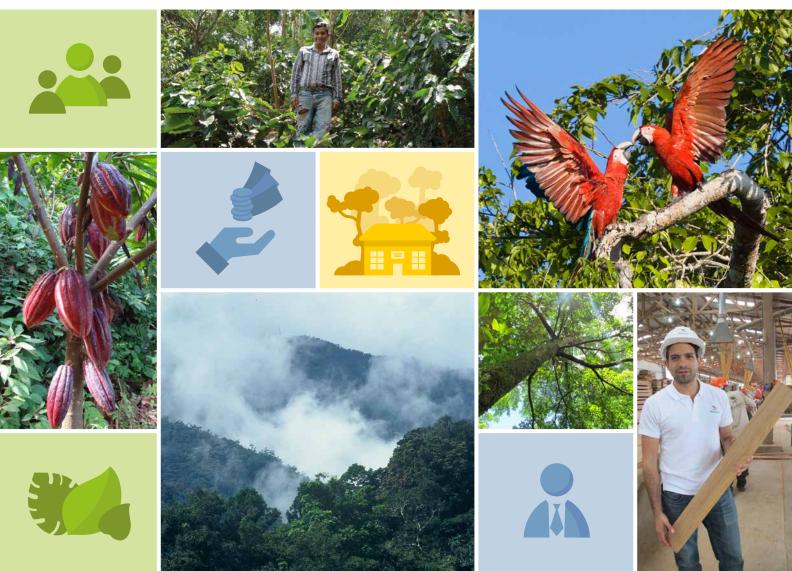
Private capital for nature conservation





COULD IMPACT INVESTMENTS BE A SOLUTION?



| FOREST AND BIODIVERSITY CONSERVATION: A SYNOPSIS | P. 4 |
|---|-------|
| | |
| WHAT ARE IMPACT INVESTMENTS? | P. 6 |
| | |
| CASE STUDIES FOCUSSING ON FOREST AND BIODIVERSITY CONSERVATION | P. 11 |
| | |
| RESULTS AND RECOMMENDATIONS | P. 14 |
| | |
| ARE IMPACT INVESTMENTS A WAY OF CONSERVING BIODIVERSITY? | P. 18 |
| | |
| APPENDIX AND IMPRINT | P. 20 |

COULD IMPACT INVESTMENTS BE A SOLUTION?

A major issue at international conferences on climate and nature conservation is how to finance forest and biodiversity conservation. Since more and more funding is needed for nature conservation, the private sector is being assigned a key role in providing finance. Investments in nature conservation are made through various financial instruments, which not only provide a financial return but are also meant to have a positive social and ecological impact. Such investments are called "Impact Investments.

In this context, the tropical forest foundation OroVerde and the Global Nature Fund analysed the design of a number of Impact Investments with emphasis on their contribution to the conservation of biodiversity. Using local case studies and a list of criteria, an investigation was carried out looking at the ecological and social impact as well as accompanying risks, returns, impact measurement and other aspects of five existing Impact Investments in Latin America.

The results show that there are still only relatively few projects related to the conservation of biodiversity, despite a growing demand for investments in nature conservation. From retail investors to pension funds, and wealthy private individuals, investors are increasingly concerned about the impact of their investments. Impact Investments offer an alternative to classical forms of investment: they focus not only on the rate of return and the risks involved but also on the social and/or ecological impact. Such Investments also promote sustainable business models and industrial sectors and provide capital recipient easier access to capital and markets.

Challenge for Impact Investments

However, the market for impact investments in forest and biodiversity conservation is still in its infancy. The lack of any long-term track record and the resulting uncertainty regarding risk and return make it difficult for private investors to assess such investments. In order to minimise risks, investors usually choose to invest in existing projects rather than new start-ups. Often it is unclear whether an investment creates an additional positive ecological and social impact. There is a lack of sufficient monitoring to assess the impact of investments. This is due to the complexity of impact measurement, the lack of practical indicators and standards, and the costs involved. Therefore, the positive ecological and social impact is usually assessed by means of a broad-ranging due diligence process.

Currently, a return comparable to traditional financial investments is not compatible with impact investments in nature conservation and the protection of biodiversity in particular. Often public funding is used to reduce the risk for private investors and thereby mobilise more capital for nature conservation. In the future the conditions for the effective use of public funds should be more clearly defined. Similarly, minimum requirements for investments should be established. This will enable impact investments to stand out more clearly from other financial investments and consequently mobilise more private capital to contribute to biodiversity conservation.



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FOREST AND BIODIVERSITY CONSERVATION: A SYNOPSIS



Examined case study of Rainforest Expeditions in the Tambopata national park

"Between 2004 and 2015, USD 8.2 billion of private capital were invested in nature conservation."

Deforestation and loss of biodiversity

Forests, especially in the tropics, are important species-rich ecosystems. But the fact is that tropical forests are lost at a rate of 7 million hectares per annum' so that biodiversity is rapidly decreasing in many parts of the world. This development is not only a threat to the great wealth of animal and plant species but also to basic ecosystem services. These include climate regulation, improvement of water quality, and the pollination of flowering plants. In order to reduce the rate of decline in biological diversity worldwide, large amounts of money are needed for forest and biodiversity conservation. There is currently not enough money available. Governments, especially in developing countries, are not in a position to provide sufficient resources. And non-governmental organisations often have very few ways of obtaining additional funds. Therefore, new and innovative sources of finance must be found if progress in biodiversity conservation and reforestation is to be made.

