to capture multiple income streams from growing, and thus increasing the appeal of planting trees. In time, more inclusive valuation methods may also unlock access to cheaper debt finance for growers.
Recommendation 5: Bridge different scales in forestry investment to unlock both land and capital	Different investment access options are needed to unlock private capital held by HNWI and SMSF.	There is currently few ways for wholesale private investors or responsible and ethical investors seeking to make smaller capital placements to gain exposure to this asset class. Small opportunities build familiarity and evidence base.		Bridging investment scale gap can increase the pool of capital that is available to fund growers by lowering entry point.

Figure 0.1: Investor path from awareness to investment



Legend

🎯 Influencing factors

📄 Information or tools

❓ Missing information or tools

⌚ Significant passage of time

✓ Decision leading to progression

✗ Decision leading to premature exit

1

Introduction

1. Introduction

This financial sector research report forms part of the *Next Generation Plantations* project funded by forest industry partners and the Australian Government through Forest and Wood Products Australia. This aspect of the project research was conducted with the intent of exploring the finance and investor landscape in the forestry context. The overarching goal was to understand investor motivations, requirements and conditions that would foster greater investment in planted trees.

The research was informed through the exploration of two key questions:

How do different groups in the finance and investment sector approach and perceive investments in trees?

How do different investor groups make investment decisions?

1.1 Research methods

The research for this project followed a mixed-method design. The first phase involved the administration of a survey to a broad range of financial sector organisations. The objective of this quantitative phase of the research was to ascertain the current profile of financial sector experiences and perceptions of planted timber as an investment. The second phase involved follow up in-depth interviews which were conducted with selected survey respondents and those targeted to flesh out particular areas of interest. The purpose of these interviews was to explore, in greater depth, some of the more interesting findings from the quantitative phase of the research.

In the first phase, a survey was sent by electronic posting directly to 834 financial and investment sector professionals in Australia and overseas. In addition, the survey was distributed by newsletters, social media and personal networks. 52 responses were received for the survey.

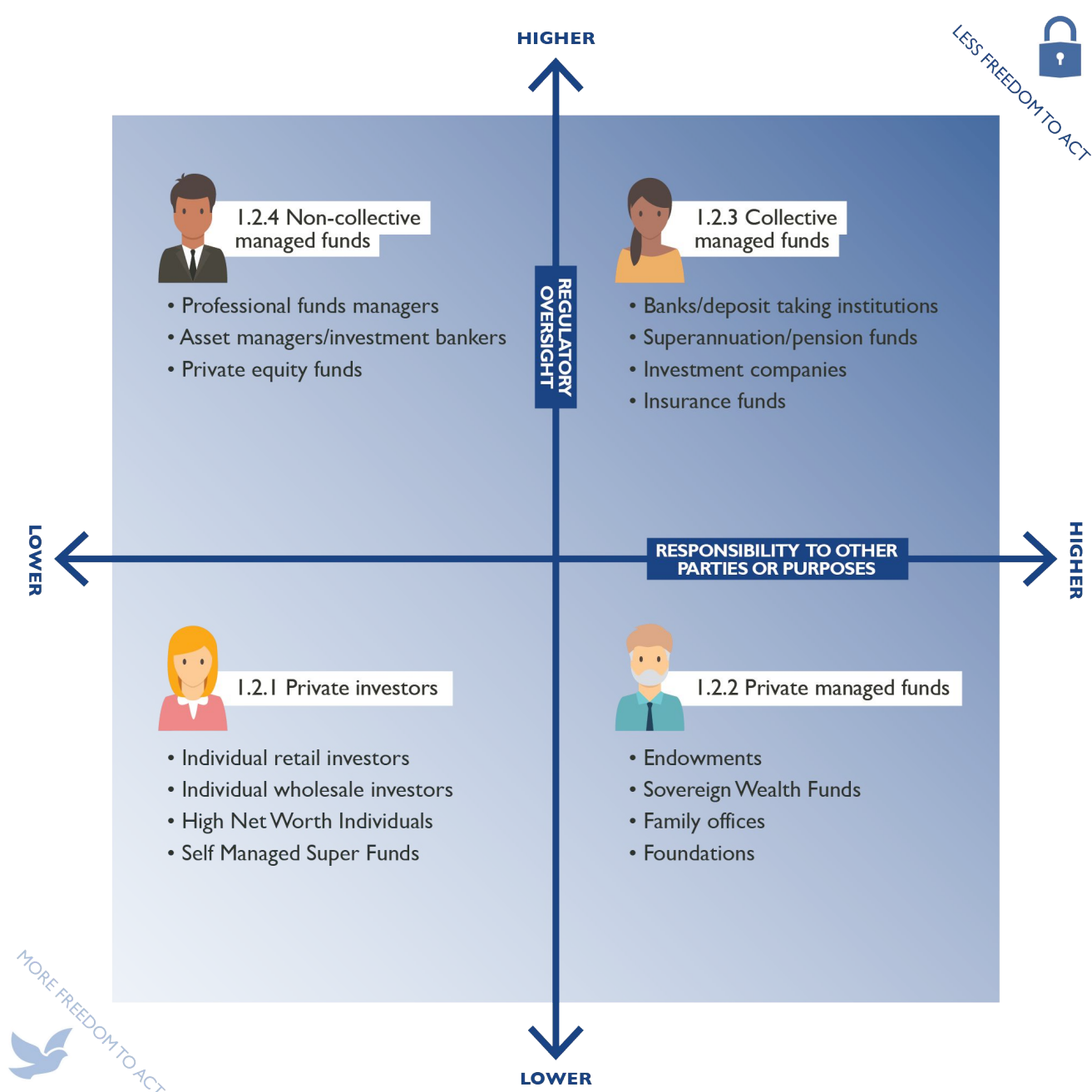
Due to the low survey response rate, double the number of planned interviews were conducted in the second phase of research. Interviewees were selected by snowball sampling [asking interviewees to nominate additional contacts], and the researchers paid attention to increasing the representation of different roles and types of investors. Interviewees included 43 professionals representing fund managers, advisors, private investors, banking professionals, top executives of financial institutions, as well as plantation owners, operators, and other ‘innovators’ in forest investment. In order to gather perspectives from across the sector, we ensured we spoke with collective fund managers (e.g. superannuation funds and mutual funds), lenders, private sell-side fund managers (e.g. investment banks and other deal-makers) and the managers of retail, wholesale, and institutional investments. Approximately half of the respondents were currently or had recently invested in growing trees for harvest, or invested in a company that did so.

Throughout both phases of the research, we also conducted desktop research to provide broader context to our research domain and identify investment or investor opportunities for new capital for forests. The bibliography included reports, statistical data, professional and research publications on Australian and global investment sector.

1.2 Investor types: their regulatory environments and drivers

Through our knowledge of the finance and investment sector, we identified multiple investor types with potential to have an interest in tree planting as an investment opportunity area. These investor types can be grouped by their relative regulatory constraint and responsibility to other parties and/or purposes into four categories, as demonstrated in the following figure.

Figure 1.1: Investor types with potential interest in tree planting



While these categories define their freedom to act (e.g. by mandating what they must do and what they cannot do), each of the investor types is motivated by particular drivers and their decision making processes are informed by a variety of behaviours. Additionally, investors are influenced by individual factors discussed in section 2. Below we explain each investor type in more detail, before exploring their decision making processes.

1.2.1 Private investors

This category of investors includes individual retail and wholesale investors including HNWIs, and SMSFs. These investors have the lowest degree of regulatory constraint and the lowest degree of responsibility to other parties or purposes. Thus, they have the greatest freedom to act in their investment choices.

1.2.1a Individual retail investors

The vast majority of private investors in Australia operate in the retail market, and are protected by a regulatory framework that limits their access to only retail investment products.

1.2.1b Individual wholesale investors

Private investors with net assets worth more than \$2.5 million; or a gross household annual income of more than more than \$250,000 can be certified as “sophisticated” investors under Corporations Law regulations, and access wholesale investment products.

Wholesale investors are considered to be more financially savvy and informed, and have experience in investing and protecting their interests and therefore do not need all of the consumer protections that apply for retail investors. Thus, in addition to retail investment products, wholesale investors can be offered securities without the usual product disclosure requirements that apply to everyday retail investors.

Wholesale offers are often made at lightning speed. A broker may inform their sophisticated clients that a placement will be available at close of market, that same day, and they will have two hours to decide whether or not to take up the offer.

All professional investor are treated as wholesale investors, and any investment greater than \$500,000 is considered wholesale. Wholesale investment products can have lower setup and compliance costs for securities issuers (companies), as they do not need to issue a product disclosure information for wholesale investments.

1.2.1c High Net Worth Individuals (HNWIs)

Sitting within the category of wholesale private investors, HNWIs control US\$70 trillion (CapGemini World Wealth Report 2017). This number is growing rapidly and it tipped to surpass \$100 trillion by 2025. Currently, 9% of global HNWI wealth is allocated to alternatives.

Australia has the third largest number of HNWIs in the Asia-Pacific region, after Japan and China. Australian HNWI held a combined financial wealth of US\$735 billion in 2015 (AusTrade 2017).

1.2.1d Self-managed superannuation funds (SMSFs)

SMSF are private superannuation funds of up to four members, whose sole purpose is to provide for retirement. SMSFs operate under similar rules and restrictions as ordinary super funds, but sit outside of regular prudential oversight. Instead, SMSFs are a legal tax structure regulated by the Australian Taxation Office (ATO).

Relative to other private wholesale investors, they have more responsibility to others and are bound by more regulatory constraints. All members must be trustees (or directors, if there is a corporate trustee) and are responsible for decisions made about the fund and compliance with relevant laws. Therefore, all SMSF members are personally liable for all the decisions made by the fund - even if they get help from a professional or another member makes the decision.

SMSF investors are expected to be long-term focused – in line with the purpose of superannuation. ASX research found that they are more likely to use professional advice than the average investor, citing the advantages of tailored advice, and the complexities of tax and administrative procedures as their main reasons for doing so. SMSF investors are also interested in alternatives such as crowdfunding and peer-to-peer lending (ASX 2017). In December 2012, there were around 491,000 SMSFs in Australia compared to over 595,000 today holding \$714 billion in assets (ASFA 2018). Some 30% of investors that do not currently use an SMSF intend to set one up in the future (ASX 2017).

There is ambiguity around whether SMSFs qualify as sophisticated investors. The current regulatory position is that an SMSF can't itself qualify for wholesale deals unless it has \$10 million in assets and is then classified as a professional investor; nonetheless, assessment is on the brokers and accountants, and many SMSFs are accessing wholesale investments (Graeme Colley from SPAA, quote in AFR 2015).

1.2.2 Private managed funds

This category of institutional investors includes endowments, sovereign wealth funds, family offices and foundations. These investors are subject to minimal regulatory oversight, and are primarily constrained by obligations to the source or purpose of the managed funds.

1.2.2a Endowments

An endowment is any asset donated to and for the perpetual benefit of a non-profit institution. The donation is usually made with the requirement that the principal remain intact and money earned from investing the principal be used for a specific purpose. As of June 2016, the five largest university endowments (Harvard, Yale, University of Texas, Princeton, Stanford) were all larger than \$20 billion. Endowments typically allocate a substantial percentage of their holdings to private non-traded investments (Blackstone 2017).

Endowment considerations:

Cannot or will not make an investment choice that is perceived to involve:

- Risk to corpus
- Reputational risk

Investment choices must:

- Maintain or grow capital

An investment is considered attractive if it also offers these things:

- Infrastructure-like
- Low correlation
- Sustainability
- Social impact
- Illiquidity premium
- Social license

1.2.2b Sovereign wealth funds (SWFs)

SWFs comprises pools of money derived from a country's reserves, set aside for investment to benefit the country's economy and citizens (Rozanov 2005). The funding for an SWF comes from central bank reserves that accumulate because of budget and trade surpluses, and revenue generated from the exporting natural resources. In recent years, there has been a well-documented trend for sovereign wealth funds to take advantage of their scale, long investment horizon and little need for liquidity to dedicate increasing amounts of money into private markets, particularly real estate and infrastructure (IFSWF, Institutional Investor).

Sovereign Wealth Fund considerations:

Cannot or will not invest if there is a perception that the opportunity involves:

- Risk corpus

Investment choices must:

- Grow capital

An investment is considered attractive if it also includes these things:

- Infrastructure-like
- Low correlation
- Sustainability
- Social impact
- Illiquidity premium
- Innovation

1.2.2c Family office

A family office is a private company that manages investments and trusts for a single family or a small group of families. The company's financial capital is the family's own wealth, often accumulated over many family generations. Family offices are known for their ability to deploy capital quickly and to buy assets at the bottom, which is when trustee responsibilities relegate many institutional investors, such as superannuation funds, to the sidelines (Smith 2014).

Family offices are most likely to be looking for alternative investments such as private equity, hedge fund strategies and ex-posure to credit markets to diversify their risk (Family Office Research & Management, quoted in Smith 2014). Family offices are also generally better able to think and invest on a more long-term basis, and they primarily pursue wealth preservation in order to pass on assets to the next generations. Many prefer direct investments, and where organizations have an entrepreneurial principal, they are more likely to get directly involved in the investment process.

Family office considerations:

Cannot or will not make an investment choice that is perceived to involve:

- Significant reduction in corpus
- Reputational risk

Investment choices must show:

- Grow capital
- Manage tax

An investment is considered attractive if it also offers these things:

- Infrastructure-like
- Low correlation
- Sustainability
- Social impact
- Illiquidity premium
- Social license

1.2.2d Foundations

A foundation is a legal category of nonprofit organization that will typically either donate funds and support to other organizations, or provide the source of funding for its own charitable purposes.

Foundation considerations:

Cannot or will not make an investment choice that is perceived to involve:

- Risk to corpus
- Reputational risk

Investment choices must:

- Maintain or grow capital

An investment is considered attractive if it also offers these things:

- Infrastructure-like
- Low correlation
- Sustainability
- Social impact
- Illiquidity premium
- Social license

1.2.3 Collective Managed Funds

Collective managed funds are those in which money from many individuals or organisations is pooled together or used in a common enterprise by a responsible entity who operated the scheme. Investors (source of funds) have no day-to-day control over decision making for the fund.

Of all investor categories, collective managed funds have the highest degree of both fiduciary responsibility and regulatory oversight. They are all bound to a greater or lesser extent by regulations focused on ensuring that they succeed in serving their social purpose. Regulations include mandates of what they must do and prohibitions of what they must not do. In Australia, the major regulatory bodies are the Australian Prudential Regulatory Authority (APRA) and the Australian Securities and Investment Commission (ASIC).

1.2.3a Banks and other deposit-taking institutions

Deposit-taking institutions make their money in the gap between interest paid to depositors and the interest earned by re-lending those funds several times over to those seeking funding. Retail or consumer banking services are offered to the general public; commercial banking is for wholesale customers such as companies, corporations or other banks. Most deposited funds are held in simple debt instruments like mortgages.

Bank and other deposit-taking institutions considerations:

Cannot or will not make an investment choice that is perceived to involve:	Investment choices must:	An investment is considered attractive if it also offers these things:
<ul style="list-style-type: none"> • Risk above a defined threshold • Risk without return • Personal whim 	<ul style="list-style-type: none"> • Align to investment strategy • Consistent returns • Transparency • Compliance with valuation rules • Accountability • ESG-consistency 	<ul style="list-style-type: none"> • Sustainability • Social impact • Infrastructure-like • Inflation hedge • Social license

1.2.3b Superannuation and pension funds

- Defined benefit funds have known future liabilities that they must meet with their returns, driving an appetite for long-term assets.
- Defined contribution funds are shaped by member profile—white collar workers have larger balances, are more likely to switch funds, and more likely to demand transparency on ESG issues.
- Superannuation funds have growing appetite for alternatives and infrastructure

Retirement benefit funds exist to assist people to accumulate money for an income in retirement. Because they provide an important social good, they are incentivised through national tax policies, and are mandated to some extent in all OECD countries. Superannuation in Australia is partly compulsory, and is further encouraged by tax benefits.

