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# Mobilizing private financing for Biodiversity

Synthesis Report

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## Synthesis report

### **Important notice:**

This synthesis report constitutes only a summary of the full report. The authors invite readers to refer to the full report for a more comprehensive analysis of the topic.

## Imprint

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# 1 Executive Summary

The **dramatic loss of biodiversity** constitutes one of the main challenges of this century. In order to explore the potential **role of the private sector** to contribute to the conservation and sustainable use of biodiversity, the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety commissioned a study which **identifies business cases** that can mobilize private investment into biodiversity and which analyses the opportunities and risks associated with such investments. Building on the findings, the study defines **safeguards** for the assessment of the projects' financial, environmental and socio-economic impact and suggests means by which such businesses can be better financed and supported.

The study focuses on **three business sectors** that have strong links to biodiversity, either via their impact on biodiversity or via their direct dependency on biodiversity: **Sustainable forest management, sustainable tourism and biotrade**. On this basis it explores the possibility to establish an investment portfolio that is based on the following basic investment criteria: the portfolio should have **verifiable positive environmental and socio-economic effects**, produce **sustainable risk adjusted returns**, **respect the needs of the local and indigenous population**, promote **sustainable land-use practices** consistent with the CBD objectives and contribute **to the conservation of biodiversity** by supporting **protected areas** in regions that have outstanding biodiversity significance.

On the basis of these basic investment rules, a **score-card** was developed in order to identify the **most promising project types**. The score-card assessment is based on four categories underpinned with a total of eighteen criteria: biodiversity/environmental benefits, benefits for socio-economic development, profitability and "opportunity", the latter comprising the scalability of a project and the question if it can easily be replicated elsewhere and if biodiversity and/or socio-economic benefits can be achieved without significant trade-offs on the financial side.

The **volume of potential investments into "biodiversity businesses"** is not easy to quantify. However, market figures for impact investments and sustainability themed investments can provide valuable benchmarks. The market capitalization of sustainability-themed investments in Europe has seen stark growth rates since 2005, growing from **€ 7 billion in 2005 to € 48 billion in 2011**. The invested assets of institutional and individual investors into **impact investing are estimated at €8.75 billion** in Europe in 2011.<sup>1</sup> However, compared to the overall market capitalization of, for example, institutionally managed capital assets (10 trillion Euro in 2010 in Germany alone), both segments still constitute niche markets.

Over the past 20 years, several **investment vehicles** were developed to **mobilize private sector funding for biodiversity**. The most relevant for this study are **biodiversity enterprise funds**. Biodiversity enterprise funds are private investment funds that invest typically into small and medium sized enterprises, cooperatives or not-for-profit enterprises, who contribute to the conservation of biodiversity through sustainable use.

To date, there are **very few funds which explicitly focus on biodiversity businesses**. The most relevant being Verde Ventures (founded by Conservation International), the Eco-Enterprise Fund (founded by The Nature Conservancy), the Conservation Enterprise Development Fund (founded by the Wildlife Conservation Society) and the ERM Low-Carbon Enterprise Fund (founded by the ERM

<sup>1</sup> This figure does not include community bank deposits used for local development purposes or development finance.

Foundation). The existing funds invest in a fairly broad range of business models, covering different sectors and stages of development and legal structures.

Most of the existing biodiversity enterprise funds rely on **philanthropic co-funding and risk-insurance schemes** which can mobilize private investment capital for investments into projects which otherwise could not be financed. However, due to their small size and very narrow geographical focus, the existing biodiversity enterprise funds only cover a small amount of the possible deal flow, leaving **market potential for additional biodiversity enterprise funds** which are designed in a comparable manner.

## 1.1 Sustainable forest management

Due to their richness in flora and fauna, **tropical forests play a key role in terrestrial biodiversity conservation**. Forests are among the most diverse ecosystems on earth, containing 80 percent of the world's terrestrial species. Therefore, forest conservation, the sustainable use of forest resources and equitable access and benefit sharing arrangements are essential elements of any strategic approach to terrestrial biodiversity conservation.<sup>2</sup>

As the world's population increases, the **global demand for timber products** is steadily rising. Meeting this increasing demand will require an acceleration of reforestation activities and timber production, thereby leading to harvesting rates that largely exceed forest growth rates. Without reforestation activities, this will lead to **deforestation and forest degradation pressure on natural forests**. However, establishing new forests at the scale required (several million hectares per year) **calls for substantial private capital**.

Investments into sustainable forest management can be **economically attractive** because they offer a balance between risk and revenue. In addition, they can provide climate and biodiversity benefits and foster socio-economic development in rural contexts. Compared to conventional logging, reduced impact logging (RIL) minimizes damage and carbon losses by up to 50% and provides habitat for significantly more forest species than planted forests or regenerated forests on cleared land. On average, 50 qualified forestry and timber processing-related jobs are created per 1,000 ha of established forest.

**Forestry investments** are increasingly recognized as a valuable long-term capital investment by **institutional investors**, who use it as a means to diversify their portfolios. Today, the market capitalization of **institutional forestry investments is estimated at more than US\$ 50 billion**. Private equity investments account for US\$ 10 billion globally, whereas public funds only contribute less than US\$ 0.5 billion globally. Funds for emerging payments for ecosystems constitute a growing niche segment.

For small scale public funds, the required investment per ha ranges between US\$ 6,400 per ha and US\$ 45,000 per ha, whereas - for institutional investors – large scale investments range between US\$ 2,500 and US\$ 5,000 per ha which means that forestry projects managed by **institutional funds use financial resources more efficiently and transfer more of the investment returns into host countries** – thereby strengthening socio-economic development to a larger extent.

<sup>2</sup> In this report, we define forests as lands of more than 0.5 hectares, with a tree canopy cover of more than 10 percent, which are not primarily under agricultural or urban land use. FAO, 2006. Choosing a forest definition for the Clean development mechanism. Available at: <http://www.fao.org/forestry/11280-03f2112412b94f8ca5f9797c7558e9bc.pdf>

Today, forest investments are mostly focused on single species plantations with Eucalyptus, Pinus and Acacia. Only very few forest companies in the tropics are managing natural forests in a way which preserves biodiversity. **Sustainable natural forest management is still regarded as too risky.**

A number of international and national **sustainability schemes and standards exist for the forestry sector which can be used as safeguards and screening criteria** for a fund portfolio based on sustainable forest management. A comprehensive evaluation based on five categories such as 1) institutional safeguards, 2) sustainable economic performance of forests, 3) environmental safeguards, 4) socio-economic safeguards and 5) measurement, reporting and verification revealed that both **FSC and PEFC forest certification schemes have very dedicated principles and criteria** on all the above categories and can therefore be used for the identification of forestry projects.

A short list of **ten eligible forest investment types** was identified via the screening process: 1) Value timber production in a) natural forests, b) degraded natural forests, c) semi-natural production forests and d) forest plantations; 2) ecosystem services in a) natural forests, b) degraded forests and c) semi-natural forests; 3) agroforestry production in a) semi-natural production forests and b) forest plantations and 4) biomass production in forest plantations.

From the short listed forest project types with biodiversity benefits, **a model portfolio** can be derived which balances economic, biodiversity and socio-economic performance and different product needs. Depending on the concrete project region, the portfolio would be based on a combination of forest project types, like timber production in **natural forests, the restoration of degraded forests and agroforestry.**

In order to analyze the ten eligible project types of the model portfolio, a list of **exemplary case studies in India, Costa Rica, Argentina, Paraguay, Ethiopia and Uganda** was identified and assessed against a scoring framework based on four thematic areas: 1) environmental and biodiversity impacts; 2) socio-economic and development impacts; 3) profitability and financial sustainability; and 4) opportunity (comprising the scalability of a project and the question if it can easily be replicated elsewhere and if biodiversity and/or socio-economic benefits can be achieved without significant trade-offs on the financial side).

Expected **IRRs** of the case studies in the model portfolio range between **7%** (Value timber production through mixed reforestation in Costa Rica on 736 ha of land, 30% percent of the total area is managed as a nature conservation area within a UNESCO biosphere reserve) and **15%** (REDD+ project in natural forests in Ethiopia, where the establishment of fast-growing tree plantations and improved agroforestry production will halt deforestation and create a buffer zone to a national park). Other case studies include FSC-certified natural forest management for value timber production in Paraguay, which is expected to generate an **IRR of 12 %** (which also sets aside 30% of the managed area for protection) and degraded forest management in Argentina, which is expected to generate an **IRR of 11%** (After 15 years, a transition to natural forest management can take place).

The major **revenues of this model portfolio** would come from **timber production. Agricultural commodities and revenue streams from the new emerging markets for payments for ecosystems** could be used to complement the portfolio – e.g. via carbon credits from REDD+, Improved Forest Management (IFM) and Afforestation/Reforestation (AR) projects.

The different forest types can co-exist and have **different risk profiles**. It is therefore advisable to combine different project types either within one project or by investing in different project types at different locations.

**Opportunities** related to sustainable forestry management projects include: A competitive return on investment (between 8 and 12%), long term maintenance of value, low volatility, very low risk of complete loss of investment, no correlation with other products and asset classes (thereby making forestry assets an ideal element for portfolio diversification), positive ecological and social impacts and forestry being a “charismatic” and very “tangible” asset.

However, the **trade-offs** between profitability and socio-economic as well as environmental co-benefits of projects need to be well understood and managed, as the optimization of biodiversity impacts can result in less socio-economic impact and lower economic performance and may therefore not cover the return expectations of institutional investors. For example, on the basis of the case study ForCerPa, the analysis came to the conclusion that **augmenting the percentage of production area set aside for conservation from 30% to 50 % would reduce the internal rate of return (IRR) from 12.3 % to 10.4 %.**

The main **investment barriers** to attracting private finance (particularly from institutional investors) for investments into sustainable forestry projects (either forest plantations or natural forest management) include unfavorable framework conditions in the host countries, the lack of a track record of successfully implemented biodiversity friendly business models, a small project pipeline and the difficulty to find suitable project partners (especially for investments in natural forests). Other investment barriers are unfavorable risk-return profiles of projects, limited exit opportunities, reputational risks (especially for investments in natural forests), high transaction costs, the often high amount of initial investment, the long-term capital lockup and a relatively long time lag for returns.

In summary, the analysis of case studies and investor expectations reveals that **forestry investments can be regarded to be among the most promising options to attract private capital for the conservation and sustainable use of biodiversity.** In order to overcome the existing investment barriers, investors need to be matched with best available project developers and implementers and suitable framework conditions in the host countries. For biodiversity sound forestry investments the combination of the following elements appears to be the best: sustainable management of natural forests or the restoration of degraded forests with a low risk profile of the host country, financed by institutional investors. However, so far there is **no project investment fund targeting the combination of these elements. Public investment support or anchor financing could** help to co-finance the additional costs that projects face when implementing higher biodiversity standards. In order to avoid project failure after public or philanthropic support ends, it is important to develop solid business cases and to assess their long-term economic viability.

## 1.2 Sustainable tourism

Tourists are attracted by the beauty of biodiversity-rich natural landscapes. This fact can create an incentive for stakeholders to ensure the conservation of intact ecosystems. Building on this rationale, **ecotourism**, which can be defined as “**responsible travel to natural areas that conserves the environment and improves the welfare of local people**”<sup>3</sup>, can be used as a means to finance protected areas and support the livelihoods of local communities.

<sup>3</sup> Definition by “The International Ecotourism Society” (TIES). Ecotourism is sometimes also referred to as nature-tourism (both terms are used synonymously throughout this study)

**Ecotourism's share of international tourism is estimated at about 6%.** With annual growth rates of 20% on average, it is one of the fastest-growing segments of the international tourism market.<sup>4</sup> Results by region show that **emerging economy destinations** - who are home to many of the world's biodiversity hotspots under pressure - have grown faster than advanced economy destinations. Compared to an average growth rate of 2.3% p.a. in Europe in the years 2005 – 2011, tourism arrivals grew by 8 % p.a. in South-East Asia, 5% p.a. in Central America, 6% p.a. in South America, and 8 % p.a. in Sub-Saharan Africa.<sup>5</sup>

The ecotourism **sector is fragmented** and characterized by privately owned businesses. The market can be divided into large specialized lodge operators on the one hand side and small operating companies and individuals on the other hand. The latter often only operate one single or very few lodges. Among the leading specialised tour operators in Africa are Wilderness Safaris, Serena Hotels, Abercrombie & Kent, &beyond, Asilia Africa and Sanctuary Retreats. Wilderness Safaris and Serena Hotels are examples of stock listed companies, while most of the other tour operators are privately owned.

According to the World Travel & Tourism Council (WTTC), tourism attracted **capital investment** of US\$ 743 billion in 2011. This is expected to rise by 5.6% p.a. over the next ten years to approx. US\$ 1,320 billion in 2022.<sup>6</sup> However, **very few investment funds explicitly focus on financing eco-lodges**, as investment volume in individual lodges is typically too low to make it an attractive investment target for investment funds. Investments are typically carried out by private individuals (the lodge owners) or by operators which act as strategic investors (as opposed to financial investors that are featured in this study).

**Commercial investors investing in nature tourism usually expect a private equity type of return of > 25% p.a.** Wilderness Safaris as a publically owned eco-tourism operator invests in properties only if a payback period of a maximum of 4-5 years can be expected. However, it appears that only the most successful eco-lodges in well-known and well managed national parks such as Kruger National Park or Okavango generate such returns of 25% p.a. or more.

Interviews with lodge operators have shown **that a target IRR in the range of 10 - 12% p.a. is a realistic assumption** for the type of projects that are in the focus of this study (assuming a divestment after a certain period, e.g. 10 years). **Payback periods seem to be 5 – 7 years (or more) compared to the 3 – 5 years (or less) which would probably be expected by commercial investors.** As this type of return does not compensate investors for the high risk, most operators are so far reluctant to invest into these destinations. Accordingly, one of the aims must be to encourage tourism developers to engage into projects that promise a high biodiversity impact at below-market return expectations.

There are numerous sustainability standards for tourism projects. However, none of the existing standards have gained industry-wide global recognition so far. For example, **WWF Germany formulated five principles for responsible tourism** which could serve as safeguard criteria for the selection of case studies. These five principles include: 1) The Tourism concept must be part of a sustainable development strategy and plan, 2) Natural resources should be used in a sustainable way, 3) Pollution and consumption should be kept as low as possible, 4) The Tourism project should

<sup>4</sup> WTTC(2005): The 2005 Travel and Tourism Economic Research, p. 14

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

respect the cultural values of the local population and enable them to participate in the generated economic prosperity, and 5) The Tourism concept must be informative and promote respect for local culture and environment.<sup>7</sup>

Taking into account these safeguards, the selection of business models is based on the following **pre-selection criteria**: 1) The project offers a nature tourism experience, 2) The project contributes to the conservation of an eco-system, or alternatively, to the financing of a privately financed protected area and 3) The project operates in partnership with environmental organizations and/or national conservation authorities to ensure alignment with conservation objectives and fulfils the sustainability criteria as defined above.

On the basis of the described criteria a **model portfolio** containing six tourism case studies in the DR of Congo, Zambia, Rwanda, Costa Rica, Peru and Madagascar was selected and analysed.

The analysis of the portfolio reveals that there are numerous **opportunities** to develop nature tourism projects in a way that they are beneficial for the financing of protected areas and help to provide new sources of income for local communities. These include being the first mover in a unique location which offers high growth potentials, the possibility of high profit margins of 25% or more (pre-tax profit in percentage of sales) and the opportunity to co-finance biodiversity conservation and livelihood improvement.

However, there are also a number of **risks**. These include the high political risks in poorly developed markets, vulnerability to regional conflicts, the limited scalability of many business concepts and the costs associated with high conservation standards or payments to protected areas and for the livelihood improvement of local communities.

**Success factors** are the choice of an accessible location, the appeal of the tourism offering, strong project partners (e.g. leading tourism operators who have the resources and the network required to globally market a tourism destination), an offering which is aimed at a high net worth clientele, the capacity to install an effective management of the natural landscapes surrounding the business location, good relationships with local authorities and communities and a valid management system which ensures that high environmental and socio-economic standards are respected and monitored.