Lack of funding for nature conservation

Worldwide, governments and charitable foundations spend around USD 52 billion annually on biodiversity conservation.² But more is needed, if the Aichi Biodiversity Targets³, agreed by the signatories to the UN Convention on Biological Diversity, are to be reached by 2020. Experts estimate that USD 300 to 400 billion would have to be raised annually – nearly six to eight times as much as at present. If the amount raised from government capital and grants were to double, the main group of investors (retail investors, institutional investors, and wealthy individuals) would have to raise about 1 percent of total, global private sector annual investment – approx. USD 200 to 300 billion.⁴

Private finance for nature conservation

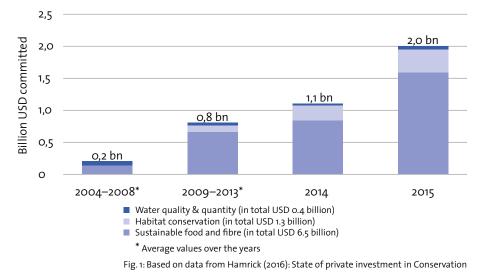
In addition to government funding, private capital is required to bridge the gap in funding for biodiversity conservation. There are various reasons why the private sector might want to provide funding: philanthropy, corporate image promotion, the protection of resources which the private sector uses itself (e.g. raw materials, water), or to seek a financial return. In recent years, support has grown for the idea of a financial return as an incentive for private investment in nature conservation. And this has been "tested" in various funding models, e.g. habitat banks with compensation payments for conservation and "green" bonds. Between 2004 and 2015, USD 8.2 billion of private capital were invested in nature conservation together with an increase of 62 percent in private investment over the past two years.⁵ The investments can be divided into three categories: sustainable food and fibre production (including agriculture, forestry, and fisheries); habitat conservation; and protection of water resources in terms of both quality and quantity (Fig. 1). Between 2004 and 2015, two thirds of private funds (USD 6.5 billion) were invested in sustainable food and fibre production.⁶

1 FAO (2016)

- 2 Credit Suisse; McKinsey (2016)
- 3 Aichi Biodiversity Targets: The signatories to the Convention on Biological Diversity (CBD) have agreed a Strategic Plan for the maintenance of biological diversity by 2020, which includes 20 concrete, measurable targets with specific indicators. CBD (2017)
- 4 Credit Suisse; WWF; McKinsey (2014)

5 Hamrick, K. (2016)

6 Hamrick, K. (2016)



Private finance for nature conservation 2004–2015

Purpose of the analysis

The "Analysis of new innovative financing mechanisms for the conservation of forest and biodiversity", is a project by OroVerde and the Global Nature Fund (GNF) with the aim of providing an overview of innovative financial instruments. These are designed for forest conservation and are meant to provide a financial return at the same time. The project is funded by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, as well as the Federal Agency for Nature Conservation. The project entailed an investigation into aspects of Impact Investments: their design and structure (due diligence process, monitoring system, cooperation with capital recipients, nature of investors) and the involvement of private investors. The analysis primarily focused on evaluating the ecological and social impacts of selected Impact Investments. Based on five case studies and interviews with experts, recommendations were drawn up on how to improve Impact Investments for the long-term protection and sustainable use of biological diversity in forests.

"Impact Investments are a new financial instrument channelling private capital into projects or organisations that aim to have a positive social or ecological impact."



Tree nursery of coffee Finca Irlanda in Mexico



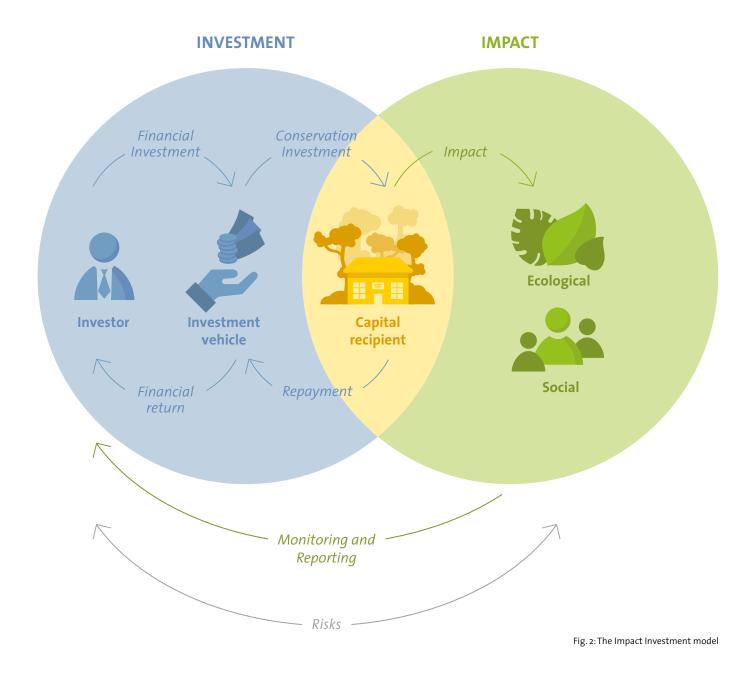
Agroforestry systems from Aldea Global in Nicaragua

WHAT ARE IMPACT INVESTMENTS?

The Impact Investment model

Impact Investments are a new financial instrument channelling private capital into projects or organisations that aim to have a positive social or ecological impact.

The following illustration shows the key elements and the life-cycle of an Impact Investment. The investor uses the investment vehicle to invest financial capital in the borrowing organisation (capital recipient), which has a positive ecological and/or social impact through its activities. The capital is used to generate revenue – and therefore a financial return for the investor – through the sale of products, the provision of services, or the valorisation of nature. In addition to the flow of money, the significant characteristics of Impact Investments include the various stakeholders involved (investors, capital recipients, investment vehicles), the intended effects, associated risks, and the monitoring of impacts (Fig. 2).