Superannuation and pension fund considerations:

Cannot or will not make an investment choice that is perceived to involve:	Investment choices must show:	An investment is considered attractive if it also offers these things:
<ul style="list-style-type: none"> • Personal whim • Risk without return 	<ul style="list-style-type: none"> • Alignment with investment strategy and member interests • Transparency • Accountability • Sufficient return to meet capital adequacy rules (DB) • ESG-consistency 	<ul style="list-style-type: none"> • Sustainability • Social impact • Low correlation • Inflation hedge • Social license

1.2.3c Investment companies

Investment companies are the second largest institutional investment class and provide professional services to banks and individuals looking to invest their funds. This category includes private and public business entities that manage, sell, and market funds *to the public*. Investment funds are categorized into four types: (1) Closed-end funds (2) open-end or mutual funds (3) Unit investment trusts (UITs) and (4) Exchange traded funds (ETFs).

Investment company considerations:

Cannot or will not make an investment choice that is perceived to involve:

- Defrauding investors

Investment choices must:

- Comply with license
- Demonstrate accountability

An investment is considered attractive if it also offers these things:

- Low correlation
- Inflation hedge
- Infrastructure-like

1.2.3d Insurance funds

Insurance companies have a dual business model: one of insuring clients against damages, and one of generating returns from insurance premiums received to ensure that the insurance business has adequate capital to meet those unknown future claims. Due to the scale of investments on an insurance company's balance sheet and the impact of investment results on its profitability, the management of these investments is a key function. As insurers continuously underwrite new business, they generally hold significant and relatively stable amounts of investments on their balance sheet. They are unique amongst institutional investors in having a positive cost of capital.

Insurance fund considerations:

Cannot or will not make an investment choice that is perceived to involve:

- Risk without return

Investment choices must:

- Generate sufficient return to meet capital adequacy rules
- Demonstrate accountability
- Meet ESG requirements

An investment is considered attractive if it also offers these things:

- Climate resilience
- Risk mitigation
- Low correlation
- Inflation hedge
- Illiquidity premium
- Social license

1.2.4 Non-collective managed funds

Non-collective managed funds direct investment from individuals or organisations, while the source of the funds retains control of the funds, rather than pooling them with others. Non-collective managed funds are subject to a lesser degree of regulatory oversight and a lower standard of fiduciary responsibility than collective managed funds.

1.2.4a Professional funds managers

Investment or fund managers provide, on a fee for service basis, professional investment services for the managed funds institutions, as well as others with substantial funds to invest.

Investments managed by professional asset managers can be retail or institutional. Retail assets are personal investments by individuals in professionally managed funds purchased in banks or through investment platforms. Institutional assets are the assets of large asset owners purchased and held on the institutional investor's own account.

1.2.4b Asset managers and investment bankers

Investment management is about investment decision-making and asset allocation. Asset managers come up with investment strategies and direct funds to property, equities or debt securities on behalf of clients. This is the "buy side," where investment products are purchased to generate profit. Investment bankers, by contrast, are deal-makers.

They work as high-level consultants and analysts for large companies (normally corporations) to help with initial public offerings (IPOs), stock purchases, mergers and acquisitions (M&As), and other capital-raising techniques. Buy-side agents—investment advisors and money managers—have a fiduciary obligation to act solely in the best interests of their investing clients, without regard for their own economic incentives to recommend one product or strategy versus another. Investment bankers on the sell side seek to maximize the results to their clients, the issuers.

1.2.4c Private equity funds

Private equity funds invest directly in companies, primarily by purchasing private companies, although they sometimes seek to acquire controlling interest in publicly-traded companies through stock purchases. Private equity funds are only available to sophisticated or wholesale investors, and the long-term focus of the fund usually dictates a requirement that investors commit their funds for a minimum period of time, usually at least three to five years, and often from seven to 10 years.



2

Investor Decision Making Stages

2. Investor Decision Making Processes

The pathway to investment and financing of planted trees involves multiple stages for the investor. Ultimately, for an investor to be in a position to make an investment in planted trees, they must move from awareness through to interest, on to willingness before they are finally able to invest. The stages of the journey involve an investor being:

AWARE

1. Aware of the investment option

INTERESTED

2. Interested in the investment option

This is where options are edited out of the group to be evaluated (Kahneman and Tversky 1979)

WILLING

3. Willing to consider the investment option

Comparing to alternatives, in terms of how well they meet investor aims

ABLE

4. Able to access the investment

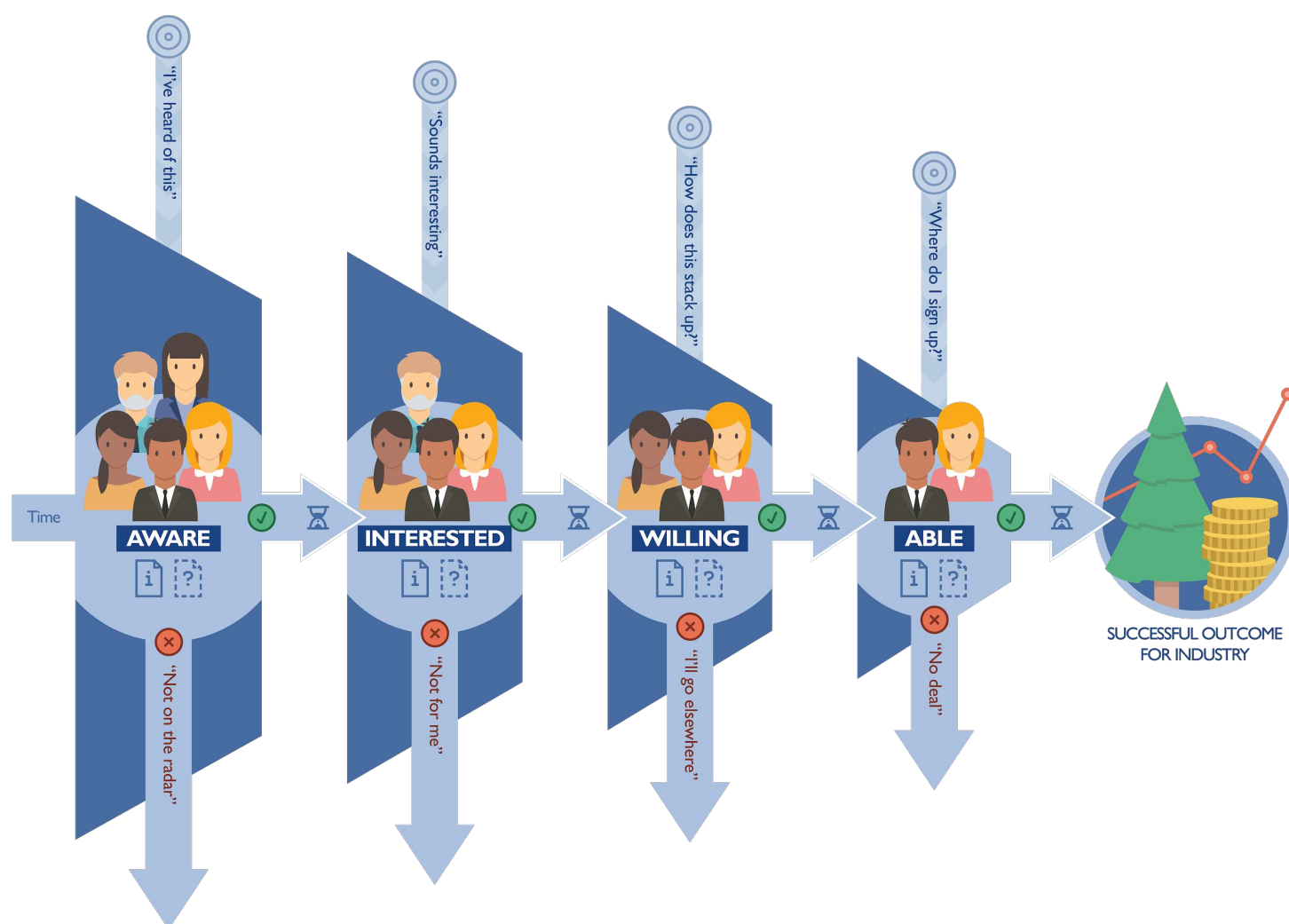
In this journey from awareness to investment, perceptions matter a great deal, often more than facts. It is well documented that investment decision-makers, including professionals, are 'predictably irrational' (Ariely 2008). That is, cognitive biases cause people to take mental shortcuts in decision-making. Key factors influencing these cognitive biases include:

- Personal experiences influence the way we interpret and select available data (e.g. Mitroi 2014).
- We give greater weight to whatever is familiar and easily remembered (Kahneman and Tversky, 1979)
- We recall negative information more quickly than positive, and remember it longer
- We tend to fear loss more than they value gain (Kahneman 2003).

For this reason, direct or first-degree experience is strongly correlated with interest in private forestry investment, and in the absence of experience negative anecdotes or non-specific perceptions of risk are particularly insidious. A potential investor may not seek out and substantively analyse factual comparative information until the consideration stage.

At each hurdle of the journey from awareness to investment, investors can be diverted. Some of these diversions are temporary, some are lasting and generate negative reputational effects for industry that persist long after the financial impacts of the incident that caused the diversion (e.g. Gunns, Great Southern). Figure 2.1 on the next page shows when and where particular investor types get diverted on the path from awareness to investment.

Figure 2.1: Investor path from awareness to investment



Legend

- | | |
|------------------------------|------------------------------------|
| Influencing factors | Significant passage of time |
| Information or tools | Decision leading to progression |
| Missing information or tools | Decision leading to premature exit |



2.1 The stage of awareness

During this stage, potential investors who are strangers to forestry as an investment class, and the opportunities it presents, learn what is available.



2.1.1 Who is and is not aware

The sorts of potential investors who may to be aware of forestry as an investment are:

- Banks
- Domestic and foreign institutional investors
- Wholesale private investors with prior connection to sector
- Wholesale private investors seeking long-term, hands-off investment and diversification
- Rural landowners

In the absence of prior direct connection to someone who is involved in forestry or forestry investment, the following potential investors may be unaware of forestry as a potential investment:

- Retail investors, especially younger investors who will join mass affluent class
- Wholesale private investors (HNWIs, mass affluent investors)

Currently, forestry as investment class is not visible to individuals or retail investors, and it is not well-known or understood by mainstream financial gatekeepers who might introduce them to it. Urban Australians are less likely to have a direct connection to forestry that would create a path to awareness than those living closer to commercial forestry operations.



2.1.2 Awareness influencing factors: “I’ve heard of this”

The factors that tend to influence awareness are:

- *Forestry exposure* - Prior professional or social experience (or social connection to such)
- *Investment exposure* - prior investment in analogous class e.g. infrastructure, real assets, alternatives, wholesale fixed income
- *Informed advisors* (financial, planner, accountant, broker, lawyer etc)
- *Diversification mandate* (e.g. Canadian pension funds) or appetite driving active information-seeking



2.1.3 Factors leading to exit: “Not on the radar”

In general, the factors that tend to influence exits at the stage of awareness are:

- Lack of passive exposure or information-seeking
- Lack of connection to forestry, forestry investment, and informed advisors

For forestry as an investment class, there are two key factors shaping investor exits from awareness in tree planting for harvest. First, forestry is perceived as a ‘hard’ or ‘risky’ investment. Secondly, forestry is not perceived as responsible and green, rather it is perceived as a source of community conflict. Lack of consistent impact communication makes those perceptions hard to challenge and leads to significant exit at this stage of investment considerations.



INTERESTED

2.2 The stage of being interested

During this stage, potential investors who are aware of forestry as an investment class and the opportunities within it decide whether it is an option of interest to them. This is generally a not-fully-conscious decision on the basis of information heard socially; a generalised sense of the risk, return and impact of the investment; and a sense of their own investor identity.



2.2.1 Who is and is not interested

The sorts of potential investors who may be interested in forestry as an investment are:

- Institutional investors (some)
- Asset managers with significant domain expertise
- Wholesale private investors with prior direct connection
- Wholesale private investors seeking long-term, hands-off investment and diversification (some)
- Other private investors (e.g. some rural landowners)

Of those who are aware of forestry as an investment the following potential investors are unlikely to be interested in forestry as a potential investment, and are likely to exit the process at this stage:

- Banks (except as debt)
- Asset managers without significant domain expertise
- Wholesale private investors seeking long-term, investment with illiquidity premium

This stage is where they form an opinion about whether forestry investment as they understand it is for ‘people like them.’ If the investor is interested, they will look at available information in a more analytical way at the next stage. It is important to note that at this stage, forestry can be dismissed out of prejudice and be excluded from consideration.



2.2.2 Interested influencing factors: “Sounds interesting”

The factors that tend to influence levels of interest are:

- Personal experience
- Social influences
- Advisor influences (need to be aware)

- Investor attributes (desired risk/return/impact, domain interests, investment timeframe, fund or institutional mandate, overall engagement)
- Easily available and digestible information



2.1.3 Factors leading to exit: “Not for me”

The factors that tend to influence exits at the stage of being interested are:

- Negative experiences or stories taken as representative
- Lack of trust, credibility, or long-term commitment
- Perceived risk, environmental impact or difficulty relative to other investments
- Perceived low return relative to investments of similar risk

There are two key factors shaping who progresses from interest to willingness to consider forestry investment, and who exits. The first is accessibility of information about investments and the ability to ‘sample’ the option. Investors increasingly ask for advice (professional and social) and do their own research. Negative, inadequate, or difficult to understand information at any hurdle can send them in the direction of investments they perceive as easier.. Inability to review past investment data and ‘test drive’ with smaller deals is off-putting to many.

Secondly, there are currently few ways to monetise the non-financial value created by planted trees (ecosystem services, biodiversity, community resilience, etc). This lack of monetisation options deters investors in considering forestry as an investment option.



2.3 The stage of willingness

Once a potential investor graduates from the interest stage, they enter the stage where they are willing to consider the option of planted trees against other investment opportunities. In this stage, an investor is willing to consider forestry investment and is interested in learning more about the options available within it.



2.3.1 Who is and is not willing

The sorts of potential investors who may be willing to consider investing in planted trees are:

- Institutional investors (some)
- Asset managers with significant domain expertise
- Specialist asset managers committed to sector
- Private investors under age ~65 with prior connection who value non-financial aspects of forestry or tax efficiency
- Private investors such as some rural landowners with significant off-farm income and/or part-time residence or rural landowners seeking to optimise use of land across a range of activities

Of those who are aware of and interested in forestry as an investment the following potential investors may not be willing to consider forestry as a potential investment, and are likely to exit the process at this stage:

- Institutional investors with higher ROI options
- Banks (even as debt) because easier options are available at similar risk and return
- Asset managers with significant domain expertise & but no particular commitment forestry (e.g. Agri funds)
- Wholesale investors preferring listed or ESG-screened options
- Post-retirement wholesale private investors
- Wholesale investors concerned about policy and price stability, including those with previous negative experience
- Private investors such as landowners with higher ROI alternatives and/or concerns about land capital value impairment and its impact on their other operations



2.3.2 Willing influencing factors: “How does this stack up?”

The factors with potential to influence levels of willingness are:

- Personal experience
- Social influences
- Advisor influences
- Investor attributes, now including
 - Being older than 75 years of age
 - Having a relative interest in equity/debt investment
 - Having an interest in non-financial impacts of forestry
- Ability to undertake comparative evaluation of discoverable information (from industry, advisor(s), own research, friends & family)



2.3.3 Factors leading to exit: “I’ll go elsewhere”

The factors that may influence potential investors to go elsewhere with their capital are:

- Easier investments, more ‘responsible’ options or higher returns at comparable risk
- Discomfort ‘moving away from the pack’ [investment credibility and validation]
- Perceived reputational risk (esp. advisors and professional investors)
- Forestry not included in 3rd party recommendations
- Negative, inadequate, or difficult to understand information relative to other investments
- Intimidated by time frame and high deal size (\$) with limited opportunity to ‘test drive’



2.4 The stage of being able

Once a potential investor graduates from the willingness stage, the key question they pose about forestry as an investment class is whether or not they are able to make the investment.