**In summary**, the described business models could help to realize synergies between the goals of development cooperation and conservation via the creation of jobs for local communities and the co-financing of protected areas. However, many of the described businesses are small, have little up-scale potential, face high country and project risks, long time-horizons and low profitability. Due to the limited investment capital available for such risk-return profiles the few existing projects can only have a limited impact on the financing of protected areas. Also, there is a lack of operators who have the will as well as the competencies to run businesses in a difficult market and often there are trade-offs between “sustainability” objectives and profitability. In order to influence this balance towards impact objectives, co-financing is needed. The support of such projects via structured fund vehicles and the provision of consulting services via technical cooperation could motivate a wider investor audience to leverage these sustainable business opportunities.

<sup>7</sup> PwC(2006): Sustainable Investments for Conservation – The Business Case for Biodiversity.

### 1.3 Biotrade

UNCTAD defines **biotrade** as “activities related to the **collection or production, transformation and commercialization** of goods and services **derived from native biodiversity** (genetic resources, species and ecosystems) according to criteria of environmental, socio-economic and economic sustainability.”<sup>8</sup> This includes, for example, business models based on shade-grown coffee, cocoa and tea as well as fruits, nuts, spices and blossoms.<sup>9</sup>

There exist already **a number of impact funds that focus on biotrade, smallholder farmer agricultural production and fairtrade schemes** and who have developed individual strategies to cope with the specific challenges of investing into agri- or fair-trade businesses, like the Africa Agricultural Trade and Investment Fund (AATIF), the Lifelihoods Fund and the Moringa Fund. In addition, most of the existing biodiversity enterprise funds that were portrayed earlier are tailored to provide co-financing for biotrade business models. However, most of these existing funds like the Eco-Enterprise Fund or Verde Ventures have a strong focus on Latin America or their investment reach is bound to narrowly defined conservation areas (in the case of the Conservation Enterprise Development Fund).

It can be stated that due to their small size and very narrow geographical focus the existing biodiversity enterprise and biotrade/ fairtrade funds cover only a small amount of the possible deal flow – leaving **up-scaling potential for additional biodiversity enterprise funds**.

An analysis of **existing guidelines, standards and consumer labels** in the area of Biotrade underlines that there is a mosaic of tools which can be used to define safeguards. The UNCTAD Biotrade Initiative developed seven principles for biotrade:<sup>10</sup> 1) Conservation of biodiversity, 2) Sustainable use of biodiversity, 3) Equitable sharing of benefits derived from the use of biodiversity, 4) Socio-economic sustainability (management, production and markets), 5) Compliance with national and international legislation and agreements, 6) Respect for the rights of actors involved in BioTrade activities and 7) Clarity about land tenure, use and access to natural resources and knowledge.

The analysed business models were **pre-selected on the basis of the following criteria**: 1) The projects represent self-sustaining business models (for profit or non-profit); 2) are located in tropical regions or other areas which are of high importance for the conservation of biodiversity; 3) protect natural habitats through sustainable use or protection of biodiversity or contribute to the protection of agricultural biodiversity and 4) provide benefits to local communities and the protection of their rights. Excluded were large-scale plantations, unless these act as a protective buffer zone for a protected area.

On the basis of the screening, nine projects in **Brazil, Ethiopia, USA, Indonesia, Cambodia and Zimbabwe were selected as case studies for a model portfolio**. The existing examples often benefit from the work of a small number of organizations specialised in mentoring conservation enterprises, like the New Ventures programme which help entrepreneurs to develop new projects.

Political, project, market, and legal risks were identified as **major barriers to investments into biotrade businesses**. Other important risk factors are the low return on investment, small deal sizes, high transaction costs, the missing track record, the fact that biotrade business models are not a

<sup>8</sup> UNCTAD (2007): UNCTAD Biotrade Initiative. BioTrade: Principles and criteria, page 7.

<sup>9</sup> Examples include mangusteen fruit, acai, Brazil nut, pepper, chilli, ginger and vanilla.

<sup>10</sup> <http://www.biotrade.org/overview.asp>

standardized asset class and that small-scale local cooperatives are usually not investible by foreign investments. Furthermore, selling into “commodity” markets proves to be difficult.

The analysis also revealed a number of **success factors**: A strong brand which co-finances socio-economic and environmental benefits, a Bio- and fair trade approach which can justify a premium price, a focus on minimal invasive production patterns embedded into the natural eco-systems, partnerships with corporations that can have catalytic effects regarding access to markets and to financing, as well as to project management expertise. Partnering corporations occasionally also provide funds as part of their corporate social responsibility programmes.

**Overall**, the analysis reveals that **the biotrade sector is difficult to access for investment funds** that are not specialized on the trade finance business. Investors are often confronted with a wide cosmos of individual project opportunities and many projects that score high regarding their biodiversity or social / developmental benefits face challenges on the profitability side. Challenges are the often small project size (unsuited for overseas financial investors), a challenging risk-/return profile, low margins, dependency on external price movements for many commodities as well as risks associated with accessing niche markets. However, there are also convincing success stories to be told – as can be seen from the case study of the Brazilian company “Natura”.

## 1.4 Policy options

To date, the **ability of the existing policy instruments** to channel private finance into biodiversity protection **has remained weak**. However, many of the instruments and forms of cooperation between the public and the private sector which exist today can in theory also be adapted to the needs of biodiversity businesses. To overcome the existing investment barriers and the lack of investment opportunities, supportive action can focus on a number of policy measures which are summarized in the table below.

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| <ol style="list-style-type: none"> <li><b>1. Improving the investment climate in host countries:</b> <ul style="list-style-type: none"> <li>• Further improve the investment climate via technical cooperation and public private partnerships</li> <li>• Enhance capacity development in the field of sustainable tourism</li> </ul> </li> <li><b>2. Encouraging entrepreneurs and helping businesses to thrive:</b> <ul style="list-style-type: none"> <li>• Enhance the support for entrepreneurs via financial assistance</li> <li>• Enhance the support for entrepreneurs via technical assistance and coaching</li> <li>• Enhance the standardization of forestry valuation methods</li> <li>• Scale-up initiatives that are targeted at the biodiversity impact of large corporations</li> </ul> </li> <li><b>3. Creating a level playing field for sustainable businesses :</b> <ul style="list-style-type: none"> <li>• Enhance the development of standards and certification schemes</li> <li>• Scale-up the support of tools that measure investments into "natural capital"</li> <li>• Help to further embed biodiversity criteria into mainstream investment funds</li> <li>• Enhance the existing initiatives against illegal logging</li> <li>• Continue to strengthen the international regulatory framework</li> </ul> </li> <li><b>4. Encouraging investors to invest into biodiversity:</b> <ul style="list-style-type: none"> <li>• Facilitate investment platforms that are specifically targeted at investments into biodiversity</li> <li>• Co-finance privately financed debt-for-nature swaps and conservation bonds</li> <li>• Promote the existing political risk insurance schemes more widely</li> <li>• Co-finance early-stage risk capital for biodiversity businesses</li> <li>• Bio-trade: Up-scale the number of investment funds via a transparent co-financing process</li> </ul> </li> </ol> |
|--|

- Sustainable forest management: Incubate new hybrid investment funds
- Sustainable tourism: Incubate new hybrid investment funds targeted at eco-tourism projects

The institutional implications of the last three policy options are presented in more detail in the following.

### **Biotrade: Upscale existing funding models via a transparent co-financing process**

The analysis revealed that due to their small size and very narrow geographical focus the existing biodiversity enterprise and biotrade/ fairtrade funds cover only a small amount of the possible deal flow – leaving **up-scaling potential for additional biodiversity enterprise funds**.

Creating transparent call for tenders regarding the allocation of the existing first-loss support could encourage the initiation of more investment funds in the field of biotrade, but also in the field of other sectors like sustainable tourism or sustainable forestry.

### **Sustainable Forestry: Incubate new hybrid investment funds**

The analysis revealed that sustainable **natural forest management can create synergies between economic performance, biodiversity conservation, carbon sequestration and socio-economic development**. However, to date, there is a lack of hybrid investment funds which could leverage this opportunity and the respective project pipeline.

**Biodiversity forest funds could finance sustainable forestry and forest conservation** in areas offering optimal growing conditions (often sub-tropical or tropical countries). The Fund could combat biodiversity loss and climate change by protecting forest habitat, sequestering carbon and reducing emissions from deforestation and create permanent qualified employment and income for local populations.

It would **focus on institutional investors and finance the establishment of forest plantations** (value timber and biomass), the **restoration and management of mixed natural forest and commercial agroforestry projects**. Its predominant **source of revenue** would be the sale of timber and derived forestry products. In addition, the evolution of land and timber prices and the commercialization of certified environmental services (CO<sub>2</sub> reduction, biodiversity conservation) would contribute to the fund's yield. Investments would be planned and made in strict compliance with stringent ecological and social standards (e.g. FSC and IFC Safeguards) and the Fund would report regularly on compliance with these guidelines.

The fund would offer an investment opportunity which generates significant **ecological and social value and an inflation-linked yield** that is **weakly correlated with other asset classes**. The investment risk can be mitigated by **project diversification** regarding regions, products and target markets **and public first-loss guarantees**.

**Shareholder structure, voting rights, exit options and investment criteria** would be specially tailored to **balance biodiversity and social benefits with the profit expectations of investors**. This also includes the interests of local forest rights holders and indigenous people associations. The Board **would include an NGO representative**, e.g. the FSC. The fund's investment criteria would be regularly reviewed. In addition to the pure Fund management, the fund would also have a **technical assistance support facility** providing assistance to companies so that they can meet certain safeguard requirements.

Geographically, the fund could initially have a **global reach** given the relatively small amount of investable projects. However, the fund would focus on regional clusters, in order to cost-effectively sustain local project management and infrastructure.

The fund pipeline would be dynamic and subject to changes with incoming and outgoing projects. Single investments would likely range between 5 and 20 million Euros. The fund could have a size of 150 – 250 million Euros with the aim to execute 10 – 20 investments. Not more than 20 % of the Fund should be invested in a single project and the fund portfolio should be also diversified in terms of project types, timber species, products, markets and regions to hedge production, political and reputation related risk. Main target groups are institutional investors. Fund lifetime would range between 12 and 15 years, including a five year investment period. The target return could be up to 6-10 % p.a. after fund-related costs and taxes, depending on the final investment criteria. The fund portfolio would be based on three **forest management types**:

- 1) Management of existing natural forests: Existing forests would be acquired for close to nature forest management - maintaining the species richness of the forest, taking advantage of natural dynamics (and potential REDD+ project certification).
- 2) Forest establishment, management and harvesting / reforestation: New forests would be planted and managed.
- 3) Restoration of heavily degraded natural forests by enrichment planting

### **Sustainable Tourism: Incubate new hybrid investment funds**

Comparable funds could be initiated for investments in the eco-tourism sector. This could be implemented via a specific tourism fund – or via a cross-sectorial biodiversity fund which is targeted at the geographic regions which are currently not covered by the existing biodiversity enterprise funds (e.g. Asia). As investments in the eco-tourism sector profoundly differ from investments in the forestry sector, the fund should have a number of different properties in comparison to the above described structure:

- **Size:** As the single investment would likely range between 1 and 5 million Euros, a fund could have a size of 20 – 30 million Euros with the aim to execute a range of 8 – 12 investments.
- **Target investors:** As opposed to the forestry sector this type of fund is unlikely to attract large institutional investors. Due to the limited size of the fund and the single investments, the high entrepreneurial risk involved with the projects, and the philanthropic characteristic of the projects, the fund would more likely address high net worth individuals, environmental foundations (especially from the Anglo-American background), and possibly other impact investment funds.
- **Lifetime:** An eco-tourism fund would likely have a lifetime of 10 – 12 years. Alternatively, due to the long term commitment in the target regions, a fund with an unlimited lifetime (“evergreen”) could be considered.
- **Structure:** As a consequence of the smaller fund size the fund could have a simpler structure than outlined above. This could be a structure with two tranches, one first loss tranche underwritten by, e.g., development banks and one tranche for private individuals or organizations, or alternatively a structure where government offers a first loss guarantee to private investors.

The eco-tourism fund could operate in way that the fund management identifies attractive projects, executes due diligence analyses, and makes investment recommendations to an investment committee. The projects would be managed in cooperation with adequate operators.

As an alternative, development banks could also enter into a strategic partnership with one of the leading eco-tourism operators and jointly invest into a fund vehicle with the aim to jointly develop and finance a certain number of projects of a pre-defined characteristic in pre-defined regions. The investment of development banks could serve to leverage the investment of the tourism operator and hence open the opportunity to initiate projects with a particularly strong biodiversity impact which would otherwise not materialize due to the high financial risk.

## 1.5 Conclusion

The analysis showed that biodiversity businesses can be important vehicles to attract private financing for conservation and improve the livelihoods of local communities. The growing market for socially responsible investments can provide a valuable opportunity for the financing of such businesses. There are numerous policy options that could help to improve the investment climate for biodiversity businesses, create a legal playing field for sustainable practices, support entrepreneurs and encourage investors to invest into biodiversity. Implementing some of these policy options can represent valuable steps towards leveraging additional private financing at scale for conservation.

## 2 Introduction

The **dramatic loss of biodiversity** constitutes one of the main challenges of this century. The Convention on Biological Diversity (CBD) established a comprehensive roadmap towards the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. In order to explore the potential **role of the private sector** to contribute to the achievement of these goals, the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety commissioned a study which **identifies business cases** that can mobilize private investment for biodiversity and which analyses the opportunities and risks associated with such investments. Building on the findings, the study defines **safeguards** for the assessment of the projects' financial, environmental and socio-economic performance and suggests means by which positive business cases can be better financed and supported.

The study focuses on **three business sectors** that have strong links to biodiversity, either via their impact on biodiversity or their direct dependency on biodiversity:<sup>11</sup>

- **Sustainable Forest Management**, including management of natural forests, plantations and commercial agro-forestry systems.
- **Sustainable Tourism**, covering a range of different models that either generate financial transfers to fund conservation (e.g. via concession fees) and/or create incentives for local communities to support conservation via employment and income generation.
- **Biotrade**, covering the whole value chain from the production or wild harvesting via the processing to the export and fair trade of commodities such as coffee, tea or cocoa or of blossoms for the production of essential oils.

According to the following basic investment rules, the portfolio should:

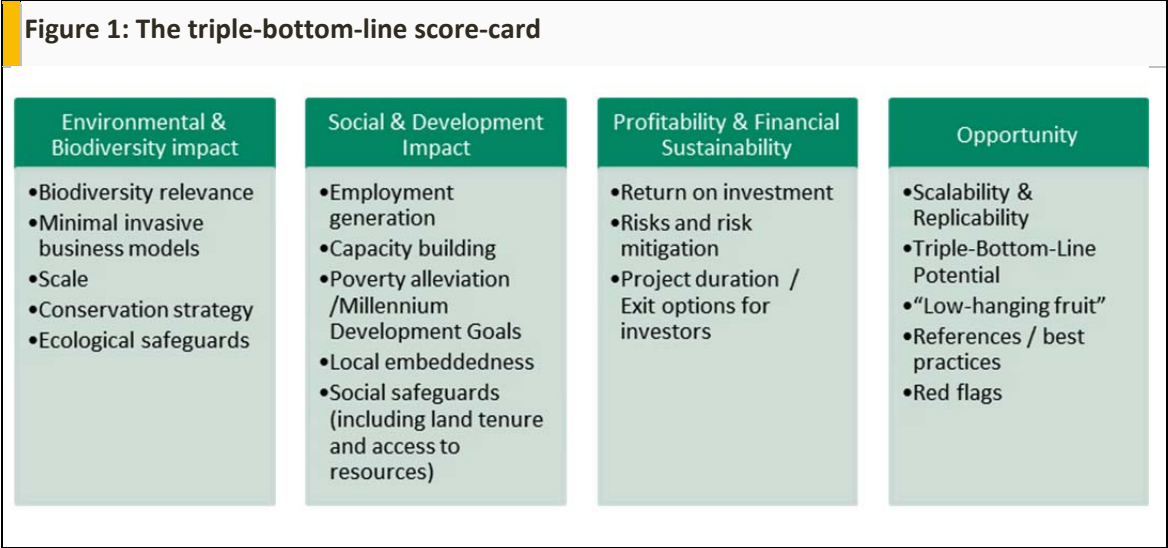
- Have **verifiable positive environmental and socio-economic effects**, but must also produce **sustainable risk adjusted returns**
- **Respect the needs of the local and indigenous population**
- Promote **sustainable land-use practices** consistent with the CBD objectives
- Contribute **to the protection of biodiversity** by supporting **protected areas** in regions that have outstanding biodiversity significance as identified in the relevant priority-setting schemes<sup>12</sup>
- Not compete with the primary **responsibility of governments for the conservation of their natural resources** and not crowd-out existing public ODA funding

The **most promising project types** were identified via a score-card assessment based on four categories underpinned with a total of eighteen criteria: biodiversity/environmental benefits, benefits for socio-economic development, profitability and "opportunity", the latter comprising the

<sup>11</sup> The focus was limited to three exemplary sectors. However, the choice of sectors does not constitute a secluding definition. Other important sectors such as sustainably fishery and those parts of the agricultural sector which are not covered by the notion of "bio-trade and fair trade" also have strong links to biodiversity and merit a closer look in further analyses of this topic.