Investors

Impact investors may be private individuals, institutions, or companies from various sectors. This includes development banks, private foundations, large financial institutions (e. g. J. P. Morgan), asset managers, specialist banks (e. g. Triodos, GLS Bank), pension funds, companies, High-Net-Worth Individuals (HNWI), and retail investors.⁷

Not only is there a wide diversity of investors, there are also widely differing expectations regarding rates of return. Whilst some investors expect Impact Investments to provide similar rates of return to conventional investments, others are willing to accept a lower financial return due to the intended positive social or ecological impact.⁸ Institutional investors, such as pension funds and government agencies, tend to make longer term investments and seek a stable and regular income. Retail investors tend to be risk-averse and often accept lower rates of return⁹, but expect to receive regular payments. HNWIs usually employ professional fund managers and invest their capital in a broad portfolio that includes various types of investment. They are less averse to risk and normally expect a high return on their investment. However, where nature conservation is concerned, they often accept lower rates of return for the desired social or ecological impact.¹⁰



Ecotourism in the Peruvian rainforest

Interview with Damian Pilka, GLS Bank

Why does GLS Bank consider Impact Investments for forest and biodiversity conservation to be so important?

GLS Bank invests money to promote development opportunities for current and future generations. Maintaining the Earth's natural life-support system is an essential prerequisite. Financially supporting climate-friendly energy and ecological agriculture is vital to us because we want to protect the environment. Biodiversity plays an equally important role in our investment and funding policies. If the conduct of enterprises negatively impact nature and biodiversity – that is sufficient reason for us not to invest. If, on the other hand, an enterprise contributes to the conservation of biodiversity, we take that into account as a positive factor.

The direct financing of biodiversity measures (e.g. reforestation) is still a niche market – in comparison with renewable energy, for example. But our customers are very interested in it. A few years ago, we launched the "summender Wald" ("Humming Forest") project and, together with our members, planted trees in Spessart.

What do you think is a realistic rate of return for investments in nature conservation?

It is difficult to answer that question because it depends on so many factors. Is equity or debt capital needed? Does the investment have to be made in euros, US dollars, or in an "exotic" local currency? How high are the operational risks of the investment? What rate of return do the investors expect?

Then there's the structure of the individual project. The more ecological and transparent the impact of the investment is (possibly even with major social benefits locally), the lower the expected rate of return because the investors regard these benefits as an additional worthwhile return on their investment.



Damian Pilka, GLS Bank

"The more ecological and transparent the impact of the investment, the lower the expected rate of return."

7 J. P. Morgan Global Research;
The Rockefeller Foundation; GIIN (2010)
8 J. P. Morgan Global Research;

The Rockefeller Foundation; GIIN (2010) 9 Credit Suisse; WWF; McKinsey (2014) 10 Credit Suisse; WWF; McKinsey (2014)



Monitoring the forest stock of Futuro Forestal



Reforestation in Panama

Here's an example: reforestation financing in Latin America

- Rate of return required by investors in Germany: 2.5-4 percent
- Costs of the investment vehicle, marketing, management, etc.: 1.5 percent
- Hedging costs of foreign currencies: 3–10 percent
- Operational risk premium: 2–5 percent
- → Total return required from the project: 9–20.5 percent, depending on the local currency and operational risks

What do you think are the greatest challenges for Impact Investments in forest and biodiversity conservation?

The current tight controls on risk capital, the costs, and the socio-ecological evaluation of projects. Are land rights clarified? How does the project contribute to biodiversity? Evaluating these projects is costly in terms of time and resources. Another challenge is the tendency for local currencies to be devalued against the euro. Compensating for this can be very expensive. Since it is usually only a six-figure sum which is being invested, it is difficult to justify high costs.

Regulations present a few obstacles to be overcome. This makes it difficult to collect capital from retail investors. Funds which contribute to such projects and use their wide portfolio to cover the risks are not open to private investors because of supervisory legislation. In short, they are considered to be too risky. Financial securities such as bonds require elaborate prospectuses that have to be legally watertight and this is expensive. All this would drive up the rate of return which the project would have to generate.

At the moment, there is only the so-called grey capital market for retail investors in Germany. Here it is a case of less well-regulated financial instruments such as participatory notes. But these increase the risks for the investor and the costs for the bank which issues them.

Institutional investors face a challenge when it comes to assessing the risks involved in biodiversity projects. The missing track record for this new market makes the risk assessment more difficult.

Damian Pilka works at the GLS Bank in the Investment Funds and Research team. The team is responsible for the creation and management of the GLS Bank's own investment products.

Investment vehicles

Investors can participate in the development of Impact Investments through a variety of financial instruments. Besides the investment of private equity, which generally involves higher risks, there are also debt products. These may include subordinated loans", loans, bonds traded in capital markets, and other capital market-oriented bonds. Indirect investments through investment funds are also possible. All these forms of investment facilitate the aim of obtaining both a financial return on the investment as well as a positive ecological or social impact. The diverse structure of investment vehicles is characterised by differences in the rate of return, the distribution of risk (investor, investment vehicle, or capital recipient) and the amount of influence that investors have. Investors have the most influence when they participate directly in individual projects, but in that case they face a correspondingly high risk of losing all of their investment. Investment funds involve an intermediary and often maintain a wide portfolio of investments in a number of different projects.

Investment vehicles which handle a large funding volume, mostly funds, are characterised by complex structures, a correspondingly high level of administration, and a tendency to impose more stringent conditions to protect investors.

| Type of investment | Investment vehicle ¹² | Description |
|--------------------|----------------------------------|---|
| Debt | Direct loan/ credit line | Direct lending to a specific project or or organisation. |
| | (Green) Bond | Debt securities to raise external funds on the capital market. The investment structure varies according to duration of the loan, currency in which loan is paid out, rate of interest (fixed, variable, structured). Green bonds are limited to projects with a positive ecological impact. |
| Hybrid | Debt/equity fund | Somewhere between private equity and debt capital because it is possible to convert to private equity, or the invest- ment vehicles do not have priority when repayments are made (e. g. reverse con- vertible bonds, subordinated loans, and participatory notes). Such funds bundle various projects together. |
| Equity | Private equity fund | Usually a limited partnership in legal terms with a fixed term of 10 years. A fund invests in a whole portfolio of enterprises. |
| | Private equity | Purchase of companies with an invest- ment horizon of five years in most cases. |
| | Cooperative ¹³ | Cooperative enterprise, pursuing in this case the promotion of social or cultural purposes. Members join by paying a deposit, have a right to vote in meetings and the right to a share in the profits provided this is not excluded by the constitution of the cooperative. |