2.4.1 Who is and is not able

Of the potential investors that are aware, interested and willing to consider investment in planted trees, those who may be able to invest are:

- Specialist asset managers committed to sector
- Private investors under age ~65 with prior connection who value non-financial aspects of forestry or tax efficiency
- Institutional investors (some)

Of those who are aware, interested, and willing to consider investing in forestry, the following potential investors may be unable to invest in forestry, and are likely to exit the process at this stage:

- Institutional investors unable to find attractively priced assets
- Asset managers with significant domain expertise unable to find attractively priced assets



2.4.2 Ability influencing factors: “Where do I sign up?”

The factors with potential to influence levels of ability are:

- Asset availability, price, quality
- Advisor influences (it is important to know that financial advisors need to have the products they advise on covered on their licences)
- Legislation/regulation/mandate
- Investment vehicles matching scale and form of available capital



2.4.3 Factors leading to exit: “No deal”

The factors with potential to influence potential investors to exit at the stage of being able are:

- Lack of familiar investment forms and/or retail options
- Lack of investable assets at desired price and scale

There are two key factors that drive inability to invest in forestry. The first is lack of familiar investment forms: listed equities, ETFs, A-REITs. This matters for familiarity and credibility to wholesale investors and intermediaries. The second key factor is scale mismatch between smaller land and capital available and the larger flows needed by industry and institutional investors.

2.5 Reference frames for investors

There are four types of comparators to planted trees that investors consider in their decision making processes. These include:

1. **Alternatives**
2. **Real assets**
3. **Infrastructure**
4. **Fixed income**

It is important to understand the characteristics and viewpoints that investors have with these comparators, as they form the basis of competition for forestry as an investment class.

2.5.1 Alternatives

Characteristics: diversification, low correlation, low liquidity

Forestry is compared to: private equity, hedge funds, derivatives, real assets

Challenges: lower recent performance relative to comparators

Possible angle: low volatility

Who is most interested in this investment option: SMSF, super funds, SWF, diversified portfolios

Alternative investments sits outside of the conventional investment types (i.e. stocks, bonds and cash). This heterogeneous grouping is made up of non-traditional financial assets, including direct infrastructure funds, Australian real estate funds, direct hedge funds, private equity, real assets, private equity funds of funds, illiquid credit, private equity fund and direct commodities funds. Alternative investments typically have a low correlation with those of standard asset classes, which makes them suitable for portfolio diversification.

Alternatives is a rapidly growing market held largely by institutional investors and individual wholesale investors such as HNWI because of the complex natures and limited regulations of the investments.

Institutional investors in general, including pensions, endowments and sovereign wealth funds, have increasingly used alternatives to help achieve their target returns. Endowments, for example, with their longer investment horizon and thus greater tolerance for illiquidity, have allocated aggressively to alternatives, with almost 30% of their portfolios on average now given over to hedge funds, private equity, and private real estate. Pensions are behind, but not by much, with 27% of their portfolios, on average, now allocated to alternatives. By comparison, individual investors continue to allocate substantially less of their portfolios to alternatives (Blackstone 2017).

2.5.2 Real assets

Characteristics: income + capital gain, diversification, low liquidity

Forestry is compared to: agriculture, real estate

Challenges: low bond and interest rates

Possible angle: low volatility, value relative to property

Who: SMSF, REITs, diversified portfolios

Real assets are physical things with inherent use value like land, minerals or wheat. They tend to be more stable than financial assets, but have lower liquidity because they take longer to sell and have higher transaction fees in general.

Real assets, both listed and unlisted, have been major beneficiaries of the era of ultra-low rates, which is coming to an end. Low rates inflate the value of future cashflows as the lower the discount rate, the higher the present value of that cash. Rising rates have the opposite effect.

Real assets have traditionally attracted investors because of their capacity to generate cash yields, like bonds, as well as their ability to generate long-term capital gains, like stocks. Within the real asset category of alternative investments, timberland often competes with farmland, real estate and infrastructure-focused investments for institutional investors' attention and portfolio allocations. All four are considered long-term illiquid investments in a core economic resource that can generate self-sustaining income. In recent years, some institutional investors have begun showing less interest in timberland and more interest in other real asset categories. This largely has been because timberland's performance has lagged those of its peer hard asset classes.

— Fu (2016)

2.5.3 Infrastructure (investment class)

Characteristics: diversification, low downside risk, low liquidity

Forestry is compared to: electrical grids, telecommunications networks

Challenges: lower recent performance relative to comparators, low carbon credentials

Possible angle: low volatility, lower management and political risk

Who: super funds, SWF, diversified portfolios

Infrastructure investment funds the development of civil engineering projects like roads, railways, ports, airports, telecommunications facilities, electricity generation, gas or electricity transmission or distribution, water supply, sewerage or hospitals. It is a long-term investment and some projects may take a long time to generate cash flows.

Fundraising for infrastructure grew 40 percent in 2016, fastest among private asset classes. Infrastructure is seen as an uncorrelated substitute for traditional fixed income; infrastructure yields are typically better than fixed income, while bearing a similar risk profile. Infrastructure can also provide inflation-protected real returns, as adjustments for inflation are often built into the agreements (McKinsey 2017).

Core infrastructure's strong yield potential is a major reason why institutional investors are attracted to the asset class in today's low-yield environment. Yields on core infrastructure investments have been remarkably resilient, as forecastable cash flows, long economic lives and creditworthy counterparties have bolstered asset-level cash flows (JP Morgan 2017).

Sovereign wealth funds and others with extensive commodity exposure cleaned up during the commodities boom 2012-14 and are now looking for alternatives. While they have found some luck in infrastructure, the number of infrastructure investments made by sovereign wealth funds dropped by 15% year-on-year, from 33 in 2016 to 28 in 2017 because they are encountering greater resistance from regulators, and government owned assets are facing increased competition and higher valuations for mature assets in developed markets, as more investors seek bond-replacement exposure to infrastructure assets' steady cash flows (International Forum of Sovereign Wealth Funds 2018).

2.5.4 Fixed income (investment class)

Characteristics: low risk, low return, low volatility, capital stewardship

Forestry is compared to: bonds

Challenges: low bond and interest rates

Possible angle: low volatility, consistent low-risk returns

Who: banks, SWFs, diversified portfolios

Fixed income is a type of investment in which real return rates or periodic income is received at regular intervals and at reasonably predictable levels. Traditional fixed income allocation has ranged from sovereign and investment grade bonds to high yield and emerging debt. In the face of current low yields and the potential vulnerabilities of their traditional fixed income portfolio, investors might look to incorporate strategies that have higher yield or that mitigate the portfolio's exposure to rising rates. They might consider investments with very low correlation to the rest of their portfolio, which also tend to do well in periods of rising rates and higher inflation.

Low interest rates and falling bond rates are forcing a shift of strategy for those who have relied on fixed interest strategies. One emerging approach is infrastructure as an asset class (Firzli 2016, Bazi and Firzli 2011). These can take the shape of listed infrastructure or fixed income instruments like bonds and through direct loans extended by large asset owners.

2.6 Limiting exits

Investment is both increasingly professionalised AND increasingly individualised. Financial intermediaries are critical gatekeepers in this system, shaping and validating investor preferences. Improving understanding and creating positive associations with forestry amongst these professionals is critical, and the approach must be stakeholder-focused.

As can be seen, there are multiple factors involved in the decision making process. Ultimately, many investors exit the consideration of planted trees as an investment opportunity before they reach the stage of being able to make an informed decision. Current trends in the forestry industry, and the investor market, provide a glimpse into what informs these decision making processes. This is explored in section 3.

3

Current Trends Informing Investor Decision Making

3. Current Trends Informing Investor Decision Making

“Society is demanding that companies, both public and private, serve a social purpose. Without a sense of purpose, no company, either public or private, can achieve its full potential. To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society”

*— Larry Fink, CEO, BlackRock
Annual letter to CEOs, 2018*

3.1 Overview of trends in responsible and ethical investing

Responsible and ethical investing is reshaping the global investment landscape. Responsible and ethical investing encompasses a set of approaches that seek to reduce the ‘negative externalities’ of investment. This continuum includes a range of approaches to impact, from avoiding harm (ESG integration and negative screening), to using investment to benefit particular stakeholders and actively contribute to solutions to defined challenges.

This set of approaches, described in table 3.1 below, fills the space between traditional investing with limited or no regard for environmental, social and governance factors, and philanthropy, which seeks to generate positive social and environmental outcomes with no financial return.

Table 3.1 Responsible and Ethical Investment Spectrum

	Traditional Investment	Responsible and Ethical Investment						Philanthropy
		ESG Integration (Including shareholder engagement and voting)	Negative Screening (And norms based)	Positive or Best-In-Class Screening (And norms based)	Thematic/ Sustainability Themed Investments	Impact Investing Market Rate Concessionary Rate		
Focus	Little or no regard for environmental, social or governance factors	Consideration and analysis of environmental, social and governance (ESG) factors as part of investment decision making	Industry sectors or companies excluded/ divested from to avoid risk or better alignment with values	Investments that target companies or industries with better ESG performance	Investments that specifically target sustainability themes eg clean energy, green property	Investments that target social and environmental impact and deliver market rate financial returns	Investments that target social and environmental impact and deliver below market rate returns	Grants that target positive social and environmental impact with no financial return
Impact Intention	Agnostic	Avoids harm		Benefits stakeholders				
					Contributes to solutions			
Features		Delivers competitive financial returns						
		Manages ESG risks						
				Pursues ESG opportunities				
					Intentionality: delivery of impact is central to underlying asset/investment			
					Impact of investment is measured and reported			

This spectrum has been adapted from frameworks developed by Bridges Fund Management, Sonen Capital and the Impact Management Project

Responsible and ethical investing approaches are being adopted rapidly by ‘mainstream’ investment decision-makers throughout the developed world.

- Globally, this is a growing US\$22 billion market representing 26% of funds under management (FUM) (GSIA 2016).
- Investment organizations are moving to meet this demand, developing products and options across all asset classes and all investment styles (GSIA 2016).

Australian responsible and ethical investments have more than quadrupled over the past three years (RIAA 2018a).

- 55.5% of all professionally managed assets in Australia (AU\$866 billion) are invested through some form of responsible investment strategy (RIAA 2018a).
- 81% of Australia’s largest superannuation funds have made a public commitment to responsible investing (RIAA 2018b).

Individual demand for transparently responsible and ethical investment options is high and growing—92% of Australians expect their superannuation or other investments to be invested responsibly and ethically (RIAA 2017).

This demand is met by changing business practice. Transparency expectations around environmental, social and governance (ESG) factors listed companies in Australia (NAB 2017) and New Zealand (GSIA 2016) are shaping business reporting in ways that make it easier for investors to allocate capital along ethical lines.

3.2 Current state of investment levels in planted trees

New investments leading to new plantations in Australia have been at a standstill for nearly a decade. The establishment rate decreased from 86,600 hectares in 2006–07 to 200 hectares in 2016–17, the lowest ever recorded under the National Plantation Inventory (ABARES 2018).

While very few new plantations were planted during the last decade, the relative mix of non-government plantation owners has shifted substantially. The biggest movements have been the redistribution of MIS assets (33% of the plantation estate in 2006–7 and 5% in 2016–7) to institutional ownership, which increased from 12% in 2006–7 to 49% in 2016–7 (ABARES 2018). Because of the market opportunity created by the collapse of the MIS companies during the global financial crisis, these assets were purchased by institutional investors at very favourable prices that are no longer available in the current market.

3.2.1 Factors limiting investment in planted trees

Our research has identified that there are constraints for both private investors and professional managers (of collective or private funds) at the awareness, interest, willingness and ability stages that reduce their likelihood of investing in forestry.

Institutional investors are generally aware of forestry investment, even if they do not participate in it. By contrast, awareness of forestry investment is low amongst private investors, private fund managers and financial advisors because the option is not particularly visible or well understood. Most individuals investing in forestry or advising others to do so have a pre-existing relationship to forestry or wood products, or have a first-degree connection to someone who does. Most Australians are city-dwellers, and their crossover with foresters and those in the wood product industry is low.

Awareness does not translate into interest for many investors. In the absence of direct experience, negative stories contribute to an generalised perception of higher risk and difficulty than other investments generating comparable return that dissuades investors when there are ‘easier’ options available.

Even when investors are aware and interested in forestry investment, it is difficult to make an investment case for new investment in forestry with land prices at their current levels.

Private investors can be aware, interested, and willing, but still unable to invest in forestry. At this time, the level of investment required in forestry in its current form is too high for most of private investors. There are very few retail opportunities for private investors to gain exposure to forestry in the Australian market.

3.2.2 Impact of limitations in investment in planted trees

ABARES estimates that the total commercial plantation estate may decrease by around 80 000 to 100 000 hectares over the next 10 to 15 years as new plantation establishment will not be sufficient to offset removals of low commerciality plantations unless there are new drivers to expand or maintain the current plantation estate (ABARES 2016).

At current prices, forestry investment does not compare favourably to competing investment options in the infrastructure, real assets or fixed income categories, and institutional investors are not making investments in new plantations.

Investment decision-makers who focus exclusively on ROI at known level of risk are currently not investing in trees and are unlikely to invest in trees until the relative price level improves. ROI to investors and/or growers will improve if (1) costs go down, (2) output prices and the proportion of those prices that return to growers increase, or (3) the relative cost of substitutes (for investors and/or rural landholders) changes so that forestry investment compares favourably with them.

Professional funds managers investors have several different reference frames for forestry investment, based on perceived risk-adjusted return, sector exposure, perceived diversification benefits or ethical considerations. Each of these reference frames come with implicit comparators and explicit requirements for asset performance. In each of these categories (e.g. real estate, infrastructure and agriculture), they are not investing in forestry because it does not compare favourably to other options within the category. This is unlikely to change unless forestry investment compares favourably with the behaviour and risk-adjusted returns of competing products. Macroeconomics plays an important role here in creating windows of opportunity, e.g. investment strategy changes required to maintain expected returns in the 'new normal' of sub-inflationary returns to fixed income investment.

A premise of this project is that integrating trees with existing land uses is a key avenue for increasing the planted forest estate. Professional fund managers are generally interested in optimising the use of capital, rather than optimising use of land. Hence, most are not receptive to mixing forestry with other land uses, expressing strong preferences for specialised managers and specialised investment products. They hold the belief that specialisation is critical for optimising financial results, and that lack of specialisation is a breach of fiduciary responsibility. Thus, they diversify across portfolio but keep products and land parcels separate. By contrast, smaller investors and specialised agricultural funds are more receptive to mixing land use, and more likely to be motivated by diversification opportunity offered by integrating forestry into agricultural land use. Private investors are likewise less focused on specialisation than professional investors and, more open to trying new ideas including mixed uses of land.