<sup>12</sup> E.g. Conservation International's biodiversity hotspots, WWF's Global 200 Ecoregions or IUCN's key biodiversity areas

scalability of a project as well as the question if it can easily be replicated elsewhere and if biodiversity and/or socio-economic benefits can be achieved without significant trade-offs on the financial side (see figure 1). The full questionnaire is provided in the Annex.

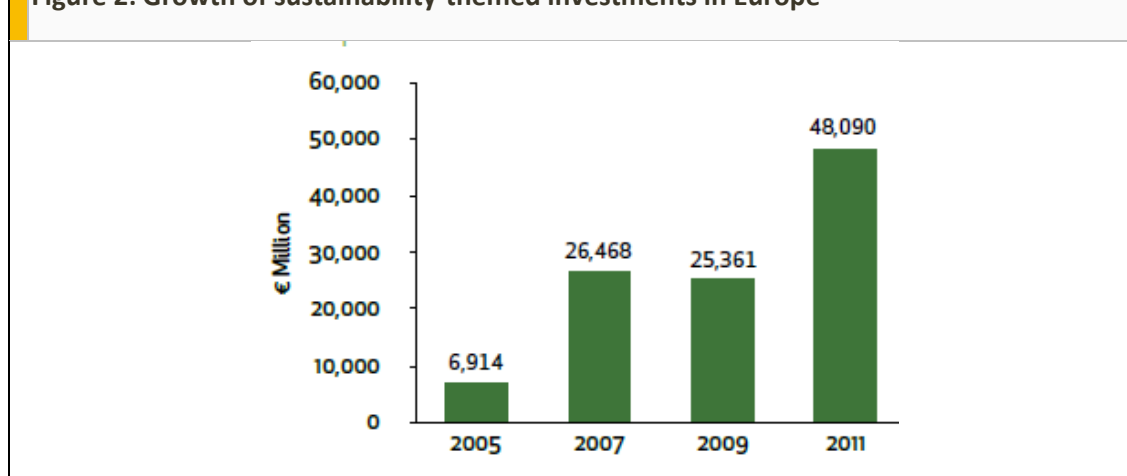


Source: Authors

### 3 Sustainable investing

As “biodiversity businesses” are not a defined asset class, market figures for the volume of potential investments into this market are not easy to quantify. However, market figures for impact investments and sustainability themed investments can provide valuable benchmarks. The market capitalization of sustainability-themed investments in Europe has seen stark growth rates since 2005, growing from **€ 7 billion in 2005 to € 48 billion in 2011**. The invested assets of institutional and individual investors into **Impact investing are estimated at €8.75 billion** in Europe in 2011.<sup>13</sup> However, compared to the market capitalization of institutionally managed capital assets (10 trillion Euro in 2010 in Germany alone), both segments still constitute niche markets (see figure 2).

**Figure 2: Growth of sustainability-themed investments in Europe**



Source: Eurosif

Over the past 20 years, several **investment vehicles** were developed to **mobilize private sector funding for biodiversity**. The most relevant for this study are **biodiversity enterprise funds**. Biodiversity enterprise funds are private investment funds that invest typically into small and medium sized enterprise, including cooperatives or not-for-profit enterprises, who contribute to the conservation of biodiversity through sustainable use.

To date, there are only **very few funds with such a focus**. The most relevant being Verde Ventures (founded by Conservation International), the Eco-Enterprise Fund (founded by The Nature Conservancy), the Conservation Enterprise Development Fund (founded by the Wildlife Conservation Society) and the ERM Low-Carbon Enterprise Fund (founded by the ERM Foundation). The existing funds invest in a fairly broad range of business models, covering different sectors and stages of development and legal structures.

Most of the existing biodiversity enterprise funds rely on **hybrid funding models** which allow the mobilization of private investment capital for investments into projects which otherwise could not be financed. For this purpose, hybrid funding models blend philanthropic and commercial investment capital and allow investments into different tranches, each tranche offering a unique risk/return profile, and dividends being paid following a **waterfall principle**.

<sup>13</sup> This figure does not include community bank deposits used for local development purposes or development finance.

Two of the funds, **Verde Ventures** and the **EcoEnterprise Fund**, are now in the process of raising capital for a second fund that aims at less risk and higher financial returns for their investors. This goes along with larger investment tickets, which in return allows raising larger volumes. While the first funds were typically positioned in the range of US\$ 5-20m, the second series of funds target investment volumes of US\$ 50-100m.

Due to their small size and very narrow geographical focus the existing biodiversity enterprise funds only cover a small amount of the possible deal flow. This leaves **market potential for additional biodiversity enterprise funds** which are designed in a comparable manner.

## 4 Sustainable forest management

Due to their richness in flora and fauna, **tropical forests play a key role in terrestrial biodiversity conservation**. Forests are among the most diverse ecosystems on earth, containing 80 percent of the world's terrestrial species. Therefore, forest conservation, the sustainable use of forest resources and equitable access and benefit sharing arrangements are essential elements of any strategic approach to terrestrial biodiversity conservation.<sup>14</sup>

As the world's population increases, the **global demand for timber products** is steadily rising. Meeting this increasing demand will require an acceleration of reforestation activities and timber production, thereby leading to harvesting rates that largely exceed forest growth rates. Without reforestation activities, this will lead to **deforestation and forest degradation pressure on natural forests**. However, establishing new forests at the scale required (several million hectares per year) **calls for substantial private capital**.

Forestry investments are **economically attractive** because they offer a balance between risk and profitability; provide climate and biodiversity co-benefits and foster socio-economic development in rural contexts. On average, 50 qualified forestry and timber processing-related jobs are created per 1,000 ha of established forest. However, today, forest investments are mostly focused on single species plantations with Eucalyptus, Pinus and Acacia. **Sustainable natural forest management is still regarded as too risky**. Only very few forest companies in the tropics are managing natural forests in a way which preserves biodiversity: For example, in many cases, only quality logs of valuable timber species are extracted, which will gradually change the natural tree species composition.

**Figure 3: Restoration of heavily degraded natural forests via enrichment planting**



*Source: Unique*

<sup>14</sup> In this report, we define forests as lands of more than 0.5 hectares, with a tree canopy cover of more than 10 percent, which are not primarily under agricultural or urban land use. FAO, 2006. Choosing a forest definition for the Clean development mechanism. Available at: <http://www.fao.org/forestry/11280-03f2112412b94f8ca5f9797c7558e9bc.pdf>

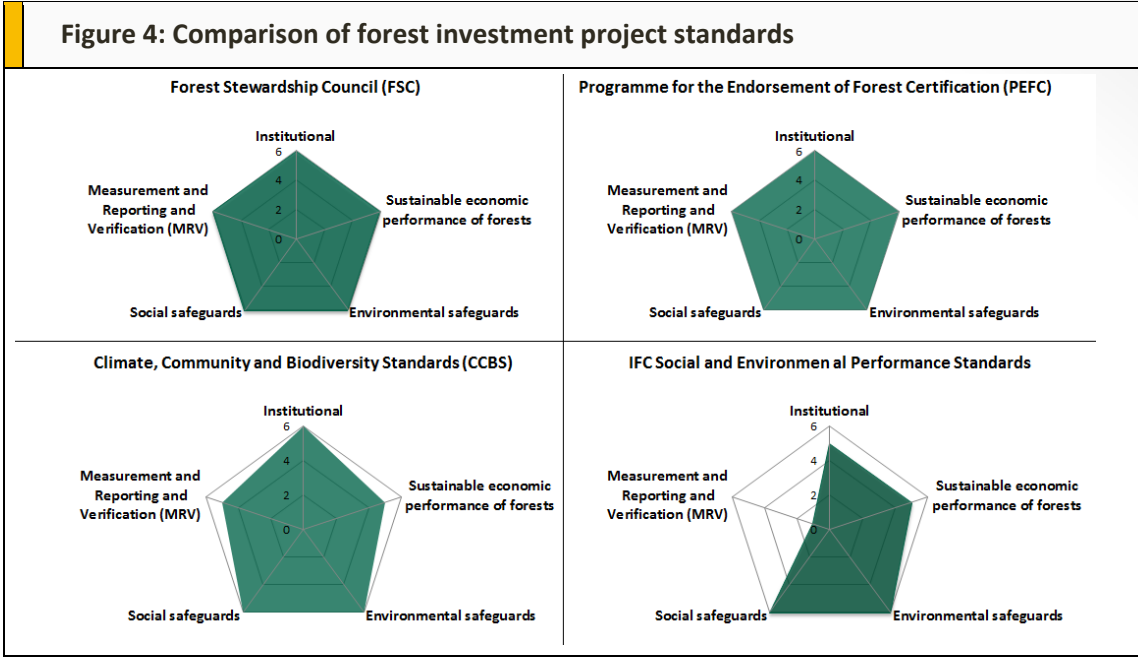
## 4.1 Sustainable investments into forestry

**Forestry investments** are increasingly recognized as a valuable long-term capital investment by **institutional investors**, who use it as a means to diversify their portfolios. Today, the market capitalization of **institutional forestry investments is estimated at more than US\$ 50 billion**. Private equity investments account for US\$ 10 billion globally, whereas public funds only contribute less than US\$ 0.5 billion globally. Funds for emerging payments for ecosystems constitute a growing niche segment. While public funds normally focus on relatively small project areas, typically below 2,000 ha, **institutional fund investment projects tend to exceed 5,000 ha**. Moreover, public funds must invest more efforts in customer acquisition, administration and marketing, which makes up a significant amount of the total investment and can constitute up to 30 % of the total investment volume.

For small scale public funds, the required investment per ha ranges between US\$ 6,400 per ha and US\$ 45,000 per ha, whereas - for institutional investors – large scale investments range between US\$ 2,500 and US\$ 5,000 per ha which means that forestry projects managed by **institutional funds use financial resources more efficiently and transfer more of the investment returns into host countries** – thereby strengthening socio-economic development to a larger extent.

## 4.2 Safeguards and screening criteria

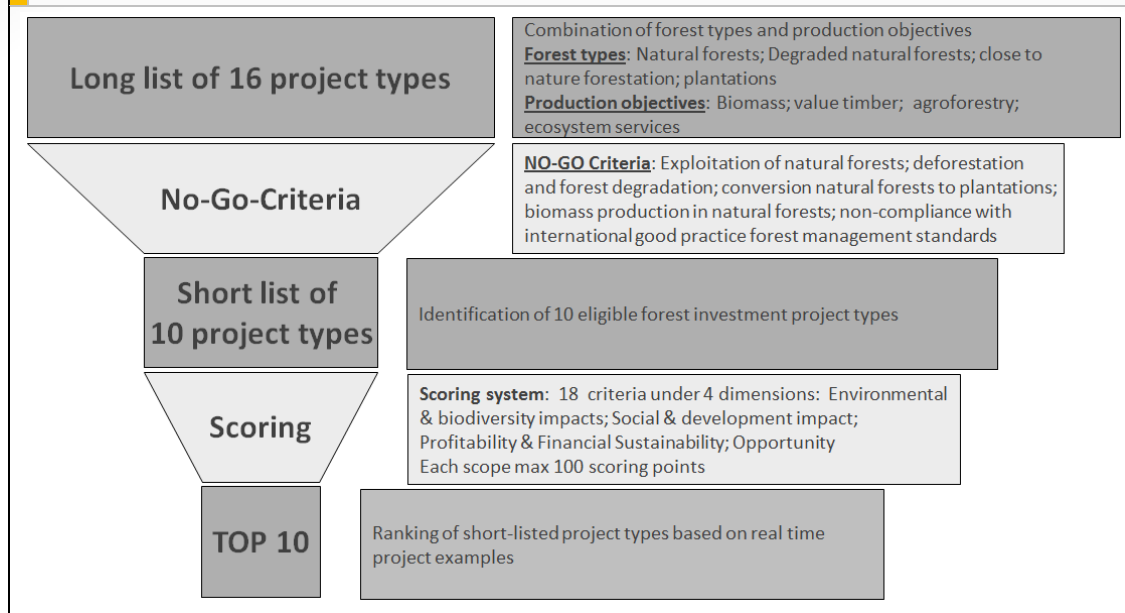
A number of international and national **sustainability schemes and standards exist for the forestry sector which can be used as safeguards and screening criteria** for a fund portfolio. The most relevant for the purpose of this study are the certification via the Forest Stewardship Council (FSC), the Program for the Endorsement of Forest Certification (PEFC), the Climate, Community and Biodiversity Standards (CCBS) and the IFC social and environmental performance standards. A comprehensive evaluation based on five categories such as 1) institutional safeguards, 2) sustainable economic performance of forests, 3) environmental safeguards, 4) socio-economic safeguards and 5) measurement, reporting and verification revealed that both **FSC and PEFC forest certification schemes have very dedicated principles and criteria** on all the above categories and can therefore be used for the identification of forestry projects (see figure 4).



Source: UNIQUE

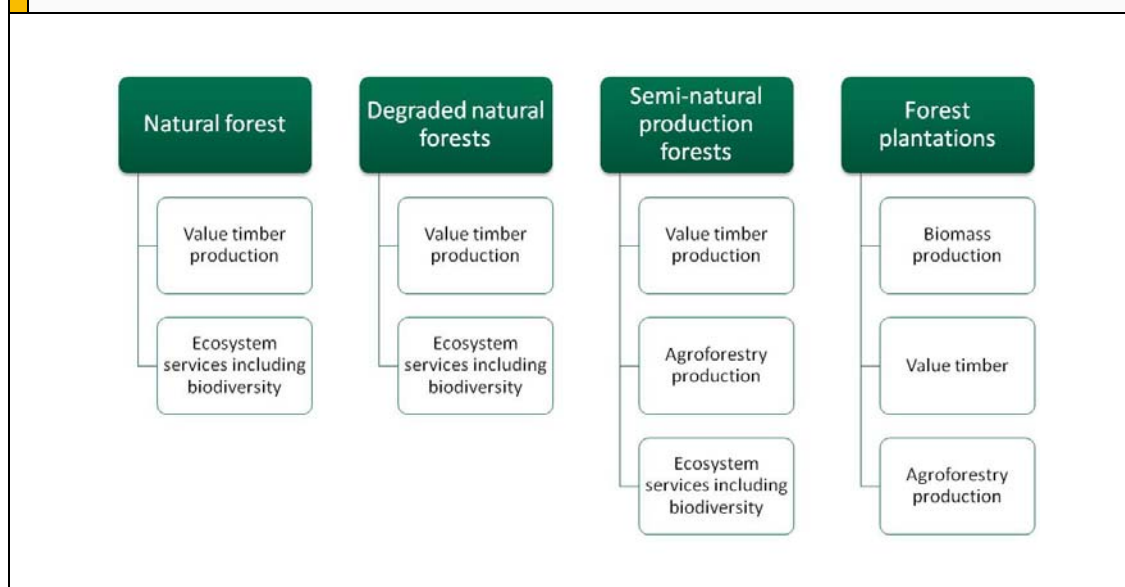
### 4.3 Forestry model portfolio and assessment of projects

**A short list of eligible forest investment types** can be identified based on the combination of four different forest management types (natural forest, degraded natural forest, semi-natural production forests and forest plantations) with four production objectives (value timber production, biomass production, agroforestry and environmental services) and a screening of those against a number of excluding (no-go) criteria. Excluded were projects which lead to deforestation or degradation of natural forests, projects which are based on the conversion of natural forests into plantations or on biomass production in natural forests. Also excluded were projects which do not comply with international forest management standards (see figure 5).

**Figure 5: Methodological approach for the selection of forestry investment projects**

Source: UNIQUE

The **ten eligible forest investment types** which can be identified via this screening process are: Value timber production in natural forests, degraded natural forests, semi-natural production forests and forest plantations; ecosystem services in natural forests, degraded forests and semi-natural forests, agroforestry production in semi-natural production forests and forest plantations and biomass production in forest plantations (see figure 6).