Table 1: Typical conservation finance vehicles (based on Credit Suisse; McKinsey (2016), modified and extended)



Tree nursery of Futuro Forestal in Panama



Coffee beans drying in the sun at Finca Montegrande in Mexico

¹¹ Subordinated loans are characterised by the arrangement that, when a borrower has difficulty making payments on a loan, the claims of subordinate loans are met only after all other claims have been met. To compensate for the higher risk of a loss of capital, a higher rate of interest is paid.

- 12 This is a non-exhaustive list of the most common conservation finance vehicles.
- 13 Cooperatives are not a conventional investment vehicle, but rather a form of enterprise. They are included in this study because they are present in the market as a way to invest in nature conservation.

"The capital recipients are often agricultural producers who repay loans from the sale of their products such as coffee, cocoa, or honey."



Private equity, debt capital, and mezzanine financing¹⁴ are usually used to support small and medium-sized enterprises (SMEs) and cooperatives. These contribute to the maintenance of biodiversity through their economic activity. Sometimes micro-finance institutions or small credit institutions are involved, which select capital recipients locally as well as allocating and managing micro-credit. This means that SMEs and co-operatives can access capital that is otherwise often difficult to obtain, except at poor conditions, due to the fact that the sector, poorly functioning capital markets, and the volume of finance required are too unattractive for conventional types of investment. The capital recipients are often agricultural producers who repay loans from the sale of their products such as coffee, cocoa, or honey. Other areas for Impact Investments in forest and biodiversity conservation include ecotourism and sustainable forestry, where the return for the investor is made from tourism, CO2-certificates, and the sale of timber.



Mexican smallholder of the cooperative Comon Yaj Nop Tic



Ecological impact

There are various ways for capital recipients to have a direct and positive impact on forest and biodiversity conservation: areas of cultivation can be cultivated according to ecological standards which entail, for example, not using pesticides or fungicides, etc. to combat diseases and pests. The capital recipients can conserve biologically diverse, natural forest areas and employ park rangers to protect them from illegal logging or hunting. Sometimes the investments are designed to restore areas of land to improve ecosystem services such as the improvement of water quality and the prevention of erosion. Another ecological impact can be made by promoting sustainable methods of cultivation (agroforestry, natural forest management), the cultivation of native species, and avoiding monoculture. Additionally, the promotion of alternative sources of income, e. g. through ecotourism projects, instead of environmentally destructive sectors such as mining or intensive agriculture, can reduce the negative consequences of land use in species-rich areas.



Cocoa cultivation at Finca Irlanda in Mexico

14 Mezzanine financing is an intermediate form of financing between private equity and debt capital. It is intermediate in terms of structure between private equity, which entails full liability and voting rights, and primary debt capital. To compensate for the higher risk involved, mezzanine investors often have a share in the growth of the capital value of the enterprise as well as receiving fixed interest on the loan.



A positive social impact often goes hand in hand with more environmentally friendly economic activity. Training courses in sustainable methods of cultivation, the moderate use of pesticides, and sustainable use of water and other resources contribute directly to the protection of ecosystems and species diversity. Improvements in water quality or food supply have a correspondingly positive effect on the quality of life of the local population. In addition to these beneficial side-effects of ecological measures, Impact Investments may also have positive effects on working conditions, local capacity building, and local development as a whole. This is the case when the Impact Investment is subject to requirements regarding health and safety at work and the payment of minimum wages. Some may also provide specific incentives for the involvement of the local population and the strengthening of local organisations. The financial security and economic situation of the capital recipient can also be improved by coupling the credit conditions with long-term contracts or guaranteed product prices. Access to markets and financial services may also be facilitated.

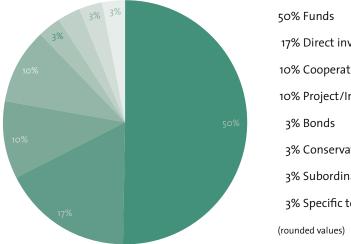
CASE STUDIES FOCUSSING ON FOREST AND BIODIVERSITY CONSERVATION

In order to analyse Impact Investments, OroVerde and GNF undertook five case studies. First, a market analysis and interviews with experts (see appendix) were conducted to obtain an overview of the various investment products available to private investors on the market, which could have a potentially positive impact on forest and biodiversity conservation. The analysis of Impact Investments according to a list of criteria developed by OroVerde and GNF included both the structure of the investments and their social and ecological impact. These were evaluated by means of project visits, interviews with the borrowers and their employees, and additional experts.

Selection of Impact Investments in forest and biodiversity conservation

This investigation focused on investments that not only provide a financial return but also aim to generate a positive impact on forest and biodiversity conservation and make this social benefit publicly visible. A total of around 30 products were identified, which are available to private investors (see appendix). The type of investment vehicle varies, although half of the institutions contacted were funds.

Financial instruments: percent share of impact investments



17% Direct investment 10% Cooperative 10% Project/Investment 3% Conservation notes 3% Subordinated loans 3% Specific to investor



The toucan can be found in the Tambopata area in Peru



Rainforest Expeditions offer boat trips on the Tambopata river

Fig. 3: Breakdown of Impact Investments in biodiversity conservation according to financial instruments

For each investment, projects that focus on forest and biodiversity conservation were identified. These served as case studies for local evaluation A large proportion of the projects contacted were engaged in agroforestry and sustainable forest management; a few were engaged in ecosystem restoration and ecotourism. The proportion of investment providers who showed an interest in close cooperation over the course of a case study was very small. According to GNF and OroVerde, among the reasons for this could be insufficient knowledge of many investment providers regarding the impact of their investments, fear of extra work being involved, or that projects of interest are still in an initial phase. Four investment providers and one capital recipient expressed their willingness to take part in a case study evaluation: Conservation International with Verde Ventures Fund; Maderacre; Waldmenschen eG; Oikocredit; and a capital recipient, Rainforest Expeditions.



