Investing in Conservation

A landscape assessment of an emerging market

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Co-Authors:

natureVest
natural capital investment solutions

EKO Asset Management Partners

Steering Committee:

the David & Lucile Packard FOUNDATION

GORDON AND BETTY MOORE FOUNDATION

The Nature Conservancy
Protecting nature. Preserving life.

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2X

From 2004-2008 to 2009-2013,

private investment in conservation

more than doubled.

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Foreword

At JPMorgan Chase, we recognize the fundamental importance of vibrant natural ecosystems and the role they play in our communities. That is why we are committed to building a broader and deeper market for conservation finance. We are very pleased to have collaborated with The Nature Conservancy, EKO Asset Management Partners, the David and Lucile Packard Foundation, and the Gordon and Betty Moore Foundation on this first data-driven report characterizing the landscape of investments in the conservation of nature.

I have spent much of my career working with the Natural Resources investment banking group at JPMorgan Chase, and the issues surrounding the health of our ecosystems resonate strongly with me. Mobilizing private capital to invest in and protect critical natural assets is essential, as traditional sources of philanthropic and government funding are plainly inadequate for the challenge. What's exciting about this report is that it highlights a growing source of capital for conservation investments that has – so far – been underexamined: capital from impact investors that targets a blend of meaningful environmental benefit and financial return. The impact investment market has grown significantly in the past few years, and building off that growth has been an increased focus on the potential of impact investing as a tool to address conservation goals. The data in this report shows that the amount of conservation-focused impact capital is growing consistently and that as risk-adjusted investment opportunities in the conservation market are developed, there is an even greater amount of such capital likely available. We must understand the experiences of the early leaders in conservation investing summarized in this report and build on them.

In 2014, JPMorgan Chase provided founding support for the creation of NatureVest, a new initiative at The Nature Conservancy that seeks to transform the way we manage, invest in, and sustain our natural capital. NatureVest is the platform for the dissemination of this report and will facilitate the dialogue that we hope will follow from it. We hope that you feel, as we do, that this paper is a valuable contribution to the development of the conservation finance marketplace.

Doug Petno
CEO, Commercial Banking, JPMorgan Chase
Vice Chair, Advisory Board, NatureVest

Acknowledgments

As co-authors of the report, EKO Asset Management Partners and The Nature Conservancy and its impact investing division NatureVest would like to thank the dedicated Steering Committee that worked on this report: Ricardo Bayon from EKO Asset Management Partners; Marc Diaz, Eric Hallstein, and Charlotte Kaiser from The Nature Conservancy; Camilla Seth from JPMorgan Chase; Susan Phinney Silver from the David and Lucile Packard Foundation; and Dan Winterson from the Gordon and Betty Moore Foundation. The two project coordinators, Renee Cheung and Mark Valentine, assisted the Steering Committee in designing the research instruments, gathering and analyzing the data, conducting the interviews, and shaping the design and content of the report. They have worked tirelessly and selflessly undertaking this very challenging task. This report would simply not have been possible without them. We thank ArcEconomics for playing a crucial role in implementing the online component of the investor survey. Jim Downing, an independent consultant, edited the final report. Paul Gormont of Apertures, Inc. did the layout and design. Finally, we thank Matt Arnold, Yasemin Saltuk, and Ali El Idrissi at JPMorgan Chase, and Jason Scott at EKO Asset Management Partners, and Tauni Sauvage at The Nature Conservancy for their gracious support since the beginning of the project.

We also want to express our gratitude to the dozens of people who assisted us in the development of this report either through direct participation in the survey and/or the interview phase or as informal advisors. You will find a list of the participating institutions in Appendix I.

Photo: ©Ami Vitale

Sustainable food and fiber production projects, including forestry and agriculture, accounted for two-thirds of all private conservation investment.

Photo: ©Ian Shive

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$5.6bn

Private investors surveyed intend to deploy $5.6 billion in conservation impact investments in the next five years.

Photo: ©Ian Shive

The report finds evidence of rapid growth and increasing interest in the market, which implies that much of the future of conservation lies with impact capital

Executive Summary

As the impact investment market has grown in recent years, so has the research coverage across sectors and thematic areas of focus. With this report, EKO Asset Management Partners, JPMorgan Chase, The Nature Conservancy, the David and Lucile Packard Foundation, and the Gordon and Betty Moore Foundation are pleased to present the first study of the market for conservation-related impact investments.

This report is intended to speak to a range of audiences, including institutional investors, high-net-worth individuals, family offices, philanthropists, entrepreneurs, NGOs, and others seeking investment opportunities that offer both financial return and conservation impact. We see the research as a first step toward a more comprehensive understanding of a growing investment sector that has the potential to be a significant source of funding to help meet conservation needs globally.

Key findings

The report finds evidence of rapid growth and increasing interest in the market, which implies that much of the future of conservation lies with impact capital. Through an investor survey, we documented $23.4 billion in global conservation impact investments from 2009 through 2013. Investments by development finance institutions (DFIs) such as the International Finance Corporation totaled $21.5 billion; private investments accounted for $1.9 billion. While private investment accounted for a small share of the total market, we found that it grew at an average rate of 26% annually from 2009 through 2013. Further, from 2014 through 2018, private investors expect to deploy $1.5 billion of already-raised capital and to raise and invest an additional $4.1 billion.

Sustainable food and fiber production projects, including forestry and agriculture, accounted for two-thirds of all private conservation investment. Private sustainable agriculture investments are growing especially quickly, increasing from $67 million in 2004-2008 to $472 million in 2009-2013. DFI funding primarily supported water quantity and quality conservation projects, with total investments of $15.4 billion.

Investors also reported challenges consistent with an immature market, such as a shortage of investment prospects with appropriate risk-return profiles and experienced management teams, and a lack of standardized impact metrics.

Defining conservation impact investment

For the purposes of this report, we define conservation impact investments as investments intended to return principal or generate profit while also driving a positive impact on natural resources and ecosystems – specifically, decreased pressure on a critical ecological resource and/or the preservation or enhancement of critical habitat. In addition, conservation impact must be an important motivation for making the investment. Conservation impact cannot be simply a byproduct of an investment made solely for financial return.

The study examines three specific areas of conservation investing:

- Sustainable food and fiber production
- Habitat conservation
- Water quantity and quality conservation

The study's focus on habitat and ecological resources dictated the exclusion of a number of investment areas that can also contribute to conservation goals, such as renewable energy, clean tech, and certain investments in water infrastructure.

Investors surveyed

We surveyed 56 investors who invested in over 1,300 transactions from 2004 through 2013. These investors represented a range of for-profit and not-for-profit institutions:

Table 1: Number of respondents by investor type

Investor Type	No. of respondents
Fund manager	20
Corporation	10
Foundation	7
Non-profit organization	6
Development finance institution	5
Other (mainly representatives of high-net-worth individuals)	4
Family office	3
Diversified financial institution/Bank	1
Total	**56**

Source: EKO/TNC

For-profit *Not-for-profit*

The large majority of survey respondents are based in the United States (76%) or Europe (18%), with 6% based in Latin America. U.S.-based investors accounted for 92% of private investment dollars, and 82% of private investment transactions, by value, were based in the United States or Canada. This geographic bias is one of the key limitations of the study.

Summary of observations

We report data separately for two groups of investors:

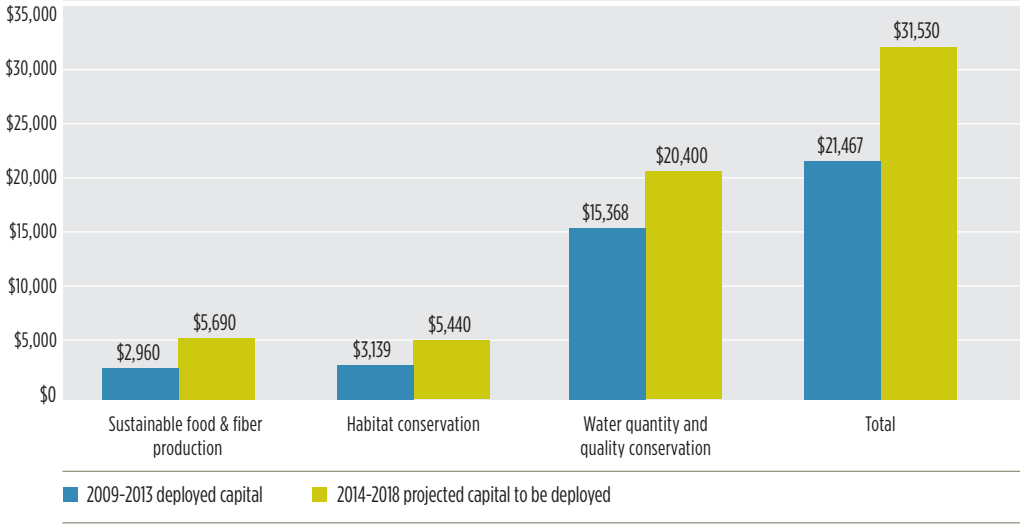
- **DFIs (5 surveyed),** such as the European Investment Bank and the International Finance Corporation
- **Private investors (51 surveyed),** including fund managers, corporations, foundations, non-profit organizations, family offices, and representatives of high-net-worth individuals

DFI capital flows totaled $21.5 billion

In the five-year period 2009-2013, DFIs committed $21.5 billion to conservation impact investments. Water quality and quantity conservation projects accounted for $15.4 billion of this total, while sustainable food and fiber and habitat conservation each accounted for roughly $3 billion. The DFIs anticipate increasing total investment by roughly 50% in the 2014-2018 period. Given the scale of DFI investment relative to private investment in the sector currently, we expect DFIs to continue to play a leading role in supporting conservation impact investments in at least the near- to medium-term.

We note that at least some of the investments reported by DFIs appear to fall outside the study's definition of conservation impact investments. (See box on page 23 for a discussion of this issue.)

Figure 1: DFI deployed capital, 2009-2013, and projected capital to be deployed, 2014-2018, by category ($ millions)



4 respondents provided data. Source: EKO/TNC

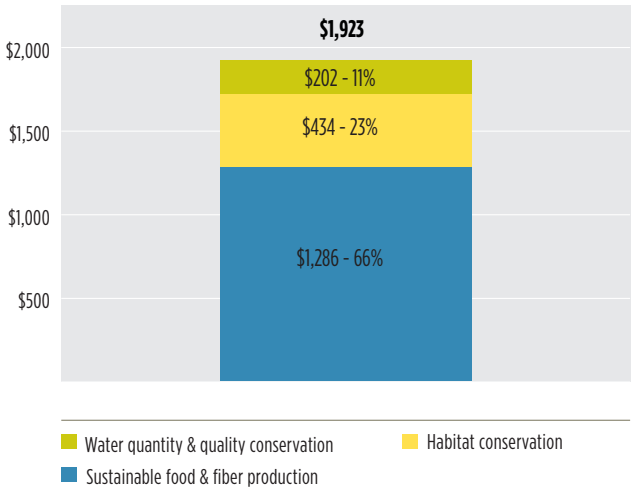
Despite the comparatively large investment totals reported by the DFIs, most of the rest of our analysis focuses on private investors, for whom we have a significantly richer data set.

Private capital flows to conservation impact investments totaled $1.9 billion in 2009-2013

The private investors surveyed committed $1.9 billion to conservation impact investments from 2009 through 2013. Of this total, investors committed 66% to sustainable food and fiber production, 23% to habitat conservation, and 11% to water quantity and quality conservation.

Is $1.9 billion over five years a little or a lot? For comparison, a 2014 study by J.P. Morgan and the Global Impact Investing Network (GIIN) estimated the level of global impact investment in 2013, including sectors such as housing and education, at $10.6 billion. Our figure, if annualized, would amount to roughly 4% of that total.

Figure 2: Private committed capital by category, 2009-2013 ($ millions)



43 respondents provided data. Source: EKO/TNC

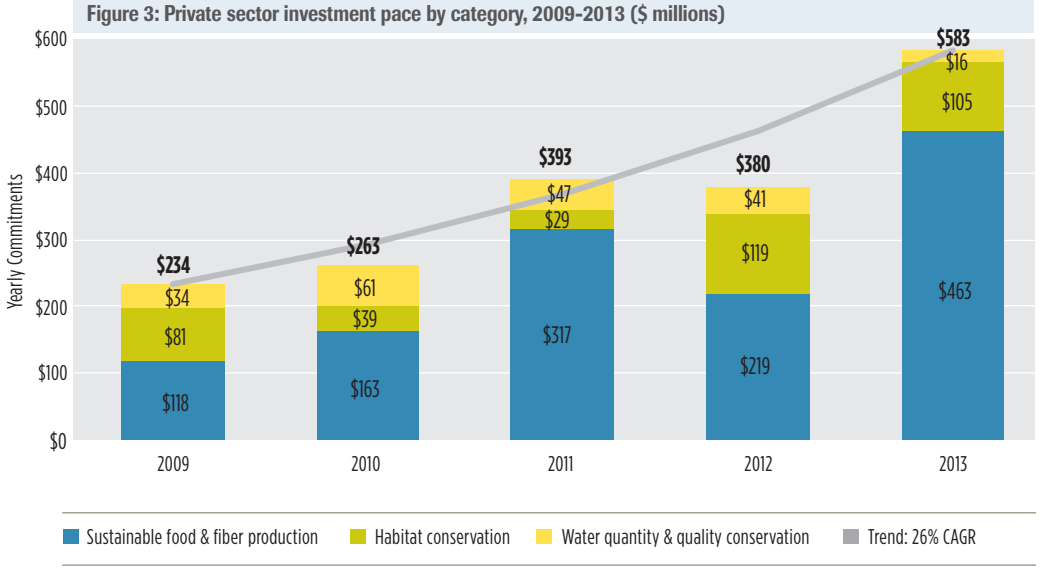
On the other hand, we are confident that our figure understates to some degree the total conservation impact investing market. Our figure is a direct measurement – not an estimate – derived from a relatively small survey, albeit one with a 64% response rate. We know that at least one major U.S. player did not respond to the survey, and we may have missed others; we also believe that we did not reach several significant overseas investors. In addition, some investment categories, such as water rights trading, appear to be particularly underrepresented in our data, based on our knowledge of those markets.

The data gathered through this survey provides an initial baseline for the sector. From this starting point, future studies can track growth in the sector, identify changes in capital-allocation patterns, and help to refine the data-collection methods.

Private investment grew at 26% CAGR from 2009 through 2013

In the five-year period 2009-2013, overall conservation impact investments by the private sector grew at a 26% compound annual growth rate (CAGR). However, growth varied widely between subsectors: Investments in water quantity and quality conservation were essentially flat, while investments in sustainable food and fiber production rose at a 41% CAGR.

Figure 3: Private sector investment pace by category, 2009-2013 ($ millions)

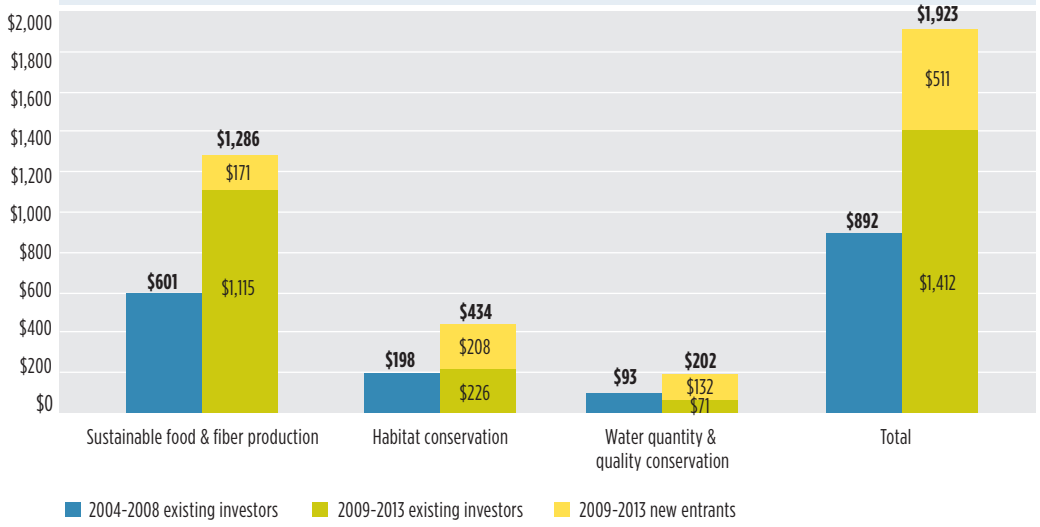


40 respondents provided data. Total reported investments $1.9 billion. Source: EKO/TNC

From 2004-2008 to 2009-2013, private investment more than doubled; New entrants and existing investors contributed equally to the growth

Total private investment more than doubled from $892 million in 2004-2008 to $1.9 billion in 2009-2013. Existing investors increased their investments by $520 million in 2009-2013, while new entrants added $511 million. The percentage distribution of total commitments made among the three conservation categories changed little: 66-67% for sustainable food and fiber, 22-23% for habitat conservation, and 11% for water quantity and quality conservation.

Figure 4: Private committed capital by category, 2004-2008 vs. 2009-2013 ($ millions)



18 respondents provided data as 2004-2008 and 2009-2013 existing investors; 25 respondents provided data as 2009-2013 new entrants. Source: EKO/TNC

The top 10 investors surveyed accounted for over 80% of private investments, with the vast majority investing in real assets

With the exception of the third-largest investor, which is a private foundation, the top 10 private investors are for-profit institutions. Although private conservation impact investing is still a young sector, eight of the top 10 investors began investing in it prior to 2008.

A vast majority of these leading investors have real asset-based strategies, mainly investing in land for forestry and agriculture projects. These land investments typically require a sizeable amount of capital, as compared with many of the other conservation investment strategies covered by this study.

Investors reported challenges such as shortage of investment prospects and a lack of standardized impact metrics

Table 2: Characteristics of the top 10 private investors

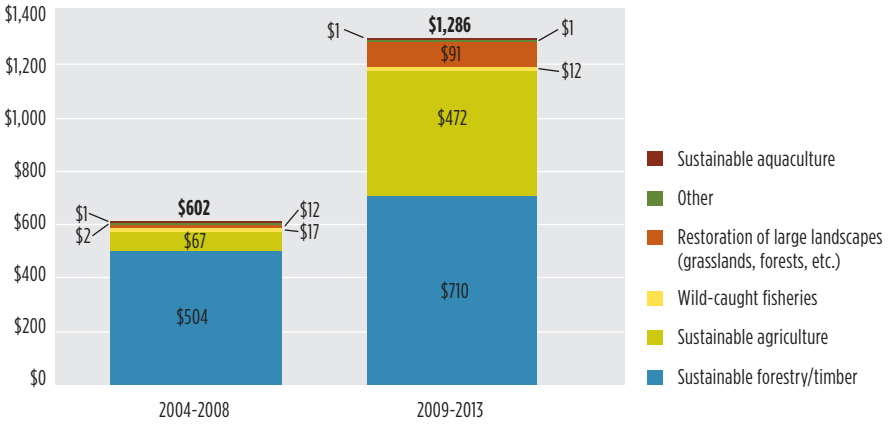
Investor	Amount committed to conservation 2009-2013 ($ mil)	For-profit institution? (Y/N)	New to conservation investments in 2009-2013?[1] (Y/N)	Key investment category[2]
1	>$900 combined*	Y	N	SFFP
2		Y	N	SFFP
3	$111	N	N	HC
4	$100	Y	N	SFFP
5	$95	Y	N	WQQC
6	$86	Y	N	SFFP
7	$75	Y	Y	SFFP
8	$63	Y	N	SFFP
9	$60	Y	N	HC
10	$52	Y	Y	SFFP

** Total commitments for Investors 1 and 2 not disclosed for confidentiality reasons.*
[1] "Yes" indicates the investor only began making conservation impact investments for the first time in the 2009-2013 period.
[2] Refers to the investor's primary area of conservation impact investment.
SFFP = Sustainable food & fiber production; HC = Habitat conservation; WQQC = Water quantity & quality conservation
Source: EKO/TNC

Sustainable food and fiber production: Most rapid growth in sustainable agriculture

Within the sustainable food and fiber production sector, private investment in sustainable agriculture grew more than 600% from 2004-2008 to 2009-2013, increasing from $67 million to $472 million. Sustainable forestry and timber grew as well, from $504 million to $710 million across the same periods, but lost market share due to the rapid growth of sustainable agriculture investments.

Figure 5: Private committed capital by subsector, 2004-2008 vs. 2009-2013 – Sustainable food & fiber production ($ millions)

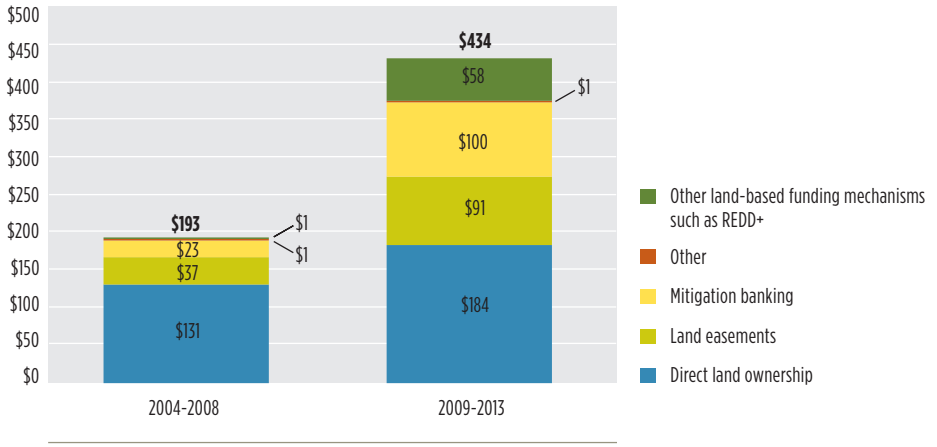


12 respondents provided data for 2004-2008; 29 respondents provided data for 2009-2013.
Source: EKO/TNC

Habitat conservation: Growth in multiple subsectors, led by mitigation banking

Within habitat conservation, private investment in mitigation banking quadrupled between 2004-2008 and 2009-2013, from $23 million to $100 million. Investments in direct land ownership, for the purpose of land restoration or permanent conservation, grew at a slower rate (increasing from $131 million to $184 million) but still represent the largest sector within habitat conservation investing.

Figure 6: Private committed capital by subsector, 2004-2008 vs. 2009-2013 – Habitat conservation ($ millions)

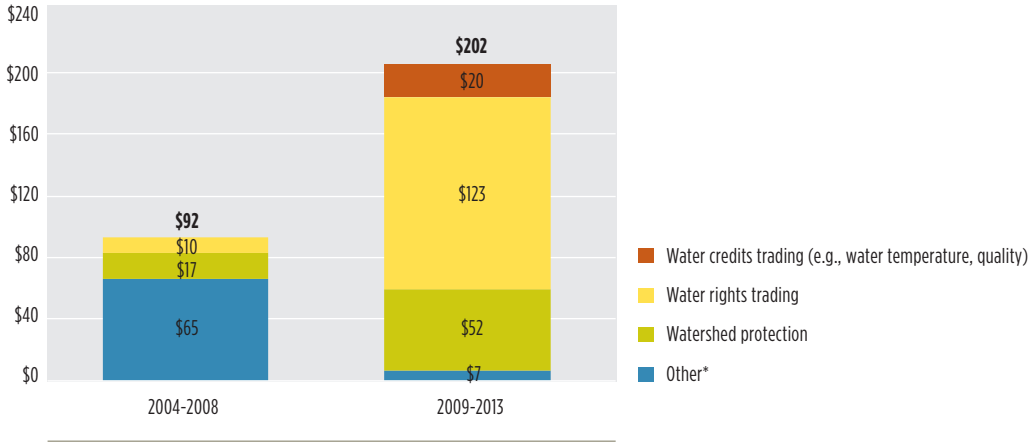


12 respondents provided data for 2004-2008; 27 respondents provided data for 2009-2013.
Source: EKO/TNC

Water quantity and quality conservation: Most growth in water rights trading

In water quantity and quality conservation, the reported 2004-2008 private investments were dominated by a single large water banking transaction. In 2009-2013, water rights trading accounted for 61% of investment activity.

Figure 7: Private committed capital by subsector, 2004-2008 vs. 2009-2013 – Water quantity & quality conservation ($ millions)

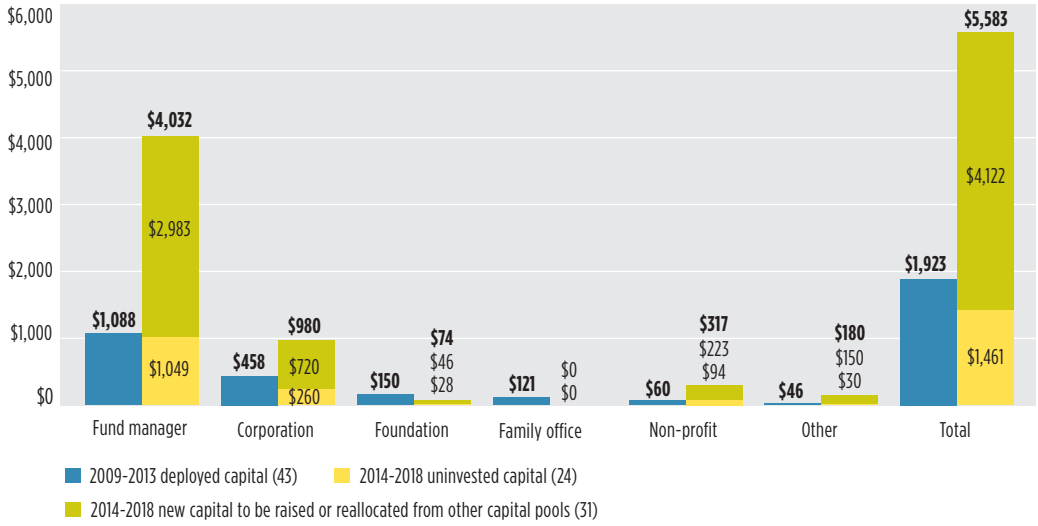


** "Other" in 2004-2008 comprises one water banking transaction.*
5 respondents provided data for 2004-2008; 16 respondents provided data for 2009-2013.
Source: EKO/TNC

The next five years: Private investors expect to nearly triple capital deployment in 2014-2018

Private investors reported that they have $1.5 billion of uninvested capital that can be deployed in 2014-2018. They expect to raise an additional $4.1 billion of capital for deployment in the same period, yielding total projected capital deployment in 2014-2018 of $5.6 billion. These figures are, of course, projections. Both for-profit and not-for-profit investors said that the most important condition for growth in the sector is the need for more investment opportunities that match risk-reward expectations, which won't necessarily materialize. Many of the investors interviewed for the study reiterated this point.