**Figure 6: Short-list of forestry project types**

Source: UNIQUE

From the short listed forest project types with biodiversity benefits, a **model portfolio** can be derived which balances economic, biodiversity and socio-economic performance and different product

needs. Depending on the concrete project region, a combination of these forest project types, like timber production in **natural forests**, **the restoration of degraded forests as well as commercial agroforestry** can be established.

In order to analyze the ten eligible project types of the model portfolio, **a list of exemplary case studies in India, Costa Rica, Argentina, Paraguay, Ethiopia and Uganda** was identified and assessed against a scoring framework based on four thematic areas: 1) environmental and biodiversity impacts; 2) socio-economic and development impacts; 3) profitability and financial sustainability; and 4) opportunity (see table 1).

Expected **IRRs** of the case studies in the model portfolio range between **7%** (Value timber production through mixed reforestation in Costa Rica on 736 ha of land, 30% percent of the total area is managed as a nature conservation area within a UNESCO biosphere reserve) and **15%** (REDD+ project in natural forests in Ethiopia, where the establishment of fast-growing tree plantations and improved agroforestry production will halt deforestation and create a buffer zone to a national park). FSC-certified natural forest management for value timber production in Paraguay is expected to generate and **IRR of 12 %** (which also sets aside 30% of the managed area for protection) and degraded forest management in Argentina an **IRR of 11%** (After 15 years a transition to natural forest management can take place).

The different forest types can co-exist and have **different risk profiles**. It is therefore advisable to combine different project types either within one project or by investing in different project types at different locations. **From a biodiversity perspective** it is desirable that the **investments in natural forest restoration and into the sustainable management of natural forests constitute a large share of the portfolio**.

Table 1: Forestry Model Portfolio			
Project Name and Type	Country	Project activities	Impact
Araku Valley Livelihoods Project - Agroforestry through mixed reforestation	India	Reforestation of 6,000 ha of degraded land with mixed tree species such as coffee, teak, mango and other fruit trees, implemented by smallholder communities for their own nutrition and for export	Financial Impact: Generation of 70,000 carbon credits annually over a period of 20 years (1.4 million tCO <sub>2</sub> ), Carbon sequestration costs per tCO <sub>2</sub> : below US\$ 5/tCO <sub>2</sub> (to be verified) Social Impact: Communities increase their livelihood incomes and food security through diversified products, increased productivity and quality which increases annual income (from US\$ 200/yr to US\$ 400/yr) Biodiversity Impact: Diversified agroforestry production halts the loss and enhances on farm biodiversity, reduction of pressure on deforestation and forest degradation due to improved land productivity
BaumInvest Reforestation project - Value timber through mixed reforestation	Costa Rica	Reforestation of 736 ha with Teak (50%) and other mixed tropical species (50%). About 30 % is managed as conservation area within a UNESCO biosphere reserve.	Financial Impact: Expected IRR: 6.6 % Social Impact: Creation of long-term employment and fair working conditions, smallholders will be assigned a small part of project area for agroforestry production supported by the project owner, provision of micro credits and marketing support

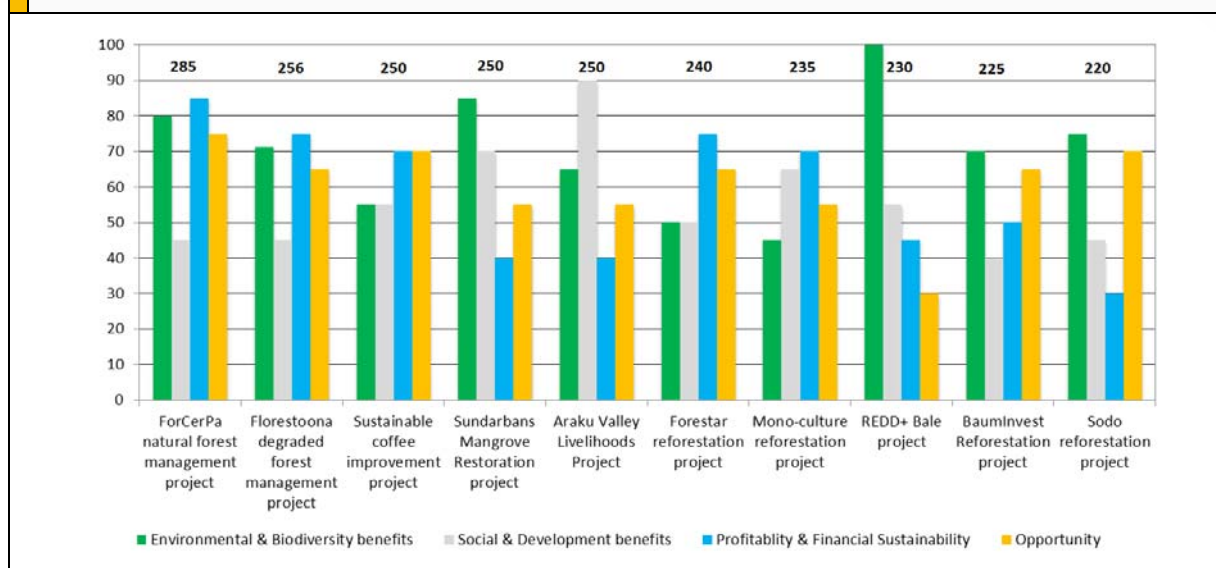
**Table 1: Forestry Model Portfolio**

Project Name and Type	Country	Project activities	Impact
			Biodiversity Impact: 30 % of the total project area is managed as nature conservation area, Habitat connectivity and provision of biological corridors for indigenous flora and fauna
Florestoona degraded forest management project - Value timber production in degraded natural forests	Argentina	Heavily degraded forests are restored with commercial tree species (Paraíso, Toona, Cedro) on 10,000 ha. After 15 years, natural forest is regenerated, commercial species are harvested and a transition to natural forest management takes place.	Financial Impact: Expected IRR: 10,8% Social Impact: Creation of 230 qualified jobs, partnerships with adjacent communities, land owners receive land rent payments that generates a sustainable annual income Biodiversity Impact: Reduction of biodiversity loss and enhancement of biodiversity through regeneration of degraded forests
ForCerPa natural forest management project - Value timber production in natural forests	Paraguay	FSC certified natural forest management 5,650 ha (1,650 assigned for conservation). Value timber production and integrated timber processing. Joint Venture between local Agribusiness and forest management company.	Financial Impact: Annual turnover US\$ 1,000,000, revenues after tax: US\$ 70/ha (eye level with ranching), IRR: 12.3 % Social Impact: Creation of 50 qualified jobs, Partnership with adjacent indigenous community Biodiversity Impact: Protection of Atlantic Forest (biodiversity hotspot), result of regular audits: Tree species diversity in managed forest as high as in untouched forests
Forestar reforestation project - Value timber in plantations	Paraguay	Reforestation of 8,000 ha with Eukalyptus and mixed species (integrated)	Financial Impact: Sale of value timber from plantations Social Impact: Creation of qualified jobs for local communities Biodiversity Impact: Protection of 20% of total area
Mono-culture reforestation project - Biomass production in plantations	Uganda	Reforestation of fast growing tree species for biomass production and	Financial Impact: Sale of Biomass from plantations Social Impact: Creation of qualified jobs for local communities Biodiversity Impact: Reduction of deforestation pressure on natural forests
REDD+ Bale project - Ecosystems services in natural forests	Ethiopia	Reducing deforestation and forest degradation of a biodiversity hotspot region covering more than 500,000 ha through community forest management, allocation of efficient fuel wood stoves and alternative income generation activities from agroforestry production (coffee)	Financial Impact: Average annual revenues of about US\$ 1.85 million and costs of 1.3 million €, Expected annual emissions reductions of about 0.74 million tCO <sub>2</sub> (14.8 million over 20 year), Expected IRR: 15 % Social Impact: Communities empowerment, training and capacity building, assurance of sustainable energy supply for the local population and improved income, improvement of local governance structure and business skills of communities, participatory forest management Biodiversity Impact: Reducing pressure on deforestation and forest degradation of biodiversity hotspot Creation of buffer zones to a national park

Table 1: Forestry Model Portfolio			
Project Name and Type	Country	Project activities	Impact
Sodo reforestation project - Ecosystem services through mixed reforestation	Ethiopia	Restoration and natural regeneration of a highly biodiverse forest on 503 ha with indigenous tree species	Financial Impact: 77,000 tCO <sub>2</sub> certified Social Impact: Employment generation for 11 permanent and 1,500 seasonal employees, alternative income from Non-timber forest products, capacity building on sustainable forest management Biodiversity Impact: Restoration of degraded ecosystems with indigenous trees species of which 10 species are listed as threatened on IUCN red list, soil and water conservation
Sundarbans Mangrove Restoration project - Ecosystem services through mixed reforestation	India	6,000 ha of degraded mangrove ecosystems are reforested with a variety of different local Mangroves – resulting in embankment protection against erosion by wind and waves, enhancement income from fishing and related activities for local communities	Financial Impact: Carbon sequestration costs per tCO <sub>2</sub> : below US\$ 5/tCO <sub>2</sub> (to be verified) Social Impact: Increased income through improved fish yields along the coastal strip Biodiversity Impact: Protection against extreme weather events, reduction of salination of inland freshwater, restoring a UNESCO World Heritage biodiversity site including endangered populations
Sustainable coffee improvement project - Agroforestry in plantations	Uganda	Improvement of existing small-holder shaded coffee production through creation of coffee cooperatives and capacity building as well as reforestation activities of new areas in a medium shade management system (30% crown cover)	Financial impact: Annual net coffee revenues on a per ha basis increase from US\$ 687/ha to US\$ 1,833/ha due to better management, processing and marketing, potential additional income from the generation of carbon credits Socio-economic impact: Improved farm-level production and higher income by small-holders, creation of cooperatives and improved access to processing, know-how and marketing Biodiversity impact: Increased shade tree increases on farm biodiversity and reduces the vulnerability to climate change and extreme weather events, reduction of pressure on deforestation and forest degradation as an indirect impact, annual carbon sequestration of 5.9 tCO <sub>2</sub> /ha over 20 years

Source: Authors

**Top scoring in the overall ranking** (285 out of 400 scoring points) as well as regarding **profitability and the “opportunity” criterion**, is **natural forest management for value timber production**. The assessment is based on the ForCerPa natural forest management project, which is an FSC certified natural forest management project of an area of 5,650 ha, project in Paraguay, of which 1,650 ha are assigned for conservation. The business model constitutes a joint venture between local agribusinesses and a forest management company with integrated timber processing. Annual turnover is US\$ 1,000,000, revenues after tax: US\$ 70/ha (eye level with ranching), IRR is at 12.3 %. The company creates 50 qualified jobs in partnership with the adjacent indigenous community. It contributes to the protection of Atlantic Forest (biodiversity hotspot), regular environmental audits come to the conclusion that the tree species diversity in the managed forests is as high as in untouched forests.

**Figure 7: Ranking of forest projects (scoring points, max. 400)**

Source: UNIQUE forestry and land use

The **second highest overall score** is reached by **value timber production in degraded natural forests** (256). The Florestoono degraded forest management project is based in Argentina. Aim of the project is the restoration of 10,000 ha of heavily degraded forests with commercial tree species.

**Top-scoring regarding biodiversity and environmental objectives are ecosystem services in natural forests.** The REDD+ Bale project which constitutes the underlying business case is based in Ethiopia and aims at the reduction of deforestation and forest degradation of a biodiversity hotspot region covering more than 500,000 ha through community forest management, adoption of efficient fuel wood stoves and alternative income generation activities.

When focusing on **social and development benefits, agroforestry through mixed re-forestation ranks highest:** The Araku Valley Livelihoods Project is based in India and aims at the reforestation of 6,000 ha of degraded land with mixed tree species such as coffee, teak, mango and other fruit trees.

#### 4.4 Opportunities, risks and success factors

**Opportunities** related to sustainable forestry management projects include: An attractive return on investment (between 7 and 15%), long term maintenance of value, low volatility, very low risk of complete loss of investment, no correlation with other products and asset classes (thereby making forestry assets an ideal element for portfolio diversification), positive ecological and social impacts and forestry being a “charismatic” and very “tangible” asset.

However, the **trade-offs** between profitability and socio-economic and environmental co-benefits of projects need to be well understood and managed, as the optimization of biodiversity impacts can result in less socio-economic benefits and a lower economic performance which might not be sufficient to cover the return expectations of institutional investors. On the basis of the case study ForCerPa, the analysis came to the conclusion that **augmenting the percentage of production area**

set aside for conservation from 30% to 50 % would reduce the internal rate of return (IRR) from 12.3 % to 10.4 %.

The main **investment barriers** to attracting private finance (particularly from institutional investors) for investments into sustainable forestry projects (either forest plantations or natural forest management) include unfavorable framework conditions in the host countries, the lack of a track record of successfully implemented biodiversity friendly business models, a small project pipeline and the difficulty to find suitable project partners (especially for investments in natural forests). Other investment barriers are unfavorable risk-return profiles of projects, limited exit opportunities, reputational risks (especially for investments in natural forests), high transaction costs, the often high amount of initial investment, the long-term capital lockup and a relatively long time lag for returns. The major types of risks and their mitigation on the project level are summarized in table 2.

Table 2: Risks and risk mitigation		
Risk type	Potential risks	Risk mitigation
Production risks	<ul style="list-style-type: none"> <li>• Unsuitable selection of sites and / or species</li> <li>• Natural hazards such as fire, storms, floods</li> <li>• Pest and diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Professional planning and management according to highest standards</li> <li>• Continuous pest monitoring</li> <li>• Ensure tree species diversity to avoid pests</li> </ul>
Market risks	<ul style="list-style-type: none"> <li>• Price volatility</li> <li>• Drop of target markets</li> <li>• Inflation and currency risks</li> </ul>	<ul style="list-style-type: none"> <li>• Diversified and anticipative marketing strategies</li> <li>• Product diversification</li> </ul>
Political and socio-economic risks	<ul style="list-style-type: none"> <li>• Land expropriation</li> <li>• Land occupation</li> <li>• Tax changes</li> <li>• Changes in trade conventions</li> <li>• Corruption</li> <li>• Wars</li> </ul>	<ul style="list-style-type: none"> <li>• Transparent project implementation</li> <li>• Active engagement with national authorities</li> <li>• Active engagement with local stakeholders</li> <li>• Integration of neighboring population in project design</li> <li>• Regional forestry investment diversification</li> </ul>
Reputational risks	<ul style="list-style-type: none"> <li>• Negative environmental and socio-economic impacts</li> <li>• Pressure from socio-economic and environmental NGOs</li> </ul>	<ul style="list-style-type: none"> <li>• Project implementation according to highest socio-economic and environmental standards</li> <li>• Active engagement with local population</li> <li>• Transparency of project implementation</li> <li>• Third party involvement (certification)</li> </ul>

Source: Authors

## 4.5 Conclusion

The analysis of case studies and investor expectations reveals that forestry investments can be regarded to be among the most promising options to attract private capital for the conservation and sustainable use of biodiversity. In order to overcome the existing investment barriers, investors need to be matched with best available project developers and implementers and suitable framework conditions in the host countries. For biodiversity sound forestry investments the combination of the following elements appears to be most promising: sustainable management of natural forests or the restoration of degraded forests with a low risk profile of the host country, financed by institutional investors. However, so far there is **no project investment fund targeting the combination of these elements**.

**Public investment support or anchor financing could** help to co-finance the additional costs that projects face when implementing higher biodiversity standards. In order to avoid project failure after public or philanthropic support ends, it is important to develop solid business cases and assess their long-term economic viability.

## 5 Sustainable tourism

Tourists are attracted by the beauty of biodiversity-rich natural landscapes. This fact can create an incentive for stakeholders to ensure the conservation of intact ecosystems. Building on this rationale, ecotourism, which can be defined as "responsible travel to natural areas that conserves the environment and improves the welfare of local people"<sup>15</sup>, can be used as a means to leverage financing for protected areas and support the livelihoods of local communities.

Tourism is one of the fastest growing industries today and contributes about 8% of global GDP as well as one in 12 jobs world-wide.<sup>16</sup> **Ecotourism's share of international tourism is estimated at about 6%.** With annual growth rates of 20% on average, it is one of the fastest-growing segments of the international tourism market.<sup>17</sup> 78% of Germans, who form the third most important sending market in the world after the USA and Japan, regard experiencing nature as an important or very important reason for a holiday and 41% of them visit natural attractions during their holiday.<sup>18</sup>

Results by region show that **emerging economy destinations which are home to many of the world's biodiversity hot-spots** have grown faster than advanced economy destinations. Compared to an average growth rate of 2.3% p.a. in Europe in the years 2005 – 2011, tourism arrivals grew by 8 % p.a. in South-East Asia, 5% p.a. in Central America, 6% p.a. in South America, and 8 % p.a. in Sub-Saharan Africa.<sup>19</sup>

<sup>15</sup> Definition by "The International Ecotourism Society", (TIES). Ecotourism is sometimes also referred to as nature-tourism (both terms are used synonymously throughout this study).