Similarly, a longer-term perspective is required to achieve results in agriculture and forestry, which are subject to weather patterns and other fluctuations. Currently most institutional investors and lenders approach financial outcomes of their portfolios with a short-term perspective. Private investors and private fund managers are more able to adopt a long-term perspective to their investment returns.

3.3 The investment challenges for planted trees

The key challenge impacting on investor readiness to invest in planted trees is one of perception. Forestry is not broadly perceived as a responsible and ethical investment. Instead, logging is perceived as environmentally damaging, and is named alongside mining as a problematic industry and 27% of Australians select it as something in which they would refuse to invest (RIAA 2017).

Responsible and ethical investment presents a key opportunity for forestry, and forestry is well placed to become an important part of the new global investment landscape, positioned as a sustainable and renewable investment alternative for those investors seeking lower carbon alternatives to mining.

Further, an oft-cited challenge in impact investing—investing that seeks to create positive social outcomes alongside financial returns—is deficit of large-scale investment options (Impact Investing Australia 2016); the forestry sector is well positioned to take advantage of this gap.

The top social and environmental issues that Australians consider when investing are:

- renewable energy (48%)
- healthcare and medical products (45%)
- and sustainable practices (44%) (RIAA 2017).

This presents a clear opportunity for the industry to help position timber as a sustainable and renewable resource. One possible opening to exploit is the significant differences in the acceptability of plantation forestry (30% unacceptable to rural and regional Australians and 40% unacceptable to urban Australians) relative to logging native forests (70% unacceptable to all) (Schirmer, Dare and Mylek forthcoming).

Perceptions need to be managed at amongst institutional investors as well as the general public. Institutional investors are responsive to member demand; members that have positive associations with forestry as an industry are more likely to seek it in their super, or from their financial intermediaries.

Figure 3.1 Signatory to UN Principles for Responsible Investment

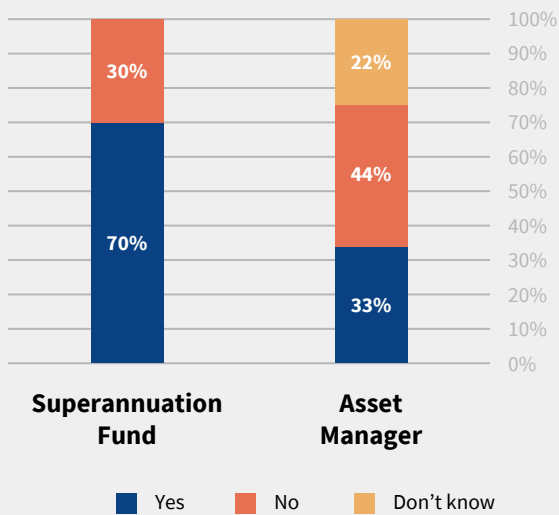
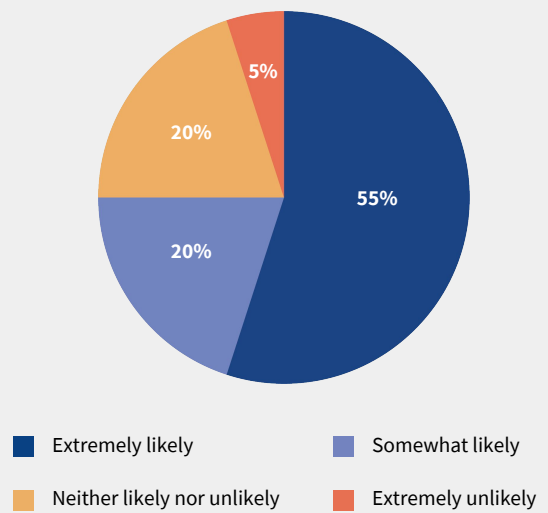


Figure 3.2 Likelihood of current investors incorporating environmental impact into investment decisions within 5 years



In the survey, we identified that the benefits of forestry investment most highly valued by investors were:

- returns (30%)
- impact (28.5% including, regional economic, ecological and social benefits)
- diversification of portfolio (14%).

We also confirmed that responsible and ethical investment principles are rapidly being adopted by investors. This was indicated by the fact that 61% of institutional investors surveyed were signatories to the UN principles on responsible investment.

We also see that social and environmental impact is increasingly embedded in decision-making of investors as opportunity or as risk. 75% of survey respondents thought that environmental impact would be an important investment consideration for them within the next five years.

4

Opportunity Areas



4. Opportunity Areas and Actions

Four key opportunities emerged in analysis of the research findings, emerging from the challenges described previously. These opportunities can be categorised into four broad areas, including

- Access new sources of equity and debt capital
- Access emerging investor base of the future
- Increase return on investment for industry and investors
- Improve trust of communities (growers and investors)

These are treated individually in this section and explore both in regards to our findings, and with regards to which actions might be undertaken to seize the opportunities available.

4.1 Opportunity Area 1: Access new sources of equity and debt capital

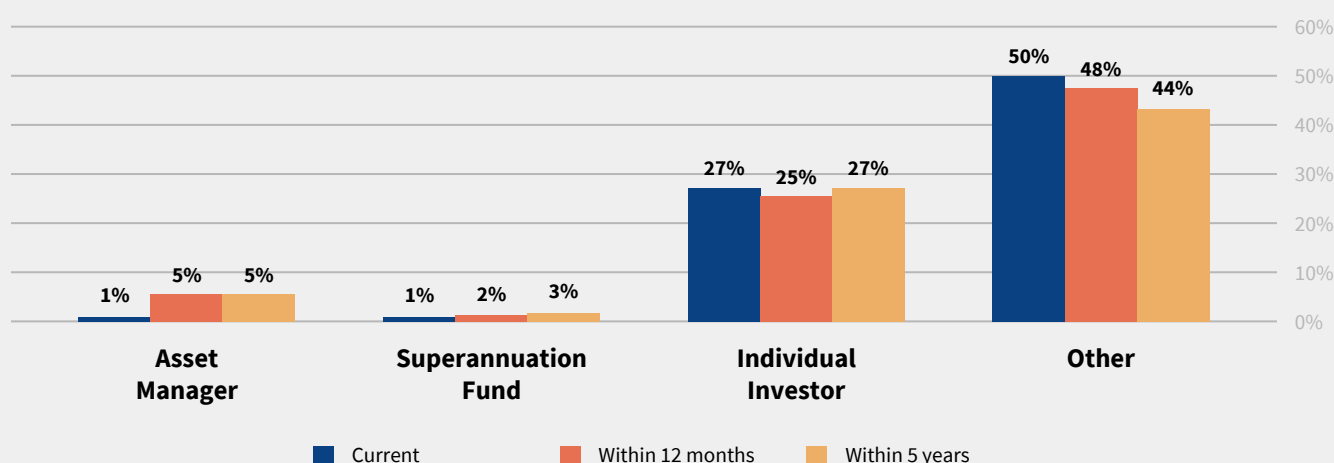
This research found that new capital is available for investment in trees. This capital can come from the current investors as well as from new sources including both equity and debt. While equity is the main way of investing in trees, debt appeared a largely unexplored territory with potential.

4.1.1 Findings which inform this opportunity area

4.1.1a Current and untapped investors exist

Current investors (who have already demonstrated they are aware and interested) have new capital ready to invest and are willing to do so if they can source appropriate deals.

Figure 4.1 Portfolio allocation to timber, if deals available

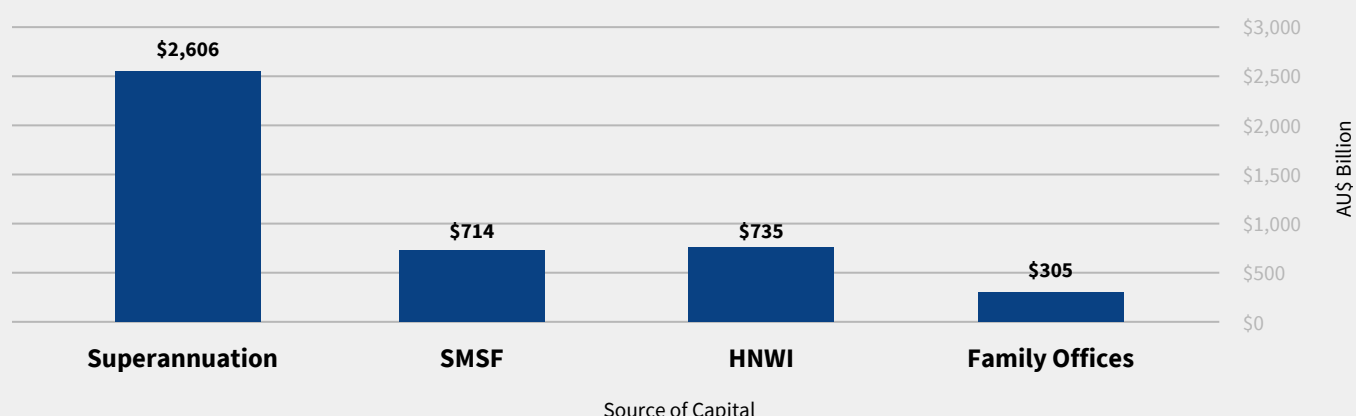


- 42% of current timber investors surveyed would increase their allocation in the next 12 months
- 52% would do so over the next five years
- Return on investment (based on currently high asset prices) is the primary obstacle for these investors.

“The key for us in investing is that we need to get returns and we cannot get the returns that we need [in forestry at this time]. It’s that simple. We would have bought multiple assets if the returns were higher. If the returns were as they were historically...I think we would have a much bigger allocation.”

— Mid-size industry superannuation fund

Figure 4.2 Wholesale private investors (cf. superannuation)



The largest pool of investable assets in Australia sits within the \$2.6 trillion pool of superannuation assets (ASFA 2018). However, household wealth in Australia has grown significantly in recent years, and private wholesale investors may offer significant opportunity. Research suggests that awareness amongst these investors is patchy. Despite a clear enthusiasm for property investment, mean financial (e.g. non-property) assets per household was \$378,700 in 2016¹, a 42% increase over the previous decade (ABS 2017). Middle and upper wealth Australians have significant capital to invest.

Table 4.1: Private wholesale investors (individual/household)

Wealth segment	Definition in terms of investable assets	Size	Features
HNWI (global) (Capgemini World Wealth Report 2018)	\$1M + ²	15 million people and US\$70 trillion Expected to reach US\$100 trillion by 2025, of which 40% will originate in Asia-Pacific	Allocate 9-10% of assets to alternatives May invest via family office
HNWI (Australia) (Capgemini Asia Pacific Wealth Report 2017).	\$1M +	Australia - 278,000 people and US\$8 trillion, grew 9% last year 3rd largest HNWI population in Asia-Pacific	Allocate 10-16% of assets to alternatives

¹ \$936,000 including property

² This includes Very High Net Wealth Individuals or ‘mid-tier millionaires’ with \$5-30M and Ultra High Net Wealth Individuals with \$30M+.

Table 3: Private wholesale investors (individual/household) (continued)

Wealth segment	Definition in terms of investable assets	Size	Features
Mass Affluent	\$500k-\$1M, with high personal income	5,000+ Australian households (60%) AU\$1.8B in financial assets (ABS 2017)	Tend to be well educated, technologically savvy and time-poor, focussed more on value than price, driven by lifestyle and conscious of status (Sharshun, 2015)

Private wholesale investors invest in four ways:

1. Through personally held investments

- 51% of Australian investors hold investments in their own name outside of super (ASX Australian Investor Study 2017).
- Non-advice brokers and online trading platforms are the preferred trading method (ASX Australian Investor Study 2017).

2. Through Self Managed Super Funds (SMSF)

- 595,840 SMSF holding \$712 billion (ATO 2018)—nearly 30% of the nation’s superannuation wealth!
- Used by 15% of investors surveyed (ASX Australian Investor Study 2017).
- SMSF become financially effective at \$250,000 in investable assets, so investors are usually age 35+.
- 30% of those surveyed who don’t have an SMSF intend to set up an SMSF in the future. Most (65%) of these investors are already active investors, and tend to be middle-income rather than high-income (ASX Australian Investor Study 2017).
- Engaged investors—56% of SMSF trustees established their SMSF in an effort to have more control over their investments, and 32% established them so that they could choose specific investments (AMP, 2017).
- Slightly more likely than other investors to use professional advice (ASX Australian Investor Study 2017).

3. Through Family Trusts

- Used by 10% of investors surveyed (ASX Australian Investor Study 2017).
- Use declines with age: 17% of 25-34 year olds have a family trust, but just 4% of those 65+ (ASX Australian Investor Study 2017).

4. Through family offices (HNWI only)

- 350 Australian family offices
- Roughly \$305 billion as of June 2017 (Family Office Connect).

4.1.1b Responsible & ethical investment is a growing market

Responsible & ethical investment approaches are emerging in all aspects of the financial sector. To the extent that these investors are aware of forestry, they are uninterested in investing because they do not perceive forestry as responsible and ethical.

This market includes more than half of funds professionally managed in Australia (\$866B or 55.5%). This is also becoming a major feature in the private wholesale investment market.

- More than 90% of HNWI globally, particularly those under 40, believe that driving social impact is important (Capgemini 2014).
- Almost 70% of HNWI investors intend to increase their allocation to ethical investments in the next five years (Scorpio Partnership 2016).
- 28.3% of the 311 family offices surveyed utilized impact investing as a strategy (UBS and Camden Wealth 2017).
- 40% family offices surveyed expect to increase commitments to impact/ESG investments in 2018 (UBS and Camden Wealth 2017).

4.1.1c Debt is underexplored

“People who own forest don't take on debt, except where it provides tax efficiency.”

— Fund manager, real assets

All existing investment arrangements described by respondents were equity arrangements. Debt seems comparatively underexplored despite its significantly lower cost of capital—debt is available at 3-4% while equity investors interviewed were seeking returns of 6% or more. Institutional investors such as superannuation funds and banks in this research were often aware of forestry, but uninterested or unwilling to choose it as an equity investment. They suggested debt as an alternative means of investing in forestry.

One institutional investor who reported zero interest in forestry as an equity investment, despite significant awareness and domain expertise, volunteered that debt would be an entirely different decision-making process:

“If it was debt, [the necessary rate] is just whatever the debt markets are at the time. So for example, we've got money in an infrastructure debt fund. That's returning about 4% at the moment in the market. So if somebody came to us and said listen, we've got a debt product that's going to finance the forest industry and you'll get commercial rates, then okay, we're interested in that.”

— Small superannuation fund

Banks interviewed similarly reported being unlikely to engage in equity investments in forestry but expressed an openness to debt arrangements:

“Where the banks generally play is more in the financing of forestry-related assets like processing assets where the feedstocks is—they scrutinize access to feedstock, scrutinize the likely offtake pricing and the certainty that the product will be purchased and then financing the processing equipment. That would be where banks would better play.”

— Bank

Debt finance aligns with the strategic interests of large banks and link with the rapidly growing market of green finance. All four major banks have taken a strong position on sustainability as an area of opportunity & risk mitigation. Some major banks, such as NAB, are working on creating new products to take advantage of opportunities in this area through green finance and the development of natural capital measures to inform lending practices.

“Infrastructure is easy because you can place large amounts of capital and it's clear what to measure to demonstrate sustainable credentials.”

— Bank (major)

Green bonds have been called “the hottest thing in debt capital markets” (Corke and Moss 2018) and over US\$250 billion are expected to be issued globally by the end of 2018 (Climate Bonds Initiative 2018a). Green asset-backed securities are also rapidly expanding (Climate Bonds Initiative 2018a). Very few of these have involved forest planted for harvest - Sweden’s Sveaskog (Sveaskog 2018) is a notable exception. Instead, they are often issued for infrastructure: major renewable energy infrastructure projects, constructing low-carbon residential buildings and developing low carbon transport (Climate Bonds Initiative 2018b). In addition to being large investments that are already conventionally debt-financed, these are areas where ‘sustainable’ is broadly agreed and measurement is clear. Draft Forestry Criteria for inclusion in a Certified Climate Bond - currently open for comment - may pave the way to include more production forestry in the green bond market.