Figure 8: Private capital deployed, 2009-2013, and projected capital to be deployed, 2014-2018, by investor type ($ millions)



Number at the end of each legend label represents the number of respondents who provided data for that category.
Source: EKO/TNC

82% of private investments were based in North America

The large majority of the private investments reported were made in projects located in the United States and Canada ($1.6 billion, 82%) – again, likely due to the heavily U.S.-based survey population. Investments in sustainable food and fiber production predominated in both developed and emerging markets; one distinction between the two markets is that only a very small percentage of commitments were made in emerging markets to water conservation.

Although conservation objectives appear to be the leading reason for investing in this sector, most investors are also satisfied with financial performance

The primary motivation for investing in conservation, according to survey respondents, is to advance their organizations' conservation objectives; generating financial return ranked a close second.

Of the conservation investments made in the 2004-2008 period for which we have data, over 80% have, to date, performed in-line or above the investors' expectations of financial return.

Average target IRR in the range of 5% to 9.9%

Across all investment types surveyed, the weighted average target IRR is in the range of 5-9.9%, with private equity investments having the highest target of 10-14.9% IRR. The rates of return reported by the survey respondents appear to be somewhat lower than those reported elsewhere[1] for the broader impact investing market. However, a direct comparison of target IRR findings from these two studies is problematic for several reasons, including differences in the years in which the investments were made.

1 Saltuk, Y., A. Bouri and G. Leung. 2011. Insight into the Impact Investment Market: An in-depth analysis of investor perspectives and over 2,200 transactions. Produced by J.P. Morgan and the Global Impact Investing Network. Page 13. Available at: http://www.thegiin.org/cgi-bin/iowa/download?row=334&field=gated_download_1

Photo: ©Bridget Besaw

Assessing impact: A range of standards, room for improvement

Investors reported using a wide range of methods to evaluate the conservation impact of their investments. Some use internal, proprietary standards. Others reported using industry-specific standards like the Verified Carbon Standard (VCS) or Forest Stewardship Council (FSC). Another subset was active in the development and refinement of emerging impact investing industry standards such as the Impact Reporting and Investment Standards (IRIS), which investors employed to report on the impact of their own portfolios. Still, investors reported some common threads in impact assessment approaches – investors in forestry tend to evaluate similar parameters, for instance. Several investors expressed frustration at the lack of standardized assessment methods and the significant administrative burden of documenting impact.

Challenges to further investment: A shortage of deals, not money

When asked to look forward, the biggest challenge most survey respondents identified was the shortage of deals with the appropriate risk/return profiles. This opinion held for both for-profit and not-for-profit investors. In interviews, most investors reiterated this point and stated that there is no shortage of capital for good conservation deals. Another key challenge is the shortage of management teams with experience in the sector. All of these challenges are consistent with an immature market.

Capital stacking: High potential but several obstacles

Many interviewees noted that the sector would benefit from more widespread use of capital stacking, which combines private capital with more risk-tolerant funding such as government loans and concessionary capital from philanthropic sources. The development of more robust impact assessment methods would likely foster more capital stacking, some interviewees argued, by helping to make philanthropic organizations more comfortable partnering with private investors.

Areas for further research

Follow-up studies can refine the data collection and analysis done for this report and help to build a longitudinal data set on the conservation impact investment sector. Research can also contribute to addressing challenges in the sector as identified in this report.

We suggest three areas for future work: research aimed at improving impact assessment methods in the sector; research on strategies such as capital stacking that address key barriers to growth; and expanded study of the size, scope, and trajectory of the conservation impact investment market.

Introduction

Two facts are fueling the emergence of conservation impact investing: A growing number of investors want to use their capital to drive positive environmental change, and current financing sources are insufficient for the expanding conservation challenges around the world.

This report presents the findings of the first study of the size, scope, and trajectory of the conservation impact investment sector, based on a survey of 56 investors that collected information on more than 1,300 deals.

Impact investing: Driving positive change

We define the conservation impact investment sector to include investments designed to return capital or earn a profit while also driving a measurable positive impact on natural resources and ecosystems.

This positive-impact standard distinguishes impact investing from the larger sector of socially responsible investments. Now estimated at $14 trillion globally,[2] socially responsible investments consist mainly of equity stakes in companies that follow practices designed to minimize negative social or environmental impacts. Impact investments, by contrast, are designed to proactively generate positive change.

Some foundations, funds, and other investors have long practiced what might be called impact investing, but the sector has emerged only recently as a distinct form of investment and the subject of systematic study. A 2010 report estimated global opportunities for impact investments in housing, water, health, education, and financial services at $400 billion to $1 trillion over a 10-year time frame.[3] A follow-up study identified $10.6 billion in private impact investments in 2013, with growth of 19% expected in 2014.[4]

Filling the conservation financing gap

The need for more private capital for conservation is clear. Judging by contributions to The Nature Conservancy, philanthropic funding in the sector has been essentially flat, in inflation-adjusted terms, since the late 1990s. Government funding is generally flat as well, and in some cases it is declining. The United States, for instance, is on the verge of allowing the Land and Water Conservation Fund to expire.

2 Global Sustainable Investment Alliance, 2012 Global Sustainable Investment Review. January 2013. Available at: http://gsiareview2012.gsi-alliance.org/#/1/

3 O'Donohoe, N., C. Leijonhufvud, Y. Saltuk, A. Bugg-Levine, M. Brandenburg. 2010. Impact Investments: An emerging asset class. J.P. Morgan, The Rockefeller Foundation, and the Global Impact Investing Network. Available at: http://www.jpmorganchase.com/corporate/socialfinance/document/impact_investments_nov2010.pdf

4 Saltuk, Y., A. El Idrissi, A. Bouri, A. Mudaliar, H. Schiff. 2014. Spotlight on the Market: The Impact Investor Survey. J.P. Morgan and the Global Impact Investing Network. Available at: http://www.jpmorganchase.com/corporate/socialfinance/document/140502-Spotlight_on_the_market-FINAL.pdf

Photo: ©Felix Rigau

Annual global funding for conservation is estimated at roughly $50 billion, primarily from government, multilateral agency, and philanthropic sources.[5] But these sources fall far short of what multiple researchers have identified as the $300-$400 billion global annual need for conservation investment.[6] Filling that gap from the current donor sources is highly unlikely, given the limits of philanthropic capital and government budgets. But, as a 2014 report by Credit Suisse, the World Wildlife Fund, and McKinsey & Co. points out, while many obstacles exist to scaling up private investment to meet conservation finance needs, the absolute availability of private capital is not one of them: Even if private conservation investment grew to $200-$300 billion annually, it would still amount to around 1% of annual global private sector investments.[7]

Research to help understand and grow conservation impact investing

The partners in this project – EKO Asset Management Partners, JPMorgan Chase, The Nature Conservancy, the David and Lucile Packard Foundation, and the Gordon and Betty Moore Foundation – came together with a shared interest in understanding and fostering the conservation impact investment sector. (See perspectives by the study sponsors beginning on p. 97.) Together, the group identified a set of questions that motivated the research:

- What is the total size of the conservation market?
- Is the market expanding or contracting?
- Who are the main investors in this space?
- How are conservation impact investments structured?
- What types of conservation projects are being funded?
- What are the typical levels of return for various types of conservation impact investments?
- Are investors getting the returns and impacts they hope for?
- How are the conservation impacts of investments being measured?
- Where should future research on this sector focus?

We hope that the answers provided in this report yield insights of value to private investors and those seeking to partner with private investors in this fast-growing market. To that end, this report is meant to speak to a range of audiences, including institutional investors, high-net-worth individuals, family offices, philanthropists, entrepreneurs, NGOs, and others seeking investment opportunities that offer both financial return and conservation benefit.

5 Parker, C., M. Cranford, N. Oakes, and M. Leggett, ed., 2012. The Little Biodiversity Finance Book, Global Canopy Programme; Oxford. Available at: http://www.globalcanopy.org/materials/little-biodiversity-finance-book

6 Credit Suisse, World Wildlife Fund, McKinsey & Co. 2014. Conservation Finance: Moving beyond donor funding toward an investor-driven approach. Page 9. Available at: https://www.credit-suisse.com/media/cc/docs/responsibility/conservation-finance-en.pdf

7 Ibid., page 11

Methodology

Our research collected baseline data and strategic insights on the current state of the market for conservation impact investment as well as implications for the future. We collected survey data from investors and also conducted desk research and interviews. This approach follows the example set by the highly regarded impact investment survey reports produced by J.P. Morgan and GIIN in recent years.

Study period

The study focused on the five-year period 2009–2013. The survey instrument also asked about the state of respondents' investment portfolios for the years 2004–2008 and projected future allocations to conservation impact investments for the years 2014–2018, but at a less granular level.

Definition of conservation impact investment

The study defined conservation impact investments as investments made by a financial investor that were intended to result in:

- At least a return of principal, and possibly generation of profit
- A positive impact on natural resources and ecosystems, defined specifically as decreased pressure on a critical ecological resource and/or the preservation or enhancement of critical habitat

For the investment to fall within the scope of this study, conservation impact needed to be an important (though not necessarily the primary) motivation for making the investment. Conservation impact cannot be simply a byproduct of an investment made solely for financial return.

The study collected data on three specific areas of conservation-oriented economic activity:

- **Sustainable food and fiber production,** including investments in sectors such as sustainable agriculture, timber production, aquaculture, and wild-caught fisheries
- **Habitat conservation,** including investments in sectors such as reduced emissions from deforestation and forest degradation (known as REDD or REDD+), land easements, or mitigation banking
- **Water quantity and quality conservation,** including investments in sectors such as watershed protection, water credits trading and/or water rights trading

The study's focus on habitat and ecological resources dictated the exclusion of a number of investment areas that can contribute to conservation goals, including renewable energy, clean tech, green buildings, biofuels, and investments in water infrastructure where water conservation was not the primary motivation.

In cases where conservation investments spanned multiple categories (for instance, a sustainable forestry project that produces timber while also providing habitat and water quality benefits), the survey asked respondents to use their judgment to apportion the value of the investment among categories accordingly.

Survey design

The study used a two-part survey instrument.

The first part was a spreadsheet template, into which respondents entered information about individual investments, including the intended conservation impact, the size of the investment, asset and investment type(s), investment stage, target IRR, performance to date, and several other parameters.

The second part was an online survey that collected information on the structure of respondents' investment portfolios as well as perceptions and long-term strategic vision for the conservation impact investment market.

The spreadsheet template and online survey questions are available from The Nature Conservancy's impact capital initiative, NatureVest, at naturevest@tnc.org.

Sample group and respondents

We invited 88 investors from 88 distinct organizations to participate in the survey. The Steering Committee, the project coordinators, or trusted third parties identified these individuals as investors whose conservation investments were likely to fit within the study's parameters.

A total of 56 investors participated in the survey on behalf of their organizations, a response rate of 64%. Appendix I gives the full list of respondents' organizations, including DFIs, private funds, corporations, foundations, NGOs, family offices, and other types of investment organizations.

The respondents represented five DFIs and 51 private investment organizations. One of the DFIs and eight of the private investors did not report quantitative investment data, so the maximum number of responses to the survey's quantitative questions is 43 for private investors and four for DFIs. The private investors who did not report data cited confidentiality reasons or stated that they did not make investments in 2009-2013 that fell within the scope of our study.

The large majority of non-DFI survey respondents are based in the United States (76%) or Europe (18%), with 6% based in Latin America. It proved difficult within our network of contacts to obtain participation from a substantial number of investors outside of the United States and Europe.

Table 3 : Number of respondents by investor type

Investor Type	No. of respondents
Fund manager	20
Corporation	10
Foundation	7
Non-profit organization	6
Development finance institution	5
Other (mainly representatives of high-net-worth individuals)	4
Family office	3
Diversified financial institution/Bank	1
Total	**56**

Source: EKO/TNC

For-profit *Not-for-profit*

Table 4: Number of respondents by investor geography

	DFIs	Private Sector*
USA & Canada	-	39
Western, Northern, & Southern Europe	2	9
Latin America & Caribbean (including Mexico)	-	3
No single headquarters location	2	-
East & Southeast Asia	1	-
Total	**5**	**51**

** Private sector includes all investor types that are not DFI.*
Source: EKO/TNC

The survey population did not include representatives from pension funds, insurance companies, and other large institutional investors. The steering committee and project coordinators hypothesized that investors in these categories either have not been active in the conservation impact investment sector, or, in cases where they have been active, have made investments through some of the funds surveyed for this report, meaning that their contributions are captured in the data.

In addition to the survey, the project coordinators conducted interviews with 13 investors from the survey population, selected to represent different investor types, investment geographies, and sectors. In addition, the team interviewed five thought leaders and experts in the conservation impact investing field.

All three of the study's investment categories were well represented among the respondents.

Table 5: Number of respondents by conservation category*

	DFIs	Private Sector
Sustainble food & fiber production	2	29
Habitat conservation	2	27
Water quantity & quality conservation	1	16

** Some investors invest in more than one conservation category. One DFI did not report any quantitative data.*
Source: EKO/TNC

Data screening

We screened survey data to remove investments that clearly fell outside the scope of conservation impact investments as defined above, such as investments in processing and packaging of agricultural products, non-native tree plantations without a habitat conservation component, and investments into certain water efficiency technologies.

In addition, in some cases information from a single investment was submitted twice – by the manager of an investment fund as well as an investor in same fund. We attributed such investments to the investment fund only.

We removed investments totaling $123 million through these screening processes.

Verifying the degree of impact achieved by a given investment was beyond the scope of the study. As a rule, the project coordinators took survey participants at their word when they said their investments had, or were intended to have, conservation impact. See box on page 23 for a discussion of cases in which investments submitted by DFIs did not clearly fall within the definitions of conservation and impact investing used in this study.

Photo: ©Tim Calver

Data reporting

We report all financial figures in U.S. dollars.

All figures represent data provided by survey respondents; we did not extrapolate.

Most financial figures represent amounts of committed capital, defined as capital that has been allocated or deployed to specific investments.

Uninvested capital, by contrast, refers to capital that is raised or readily available to make new investments but has not been allocated or committed to specific investments.

Several questions in the online survey asked respondents to provide first- and second-ranked answers. We used a weighted scoring system to report the responses to these questions, with three points assigned for a first-rank choice and two points for a second choice.

We use the term “Other” in a number of charts to describe a category of investor. This term refers mainly to investment advisors who have placed investments on behalf of their clients (typically high-net-worth individuals).

Confidentiality

Due to the sensitive and commercial nature of the study data, all responses are being kept confidential, with access provided only to project coordinators, consultants retained to administer the survey, ArcEconomics, and lead staff at The Nature Conservancy. The Nature Conservancy signed non-disclosure agreements with survey participants that requested one. EKO Asset Management Partners, JPMorgan Chase, the Packard Foundation, and the Gordon and Betty Moore Foundation do not and will not have access to the disaggregated data.

The Nature Conservancy is storing the survey responses as baseline data for possible future studies, except in a few instances where the respondents specifically requested that their data not be shared with The Nature Conservancy.

The challenges in parsing data from development finance institutions

The data provided by the DFIs presented two significant challenges. First, it was often unclear the degree to which conservation, as defined in this study, was a primary desired outcome of the investments. Second, in some instances, it wasn't clear if the "investments" were, in fact, intended to generate a financial return or to meet our threshold of expected return of principal.

For instance, many of the water-related investments reported by DFIs supported upgrades or improvements to water and sewage infrastructure in developed countries. While some of these projects likely fell outside our definition of conservation impact investments, we did not remove the investment data from our report because we could not determine conclusively that the investments were not impact investments. That is, we treated the DFI respondents in the same way we treat our private sector respondents: We took them at their word when they said these were conservation impact investments.

As another example, the majority of the investments in sustainable food and fiber production submitted by DFIs supported projects designed to improve an underserved community's socioeconomic well-being by providing funding for ventures that resulted in increased employment, improved food security, and enhanced agricultural and forest productivity. We were unable to assess whether these investments also resulted in direct benefits for conservation. However, again, because the respondents stated that these projects resulted in a conservation benefit, the investments were not removed from the analysis.

When considering the intended financial return of DFI investments, it appears that at least a portion of the reported investments do not expect a return. For example, the Forest Carbon Partnership Facility (FCPF) being led by the World Bank has total commitments of $825 million aimed at forest conservation through REDD projects.[8] Of this, however, only a very small percentage is being deployed in ways that expect financial returns. Much of the balance is allocated to the so-called "Readiness Fund," which is explicitly not seeking financial return. In analyzing the data, investments that clearly were not intended to at least return capital – such as the FCPF Readiness Fund – were excluded from the analysis. But where it was not possible to determine conclusively that there was no expectation of capital return, the figures are included in the analysis. Data from some private investors presented similar challenges; we attempted to evaluate all investments in the same way.

8 Forest Carbon Partnership Facility. 2014. Website: https://www.forestcarbonpartnership.org/about-fcpf-0. Accessed October 8, 2014.

Observations Part 1

Photo: ©Nick Hall

Analysis of Survey Data

In this section, we use two different groupings of investors.

- **Private investors vs. DFIs:** Private investors include all types of investors except DFIs.
- **For-profit vs. not-for-profit investors:** For-profit investors are private investment fund managers, corporations, family offices, investors who represent high-net-worth individuals, and one financial institution. Not-for-profit organizations are foundations, non-profit organizations, and DFIs.

Market size, major investors, and trajectory

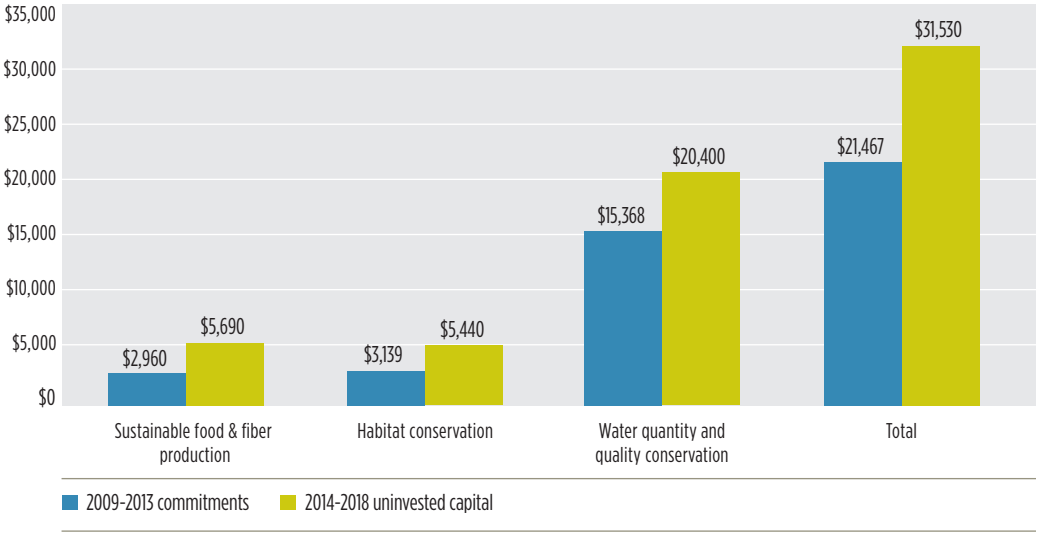
DFI capital flows totaled $21.5 billion

In the five-year period 2009-2013, DFIs committed $21.5 billion to conservation impact investments. Water quality and quantity conservation projects accounted for $15.4 billion of this total, while sustainable food and fiber and habitat conservation each accounted for roughly $3 billion. The DFIs anticipate increasing total investment by roughly 50% in the 2014-2018 period.

Given the scale of DFI investment relative to private investment in the sector currently, we can expect DFIs to continue to play a leading role in supporting conservation impact investments in at least the near- to medium-term.

We note that at least some of the investments reported by DFIs appear to fall outside the study's definition of conservation impact investments. (See box on page 45 for a discussion of this issue.)

Figure 9: DFI deployed capital, 2009-2013, and projected capital to be deployed, 2014-2018, by category ($ millions)



4 respondents provided data. Source: EKO/TNC

Despite the comparatively large investment totals reported by the DFIs, most of the rest of our analysis focuses on private investors, for whom we have a significantly richer data set.

Private investors committed $1.9 billion in 2009–2013; 66% was deployed in sustainable food and fiber production

Private investors committed $1.9 billion to conservation impact investments over the five-year period 2009–2013. Of this total, 66% was committed to sustainable food and fiber production and 23% to habitat conservation. The remaining 11% was invested in water quantity and quality conservation.

Is $1.9 billion over five years a little or a lot? For comparison, a 2014 study by J.P. Morgan and GIIN estimated total global annual impact investment, including sectors such as housing and education, at $10.6 billion annually. Our figure, on a per-year basis, amounts to roughly 4% of that total.

On the other hand, we are confident that our figure understates to some degree the total conservation impact investing market. Our figure is a direct measurement – not an estimate – derived from a relatively small survey, albeit one with a 64% response rate. We know that at least one major U.S. player did not respond to the survey, and we may have missed others; we also believe that we did not reach several significant overseas investors. In addition, some investment categories, such as water rights trading, appear to be particularly underrepresented in our data, based on our knowledge of those markets.

Furthermore, we believe at least part of the funds raised through various green bonds in the market (see case study below), which were not included in our survey, have also been used to make conservation impact investments.

Case Study: Green Bonds

After years of theorizing about the potential benefits of opening the bond market to environmental projects, the last few years have actually seen it happen. Since the European Investment Bank first issued its "Climate Awareness Bonds" in 2007, what are now commonly referred to as Green Bonds have exploded into the marketplace and are attracting increasing attention in the global capital markets from a range of issuers and investors. The environmental benefits of this new asset class have not yet been fully established – but the attractiveness to investors is clear.

The Climate Bonds Initiative forecasts 2014 Green Bond issuance to be $40 billion, a four-fold increase from 2013. Predictions for 2015 see the market potentially growing to $100 billion.[9] While most issuance to date has been from multilateral and bilateral issuers such as the World Bank, the European Investment Bank and the International Finance Corporation, other agencies and municipalities have also entered the market in the last few years. 2014 also saw the rapid increase in the issuance of corporate Green Bonds, which now represent over 50% of the Green Bonds market in 2014.

Green Bonds have the same standing as the senior unsecured debt of the issuer – which makes them an attractive investment for institutional investors as they don't carry the potential or perceived risk that project-level investment might carry. The repayment of the bond is subject to the credit risk of the issuer – which is typically much stronger than project credit. A growing number of investors have demonstrated an appetite for Green Bonds, ranging from socially responsible investors to larger, more mainstream asset managers, pension funds and institutional investors. Indeed, most Green Bonds sell out very quickly and have been oversubscribed.

For some, Green Bonds appear to be one of the first financing tools that have the potential to quickly mobilize volumes of capital at a commensurate scale to the environmental problems we face. The environmental benefits from the Green Bond market could be significant, although many important questions about the spectrum of impact – or "greenness" – persist. To date, issuers have established eligibility for green bond proceeds themselves or with guidance from outside advisors. But the guidance is varied and "additionality" – the measure of differentiation from business as usual – is still being debated. In order to promote transparency and disclosure, JPMorgan Chase took a lead role

9 http://www.climatebonds.net/2014/09/usd2tn-investors-back-green-climate-bonds-tap-usd100tn-bond-market-climate-solutions-call

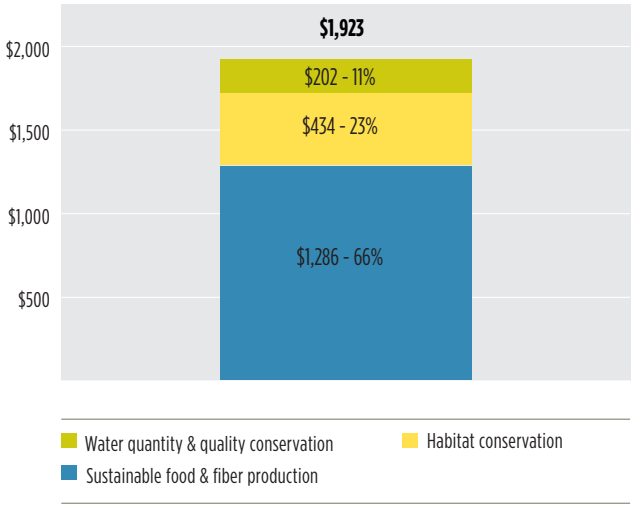
with several peers in co-authoring the Green Bond Principles,[10] a voluntary set of guidelines for the issuance of Green Bonds, that encourages issuers to disclose how the funds will be invested, report annually on the investments made, and have their plans and reporting reviewed by a third party. Mid-2014 has seen the development of new Green Bond indices, along with growing debate over who will get to decide what is "green enough" to be labeled a Green Bond.

For issuers, Green Bonds have proven to be a very successful way of diversifying their investor base and providing a visible platform for their sustainability agendas. For investors, Green Bonds offer investors comparable risk and return to mainstream bonds and the opportunity to participate in the financing of "green" projects that help mitigate climate change and address other environmental challenges such as clean air and water, and the promotion of environmental solutions like resilience to storms and energy efficiency. The market is growing and diversifying to include bond proceeds directed to an increasing array of environmentally friendly companies, products, projects, and services including green real estate and water infrastructure.