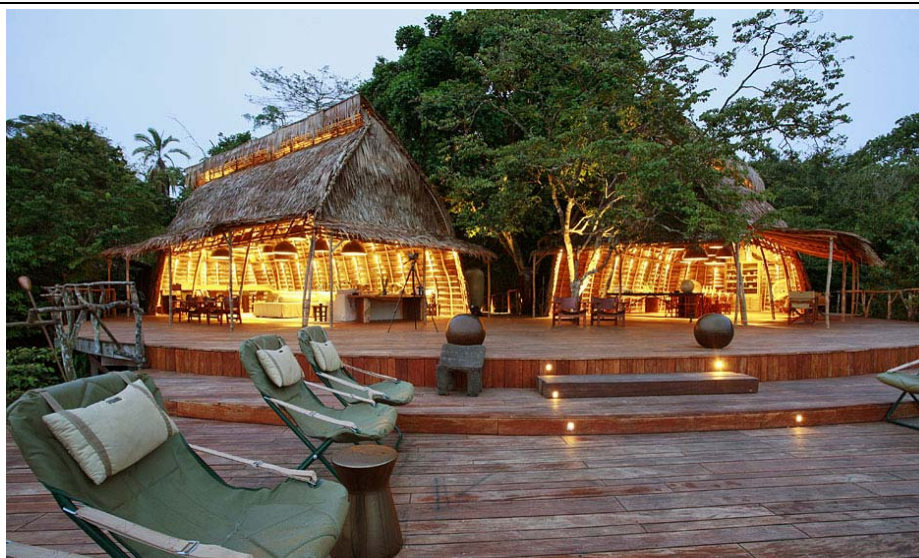
<sup>16</sup> Secretariat of the Convention on Biological Diversity (2010): Biodiversity and Tourism (<http://www.cbd.int/iyb/doc/prints/factsheets/iyb-cbd-factsheet-tourism-en.pdf>), accessed on 4.3.2013.

<sup>17</sup> WTTC (2005): The 2005 Travel and Tourism Economic Research, p. 14.

<sup>18</sup> F.U.R. (2001): Reiseanalyse 2001. Sowie UNWTO (2002): Tourism Highlights 2002.

<sup>19</sup> WTTC (2005): The 2005 Travel and Tourism Economic Research, p. 14.

Figure 8: Eco-Lodge in the Congo



Source: Congo Conservation Company

## 5.1 Sustainable investments into tourism

The ecotourism sector is fragmented and characterized by privately owned businesses. The market can be divided into large specialized lodge operators on the one hand and small operating companies and individuals on the other hand. The latter often only operate one single or very few lodges. Among the leading specialised tour operators in Africa are Wilderness Safaris, Serena Hotels, Abercrombie & Kent, &beyond, Asilia Africa and Sanctuary Retreats. Wilderness Safaris and Serena Hotels are examples of stock listed companies, while most of the other tour operators are privately owned.

According to the World Travel & Tourism Council (WTTC), tourism has attracted capital investment of US\$ 743 billion in 2011. This is expected to rise by 5.6% p.a. over the next ten years to approx. US\$ 1,320 billion in 2022.<sup>20</sup> However, **very few investment funds explicitly focus on financing eco-lodges**, as investment volume in individual lodges is typically too low to make it an attractive investment target for investment funds. Investments are typically carried out by private individuals (the lodge owners) or by operators which act as strategic investors (as opposed to financial investors that are featured in this study).

Commercial investors investing in nature tourism usually expect a **private equity type of return of > 25% p.a.** Wilderness Safaris as a publically owned eco-tourism operator invests in properties only if a payback period of a maximum of 4-5 years can be expected. However, it appears that only the most successful eco-lodges in well-known and well managed national parks such as Kruger National Park or Okavango generate such returns of 25% p.a. or more.

Interviews with lodge operators have shown that a **target IRR in the range of 10 - 12% p.a. is a realistic assumption** for the type of projects that are in the focus of this study (assuming a divestment after a certain period, e.g. 10 years). Payback periods seem to be 5 – 7 years (or more) compared to the 3 – 5 years (or less) which would probably be expected by commercial investors. As

<sup>20</sup> WTTC (2005): The 2005 Travel and Tourism Economic Research, p. 14.

this type of return does not compensate investors for the high risk, most operators are so far reluctant to invest into these destinations.

Although there is a certain degree of **M&A activity** among large eco-tourism operators, the number of opportunities to acquire a minority or even majority stake in highly profitable eco-lodges is limited. Also, one might argue that the biodiversity impact in these cases would be limited as these existing profitable lodges are often located in or near parks that already do well and have a very well developed tourism infrastructure.

## 5.2 Safeguards and screening criteria

All forms of tourism inevitably constitute an interference with the natural ecosystems. One example is the emission of greenhouse gases if a tourism concept involves long-distance travel. Therefore, certain safeguards need to be respected. Examples for sustainability standards are the CBD's "Guidelines on Biodiversity and Tourism Development", the TIES' "Principles of Ecotourism", the "Sustainable Tourism Development Guidelines", the "Global Impact Investing Rating System" and other global standards and certificates. However, none of these standards have gained industry-wide recognition globally so far and **there is no globally accepted standard or certification procedure** which can directly be applied for the development and management of nature tourism businesses located in sensitive eco-systems.

In 2006, the **WWF Germany formulated five principles for responsible tourism** which could serve as safeguard criteria for the selection of case studies. These five principles include: 1) The Tourism concept must be part of a sustainable development strategy and plan, 2) Natural resources should be used in a sustainable way, 3) Pollution and consumption should be kept as low as possible, 4) The Tourism project should respect the cultural values of the local population and enable them to participate in economic prosperity, 5) The Tourism concept must be informative and promote respect for local culture and environment.<sup>21</sup>

Taking into account the above principles, the selection of business models is based on the following **pre-selection criteria**: 1) The project offers a nature tourism experience, 2) The project contributes to the conservation of an eco-system, or alternatively, to the establishment of a privately financed protected area and 3) The project operates in partnership with environmental organizations and/or national conservation authorities to ensure alignment with conservation objectives and fulfils the sustainability criteria as defined above.

## 5.3 Sustainable tourism model portfolio and assessment of projects

On the basis of the described criteria a model portfolio consisting of **six tourism case studies** in the **DR of Congo, Zambia, Rwanda, Costa Rica, Peru and Madagascar** was selected and analysed (see table 3).

<sup>21</sup> PwC (2006): Sustainable Investments for Conservation – The Business Case for Biodiversity.

**Table 3: Tourism Model Portfolio**

<b>Project / Company Name</b>	<b>Business Model &amp; Biodiversity Benefit</b>	<b>Organization</b>	<b>Why selected</b>	<b>Key Funding sources</b>
Congo Conservation Company, Congo	High end 24 bed lodge in a remote rainforest area.  Conservation and sustainable use	Company owned by philanthropic investor, concession agreement with park administration	First mover role in remote region, investment objective is to fund national park & community projects	Private investor (high net worth individual; family foundation)
Liuwa Lodge, Zambia	5-star 12-16 bed lodge in Liuwa Plain National Park, Western Zambia  Conservation and sustainable use	Commercial lodge operator invests in property and enters into concession agreement with park administration	Milestone investment in poorly developed region, aim is to make national park more financially self-sufficient	Private investor (African lodge operator)
Akagera Game Lodge, Rwanda	Refurbishment of existing 64 bed lodge  Conservation and sustainable use	Commercial lodge operator invests in property and enters into concession agreement with park administration	Milestone investment in poorly developed region, aim is to make national park more financially self-sufficient	Private investor (African lodge operator)
Veragua Rainforest Park, Costa Rica	Rainforest park for day tourism  Conservation and sustainable use	Mission-driven for-profit company	Successful example for a mass tourism rainforest product	Group of individuals together with impact fund
Rainforest Expeditions, Peru	Comfortable, low-impact lodging in the Peruvian Amazon  Conservation and sustainable use	Mission-driven for-profit company; ownership sharing agreements with local communities	Commercially successful model project with strong biodiversity and socio-economic impact in one of Conservation International's hotspots	Group of individuals together with impact fund
Blue Ventures, Madagascar	Community based nature tourism in marine national park  Conservation and sustainable use	UK Charity	Dive tourists are actively engaged in assisting national park team	Cross-subsidized by charitable funds

Source: Authors

One exemplary case study in the field of sustainable tourism is the **Congo Conservation Company**. The Congo Conservation Company operates two high-end eco-tourism camps with a total of 24 beds in the Odzala National Park in the Northwest of the Republic of Congo. The guest experience usually consists of a three night stay in each of the camps. Main attractions are gorilla tracking, watching and

enjoyment of the tropical forest flora and fauna. The camps opened in September 2012 and are marketed and managed by Wilderness Safaris, one of the leading eco-lodge operators in Africa.

**Odzala National Park** has a size of 1.3 million ha and lies in the middle of the Congo Basin and remains one of the planet's truly remote locations. Next to an abundance of rainforest fauna and flora, Odzala hosts one of the world's largest populations of low-land gorillas. There are approximately 40.000 people living in 71 communities in the buffer zone of the park. To date, there is no eco-tourism offering of any significance in or around Odzala National Park. In addition to the operation of the business, the investors provided substantial grant funds for park management and community initiatives (e.g. education).

**Biodiversity benefits** of this project include: Direct generation of funding for the park administration and local communities by payment of a community fee of 5% of sales p.a. (total cash contribution see chart below), a co-financing effect for the park administration through payment of park entrance fees of US\$ 40 per tourist per day and additional funding of education schemes for the local population – aiming at the reduction of poaching and bush meat trade activities. The company conducts an Environmental Impact Assessment in cooperation with national authorities.

**Socio-economic impact** includes the generation of potentially 50 jobs. Assuming a multiple of 8-10 supported individuals per income, the business potentially supports 400 - 500 individuals in the region. In addition to direct employment, the company plays a vital role in establishing local value chains (e.g. construction work, tool making, cultivation of vegetables and fruits, sale of cultural goods and services) thereby introducing new sources of income for a substantial number of local inhabitants. Alongside the operation of the company, the project initiators have made substantial donations for various community initiatives (education, health).

According to the business plan, **the business will break even in 2015** and will start generating increasing profit margins thereafter (the break-even occupancy rate is approx. 50%). Sales are projected to increase from approximately € 207.000 in 2013 to € 6.670.000 in 2022. EBITDA will increase from approximately € -545.800 in 2013 to € 956.000 in 2022. Total financing requirement are estimated to be around € 5-6 million. IRR is expected to be reach 7% p.a. assuming exit after 10 years at 8 x EBITDA.

The greatest challenges are the marketing of a tourism offering in a remote region with limited infrastructure resulting in high operating expenses associated with bringing the guests to the camps as well as the high capital expenditure.

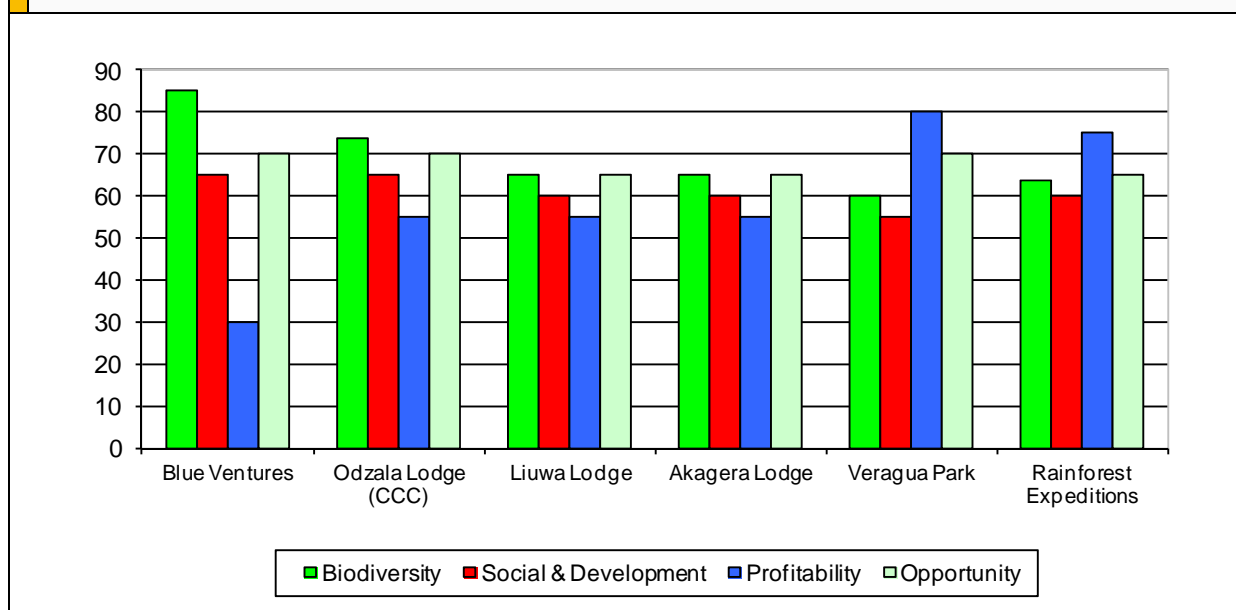
The score-card assessment of the model portfolio revealed that the highest **overall score** (265 points) is attained by the **Veragua Rainforest Park in Costa Rica** which aims to reduce logging and provide financing for the conservation of the Veragua Rainforest Park. The project was founded by a group of local land owners and financed by the EcoEnterprise Fund. The business model consists of a one-day park visit for cruise passengers who arrive at the Port of Limón, about one hour away from the park. The park offers attractions such as spectacular walking trails through the rainforest, hummingbird gardens, an insectarium and nocturnal frog exhibit, a reptile vivarium. The project is also one of the three top-scorers in terms of opportunity. The Veragua Rainforest Park opened in 2008 and the total investment was approx. US\$ 5 million (equity and loan). The project has reached an annual sales volume of US\$ 12 million. It benefits from an established nature tourism destination (Costa Rica) and its vicinity to a major cruise shipping port. The project is an example for a "rare" combination of large amounts of visitors in a landscape which is often difficult to access (rainforests) and is expected to co-fund conservation objectives in partnership with Costa Rica's biodiversity research centre "InBio". However, even such a favourable overall setting does not impede that the

investment is exposed to high risks if safety concerns and a strike in the port of Limón make cruise ships avoid the harbour.

**Second highest overall score** with 262 points is attained by the **Congo Conservation Company**. The CCC is also one of the top three scorers in terms of “**opportunity**” and one of the two top scorers regarding **socio-economic and development benefits**.

Top scoring in terms of **biodiversity benefits** is Blue Ventures, Madagascar, a community based nature-tourism project in a marine national park which actively engages dive tourists in assisting the national park team. It is also one of the two top scorers in terms of socio-economic and development benefits and one of the three top scorers regarding the “**opportunity**” criterion.

**Figure 9: Score-card assessment of the tourism model portfolio (Maximum: 100 points)**



Source: Authors

## 5.4 Opportunities and risks

There are numerous **opportunities** to develop nature tourism projects in a way that they are beneficial for the financing of protected areas and help to provide new sources of income for local communities. However, there are also a number of **risks** which need to be considered.

**High risk vs. first-mover advantage in unique locations:** An investment in nature tourism faces high risk, including political, business and market risks. At the same time, an investment in a poorly developed region can also constitute a great opportunity. Should the undertaking be successful the investor will be able to profit from the uniqueness of the business for a certain period before competitors join and invest in what will then be perceived as an attractive business environment.

**Vulnerability to political risks but strong growth prospects:** Ecotourism is subject to consumer demand which is dependent on the willingness of consumers to spend their money on expensive travel experiences which in turn is subject to the development of the global economy. It is also subject to their willingness to travel abroad. Therefore, despite the strong growth and positive outlook for the nature tourism market overall, individual projects might suffer strongly by a

deterioration of the security situation in a certain region. This might be the result of terrorist attacks, ethnic tensions and war and the appearance of pandemics. Further risks for foreign investors include land reforms or land-use conflicts. A thorough analysis of the political risks is therefore critical for success.