Forest management of Maderacre SAC in Peru

Development of criteria

A list of criteria was developed as a basis for evaluating the selected Impact Investments. It was designed to be used to assess the entire investment process from investor to local impact. The list was drawn up in discussions with experts in various fields and includes 84 criteria focussing on the structure of the Impact Investments – investors, consumer protection, risk, cash flows, due diligence, monitoring, allocation of funds – and local implementation and impact – land use, biodiversity, monitoring, employment, capacity building, and gender equity. This formed the basis for the case studies and was adjusted where necessary according to local conditions in the various countries concerned.

The purpose is to show the complex interrelationships involved in investments in forest and biodiversity conservation and to include criteria relating to return, risk, and impact, which have a significant bearing on investment decisions. In most of the five case studies, it was possible to investigate only a small proportion of the investment portfolios (one or more capital recipients), so the results of the investigation for each investigate as many different types of Impact Investment in forest and biodiversity conservation as possible, which is why there was no attempt to compare the case studies.

Calvert Foundation in 2011.

| Investments | | |
|--|--|--|
| Provider/Issuer | Waldmenschen eG | Conservation International |
| Investment vehicle | Cooperative | Investment Fund |
| Short description | Development of a permanent forest using native species. 30 percent of the area is kept untouched; Focus: Panama | Support for small and medium-sized enterprises (SMEs) in the fields of ecotourism, and coffee and cocoa cultivation; Focus: Areas of high biodiversity |
| Investment volume | Year 1: EUR 192,000 Year 2: EUR 300,000 Year 3: EUR 800,000 | USD 23.4 million for 51 capital recipients |
| Expected financial return according to investment provider | First distribution after 20 years | 1–10 percent, depending on investor (variable duration) |
| Risk mitigation | Forest fire management; liquidity reserves in case of adverse fluctuations in currency exchange rates | Seven risk indicators, in three categories; 5–15 percent of capital therefore set aside in reserve fund |
| Monitoring | One-off biodiversity survey, annual monitoring of forests | Annual monitoring according to IRIS ¹⁵ , evaluation for Verde Ventures by B Lab according to GIIRS ¹⁶ |
| Capital recipients included in the study | | |
| Project(s) investigated | Generation Forest in Panama | Coffee plantations in Mexico and Guatemala |
| Return generation | Income from sale of timber; marketing of agroforestry products planned | Sale of coffee and other products, ecotourism |
| 5 IRIS (Impact Reporting and Investment Standard) is a catalogue of internationally applicable indicators, which can be used by investors to assess Impact In- vestments. The aim is to make Impact Investments comparable and to establish a common language. | 16 GIIRS (Global Impact Investing Rating System) is an analysis and rating of Impact Investments which has been developed by the NGO B Lab. The rating is comparative, transparent, and easy to use and should make it easier for impact investors to make | 17 Impact Assets 50 is a list of Impact Investment fund managers. The fund managers are selected not only on the basis of economic/financial criteria; they must also aim to make a social and/or ecological impact. Impact Assets 50 was developed by the |

investment decisions.

The case studies conducted



Forestry workers of Maderacre SAC

| Oikocredit | EcoEnterprises Partners II | Maderacre SAC |
|--|--|--|
| Cooperative | Investment Fund (EcoEnterprises Fund 2) | Equity participation |
| Investment in social enterprises and financial intermediaries; Focus: global South | Support for SMEs in the fields of ecolo- gical agriculture, forestry, ecotourism, bee-keeping, aquaculture; Focus on ecologically sustainable sectors | Support for sustainable forestry which contributes to the development of local communities; Focus: Peru |
| 2014: EUR 735 million 2015: EUR 900 million | USD 20 million for 8 enterprises | USD 40 million |
| 2 percent dividend in previous year | 11 percent (variable duration) | Not known |
| Diverse types of enterprise in different regions, avoidance of high-risk start-ups, reserve fund | Diverse sectors, countries, and volumes of investment, mainly financing of exis- ting projects | Real estate property in Lima as security |
| Quarterly reports from project partner, publication of annual report | Survey and evaluation by ImpactAssets 50 ¹⁷ & GIIRS Ratings, quarterly invest- ment reports | Financial monitoring only, ecological monitoring through FSC audits. |
| | | |
| Asociación Aldea Global Jinotega in Nicaragua | Rainforest Expeditions SAC in Peru | Maderacre SAC in Peru |
| Financial services, export of raw coffee, marketing of vegetables | Ecotourism | Sale of certified timber products |
| | | |

Table 2: Overview of the case studies which were investigated. A detailed evaluation of the five case studies is available on the OroVerde and Global Nature Fund websites.

RESULTS AND RECOMMENDATIONS



Coffee cultivation can be combined easily with forest conservation.

"The promised financial return for the investor varies considerably between individual investments."



Coffee farmers of the cooperative Aldea Global harvest coffee once a year.

Recommendations

It is possible to draw conclusions from the results of the case studies and the interviews with experts about the rates of return and the risks of Impact Investments, as well as their contribution to biological diversity, and their social impact. The following summary presents the results without giving details of individual Impact Investments or the names of investment providers. Initial recommendations are made for action to further improve Impact Investments and promote their dissemination.