The direct linkage between Green Bonds and ecosystem services has not yet been highlighted as much as the climate benefits of Green Bonds -- but is certainly a direction in which we could see the market develop.

The data gathered through this survey provides an initial baseline for the sector. From this starting point, future studies can track growth in the sector, identify changes in capital-allocation patterns, and help to refine the data-collection methods.

Figure 10: Private committed capital by category, 2009-2013 ($ millions)



43 respondents provided data. Source: EKO/TNC

Top ten private investors account for more than 80% of the market, with the vast majority investing in real assets

With the exception of the third-largest investor, which is a private foundation, the top 10 private investors are for-profit institutions. Although private conservation impact investing is still a young sector, eight of the top 10 investors began investing in it prior to 2008.

10 The Green Bond Principles were authored by JPMorgan Chase, Bank of America Merril Lynch, Citi, and Crédit Agricole Corporate and Investment Bank, and issued in January of 2013 with the support of 13 banks in total. The Principles and related consultation are now managed by the International Capital Markets Association. See http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/

A vast majority of these leading investors have real asset-based strategies, mainly investing in land for forestry and agriculture projects. These land investments typically require sizeable amount of capital as compared with many of the other conservation investment strategies covered by this study. Only two investors invest primarily in habitat and only one in water.

Table 6: Characteristics of the top 10 private investors

Investor	Amount committed to conservation 2009-2013 ($ mil)	For-profit institution? (Y/N)	New to conservation investments in 2009-2013?[1] (Y/N)	Key investment category[2]
1	>$900 combined*	Y	N	SFFP
2		Y	N	SFFP
3	$111	N	N	HC
4	$100	Y	N	SFFP
5	$95	Y	N	WQQC
6	$86	Y	N	SFFP
7	$75	Y	Y	SFFP
8	$63	Y	N	SFFP
9	$60	Y	N	HC
10	$52	Y	Y	SFFP

** Total commitments for Investors 1 and 2 not disclosed for confidentiality reasons.*
[1] "Yes" indicates the investor only began making conservation impact investments for the first time in the 2009-2013 period.
[2] Refers to the investors' primary area of conservation impact investments.
SFFP = Sustainable food & fiber production; HC = Habitat conservation; WQQC = Water quantity & quality conservation
Source: EKO/TNC

Leading investors are fund managers and corporations who favor sustainable food and fiber plays; Foundations lean to habitat conservation

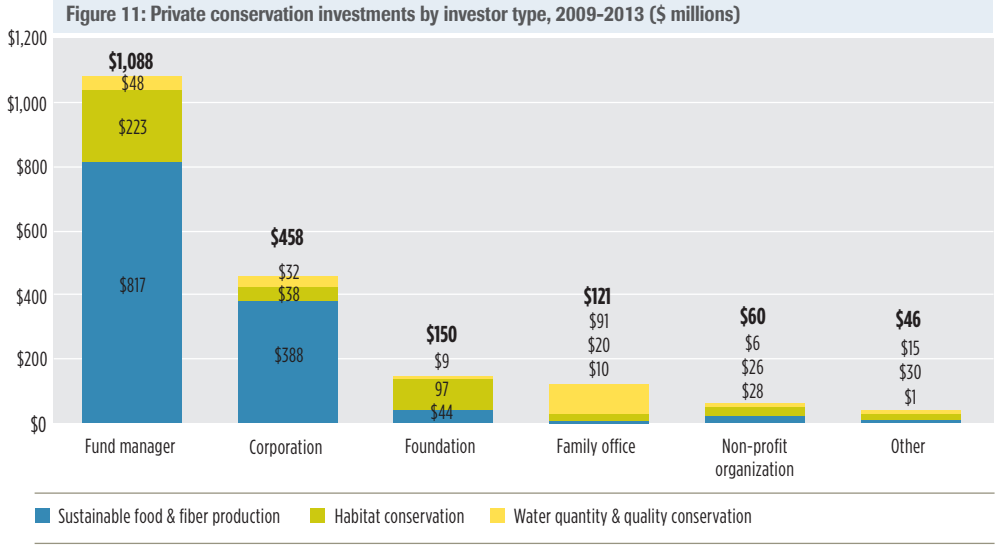
Investments by fund managers and corporations, who account for most of our surveyed population, lean heavily to sustainable food and fiber production. Such investments accounted for 75% of fund manager commitments and 85% of corporate investments in conservation.

The preference for sustainable food and fiber production among "return first" investors (which comprise most of our fund manager and corporate respondents) makes sense, given that these types of investments tend to plug into comparatively well-defined and growing markets. The revenue streams associated with growing global demand for food and fiber are straightforward and the business plans of these enterprises are well understood. For instance, there is a strong push in developed countries to use FSC-certified wood, global demand for healthy meat and produce is growing, and the amount of productive forest and farmland is limited.

By contrast, the financial return from investments in the habitat conservation category relies primarily – at least in the United States – on the existence of public or philanthropic investors who are willing to pay for the preservation or restoration of wildlife habitats. For example, some of our survey respondents provided bridge financing to help NGOs purchase land of important conservation value with the expectation that their investments would be repaid by governments, land trusts, NGOs, or private philanthropists who would eventually permanently buy out and protect the land. Thus, there is great opportunity for "impact-first" investors, such as foundations and non-profit organizations, to play an active role in making investments in habitat conservation.

Photo: ©Dave Lauridsen

Figure 11: Private conservation investments by investor type, 2009-2013 ($ millions)

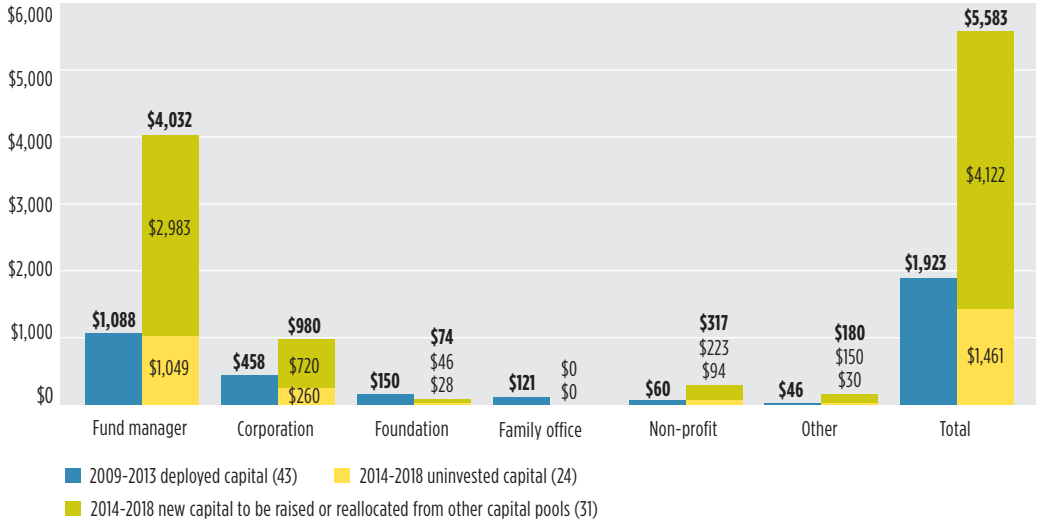


43 respondents provided data. Total reported investments: $1.9 billion
Source: EKO/TNC

Looking ahead to 2014-2018, private investors have $1.5 billion of uninvested capital to deploy in conservation impact investments and intend to raise or reallocate $4.1 billion more

We also asked survey respondents to project the amount of capital they intend to commit to the three conservation categories over the next five years. The amount of uninvested capital that is available to be deployed into conservation from 2014-2018 is $1.5 billion. In addition, over the same period, survey respondents indicated that they intend to invest an additional $4.1 billion, to be raised or reallocated from other existing pools of capital.

Figure 12: Private capital deployed, 2009-2013, and projected capital to be deployed, 2014-2018, by investor type ($ millions)



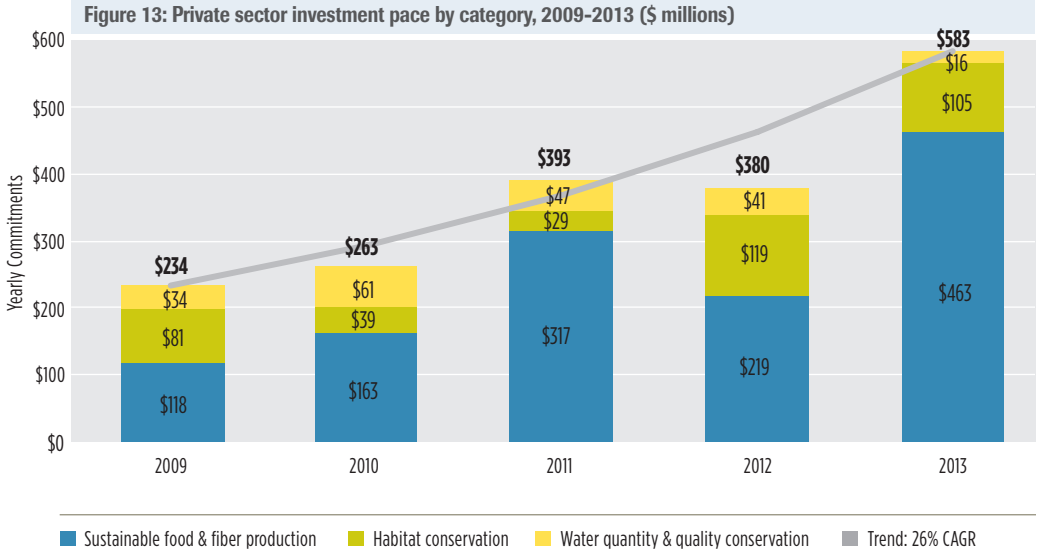
Number at the end of each legend label represents the number of respondents who provided data for that category
Source: EKO/TNC

In total, our survey respondents reported plans for $5.6 billion in capital deployment for conservation impact investments in the period 2014-2018, nearly three times the amount committed in the period 2009-2013.

During 2009-2013, private capital committed to conservation impact investments grew at an average annual rate of 26%

Over the five-year period, the amount of capital committed to conservation impact investments grew at an average annual rate of approximately 26%. The uneven investment pace from one year to another is most likely related to the variability in the investment periods and fundraising cycles for many of the fund managers. Growth varied widely between subsectors: Investments in water quantity and quality conservation were essentially flat, while investments in sustainable food and fiber production rose at a 41% CAGR.

Figure 13: Private sector investment pace by category, 2009-2013 ($ millions)



40 respondents provided data. Total reported investments $1.9 billion. Source: EKO/TNC

Photo: ©Bridget Besaw

U.S.-based investors accounted for 92% of private capital commitments, reflecting sample bias

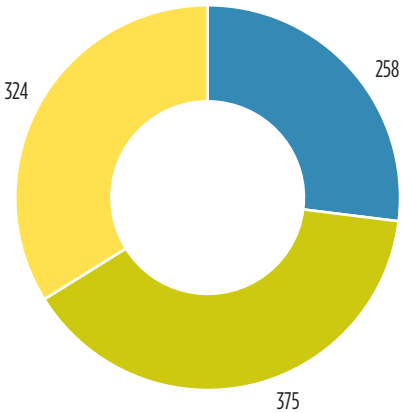
Private investors based in the United States accounted for approximately 92% of the committed private capital reported in the survey. Investors in Western, Northern, and Southern Europe and in Latin America and the Caribbean (including Mexico) accounted for just 6% and 2%, respectively. U.S.-based investors made up 76% of the private investors in our survey, European investors 18%, and Latin American investors 6%. Thus, the average amount of capital committed per non-U.S. investor surveyed was, on average, much less than the amount committed per U.S. investor.

For future studies we recommend that a special effort be made to reach out to more investors outside of the United States.

Sustainable food and fiber investments accounted for the fewest number of deals but the most dollars

The private investors surveyed reported a total of 957 commitments in 2009-2013. Although sustainable food and fiber saw the lowest number of transactions, the category also received the largest amount of commitment dollars. This result suggests that at least some of these deals have much larger ticket sizes than investments in habitat conservation and water conservation.

Figure 14: Number of private commitments by category, 2009-2013



Sustainable food & fiber production	258
Habitat conservation	375
Water quantity and quality conservation	324
Total	**957**

42 respondents provided data. Total reported investments: $1.9 billion.
Source: EKO/TNC

Case Study: The Market for Reducing Emissions from Deforestation and Forest Degradation (REDD+)

While some private investors are active in the REDD+ market, the larger players are DFIs and governments. DFI and government investments in this sector generally are not designed to generate a financial return, and thus fall outside the definition of conservation impact investment used in this report.

Deforestation, forest degradation, and other land-use changes account for roughly 12% of anthropogenic global greenhouse gas (GHG) emissions each year.[11]

To mitigate this significant source of global climate change, the REDD+ (Reducing Emissions from Deforestation and Forest Degradation[12]) mechanism was formalized beginning in 2005 under the United Nations Framework Convention on Climate Change. In the Conference of the Parties (COP) to that convention that took place in Warsaw in 2013, the full normative and regulatory framework for REDD+ (i.e., the "REDD Rulebook") was agreed upon by the participating countries. REDD+ puts a monetary value on the carbon stored in forests, offering incentives for developing countries to reduce emissions associated with deforestation and instead invest in low-carbon paths to sustainable development. Countries and companies that emit greenhouse gases can mitigate the damage caused by their emissions by paying to protect forests worldwide. Several voluntary systems (such as the Verified Carbon Standard, or VCS) have emerged to monitor these projects and verify the emissions reductions they generate. There are also discussions within the United Nations and in various national and sub-national carbon markets (e.g., the California carbon market) on how REDD+ credits might be sold into these markets.

As part of these emerging carbon markets, DFIs, national governments, and private investors have created REDD+ funds.

The World Bank is a leader in the sector

The World Bank has launched 11 carbon funds and facilities since 2005 with a total capitalization of over $2.3 billion.[13] These funds cater predominantly to parties seeking to comply with emissions-reduction obligations undertaken over the course of the 2008-2012 period during which the first Kyoto Treaty was in force.

- **The Forest Carbon Partnership Facility (FCPF),** launched in 2008 with support from governments and the private and non-profit sectors, seeks to assist countries with significant forest assets, such as Brazil, Indonesia, and the Democratic Republic of Congo, with their REDD+ efforts by providing financial and technical assistance; the Facility is also piloting a performance-based payment system for REDD+.[14]
- **Tranches 1 and 2 of the BioCarbon Fund,** with funding provided by governments and the private sector, have committed about $90 million to 25 projects that have restored 150,000 hectares of degraded lands and reduced deforestation in over 350,000 hectares of land in Africa, Asia, and Latin America.[15]
- **The BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL)** was launched in 2013 by the Bank as another public-private partnership with support from donor countries such as Norway, the UK, and the United States. It, too, plans to support and advance the implementation of REDD+ mechanisms in developing countries. ISFL works with private actors at all scales, from

11 Intergovernmental Panel on Climate Change. 2013. Fifth Assessment Report, Working Group III. Chapter 11: Agriculture, Forestry and Other Land Use. Page 16. Available at: http://report.mitigation2014.org/drafts/final-draft-postplenary/ipcc_wg3_ar5_final-draft_postplenary_chapter11.pdf

12 The "plus" in REDD+ signifies requirements for sustainable management of forests, conservation of forest carbon stocks, and enhancement of forest carbon stocks.

13 This figure includes REDD+ funds as well as other carbon funds that invest in projects outside the forest sector.

14 https://www.forestcarbonpartnership.org/about-fcpf-0

15 https://wbcarbonfinance.org/Router.cfm?Page=BioCF&FID=9708&ItemID=9708&ft=About

smallholders and local small and medium enterprises to multinational corporations, providing incentives for businesses to change their commodity sourcing practices to avoid deforestation and land degradation, in the process redirecting market forces toward more sustainable and equitable land management practices.[16]

Governments, notably Norway, have also made large commitments

Norway funds REDD+ projects in Indonesia, Brazil and Guyana among other nations. It has, on its own, committed over $1 billion to both Brazil, and Indonesia to help finance projects that reduce emissions and reduce deforestation.

Some private investors are betting that REDD+ credits are undervalued

Private firms such as Permian Global, Livelihoods Fund, Althelia, and Wildlife Works have created businesses built around investments in projects that deliver REDD+ credits. These firms believe that emissions from forest degradation have been underestimated, and therefore mispriced. If a future global or multinational climate agreement boosts demand for REDD+ credits, these investments could yield large profits. Currently, however, many of the carbon trading systems are moving away from project-based REDD crediting and towards national, or "jurisdictional," REDD crediting. How project-based crediting fits into these emerging mechanisms is unclear.

The analysis in this report includes private investments in REDD+ projects, while excluding DFI and governmental investments

In this report, we include REDD+ transaction data from private investors only; we do not include transactions led by DFIs and governments. Observations that informed this decision include:

- The "return" from REDD investments by DFIs and governments is often in the form of carbon credits used to meet either established emissions mandates or voluntary targets, rather than a financial return.
- Some REDD "investments" are functionally grants. For example, the Norwegian Government allocates nearly $500 million annually towards REDD+ projects[17] from its aid budget and does not expect a profit or return of capital from these "investments."

It is unclear how much of the funds invested via the various carbon funds developed by the World Bank would qualify as "investments" under our methodology. While the private investors in funds such as the FCPF likely expect that their capital will be (at least) returned, most of the money invested in these funds comes from governments that only expect to see a return in the form of carbon credits, which they will then retire as a way to meet emissions reduction targets or to fulfill a voluntary goal of making a positive contribution toward reducing the threat posed by climate change. While carbon credits do have a monetary value, and could, in theory, be monetized, it is unlikely that the country governments (or the World Bank) will ever monetize these investments. For these reasons, we excluded such investments by DFIs in our analysis, but included private investment dollars contributed to FCPF and similar funds.

16 www.biocarbonfund-isfl.org/about-us

17 http://www.regjeringen.no/en/archive/Stoltenbergs-2nd-Government/Ministry-of-Foreign-Affairs/Nyheter-og-pressemeldinger/pressemeldinger/2012/aidbudget2013.html?id=704094

Investor motivation and criteria for evaluating conservation investment opportunities

This section presents ranked results from two survey questions. For each, we asked respondents to select their first and second choices. In the analysis, first-choice responses count for three points and second-choice responses count for two.

Motivations: For-profits balance financial returns and conservation objectives; not-for-profits are strongly focused on conservation impacts

Asked to list their top two motivations for investing in conservation, for-profit investors narrowly chose the investment's expected financial returns as the top consideration, followed by the investment's potential to help advance their organization's conservation objectives and the potential to advance other (non-conservation) objectives. Other considerations, such as diversification or corporate social responsibility reasons, ranked much lower.

Not-for-profit investors, on the other hand, overwhelmingly ranked non-financial considerations as the most important: Advancing an organization's conservation objectives scored highest by a large margin, followed by advancing other organizational goals. Financial returns ranked a distant third.

When responses from all investors – for-profit and not-for-profit – are combined (by adding up the scores from Tables 7 and 8), advancing an organization's conservation objectives was the highest-ranked choice by a large margin, followed by expected financial returns.

Table 7: Motivation for making conservation impact investments – For-profit organizations

	Total score
Expected financial returns	49
Viewed as strategic tool to advance organization's conservation objectives and mission	44
Viewed as strategic tool to advance other objectives (e.g., economic prosperity)	29
Considered as part of asset and investment diversification	13
Personal interest in the sector	10
Considered part of corporate social responsibility strategy	8
Other	8

33 respondents provided data.
Source: EKO/TNC

Table 8: Motivation for making conservation impact investments – Not-for-profit organizations

	Total score
Viewed as strategic tool to advance organization's conservation objectives and mission	37
Viewed as strategic tool to advance other objectives (e.g., economic prosperity)	22
Expected financial returns	9
Considered part of corporate social responsibility strategy	2
Personal interest in the sector	2
Other	2
Considered as part of asset and investment diversification	-

16 respondents provided data.
Source: EKO/TNC

Investment criteria: For-profits evaluate investments mainly on financial returns, not-for-profits on conservation impact

For-profit investors rated the likelihood of meeting or exceeding financial return targets as the most important factor when considering a conservation impact investment. Whether the project represented the most effective means of having a desired conservation impact ranked second, followed by the management team's track record.

For non-profit investors, by contrast, the likelihood that the project would meet financial targets ranked fourth. Whether the project is an effective way to have the desired conservation impact

Photo: ©Claudemir Dada

was scored as by far the most important consideration, followed by the ease of quantifying the conservation impact and the management team's track record.

Considering the responses from all investors together, a project's financial returns ranked as slightly more important than whether it would have the desired conservation impact. This is most likely because our surveyed population is more heavily weighted towards for-profit institutions. These two factors ranked well above the third- and fourth-ranked criteria, the ease of measuring conservation impact and management track record.

Table 9: Investment criteria for evaluating conservation impact investments – For-profit organizations

	Total score
Likelihood of meeting or exceeding financial return target	64
Most effective means of having desired conservation impact	35
Management with demonstrable track record	21
Clear exit strategy/liquidity event	19
Conservation impact of investment is easily measurable	14
Other	9
Ability to have governance role (e.g., majority stake, board seat)	4
Ability to gather market intelligence in a particular sector	-

34 respondents provided data.
Source: EKO/TNC

Table 10: Investment criteria for evaluating conservation impact investments – Not-for-profit organizations

	Total score
Most effective means of having desired conservation impact	34
Conservation impact of investment is easily measurable	18
Management with demonstrable track record	9
Likelihood of meeting or exceeding financial return target	8
Other	5
Clear exit strategy/liquidity event	4
Ability to have governance role (e.g., majority stake, board seat)	-
Ability to gather market intelligence in a particular sector	-

16 respondents provided data.
Source: EKO/TNC

Asset type refers to the type of asset invested in. Survey answer choices: company (e.g., a share or interest in a business), environmental credits, fund, natural resources rights, non-profit entity, and real asset.

Investment stage refers to the stage of investment at which the investor participated in the financing. Survey answer choices: angel/seed stage, early stage, growth stage, last round before exit, mature private companies, mature public companies, project finance/development, real asset purchase, and "other: (please specify)."

Investment type refers to the type of investment or instrument that the investor acquired. Survey answer choices: private equity, private debt, equity-like debt, public equity, public debt, real asset, guarantee, deposits & cash equivalents, and credit enhancement.

Note that "real asset" was an option for all three questions. Because real assets are neither a stage of investment nor a type of capital, answers in the "real asset" category for those two questions are labeled "N/A: real asset."

Investments within each category by geography, asset type, investment stage, and investment type

This section presents survey data on geography as well as three investment characteristics. The investment characteristic data represents responses to three multiple-choice questions, with the response options listed on the left.

Sustainable food and fiber production

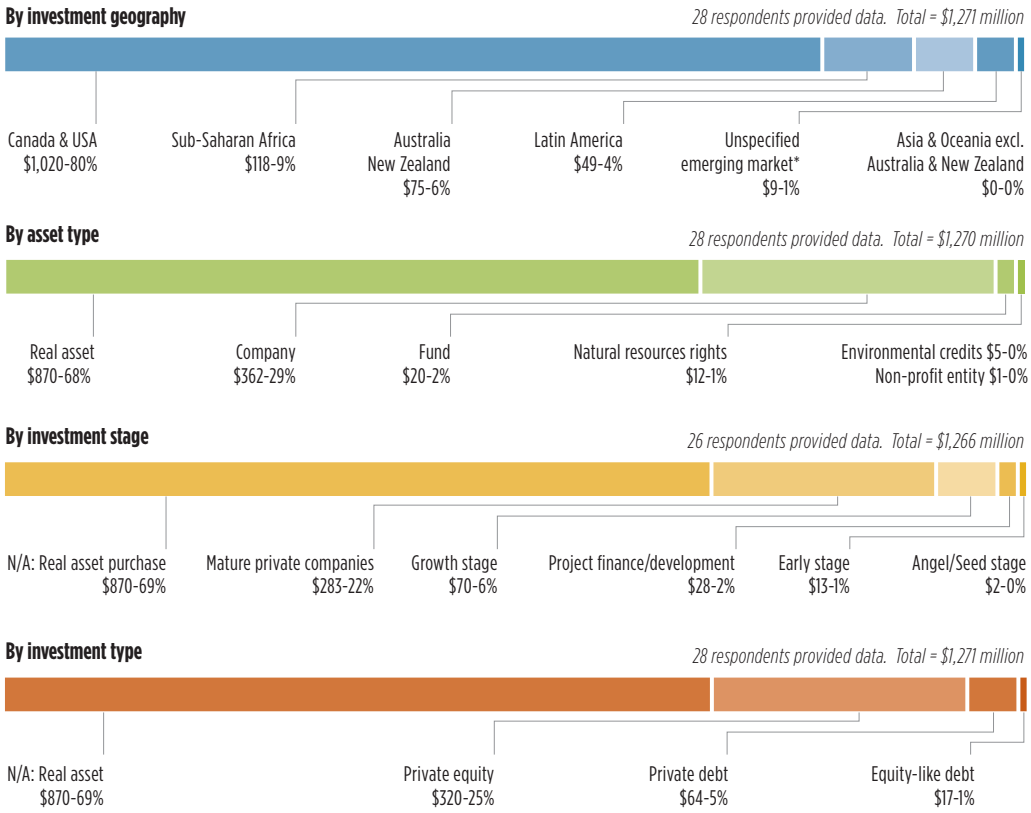
Geography: Eight-tenths of the survey respondents' investments in sustainable food and fiber production were made in the United States and Canada. This result is likely influenced by the large proportion of U.S.-based investors in the study sample.

Asset Type: Just over two-thirds of the investments were made in real assets, namely the purchase of forests and/or farmland, which are often capital-intensive. Investments in companies accounted for most of the balance of commitments (29%).

Investment Stage: Separate from the real asset transactions (e.g., the acquisition of farmland and forests) that make up 69% of the total in this category, investments in mature private companies, primarily in a few forestry and agricultural companies, comprise 22% of the committed capital.