4.2 Opportunity Area 2: Access the emerging investor base of the future

Future investors are likely to be different from past forestry investors, in that they care more about the non-financial impact of investment. Currently there is no clear path for these investors to be aware, interested, willing, and able to invest in forestry.

4.2.1 Findings which inform this opportunity area

Awareness of forestry as an investment class is low.

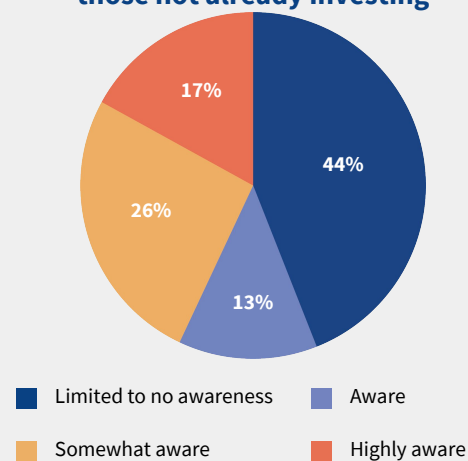
- >40% of the non-forest investors surveyed had little-to-no awareness.
- < 20% were highly aware.

Why is this important? Awareness is a critical first step on the path that investors and intermediaries take to making a decision. All but one forestry investor interviewed in this research had a direct or first-degree connection with forestry or timber products.

Those with limited awareness often perceived forestry investment as ‘too hard’ and therefore out of reach.

- 9 interviewees cited lack of domain expertise.
- 6 interviewees cited lack of confidence.

Figure 4.3 Awareness of forestry investment amongst those not already investing



“Frankly, if you are not committed to this, like in an institution, you know, it is too hard! You need two layers of commitment, I believe, a personal commitment, that person actually wants to do this and also the institution needs a level of commitment, but they are happy for that person to spend extra time, educating themselves, you know, spending extra time on the deal, you know, all that stuff.”

— Impact Investment Advisor

Financial intermediaries interviewed confirmed that awareness and positive impressions is low in the wider market and amongst mainstream intermediaries.

4.2.2 Context

There are few paths for emerging investors with no prior connection to forestry to become familiar and comfortable with forestry as an investment class.

Australian investors are primarily familiar with shares and bonds, and to a lesser extent Real Estate Investment Trusts (A-REITs) and Exchange Traded Funds (ETFs) (ASX Australian Investor Study 2017). There are no forest bonds, few ASX-listed companies, no Timberland-focused Real Estate Investment Trusts (A-REITs) and no Exchange Traded Funds (ETFs). This lack of exposure influences investors at all scales as well as the intermediaries from which they seek information.

New investors increasingly need to see financial and non-financial results.

There is a strong and clear preference amongst *individuals* for ESG focus in investment. 7 in 10 (71%) Australians believe environmental issues are important in regards to investing their money, and societal issues are important to 57% of Australians. 9 in 10 (92%) Australians expect their superannuation or other investments to be invested responsibly and ethically (RIAA 2017).

This preference is expected to increase. Australian investor demographics are shifting. 70% of Australians are under 50, meaning they are Generation X or younger. While older Australians are wealthier and invest more than younger Australians, this group is becoming a larger share of the population, and they have different preferences in terms of how they access investment and the personal impact they seek to have through their investments.

Millennials are now 25-35 and accumulating significant superannuation balances. Millennials are the segment most likely to act on their beliefs and expectations of organisations to deliver them quality and trustworthy responsible investments— 88% would consider investing in ethical companies, funds or superannuation funds in the future or are already doing so (cf. Gen X 73%, Baby Boomers 65%) (RIAA 2017).

Younger investors (18-24) are holding shares at double the rate they were in 2012, and 81% are seeking guaranteed or stable returns, rather than pursuing risk (ASX Australian Investor Study 2017).

Amongst institutional investors, ESG information has been valued in the last decade for identifying and managing risk. There is now a growing understanding that the consideration of ESG factors will have a positive impact on portfolio performance (RIAA 2018).

Institutional investors are also responsive member feedback, through which the individual attitudes cited above shape institutional investment. 74% of super funds use stakeholder input to inform their investment beliefs, and 32% engage in regular monitoring and at least annual surveys of client interests and satisfaction (RIAA 2018a).

“Super funds – as the long-term investors in society and with beneficiaries spanning those in their first job through to those in retirement – are increasingly under pressure to not just tell, but show clients how money is being invested on their behalf. This means demonstrating financial performance, disclosing full portfolio holdings as well as the positive impact their investments are making, such as the fund’s portfolio carbon footprint, contribution to affordable housing, greener buildings or renewable energy.”

— RIAA (2018a)

4.3 Opportunity Area 3: Increase return on investment for industry and growers, and create indirect benefits up and down the value chain

The financial return on investment available to investors and landowners outside of forestry are higher than are currently available in forestry. This means that investors whose ROI needs are dictated by their need to meet future liabilities (e.g. pensions and insurance funds) may not choose to invest despite having awareness and interest. Capturing the value of non-financial outcomes alongside financial returns may tip the scale for some investors.

4.3.1 Findings which inform this opportunity area

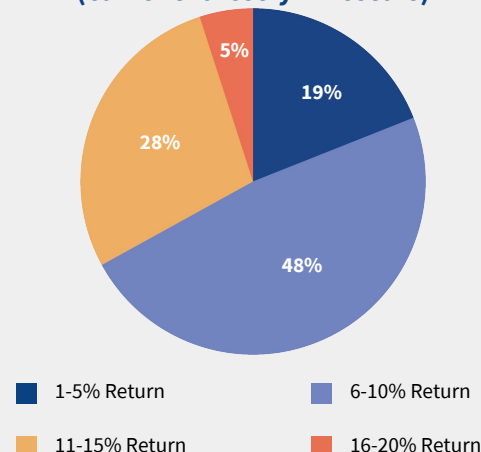
Improved ROI would likely increase the level of investment from current investors

The comparatively returns available from forestry at current prices are restricting the flow of new investment money in plantations even though many current investors are willing to increase their holdings in forestry investments.

Current forestry investors in this research:

- Expect returns of 6% and above from their timber investments.
- Cited ROI as the main reason for discontinuing or not increasing their allocation.
- Many purchased their existing assets at deeply discounted prices relative to current price.

Figure 4.4 Expected return on future forestry investment (current forestry investors)



“The key for us in investing is that we need to get returns and we cannot get the returns that we need [in forestry at this time]. It’s that simple. We would have bought multiple assets if the returns were higher. If the returns were as they were historically... I think we would have a much bigger allocation.”

— Mid-size industry superannuation fund

4.3.2 Context

This is consistent with allocations in the broader forest investment market, which has recently seen significant divestment from institutional investors on the basis of low ROI. The California Public Employees' Retirement System recently sold most of its \$2 billion timberland portfolio, with few plans of investing again, shifting the focus of its \$358.9 billion system to core real estate. Harvard Management Co., which manages Harvard University's \$37.1 billion endowment, is also reducing its timberland portfolio (Jacobius 2018).

Improved ROI would likely increase the level of investment from non-forestry investors

To be attractive on an ROI basis to institutional investors, forestry has to compare favourably to similar asset classes, such as alternatives, infrastructure and real assets.

Potential investors interviewed expected returns of 6% and above from equity investments in forestry, and expressed some frustration that advocates of forestry investment didn't seem to see their product in context of other investments, as described in the quote below.

“Some of the proponents of the investments are a little bit naïve in the way that they come to us... I've got to go through this explanation right, well the best interests and what's more in terms of deploying our member's capital we've got a lot of options out there. Timberland is but one of those options and lining them all up, you guys don't provide the same risk-adjusted return that infrastructure does for example, or real property.”

— Small industry superannuation fund

To be attractive on an ROI basis to landowners, forestry has to compare favourably to competing land use options, such as grazing.

Paths to increased ROI that emerged in this research

Our findings indicate several avenues for increasing financial returns for both industry and growers. This includes:

Participation in new financial products - Impact measurement and communication opens access to new financial products such as social impact bonds and green bonds, in which payments are attached to the performance on creation of non-financial benefits that usually addressing social and environmental problems.

Recognising relationship between non-financial and financial value - Non-financial value creation is often related directly and indirectly to increased economic performance opening opportunities for additional income streams. NAB, for instance, has created a new department focused on documenting these relationships and developing new products and incentives under shared value initiative that aims to benefit farmers and lenders. One of the streams of work investigates the benefits of mixed uses of land and builds the case for discounting cost of capital to producers whose techniques benefit their long-term production capacity and mitigate effects of climate change.

Accessing new timber products markets - Global focus on addressing problems such as climate change is stimulating innovation of new timber products such as cross-laminated timber used in construction of high rise timber buildings. Australian timber is currently being used in the construction of the southern hemisphere's tallest timber building in Brisbane.

Adding non-timber products to timber production - Production forests can be combined with a range of co-production activities, including production of mushrooms, honey, essential oils, and recreational use of forests. Some of these activities are already in use within the industry. Another product with global potential is for example pine resin. One overseas respondent is building a large timber investment based only on pine resin market, where demand and prices have spiked while supply has decreased. Pine resin is used among others in chemical and pharmaceutical industries and China has shifted from being a provider to a major consumer and net importer. Demand is forecasted to continue rising.

Optimisation of land use - Two of our respondents who manage agriculture and forestry funds reported above industry average returns as a result of careful assessment and mix of land uses including diverse crops and tree species. While not widespread, the practice is creating above-market returns for respondents.

Environmental services markets - Environmental services of trees are an emerging investment market globally, though not well-established in Australia. Our respondents were engaged in carbon credits, water funds and biodiversity and recognised these areas as worth exploring for future development.

Non-timber products and optimisation of land use can be organised in different ways to provide additional income streams for the industry and/or growers. For example, one landowner can conduct different activities on the land, or land can be let to different operators, each specialised in their own area, creating rent income.

Further, following some or all of the above additional income avenues can also create additional non-financial benefits such as improved relationships with communities, farmers and other stakeholders.

4.4 Opportunity Area 4: Improve community trust (investors and growers)

Forestry is an anchor industry in many regional Victorian communities, and is well-placed to play a key role in multi-stakeholder efforts to support the resilience of regional communities - both in a financial sense through diversification of income, and an environmental sense as trees are a natural tool for mitigating effects of climate change. To achieve that, greater trust needs to be built with local communities and with potential investors.

Increasing the levels of trust is needed to move investors and potential growers from awareness of forestry as an option to actively considering the option.

4.4.1 Findings which inform this opportunity area

Trust in forestry is weak

Some respondents in this research reported a lack of trust between grower communities, and industry who were perceived as:

- Driving up land prices.
- Not paying “a true market price, a fair market price for timber”.
- Benefiting from the demise of the MIS at the expense of growers, such that it “ended as a feast for receivers, and devalued the entire plantation estate, with fire sales to foreign investment companies”.

“I think they managed to negotiate out of all of [the contracts with growers] or if they didn’t they’re certainly trying to so the majority they would have got out of. So the question becomes what entity can you trust to put something on your land for 30 years and actually fulfill their obligations over that complete period?”

— Forest owner-manager and processor

Low levels of trust presents a challenge for forestry in the broader investment community, where awareness and understanding of forestry investment options is low, but negative stories abound. Non-forestry investors interviewed with no direct knowledge based their opinions on these stories, and did not seek to correct their impressions.

- 7 interviewees cited negative industry perception as a barrier to participation by growers or investors.
- Two intermediaries interviewed excluded forestry from those investments they would recommend to clients on the perception of environmental damage.
- 10 respondents (8 interviewees and 2 survey respondents) mentioned negative impressions around tax- e.g. “Tend to be packaged tax schemes not investments”, “have been anywhere from dodgy to outright ponzi schemes and tax frauds”, “most people have seen these investments as tax write offs”.
- 3 institutional investors and one intermediary perceived forestry investment as a source of reputational risk.

4.4.2 Context

It is well documented that people can take mental shortcuts to reach a decision, particularly when there is time pressure or when other factors (such as lack of understanding) make it difficult to assess the available choices (Kahneman and Tversky, 1979).

Investors are inclined to make decisions based on how readily available information is to them, and the emotional associations they have with the information (Thaler). This means that an investor is likely to rely more on information they can easily recall than other facts or observations.

Unfortunately, negative events are far more easily remembered than positive ones— the so-called negativity bias. At the community level, social license - a community's perceptions of the acceptability of a company and its local operations—is low. When social license is strong, an industry is perceived as trusted, credible and legitimate; when social license breaks down, activities can be blocked in by communities, governments, markets or activists (Boutilier and Thomson 2011). What the industry does as a neighbour affects social license at local, regional and national scale, and experiences at local scale often used by regional/national groups to confer or withhold legitimacy (Schirmer, Dare and Mylek forthcoming).

- At the local community level, forestry is perceived as having good outcomes on jobs, but not viewed as contributing to the friendliness of the community (Schirmer, Dare and Mylek forthcoming).
- Forestry is considered less beneficial to the community than agriculture or tourism, but better than mining. (Schirmer, Dare and Mylek forthcoming).

5

Recommendations and Actions

5. Recommendations

Based on an assessment of the four opportunity areas, we have developed a series of recommendations and actions which can be pursued to enable greater interest in forestry as an investment class and move potential investors from awareness through to being interested, willing and able. These four recommendations are:

1. Develop impact measurement tools
2. Increase awareness of forestry as an investment class
3. Build a case for optimising land use by integrating trees with existing land uses
4. Collaborate with those pioneering the inclusion of natural capital into valuation and risk assessment

The details, context and actions for these recommendations are provided below.

5.1 Recommendation 1: Develop Impact measurement tools

“We use the MCI, ESG screening tool as well because we're looking internationally as well but in terms of the local trust and obviously there's a lot of, a lot of them are really greening up a lot so they get specific scores so we do like to kind of direct maybe a bit more of the capital towards those specific ones that have got much better standalone credentials. Even as the whole wide world is going, the whole sector is going that way. It's like some are really ahead of the game and are doing very good things. We tend to direct our capital more to those specific names.”