**Limited scalability but high profit margins:** One of the downsides of an investment into nature tourism is the limited scalability of business models. This is due to the nature of the business as an eco-lodge will always be limited in size. In order to expand the business, the investor will have to open up additional lodges - causing significant new capital investment. On the other hand, a successful nature tourism lodge can generate profit margins of 25% or more (pre-tax profit in percentage of sales) which are high compared to profit margins in other industries.

**Commercial challenges but possible biodiversity benefits:** There are high commercial challenges to ensure a successful nature tourism development, especially in the more remote locations. However, these may be offset by the opportunity to achieve high benefits for biodiversity, especially as nature tourism is often one of the most promising (and sometimes the only) way to generate direct revenues for nature conservation in remote areas.

**Conservation of biodiversity and livelihood improvement can reduce profitability:** When it comes to deciding on the proportion of profits to be allocated to protected area management to nature conservation and livelihood improvement of local communities, there is usually a trade-off between profitability and conservation benefits, which can be problematic in the early stage of the business development when profits are small.

## 5.5 Success factors

The single most important criterion for a tourism project is the **right location**. This relates to the transparency and reliability of the jurisdiction the company operates in and to the accessibility of a location. Ideally, the lodge is linked to sufficient infrastructure and can be integrated into travel packages. A business in a remote location with limited accessibility runs the risk of staying marginal and requires a unique product offering as well as outstanding marketing efforts.

Directly connected to the location is the **appeal of the tourism offering**. A successful eco-tourism undertaking needs to offer a product that is marketable, can be differentiated from other offerings and draws the attention of prospective guests. Experience shows that many projects, especially the ones initiated by development or environmental organizations, are prone to fail if the tourism product is simply not strong enough to attract a substantial number of guests every year.

It is vital to have **strong project partners**, especially in remote areas with limited tourism development and infrastructure. The operation of a nature tourism business in such locations requires substantial operational experience, knowledge of the local business culture and substantial marketing power. This can, for example, be achieved by working together with a leading tourism operator who has the resources and the network required to globally market a tourism destination.

It is essential to choose the right approach for a specific environment. If one wants to generate high profit margins in combination with a low negative impact on the environment, it is advisable to opt for a **high-end offering which is aimed at a high net worth clientele**. However, this approach only works in a location that offers a unique experience which justifies a high price business approach.

**The capacity to install an effective management of the natural landscapes** surrounding the business location is a prerequisite for success. Poor management of the area may result in poaching, logging, and other activities which will harm the tourism product.

It is of major importance to **maintain a good relationship with local authorities and communities**. Failure to prove the benefits of a project to the local communities may hurt the project economically and environmentally as detrimental activities such as poaching and illegal logging may persist. Effective means to increase the livelihood-impact of a project are, for example, local sourcing of food and beverages and governance schemes which ensure that transfer payments actually reach the local populations.

Despite the lack of widely accepted and verifiable sustainability standards for the operation of eco-tourism projects investors must **ensure that high environmental and socio-economic standards are respected and monitored** at the project level. Ideally, a periodic environmental impact assessment is carried out by the operator. It is important to include in the relevant agreements (such as concession agreements) clauses that govern how the eco-system can profit from the business. In most cases this will be achieved via financial benefits through fixed amounts or percentages of revenues that are paid to the responsible conservation authorities.

## 5.6 Conclusion

The described business models could help to realize synergies between the goals of development cooperation and conservation via the creation of jobs for local communities and the co-financing of protected areas. However, many of the described businesses are small, have little up-scale potential, face high country and project risks, long time-horizons and low profitability. Due to the limited investment capital available the existing projects often remain marginal. Also, there is a lack of entrepreneurs who have the will as well as the competencies to operate in a difficult market. Often, trade-offs between “sustainability” objectives and profitability exist.

In order to influence this balance towards impact objectives, co-financing is needed. The support of such projects via structured fund vehicles and the provision of consulting services via technical cooperation could motivate a wider investor audience to invest into business models that are based on sustainable tourism.

## 6 Biotrade

UNCTAD defines **biotrade** as “activities related to the **collection or production, transformation and commercialization** of goods and services **derived from native biodiversity** (genetic resources, species and ecosystems) according to criteria of environmental, socio-economic and economic sustainability.”<sup>22</sup> This includes, for example, business models based on shade-grown coffee, cocoa and tea as well as fruits, nuts, spices and blossoms.<sup>23</sup>

**Figure 10: Testing speciality coffee in Ethiopia**



Source: Coffee Circle

### 6.1 Sustainable investments into biotrade

The analysis revealed that there are **already a number of impact funds that invest into smallholder farmer agricultural production and fair-trade schemes**. For example, most of the existing Biodiversity Enterprise Funds that were portrayed in chapter 3 are tailored to provide co-financing for biotrade business models. The most relevant being Verde Ventures (founded by Conservation International), the Eco-Enterprise Fund (founded by The Nature Conservancy), the Conservation Enterprise Development Fund (founded by the Wildlife Conservation Society) and the ERM Low-Carbon Enterprise Fund (founded by the ERM Foundation). Most of these existing funds like the Eco-Enterprise Fund or Verde Ventures have a strong focus on Latin America or their investment reach is bound to narrowly defined conservation areas (in the case of the Conservation Enterprise Development Fund).

In addition, there are a number of specialised biotrade and fairtrade funds who each have developed individual strategies to cope with the specific challenges of investing into agri- or fair-trade businesses.

**Fair trade investment funds like “root capital” and “responsibility”** limit their risk exposure by providing only short term trade finance to agricultural cooperatives. Often, there are triangular deals

<sup>22</sup> UNCTAD (2007): UNCTAD Biotrade Initiative. BioTrade: principles and criteria, page 7.

<sup>23</sup> Examples include mangusteen fruit, acai, Brazil nut, pepper, chilli, ginger and vanilla.

where the loan provided to the cooperative is not paid back by the cooperative itself, but by its clients – which are often located in a Western country making it easier for the fund to enforce the pay back of the loans.<sup>24</sup> The Africa Agricultural Trade and Investment Fund (AATIF) focuses on **intermediaries**, which are either local financial institutions or large agribusinesses, but also provides direct equity and debt to out growers, producer cooperatives as well as to small and medium sized professional farms. The intermediaries' role is to **aggregate small to medium sized farms, cooperatives and out-grower schemes in order to reach smallholder farmers** and to **link them to value chains** while minimizing the related transaction costs. As a structured fund model it offers different investment tranches to “impact first” and “finance first” investors, with BMZ providing significant first loss coverage. **The Livelihoods Fund** provides funding to local cooperatives that expand horticulture or mangrove restoration projects based on a carbon credit revenue model. The fund is financed by corporate investors who benefit from “dividends” paid in form of carbon credits. The **Moringa Fund** targets family offices and (semi-)institutional investors and invests into a diversified portfolio of agro-forestry projects.

However, due to their small size and very narrow geographical focus, the existing biodiversity enterprise and biotrade/ fairtrade funds cover only a small amount of the possible deal flow – leaving **up-scaling potential for additional biodiversity enterprise funds**.

## 6.2 Safeguards and screening criteria

An analysis of **existing guidelines, standards and consumer labels** in the area of biotrade underlines that there is a mosaic of tools which can be used to define safeguards which must be applied if a project shall benefit from public support. Some of the existing schemes pursue a mainstreaming strategy (e.g. through industry driven standards such as UTZ Certified), others sector-specific approaches (such as MSC) or quality niche strategies such as the “Wildlife Friendly” or “FairWild” standards (see table 9 in the Annex). The UNCTAD Biotrade Initiative developed seven principles and criteria designed to help to make biotrade a positive contributor to biodiversity conservation through sustainable commercial use:<sup>25</sup> 1) Conservation of biodiversity, 2) Sustainable use of biodiversity, 3) Equitable sharing of benefits derived from the use of biodiversity, 4) Socio-economic sustainability (management, production and markets), 5) Compliance with national and international legislation and agreements, 6) Respect for the rights of actors involved in BioTrade activities and 7) Clarity about land tenure, use and access to natural resources and knowledge.

Taking into account the above safeguards, the analysed business models were **pre-selected on the basis of the following criteria**: The projects represent self-sustaining business models (for profit or non-profit) and are located in tropical regions or other areas which are of high importance for the conservation of biodiversity; protect natural habitats through sustainable use or protection of biodiversity or contribute to the protection of agricultural biodiversity and the projects provide benefits to local communities and the protection of their rights. Excluded were large-scale plantations, unless these act as a protective buffer function for a protected area.

<sup>24</sup> For further information see also Tammy Newmark (2012) who reports about EcoEnterprise Fund's experience with trade finance.

<sup>25</sup> <http://www.biotrade.org/overview.asp>

### 6.3 Biotrade model portfolio and assessment of projects

On the basis of the screening, **nine projects in Brazil, Ethiopia, USA, Indonesia, Cambodia and Zimbabwe** were selected as case studies for a model portfolio (see table 4).

One example of a successful business model in the field of biotrade is the Brazilian company “**Natura**” a manufacturer and marketer of beauty products, cosmetics and perfume. The company sells its products through representatives in many countries across the world. It was founded in 1969, by Luiz Seabra and became a public company, listed on São Paulo Stock Exchange, in 2004.

Natura is using Brazilian biodiversity assets in many of its products, including cacao, passion fruit, mate tee, buriti and andiroba. The company developed a production model based on relations with suppliers’ communities organized as cooperatives and associations. These are located in diverse regions of Brazil, in particular in the Amazon. It created production chains with these communities based on fair prices, compensation for the use of biological resources and valuing traditional knowledge. These relations are governed by Natura’s Policy for the Sustainable Use of Biodiversity and Traditional Knowledge which in turn adopts the guidelines set forth by the United Nations Organization’s (UN) Convention for Biological Diversity. This production model provides a value proposition that generates income for hundreds of families, while driving regional development and environmental conservation. In 2012 Natura had more than 1.2 million “consultants” (resellers) spread throughout Argentina, Brazil, Chile, Colombia, France, Mexico, Peru, USA, Australia and UK.

In 2012, Natura’s net revenues reached R\$ 6,346 million (a growth of 13.5 %) and EBITDA was R\$ 1,511 million, with an EBITDA margin of 23.8 %. Net earnings reached R\$ 861 million with a net income margin of 13.6 %. Natura undertook a large investment, with a capital expenditure of R\$ 440 million.

By recognizing the importance of the Amazon region for the country and Natura’s history in this region, Natura intends to use its brand to create sustainable development proposals for the region that will benefit its inhabitants and protect the forest. Launched in 2011, the **Amazônia program** expands and reinforces this commitment in order to promote new sustainable businesses based on science, innovation, production chains and local entrepreneurship. These initiatives will be focused on sociobiodiversity and on valuing traditional knowledge and regional culture. Already in its first year, the region benefitted from R\$ 64.8 million.

Natura defined **three interrelated action fronts**:

- **Science, Technology and Innovation** – Natura is building a Knowledge and Innovation Center in Manaus, bringing together local and Natura’s researchers. Natura’s target is to connect a network of more than one thousand researchers from diverse institutions by 2020.
- **Sustainable Production Chains** – Natura will increase production in the Amazon in Benevides (Pará State), supporting the formation of a network of local extractivist communities, encouraging the development of local production and social entrepreneurship. The purchase of materials from the Amazon is projected to grow from 11% to 30%, engaging 10 thousand families by 2020.
- **Institutional Reinforcement** – Natura wishes to develop wide-range sustainable development plans and initiatives jointly with civil organizations, local governments, national and foreign companies, financial agents and other partners. An example of this kind of articulation was the definition of priority topics for the Amazônia Program, which involved the collaboration of around 100 people from diverse backgrounds with experience in the features of Pará, Amazônia and neighbouring States. This effort helped to refine the program strategy and define Natura’s

priorities: education; entrepreneurship; conservation, valuing and using biodiversity sustainability; social justice and citizenship; public policy and culture.

<b>Table 4: Overview of biotrade model portfolio</b>				
<b>Project / Company Name</b>	<b>Business Model &amp; Biodiversity Impact</b>	<b>Organization</b>	<b>Why selected</b>	<b>Size and key funding sources</b>
Natura	Natura is the Brazilian leading manufacturer and marketer of personal care products. It sells its products through representatives in many countries across the world.  (Sustainable use)	The company became a publicly listed company in 2004.	Natura is using Brazilian biodiversity assets in many of its products and developed a production model based on relations with suppliers' communities organized as cooperatives and associations, ensuring fair prices and valuing traditional knowledge.	Big (\$ 2.700 m net revenues in 2011) Publicly listed company on Sao Paulo Stock Exchange. Controlling shareholders: approx. 60% of shares, free float approx. 39%.
Sambazon	Sales of acai fruit juice on US retail market  (Sustainable use)	US headquartered for-profit socio-economic venture	Successfully developing a niche market for an under-utilized tropical fruit grown in biodiversity rich rainforest areas	Medium (\$25m turnover in 2009)  Angel Investors, EcoEnterprise Fund, OPIC
Coffee Circle, Ethiopia	Online Sales of premium speciality coffees from indigenous sources  (Sustainable use)	Germany headquartered for-profit social enterprise (B-Corp)	High growth venture aimed at biodiversity protection & livelihoods improvement of rural farmers.	Small / Medium (800k € turnover in 2012)  Germany Family Office, Hausbank, backed by Berliner Investitions-bank
Sustainable Harvest, USA	Sales of certified coffee on retail market in the US  (Sustainable use)	US headquartered for-profit social venture (B-Corp)	For-profit social enterprise that integrates smallholders with stunning growth	Medium (>\$70m in 2011)  Social investors (not disclosed)
ForesTrade, Indonesia	Sales of fair-trade coffee and other tropical commodities to wholesale clients  (Sustainable use)	Regional headquartered for-profit social venture (closed operations in 2010)	A first mover in the field of fair-trade coffee that failed to maintain its originally strong market presence.	Medium Social Investors (family office, Verde Ventures)
IBIS Wildlife Friendly	Sales of "wildlife friendly" certified	Local not-for-profit	Integrates conservation agreements into	Small

**Table 4: Overview of biotrade model portfolio**

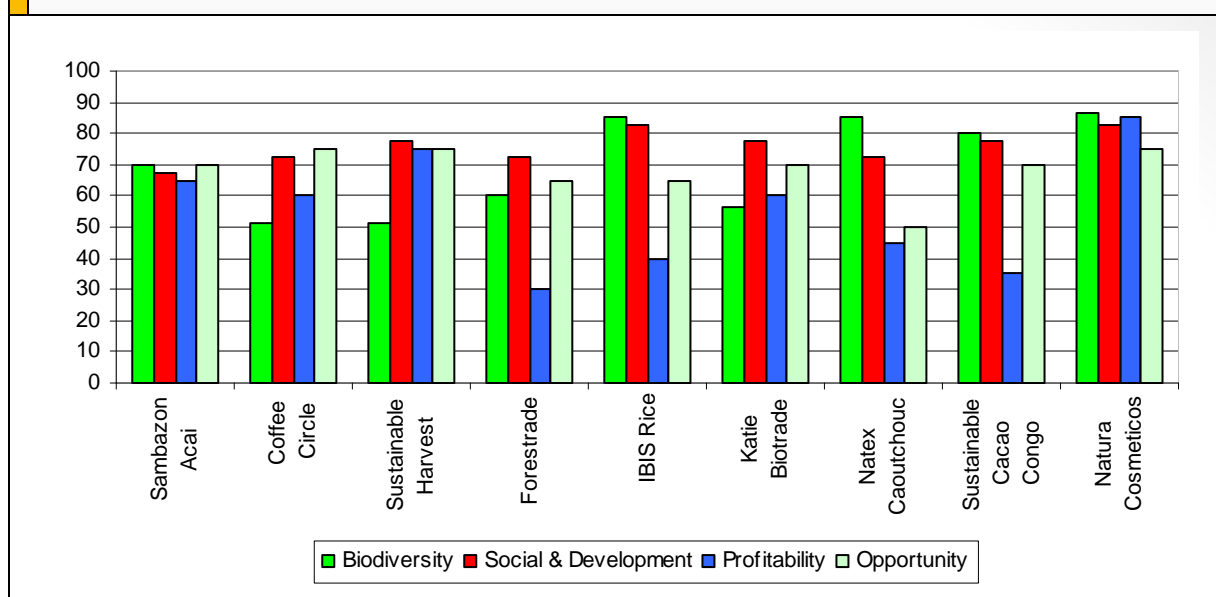
Project / Company Name	Business Model & Biodiversity Impact	Organization	Why selected	Size and key funding sources
Rice, Cambodia	rice to selected restaurants.  (Sustainable use & conservation)	cooperatives	agriculture	Philanthropic investment fund (WCS Conservation Enterprise Development Fund)
KAITE Biotrade, Zimbabwe	Sales of essential oils to international cosmetic industry  (Sustainable use)	Local for-profit social venture (complemented by not-for-profit association)	Smallholder organic agriculture in a challenging political environment	Small / medium (expected 4m US\$ turnover by 2015)  Private investors, development bank (DFID - Africa Enterprise Challenge Fund)
Natex Condom Factory, Brazil	Sales of condoms from natural rubber to Brazilian health programme, (Sustainable use)	Brazil headquartered for-profit social venture	Protecting 1 million of ha of rainforest	Medium / large (data not disclosed)  Public Private Partnership
Ouro Verde, Amazonia (Brazil)	Harvesting and sales of brazil nuts from naturally grown trees.  (Sustainable use )	Cooperative structure, supported by large pulp & paper company (Grupo Orsa)	A business model built on naturally grown products; role of a large company as a sponsor and catalyst.	Expansion stage (3,000 out growers)  Corporate Sponsorship, Sales

Source: Authors

The analysis of the model portfolio revealed that the existing biodiversity businesses often benefit from the work of a small number of organizations specialised in mentoring conservation enterprises, like the New Ventures programme which help entrepreneurs to develop new projects.