Investment Type: Apart from the real asset investments, which, again, comprise 69% of the total investments, most of the remaining investments were made in the form of private equity.

Figure 15: Committed capital to sustainable food & fiber production, 2009-2013 ($ millions)



*"Unspecified emerging market" refers to cases where the respondent did not indicate the emerging economy in which the investment was made.
Source: EKO/TNC

Case Study: Sustainable Seafood

Wild fisheries and aquaculture both offer conservation impact investment opportunities.

Since 1960, demand for fish and shellfish products has grown more than twice as quickly as the human population, driving the development of a $400 billion seafood industry that now provides roughly 17% of the animal protein consumed globally.[18] At first, the rising demand was met primarily through wild-capture fisheries, with aquaculture concentrated on a few species primarily cultivated in Asia. But as increasingly advanced gear and vessel technologies were deployed in pursuit of dwindling wild populations, wild-capture production peaked in the early 1990s and then stabilized at roughly 80 million tons per year. The United Nation's Food and Agriculture Organization now classifies more than half of wild fisheries as "fully exploited" and at least another one-third as "overexploited" or "depleted."

Historically, governments and NGOs have led efforts to protect wild fisheries, generally using the tools of regulation, community engagement, and media campaigns. Increasingly, however, actors seeking to protect ocean environments are turning to market-based policies and incentives to better align commercial and conservation objectives. These strategies have included certification schemes, such as the Marine Stewardship Council (MSC) and other "ecolabels," together with consumer-marketing efforts that generate greater demand for sustainably-sourced seafood.

A number of groups – including EKO Asset Management Partners, the David and Lucile Packard Foundation, the Gordon and Betty Moore Foundation, the Sea Change Investment Fund, the Cape Cod Fisheries Trust, The Nature Conservancy, and others – have explored or are exploring ways to use private capital to promote sustainable fisheries while earning a return.

The Cape Cod Fisheries Trust

The Cape Cod Commercial Fishermen's Alliance formed a program called the Cape Cod Fisheries Trust in 2005 in anticipation of a transition to a market-based quota system for the region's groundfish and scallop fisheries. While the quota system was necessary to sustain the fishery, it appeared likely that many local, small-boat fishermen would be not be able to afford the quota they would need to keep fishing.

The Alliance raised a diverse pool of capital: grants and PRI loans from foundations, grants from supporting members of the community, and commercial credit and loans. The Alliance used this capital to purchase quota early in the implementation of the new system; risk was high due to uncertainties about how the quota system would be implemented..

The Trust leases quota to local fishermen at below-market rates, supporting the economic sustainability of Cape Cod's small-boat fleet – one of the key impacts of interest to investors.

The Morro Bay Community Quota Fund

In June 2014, the Morro Bay Community Quota Fund became the first quota fund on the U.S. Pacific Coast, with fishing rights worth about $2 million for roughly 90 species. The objective of the Fund is to support science-based fisheries management and permanent, local access and long-term viability of fishing in this small port. The Fund will annually lease rights to local fishermen who commit to meeting a triple bottom line of environmental, economic, and social benefits. Half the income from the new Morro Bay Community Quota Fund will be used for further research into sustainable fishing practices.

The MBCQF was able to acquire fishing rights (quota) with a loan from the California Fisheries Fund (CFF) and an in-kind grant from The Nature Conservancy. The CFF provides loans to fishermen, fish buyers, processors, and distributors who are dedicated to sustainability.

The Morro Bay Fund's fishing rights were originally owned by the Nature Conservancy, which since 2006 has been working with several ports along the California coast to help rebuild the recently collapsed groundfish fishery. Nine years ago, the Conservancy started buying up the permits and

18 http://www.rare.org/blog/2014/04/01/sustainable-fisheries-financing-strategies/; The Food and Agriculture Organization of the United Nations, Fisheries and Aquaculture Department. The State of World Fisheries and Aquaculture 2012. Rome. 2012.

boats of fishermen who wanted out of the business, and also worked with fishing partners to inform the implementation of an individual fishing quota (IFQ) system that the National Marine Fisheries Service designed. This new IFQ system created property rights for fishermen that can be bought, sold, or traded depending on a fisherman's desired catch.

The Nature Conservancy is working in other communities on similar models that ensure that local communities are empowered as marine resources stewards through control of fishing rights on local grounds.

EKO Asset Management Partners

EKO began working in 2013 to develop a series of products that will offer investors the opportunity to finance comprehensive fishery improvement projects (such as changing the size of nets and protecting spawning habitat), sustainable-sourcing and certification initiatives, improved supply chain infrastructure and logistics, and quota acquisitions, all of which aim to generate profit while supporting the health of wild fisheries. Returns in this investment area will be driven primarily by stock recovery, rising seafood demand and prices, price and supply volatility, and the creditworthiness of counterparties. EKO believes that these pioneering investments will help catalyze the flow of private capital into sustainable fisheries management, generating meaningful social, ecological, and financial returns for investors.

Opportunities in Aquaculture

Impact investment opportunities are also emerging in the aquaculture market.

Given the growing demand for marine protein and the limited potential for increased production from wild fisheries, aquaculture – the farming of fish, marine plant (e.g., seaweed), and shellfish products – is likely to continue to expand. Already, the sector constitutes a $125 billion-per-year industry and accounts for roughly half of global seafood production by weight.

A number of investment firms have emerged in recent years seeking to profit from the expected growth in the aquaculture sector. Some, such as Aqua-Spark, allow retail investors to invest in aquaculture enterprises committed to economic, environmental, and social sustainability. Investors participating in such funds will have the opportunity to help scale the next generation of aquaculture companies who use advanced technology and sound management to create ecologically viable sources of seafood products. Examples of sustainable aquaculture companies are emerging around the world, including Veta La Palma in Spain, which has designed a reverse pumping system to re-establish a 27,000 acre marshland habitat that serves as both a productive "free water" fish farm and the largest bird refuge in Europe.

Habitat conservation

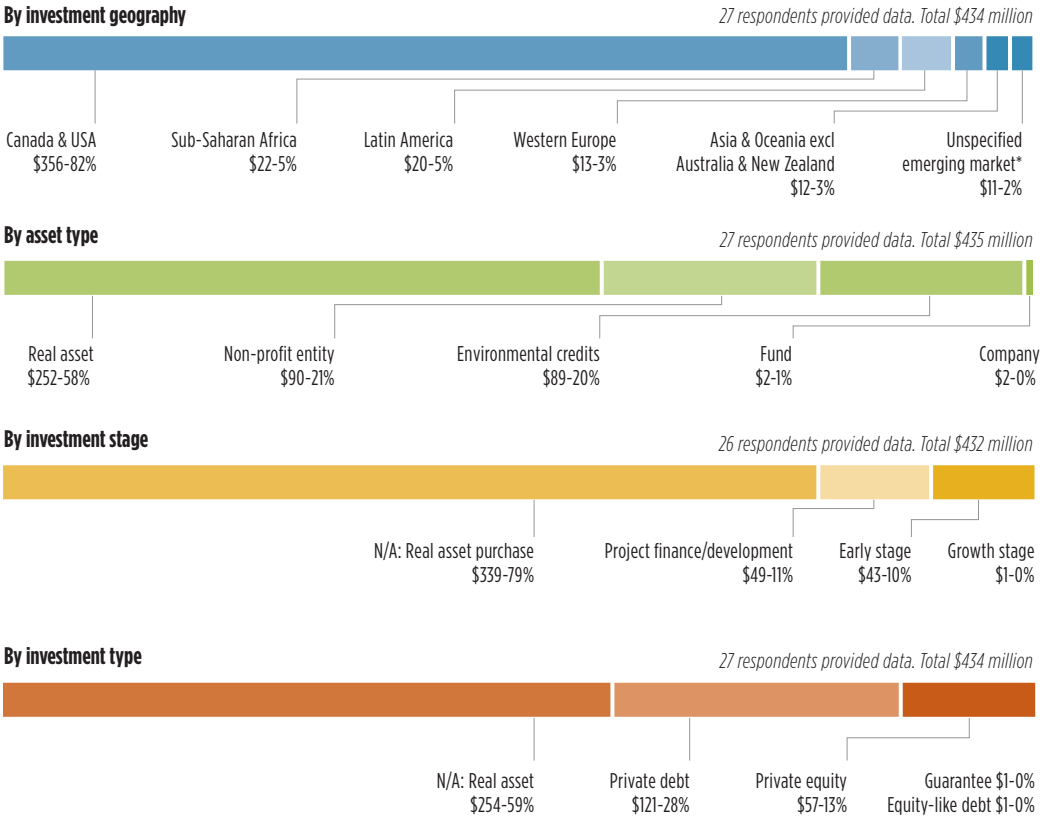
Geography: The same pattern that was evident within the sustainable food and fiber category holds true with respect to habitat conservation, with over 80% of the investments being made in the United States and Canada.

Asset Type: As was the case with sustainable food and fiber, real assets are the predominant investment type. The real asset-based transactions are mostly for developing mitigation banks and the purchase of ranches and forests for restoration purposes; some of these transactions also include the purchase of water rights and/or conservation easements. Environmental credits and non-profit entities account for nearly all of the remaining investments. Investments in a non-profit entity refer to mostly private debt made to non-profit organizations such as conservation organizations and land trusts.

Investment Stage: Real asset purchases account for nearly 80% of investment value. The remaining habitat conservation investments are distributed almost equally in project/development finance (11%) and early stage companies (10%). Project finance relates to investments provided to establish and develop projects that aim to generate REDD+ and other types of carbon credits. The early stage investment was represented by one company that sells mitigation credits. Investments in mature private companies and angel/seed stage companies are negligible and close to zero.

Investment Type: Real assets account for close to 60% of investments. Private debt and private equity account for essentially all of the remaining investments in the habitat conservation category. The private debt investments utilized for transactions, accounting for nearly 30% of the investments, primarily include loans made to conservation agencies and land trusts to help finance land acquisitions (for conservation purposes) and to projects that develop biodiversity credits. Private equity was almost exclusively used to raise capital for developing carbon (e.g., REDD+) projects.

Figure 16: Committed capital to habitat conservation, 2009-2013 ($ millions)



*"Unspecified emerging market" refers to cases where the respondent did not indicate the emerging economy in which the investment was made.
Source: EKO/TNC

Case Study: The Nature Conservancy Conservation Notes

Conservation Notes helped The Nature Conservancy diversify its capital sources while providing a new impact investment vehicle to foundations and individuals.

The Nature Conservancy developed Conservation Notes as part of an institutional strategy to broaden support for the Conservancy among the growing market of impact investors. Research released in 2010 by Hope Consulting[19] suggested that there was more than $100 billion of capital within individual households looking to invest for impact. The Conservation Notes, which are a retail investment-grade vehicle, are specifically targeted at high-net-worth individuals with an interest in impact investing for conservation.

The Conservancy issued $25 million of Conservation Notes in early 2012. The $25 million offering was the first investment-grade retail product focused on conservation. Structured as general obligation debt of the Conservancy, the Notes carry an Aa2 rating from Moody's ratings service. Sold direct with no custodian and limited sales staff, the Notes were accessible to only a small segment of the retail investor market; nevertheless, the offering was fully subscribed in less than a year. Investors responded strongly to the Conservancy brand and the confidence that proceeds from the Notes would be used to achieve conservation outcomes.

The Conservancy worked closely with the Calvert Foundation to develop and structure the Notes, and as a result they are modeled closely on the Community Investment Notes offered by Calvert. Investors are able to choose both rate and term, with an option to receive zero interest or donate the interest back to the Conservancy. The minimum investment is $25,000, and investors can choose one-, three-, or five-year notes. The interest rate, depending on the term, varies from 0% to 2%.

Most investors in the Notes are foundations, which treat the Notes as a program related investment (PRI). The David and Lucile Packard Foundation, for example, made a lead, anchor investment of $10 million early in the fundraising period. This commitment drew attention to the Notes offering. Individual investors have tended to choose the maximum available rate of return for a given term, while foundation PRI investors have chosen lower return options. Investors have the option of redeeming or reinvesting their Notes at maturity. To date, all investors have chosen to reinvest.

Proceeds from the Notes have been used to support Conservancy projects, primarily as bridge capital for land acquisitions or for conservation easement purposes in the United States. Three million dollars of Notes were used to provide a working capital loan to the Iisaak Forest Resources, a First Nations-owned company in British Columbia, Canada, to support the development and implementation of a revised sustainable forest management plan. To date, Notes proceeds have supported 105 projects and facilitated the conservation of more than 500,000 acres (over 200,000 hectares) of land.

The Conservancy believes that the Notes offer the organization a source of capital diversification and a powerful tool for engaging with retail impact investors. While the organization has no current plans to expand the offering due to its current balance sheet needs, any future Notes offering would be specifically designed to be available to a broader base of retail investors.

As a model for attracting retail investors, Conservation Notes offer a few critical attributes:

- **A creditworthy counterparty:** Investors have specifically pointed to the Conservancy's Aa2 rating on the Notes as an attractive part of the offering. Other retail debt instruments such as the Calvert Community Investment Notes have had success appealing to retail investors by employing credit enhancements such as loan-loss reserves and first-loss philanthropic capital.
- **High-impact use of proceeds:** While the Conservancy does not commit to using Notes proceeds on a particular geography or type of project, investors receive an annual Impact Report that details how proceeds have been used. All projects are focused on achieving the Conservancy's mission.
- **Shorter-duration terms:** Individual investors buying the Notes have preferred the one-year term, while institutions have been more willing to lock up capital for three or five years. Interestingly, most investors have renewed their one-year investments, some more than once.

19 http://www.rockefellerfoundation.org/media/download/4c1eee9c-b778-4f60-b2ef-27495b4549d4

Water quality and quantity conservation

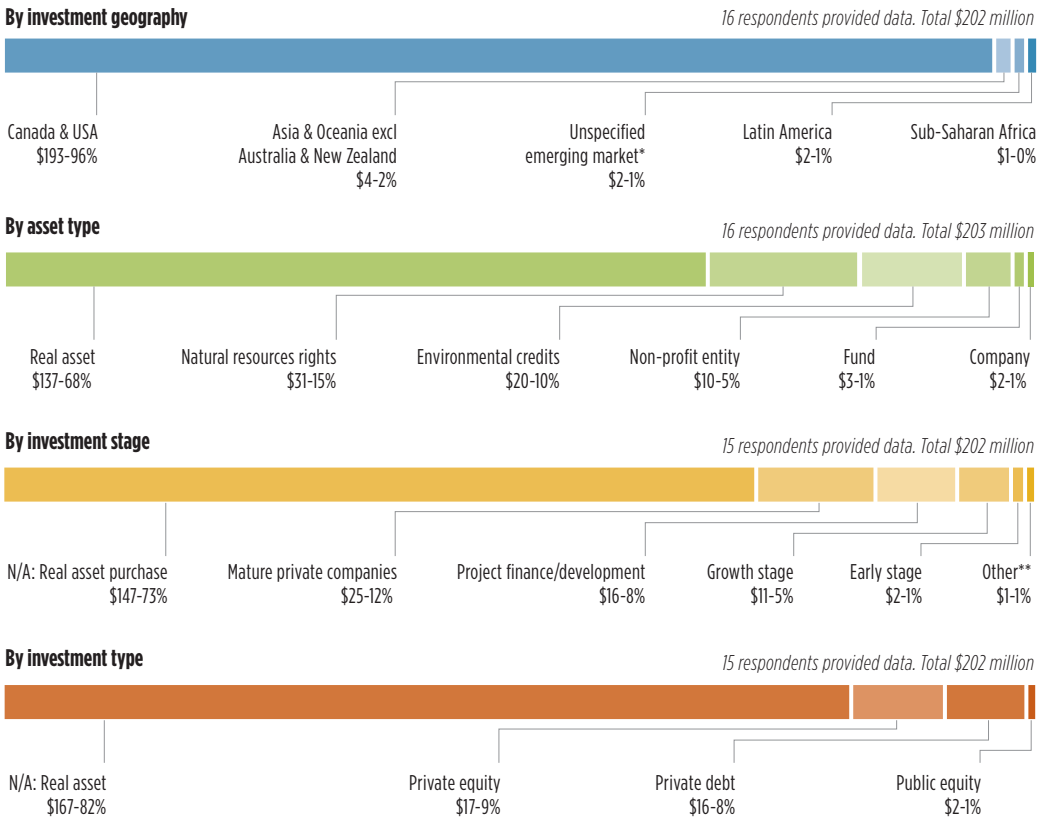
Geography: Over 95% of the recorded investments in water quantity and quality conservation were based in North America.

Asset Type: Real assets account for 68% of the investments. Real asset investments in this category include conservation easements of watersheds and aquifers and land purchases with the intention of restoring the land and water bodies that run through the property. Natural resources rights, which account for 15% of investments, are mostly water rights, while environmental credits (10%) were made up of primarily water quality and stream restoration credits.

Investment Stage: Once again, real asset purchases feature prominently, accounting for 73% of investments. Investments in mature private companies include one that produces stream restoration credits. Project finance/development funding was provided to non-profit organizations to implement watershed restoration and water cleanup programs in riparian areas.

Investment Type: Apart from the real asset transactions that account for over 80% of investments, the remaining investments are roughly split equally between private equity and private debt investments, 9% and 8% respectively. Private equity was utilized to invest in a company that produces drip irrigation for rural Asian farmers, a company that creates and sells stream restoration credits, and a private equity fund. A majority of the private debt investments were provided to non-profit organizations for water restoration projects.

Figure 17: Committed capital to water quantity & quality conservation, 2009-2013 ($ millions)



*"Unspecified emerging market" refers to cases where the respondent did not indicate the emerging economy in which the investment was made.
**"Other" refers to the purchase of water rights for river restoration purposes
Source: EKO/TNC

Case Study: Renewable Resources Group

The Renewable Resources Group acquires agricultural land and the associated water rights and puts both to higher-value uses, such as renewable energy development and urban water supply, while also advancing conservation objectives.

The Renewable Resources Group (RRG) is an asset management firm specializing in rural land, agriculture, water, conservation, and renewable energy. Since its founding in 2003, the Los Angeles-based firm has developed over 2 million acre-feet of water projects, 1.5 gigawatts of solar energy, and 840 megawatts of wind energy. It has also owned and managed over 100,000 acres of agricultural land.

Several RRG projects combine water, agriculture, and energy in innovative ways.

The Antelope Valley Water Bank and the Antelope Valley Solar Projects: These related projects began with RRG's acquisition of more than 5,000 acres of farmland in the Southern California desert – then growing alfalfa and carrots – and the associated water rights. Reducing agricultural production on the land freed up a substantial water supply. RRG developed a groundwater bank to store the water and entered into profitable water deals with urban and agricultural water users elsewhere in the state. In addition, the company pursued a major solar energy development on the property. The 579-megawatt project, now owned by MidAmerican Renewables, is scheduled for completion in late 2015 and will be among the largest solar installations in the world.

The Delta Wetlands Project: Based in California's Sacramento-San Joaquin Delta – the hub of the state's water system – this proposed project is designed to provide new water supply and habitat restoration without state or federal financing. The project would take advantage of the water storage capacity of agricultural islands in the delta that have subsided well below sea level and are ringed by levees. During high winter run-off periods, the two islands are flooded, storing up to 215,000 acre-feet of water. When water is needed during the dry season, the water could be pumped out into delta channels and sold to water users. The project also includes a permanent wildlife conservation easement on another delta island.

Photo: ©Drew Kelly

Sub-category investments by investor type

Sustainable forestry and sustainable agriculture accounts for the majority of total committed capital within sustainable food and fiber production. Direct land ownership for the purpose of land restoration and permanent conservation accounts for nearly half of the total capital committed to habitat conservation. Water rights trading represents over 60% of the total capital committed to water quantity and quality conservation investments.

Sustainable food and fiber production: Fund managers favored sustainable forestry investments, corporations invested primarily in sustainable agriculture

Sustainable forestry and sustainable agriculture represent 55% and 37%, respectively, of the total capital committed to sustainable food and fiber production in the period 2009-2013. Restoration of large landscapes sometimes also involves sustainable grazing of livestock, also a form of agriculture. Fund managers and corporations as illustrated in the following table made most of these investments.

Table 11: Committed capital by subsector and investor type – Sustainable food & fiber production ($ millions)

	Total	Fund Manager	Corporation	Foundation	Non-profit Organization	Family Office	Other
Sustainable forestry/timber	$ 710	$ 686	$ 17	$ -	$ 7	$ -	$ -
Sustainable agriculture	472	40	370	41	12	8	1
Restoration of large landscapes (grasslands, forests etc.)	91	88	0.2	-	0.4	3	-
Wild-caught fisheries	12	2	-	2	7	-	-
Other*	1	-	-	1	-	-	-
Sustainable aquaculture	1	-	-	-	1	-	-
Total	**$ 1,287**	**$ 816**	**$ 388**	**$ 44**	**$ 27**	**$ 11**	**$ 1**

** "Other" sector includes an investment to fund the operations of a new sustainable forestry fund manager.*
29 respondents provided data.
Source: EKO/TNC

Case Study: Sustainable Forestry Investors – Lyme Timber, the Global Environment Fund, and The Forestland Group

Investors in the sustainable forestry sector use a range of strategies to earn returns from forest management practices that provide for timber harvesting while preserving ecological and community services.

Sustainable forestry combines commercial timber production with management practices that preserve the many ecosystem services provided by healthy, intact forests, such as wildlife habitat, air and water quality benefits, carbon sequestration, flood control, fuel wood, and livelihoods for local communities.

Lyme Timber, the Global Environment Fund, The Forestland Group, and other sustainable forestry organizations use a range of financing techniques to conserve forests and promote sustainable forestry while also generating profits.

Lyme Timber primarily acquires timberland and has some additional ownership interests in ranchland, agricultural land, and other undeveloped properties that are threatened by development. Lyme may sell conservation easements and/or fee interests to conservation organizations, private buyers, or public agencies. The company may also sell limited timber or development rights consistent with the terms of the easements. From 2002-2014, Lyme raised over $400 million in capital and invested in more than 12 properties totaling over 693,000 acres (280,447 hectares). Lyme's current portfolio includes 525,000 acres (212,460 hectares) of forestland in 11 states. Lyme has achieved attractive financial returns while also protecting the ecological and social value of undeveloped lands. The company's working forestlands are primarily certified under the rubric of the Forest Stewardship Council (FSC).

The forestry program of the **Global Environment Fund (GEF)** invests exclusively in the developing world. A global mid-market private equity fund investing in the energy, environmental, and natural resources sectors with approximately $1 billion in assets under management, GEF has made over 10 investments in forestry companies in Africa, South America, and Southeast Asia since 2001. These investments have explicit financial and impact targets. Portfolio companies use sustainable forestry techniques, and all timber products are FSC-certified. GEF also sets aside as much as 30% of its forestry properties for the purposes of permanent conservation in order to protect and restore critical wildlife habitat. In addition, GEF collaborates with forest communities living within the boundaries of the properties they manage to create sustainable employment opportunities, helping to ensure long-term economic as well as ecological viability.

The Forestland Group (TFG), a U.S.-based timberland investment management organization (TIMO), manages approximately 3.6 million acres (nearly 1.5 million hectares) in 24 U.S. states as well as in Belize, Canada, Costa Rica, and Panama. Conservation easements exist on over 20% of TFG lands, and the firm works to develop long-term projects for improved forest management and carbon sequestration as an additional co-benefit on those lands. The firm manages its investments through a series of limited partnerships and private Real Estate Investment Trusts (REITs) with a mix of both institutional and high-net-worth investors encompassing roughly 130 different entities. TFG seeks competitive returns while maintaining and enhancing the productive capacity of the forest, focusing on naturally regenerating forest stands across a broad range of age classes and both hardwood and softwood tree species. TFG applies sustainable forest management practices that generate revenue through the sale of timber and ecosystem services while maintaining the ecological integrity of the forest ecosystem. TFG pursues FSC certification on all of the forestland it manages.

Habitat conservation: Fund managers invested in multiple subsectors, foundations primarily in direct land ownership

For fund managers, direct land ownership often means the purchase and restoration of degraded land for the preservation or creation of biodiversity habitat. For foundations, another type of investor that plays an important role in this sector, investments in land acquisition usually involve purchasing environmentally sensitive land on behalf of land trusts and other non-profit environmental groups on a temporary basis, essentially providing low-interest bridge financing for these organizations while they raise funding from other sources to acquire and conserve the land permanently.

Table 12: Commited capital by subsector and investor type – Habitat conservation ($ millions)

	Total	Fund manager	Foundation	Corporation	Non-profit organization	Other	Family office
Direct land ownership	$ 184	$ 54	$ 94	$ 15	$ 3	$ -	$ 18
Mitigation banking	100	66	-	3	-	30	2
Land easements	91	67	2	-	22	-	-
Other land-based funding mechanisms such as REDD+	58	37	-	19	1	-	-
Other*	1	-	1	-	-	-	-
Total	**$ 434**	**$ 224**	**$ 97**	**$ 37**	**$ 26**	**$ 30**	**$ 20**

** "Other" sector includes loans to support park renovation and debt to help implement strategies to decrease wildlife mortality.*
27 respondents provided data.
Source: EKO/TNC

Water quantity and quality conservation: Family offices and corporations invest in water rights trading, fund managers in watershed protection

Water rights trading represents 61% of the total capital committed to water quantity and quality conservation investments in the period 2009-2013. According to the survey data that we collected, these water rights investments were made primarily by family offices and corporations.

Apart from water rights trading, our survey found relatively little activity in other types of water quantity and quality investments in 2009-2013. Most of the reported investments in watershed protection (the $44 million committed by fund managers) consist of forestry or agriculture projects

that also have a watershed benefit; they are not primarily investments in watershed protection. As discussed in the Methodology section, if a reported investment had impacts in more than one conservation category, we asked survey respondents to use their judgment to apportion the value of the investment among categories.