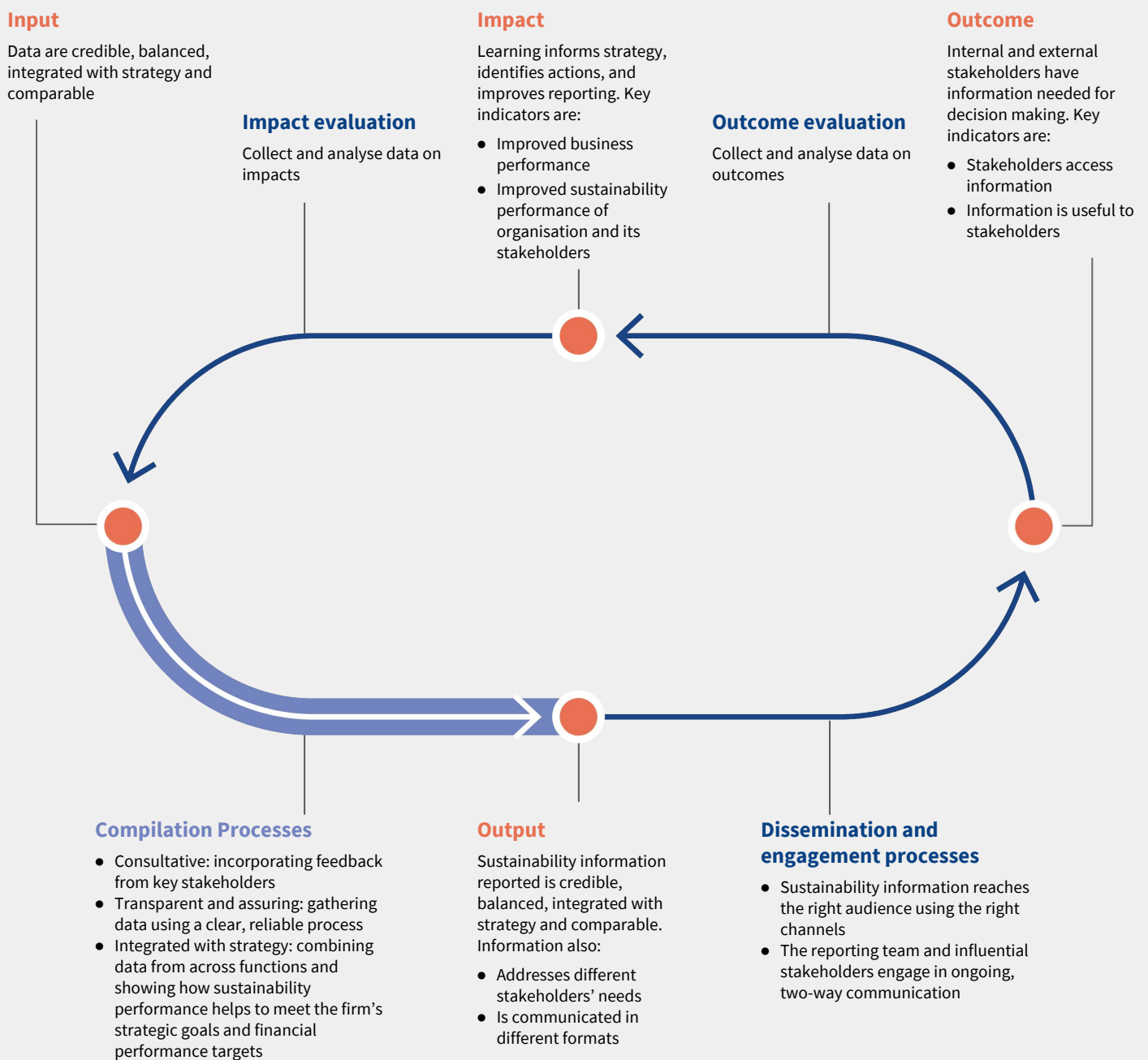
— Fund manager, private ethical

5.1.1 What it is

Impact measurement and management includes identifying and considering the positive and negative effects one's business actions have on people and environment, and then figuring out ways to mitigate the negative and maximize the positive in alignment with one's goals. This is integral to effective impact communication with stakeholders (investors, employees, community members, etc.)

- Impact measurement & management is iterative by nature, as shown in the cyclical diagram below
- Impact measurement generates the necessary volumetric information for ecosystem services and natural capital development, as well the qualitative information that helps an organisation tell its impact story in a way that resonates with different stakeholder groups
- Whatever form it takes, impact communication should be credible, balance, comparable, and integrated with strategy
- Impact measurement & management is more than counting metrics and complying with norms. Good impact management is in ongoing learning process in which impact information informs strategy, identifies actions, and improves performance.

Figure 5.1 Impact measurement model



York et al 2017

5.1.2 Findings which inform this recommendation

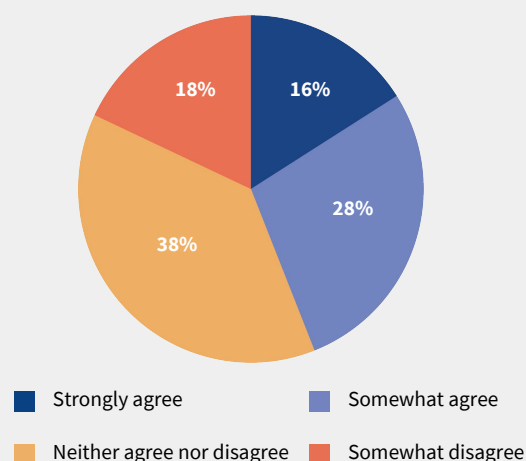
Despite only 18% of survey respondents disagreeing (somewhat, rather than strongly) that investment in trees was going to become a more significant part of the investment landscape over the next 5 years, the connection between forestry investment and environmental impact was weak amongst interview respondents to this research.

Some advisors and institutional investors described forestry investment as reputational risk. Despite owning a forest personally, a mutual bank executive explained the lack of interest from smaller banks in terms of risk to their socially responsible reputation:

“For a bank who wants to be socially responsible and doesn’t want reputational risk [association with timber harvesting] doesn’t help.”

— Mutual bank executive

Figure 5.2 Investment in trees will become a more significant part of the investment landscape over the next 5 years



Similarly, a small Industry superannuation fund said:

“There's the reputational disadvantage, if we got involved in wood chipping koalas, that's not great.”

— Small industry superannuation fund

The manager of a private ethical investment fund explained that they had screened the entire forestry industry out of investments that they recommended to clients, just like fossil fuels, and had since 2004. The fund has an ethical investment policy that:

“Speaks to our promotion of social justice and environment grants for communities both today and into the future but then it also speaks about us not allocating capital to that which destroys and so forth but it's a prescriptive list of industries that we don't like and industries that we do like to allocate to.”

— Manager, private ethical investment fund

As captured in this quote from an impact investing advisor, these views were often held on the basis of minimal information, particularly of the role timber and fibre can play decreasing the carbon footprint of other activities.

“I don't think we have a very sophisticated view about that. What I mean by that is, look, if you just said to someone investing in a timber plantation, people would feel “Oh, cutting down trees is bad”. This is an intuitive response based on everything we had ingrained in the last 30 years, cutting down trees is bad. Most wouldn't know how a sustainable forest works. What is it sustainable about it? I just think that the narrative is not as fully formed yet in Australia. I think is like this intuitive “we do not need to cut down trees” which it is not the case. I think part of the education around this issue should be around things like cross-laminated timber as it is actually better for the environment than using carbon or steel.”

— Impact investing advisor

5.1.3 Actions to realise this recommendation across Opportunity Areas

The following key actions are recommended to realise **impact measurement and management** across the Opportunity Areas identified:

Opportunity Area 1: Access new sources of equity and debt capital

Action:

Design and implement impact measurement. Impact measurement and communication is required by some new sources of capital (e.g. green and climate bonds, low carbon or impact funds) and would appeal to many others.

Opportunity Area 2: Access the emerging investor base of the future

Action:

Communicate impact clearly. Responsible and ethical investors require evidence of the social or environmental impact of their investment, as well as its financial return.

Opportunity Area 3: Increase return on investment for industry and growers, and create direct benefits up and down the value chain

Action:

Impact measurement creates an evidence base to better understand the the relationship between non-financial and financial outcomes. This information can help managers identify costs emerging from non-financial outcomes (e.g. areas with particularly low social license requiring more hands-on community engagement) as well as opportunities that have positive non-financial outcomes (e.g. recreational access that improves social license within the community).

Opportunity Area 4: Improve community trust (investors and growers)

Action:

Manage and communicate impact clearly. Impact management allows for better problem identification and management in communities, documents the benefits the communities receive, providing tool for strengthening trust.

5.2 Recommendation 2: Increase the awareness of forestry as an investment class

“It’s still about resetting people’s initial expectations or initial views when you meet them for the first time even in this day and age. It’s not considered a farming venture. People don’t see it as that. They see it more as a natural forest or a tropical forest venture, and that’s at all levels of industry. You can be talking to banking, you can be talking to senior people or boards at superannuation companies. There are still always that need to just reinforce what plantation timber investing is actually about.”

— Specialist fund manager (sell-side, private)

5.2.1 What it is

Investors don’t know what they don’t know. 40% of survey respondents had little-to-no awareness. This is a major hurdle to progressing toward investment, as there are currently few paths to awareness and interest in forestry investment if an individual does not have:

1. A direct or first-degree connection to forestry or related industries;
2. Friends or family with such connection; or
3. An advisor who is willing and able to recommend forestry as an asset class.

In the absence of these paths, it’s down to luck of striking up a relevant conversation with someone is aware, or actively seeking out new information.

Low-awareness investors are unlikely to independently seek out information to correct negative assumptions. Research participants with low (as opposed to zero) awareness of forestry as an investment class expressed skepticism and negative opinions based on anecdotes or impressions, most frequently expressed in terms of forestry investment being risky or tax-driven. Low awareness respondents were unlikely to seek out information to validate these perceptions, and forestry was unlikely to make it into group of investment options they were willing to consider.

- Of these non-investors with little-to-no awareness, 40% were skeptical or uninterested and the other 60% were merely curious.
- Of those non-investors with some awareness, 70% were interested or very interested.

Consider these two paths below. Understanding where and how potential investors seek information, and ensuring that information is available at varying level of detail for easy digestion, increases awareness of forestry amongst non-forestry investors earlier in life, increasing the pool of those who may progress from awareness to investment.

Potential investor path 1:

- Childhood raised in mid-income family (60% of Australians), parents talk openly of investing in listed equities.
- Mid-20s begin dabbling in investing after uni; seeks information by google, friends & family, perhaps using a roboinvestor, or no advisor; buys ETFs to gain exposure to sectors of interest; saves for travel and house
- Mid-30s mass affluent professional starting double-income family with \$100k combined in super (ASFA 2017) and \$50k in personal investments outside of super; has an account recommended by a colleague
- Mid-40s mass affluent household with \$200k combined in super and \$150k in personal investments; starts talking to accountant about SMSF options; procrastinates a few years.

- Early 50s low HNWI household kids in college; opens SMSF and has to rethink investment options and learn about newly available wholesale investment options; asks peers, gets a financial planner. THIS IS THE FIRST POINT WHERE FORESTRY CAN ENTER

Potential investor path 2 (HNWI):

- Childhood raised in HNWI family (.1% of Australians) with family trust, parents talk openly of investing; significant wealth transferred annually from family trust to take advantage of tax efficiency [at this point, young person is invested in forests only if parents are].
- Mid-20s already investing significant capital alongside parents; uses family advisor, invests conservatively as the family has always done to diversify and steward capital [invested in forests only if parents or family advisor are]
- Mid-30s professional starting double-income family with a well-diversified \$600k invested in SMSF; continues to use family advisor, associates with HNWI peers and is moderately familiar with the options available as a wholesale investor [good chance of awareness and perhaps interest and consideration by this stage]
- Early-40s mass affluent household with \$1M in the SMSF; seeks out new advisor and explores new options; buys a large rural block to plant forest, has many years to invest in multiple rotations of forestry if desired

5.2.3 Actions to realise this recommendation across Opportunity Areas

The following key actions are recommended to realise **increased awareness of forestry as an investment class** across the four opportunity areas identified:

Opportunity Area 1: Access new sources of equity and debt capital

Action:

Private wholesale investors controlling access to new sources of capital (e.g. HNWI and SMSF) and mainstream financial gatekeepers like financial planners and investment advisors have limited knowledge of forest as investments and/or have negative opinion about them.

Opportunity Area 2: Access the emerging investor base of the future

Action:

Responsible & ethical investors currently do not consider forestry investment. Awareness of this investment class is low amongst these investors, and those who are aware of it do not see it as responsible and ethical investment. Some even exclude it from consideration on the outdated perception of environmental harm.

Opportunity Area 4: Improve community trust (investors and growers)

Action:

Strengthening awareness and knowledge about forestry industry among communities helps fight some negative opinions and myths. Communicating how forestry industry helps build resilient communities can be used in increasing the awareness of and positive image of the industry.

5.3 Recommendation 3: Build a case for optimising land use by integrating trees with existin

“Land use optimization is a theme right across our portfolio. It’s not evident in every single property but it’s certainly a theme and where we think we can add quite a lot of value.”

— TIMO 2

“Our investors are not mixed forestry and agricultural investors and our fund products are firmly forest investment funds. And there are experienced agriculture fund and asset managers in the market. And from our investors perspective they tell us repeatedly that if they want someone to manage agriculture they’ll find someone that knows how to do it and that’s not us.”

— TIMO 1

5.3.1 What it is

Improving land utilisation to optimise productivity from a particular area of land, as measured across a range of production and lifestyle activities. This includes integrating trees into existing land use where appropriate.

This can increase interest, willingness (of institutional investors and potential growers), and ability (of growers by increasing available capital).

5.3.2 Findings which inform this recommendation

Three of the forest owner-operators interviewed were using land use optimisation approaches to integrate tree planting with existing land use. For them, land use optimisation is not just productive, it’s lucrative—they reported above industry average returns as a result of careful assessment and mix of land uses including diverse crops and tree species.

“We graze some cattle among the trees to supplement the cash flow and keep the weeds at bay and keep the fire risk to a minimum. Most of our properties if you had a look at them are mostly tree farms I suppose with cattle. We keep the weeds down. We have grass cover in the trees so that there is a grass cover maintained or a ground cover.”

— Forest owner-operator (small scale)

In contrast, 100% of the institutional investors interviewed said that they would not invest in mixed approaches. One superannuation fund said flatly ‘we don’t like mixing up food on our plates’. Another questioned how the approach could possibly produce better outcomes:

“Is it a farm with trees, or is it trees with a farm? It can't be a hybrid, it has to be one or the other. We have a general view that specialisation matters. Particularly when it is something that has price as finely as timber. ...[mixed use] is not the most efficient production from an investment perspective. we are competing on superfine levels of financial performance. We have to make sure for the upside the you are the absolute best at production and how you do that is you specialise in that one thing.”

— Mid-size superannuation fund

In addition to running counter to strongly held beliefs about the importance of specialisation, mixed use undermines existing risk management frameworks based on investments with homogenous and well-understood risk profiles that can be diversified at the portfolio level. One specialised fund manager spoke of the challenges in selling such an investment, even when the fundamentals were sound:

“I think the industry’s just on the cusp of wrestling with that. You see the likes of Hancock have come out with a joint timber and agriculture portfolio. A couple of other managers are thinking about it. Broadly the client community still likes to just tick a box. I have some timber, tick. I have some ag, tick. I have an airport, tick. It gets a bit more convoluted when they have to say to the people that they’re responsible for that I have a real asset or a regional, rural investment product with a mix of trees and agriculture. The messaging gets more difficult.”

— Fund manager, specialist

Unlike the institutional investors, many responsible and ethical investors in this research expressed curiosity about this approach or were exploring it themselves on land that they owned, as described in this quote:

“I’m actually quite interested at a personal level in multiple land use. Farming trees can play a part in it. That is the pure commercial piece. Then the next piece is I’m currently working with the Queensland Government in the land restoration fund and I’ve worked with Trust for Nature in Victoria or Queensland around protecting not only at-risk habitats but how you might restore habitats through the multipurpose land.”

— Forest owner-manager (hobbyist) and advisor, impact

5.3.3 Actions to realise this recommendation across Opportunity Areas

The following key actions are recommended to **build a case for optimising land use by integrating trees with existing land uses** across the Opportunity Areas identified:

Opportunity Area 1: Access new sources of equity and debt capital

Action:

Most institutional investors are adverse to optimizing land utilisation through investment in trees integrated into other rural land use, but also struggle to find forest investment opportunities that generate the returns they require.

Opportunity Area 2: Access the emerging investor base of the future

Action:

Many responsible and ethical investors were open to optimizing land utilisation and could be good candidates to partner with for building the case for optimizing land utilization.

Opportunity Area 3: Increase return on investment for industry and growers, and create direct benefits up and down the value chain

Action:

Optimising land utilisation can increase ROI of both the forestry and agricultural uses. Some respondents in our research reported strong results from this approach.