Return on investment

In the case of the Impact Investments studied, income was generated from the sale of products (timber, coffee, cocoa) and services (ecotourism). In three cases, credit was given to the recipients either directly through an investment vehicle or through an intermediary financial institution. The financial return for the investor is then paid out of the capital recipient's interest payments. Two investments participate in the growth of the enterprise through equity participation or mezzanine financing.

The financial return promised to the investor varies considerably between individual investments and may be anywhere between an annual dividend of 2 percent and a return of 11 percent. According to the experts interviewed, generating the market rate of financial return is not usually compatible with the desire for a positive ecological and social impact. This is contrary to the expectations of many investors. There are many different obstacles to generating a competitive rate of return: revenue from forestry products can only be generated after a certain period of time, for example. But narrow profit margins on the products of cultivation, a multiplicity of smallholdings, or vulnerability to natural phenomena, e.g. long periods of drought or pest infestation, are also problematic.

Although public funding sometimes flows into Impact Investments, the calculation of the rate of return is not transparent for the investor. One reason could be that the investments are still new and there is a lack of relevant experience. In addition, it is difficult to calculate the associated (natural) risks and the rates of return which can be expected. In addition, investment providers prefer to avoid disclosing confidential data.

Until now, the costs of measuring ecological and social impacts as well as local capacity building have usually been financed through third parties (state support, universities, or donations). These costs reduce the rate of return further and are therefore often externalised, although capacity building and the measurement of ecological and social impacts are key aspects of Impact Investments.

- Although there are still a lot of challenges to be overcome (lack of demand, legal hurdles, etc.) where programmes for market-based instruments (such as REDD+, habitat banks¹⁸, Payments for Ecosystem Services (PES)) are concerned, they can provide an additional flow of funds and should be supported. These support programmes can help bridge the first few years of a project during which there is no financial return to the investment vehicle.
- It is also essential to increase the transparency of aspects considered in calculating the rates of return. This is the only way for investors to tell whether the estimated rate of return is realistic, especially when there is public participation in Impact Investments.

18 Habitat banks are areas in which interconnected compensation measures are implemented and so-called biodiversity offsets are created to compensate for damage done to the natural world. For further information see: GNF; DUH (2014)

Risks

In the case studies examined, in order to ensure a low risk for investors, investments were made primarily in existing projects or enterprises, rather than creating new projects. However, there are often few projects that meet the requirements of Impact Investments, especially from an economic/financial point of view.

Fluctuations in exchange rates and market prices constitute a critical issue as regards sharing the burden of risk. Some of the investments examined left the capital recipient to bear the burden of these risks. They are hardly able to insure themselves against such risks, and price fluctuations or changes in currency exchange rates can pose a serious threat to the existence of the capital recipient. One of the investments examined took on the risk of exchange rate fluctuations and paid out credit in the local currency. This measure served to reduce the risk to the capital recipient and to support their long-term economic development.

Many of the positive social and ecological effects can reduce the risk of the investment and therefore make the financing of nature conservation more attractive. Planting a variety of native species and creating habitats for flora and fauna, e. g. through agroforestry, increases the resistance of crops to pest infestation. It is equally important to have well-trained workers, so that areas are farmed sustainably and ecosystems are protected. If workers and neighbours are made conscious of the value of intact ecosystems, it is possible to produce high-quality agricultural and forest products. This reduces the risk of repayment difficulties due to poor harvests because of over-use or destruction of natural resources. Unfortunately, this potential benefit is not currently taken into account when investment risks are calculated.

At present, public funds are very often used to hedge against risks. It is argued that this works as a lever and makes investment more attractive to private investors (leverage effect). Public capital is sometimes treated as subordinated debt – in case of insolvency, other creditors take precedence. In this way, investment losses are born primarily by taxpayers. There is no clear evidence to show that public capital has such a leverage effect or to indicate how much and for how long such state participation is useful. Nor are the ecological and social requirements for state participation clearly defined. And the requirements regarding transparency are very weak. "Many of the positive social and ecological effects can reduce the risk of the investment and therefore make the financing of nature conservation more attractive."



Local capacity building can reduce the risk of forest fires.



On some fincas farmers cultivate coffee varieties that are resistant against coffee rust.

Recommendations

- Credit payments should be made more often in the local currency so that the capital recipient does not have to additionally bear the risk of exchange rate fluctuations. Guaranteed purchase agreements with fixed prices are another possible way of reducing the risks for small enterprises.
- The positive effect of social and ecological improvements on investment risks needs to be investigated more thoroughly.
- In order to justify the use of tax revenues, clear requirements should be met by Impact Investments as regards transparency and the measurement of effectiveness. This is the only way in which Impact Investments can be more clearly distinguished from conventional investments on the capital market. There is also a need for investigation into the conditions (size of loan, duration of participation, etc.) under which public participation is effective in terms of increasing private participation.

"The simplest and most effective impact assessment until now has been provided by the application of standards or certification."



Certification within the cooperative Aldea Global



Ranger protect the natural forest area at the Finca Los Andes in Guatemala

Ecological impact

Management of project areas

The agroforestry and forest areas which were studied differ considerably from each other in terms of how the project area is cultivated. Some coffee farmers and forestry enterprises use organic fertilisers, plant only native species, use renewable energy (especially small hydroelectric power plants), and promote the conservation of natural forest (up to 67 percent of the project area). Other capital recipients, who use pesticides, manage agroforestry without much shade, or maintain only very small areas of natural forest, pay much more attention to higher productivity than they do to biodiversity.

It is interesting to note that the key factor in promoting ecological cultivation is not so much the credit conditions attached to individual investments, but rather certification or the capital recipient's own interest in cultivating the land sustainably. Although certification is regarded positively when projects are selected for investment (due diligence process), this has no influence on the conditions for the capital recipient.