Overall **top-scores** in the score card assessment were achieved by Natura Cosméticos (329 points) which was described earlier on, Sustainable Harvest coffee company (279 points) and Sambazon Acai (273) (see figure 11). Sustainable Harvest is a US-headquartered for profit social venture that works with small-holder producers to sell certified coffee on the US retail market. It maintains relationships with more than 200,000 smallholder coffee growers, and pursues supply chain relations built on the principle of transparency and fair benefit sharing. Sambazon Acai is a US headquartered company which sells acai from biodiversity rich rainforests on the US retail market.

**Figure 11: Overview of score-card-assessment of the biotrade model portfolio**



Source: Authors

Most of the analysed projects score very high with regard to their **socio-economic and developmental** impact. Top scores are achieved by the IBIS Wildlife Friendly rice project, a not-for-profit cooperative based in Cambodia which integrates conservation agreements into agriculture. The “wildlife friendly rice” is sold to restaurants.

The **biodiversity benefit** differs to a relatively large extent. This is due to the fact that only a few business models explicitly focus on the conservation of eco-systems, while the majority of projects are based on the idea of a sustainable use of biodiversity. Top scores are achieved by Natura Cosmeticos and the IBIS wildlife friendly rice project and the Natex Caoutchouc Condom factory, a Brazil-headquartered for profit social venture which is protecting 1 million ha of rainforest and sells condoms from natural rubber to the Brazilian health programme.

Regarding **the economic assessment**, the findings indicate the by far highest variability; the project portfolio includes companies which have seen stunning growth over the past years (such as Natura Cosmeticos and Sustainable Harvest who score highest in the economic assessment) as well as companies or projects which failed in the market (Forestrade) or have not yet been funded due to a difficult risk-/return ratio. Top scores are achieved by the “Sustainable Harvest” coffee company.

The **“opportunity”** category tries to identify the most promising business cases in which biodiversity or socio-economic impact can be increased without running into severe trade-offs with the financial performance criteria. Top scores are achieved by Natura Cosmeticos, Sustainable Harvest and Coffee Circle. Coffee Circle is a Germany-headquartered for profit social enterprise which sells premium speciality coffees from indigenous sources in Ethiopia via the internet.

## 6.4 Opportunities, risks and success factors

Political, project, market, and legal risks were identified as **major barriers to investments into biotrade businesses**. Other important risk factors are the low return on investment, small deal sizes, high transaction costs, the missing track record and the fact that biotrade business models are not a standardized asset class.

The analysis also revealed a number of success factors: **A strong brand can co-finance socio-economic and environmental benefits:** Companies that have successfully managed to establish their company brand in order to distinct their product from competitors' products, can achieve a significant price premium and thereby better afford costly socio-economic and environmental standards.

**Bio- and fair trade approach can justify a premium price:** A number of companies manage to achieve a premium off-take-price through a very specific bio-/ or fair-trade approach which differentiates the company from others. Credibility can be achieved via the endorsement of a trusted organization (like WCS for Ibis rice).

**Most projects support conservation of biodiversity indirectly** by recurring to minimal invasive production patterns embedded into the natural eco-systems. Only very few biotrade projects successfully integrate conservation strategies into their business models. One rare example is the featured IBIS rice project, where local farmers sign conservation agreements and agree to stop the expansion of rice pads into protected wetlands. In return, they receive a price premium.

**Partnerships with corporations** can have catalytic effects regarding access to markets, finance, as well as project management expertise and can play a major role in setting-up supply chains involving smallholder farmers in biodiversity-rich areas. Corporations occasionally also provide funds as part of their corporate social responsibility programmes.

**Investment barriers are the fact that selling into "commodity" markets** with products that are less distinct from competitors is difficult.

Also, **small-scale local cooperatives are usually not investible by foreign investments.** However, the model portfolio covers a range of different ownership models, ranging from Western headquartered companies such as Sustainable Harvest or Sambazon in the US and the Berlin-based start-up company Coffee Circle to local cooperatives (IBIS rice, sustainable cocoa initiative) and local for-profit social ventures (KAITE Biotrade, Forestrade, Natex).

## 6.5 Conclusion

In the biotrade sector, investors are often confronted with a wide cosmos of individual project opportunities. This makes this sector difficult to access for investment funds that are not specialized on the trade finance business. Many projects selected for their high biodiversity or social / developmental benefits face challenges on the profitability side. Challenges are the often small project size (unsuited for overseas financial investors), a challenging risk-/return profile, low margins, dependency on external price movements for many commodities as well as risks associated with accessing niche markets. However, there are also convincing success stories to be told – as can be seen from the case study of the Brazilian company "Natura".

Due to their small size and very narrow geographical focus, the existing biodiversity enterprise and biotrade/ fairtrade funds cover only a small amount of the possible deal flow – leaving **up-scaling potential for additional biodiversity enterprise funds.**

## 7 Policy options to encourage private financing for biodiversity

**Many of the existing official development assistance (ODA) instruments can be adapted to the specific needs of biodiversity businesses:** While technical cooperation could offer capacity building and regulatory policy development support in order to improve the investment environment in host countries, financial cooperation could leverage private investment through a number of financial instruments. In addition, Public Private Partnership (PPP) facilities could support the private sector to scale existing biodiversity businesses. Governments and the responsible ministries could adapt the regulatory environment that biodiversity businesses operate in.<sup>26</sup>

In general, **six forms of cooperation with the private sector** can be distinguished: Sponsoring and small-scale co-financing, multi-stakeholder dialogues and formal networks, development partnerships, public-private partnerships, the combination of private and public capital as well as the provision of advisory services for private investment in developing countries.

However, to date, **the capability of the existing policy framework to channel private finance into biodiversity protection has remained quite weak.** To overcome the existing investment barriers and the lack of investment opportunities, supportive action can focus on a number of policy measures that will be presented in the following.

### 7.1 Improving the investment climate in host countries

Project developers that focus on biodiversity business opportunities in developing countries often face specific challenges: Promising business prospects might be upset by a **lack of legal certainty, scarce training facilities, ineffective administrative structures** and **poor infrastructures**. These obstacles need to be addressed in order to create a more favourable investment climate for biodiversity business opportunities.

#### 7.1.1 Further improve the investment climate via public private partnerships (PPPs)

**Technical cooperation** can offer instruments to improve the investment environment through capacity building and regulatory policy development support.

#### Policy Options:

- Embed PPPs in **broader biodiversity business development initiatives** and assist them to engage potential financiers at an early stage.
- Support **participatory land-use planning processes** in order to secure the rights of local communities and at the same time provide legal security for investors.
- Identify priority landscapes for the **establishment of biodiversity businesses clusters** where businesses mutually support each other and benefit from public support regarding capacity and skill development, preferential taxes and regulations and infrastructure development.
- Ensure that PPP facilities have lean structures and non-costly reporting requirements.
- Tailor PPP-programmes so that they fit the **larger size and long-term commitment** necessary for forestry investments.
- **Issue specific PPP tenders** targeting biodiversity business development activities such as business plan development, project pipeline and fund development as well as investment due diligence work.

<sup>26</sup> Federal Ministry for Economic Cooperation and Development (2011): Forms of Development Cooperation Involving the Private Sector – Strategy Paper 05/2011e. An overview of these instruments is displayed in the Annex.

- **Encourage governments to provide tax incentives** for investments in biodiversity businesses, e.g. investment costs could be tax deductible against profits from other businesses.

### 7.1.2 Enhance capacity development in the field of sustainable tourism

It is not always easy to develop tourism projects which score high not only on the financial side but which also have a beneficial effect on financing biodiversity conservation and on the socio-economic environment they operate in. Therefore, it is important to support capacity building regarding the sustainable development of eco-tourism projects which respect a triple-bottom-line approach.

There **are a number of successful examples** of international ODA programs which focus on the prevention of poaching and illegal logging. In the Democratic Republic of Congo, for instance, over a hundred staff members of the **Kahuzi-Biéga National Park** were trained in stock control. Today around 40% of the park are under the control of the Congolese Wildlife Authority. Neighbouring communities were closely integrated into the park administration, which resulted in a fruitful cooperation. As a result, the critically endangered gorillas in the uplands benefit from an improved protection: According to figures published by the Wildlife Conservation Society, their numbers rose from 117 animals in 2008 to 181 in March 2011.<sup>27</sup>

Building on the existing successful examples, the following policy options could be considered:

#### Policy options:

- Facilitate the **cooperation between conservation management authorities (parks), tourism project developers and tourism operators** (e.g. via conferences and information platforms)
- Facilitate **capacity development programs for local park management authorities** as well as **tourism project developers** on how to ensure that tourism development respect “triple-bottom-line” safeguards
- Assist in negotiation processes to ensure that **fair conditions of concession payments** are achieved.

## 7.2 Encouraging entrepreneurs and helping biodiversity businesses to thrive

As of today, the development of biodiversity business investment opportunities suffers from a “hen and egg” problem. Because of the uncertainty regarding the question whether a project will be able to raise sufficient capital, **developers and entrepreneurs hesitate to engage in biodiversity business opportunities**. As a consequence, the deal-flow pipeline of investible projects is often relatively small. **By mentoring and financially assisting entrepreneurs in the early stages of setting up biodiversity businesses, the deal-flow pipeline could be substantially improved - both in quality and in size.**

<sup>27</sup> Ibid.

### 7.2.1 Enhance the support of entrepreneurs via financial assistance

In order to improve the **quality and quantity of the biodiversity business deal-flow**, there is a strong need to **provide financial assistance** to entrepreneurs - **especially during the costly project development phase** and **throughout business up-scaling cycles**. For example, a forestry investment of € 10-20m requires an upfront investment of between € 0.8m (€ 0.1m times eight) and € 4.8 million before project implementation.<sup>28</sup> Financial project development support could reduce such entry barriers faced by investors. It could also speed up the process of implementing promising new business ideas, thereby enabling businesses to jump at new business opportunities before they are gone.

#### Policy options:

- Set-up special financing programs (e.g. soft loans) which are targeted at the **reduction of project development costs**
- Provide **soft loans for transformational change, supporting sustainability certification**

### 7.2.2 Enhance the support of entrepreneurs via technical assistance and coaching

In the crucial **project development phase**, project developers and entrepreneurs in the field of biodiversity businesses often face difficulties which could be addressed by coaching programmes and technical assistance.

Already today, the World Bank, the DEG and the Conservation Finance Alliance offer **project development and coaching facilities**. However, their relevance for entrepreneurial-driven biodiversity business development seems to be limited as most existing programmes have a different focus: The World Bank's facility is not targeted at private sector investment, as it primarily prepares the implementation of the banks' own projects. The DEG project development facility is tied to the investment focus of DEG which has limited flexibility to include biodiversity businesses that are not profitable. And the Conservation Finance Alliance (CFA) which aims to mobilize private sector funds for conservation purposes is focusing on the needs of environmental NGOs and public entities.

A successful example for a business coaching scheme that is supporting the implementation of biodiversity businesses opportunities is the German "**business.develops.globally**" programme. It offers help to SMEs to gain entry to the markets of emerging and developing countries by providing specialist knowledge regarding these markets and by offering financial support. One special focus of this model is on development partnerships with the private sector. Special envoys known as "development cooperation scouts" are sent out to chambers of industry and commerce in order to act as contacts for businesses and to actively promote their collaboration with the German Federal Ministry of Economic Cooperation and Development. The "scouts" provide information and advice on the available instruments and investment opportunities.<sup>29</sup>

A comparably successful benchmark is the **New Ventures Program**, which was incubated by the World Resources Institute and which is currently being transformed into an independent entity.

<sup>28</sup> IWC, the most successful forestry investment fund in Europe is assessing about 8 investment opportunities per invested project (IWC, 2012). According to our experience, the related costs are in the range of 1-3% of the total investment.

<sup>29</sup>

[http://www.bmz.de/en/press/aktuelleMeldungen/2011/February/20110208\\_pm\\_19\\_mittelstand\\_neu/index.html](http://www.bmz.de/en/press/aktuelleMeldungen/2011/February/20110208_pm_19_mittelstand_neu/index.html)

**Policy options:**

- Set-up or co-finance **coaching programmes which support** talented project developers and entrepreneurs in the crucial **project development phase**
- Redefine the mechanisms of **existing facilities** so that they have a special focus on biodiversity businesses

**7.2.3 Enhance the standardization of forestry valuation methods**

A **standardization of forestry valuation methods** would ensure that forests can be used as collaterals and traded with a transparent asset value in business transactions.

**Policy options:**

Facilitate the development of **standard due diligence guidelines**, including social and environmental certification schemes, inventory standards and commonly agreed methods for the calculation of net asset values **for the forestry sector**.

**7.2.4 Scale-up initiatives which are targeted at the biodiversity impact of large corporations**

The 1,000 largest businesses worldwide constitute half of the total market value of the world's more than 60,000 publicly traded companies.<sup>30</sup> **Using the power of large companies** can help to establish and sustain biodiversity-related initiatives and businesses throughout the value-chain.

Via the **Biodiversity in Good Company Initiative** the German government supports the dialogue with large corporations in order to make supply chains more sustainable. Other front runner initiatives include the **"Global Consumers Goods Forum"** which pledged to achieve zero deforestation until 2020,<sup>31</sup> the **Mesoamerican Biodiversity Platform**, the **E-Choubel initiative** that links rural farmers to off-take markets in India and the **Ouro Verde brazilnut project in Amazonia** which links local communities to international off-take markets. Likewise, the **Africa Agricultural Trade and Investment Fund** partially uses its investee companies as intermediaries to pass on money to local smallholder farmers cooperatives which could otherwise not be reached at reasonable costs. This mechanism could also be copied to other sectors, for example by making use of tourism operators to channel investments into nature tourism concepts.

**Policy options:**

Support the existing **platforms that are targeted at the impact of large corporations** on biodiversity and **encourage corporations to assist smaller biodiversity businesses along the value chain**.

**7.3 Creating a level playing field for sustainable businesses**

Biodiversity businesses face the problem that both the negative and the positive externalities connected with the loss or the conservation of biodiversity are not reflected in today's market prices: Unsustainable businesses practices like illegal logging cause negative externalities, but these "social" costs are borne by society and not by the individual company responsible for the negative externalities.

<sup>30</sup> Volans (2013): Breakthrough. Business Leaders, Market Revolutions, p. 21.

<sup>31</sup> <http://www.theconsumergoodsforum.com/index.aspx>

On the other hand, businesses which implement very high biodiversity and social standards or which even thrive to have a positive impact on the environment face higher costs. However, the positive externalities, i.e. the environmental benefits they provide are often not reflected in the market prizes that they can charge for their goods and services. Sustainable business practices therefore face a competitive disadvantage compared to mainstream businesses.

What is needed are measures targeted at **establishing a “level playing field”**.

### 7.3.1 Enhance the development of standards and certification schemes

The analysis of case studies identified **a lack of commonly endorsed certification and labelling schemes** in many sectors which are relevant to biodiversity protection. However, these schemes are necessary in order to make sure that customers can take an informed buying decision and that sustainable businesses can charge a price premium in return for the higher biodiversity and social standards that they apply.