Only one survey respondent – a non-profit organization – reported investments with watershed benefits as the primary objective.

Table 13: Commited capital by subsector and investor type – Water quantity & quality conservation ($ millions)

	Total	Family office	Fund manager	Corporation	Other	Foundation	Non-profit organization
Water rights trading	$ 123	$ 91	$ 1	$ 30	$ -	$ 1	$ -
Watershed protection	52	-	44	2	-	-	6
Water credits trading (e.g., water temperature, quality)	20	-	-	-	15	5	-
Other*	7	-	4	0.3	-	2	-
Total	**$ 202**	**$ 91**	**$ 49**	**$ 32**	**$ 15**	**$ 8**	**$ 6**

** "Other" sector includes investments such as rain barrel loan programs for water conservation in Africa and replacing flood irrigation with drip irrigation in Asia.*
16 respondents provided data.
Source: EKO/TNC

A note on private investments in water quantity and quality conservation

By excluding water infrastructure investments, we limited the types of private investments included in the 2009-2013 period to a small pool, of which water rights trading accounts for over 60% of our recorded transactions. We recognize that the main motivation behind investors buying and selling water rights is for financial gain; however, we believe that these trades also lead to more efficient water use overall. We are certain that the actual size of the water rights trading market is much larger than what we presented here, as multiple investment firms in the sector invest in water rights. More efforts could be made to collect data on this sector in future studies.

The lack of reported private investment in water conservation, at least in the United States, can be partially explained by the highly fragmented water industry: Each state has its own (often complicated) water rights rules and regulations, and water utilities are managed by different municipalities, often making it difficult for new private water investments to achieve scale. Additionally, most investments that tackle water and wastewater issues are often made by the utilities themselves and not by the types of investors who participated in our study. There is also a perception in some regions that capital raised for water investments, whether through bonds or taxes, should not result in a large financial gain because water is a public good. Unlike farmland in developed countries, which is largely owned by private actors, making a profit out of water can lead to political controversies, which can turn potential investors off of some of the large-scale water projects that attract public attention, such as water banking. (Water technology investments are less controversial, but they were excluded from this study.)

Separately, corporations, such as beverage companies, have in the past invested capital to protect or improve the quality of their water sources, often in developing countries. However, the financial return from these types of corporate investments is difficult to measure since the investments may not be made purely for financial reasons (e.g., there is often an element of CSR and positive branding involved), or the ultimate financial benefits may only be observed over long periods of time and can be difficult to quantify.

Because of the various reasons listed above, as our survey results show, most of the water quantity and quality conservation investments to date have been backed by the public sector, DFIs (as illustrated by the $15 billion of water-related investments noted earlier) and to some extent, foundations and non-profit organizations. It is not too surprising, then, that several of our interviewees raised the issue of a lack of investable deals in the water conservation sector. Without adequate financial incentives, we believe the private sector investors would find it challenging to justify the risks involved with investing in non-technology related water conservation investments. The exception is regarding investments in water rights trading, for which we know that the actual funds raised and invested by the private sector are much higher than the $123 million we were able to report on in this report.

Case Study: The Freshwater Trust

In the U.S. Pacific Northwest, The Freshwater Trust is pioneering the use of water quality trading to facilitate the restoration of rivers and streams.

Since 1983 The Freshwater Trust (TFT) has worked to improve Oregon's rivers and streams, primarily by restoration work in high-priority watersheds. However, several years ago it became clear that focused restoration efforts would not achieve meaningful impact levels quickly enough to ensure the health of the region's ecosystems.

Streams across the United States are often too warm to support healthy ecosystems. This problem stems from a lack of streamside shade as well as warm-water discharges from factories, power plants, wastewater treatment facilities, and other sources. Regulatory agencies responsible for protecting water quality require entities to either cool water before releasing it into waterways or take action to offset the impact of the warm-water discharge, for instance by funding stream restoration.

TFT and its partners are demonstrating a regulatory market for water temperature credits in Oregon that is attractive to buyers and sellers and harnesses investments in a way that drives measurable ecological gain. Historically, warm-water dischargers that needed to comply with regulatory standards would typically pursue mechanical solutions, which generally meant building and operating an expensive streamside cooling tower or chiller.

Over the last seven years, TFT has worked with the Willamette Partnership and numerous other organizations, agencies, and regulators to scientifically demonstrate and quantify the water temperature benefits that stream restoration – such as plantings of trees and shrubs to increase shading – can provide. Regulators now approve streamside tree and shrub plantings as a way to meet temperature compliance requirements. The amount by which a tree's shade reduces the sun's impact on a river or stream – an ecosystem service – can now be quantified into a credit that can be purchased by regulated entities to gain regulatory compliance.

In 2013 the Gordon and Betty Moore Foundation, the David and Lucile Packard Foundation, and the Kresge Foundation made a joint $5 million program-related investment (PRI) to provide needed growth capital for TFT's water quality trading program. This commitment will allow TFT to significantly scale-up its efforts in a manner that will allow it to stay focused on creating conservation impact, rather than any profit pressure that would accompany commercial investment.

Water quality trading programs, and other environmental markets, have emerged as a way to engage powerful economic engines for the net benefit of the environment. Given the magnitude of investment needed to comply with regulations such as the Clean Water Act, redirecting even a portion of these dollars to restoration dramatically increases the pace and scale of conservation across the landscape. With its focus on quantified conservation outcomes and water quality trading, The Freshwater Trust is one example of how conservation finance can harness market forces for proven environmental gain.

Photo: ©Ami Vitale

Private investment in developed and emerging markets

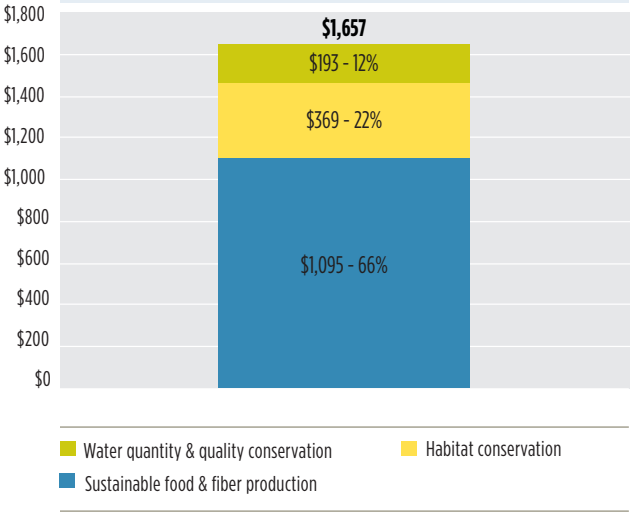
82% of private investments in 2009-2013 were based in North America; Two large investors are poised to enter the emerging market

Most of the private investments reported in the survey were made in projects located in the United States and Canada ($1.6 billion, 82%). This result, again, is likely influenced by the geographic bias of the survey sample.

However, we note that two new private fund managers in the survey group have raised nearly $600 million to make sustainable food and fiber and habitat conservation investments in emerging markets, respectively, and that these funds had not yet been deployed as of the end of 2013. If those funds had been invested within the timeframe of our study, these two investors would have been on our list of the ten largest investors and the total recorded amount of investments in emerging markets would have been much larger. In both instances these investors received at least some investments from DFIs, signaling the crucial role multilateral and bilateral organizations can play in helping attract private conservation impact investments in emerging economies.

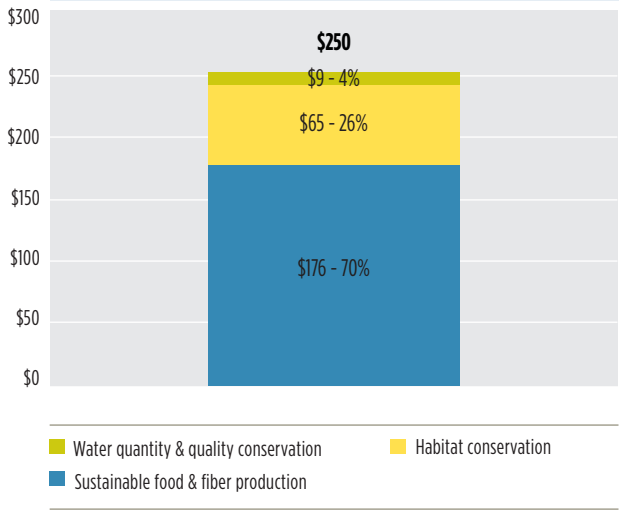
In comparing the amount of capital committed to each of the three conservation categories divided between developed and emerging markets, we see that sustainable food and fiber production is predominant for both, followed by habitat conservation, with roughly equal percentage distributions of investments. The key distinction between the two markets is the very small percentage of commitments made in emerging markets to water quantity and quality conservation.

Figure 18: Capital committed by category, 2009-2013 – Developed markets ($ millions)



30 respondents provided data. Source: EKO/TNC

Figure 19: Capital committed by category, 2009-2013 – Emerging markets ($ millions)



20 respondents provided data. Source: EKO/TNC

Case Study: Althelia Climate Fund

Althelia leverages local partners and public-private partnerships to invest in habitat conservation and sustainable land management in emerging markets.

Althelia Climate Fund is a European specialized investment fund launched in 2013. The fund targets landscape-scale projects that support forest conservation and sustainable land use in Latin America, Africa, and, to a smaller extent, Southeast Asia. Althelia has raised over €80 million ($105 million) and is targeting a total fund size of €150 million ($204 million).

Althelia projects generate environmental assets – such as carbon credits and certified commodities – and produce a market-rate return for investors. The fund made its first investment in February 2014, in the Taita Hills Conservation and Sustainable Land Use Project in southeastern Kenya. The project, implemented by impact-first corporation Wildlife Works, is expected to cover more than 200,000 hectares (over 490,000 acres) of natural forest and savannah grassland ecosystems. This parcel is adjacent to 225,000 hectares (over 550,000 acres) of forest validated to a land-use methodology accredited under the Verified Carbon Standard (VCS) and Climate, Community, and Biodiversity (CCB) Standards where Wildlife Works currently operates. The Taita Hills project aims to protect standing forest and grasslands through improved agriculture and agroforestry and better grasslands management. It also will serve as a migration corridor for threatened wildlife throughout the existing conservation area operated by Wildlife Works, as well as other local areas. Long-term income is expected to be generated from the sale of REDD+ credits and, eventually, products such as certified sustainable charcoal.

By leaving project development to local organizations with a track record of working with local communities and jurisdictions, Althelia diminishes the risks associated with the project implementation phase and empowers local partners to identify the strongest drivers for land-use change at the project level.

The structure of the Taita Hills investment, $10 million spread over eight years, illustrates the extended time horizon that conservation projects often require to achieve the desired levels of impact and profitability. It also provides financing stability.

Althelia is leveraging public funds as well. In May 2014, the U.S. Agency for International Development (USAID) agreed to provide over $130 million in loan guarantees to encourage private lenders operating in local markets to extend financing to businesses – such as ecotourism and agroforestry – associated with underlying Althelia projects.[20]

Althelia has developed a set of standards to systematically assess investment impact across its portfolio – the Althelia Climate Fund Environmental, Social, and Governance Standards (the Althelia ESG Standards). Some of these key performance indicators (KPIs) are applied across Althelia's entire portfolio, while others are region and/or project-specific (for example, focused on a certain problem, like reducing wildlife poaching, a high risk in areas like Taita). The Althelia ESG Standards are based primarily on principles derived from the International Finance Corporation's Performance Standards on Environmental and Social Sustainability (2012) and the EIB (European Investment Bank) Statement of Environmental and Social Principles and Standards (2009). KPIs for each project are agreed upon with local partners and investees before an investment is made, with the expectation that the standards will evolve and be refined as the project progresses – in effect serving as part of an adaptive management system. In addition to these impact assessments, performed by local partners and Althelia's own monitoring team, the environmental assets generated by projects, such as carbon and agricultural commodities, are audited and certified by third parties following CCB, VCS, and other protocols.

Althelia believes that its innovations and successes in conservation impact investing will help to build credibility for the sector as a whole and attract additional private capital to climate, sustainable development, and conservation. "Delivering [results] on sustainable land use is not always straightforward," said Managing Partner Christian Del Valle. "[That is why] it has not happened already at scale."

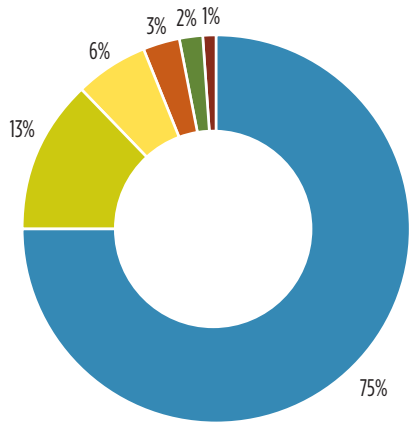
20 http://www.usaid.gov/news-information/press-releases/may-28-2014-us-government-althelia-climate-fund-mobilize-1338-million-forest-conservation

Asset type: Real assets accounted for 75% of developed-market deals but make up only 6% of emerging-market investments; Over half (59%) of emerging-market deals are investments in companies

Real assets dominated conservation investments by asset type in the developed markets (75% of the developed-market total). In contrast, real asset investments in emerging markets only totaled $14 million or 6% of total reported capital committed in those markets. One factor driving this difference could be investors' concerns about property rights and weak legal enforcement in emerging markets, both of which can affect the long-term risk profile and value of real assets. This latter point was borne out by the interview data where investors active in emerging markets voiced concerns about the challenges they faced with uneven application of in-country policies and regulations. Another issue that affects investments in this category is the fact that the structures necessary to make investments in environmental credits or environmental stewardship (e.g., carbon credits, water quality credits, or conservation easements) may not be adequately developed in developing countries.

For emerging markets, a majority of the investments (59%) were placed into companies – specifically companies in the forestry and agricultural sectors. Investments in environmental credits mostly pertain to projects that develop REDD+ and other similar forestry carbon-related credits on land that these investors do not own.

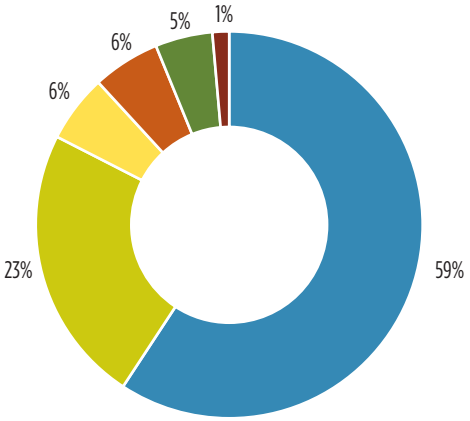
Figure 20: Committed capital by asset type, 2009-2013 – Developed markets ($ millions)



Real asset	$1,245
Company	218
Non-profit entity	97
Environmental credits	55
Natural resources rights	31
Fund	11
Total	**$1,657**

30 respondents provided data. Source: EKO/TNC

Figure 21: Committed capital by asset type, 2009-2013 – Emerging markets ($ millions)



Company	$149
Environmental credits	58
Fund	14
Real asset	14
Natural resources rights	12
Non-profit entity	4
Total	**$251**

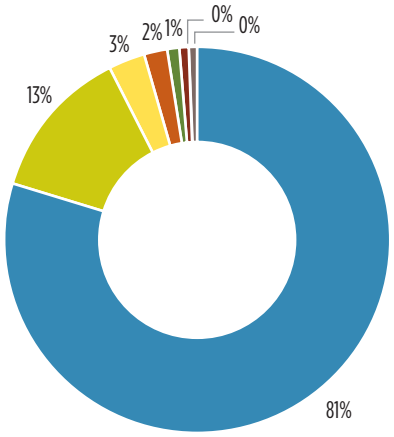
20 respondents provided data. Source: EKO/TNC

Investment stage: In emerging markets, a balance of mature companies, growth stage companies, and project finance and development

In emerging economies, investments broken down by investment stage were divided relatively evenly among mature companies (37%), project finance and development (28%), and growth stage companies (23%). The mature private company investments were exclusively in sustainable forestry enterprises, while project finance/development investments were primarily in REDD+ and other carbon-related projects, and growth stage investments were mostly in agricultural companies in Latin America.

In developed markets, real asset purchases accounted for 81% of the total, followed by investments in mature private companies (13%).

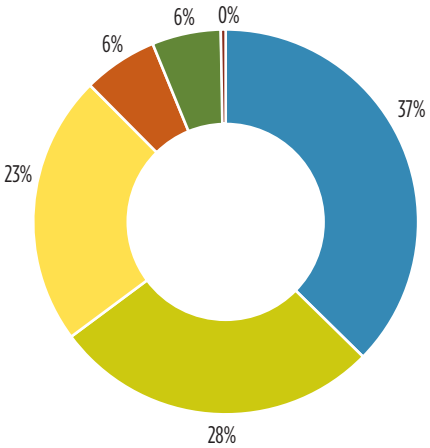
Figure 22: Committed capital by investment stage, 2009-2013 – Developed markets ($ millions)



N/A: real asset purchase	$1,342
Mature private companies	217
Early stage	42
Project finance/development	26
Growth stage	26
Angel/Seed stage	1
Other	1
Total	**$1,655**

29 respondents provided data. Source: EKO/TNC

Figure 23: Committed capital by investment stage, 2009-2013 – Emerging markets ($ millions)



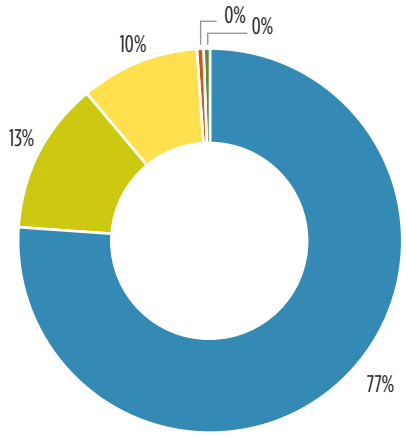
Mature private companies	$91
Project finance/development	67
Growth stage	56
Early stage	15
N/A: real asset purchase	14
Angel/Seed stage	1
Total	**$244**

19 respondents provided data. Source: EKO/TNC

Investment type: Private equity accounts for 70% of investment in emerging markets but 13% in developed markets

In developed markets, real assets accounted for the large majority (77%) of deals, followed by private equity (13%) and private debt (10%). In emerging markets, private equity predominated, accounting for 70% of investments. Private debt accounted for 16% of emerging-market deals, followed by equity-like debt (7%) and real assets (6%).

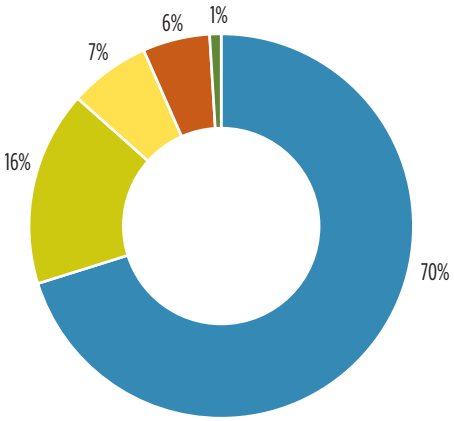
Figure 24: Committed capital by investment type, 2009-2013 – Developed markets ($ millions)



N/A: real asset	$1,277
Private equity	219
Private debt	160
Guarantee	1
Equity-like debt	1
Total	**$1,658**

30 respondents provided data. Source: EKO/TNC

Figure 25: Committed capital by investment type, 2009-2013 – Emerging markets ($ millions)



Private equity	$176
Private debt	41
Equity-like debt	17
N/A: real asset	14
Public equity	2
Total	**$250**

20 respondents provided data. Source: EKO/TNC

Projected financial return on private investments

We collected data from 39 respondents regarding the projected internal rate of return (IRR) for $1.3 billion of investments. With this data, we calculated the aggregated (or pooled) average IRR range based on committed capital using a weighted average formula.

Target IRR averaged 5-9.9% across all investment types

Across all investment types, the investments have a target IRR range of 5-9.9%, with private equity having the highest target of 10-14.9% IRR. Given their perceived lower risk, investments in guarantees (in this instance, the guarantee is provided by an investor to purchase forestry carbon credits from a project developer once they are verified) and private debt have a lower IRR than investments in equity-like debt (e.g., mezzanine or convertible debt), real assets, and public and private equity.

Table 14: Target IRR by investment type

	IRR range	Reported investments ($ millions)
Guarantee	0-4.9% IRR	$ 1
Private debt	0-4.9% IRR	201
Equity-like debt	5-9.9% IRR	18
N/A: real asset	5-9.9% IRR	711
Public equity	5-9.9% IRR	2
Private equity	10-14.9% IRR	383
Overall	**5-9.9% IRR**	**$ 1,316**

39 respondents reported data.
Source: EKO/TNC

The reported figures are predominantly made up of investments in real assets (54%), private equity (29%), and private debt (15%) investments; the remaining investment types, namely guarantees, equity-like debt, and public equity, each account for less than 1% of the reported data containing IRR information.

In addition, respondents managing 45% of the real asset investments by committed capital did not report their target IRR, which may have skewed the results. Many private fund managers in particular opted not to provide information on return expectations, which they see as sensitive and commercially valuable information.

However, more than 90% of the investors in private equity and private debt in developed and emerging markets reported IRR figures. These investors account for $583 million (31%) of the $1.9 billion in private investments in 2009-2013 reported in our survey.

In Table 15 below, we compare the weighted average target IRR figures reported by our private equity and private debt investors with a set of benchmark figures for the broader impact investing sector (including many investment sectors outside of conservation) published in a 2011 study by by J.P. Morgan and GIIN.[21] As the table shows, the private equity target returns reported in this study are somewhat less (10-14%) than the benchmark figures (19% for developed markets, 18% for emerging markets). For private debt, our target IRR averages are in the same range as the J.P. Morgan-GIIN figures for developed markets, but lower for emerging markets (0-4.9% for this study versus 9% for the benchmark).

While this benchmark comparison is imperfect – the vintage years for the investments reported in this study (2009-2013) differ significantly from the J.P. Morgan-GIIN study (1990-2011), and the sample sizes for this report, particularly for emerging market private debt, are small – it does provide a starting point for discussion.

21 Saltuk et al, 2011. Page 13.

Table 15: Target IRR for private equity and private debt investments

	Private equity		Private debt	
Investor	**Developed market**	**Emerging market**	**Developed market**	**Emerging market**
J.P. Morgan & GIIN 2011 study	19%	18%	4%	9%
Survey respondents' target IRR	10-14.9% IRR	10-14.9% IRR	0-4.9% IRR	0-4.9% IRR
Reported investments ($ millions)	$219	$164	$160	$41
Number of respondents provided data	8	11	13	6

Source: EKO/TNC

Target IRR is similar across conservation sectors

Using a weighted average calculation, we also analyzed the investors' target IRR for each conservation category by investment type, as presented below. We appreciate that the results are only indicative since our data set is limited by the number of respondents who shared their IRR information. For example, we have IRR data on only one equity-like debt investment in the habitat conservation category.

Table 16: Weighted average target IRR by investment type – Sustainable food & fiber production

	IRR range	Reported investments ($ millions)
Private debt	0-4.9% IRR	$ 64
Equity-like debt	5-9.9% IRR	17
N/A: real asset	5-9.9% IRR	350
Private equity	10-14.9% IRR	308
Overall	**5-9.9% IRR**	**$ 739**

26 respondents reported data.
Source: EKO/TNC

Table 17: Weighted average target IRR by investment type – Habitat conservation

	IRR range	Reported investments ($ millions)
Guarantee	0-4.9% IRR	$ 1
Private debt	0-4.9% IRR	121
N/A: real asset	5-9.9% IRR	195
Equity-like debt	10-14.9% IRR	1
Private equity	10-14.9% IRR	57
Overall	**5-9.9% IRR**	**$ 375**

25 respondents reported data.
Source: EKO/TNC

Table 18: Weighted average target IRR by investment type – Water quantity & quality conservation

	IRR range	Reported investments ($ millions)
Private debt	0-4.9% IRR	$ 16
N/A: real asset	5-9.9% IRR	167
Public equity	5-9.9% IRR	2
Private equity	10-14.9% IRR	17
Overall	**5-9.9% IRR**	**$ 202**

16 respondents reported data.
Source: EKO/TNC

Investor type: Non-profits, foundations, and family offices target lower IRR than fund managers and corporations

Non-profit organizations, foundations, and family offices targeted a lower return than other investor groups (0-4.9%). Blended IRR in the chart below refers to IRR blended across all investment types.

Corporations, as an investor group, reported the highest IRR target. Indeed, a majority of the investments that target an IRR range of 15-25% and above 25% were made by corporations. We should note, however, that some of these corporations are in fact investment companies that are legally structured as corporations but with business functions similar to an investment fund.

Table 19: Blended target IRR by investor type

	IRR range	Reported investments ($ millions)
Non-profit organization	0-4.9% IRR	$ 60
Foundation	0-4.9% IRR	135
Family office	0-4.9% IRR	121
Other	5-9.9% IRR	46
Fund manager	5-9.9% IRR	509
Corporation	10-14.9% IRR	446
Overall	**5-9.9% IRR**	**$ 1,317**

39 respondents reported data.
Source: EKO/TNC

Geography: Some emerging market investments have higher IRR targets than developed markets

It is hard for us to draw any major conclusions on the target return of investments based on geography (blended across all investment types). As we've noted before, most of the information we collected pertains to investments made in the United States. However, it seems logical to us that investments in Sub-Saharan Africa are targeting a higher return than those in other more developed markets such as Canada and the United States, given the risk profile of these investments.