Opportunity Area 4: Improve community trust (investors and growers)

Action:

Unlike institutional investors, rural landholders are motivated to optimise the use and productivity of a particular land area. Optimising land utilisation by integrating trees into existing land uses creates clear benefits for communities by improving the state and productivity of land over time and thus strengthening economic resilience. Making this case will require working with agricultural advisors, to whom landowners turn for advice.

5.4 Recommendation 4: Collaborate with those pioneering the inclusion of natural capital into valuation and risk assessment

“Forestry doesn’t always straightaway come across as green and it’s still about resetting people’s initial expectations or initial views when you meet them for the first time even in this day and age.... Even amongst the core client base, and it’s interesting. Most will choose timber and not realize the inherent impact investment that that comes with. No-one understands that it provides clean water. No-one understands that it provides shelter for fauna and flora even in a monoculture instance.”

— Specialist fund manager (sell-side, private)

5.4.1 What it is

Natural capital produces a wide range of ecosystem services, such as the provision of clean water, productive soil, pollination services of bees, storage of carbon in trees and soils, decomposition of waste and more.

Valuing natural capital is a way to translate the non-financial benefits reflected in impact measurement into financial outcomes. Much progress has been made in measuring the volume of these services, but our ability to monetise them by reflecting them in prices and income streams remains low.

Without agreed volume measure, valuation approaches and markets, the ecological benefits of forestry cannot be turned into income for industry or growers. In the big picture, everyone working to build a market for natural capital is a potential ally to forestry.

- Carbon markets
- Biodiversity offsets
- Inclusion of natural capital in risk assessment and pricing

Groups like the [Natural Capital Coalition](#) and Stanford’s [Natural Capital Project](#) have been working in this space for some time from conservation and management side. Leadership from and collaboration between major financial institutions is essential to natural capital entering financial decision making in a real way, and this is starting to happen through the [Natural Capital Finance Alliance](#) and locally through NAB’s [Natural Value](#) research.

5.4.2 Findings which inform this recommendation

A number of respondents expressed frustration with property valuation norms in which planting trees reduces the capital value of land.

“[Foreign institutional investors] believe in the value of the trees and the land, where unfortunately in Australia, when we talk to the banks, banks will only ever value half or provide half the finance for the value of the land for a transaction irrespective of the crop that sits upon it. And so, the crop is not valued.”

— Land agent

“I can tell you now that my present value of my forest depending on the present day discount you use but if you look at that it would add somewhere around \$300,000 to the value of my property yet when you ask anyone to value my property there is no \$300,000 sitting on there for the present value of the timber that is being carried.”

— Mutual bank

Smaller lenders (including one private forest owner) felt that their hands were tied on this matter, as post-GFC regulatory requirements for lenders are very specific in how lending must be risk-weighted when demonstrating a lender's capital adequacy.

“The risk weighting is very clearly mandated... in agricultural finance. You typically get around at a 100% risk weights where you're running home lands at a 30% to 35% so your capital efficiency it becomes quite a challenge.”

— Mutual bank

Some larger lenders, on the other hand, had more latitude and were actively seeking to develop better measures for natural capital, as a step on the path to incorporate the value of natural capital improvement into its agricultural lending practices.

NAB, for instance, is working in partnership with CSIRO, to investigate the linkages between natural capital and on farm financial risk and productivity. They aim to identify the key metrics that can be used to identify good natural capital management, how these metrics might be tracked cost-effectively and how material they are to farm performance.

They argue that this approach “will bring transparency to the market for agricultural land - enable those landholders who manage their land well to attract competitive risk-based prices on their debt, premium prices for their land and to communicate to high value markets that their produce is sustainable.”

5.4.3 Actions to realise this recommendation across Opportunity Areas

The following key actions are recommended to realise **collaborations with those pioneering the inclusion of natural capital into valuation and risk assessment** across the Opportunity Areas identified:

Opportunity Area 1: Access new sources of equity and debt capital

Action:

Those pioneering new valuation methods will be key allies in explaining the benefits of natural capital valuation methods to current and potential investors, and can facilitate access to capital by providing links to investors interested in natural capital.

Opportunity Area 2: Access the emerging investor base of the future

Action:

Valuation that reflects the full economic value of natural capital is likely to attract responsible and ethical investors. Seeing forestry companies promote valuation and risk assessment methods based on natural capital is likely to create a positive image the industry amongst these investors.

Opportunity Area 3: Increase return on investment for industry and growers, and create direct benefits up and down the value chain

Action:

Valuing natural capital captures a variety of factors affecting income (e.g. improved soil quality and biodiversity, as well as natural growth) and is key to monetising these non-financial components of performance.

Opportunity Area 4: Improve community trust (investors and growers)

Action:

Promoting natural capital valuation helps improve the opportunities for grower to capture multiple income streams from growing, and thus increasing the appeal of planting trees. In time, more inclusive valuation methods may also unlock access to cheaper debt finance for growers.

5.5 Recommendation 5: Bridge different scales in forestry investment to unlock both land and capital

“You get a lot of people who are very passionate about it at that sort of local farmer level, but that's never going to shift the dial unless ... pretty much every farmer is doing it, never going to shift the dial with regards to supply. So, you need those big investors, the pension funds and the like to get excited about growing new wood rather than just buying second rotation stuff. ...I think research is always fundamental to it because when people, after they get the idea, they do look for the information to support or verify or come up with an investment proposition and without the data, without this species grows at this sort of right in this region because we've got the evidence to support it, It's very hard for a long-term investment to invest in the sector.”

— Advisor, agri investment

5.5.1 What it is

There is currently a scale mismatch in the investing market:

- Institutional and impact capital both struggle to find ‘investable’ deals of appropriate scale
- Small scale forestry opportunities struggle to find capital and market.
- This underserved market is available for capture by innovators.

There are few ways for private investors (wholesale, and especially retail) to invest small amounts of capital in the forestry sector. For whatever failings the MIS arrangements had, they did provide that opportunity.

Examples of the kinds of investment vehicles that would allow that are real estate investment trusts (REITs) and exchange traded funds (ETFs). An REIT is a business that invests in a portfolio of real estate. Because of the way they're taxed, REITs are incentivized to focus on properties that produce revenue. An ETF is a type of investment fund that can be bought and sold on a securities exchange market. These are also the kinds of vehicles are also substantially more familiar to conventional financial intermediaries who may be less comfortable advising clients on direct investments.

- REITs are a key way for private investors to gain exposure to real assets. This A\$125 billion market constitutes around 10% of the total Australian share market value (Reddy and Wong 2016), making Australia the second largest REIT market in the world. There are currently no dedicated timberland REITs on the Australian stock exchange (ASX 2017).
- Timber ETFs invest in stocks of companies engaged in the timber industry, including firms who own or lease forested land, harvest the timber, and distribute wood-based products, including lumber, pulp, paper and packaging. Examples include iShares Global Timber & Forestry ETF or Invesco MSCI Global Timber ETF.

5.5.2 Findings which inform this recommendation

Institutional investors must make large investments (e.g. \$100 million or more) to justify the cost of their due diligence. The private investors surveyed, on the other hand, were mass affluent and/or HNWI with <\$5M in assets. Investment vehicles that allow smaller investments fill this gap.

Structures that allow smaller growers to aggregate into a size that appeals to industry bridges the gap between industry and private investors of less than \$5M.

One respondent in this research was engaged in a strata-structured ownership arrangement with 9 other independent investors to reach a 350 ha plantation, and spoke of other arrangement he had seen:

“[I know] another group of investors who are lawyers, very successful businessman... Joint venture seems to have been very successful for them. There are various legal mechanisms that you could use. It could be tenants in common, but they happen to be joint ventures. It's a variation on the strata unit. In that instance, as joint ventures, they have a defined share of the venture each and they have to share all of the costs and all of the revenues and it all gets split every part. So, they agree as a group, as to what the timing of harvesting is and if how many years it's expanded. It worked for them.”

— Individual investor

5.5.3 Actions to realise this recommendation across Opportunity Areas

The following key actions are recommended to **bridge different scales in forestry investment to unlock both land and capital** across the Opportunity Areas identified:

Opportunity Area 1: Access new sources of equity and debt capital

Action:

Different investment access options are needed to unlock private capital held by HNWI and SMSF.

Opportunity Area 2: Access the emerging investor base of the future

Action:

There is currently few ways for wholesale private investors or responsible and ethical investors seeking to make smaller capital placements to gain exposure to this asset class. Small opportunities build familiarity and evidence base.

Opportunity Area 4: Improve community trust (investors and growers)

Action:

Bridging investment scale gap can increase the pool of capital that is available to fund growers by lowering entry point.

6

Conclusion



6. Conclusion

Investment landscape is changing opening space for new investment opportunities and for addressing existing issues in the industry such as low levels of trust and returns. Investors globally and across all investor types are becoming more not only focused on returns on their investments but also on the socio-environmental impact their investments create. Trees planted for harvest have naturally an important potential to thrive in this new investment environment.

New actions and new partnerships however are necessary to develop and benefit from these opportunities. These actions include developing new investment opportunities that allow smaller investors to access investments in trees. Measuring and managing socio-environmental impact in a rigorous way may not only attract new investors but also create positive financial outcomes. Exploring and engaging in mixed uses of land is one of the possible ways to access new types of capital and opening opportunities for increased returns on investment. This will require engagement with landowners. Also, teaming up with the pioneers in finance industry who develop and promote new valuation and risk assessment methods that include natural capital.

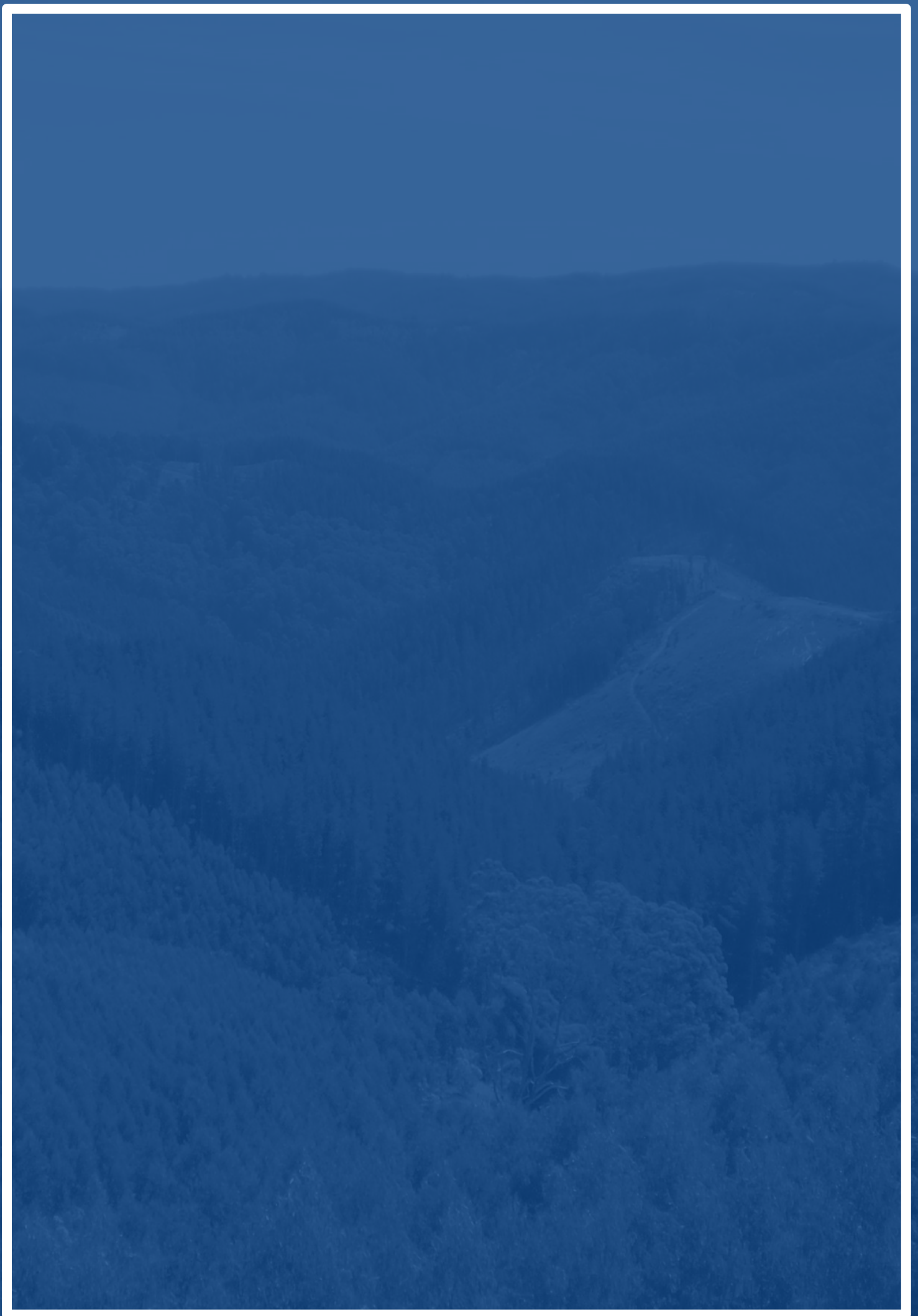
Finally, new ways, and content of communication are needed from the forestry companies to access the capital of the future and to build relationships with the future investors, and above all increase the levels of awareness about trees for harvest as a viable investment.

Table 6.1: Actions (Recommendations by Opportunity Area)

	Opportunity Areas			
	1. Access new sources of equity and debt capital	2. Access the emerging investor base of the future	3. Increase return on investment for industry and growers, and create indirect benefits up and down the value chain	4. Improve community trust (investors and growers)
Recommendation 1: Impact measurement	Design and implement impact measurement. Impact measurement and communication is required by some new sources of capital (e.g. green and climate bonds, low carbon or impact funds) and would appeal to many others.	Communicate impact clearly. Responsible and ethical investors require evidence of the social or environmental impact of their investment, as well as its financial return.	Impact measurement creates an evidence base to better understand the relationship between non-financial and financial outcomes. This information can help managers identify costs emerging from non-financial outcomes (e.g. areas with particularly low social license requiring more hands-on community engagement) as well as opportunities that have positive non-financial outcomes (e.g. recreational access that improves social license within the community).	Manage and communicate impact clearly. Impact management allows for better problem identification and management in communities, documents the benefits the communities receive, providing tool for strengthening trust.
Recommendation 2: Increase the awareness of forestry as an investment class	Private wholesale investors controlling access to new sources of capital (e.g. HNWI and SMSF) and mainstream financial gatekeepers like financial planners and investment advisors have limited knowledge of forest as investments and/or have negative opinion about them.	Responsible & ethical investors currently do not consider forestry investment. Awareness of this investment class is low amongst these investors, and those who are aware of it do not see it as responsible and ethical investment. Some even exclude it from consideration on the outdated perception of environmental harm.		Strengthening awareness and knowledge about forestry industry among communities helps fight some negative opinions and myths. Communicating how forestry industry helps build resilient communities can be used in increasing the awareness of and positive image of the industry.