Biodiversity and conservation measures

The projects examined are all situated close to nature reserves with high biodiversity. Although rangers are employed in a few cases to prevent illegal logging or poaching of wild animals, active biodiversity conservation is of secondary importance to the capital recipient. Issuers of investments also do not set any conditions with regard to promoting biodiversity. The greatest contribution to biodiversity conservation may be made by giving financial support to alternative income generation in areas bordering reserves because this reduces the pressure to exploit the core protected areas. Growing coffee, agroforestry, or ecotourism is often the only alternative to environmentally damaging sources of income such as mining in the Tambobata reserve in Peru. Capital recipients in niche markets receive credit, which they are unlikely to be able to obtain under the same conditions in their national markets.

Monitoring of biodiversity

Although measuring the impact of investments is an important defining characteristic of Impact Investments, this is very rarely carried out by the investment provider. Only one of the investment institutions studied covered the costs of monitoring themselves. The others financed monitoring from donations and public financial support. The simplest and most effective impact assessment until now has been provided by the application of standards or certification. Certification often comes at a high price for the capital recipient, though, and is therefore not economically viable in spite of the higher product prices which would be attainable. In addition, the standards which have been used until now do not adequately cover the conservation of biodiversity.

Recommendations

- Payment terms could be used to give capital recipients an incentive to undertake measures to conserve biodiversity.
- The key importance of high species diversity and intact ecosystems to the economic survival of local farms and forestry enterprises should be more strongly highlighted. A better understanding of the value of intact ecosystems in the local community increases people's commitment to protecting them. Where investment vehicles and investors are concerned, this understanding of the positive impact of the investment could be given more weight in decision-making.
- Practical and meaningful indicators need to be developed to monitor ecological factors, especially biological diversity. A uniform international standard could facilitate a wider distribution of Impact Investments and make it easier to compare investments in terms of their ecological and social impact. Developing a standard could be undertaken by a variety of stake-holders in the financial sector, and in the fields of nature conservation and project development together with standards organisations.¹⁹

19 The list of criteria developed by OroVerde and GNF and used in the analysis carried out during the case studies provides an initial selection of possible indicators.

Social impact

Local development

A major advantage of financial support through Impact Investments is that, when capital recipients face payment difficulties, the schedule for loan repayments and/ or dividend payments can be made more flexible to increase the possibility of avoiding insolvency. In addition, some Impact Investments enable small enterprises to gain access to capital markets from which they are otherwise excluded. It should be pointed out that the other conditions of Impact Investments are no different from the usual conditions in the financial market. In addition to this, there have only been a few individual cases so far where positive social and ecological developments or standards have had a positive influence on conditions for the capital recipient.²⁰ In the case of some investments, annual loans enable farmers to pay seasonal workers and to buy whatever they need, but this arrangement does not help these small enterprises to become independent of loans in the long term. Overall, however, the investments facilitate job creation and, in some cases, the creation of job prospects for women. The improvement of social conditions is generally more important to cooperatives than to other capital recipients.

Working conditions

One of the positive conclusions of the investigation is that employees are paid the legal minimum wage and are often provided with board and lodging, protective gear, and social insurance as well. Job contracts regulate paid holidays and employees receive regular payment. Unfortunately, only a few employees have permanent contracts and in some cases only a few local people are employed.

Local capacity building

Local capacity building often takes the form of training courses in production processes and methods of cultivation. In a few cases, training is provided in business management and administration. Additional measures are rarely taken to promote education and training for the local population, such as financial support for workers to follow further education courses, or environmental education for residents of neighbouring areas and for children. Donations, rather than investment funding, are very often used to finance such measures.

"Some Impact Investments enable small enterprises to gain access to capital markets."



Environmental education at the coffee Finca Los Andes in Guatemala.



Local capacity building like at Maderacre SAC should be supported by the investment.

Recommendations

- More weight should be given to the positive social impact or the application of standards when drawing up financial conditions for the capital recipients. This could stimulate sustainable and positive development in the region.
- Longer term provision of financial support would promote the economic development of small enterprises and farmers.
- Appropriate indicators for the measurement of the social impact of investments should be developed so that the impact can be evaluated and communicated to the investors.

20 The first attempt to establish a "green credit line" is a joint project of Agrobanco, the Peruvian state development bank, and the Global Canopy Programme. Further information is available at: http://globalcanopy.org/projects/unlockingforest-finance

ARE IMPACT INVESTMENTS A WAY OF CONSERVING BIODIVERSITY?

"The challenges and obstacles should not hinder the development of the market for Impact Investments, but should rather guide it in the right direction."



The Quetzal occurs in the conservation areas next to the coffee fincas in Mexico and Guatemala.

Impact Investment is a new but rapidly growing market. This is a welcome development because Impact Investments present an alternative to classical capital investment products and investors are being made aware of sustainability issues. The Impact Investments which were investigated are pioneers in the field of investment for forest and biodiversity conservation. Out of 30 investment providers who were approached, only a few were willing to allow field surveys. The initial phase of an Impact Investment and getting established on the capital market present major challenges, however. The lack of a track record and the associated uncertainty regarding risks and rates of return act as a deterrent to private investors. The investigation showed that there is a lot of room for improvement, for example, in terms of impact measurement, local capacity building, and the protection of natural forest areas. Social impact is currently measured using easily identifiable indicators such as the number of jobs created, the proportion of women amongst the workforce, and payment rates. As yet there is no internationally recognised standard which could provide satisfactory evidence of a positive impact. Making a meaningful measurement of impact from an ecological point of view, especially as regards the conservation of biodiversity, appears to be very difficult and costly at this point in time. A broad-ranging due diligence process often leads to the assumption that investments have a positive ecological and social impact. Nevertheless, this is not proven through conservation monitoring.