Table 20: Blended target IRR by investment geography

	IRR range	Reported investments ($ millions)
Western Europe	0-4.9% IRR	$ 13
Asia & Oceania, excl. Australia & New Zealand	5-9.9% IRR	16
Australia & New Zealand	5-9.9% IRR	75
Latin America	5-9.9% IRR	59
Canada & USA	5-9.9% IRR	990
Sub-Saharan Africa	10-14.9% IRR	141
Unspecified emerging market*	10-14.9% IRR	22
Overall	**5-9.9% IRR**	**$ 1,316**

** Refers to cases where the respondent did not indicate the emerging economy in which the investment was made*
39 respondents reported data.
Source: EKO/TNC

Asset type: Investments in environmental credits and natural resources rights target the highest IRR, though the data set is small

Of the different asset types, investments in non-profit entities and funds have the lowest target return. Investments in non-profit entities usually entail providing a low or below-market loan to non-profit organizations. For fund investments, the low target return range could be due to the fact that the fund investors reported their expected net return, calculated after the consideration of the underlying funds' management and performance fees. At the same time, we note that fund and natural resources rights each only comprise 2% of the investments for which we have IRR data, so conclusions about these two asset types are provisional.

Table 21: Blended target IRR by asset type

	IRR range	Reported investments ($ millions)
Non-profit entity	0-4.9% IRR	$ 100
Fund	0-4.9% IRR	25
Real asset	5-9.9% IRR	679
Company	5-9.9% IRR	366
Environmental credits	10-14.9% IRR	114
Natural resources rights	10-14.9% IRR	31
Overall	**5-9.9% IRR**	**$ 1,315**

39 respondents reported data.
Source: EKO/TNC

Investment stage: Targeting 10-14.9% IRR for investments in mature private companies

The investments for which we have IRR data are heavily skewed towards real asset purchase and mature private companies. We caution that the "angel/seed stage", "other," and "early stage" investments each account for less than 5% of the total amount of investments for which we received IRR data.

Table 22: Blended target IRR by investment stage

	IRR range	Reported investments ($ millions)
Angel/Seed stage	0-4.9% IRR	$ 2
Growth stage	0-4.9% IRR	81
Other*	0-4.9% IRR	1
Project finance/development	5-9.9% IRR	81
Early stage	5-9.9% IRR	58
N/A: real asset purchase	5-9.9% IRR	776
Mature private companies	10-14.9% IRR	308
Overall	**5-9.9% IRR**	**$ 1,307**

** "Other" above refers to the purchase of water rights.*
38 respondents reported data.
Source: EKO/TNC

Realized IRR by conservation category: Not-for-profit investors meeting return expectations while for-profit investors exceeding them, but data is limited

Only $94 million, or 5%, of the total conservation impact investments captured by our survey were reported as exited at the time of the survey. These realized investments generated a 0-4.9% IRR (on a weighted average basis). The actual total of such investments is likely greater than $94 million, since not all respondents provided us with information on whether or not their investments had been exited.

A majority of the realized investments (91% or $86 million) were made by not-for-profit institutions, specifically foundations and NGOs, and returned 0-4.9% IRR, essentially meeting the return expectations indicated by these investors in the "Blended target IRR by investor type" analysis shown earlier. The remaining 9%, or $8 million, of the realized investments were made by for-profit investors, specifically fund managers and corporations; interestingly, all of their realized investments generated an IRR of above 25%, so far exceeding the return expectations these investors reported. We note, however, that for-profit investors tend to be more sensitive about sharing realized IRR data, particularly if those IRRs are below expectations; this can bias the return data from funds and corporations.

Table 23: Blended realized IRR by category

	IRR range	Reported investments ($ millions)
Sustainable food & fiber production	0-4.9% IRR	$ 36
Habitat conservation	0-4.9% IRR	56
Water quantity & quality conservation	5-9.9% IRR	3
Overall	**0-4.9% IRR**	**$ 95**

9 respondents reported data.
Source: EKO/TNC

Change in conservation impact investment, 2004-2008 vs. 2009-2013

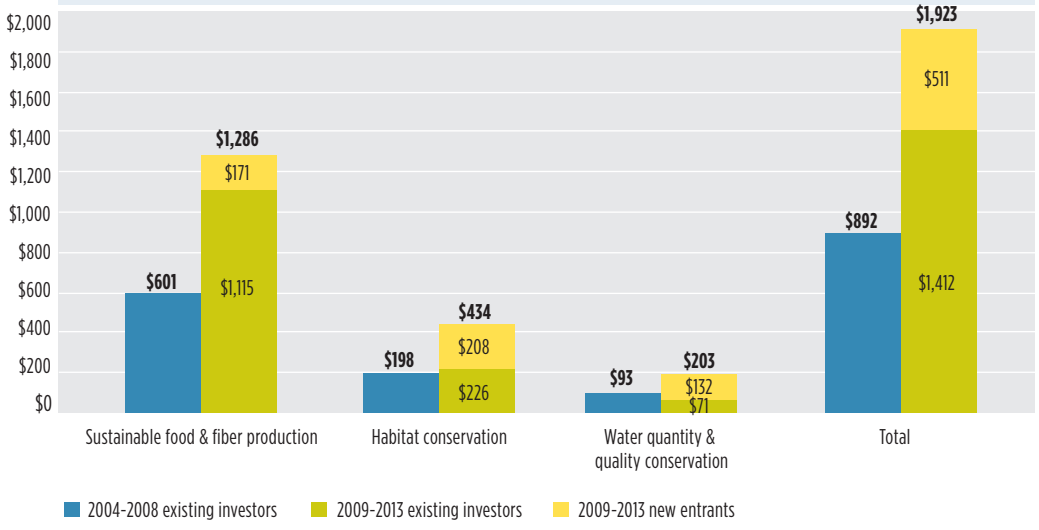
Distribution of capital commitments changed little across the three conservation categories

Based on our survey data, the percentage distribution of total commitments made to the three conservation categories in 2004-2008 is very similar to that of 2009-2013: two-thirds for sustainable food and fiber, 22-23% for habitat conservation, and 11% for water quantity and quality conservation.

Conservation investments grew by $1 billion, including $511 million from new entrants

The same private investors who committed $892 million to conservation in the period 2004-2008 reported that they made a total commitment of $1.4 billion in the period 2009-2013, or approximately 73% of the total $1.9 billion of committed capital reported in our survey. The additional $511 million represents investors who made conservation impact investments for the first time in the 2009-2013 period.

Figure 26: Private committed capital by category, 2004-2008 vs. 2009-2013 ($ millions)



18 respondents provided data as 2004-2008 and 2009-2013 existing investors; 25 respondents provided data as 2009-2013 new entrants.
Source: EKO/TNC

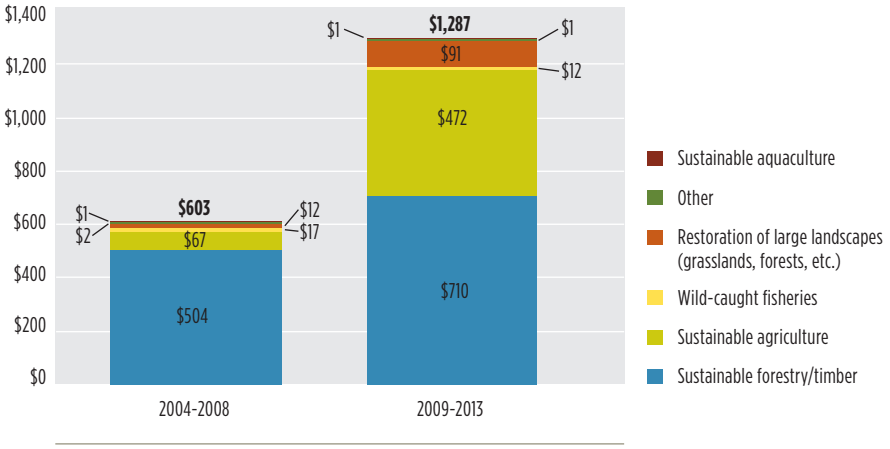
Thus, overall growth in private sector investment was spread roughly evenly between increased investment from existing participants in the market (an increase of $520 million) and investments by new entrants ($511 million).

Sustainable food and fiber production: Sustainable agriculture commitments increased more than 600%; Wild-caught fishery commitments shrank

In sustainable food and fiber production, the investment amount in sustainable agriculture has grown more than 600%, from $67 million in 2004-2008 to $472 million in 2009-2013. This substantial growth includes both investors who increased their commitments to agricultural investments across the two periods and investors who entered this sector for the first time in the 2009-2013 period. Restoration

of large landscapes, which is often linked to livestock production, also saw similarly significant growth. Sustainable forestry and timber grew as well, from $504 million to $710 million across the same periods but lost market share due to the rapid growth of sustainable agriculture investments. By contrast, investment in wild-caught fisheries decreased considerably.

Figure 27: Private committed capital by subsector, 2004-2008 vs. 2009-2013 – Sustainable food & fiber production ($ millions)



12 respondents provided data for 2004-2008; 29 respondents provided data for 2009-2013.
Source: EKO/TNC

Case Study: Farmland LP

Farmland LP buys conventional farmland, converts it to organic, and partners with farmers and ranchers to manage the land sustainably while raising premium livestock and crops.

San Francisco-based Farmland LP is a real estate fund that acquires conventional farmland and converts it to sustainably managed organic farmland. The firm's mission is to produce healthy food in an environmentally sustainable way and demonstrate to investors that organic agriculture, at scale, can be more profitable than chemical-dependent commodity agriculture. The fund owns 6,750 acres of farmland near cities in Northern California and Oregon.

Farmland LP manages its land with ecologically sound rotations of pastures and crops. Biologically diverse pastures on two-thirds of land build soil fertility by drawing nitrogen into the soil and producing deep and highly structured root systems. By increasing fertility and restoring ecosystem function, the pasture rotations eliminate the need for synthetic fertilizers and pesticides, bringing environmental benefits both to the farms and surrounding ecosystems, including increased biodiversity, reduced pollutants in surface and groundwater, and reduced impacts on riparian habitat. Cattle, sheep, and other livestock graze the pastures in a coordinated system that has been shown to increase forage and meat production per acre.

After four to seven years in pasture, a field will have stored enough nutrients to be planted in specialty crops, such as organic squash or oats. And after two or three years in specialty crops, the field can be replanted in pasture to continue the process of building fertility. Such a cycle of pasture-vegetables-grains-pasture improves productivity, fertility, and water retention in the soil. Farmland LP tracks the impacts of these agriculture practices by measuring tons of fertilizer and pesticides avoided and quantities of food produced, as well as jobs created compared with conventional agricultural operations.

The animals that graze on Farmland LP properties are owned and managed by carefully selected local farmers and ranchers, who pay rent or share a portion of the proceeds from their livestock sales. This arrangement gives local farmers and ranchers access to certified organic land while providing Farmland LP with revenue streams and partners in land management. The firm currently has 21 tenants, including Bill Niman, founder of natural meat company Niman Ranch, who also serves as Livestock Advisor for the fund.

Farmland LP generates income from both land rents and revenue-sharing leases. In addition, its assets are backed by the land, which is expected to appreciate in value as organic farming enhances soil fertility and as high-quality farmland becomes scarcer over time.

Farmland LP's first fund acquired $50 million of farmland by raising equity from approximately 100 high-net-worth investors. The 30-year fund allows investors the option to redeem their interests starting in year three and targets a net annual return of 12% from cash flow and land appreciation. Given its business model, Farmland LP believes that financial gains and conservation impact go hand in hand — there's no need for a tradeoff. As Managing Director Craig Wichner explains, "The benefits come from having a long-term versus short-term perspective, and by looking at farmland as a multi-year, multi-farmer cycle, we create value."

Farmland LP is currently raising a second fund, a $250-million private REIT (real estate investment trust). The plan is to take the REIT public as soon as revenues and distributions reach a sufficient scale. The REIT will continue to invest in Oregon and California, and the management team will also assess opportunities in other major metropolitan areas across the United States.

Farmland LP is exploring additional ways that impact investors can deploy capital to support sustainable agriculture, such as by helping farmers acquire livestock. When some of Farmland LP's tenants were confronted with this challenge, the firm created Vitality Farms, a company that buys livestock to help some of its tenants realize economies of scale. To date, Vitality Farms has raised $2 million through 6% loan notes from individuals, but it is looking for a larger-scale way to raise additional capital. The company sees existing need for at least $10 million, and much more once the REIT is raised, in order to help livestock farmers scale up their businesses. The firm is also working to involve impact investors in the entire farm-to-table supply chain, such as by helping develop young farmers who are committed to sustainable agriculture and by investing in value-added infrastructure (e.g., refrigeration and processing facilities).

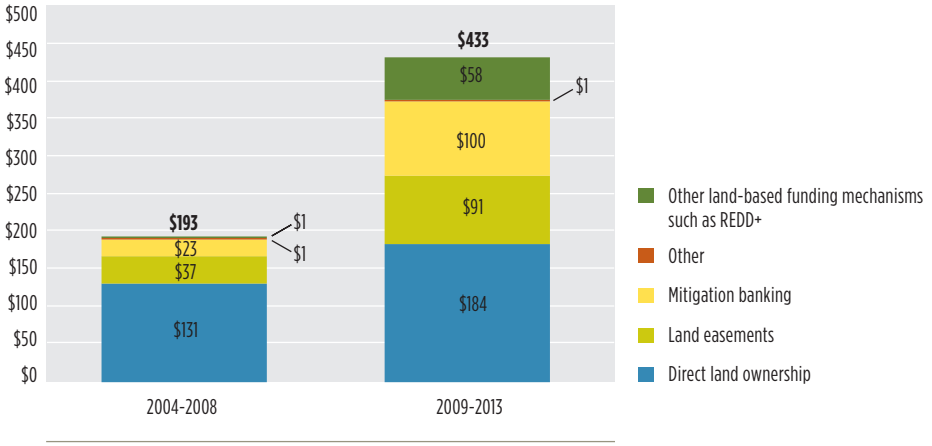
With the U.S. market for organic and natural food reaching $80 billion and citizens in metropolitan areas increasingly demanding healthy and organic food, the Farmland LP business model appears to be highly scalable, especially given the capital-intensive nature of a land-owning business. Wichner says the firm could deploy $2-3 billion across the United States converting farmland to organic practices and still not significantly impact the way local food markets currently operate. If this is true, it means institutional investors who traditionally prefer to deploy large sums of capital can also participate and invest in the sustainable agriculture movement in the United States.

Farmland LP's innovative model has garnered wide praise. For two years in a row since 2013, it has been named by B Corp as one of the world's 92 "Best for the World" companies for creating the most positive environmental and social impact. *Fast Company* named the firm as one of the World's 50 Most Innovative Companies in 2014.

Habitat conservation: Mitigation banking, land-based funding mechanisms experienced the most growth

Habitat conservation investments in 2009-2013 have become more diversified, in particular with mitigation banking and other land-based funding mechanisms such as REDD+, both of which saw significant growth and accounted for a larger share than in the 2004-2008 period.

Figure 28: Private committed capital by subsector, 2004-2008 vs. 2009-2013 – Habitat conservation ($ millions)

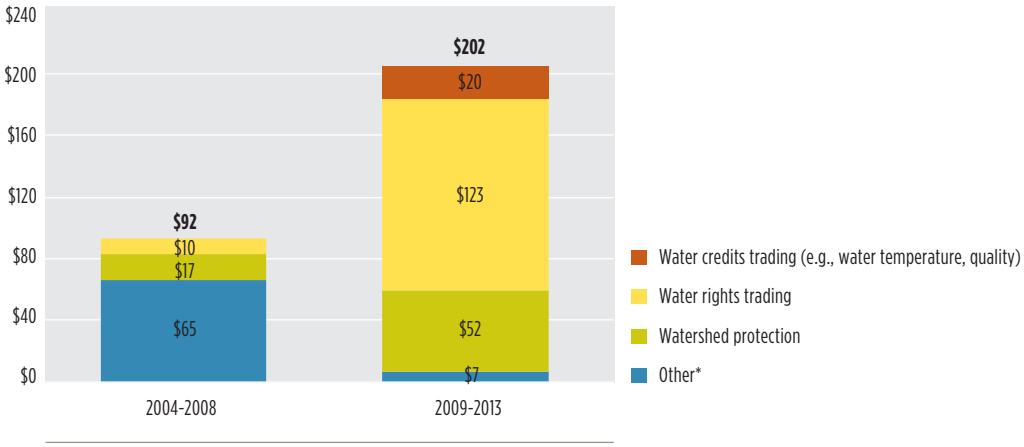


12 respondents provided data for 2004-2008; 27 respondents provided data for 2009-2013.
Source: EKO/TNC

Water quantity and quality conservation: Trading in water quality credits emerged in 2009-2013

Commitments in the 2004-2008 period were primarily comprised of one large water banking investment, which we have categorized in the "Other" sector in the chart below. A new sector that received investments in the 2009-2013 period was water credits trading. We also saw growth in watershed protection and water rights trading investments.

Figure 29: Private committed capital by subsector, 2004-2008 vs. 2009-2013 – Water quantity & quality conservation ($ millions)

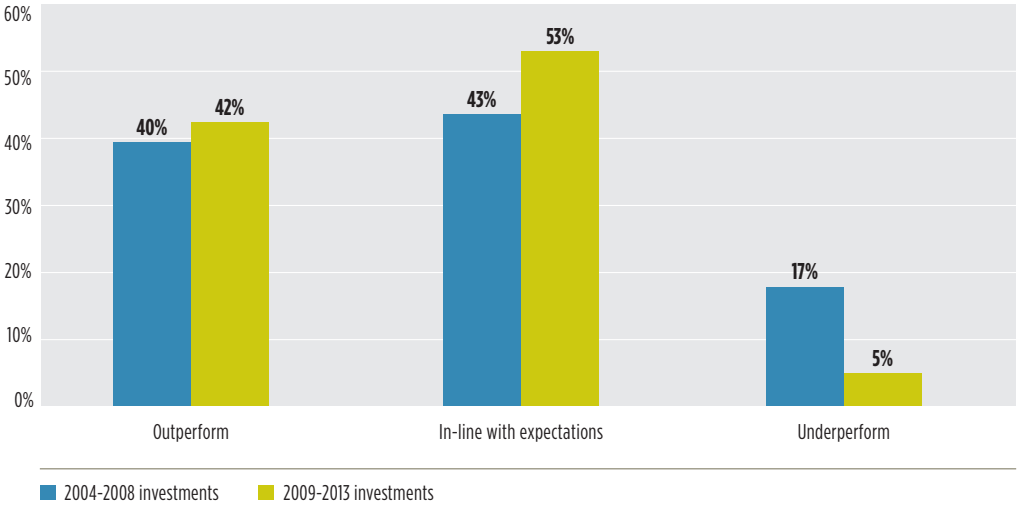


** "Other" in 2004-2008 comprises of one water banking transaction.*
5 respondents provided data for 2004-2008; 16 respondents provided data for 2009-2013.
Source: EKO/TNC

Investment performance: Over 80% of the 2004-2008 investments have met or exceeded financial expectations, compared with 95% for 2009-2013 investments for which investors have enough clarity

Respondents reported that over 80% of their 2004-2008 investments met or exceeded their expectations. In addition, 70% of these investments have been reported as having been exited or liquidated, which potentially includes investments that have been written off. When queried about the financial performance of their 2009-2013 investments, survey respondents indicated that the performance of 27% of their investments is "too soon to tell." Of the remaining 73% of the 2009-2013 investments, 95% had, at the time of the survey, performed at or above expectations.

Figure 30: Financial performance by committed capital, 2004-2008 vs. 2009-2013 investments*



**Excluding 2009-2013 investments where it was indicated to be too soon to effectively gauge financial performance*
17 respondents provided data for 2004-2008; 33 respondents provided data for 2009-2013.
Total reported investments for 2004-2008: $652 million. Total reported investments for 2009-2013: $939 million
Source: EKO/TNC

Observations Part 2

Photo: ©Blake Gordon

Other Observations

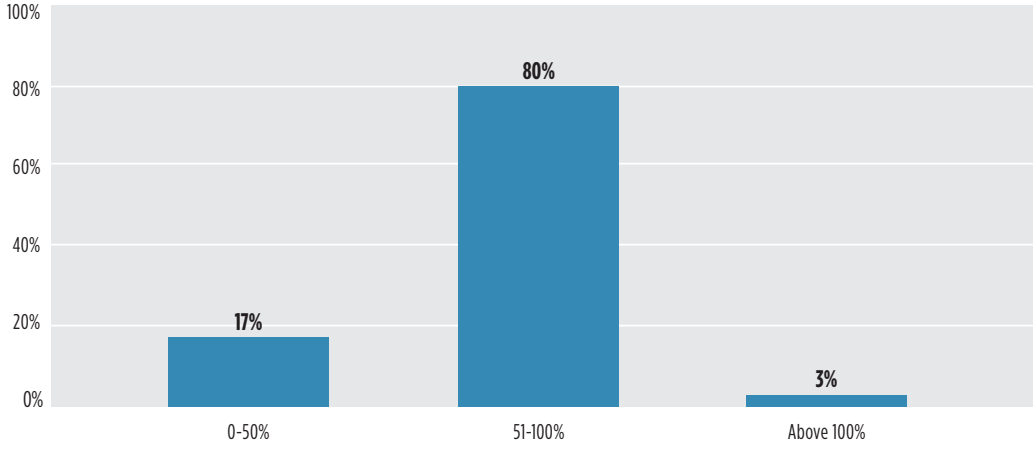
While the preceding sections of the report were based almost exclusively on the data from the survey, this section also reflects information from supplemental interviews that were held directly with a subset of survey respondents, as described in the Methodology section. This section presents the perspectives of both DFI and private investors.

Assessing impact

As shown in the investor motivation data in this report, not-for-profit investors ranked the potential for impact as the top reason to make a conservation investment, and for-profit investors ranked impact as the second most important motivator. However, it was rare for two investors to share exactly the same definition of impact. For some investors, impact assessment is straightforward since they are measuring, for example, the tons of carbon sequestered or avoided and the area of forest protected or planted. For others, where economic and social impacts are being assessed, questions of both measurement and causality become more complex.

We have two sources of information on impact – survey data as well as interview feedback. Of the subset of interview respondents who answered the question on impact, investors indicated that for 24% of the investments made between 2009 and 2013, it is too soon to effectively gauge the conservation impact. Excluding those investments, respondents indicated that 80% of investments made in the 2009-2013 period have had 51-100% of the desired impact to date. Another 13% have achieved 0-50% of the desired impact. Note that these responses are somewhat subjective due to the variety of assessment approaches used by different investors: An investment judged by one investor to have achieved 0-50% of impact could be considered by another to have achieved 51-100%. In addition, long-term investments reported here may have achieved only a fraction of their intended impact to date but still be on track to deliver their full impact – for instance if an investor was reporting on a 10-year project that was in its second year at the time of the survey. These issues point to the need for further thought on how we collect information on the impact of conservation investments.

Figure 31: Conservation impact achieved to date by committed capital, 2009-2013 investments*



**Excluding 2009-2013 investments where it was indicated to be too soon to effectively gauge conservation impact*
24 respondents provided data. Total reported investments: $580 million. Source: EKO/TNC

No uniform impact assessment standard exists to date

All of the interviewees engaged in conservation impact investing appear to have carefully considered what impact they aim to achieve with their investments and how they intend to measure it. Some investors use industry standards to measure impact, especially if their project revenues are linked to environmental credits that require verification or other products that require certification (e.g., FSC-certified forestry products). Some of the conservation investment pioneers helped develop and improve industry standards such as the Impact Reporting and Investment Standard (IRIS), which they now employ. Others use proprietary impact assessment systems that have been developed to compensate for the fact that existing industry standards don't specifically cover the impacts they want to measure, particularly at the local level. Craft3, a Community Development Financial Institution (CDFI) in the Pacific Northwest, for example, has set as its overarching impact metric whether or not the communities it serves have achieved increased ecological, economic, and family resilience. The case study below profiles the group's investment and impact assessment approach.

Drilling down: Information from four investors shows common threads in impact assessment practices

Four of the investors interviewed also shared detailed information regarding impact by providing either a copy of the annual impact report they provided to their investors or a list of metrics they measure for each of their investments.

As would be expected, investments in different sectors of conservation have different types of impacts and, consequently, different metrics are used to measure those impacts. For example, an investor in sustainable forestry reports on the status of the investment's FSC certification; an investor in habitat conservation measures the number of endangered species protected; and an investor investing in water reports on the amount of clean water treated or conserved.

However, some common threads emerged as well in the information provided by these four investors. Those with investments in the sustainable timber industry report the amount of land on which primary tree species are planted and the number of such species. Those concerned with land use and biodiversity use the common metric of amount of land permanently conserved or the amount of working landscapes protected. Those that intend their investments to help mitigate climate change evaluate performance in terms of the metric tons of carbon sequestered. The impact-first investors also discuss the amount of investment dollars leveraged as a result of their own investments. In addition, all four investors measure the number of jobs created or retained from their investments as a way to gauge socioeconomic impact.

Another common thread: Investors working with external assessment frameworks – such as those applied to REDD+ projects, the Verified Carbon Standard (VCS), and the Climate, Community and Biodiversity (CCB) carbon standard – argued for more integrated accreditation systems to reduce cost and time requirements related to compliance. For example, one investor noted that certifying a project under the VCS and CCB systems requires two separate and somewhat redundant applications.

Case Study: Craft3

Craft3 integrates in-house impact assessment tools with its investment screening process to identify conservation impact investment opportunities in the Pacific Northwest that offer high impact as well as reliable returns.

Craft3 is a non-profit community development financial institution (CDFI) based in Washington and Oregon that seeks to strengthen the economic, ecological, and family resilience of communities in the U.S. Pacific Northwest. Its structure encompasses 17 discrete business units and subsidiaries that invest in sectors ranging from fisheries to clean energy.

With assets of over $200 million, Craft3 has invested over $280 million in over 3,500 entrepreneurs, non-profit organizations, companies, and individuals since its founding in 1994. The assets under management are a mix of donations, grants, and loans from financial institutions, corporations, government agencies, individual investors, and other institutions. Over 90% of Craft3's investments are made as loans, but it also invests in equity-like debt instruments in growth stage companies with a proven track record. To date, approximately one-third of its assets have been allocated for conservation impact investments in sustainable fisheries, agriculture, forestry, habitat and water quality conservation. Across all aspects of its portfolio, Craft3 has realized a loan loss rate of just 1.5%.