Table 6.1: Actions (Recommendations by Opportunity Area) (continued)

	Opportunity Areas			
	1. Access new sources of equity and debt capital	2. Access the emerging investor base of the future	3. Increase return on investment for industry and growers, and create indirect benefits up and down the value chain	4. Improve community trust (investors and growers)
Recommendation 3: Build a case for optimising land use by integrating trees with existing land uses	Most institutional investors are adverse to optimizing land utilisation through investment in trees integrated into other rural land use, but also struggle to find forest investment opportunities that generate the returns they require.	Many responsible and ethical investors were open to optimizing land utilisation and could be good candidates to partner with for building the case for optimizing land utilization.	Optimising land utilisation can increase ROI of both the forestry and agricultural uses. Some respondents in our research reported strong results from this approach.	Unlike institutional investors, rural landholders and other private investors are motivated to optimise the use and productivity of a particular land area. Optimising land utilisation by integrating trees into existing land uses creates clear benefits for communities by improving the state and productivity of land over time and thus strengthening economic resilience. Making this case will require working with agricultural advisors, to whom landowners turn for advice.
Recommendation 4: Collaborate with those pioneering the inclusion of natural capital into valuation and risk assessment	Those pioneering new valuation methods will be key allies in explaining the benefits of natural capital valuation methods to current and potential investors, and can facilitate access to capital by providing links to investors interested in natural capital.	Valuation that reflects the full economic value of natural capital is likely to attract responsible and ethical investors. Seeing forestry companies promote valuation and risk assessment methods based on natural capital is likely to create a positive image the industry amongst these investors.	Valuing natural capital captures a variety of factors affecting income (e.g. improved soil quality and biodiversity, as well as natural growth) and is key monetising these non-financial components of performance.	Promoting natural capital valuation helps improve the opportunities for grower to capture multiple income streams from growing, and thus increasing the appeal of planting trees. In time, more inclusive valuation methods may also unlock access to cheaper debt finance for growers.
Recommendation 5: Bridge different scales in forestry investment to unlock both land and capital	Different investment access options are needed to unlock private capital held by HNWI and SMSF	There is currently few ways for wholesale private investors or responsible and ethical investors seeking to make smaller capital placements to gain exposure to this asset class. Small opportunities build familiarity and evidence base.		Bridging investment scale gap can increase the pool of capital that is available to fund growers by lowering entry point.



Methodology

This research was undertaken in two phases. The first phase involved the a survey to gain a better understanding of current awareness and perceptions of forestry investment across the investment sector. A survey instrument was developed and pre-tested with both industry and academic experts. In total, three industry experts and three academic experts participated in this pre- testing phase.

The research design for this project followed a mixed-method design. The first phase involved the administration of a survey, as discussed above, to a broad range of financial sector organisations. The objective of this quantitative phase of the research was to ascertain the current profile of financial sector experiences and perceptions of planted timber as an investment.

Data collection

Potentially relevant organisations were initially identified through:

- Reviewing existing publicly available databases, reports, and lists, such as
 - Australian Prudential Regulatory Authority website (banks, superannuation funds, insurance funds)
 - Responsible Investment Association Australasia
- Contacting investor and professional organisations
- Existing network of research team and project steering committee
- Snowball sampling (asking respondents to identify additional potential respondents)

The Chief Investment Officer or other appropriate investment decision maker for each candidate organisation was identified by web or phone call. Uncompleted surveys received follow-up emails, or phone calls in cases of personal connection. Influential financial sector professionals publicised the survey and encouraged their social media network to participate.

Directly targeted organisations by category are listed below. Additionally, respondents were asked to share the survey with their associates, and the researchers invited participants within their professional networks by email and by social media.

An on-line survey was used, with a survey development programme (Qualtrics), used to design and later administer the survey. The survey contained 36 questions (not all of which would be asked of all respondents) that could be answered within 15-20 minutes. The questions related to:

- Type and size of organisation;
- Level of interest in and awareness of planted timber as an investment;
- Past experiences with planted timber as an investment;
- Current uptake of planted timber as an investment;
- Expected future uptake of planted timber as an investment;
- Perceived risks and benefits of planted timber as an investment.

In total, following the sending of two personalised reminder emails in the space of six weeks, 51 organisations responded to their respective surveys. Therefore, the final response rate was around 17% (presuming 40 respondents received the survey from a third party). These response rates are consistent with previous studies comparing web-based surveys to other forms of survey administration such as paper based and face-to-face (Kaplowitz, Hadlock & Levine, 2004; Heerwegh & Loosveldt, 2008).

Follow up in-depth interviews were conducted with selected survey respondents and those targeted to flesh out particular areas of interest. The purpose of these interviews was to explore, in greater depth, some of the more interesting findings from the quantitative phase of the research. As there were some key areas of interest that the researchers sought to explore, semi-structured interviews were deemed the most appropriate form of data collection (Aaker et al., 2007).

All in-depth interviews were conducted between December 2017 and September 2018. An interview guide was used for each interview, covering the following areas:

- Past experiences, current and expected future uptake with real asset investment, especially in the rural landscape;
- Investment decision making, and the influences thereon;
- Perceived risks and benefits of planted timber as an investment, and the influences thereon;
- Emerging challenges and opportunities in the real asset investment market

Data analysis

In order to explore the relationships of interest, the analysis conducted were primarily those appropriate for categorical, interval and ratio data. Specifically, Qualtrics was utilised to conduct data analysis, with analytical methods including descriptive statistics, cross-tabulations and correlations to verify the existence of relationships between constructs of interest (Hair et al., 2006).

The in-depth interviews were recorded using Zoom and transcribed by a third party as soon as possible after each took place. Following the transcription of each interview, each participant was given a pseudonym, ensuring anonymity in all cases. The data were uploaded in to NVivo, where they were analysed and coded according to Miles and Huberman's (1984) open, axial and selective coding strategies for qualitative data.

Key Terms

Asset price	Purchase price for an asset. A key determinant of ROI
Bank (major)	One of the big four Australian banks: Commonwealth Bank, Westpac, Australia and New Zealand Bank (ANZ) and National Australia Bank (NAB)
Bank (mutual)	A bank that is owned and controlled by its customers rather than by shareholders
Carbon market	A market that is created from the trading of carbon emission allowances to encourage or help countries and companies to limit their carbon dioxide (CO ₂) emissions. Carbon markets aim to reduce greenhouse gas (GHG, or “carbon”) emissions cost-effectively by setting limits on emissions and enabling the trading of emission units, which are instruments representing emission reductions.
Closed-end fund	Closed-end investment funds generally issue a fixed number of shares that are listed on a stock exchange or trade in the over-the-counter market.
Co-benefit	Secondary benefits of an action beyond its primary intended benefit. E.g. trees planted for harvest increase biodiversity and temper extreme heat events
Defined benefit fund	Superannuation fund in which an employee is guaranteed a predetermined payment at the time of retirement based upon the amount of time that the employee works for an employer prior to retirement. Traditionally, many governmental and public entities, as well as a large number of corporations, provided defined benefit plans, sometimes as a means of compensating workers in lieu of increased pay.
Defined contribution fund	Superannuation fund in which the employee contributes a set amount of money each pay period, and upon retirement the amount contributed and any interest or profits made on those contributions will become available to be drawn down at the discretion of the employee.
Deposit-taking institutions	Banks, building societies, credit unions and friendly societies that are regulated by APRA and permitted to accept deposits from the public.
Diversification	Diversification is the strategy of investing in a variety of investment categories in order to lower the risk involved with concentrating investments. Diversification is particularly motivating to investors with concentrated liabilities such as insurance funds, family offices and SWF.
Ecosystem services	The benefits obtained from the regulation of ecosystem processes. These can be grouped into four broad categories: provisioning, such as the production of food and water; regulating, such as the control of climate and disease; supporting, such as nutrient cycles and crop pollination; and cultural, such as spiritual and recreational benefits.
Endowment	From an accounting perspective, planting trees reduces the capital value of land. This is a problem for landholder, as it can hinder other operations or their ability to leverage.
ESG	Environmental, Social and Governance considerations of business operations.
Exchange-Traded Fund (ETF)	A marketable security that tracks an index, a commodity, bonds, or a basket of assets like an index fund. Unlike mutual funds, an ETF trades like a common stock on a stock exchange.

fiduciary duty	A legal obligation of one party to act in the best interest of another. The obligated party is typically a fiduciary, that is, someone entrusted with the care of money or property. Also called fiduciary obligation.
Financial regulation	laws and rules that govern what financial institutions such as banks, brokers and investment companies can do. These rules are generally promulgated by government regulators or international groups to protect investors, maintain orderly markets and promote financial stability.
FUM	funds under management (FUM) measures the total market value of all the financial assets which a financial institution such as a mutual fund, venture capital firm, or brokerage house manages on behalf of its clients and themselves. Also assets under management (AUM)
fund manager	A fund manager is responsible for implementing a fund's investing strategy and managing its portfolio trading activities.
fund manager (collective)	Manager of collective investment funds, which group assets from individuals and organizations to develop a larger, diversified portfolio. Key examples are superannuation funds and insurance funds, which are subject to higher level of oversight than those managing personal funds.
fund manager (private)	Manager of private investment funds open only to wholesale and institutional investors, which are subject to lower level of oversight than those managing collective funds.
fund manager (sell-side)	Manager of funds seeking to bring in investment. Sell Side includes firms like Investment Banking, Commercial Banking, Stock Brokers, Market makers and other Corporates. Buy Side managers have assets to invest, such as Asset Managers, Hedge Funds, Institutional Investors, Retail Investors.
HNWI	Individuals with more than \$1million in investable assets
impact	the positive and negative effects one's business actions have on people and environment
impact investing	targeted investments, typically made in private markets, aimed at solving social or environmental problems, and including community investing, where capital is specifically directed to traditionally underserved individuals or communities, as well as financing that is provided to businesses with a clear social or environmental purpose;
infrastructure	Infrastructure investment funds the development of civil engineering projects like roads, railways, ports, airports, telecommunications facilities, electricity generation, gas or electricity transmission or distribution, water supply, sewerage or hospitals. It is a long-term investment and some projects may take a long time to generate cash flows.
intermediary	1. A financial institution which acts as the 'middleman' between those who want to lend and those who want to borrow; 2. those who provide intermediary services, including financial advisors, brokers, investment researchers etc.

investment bank	Investment banks underwrite new debt and equity securities for all types of corporations, aid in the sale of securities, and help to facilitate mergers and acquisitions, reorganizations and broker trades for both institutions and private investors. Investment banks also provide guidance to issuers regarding the issue and placement of stock. Broadly speaking, investment banks assist in large, complicated financial transactions.
Investor	Any person who commits capital with the expectation of financial returns. This is the owner of the capital, who may differ from the fund manager making decisions about capital that is held on behalf of others.
Leverage	The use of borrowed capital for (an investment), in expectation that the profits made will be greater than the interest payable. Also the ratio of a company's loan capital (debt) to the value of its ordinary shares (equity); gearing.
Liability	A claim against the assets, or legal obligations of a person or organization, arising out of past or current transactions or actions. Liabilities require mandatory transfer of assets, or provision of services, at specified dates or in determinable future.
Liquidity	Liquidity is the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price. Liquidity is of greater importance to banks and defined contribution superfunds, because they are required to match the short-term nature of their liabilities. Some long-term investors, such as insurance funds and sovereign wealth funds pursue illiquidity, but there is an expected premium to offset the opportunity cost.
Listed/unlisted	Listed investment instruments are officially listed (quoted) on a stock exchange for public trading. Unlisted securities are traded in over the counter market.
Low carbon investing	investing approaches in which decisions are made on the basis of factors like a company's production of fossil fuels, total greenhouse gas emissions (GHG), and GHG intensity.
Managed investment trust	A managed investment trust (MIT) is a type of trust in which members of the public (i.e. retail investors) collectively invest in passive income activities, such as shares, property or fixed interest assets.
Mass affluent	Individuals with \$500,000 to \$1 million in investable assets and above median income
Negative screening	the exclusion from a fund or portfolio of certain sectors, companies or practices based on specific ESG criteria;
Non-financial value flow	Non-financial benefits of operation, such as improved agricultural productivity, aesthetic amenity value, carbon sequestration, biodiversity, or climate risk mitigation
Open-end fund	An open-end fund issue new fund shares (or units) or redeem existing shares (or units) on demand at any time, e.g. mutual funds and money market funds. An investor will generally purchase shares in the fund directly from the fund itself, rather than from the existing shareholders.
Over The Counter (OTC) market	A decentralized market, without a central physical location, where market participants trade with one another through various communication modes such as the telephone, email, and proprietary electronic trading systems.

Passive management	Passive portfolio management aims to mimic the investment holdings of a particular index. Compare to active portfolio management focuses on outperforming the market compared to a specific benchmark for a higher fee.
Positive screening	investment in sectors, companies or projects selected for positive ESG performance relative to industry peers;
Private equity fund	Private equity funds invest directly in companies, primarily by purchasing private companies, although they sometimes seek to acquire controlling interest in publicly-traded companies through stock purchases.
Private investor	A person or a private company one whose shares are privately held and not traded on a stockmarket that makes investments, rather than a public company one whose shares are traded on a stockmarket.
Private market	Private markets is an umbrella term encapsulating a variety of illiquid investments – that is, investments that cannot be sold at short notice and require a long-term investment horizon and patient capital.
Real assets	Real assets are physical things with inherent use value like land, minerals or wheat. They tend to be more stable than financial assets, but have lower liquidity because they take longer to sell and have higher transaction fees in general.
REIT or A-REIT	Real Estate Investment Trusts, own property including timberland. In general, REITs seek to create value through maximising operating revenues and by consolidating higher quality portfolios, which means selling off non-core or less strategic assets and improving cash yield efficiency in the portfolio.
Responsible & ethical investing	Responsible and ethical investing is a continuum of approaches that includes a range of approaches to impact, from avoiding harm (ESG integration and negative screening), to using investment to benefit particular stakeholders and actively contribute to solutions to defined challenges.
Retail investor	An individual who purchases securities for his or her own personal account rather than for an organization. Retail investors typically trade in much smaller amounts than institutional investors
Return On investment	Return On Investment (ROI) is a performance measure, used to evaluate the efficiency of an investment or compare the efficiency of a number of different investments. ROI measures the amount of return on an investment, relative to the investment's cost. $ROI = (\text{Gain from Investment} - \text{Cost of Investment}) / \text{Cost of Investment}$
Risk	Risk implies future uncertainty about deviation from expected earnings or expected outcome. Risk measures the uncertainty that an investor is willing to take to realize a gain from an investment.
Shared value	Policies and practices that enhance the competitiveness of companies while improving social and environmental conditions in the regions where they operate.
SMSF	Self Managed Superannuation Fund
Social license	Social license is a community's perceptions of the acceptability of a company and its local operations. Also Social License to Operate

Sovereign wealth fund	A a state-owned investment fund that invests in real and financial assets such as stocks, bonds, real estate, precious metals, or in alternative investments such as private equity fund or hedge funds.
Tax efficiency	Tax efficiency is an attempt to minimize tax liability when given many different financial decisions. A financial decision is said to be tax efficient if the tax outcome is lower than an alternative financial structure that achieves the same end.
TIMO	A Timber Investment Management Organization (TIMO) is a management group that aids institutional investors in managing their timberland investments.
Transparency	Transparency is investor access to financial information about a company such as price, market position, and audited financial reports. This is increasingly complemented with non-financial information. Transparency is critical for any responsible and ethical investors and/or collective funds managers who are under public scrutiny.
Unit investment trust	An investment company that holds fixed portfolios of selected stocks or bonds as redeemable units to investors for a specific period of time.
Valuation	The process of determining the fair market value of assets (and its result). This is generally undertaken by someone with formal qualifications and membership of appropriate industry and professional bodies. Valuation is under increased scrutiny after the GFC. From an accounting perspective, planting trees reduces the capital value of land. This is a problem for landholder, as it can hinder other operations or their ability to leverage.
Wholesale or sophisticated investor	An investor with net assets of at least \$2.5million or gross income for each of the last two financial years of at least \$250,000. Wholesale investors are considered to be more financially savvy and informed, and have experience in investing and protecting their interests and therefore do not need all of the consumer protections that apply for retail investors.

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