Overlooking the biosphere reserve El Triunfo in Chiapas, Mexico

The challenges/obstacles should not hinder the development of the market for impact Investments, but should rather guide it in the right direction. In our view, it is important to take the next steps:

Policy

- If there is public participation in an Impact Investment, this should be conditional on minimum ecological and social conditions being met. In addition, costs such as monitoring, local capacity building, and the protection of natural forest areas, which were external funded (outside the Impact Investment) in the past, should be more strongly supported. Public support should be provided in the form of a "first-loss investment", which carries greater risk, only under certain minimum conditions, and there is evidence that the investment is effective in terms of attracting private capital.
- State support should be aimed specifically at developing new, financially viable projects for Impact Investments that are likely to have a high ecological and social impact.

Investment providers/investment vehicles

- Ecological and social criteria are important factors in the due diligence process, but do not guarantee a positive impact. It is therefore necessary to develop a way of measuring effectiveness in order to assess the impact of changes from an investment. The methods of measurement contribute to how meaningful the results of monitoring are. Project visits and interviews with employees provide a much better insight into the effects of a project than annual reports sent voluntarily by the capital recipient. The ecological and social impact should be given more emphasis alongside the rate of return in communications with investors.
- Investment providers should support the creation of universal standards to make Impact Investments easier to compare. It is important to identify the "black sheep" on the market, to create a clear distinction between Impact Investments and conventional investments, and not to misuse the good intentions of investors.



Unique biodiversity in the Tambopata national park



Private conservation area of the coffee finca Los Andes in Guatemala

Investors

- Investors need to recognise that it is not realistically possible to combine shortterm market returns with a positive ecological and social impact. Realistic expectations as to the rate of return reduce the pressure on Impact Investments which are intended to make a positive impact.
- Investors can increase the impact of investments and encourage the measurement of their effectiveness by requesting more evidence-based information about nature conservation measures and contributions to local development. This applies equally to Impact Investments as it does to other investment products and their impact.

APPENDIX

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Disclaimer

The Tropical Forest Foundation OroVerde and the Global Nature Fund are non-profit organisations. The project involved an investigation, using local case studies, into the ecological and social impact of various impact investments. Since the case studies were completed (April to August 2016), there may have been changes which could not be taken into account in the concluding reports.

Please note: Financial investments carry risks which may in extreme cases result in total loss of the whole amount invested. The information which we provide is not a financial assessment and does not constitute an offer for sale or an investment recommendation. We do not accept any liability for financial losses or any other damages.

None of our documents are a substitute for obtaining individual professional advice and examining offers carefully.

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List of investments vehicles with an impact on biodiversity

| lssuer | Possible case studies with impact on biodiversity |
|--|---|
| Forest Finance | Global Sustainable AgroForestry Fund |
| Finance in Motion, Unique Forestry | Abaro Fund |
| Moringa Partnership, La Compagnie Benjamin de Roth- schild, ONF International | Moringa Fund |
| Alterfin scrl | Alterfin |
| Alterfin scrl | Kampani |
| Bamboo Finance | Financial Inclusion Fund |
| Finance in Motion | Eco Business Fund |
| The Nature Conservancy | EcoEnterprises Fund I |
| EcoEnterprise Partners II L.P. | EcoEnterprises Fund II |
| Oikocredit International | Aldea Global |
| Small Enterprise Assistance Funds | Small Enterprise Assistance Funds |
| Root Capital Inc. | Root Capital |
| Encourage Capital LLC | EKO Asset Management Partners |
| NEUW Ventures SA | Neuw Ventures |
| Beartooth Capital Partners | Beartooth Capital |
| Conservation International | Verde Ventures Fund |
| International Bank for Reconstruction and Develop- ment | World Bank Green Bonds |
| Commonland Foundation | Commonland |
| Sicirec Investment Management B.V. | ArBolivia |
| GreenPresent Ltd. | Regenwald-Invest |
| Balmed Holdings Ltd. | Africa Agricultural Trade and Investment Fund |
| Central American Bank for Economic Integration | Central American Markets for Biodiversityproject |
| Waldmenschen eG | Generation Forest |
| Greengoldforestry | Greengoldforestry |
| Althelia Climate Fund GP s.á.r.l. | Althelia Climate Fund |
| The Nature Conservancy | Conservation Note |
| Nature Office | Togo II |
| Terra Global Capital | Terra Bella Fund |
| Bio Assets Ativos Ambientais Ltda | Bioassets |
| Wong Group | Maderacre SAC |

List of interviews with experts

| Expert | Organisation |
|------------------------|---|
| Bergius, Susanne | Handelsblatt |
| Bock, Jan | Deutsche Gesellschaft für Internationale Zusammenarbeit |
| Brotto, Lucio | ETIFOR Srl – Forests Ideas Responsibility |
| Dahm, Daniel | United Sustainability GmbH |
| Hamrick, Kelley | Ecosystem Marketplace |
| Kührlings, Karsten | GLS Bank |
| Kaiser, Markus | Finance in Motion |
| Nugnes, Francesca | Finance Alliance for Sustainable Trade |
| Ohlsen, Henrik | Verein für Umweltmanagement und Nachhaltigkeit in Finanzinstituten e. V. |
| Dr. Pistorius, Till | UNIQUE forestry and land use GmbH |
| Poulsen, Martin | Moringa Partnership |
| Pinzon, Alexandra | Global Canopy Programme |
| Dr. Rode, Julian | Helmholtz-Zentrum für Umweltforschung GmbH |
| Ruef, Franziska | Ecosystem Marketplace |
| Schmidt-Pramov, Fabian | Deutsche Gesellschaft für Internationale Zusam- menarbeit |
| Schneeweiß, Antje | Südwind e. V. – Institut für Ökonomie und Ökumene |
| Thoumi, Gabriel | Conservation Finance Alliance |
| Tselenis, Kostis | Quadia SA |
| Van de Ven, Johannes | Good Energies Foundation |
| Van Midwoud, Pieter | Gold Standard Foundation |
| Watson, Alexander | Open Forests |
| Wendt, Karen | Responsible Investment Banking und Positive Impacts Investing |

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