Measuring the impact of its investments has been a priority for Craft3 since shortly after its inception. It is important for Craft3 that the impact is already measurable at the time the loan is made. Six years ago, it conducted an extensive review of its impact assessment tools. The principal conclusion was that Craft3 should reorient its impact assessment tools to focus on "if and how its investments have helped achieve its mission." Consequently, Craft3 adopted 20 impact measures that are aligned with the three pillars that undergird Craft3's mission: economy, ecology, and family. These measures help its staff better gauge not only the impact of its investments but also the business performance of Craft3's various business units and subsidiaries. Five of the impact measures specifically pertain to ecological resilience, including acres of working and/or conservation lands preserved and gallons of clean water treated, conserved, and/or developed (depending on whether the loan was invested in a project sited in a rural or urban community).

At the same time, Craft3 identified the regions, communities, and sectors that they intended to target for investment, as they believed that their contributions could make a significant difference in these higher-risk places and sectors. The 20 impact measures have since been integrated with these strategic filters to identify those specific business and investment opportunities that have the potential to yield the greatest impact. Mike Dickerson, Executive Vice President of Craft3, believes that after the organization articulated its strategy and impact measurement in the context of resilience, the staff responsible for underwriting prospective loans was better equipped to build a strong pipeline of highly relevant investment opportunities. In addition, Craft3's credit committee can now more easily evaluate prospective investments in terms of credit risk as well as potential impact (i.e., absorb higher risk to achieve higher mission impacts).

Between 2009 and 2013, Craft3 invested nearly $20 million in conservation impact investments, including the following:

- Craft3 made approximately 280 loans totaling over $5 million, with an average interest rate of 4%, to home owners who had committed to repairing and replacing failing septic systems on sensitive waterways such as shellfish harvesting zones and marine recovery areas. As a result, over 32 million gallons of wastewater were treated and over 2,000 linear feet of sensitive riparian areas were protected.

- In the same period, Craft3 made nearly $4 million in loans, at an average interest rate of 8%, to over 30 enterprises engaged in the wild-caught fisheries sector, of which over half were tribal fisheries. The loans were targeted to assist them with sustainable harvest and value-added production.

- Craft3 established a fund in 2013 to provide bridge financing to conservation organizations, municipalities, and landowners to help them acquire land and water rights and/or conservation easements. To date, the fund has invested $3 million through seven loans at an average interest rate of 3.5%. In terms of impact, nearly 1,000 acres of habitat and over 40,000 linear feet of sensitive riparian areas have been protected.

Is there necessarily a trade-off between impact and financial return? Almost all of the investors interviewed felt that, in fact, there is no such trade-off.

Reflecting on Craft3's track record over the past 20 years, Dickerson offered three lessons for would-be (conservation) impact investors:

First, if achieving impact is the primary goal, do not chase after deals or deploy too much capital too quickly. Be patient in finding and selecting the best entrepreneurs and opportunities in which to invest.

Second, look for opportunities to scale. In pursuit of scaling opportunities, be willing to co-invest with other investors even if their goals aren't identical to yours. In Craft3's experience, there are opportunities to engage a diversity of impact investors, particularly if they have a shared geographic and/or sectoral focus, even if they may have slightly different goals. To that end, Craft3 has created some syndicates that bridge different investment silos by creating a cohesive framework focused on a region or sector that is a shared priority.

Finally, there is a difference between a good conservation story and a good conservation business: The latter is far more likely to repay and through repayment achieve the outcomes of the story. Investors who don't know how to differentiate between the story and the business proposition will be disappointed.

Trade-offs between returns and impact

In the survey, for-profit investors ranked anticipated financial return as slightly more important than impact, while the not-for-profit group ranked impact higher.

This result raises the question: Is there necessarily a trade-off between impact and financial return?

Almost all of the investors interviewed felt that, in fact, there is no such trade-off.

Several argued that their investment strategies actually lower the risk profile of the underlying investment, or in some cases enhance the overall return of their (or their clients') investments. Investing in the restoration of degraded farmland is an example. As the fertility and water retention capacity of soil improves, land becomes more productive and valuable, as well as more resilient to drought and extreme precipitation events (thus lowering the risk of the investment).

Others made the case that the idea of a trade-off between returns and impact is nonsensical. In the opinion of these investors, the only investments that will have meaningful conservation impacts are those based on business plans that can generate robust financial returns and be scaled. Thus, in this view, the potential impact of a project depends on its financial viability.

Those interviewees who acknowledged that there is sometimes a trade-off between financial return and impact include "return-first" investors who have yet to invest in conservation (citing the need to sacrifice return as their main hesitation to invest), thought leaders who have done extensive research in the impact investment sector, and specific impact-first investors targeting low single digit returns. Yet, it is misleading to suggest that impact-first investors don't care about financial returns. In fact, both impact-first and return-first investors consider financial return to be important. A majority of those who described themselves as impact-first said that they would only invest in a deal if the projected financial return met their expectations, while the return-first investors we interviewed said they would walk away from a deal if the projected return was too low.

Investment risks

Aside from the standard observation that all investments carry some measure of risk, most interviewees chose to address the question of risk at the industry level. Some interviewees expressed concern that too much money is being raised by first-time managers, who may lack experience or may not be capable of successfully executing their investments. Their anxiety over this trend stems from the belief that if these first-time investments fail, they risk impacting the reputation of the whole conservation impact investment sector.

On the other hand, we note that there is a range of product quality in every investment market, and that the failure of low-quality conservation investment opportunities and the success of high-quality ones is a natural process that ultimately should strengthen the sector.

Challenges to growth

As the chart below indicates, the biggest challenge that most survey respondents identified was the shortage of deals that have the appropriate risk/return profile. This was true for both for-profit and not-for-profit investors.

Table 24: Challenges to growth of conservation impact investment industry

	Total score
Lack of deals with appropriate risk/return profile	80
Lack of deals with management track record	36
Difficulty exiting investments	28
Lack of research and data on products and financial performance	23
Transaction sizes are too small	20
Other	19
Inadequate support from the government (e.g., subsidies, tax breaks)	13
Inadequate impact measures	8

47 respondents provided data.
Source: EKO/TNC

For-profit and non-profit investors, however, differed in the importance they placed on other factors influencing the growth of the sector. For-profit investors ranked difficulty exiting investments (a liquidity-related concern), small transaction sizes, and a lack of deals with a solid management team as the next three most important factors. Non-profit investors also attached importance to the need for deals with solid managers, but liquidity and transaction size ranked much lower – which is consistent with the generalization that non-profit investors are more open to long-term and smaller-scale deals.

Table 25: Challenges to growth of conservation impact investment industry – For-profit organizations

	Total score
Lack of deals with appropriate risk/return profile	50
Difficulty exiting investments	22
Transaction sizes are too small	20
Lack of deals with management track record	20
Other	16
Lack of research and data on products and financial performance	12
Inadequate support from the government (e.g., subsidies, tax breaks)	11
Inadequate impact measures	2

31 respondents provided data.
Source: EKO/TNC

Table 26: Challenges to growth of conservation impact investment industry – Not-for-profit organizations

	Total score
Lack of deals with appropriate risk/return profile	30
Lack of deals with management track record	16
Lack of research and data on products and financial performance	11
Difficulty exiting investments	6
Inadequate impact measures	6
Other	3
Inadequate support from the government (e.g., subsidies, tax breaks)	2
Transaction sizes are too small	-

16 respondents provided data.
Source: EKO/TNC

Many interviewees corroborated these survey results by indicating concern about a shortage of investable deals – that is, those that have an appropriate risk-reward profile, a clear exit strategy, and a proven management team. For such deals, investors noted, there is no shortage of capital ready to invest.

Transitioning from below-market to market-rate capital

Some interviewees expressed concern about the degree to which some projects have become habituated to receiving grants or below-market to market-rate capital provided by government agencies, foundations, and other impact-first investors. While acknowledging that concessionary capital can help innovative ventures get started and grow, they noted that in some instances ventures struggle to transition to more expensive commercial capital, generally because the project managers have not developed a business model viable and compelling enough to convince private investors looking for market-rate returns.

To help facilitate this transition from "cheap" to market-rate capital, there may be a role for DFIs, foundations, and others to use concessionary capital to help make projects "investment ready" and able to attract investments at commercial rates. For example, impact-first investors could provide loan guarantees to investors, encouraging them to lend capital to early-phase conservation projects; the guarantors would repay lenders if the borrower fails to do so. The case study below illustrates how this is one of multiple ways that foundations have been helping fund conservation projects.

Case Study: Foundations and Conservation Impact Investing

Foundations use program related investments (PRI) to achieve conservation impacts in many ways: providing bridge funding for time-sensitive land-protection opportunities, supporting conservation-related businesses, developing markets for environmental credits, building commodity certification systems, and helping to attract private capital. In addition, foundations are supporting the development of investment impact metrics and building capacity in prospective investee organizations to expand the universe of potential conservation investments.

Foundations committed to conservation have come to understand that they can complement their grantmaking by deploying a number of investment strategies. One particularly valuable tool employed by foundations is the program related investment, or PRI. Through PRIs, foundations can make a variety of types of financing available – loans, equity investments, and guarantees – as long as these investments have a clear charitable purpose and the expected returns are below market rate.

One clear conservation-related role for foundation PRIs has been helping land trusts and conservation partners seize time-sensitive land protection opportunities by providing bridge financing until other funding – whether from public agencies, private funders, or earned revenue – can be secured. Direct project financing of this type continues to be a critical form of support for many conservation-focused foundations and has greatly increased the amount of capital available compared with grant funding for land deals.

Increasingly, foundation PRIs are being used to tap new and different sources of investment for conservation besides grants and government funding. In a number of recent cases, foundation PRIs have helped to grow and scale promising conservation-related businesses, develop credit-trading markets in fields like carbon and water quality, build out commodity certification systems to influence the private market, and launch environmentally-focused investment funds. One example is a loan from the David and Lucile Packard Foundation for an initiative led by The Colorado River Delta Water Trust, formed by The Nature Conservancy and a coalition of other conservation non-profits, to re-channel water from U.S.-Mexico water treaties to restore the Colorado River Delta. The loan will be repaid by rental income the water trust receives through the leasing of water rights. Another example is an investment by the Gordon and Betty Moore Foundation in the Farmers Conservation Alliance, which designs, produces, and sells fish-friendly, self-cleaning screens for agricultural water diversions.

PRIs also can be important components of larger deals where risk tolerance and desired repayment time horizons may vary amongst a pool of investors. Because foundations are typically willing to accept a lower return, take more risk, or wait longer for the same expected return, their presence can serve to attract other investors to co-invest. For example, a low-interest rate PRI

loan by the Packard Foundation enabled Ecotrust Forest Management to attract significant private equity investments for its sustainable forestry program.

One major challenge for foundations investing in conservation is ensuring that these initiatives produce real conservation value. Many enterprises have a green facade but lack the scientific underpinning and measurable conservation results necessary to meet the investment standards set by most large foundations.

To this end, foundations can play a key role in funding research around effective metrics, conservation impact studies, and means of assessing impact on local communities. For instance, the Packard Foundation provided support for the development of the conservation metrics that are now incorporated into the IRIS tool managed by GIIN. This type of work – and the shared metrics and standards that derive from it – can help catalyze further investment, both from foundations and traditional investors.

In addition, many conservation impact investing funds have a corresponding technical-assistance facility, through which they can build capacity within a project or organization to make it investment-ready. By helping move these entities to maturity through philanthropic support, foundations can fill a critical role in expanding the universe of potential conservation investments.

Some investors need much larger scale

A few interviewees highlighted the challenge of deploying capital on a sufficiently large scale due to the small ticket size of many conservation impact investment products/funds. This was particularly true for representatives of financial institutions that were monitoring the conservation impact investment market but had not, as yet, made any investments. One interviewee suggested that their institution would become an active investor when the conservation impact investment market matures to the point where it would be possible to raise at least $300 million from clients to form a fund-of-funds and deploy at least $30 million in each (investable) underlying fund. Another interviewee set the bar even higher, suggesting that even a $400-$500 million investment would be considered too small for their institution.

Many conservation impact investments have time horizons that don't fit investors' liquidity needs

Given the long investment horizons of many conservation impact investments, it is not surprising that many investors highlighted liquidity as a challenge. "Liquidity is king since the 2008 financial crisis," said one. Another noted that to many mainstream high-net-worth investors, any time horizon longer than a few months could be considered too long. Many conservation projects, in particular those in sustainable forestry and agricultural production, require investment horizons of at least seven to 10 years to generate the desired level of financial return and impact. For most investors, the financial reward of these investments needs to justify the risk of such a long lock-up period.

Observations on potential role(s) for the public and philanthropic sectors

A few interviewees mentioned the potential value of direct engagement by the public sector, citing two types of involvement: taking legislative or other action to provide more regulatory certainty around markets for ecosystem services and acting as a co-investor in deals.

Need for more regulatory certainty

Interviewees from large traditional investment houses noted that their institutions are skeptical about the reliability of revenue streams generated from ecosystem services. In other words, price discovery can be a challenge with forestry and agricultural carbon sequestration, in-stream water flows to support fish populations, and other ecosystem-related markets in the absence of regulatory frameworks that help create a market for these assets. One interviewee said that conservation easements, water credits, and carbon are "not large fungible markets" yet, so they are left in a position of waiting and hoping for these types of investments to someday become "plain vanilla opportunities." Another stated: "Returns need to be clear in relation to the scale of the risk. You need to put a price on nature's services, which requires legislative action. Voluntary markets are great for innovation but too small in the long-term."

Photo: ©Kent Mason

Governments can create demand for ecosystem credits (especially REDD+)

The call for public sector engagement also was echoed by investors in REDD+ projects. For these investors, the challenge has shifted from creating supply of REDD+ credits to generating demand for these credits. In other words, who will purchase the credits and at what price? Private sector interviewees noted that DFIs and governments have played a key role in helping create REDD+ projects, but said that the main need now is for help creating demand for the credits – through policy measures, purchase of credits, or both. Representatives from DFIs agreed that strong policy signals from government are critical to creating market demand.

Public and philanthropic capital can stack with private capital

Some interviewees suggested that the combination of public and philanthropic capital could help reduce market risks and create market demand for conservation projects. Many of the private investors we interviewed noted that there are many projects trying to raise private capital when what they need instead is a grant or subsidized capital available from a foundation (because the project business models aren't yet attractive to private investors). A solution, several interviewees said, could be investment structures that layer capital such that grants, program related investments (PRIs), public funding, and market-rate investments work in synergy.

For example, "impact-first" investors could co-invest with investors looking for commercial returns. Under one approach, the impact-first investor could provide a first-loss loan that would be ranked junior to the commercial investor. Alternatively, the impact-first investor could receive a fixed return (e.g., principal plus low interest), allowing any remaining profits to be distributed to the commercial investor. This type of capital stacking has been used by DFIs and foundations to attract private capital.

In this way, the early-stage risks are absorbed by these impact-first investors, and private investors would be more willing to back the businesses when they are more "investment-ready" and the management team is more proven. In addition to lowering risk for private investors, this structure helps to increase transaction size for private investors, since more-developed business opportunities tend to require larger amounts of capital for growth compared with those in the seed-stage phase. Larger transactions also help to reduce transaction and due-diligence costs.

We argue that there is currently a greater need for governments, foundations, and other philanthropic organizations to back early-stage conservation investments compared with even a few years ago. As one veteran private impact investor stated in an interview, there is now less investor interest in backing early/seed-stage conservation investments because "the impact investment market has gotten bigger and more competitive. Many impact investors are also interested in other investments like health, microfinance, technology, etcetera."

The following case study on The Nature Conservancy's Conservation Campaigns Initiative provides an example of the role of public funding in financing conservation projects.

Case Study: The Nature Conservancy Conservation Campaigns Initiative

The Nature Conservancy's support for conservation-oriented state ballot initiatives has contributed to the passage of measures authorizing more than $30 billion in public bond offerings to fund conservation activities. Investors who buy these bonds are arguably engaging in conservation impact investing, though investments of this type are not accounted for in this report.

Since 1986, The Nature Conservancy's Conservation Campaign Initiative has worked to help draft and pass statewide ballot initiatives designed to commit public funding to conservation. To date, Conservation Campaigns in 23 states have assisted in the adoption of 190 measures that together have raised more than $50 billion for conservation, more than $30 billion of which was through bond offerings.

The Conservation Campaigns program has two intersecting goals:

- To generate funding and enact conservation policies that emphasize protecting and restoring functioning landscapes across North America, and to increase state and local investments in natural infrastructure
- To enshrine as a fundamental American value a commitment to restore and protect nature and broaden the constituency for conservation.

Historically, Conservation Campaigns have focused on generating state and local funding for land acquisitions and easements. Some funds also have been used to underwrite incentives to landowners for conservation efforts such as riparian buffer conservation and wetlands restoration. Over the years, the program's scope has expanded to include funding for a variety of other efforts, including: natural infrastructure such as flood plains, coastal and habitat restoration, water funds, storm water management, and the passing of favorable state energy policies.

The Conservation Campaigns program seeks not only to raise public capital for conservation but also to demonstrate to elected officials and policymakers that conservation wins at the polls, even when money is tight. In 2010, in the depths of the Great Recession, Americans passed 41 of 49 conservation ballot measures on ballots nationwide, committing $2.8 billion toward the conservation of beaches, forests, rivers, trails, and aquifers. The program has achieved success in some of the most traditionally politically conservative regions in the United States. For example, in 2013 voters in Texas passed Proposition 6, authorizing $2 billion in investments in water conservation initiatives, including natural infrastructure projects.

While many of the dollars raised through Conservation Campaigns are via sales tax surcharges, real estate transfer taxes, and other mechanisms such as lottery funds, more than $30 billion has been invested in conservation via state and local bond offerings. These offerings have funded initiatives such as the acquisition of open space, farmland and watershed preservation, and ongoing maintenance of and improvements to existing parks and recreation areas. The offerings are typically structured as general obligation revenue bonds of the issuer.

These general obligation revenue bonds involve governments borrowing money from private investors for conservation and then paying those investors back from tax revenues. It is, in other words, a way of raising, channeling, and securitizing future tax revenues. From the perspective of the investors, though, purchasing these bonds can be a way to contribute to conservation goals while receiving stable and low-risk financial returns. Thus, at least a portion of the $30 billion in bond investments that have been channeled to these government-issued conservation bonds arguably could be considered an "impact investment in conservation." However, in this report we have not counted any of this money since it is not clear what portion of these investments were made with conservation as a primary goal.

Observations on attracting institutional investors

Having traditional institutional investors (e.g., pensions funds, insurance companies, banks) allocate more capital toward conservation impact investments would be a major step in making these investments part of the mainstream investment marketplace.

The survey asked respondents to give their opinions on the most important conditions needed for institutional investors to feel comfortable entering the market. (Note that only one of our 56 survey respondents represents a traditional institutional investor.)

Overall, our respondents said that the most important condition is the need for more investment opportunities that match risk-reward expectations. The second most important condition, according to the for-profit investors, is the need for society to put a monetary value on a broader range of ecosystem services, and for governments to take policy actions that reduce the uncertainty about the future value of investments in ecosystem-services markets. At current levels of uncertainty, argued the "return-first" investors we interviewed, it is challenging to generate an acceptable risk-adjusted profit from many conservation investments. For not-for-profit investors, the second most important condition was the need to identify institutional investors who understand and value the importance of conservation finance.

Table 27: Conditions necessary for institutional investors to allocate more capital to conservation impact investments

	Total score
More investment opportunities that match risk-reward expectations	72
Putting a price on environmental externalities/ecosystem services	35
Identifying investors that understand the economics of and that value the outcomes of conservation finance	32
More investees led by management with demonstrable track record	28
More philanthropic capital or government support to absorb risks	25
More deals with large transaction sizes	19
Raising awareness among the traditional investment community	12
Other	11
Building better performance metrics and monitoring tools for the field	7

49 respondents provided data.
Source: EKO/TNC

Conclusions and Areas for Further Research

Conclusions

DFIs currently account for the large majority of conservation impact investment dollars, and their investments are expected to grow. Given the scale of DFI investment relative to private investment in the sector currently, we can expect DFIs to continue to play a leading role in supporting conservation impact investments in at least the near- to medium-term.

Our findings also portray a conservation finance market that, despite its relatively small size, has seen private investments grow 26% annually in the five-year period 2009-2013. Investments in sustainable food and fiber production led the way with an annual increase of 41%.

A closer look at the sustainable food and fiber production category suggests that real asset investors (largely in sustainable timber management) dominate the conservation impact investment sector in terms of money invested and size of investments, at least in the last 10 years covered by our survey.

While several large private investors are well established, the sector is attracting many new entrants as well. Total private investment more than doubled from $892 million in 2004-2008 to $1.9 billion in 2009-2013, as existing investors increased their investments by $520 million in 2009-2013 and new entrants added $511 million. For the five-year period 2014-2018, investors plan to deploy $1.5 billion of readily available capital into conservation and expect to raise and deploy an additional $4.1 billion.

At the same time, investors report a variety of challenges typically associated with a nascent market, such as a shortage of investment prospects with appropriate risk-return expectations and experienced management teams and a lack of standardized impact metrics. For-profit investors also stressed the need for policies that put a price on a broader range of ecosystem services.

When considering opportunities to increase investments in the sector, we believe that capital structures efficiently combining private capital with public or philanthropic funding offer strong potential for growth. Indeed, a number of private investors said in interviews that governments and philanthropic institutions stepping in to provide adequate catalytic capital to entrepreneurs in the early phases of their ventures could help to increase their own (private) investments. Impact-first investors could help businesses become more "investment-ready" and attractive to private investors who could deploy more capital at a more mature stage of the business.

In addition to collaborating on specific investments, there are other reasons to facilitate greater coordination between governments, philanthropic institutions, and private impact investors. Of particular interest to private investors is the role that governments can play in creating the conditions necessary for investors to deploy more investment capital in conservation, for example by adopting policies that put a price on environmental externalities.

This study is a pioneering effort to build a data set that will grow with time and will support practitioners and policymakers in the conservation impact investing sector. We encourage observers of the field to build off this report in order to further illuminate trends, challenges, and opportunities.

Areas for future research

We suggest three areas for future work: research aimed at improving impact assessment methods in the sector; research to address key opportunities and challenges associated with growth of this market; and expanded study of the size, scope, and trajectory of the conservation impacting investment market.

Impact assessment

This topic is critical to the maturation of the conservation impact investment sector and is the subject of ongoing work by multiple organizations, including IRIS, GIIN, the Carbon Disclosure Project, and others. A key question is how to develop assessment approaches that can be usefully applied across a range of conservation projects but still generate real and meaningful measurements of impact. The Gordon and Betty Moore Foundation perspective essay in this report proposes that a critical first step in that process is to define categories of investments that share traits that make common metrics feasible. In-depth case studies on impact metrics and how they have been applied could be a valuable addition to the impact assessment effort.

Addressing challenges to growth

Capital stacking: Several avenues of research could help to improve the understanding of how capital stacking can be used to facilitate private impact investments. Case studies that provide a high level of technical detail about successful capital stacking deals (using both government and philanthropic capital) would provide valuable documentation of what capital stacking structures have proven effective, and why. Capital stacking also raises legal issues concerning the use of philanthropic capital to support projects that result in private gain; research could help to clarify this consideration. More broadly, expanding the exchange of ideas about capital stacking between philanthropic investors and private investors would be useful.

Pooled investment vehicles: Pooling multiple deals into a single investment vehicle could reduce some transaction costs and attract larger investors. Case studies of this approach may yield useful lessons.

Expanded research on the conservation impact investing market

Better characterization of the role of DFIs: As noted in the box on page 23, gathering satisfactory data on conservation impact investments by DFIs was challenging. The size and reach of these organizations warrants more in-depth study. A key challenge with these large, complex institutions is likely to be identifying the investment portfolio managers who work in the conservation impact investment space.

Geographic coverage: As noted in the text, 76% of the private sector survey respondents in this study were based in the United States. Future studies should seek to include a broader geographic range of conservation impact investors.

Additional information on key market segments: Future studies should gather more detailed information on the market segments that this report identified as the fastest-growing and highest-impact, such as sustainable agriculture.

Sectors known to be larger than measured in this study: In several cases, investment totals recorded for this study are notably smaller than the actual size of the market, based on our knowledge of the major players and publicly available information about projects qualified for carbon and ecosystem-services trading markets. Specifically, we believe that at least three sectors are under-reported in our survey data: water rights trading; REDD+ and other land-based carbon credit investments; and habitat mitigation banking. In future studies, if it is not possible to include key investors in these markets in a survey, additional document-based research and/or partnerships with research organizations that study these subsectors (e.g., the Ecosystem Marketplace) may yield more accurate investment totals.

Corporate investors: This study focused on investments made by financial investors. Corporations also make business investments that can have substantial conservation benefits. A beverage company may invest in water quality protections, for instance, or a hotelier may invest in ecolodges and the conservation of surrounding landscapes. Further consideration should be given to these types of investments and whether they should be counted as part of the conservation impact market; gathering detailed information about internal corporate activity in this sector, however, is likely to be time-consuming and difficult.

Traditional institutional investors: It may be useful to include pension funds, insurance companies, and other large institutional investors in future studies. While institutional investors do not appear to be direct investors in the conservation impact sector at this point, it may be valuable to understand more about their perspective on investments for conservation impact and what conditions would need to be met for them to invest in the future.

The role of governments: Many domestic government conservation programs (e.g., national parks, planting native tree species to prevent soil erosion) are designed to return capital or generate monetary benefits, though not necessarily in a direct invest-and-exit manner like in a typical financial investment. As with DFIs, identifying such investments and determining whether they fall within our definition of conservation impact investments may be challenging.

The role of ecotourism: Given that tourism is one of the world's biggest industries and that ecotourism can support habitat conservation and potentially other conservation objectives, more study of investments into that sector could be illuminating. This study identified one fund that intends to invest in ecotourism-related projects (Althelia Climate Fund – case study page 48) but otherwise gathered little information on the sector. The ecotourism market appears to be split between corporate players (hotel groups, cruise operators) and small individual or family investors; neither group was the primary target of this study. Because ecotourism is a well-defined sector, it may be possible to draw on existing industry organizations and studies for information.

Photo: ©Jeff Yonover

Perspectives

"Making Impact More than an Anecdote"

Dan Winterson, Conservation Finance, Gordon and Betty Moore Foundation

Starting several years ago, new conservation investment funds and projects began sprouting up everywhere, each needing startup capital. My colleague at the Packard Foundation and I decided that rather than wait and react to investment ideas that came our way, we needed to proactively understand the landscape of conservation impact investments. Little research existed on the field of conservation impact investing. We embarked on several efforts, including this study that we believe significantly advances the knowledge base around impact investment activity in the conservation field. There is no dearth of "thought pieces" on impact investing, including in the field of conservation, where authors expound on how to grow the field, different theoretical financial structures, and why impact investing is so great (or why it's not). But this will be the first systematic attempt to provide a comprehensive fact base of activity in the conservation investing field.

Yet this study has at least one significant limitation. We have obviously focused on the financial part of the double (or triple) bottom line to which these investors aspire. There is no secret as to why: It is easier. Trying to understand and quantify the other bottom line – the conservation impact – requires a strong framework, understanding of multiple sub-fields within conservation, painstaking assessment, and, often, subjective evaluation. In most cases, measurement of impact does not exist in a manner than can be readily quantified, aggregated, or compared.

So we – and the field – can only view a self-selected set of investors. To qualify as an impact investor, all one needs to do is claim impact. Projects that permanently protect a landscape in its entirety are put in the same bucket with projects that extract significant natural resources but claim some incremental environmental benefit versus an alternative. We may never get to a single score for conservation impact the way we might for AUM or financial return. Yet until we get to even a rudimentary framework for objectively comparing the impact of various investments, this aspect of conservation impact investing will be relegated to an anecdotal addendum to financial returns.

Ironically, in light of the aforementioned challenge and focus, most investors with whom we spoke genuinely seem committed to an "impact-first" approach. While some particular conservation investments may appeal solely on their financial risk/return profile, most of us are interested in this field, as opposed to other areas of investment, because of the conservation impact associated with these investments.

That leaves us with a paradox: The conservation return on investment is both valued more but measured much less than the financial ROI. Moreover, our survey showed that most investments have met or exceeded investors' financial return expectations to date but thus far have not achieved their intended impacts.

A generic call that "more effective measurement is needed" does little good. Measurement and assessment have become like "considering the implications of climate change" in conservation circles: unobjectionable ideas that will get heads nodding but have no meaning unless taken to ground. Some of us have participated in efforts, like the Global Impact Investing Network's working group on land conservation metrics to be included in IRIS, which have begun to address the need for widely accepted impact standards. But this lack of assessment is clearly a major ongoing challenge.

Photo: ©Bridget Besaw

One potential path toward effective impact measurement begins with effective segmentation of investors' theories of change. While it may never be possible to directly compare the impact of investments in drastically different sub-sectors, one can imagine meaningful comparisons within groups of similar investments – if we could effectively categorize groups of investments. Grouping investment opportunities according to the type of natural system in which they operate is the most obvious framework, but one that may ultimately be misleading. For example, putting marine investments – consider community-based fishery management and traceability technology – into the same category may seem logical on the surface. Even though these investments may have the same ultimate goal of supporting healthy marine ecosystems, their theories of change are different enough to require distinct metrics. A better segmentation for impact assessment may be to compare the fishery collective to other sustainable livelihoods investments, whether in the marine, forest, or agricultural spheres. One could imagine relevant metrics across these investments, such as jobs created and comparison versus a baseline environmental standard. Similarly, the impact of a marine traceability technology may be more fairly compared to a similar intervention in land-based livestock rather than other marine investments.

Ignoring the current need for standardized impact metrics comes with real risk. Metrics need not be perfect or even comprehensive. Until we have even basic qualification criteria beyond self-labeling, however, the potential category growth lacks meaning. The focus on growing the field or expanding the dollar amount of capital invested, without sufficient attention to the conservation impact, confuses the means with the ends.

“Investment Markets Are Not Built in a Day”

Susan Phinney Silver, Program-Related Investment Manager, The David and Lucile Packard Foundation

Twenty-three billion dollars is a start. But how do we get to the next phase where our investments are having a more meaningful impact on conservation and climate issues?

One part of the answer has to be an incremental one. Step by step, we as investors who care about conservation and climate issues need to identify and grow promising innovations and financial models that attract new capital sources to conservation and climate. The environmental side of impact investing is nascent, so we cannot expect that this will happen overnight. In some cases, for example our investments in The Freshwater Trust and the Roundtable on Sustainable Biofuels, it took five to 10 years of philanthropic grants to get these models to the point of investability for program-related investments (PRIs) and will take years more to bring any of these innovations to scale. Which means patience is required, as is the need to stage our capital over time, from grants to PRIs to other types of impact investments, up the development curve to a scalable market over time.

Which drives a second key answer– investor collaboration will be needed between different types of investors bringing different types of capital. As we seek new sources to supplement traditional government and donor funding for conservation, philanthropic investors like ourselves are increasingly “reaching across the aisle.” Two billion dollars in private and philanthropic conservation investment may not seem like that much alone, but when used to leverage some of the $21 billion in development institution financing, and with those two types in turn leveraging commercial investment and bank financing, the picture becomes more promising.

We see this type of cross-investor collaboration happening more and more over the past few years. We are increasingly finding win-win-win partnerships, with mission-driven investors co-investing with private equity and other financially-driven investors to restore the environment and combat climate change. For example, in our proposed investment in the Althelia Carbon Fund, we are co-investing with a diversity of investor types who have a variety of impact, strategic, and financial motives, showing how we have moved beyond the old nomenclature of “finance first” and “impact first” to a broader and more nuanced spectrum of impact investors. The Althelia fund demonstrates how private impact investments (from the $2 billion) can partner with development institution capital (from the $21 billion) to expand the capital pie, both as direct co-investors (in this case European development institutions) as well as through guarantees by multilateral and bilateral development agencies (for the Althelia fund through a USAID guarantee that was a critical element in enhancing the investability of this climate mitigation fund). The role of government is also key as, over time, these models would be further enhanced by regulatory support for carbon markets and advance commitments by government actors to the carbon credits generated by these REDD and agroforestry climate mitigation activities.

It is promising, although early, to see a diversity of investors starting to come together in a more organized way to build out a more mature and scalable conservation investing ecosystem. We are finding that these multi-tiered projects and funds are complicated and challenging, especially during this learning phase in the industry. But we persevere, working to make sure that the environmental investments we make today are structured to create deep and lasting conservation impacts, and hoping that they will build a foundation for bringing conservation and climate investing to scale over the longer term.

"Time to Raise the Sails"

Ricardo Bayon, Partner and Co-Founder, EKO Asset Management Partners

Depending on your perspective, both the best AND the worst thing about having a social media account is that, before long, your world seems to be literally inundated with "inspirational" quotes. Every once in a while, however, a quote pops up that makes eminent sense. And so it was the other day a quote came to me via social media that seemed particularly apropos of this report. It was by a man I've never heard of, a certain William Arthur Ward, and it read: "The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails."

In that vein, this report has more than enough to please every pessimist, optimist, and realist out there. For the pessimists, the report allows them to argue that very little private capital is going to conservation. After all, nearly $2 billion dollars is not much compared with the trillions of dollars that transact daily on global capital markets. It is, by all accounts, a pretty small drop in a pretty big ocean.

The optimist, on the other hand, will counter that nearly $2 billion is a large enough figure, larger than some may have thought. They will also argue that this report is only the first of its kind, that it is likely underestimating the real amount, and that, besides, governments through their development finance institutions are investing more than 10 times that amount. Oh, and let's not forget that the "nearly $2 billion" number appears to be doubling every few years. At that rate of exponential growth, it will become a pretty significant figure in no time. There are, they might argue, more optimistic messages coming from this report than there are pessimistic ones.

But what of the realists? How might they respond to this report? I think that the "realistic" response is to take this report as yet another sign that the winds have shifted. What the report tells us is that there is significant interest and investment going towards conservation. It says that, even today, in a world where most conservation actions are not "investable," where the protection or destruction of ecosystem services does not show up on anyone's balance sheet, even in this kind of world, people have found ways to generate financial returns from investments that also deliver conservation impact.

Smart realists will also note that most of the money flowing into conservation impact investments appears to currently be channeled via real-estate investments. Perhaps this was to be expected. After all, conservation has always been, not coincidentally, very tied to the land. Real assets (whether in the form of land for timber, land for agriculture, land for water, or land for mitigation), they will note, dominate the field. It could be that this is a figment of the fact that buying land is expensive, that it requires large pools of capital, so obviously the largest pools of capital in our survey will be those with an investment strategy focused on real assets. But I think the connection goes deeper than that.

I think that the reason why real estate dominates this report is that it is one of the few conservation-related investments where investors can perceive a real return. Not only can they expect that the value of the land will appreciate, but they can also see ongoing returns from existing products like timber, or emerging products like mitigation banking, or carbon. Also, land (and timber in particular) is, by its very nature, a longer-term investment, so in terms of time horizon it resonates with conservation.

So the message to realists might be that we need to find new ways to deliver returns from conservation, ways that are not necessarily tied to the value of land. Indeed the report's findings hint that this might already be happening with carbon, water quality trading, and mitigation banking.

The second, and perhaps more hopeful, message to the realists is that money is not the only, or even the main, problem. Most, if not all, of the people we surveyed and interviewed said that if they had better deals (with adequate risk-reward profiles and strong management teams) they believe they would have been able to raise and deploy much more capital. They are essentially telling us that money is not the most important constraining factor.

Photo: ©Bridget Besaw

Clearly this is related to the earlier point, to the fact that making conservation "investable," with real financial returns, is hard. If protecting habitats generated as much return as destroying it and planting soy or palm, then there would be more "investable" deals in the conservation space. That much is obvious. More importantly, however, this signals that the appetite is there, and that the appetite is far bigger than many of us had realized. To give yet another example of this growing appetite: A recent article in The Economist[22] noted that the market for green bonds has grown from a total of $3 billion in 2012 to more than $20 billion in the first half of 2014. Indeed, the article expects that there will be more than $50 billion in green bonds issued by the end of 2014. Now, while we may argue endlessly about whether or not these bonds are "truly green," what is clear is that there is real demand for investable products that might be considered "green."

And this is where the world of the realists collides with that of the optimists: The money is out there, the demand for green investments is out there, the wind is turning in the direction of conservation. We need neither complain about the wind, nor wait for it to change. It has already changed. We just need to muster enough hands on deck to do the hard work of pulling the ropes and readjusting the sails! Time to block and tackle.

22 http://www.economist.com/news/finance-and-economics/21606326-market-green-bonds-booming-what-makes-bond-green-green-grow

“Spotlight on the Conservation Impact Investment Market”

Yasemin Saltuk, Social Finance
Camilla Seth, Sustainable Finance
JPMorgan Chase

When The Rockefeller Foundation, the Global Impact Investing Network, and JPMorgan Chase came together in 2010 to assess the potential of the nascent impact investment market and published Impact Investments: An Emerging Asset Class, most of the environmentally focused transactions referenced in our literature review and interviews were in the renewable energy and clean technology spaces. Conservation finance was still under the radar of most market participants. Today, we are delighted to uncover a growing marketplace for conservation impact investments across regions and instruments, and to explore the diverse motivations expressed by investors focusing on this space.

One of the biggest challenges for investors when assessing an opportunity in conservation finance is understanding the revenue generation model, especially for opportunities that do not rely (or fully rely) on government credits. The case studies presented in this report highlight the ways in which credits have allowed investors to monetize the conservation value of their assets, and also the innovative ways in which conservation goals can be met through a business model independent of credits. Some examples include: loans for homeowners to replace failing septic systems in shellfish harvesting zones and marine recovery areas, a loan to re-channel water from U.S.-Mexico water treaties that will be repaid by rental income from leasing water rights and restore the Colorado River Delta, the purchase of high conservation value land in Patagonia which is then converted into private protected areas for ecotourism, and a limited amount of homebuilding with conservation constraints on property management and use.

While subsidies still play an important role in some parts of the conservation finance market, the spectrum of expected returns revealed by our respondent group shows some investors are operating with a more commercial mindset. The range of return expectations across different investment approaches is important as it allows some investors to address market failure where returns may be lower, while others can capitalize on market opportunities where more commercial returns may be possible. While many respondents are positive about the growth of the conservation segment of the impact investment market, the survey also highlighted the risk that inexperienced first-time managers fail to deliver a robust portfolio management approach and the track record of success that would attract future capital flows to the sector – a natural concern for any nascent market segment.

These findings present the first snapshot of a landscape that will continue to emerge in the coming years. The objective of this research is to initiate coverage on a market segment that will grow in years to come. Four years on from our flagship publication on the broader impact investment market, our signature impact investor survey captured five times the number of investors as we had in the original work and has established itself as an important tool for practitioners and decision makers in this market. Similarly, we aim to capture over time the growing set of investments and investors driven by conservation goals that have been revealed by this work.

“Accelerating Market Development”

Marc Diaz, Managing Director, NatureVest
Eric Hallstein, Director of Conservation Investments, The Nature Conservancy of California
Charlotte Kaiser, Deputy Managing Director, NatureVest
The Nature Conservancy

Worldwide, the changing climate and growing demands for food, water, and the resources that fuel our economies and sustain our people are accelerating the degradation of natural systems critical to human well-being. We must do much more, and quickly. We collectively need many multiples more capital and new, innovative models for conservation and sustainable economies that protect nature and improve the lives of people. Can conservation impact investing help bridge these capital and innovation gaps and substantively contribute to saving the lands and waters on which all life depends? This report paints a picture of an early and emerging market that will need to undergo rapid growth in order to have a significant impact on conservation outcomes.

The Nature Conservancy is committed to leveraging our global platform and deep expertise in science, policy, and finance to help build a baseline of information and the regulatory frameworks that enable the rapid maturation of conservation impact investing. These three elements can help conservation impact investing grow into a robust, efficient market with symmetric information flows, transparent pricing, numerous buyers and sellers, and fully valued natural capital. By learning from the experience of other emerging markets, conservation impact investing can travel a similar path to better understood, more predictable returns and hence greater scale.

Most conservation impact investments possess a high degree of risk and uncertainty. That is, the financial returns that an investor can anticipate and differences in the ecological impacts of different business models are poorly understood; this uncertainty inhibits significant investment capital inflows.

Private equity as an asset class shared this experience in its early stages, and market development was accelerated through science, policy, and finance interventions. To illustrate, post-WWII U.S. public funding for scientific research and data collection helped small companies innovate and bring products to market. Relaxing U.S. ERISA “prudent man rule” regulation allowed institutional investors to deploy larger amounts of private equity and venture capital to small, fast-growing companies. Public and privately funded pools of flexible, patient capital offered early proof points for larger, commercial investors to follow.

As data accumulates about investment outcomes, markets coalesce around return expectations and market actors understand the underlying drivers of performance. Conservation impact investing market development can be accelerated and influenced with similar scientific, policy, and financial interventions.

Science provides insights about the environmental impact of investing in natural capital. Rigorous piloting, rapid refinement, and control-based comparisons of conservation work illuminate for investors the factors that drive environmental and financial risk and return. Based on the value an investor places on these measurable outcomes, coupled with regulatory certainty, investors can price and deploy capital with greater certainty. Scientific research can highlight when and where thoughtful regulation and policy interventions are needed in order to establish well-understood rules for investors about societally acceptable tradeoffs between financial returns and other impacts.

Policy changes can accelerate market development by standardizing rules and regulations in different sectors and by creating clarity for investors on the rules for investing in a market. Different areas of conservation activity have varying levels of clarity about underlying rules and policy that drive market behavior. For example, policy governing timber investment and conservation easements (property rights) are well understood and in the U.S. are embedded at the federal and state levels. Similar guidance about carbon standards is just coming on line after a decade of work on policy. By contrast, very little policy guidance exists to support investments in natural infrastructure that could save capital and operating costs while generating additional benefits to water, habitats, species, and people.

Fiduciary responsibility codified in U.S. ERISA and IRS regulations could allow fiduciaries to consider sustainability in their investment decision making in addition to anticipated financial returns, as the G8 Social Impact Investment Taskforce has recently advocated. We believe such policy guidance for fiduciaries is necessary to empower investors to allocate more capital to this emerging market.

Finally, we echo the call from others in the broader impact investing sector for incubation capital to accelerate market development and help deals scale and de-risk. We propose that capital providers consider incubator funding capitalized with program related investments and recoverable grants to provide initial low-cost capital to new investments including funds and direct investments. Combined with investments allowing for longer-than-typical timelines and leveraging public and multilateral sources, as our collaborator at the Packard Foundation, Susan Phinney Silver, calls for, we believe this type of funding creates opportunities for more investments to scale and commercialize. Exits via more traditional sources of capital will validate these investments and approaches, while failures can still convert to grants and deliver conservation outcomes and lessons to the sector.

We are advancing this approach across the Conservancy globally and also through our NatureVest division's work, which is specifically focused on developing and sharing new forms of impact investing. We rely on science to understand the tradeoffs in some of our most effective interventions, such as rotational grazing to intensify animal agricultural yields in the northern rangelands of Kenya. We work with innovative policy structures, such as tradeable stormwater credits in Washington, D.C., to develop markets that advance conservation through investments in natural infrastructure. And we work with our partners to build deal structures that rely on flexible, concessionary pools of capital from investors focused on the total environmental, social, and financial returns on their investments, in order to scale and create the enabling conditions for larger institutional capital providers to participate.

By bringing these science, policy, and finance interventions to bear, conservation impact investing has the potential to provide a positive financial return to investors and help to protect the biodiversity on many more millions of acres of working landscapes.

Appendices

Photo: ©Bridget Besaw

Appendix I

Survey and interview participants

(Some institutions and individuals are not listed to respect their desire for anonymity.)

We would like to sincerely thank the following organizations that have contributed to the survey and interview processes of this project. This report would not have been possible without their willingness to be generous with their time.

33 Asset Management

Althelia Climate Fund

Anthrotect

Armonia LLC

Asian Development Bank

Beartooth Capital Partners

BioCarbon

Blue Source

California Fisheries Fund

Calvert Foundation

Capricorn Investment Group

CDC Biodiversité

CEI

Cielos Patagonicos

Coady Diemar Partners

Craft3

Credit Suisse

DBL Investors

EcoEnterprises Fund

Ecosystem Investment Partners

Ecosystem Marketplace

EcoTrust Forest Management

EKO Asset Management Partners

Esmée Fairbairn Foundation

European Investment Bank

Farmland LP

Finite Carbon

Global Environment Fund

Goldman Sachs

Gordon and Betty Moore Foundation

Green Gold Forestry

Imprint Capital

International Financial Corporation

Jetstream Capital

J.P. Morgan

Level 3 Capital Advisors

LGT Venture Philanthropy

Lombard Odier

Meyer Memorial Trust

Renewable Resources Group

Resources Law Group

Sea Change Management

SLM Partners

Sonen Capital

The CAPROCK Group

The Carbon Neutral Company

The Climate Trust

The David and Lucile Packard Foundation

The Forestland Group

The Kresge Foundation

The Livelihoods Fund

The Lyme Timber Company

The Nature Conservancy

The Government of Norway's International Climate and Forest Initiative

The Schmidt Family Foundation

Verde Ventures

Veris Wealth Partners

Wildlife Works

World Bank

Appendix II

Further reading on the field of conservation impact investing

2013 Annual Impact Report. Published by Sonen Capital in 2013. http://www.sonencapital.com/impact-report-2013.php

Blueprint to Scale: The Case for Philanthropy in Impact Investing. Harvey Koh, Ashish Karamchandani, and Rovert Katz. Published by the Monitor Group in collaboration with Acumen Fund in April 2012. http://www.mim.monitor.com/blueprinttoscale.html

Conservation Finance: Moving Beyond Donor Funding Toward an Investor-Driven Approach. Published in January 2014 by Credit Suisse and the World Wildlife Fund

Environmental Impact Bonds: Case 13 Working Paper #3. David Nicola. Published in 2013 by Duke University's Fuqua School of Business and the Center for Advancement of Social Entrepreneurship (CASE). http://sites.duke.edu/casei3/files/2013/03/CASEi3_EIB_Report_FINAL-links.pdf

Evolution of an Impact Portfolio: From Implementation to Results. Published by Sonen Capital in 2013. http://www.sonencapital.com/evolution-of-impact.php

From the Margins to the Mainstream Assessment of the Impact Investment Sector and Opportunities to Engage Mainstream Investors. Published by the World Economic Forum (WEF) in 2013. http://www3.weforum.org/docs/WEF_II_FromMarginsMainstream_Report_2013.pdf

Guide to Conservation Finance: Sustainable Financing for the Planet. Published by the World Wildlife Fund (WWF) in 2009. http://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf_guide_to_conservation_finance.pd

Impact Investing: Transforming How We Make Money While Making a Difference. Antony Bugg-Levine and Jed Emerson. Published in September 2011.

Impact Investments: An Emerging Asset Class. Nick O'Donohoe, Christina Leijonhufvud, Yasemin Saltuk, Anthony Bugg-Levine, and Margot Brandenburg. Published in November 2010 by J.P. Morgan Global Research with the Rockefeller Foundation and the Global Impact Investing Network (GIIN). http://www.jpmorganchase.com/corporate/socialfinance/document/impact_investments_nov2010.pdf

Impact Investment: The Invisible Heart of Markets. Published in September 2014 by the Social Impact Investment Task Force established under the United Kingdom's Presidency of the G8. http://www.socialimpactinvestment.org/reports/Impact%20Investment%20Report%20FINAL[3].pdf

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Appendix III

Glossary of terms

Committed capital – Capital that has already been allocated or deployed into specific investments.

Concessionary capital – Investments that sacrifice some financial gain to achieve a conservation and/or social benefit. This term is often applied to investments made by foundations in the form of program related and mission related investments. See below.

Conservation easement (a.k.a. land easement) – The most traditional tool for conserving private land in the United States. An easement is a legal agreement between a landowner and a land trust or government agency that permanently limits uses of the land in order to protect its conservation values. It allows landowners to continue to own and use their land – as long as the use does not violate the conservation terms set out in the easement. It also allows them to sell or pass it on to heirs.

Development finance institution (DFI) – Financial institutions that provide finance to governments and the private sector for investments that promote development. They focus on developing countries and regions where access to private sector funding is limited. They are usually owned or backed by the governments of one or more developed countries. Examples of DFIs include: the African Development Bank, the Asia Development Bank, and the Inter-American Development Bank.

Environmental, social, and governance (ESG) investment screen – Refers to the three main areas of concern that have emerged as central factors in measuring the ethical and ecological impact of an investment in a company or business. It is also a term that is often used interchangeably with socially responsible investing. See below.

Guarantee – A non-cancellable indemnity bond that is backed by an insurer in order to guarantee investors that principal and interest payments will be made. The guarantee provides investors with an additional level of comfort that the investment will be repaid in the event that the securities issuer would not be able to fulfill the contractual obligation to make timely payments. It also lowers the cost of financing for issuers because the guarantee typically earns the security a higher credit rating and therefore lower interest rates.

Mission related investments (MRIs) – These are market-rate investments made by foundations and other mission-based organizations to further their philanthropic goals. They are part of a foundation's endowment and have a positive social impact while contributing to the foundation's long-term financial stability and growth.[23]

Mitigation banking – The restoration, creation, enhancement, or preservation of a wetland, stream, or other wildlife habitat area that is undertaken for the purpose of offsetting the anticipated loss of comparable resources due to development.

Non-profit investors – For the purpose of this study, this group includes not only foundations and nongovernmental organizations but also DFIs as well as one state-owned corporation.

Program related investments (PRIs) – These are below-market investments made by foundations to support charitable activities that involve the potential return of capital within an established time frame. PRIs include financing methods commonly associated with banks or other private investors, such as loans, loan guarantees, linked deposits, and even equity investments in charitable organizations or in commercial ventures for charitable purposes.[24]

Reducing Emissions from Deforestation and Forest Degradation (REDD/REDD+) – REDD is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. REDD+ goes beyond deforestation and forest degradation and includes the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks.[25]

23 https://www.missioninvestors.org/mission-investing

24 http://www.grantspace.org/tools/Knowledge-Base/Grantmakers/pris

25 http://www.un-redd.org/AboutREDD/tabid/102614/Default.aspx

Socially responsible investing (SRI) – Refers to investments that are considered socially responsible based on environmental, social, and corporate governance criteria. Standards for socially responsible investments may include, for example, avoiding investment in companies that produce large amounts of pollutants or sell addictive substances like alcohol and tobacco.

Uninvested capital – Capital that is already raised or readily available to make new investments but has not yet been allocated or committed to specific investments.

Water banking – The practice of forgoing water deliveries during certain periods and "banking" the right to, in the future, use the forgone water or sell it to another party. Water banking generally depends on the availability of significant storage capacity to facilitate such transfers.[26]

Water quality trading – This refers to an innovative approach to achieving water quality goals more efficiently. Trading is based on the fact that sources in a watershed can face very different costs to control the same pollutant. Trading programs allow facilities facing higher pollution control costs to meet their regulatory obligations by purchasing environmentally equivalent (or superior) pollution reductions from another source at lower cost, thus achieving the same water quality improvement at lower overall cost.[27]

Water rights trading – This refers to the process of buying and selling water access entitlements. The terms of the trade can be either permanent or temporary, depending on the legal status of the water rights. The water rights market is particularly active in water-scarce areas such as the American West and Australia.

26 http://en.wikipedia.org/wiki/Water_banking

27 http://water.epa.gov/type/watersheds/trading.cfm

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