Regarding the forestry sector, commonly agreed sustainability labels such as the FSC have already been successfully established. However, as discussed in the relevant chapters, for the ecotourism and the biotrade sector commonly accepted certification and labelling schemes still need to be addressed.

#### Policy options:

- Facilitate the **development of commonly accepted standards and certification schemes** in the ecotourism and biotrade sectors for example via the organisation of roundtables and similar discussion platforms.
- **Support the implementation of the existing forestry standards**, e.g. by offering soft loans to projects that aim to achieve certification.

### 7.3.2 Scale-up the support of tools that measure investments into “natural capital”

To date, there are little incentives for governments or corporations to invest into the conservation of biodiversity. One of numerous underlying causes is the **lack of standards for natural capital or ecosystem wealth accounting**: National governments as well as corporations find it hard to measure the investments they make into “natural capital”.

The World Bank launched a global partnership on **Wealth Accounting and Valuation of Ecosystem Services (WAVES)**, a program to implement green accounting in a critical mass of countries, both developed and developing.<sup>32</sup> WAVES focuses on the value of natural capital and integration of “green accounting” in more conventional development planning analysis. It is supposed to enable more informed decision making - targeting Ministries of Finance and Planning and Central Banks - to support sustainable development and genuine green growth trajectories. Specifically, the objectives of the initiative are:

- Implement natural capital accounting based on the UN’s System of Environmental and Economic Accounting (SEEA) in 6-10 countries.
- Incorporate the accounts into policy analysis and development planning.
- Develop internationally accepted and standardized guidelines for the implementation of ecosystem accounting.
- Promote widespread adoption of natural capital accounting beyond the pilot countries through a broad platform provided by the partnership.

<sup>32</sup> <http://www.wavespartnership.org>

Developing country partners include: Botswana, Colombia, Costa Rica, Madagascar, and the Philippines.

**Policy options:**

- Facilitate the development of **standards for natural capital or ecosystem wealth accounting, e.g. via co-funding WAVES** and link the results with a country's eligibility to preferential international development assistance loans. This could provide additional incentives for countries to invest into biodiversity conservation.<sup>33</sup>
- Assess **payment and certification schemes for the provision of environmental services** in order to kick-start Payment for Ecosystem Services (PES) schemes in emerging economies.
- Assess the provision of buy-off and price-guarantees for **carbon-credits** in order to stimulate carbon-related forestry investments.

### 7.3.3 Help to further embed biodiversity criteria into mainstream investment funds

Biodiversity Businesses and the according financing vehicles will always represent a niche segment within the overall business landscape. In order to have a meaningful impact on global biodiversity loss, it is therefore necessary to also address the business practices of conventional businesses and incentivise these to respect certain biodiversity safeguards. **Institutional investors can make use of their voting rights in order to enforce ESG (environmental, social and governance) standards in the businesses the fund is invested in.** This also applies for funds invested by public entities.

**Policy option:**

- Make use of **shareholder voting rights** in order to make sure that "mainstream" investment funds respect strict biodiversity criteria.

### 7.3.4 Enhance the existing initiatives against illegal logging

Illegal Logging has a devastating impact on some of the world's most valuable forests. It has not only serious environmental, but also economic and social consequences. Moreover, it worsens the competitive situation of sustainable forestry companies which compete with companies that use unsustainable practices. What is needed is a level playing field for businesses that are operating in compliance with national rules and regulations.

Europe's response to the problem is reflected in the **FLEGT (Forest Law Enforcement, Governance and Trade) Action Plan of the European Union**. The EU FLEGT Action Plan provides a number of measures to exclude illegal timber from markets, to improve the supply of legal timber and to increase the demand for responsible wood products.

**Policy options:**

- Enforce the EU's strategy to combat illegal logging via **trade accords** with timber exporting countries, known as Voluntary Partnership Agreements, to **ensure legal timber trade and support good forest governance** in the partner countries.
- Enforce the EU Timber Regulation, **banning illegally-produced wood products from the EU markets.**

<sup>33</sup> Ibid.

### 7.3.5 Continue to strengthen the international regulatory framework

Biodiversity businesses cannot compensate for deficits in the international regulatory framework. Their success is also **heavily dependent on** the successful implementation of the **CBD's strategic plan and the Aichi targets** as well as on future developments in other key policy areas that were beyond the scope of this study.

#### Policy options:

- Continue to **strengthen the policy framework for REDD projects** in order to provide investors with reliable return expectations for reforestation or REDD activities. This would significantly improve the business case of sustainable forestry projects. The link between the CBD and the international climate change mechanisms was also confirmed by the CBD COP 11.
- Strengthen the international regulatory framework and mechanisms that are targeted at **stopping poaching and illegal trade of endangered species or bush meat**.
- Continue to press for the implementation of the **Nagoya Protocol on Access and Benefit Sharing**, as this is likely to lead to meaningful payments from corporations to governments or local communities in regions that are rich in biodiversity.
- Mainstream **biodiversity safeguards across the agriculture and fishery sectors** as these will determine to a large extent future land use change and the health of marine ecosystems.

## 7.4 Encouraging investors to invest into biodiversity

Projects in the field of forestry, tourism and bio-trade which promise strong benefits for biodiversity and socio-economic development are often commercially challenging. Projects of this kind in many cases rely on philanthropic financing because institutional investors are reluctant to invest. However, there exist a substantial number of attractive project opportunities which could materialize if more financing was available. Needed are **measures which could encourage more investors to rise up to the challenge**.

### 7.4.1 Facilitate investment platforms that are specifically targeted at investments into biodiversity

Financial investors typically are located far away from the respective biodiversity business investment opportunities. Investing in biodiversity businesses typically comes along with significant research and execution costs. The same applies for biodiversity businesses that are in search of technical support or finance; they face equally high search costs. Policy measures that **help to link the right investors with the right projects** are important in order to build the market for biodiversity business investments.

There is a broad community of organizations and networks that assist **social impact businesses** by matching businesses with investment capital. Examples are:

- Investment Fora like the World Resource Ventures Investment Funding Forum, the Partnering for Global Impact Conference or the Socap Social Capital Markets Conference just to name a few.
- Business and Conservation Networks that aim to develop innovative business and financing models for conservation. This includes, for example, Leadership for Conservation in Africa (LCA), the Global Conservation Standard (German based not for profit association) and the Galapagos Social Investment Forum which is a loose network set-up by the Charles Darwin Foundation, the Galapagos Conservation Trust, ERM Foundation and the Truett Foundation.

However, often in most of these networks, there is only little or even no engagement from ODA entities.

**Policy options:**

- Facilitate the development of **new investment platforms that are focused on biodiversity business opportunities**
- **Mainstream the topic of biodiversity in existing investment platforms** (e.g. via sponsorships for biodiversity entrepreneurs to encourage them to speak at “mainstream” investment conferences).

#### 7.4.2 Co-finance privately financed debt-for-nature swaps and conservation bonds

In recent years, tremendous efforts have been made by environmental organizations to explore new instruments like **privately funded debt-for-nature-swaps** to leverage private investments for biodiversity conservation and other environmental causes.

In the late 1990, the focus of fundraising efforts lay on addressing private donors to sponsor conservation trust funds as endowment or sinking funds that allocate the returns on investing their capital stock to conservation purposes. However, the current low interest rates on the capital markets make this less attractive. The focus therefore has been shifted to a reverse mechanism, which is based on borrowing money (at cheap interest) from the capital markets to pre-finance conservation efforts.

Once inspiring example is **TNC’s pioneer work on negotiating privately funded debt-for-nature swaps** with countries that have outstanding debts to private third parties (such as investment banks). As financial gains achieved in the respective agreements are allocated to fund national climate adaptation programmes, the instrument is named “**Climate Adaptation Bond**”.<sup>34</sup> TNC encourages private partners to purchase debt obligations from governments at a high discount rate. The private investors pre-financing these debt-for-nature swaps get their money back, including an interest rate. So far, the default rate is zero. In return for the debt discount, the respective governments pledge additional funds (in local currency) for a conservation trust fund which will finance conservation efforts in line with its national environmental strategy.

Other innovative instruments to raise private financing for conservation are the so called “**Moor Futures**” in the German state of Mecklenburg-Western-Pomerania. Based on this the idea companies and individuals can invest in peatland restoration for offsetting their carbon emissions. Restored peatlands not only cut carbon emissions, they also have additional benefits for biodiversity, providing habitat for native animal and plant species. This increases also the attractiveness of the region as a destination for nature tourism.<sup>35</sup>

What is needed is help in promoting these instruments among investors and an assessment if such privately funded debt-for-nature-swaps or similar instruments can be **leveraged via public co-funding**.

**Policy option:**

Assess the option of **public co-investments into privately- funded debt-for nature swaps** and similar instruments and help to **promote these instruments among philanthropic investors**.

<sup>34</sup> <http://climatebonds.net/>

<sup>35</sup> [www.moorfutures.de](http://www.moorfutures.de)

### 7.4.3 Further promote political risk insurance schemes

**Political risk insurance is a precondition for attracting private financing for biodiversity protection** in developing countries. **Export credit guarantee schemes** are an instrument for managing risks linked to exports and to protect companies from losses caused by bad debt.

The **German export credit guarantee scheme (Hermes-Bürgschaften)** is widely used by the German industry when expanding into difficult markets. The guarantee covers losses due to non-payment of receivables related to political and commercial reasons. However, only products produced in or exported from Germany are covered. Hence the mechanism is not available to German investments into biodiversity protection projects in the tropics.

However, direct investments abroad (DIA) can be covered by Investment Guarantees by the German government at an annual cost of 0.5% of the invested capital. The insurance covers political risks such as expropriation. About 10 forest enterprises have used DIA over the last decade. This reflects the limited exposure of German institutional investors in tropical forest management.<sup>36</sup>

Similarly, the **U.S. Government's Development Finance Institution**, the "Overseas Private Investment Corporation" (OPIC), whose stated purpose is to "mobilize and facilitate the participation of US private capital and skills in the economic and social progress of less developed countries and areas", offers insurance coverage for four separate types of political risk.<sup>37</sup>

Another example is the **Multilateral Investment Guarantee Agency (MIGA)** which is part of the World Bank Group. It provides political risk insurance or investment guarantees to investors and lenders covering war and civil unrest, expropriation, breach of government contract and currency inconvertibility.<sup>38</sup>

For small and medium enterprises with an investment of less than US\$ 10m the risk premium costs amount to 0.45–1.75% of net asset value per year, depending on the risk rating of the project and the country.<sup>39</sup> Despite providing insurance for forestry projects in rare cases (for example a Bamboo reforestation project in Nicaragua)<sup>40</sup> MIGA was recently criticized by the Internal Evaluation Group of the World Bank Group (IEG, 2013) for not being proactive enough to support investments in the forestry sector.

In summary, political risk insurance can be regarded **as one of the most effective mechanisms to attract long term low yielding institutional capital for biodiversity protection in developing countries**. In addition, compared to many other instruments it is relatively cost effective. However, many of the existing instruments are not widely known among project developers. Also, the political

<sup>36</sup> [http://www.agaportal.de/en/dia/ueberblick/rechtlicher\\_rahmen.html](http://www.agaportal.de/en/dia/ueberblick/rechtlicher_rahmen.html), accessed on 7.03.2013

<sup>37</sup> Insured risks include: Inconvertibility (the risk that the investor will not be able to convert profits or other income, as well as the original capital invested, into dollars), expropriation (the risk that the host government takes a specific step that for one year prevents the investor or the foreign subsidiary from exercising effective control over use of the property), war, revolution, insurrection, and civil strife coverage (applies primarily to the damage of physical property of the insured, although in some cases covers losses due to the inability of a foreign subsidiary to repay a loan due to war) and business income coverage (provides compensation for loss of business income resulting from events of political violence that directly cause damage to the assets of a foreign enterprise).

<sup>38</sup> Forum for the Future, 2009

<sup>39</sup> Ibid.

<sup>40</sup> <http://www.ecoplanetbamboo.com>, accessed on 28.05.2013

risk insurance fee is typically calculated on the basis of a percentage of the initial investment volume, thereby making it expensive for business opportunities which require high initial investments.

**Policy options:**

Adapt risk insurance fees to the special needs of businesses with a high initial investment volume such as forestry investments and actively **promote the existing political risk insurance schemes** among entrepreneurs and project developers in biodiversity relevant industries via mentoring programmes and information platforms.

#### 7.4.4 Co-finance early-stage risk capital for biodiversity businesses

Access to **early stage risk capital** is a key limitation to the growth of biodiversity businesses. Most existing instruments are either targeting businesses, but not those based in developing countries or they focus on NGOs and are therefore not open to applications from businesses.

Targeted at businesses is the recently founded **“European Angels Fund” (EAF)**<sup>41</sup> which is co-financed by the EU and the KfW provides equity to Business Angels and other non-institutional investors for the financing of innovative small and medium sized enterprises (SME) in the form of co-investments. Investments are possible in all sectors.

The EAF works hand in hand with Business Angels and helps them to increase their investment capacity by co-investing into innovative companies in the seed, early or growth stage. The activity of the European Angels Fund is adapted to the Business Angels' investment style by granting the highest degree of freedom in terms of decision making and management of investments. The volumes available in total under an individual CFA range between EUR 250,000 and EUR 5 million.

However, the EAF so far is only operational in Germany and will only be extended to other European countries and/or regions in view of a Pan-European coverage. Developing countries are outside of the regional scope.

Two leading initiatives that are targeted at NGOs are the GEF small grants programme and the UNEP Equator Initiative. Both programmes target not-for-profit organizations that strive to engage in projects that support local livelihood strategies while assisting to protect the natural environment. The UNEP Equator Initiative focuses exclusively on initiatives with a biodiversity nexus while the GEF states that 51% of all projects funded are classified under the section of “biodiversity”. However, businesses are not eligible for project support.

A possible benchmark for an early-stage risk capital fund for biodiversity businesses is **the Swedish Development Agency’s “Innovations Against Poverty” programme** which provides seed financing and early stage financing to inclusive businesses that reach out to base-of-the-pyramid markets worldwide.

**Policy option:**

Develop and / or co-finance an **early-stage risk capital fund** which **provides equity to Business Angels** and other non-institutional investors **for the financing of biodiversity business opportunities** in developing countries in the form of co-investments.

<sup>41</sup> [http://www.eif.org/what\\_we\\_do/equity/eaf/index.htm](http://www.eif.org/what_we_do/equity/eaf/index.htm), accessed on 6.3.2013

#### 7.4.5 Biotrade: Up-scale existing funding models via a transparent co-financing process

The analysis revealed that due to their small size and very narrow geographical focus the existing biodiversity enterprise and biotrade/ fairtrade funds cover only a small amount of the possible deal flow – leaving **up-scaling potential for additional biodiversity enterprise funds**.

In order to up-scale the existing financing vehicles for biotrade business models or in order to initiate new investment funds in the field of sustainable tourism or sustainable forest management, public co-financing via first loss facilities plays an important role. First loss vehicles form part of **hybrid fund models** which allow public and private shareholders with different risk-return profiles to jointly invest into one common fund vehicle, thereby reducing the risks that often keep investors from financing biodiversity business models.

In Germany, the BMZ set up a budget of € 80 million for first-loss investments (BMZ budget line “FZ mit Regionen”), which could also be a powerful tool for leveraging private investment capital for biodiversity. Based on this budget line, KfW provided first loss equity to a number of hybrid fund models.

Examples of hybrid investment funds are Verde Ventures II (fund in preparation), the Global Climate Partnership Fund<sup>42</sup>, the Africa Agricultural Capital Fund (with US foundations as private first loss investors) or the Agriculture and Trade Investment Fund (AATIF). However, as of today, the design of new first-loss investment structures **takes place as tailor-made individual projects** and there is currently no cross-sector biodiversity fund which is specifically targeted at Asia.

##### Policy options:

- **Form alliances with other development banks or foundations** to leverage the available funding.
- Increase first-loss support and set up **transparent processes** for impact investment funds to apply for first-loss support.
- **Formulate the non-financial investment criteria of co-funded investment funds on the basis of the vote of multi-stakeholder boards which also include environmental organisations.**
- Promote the concept actively among stakeholders.

#### 7.4.6 Sustainable forest management: Encourage the creation of hybrid investment funds

Sustainable **natural forest management can create synergies between economic performance, biodiversity conservation, carbon sequestration and socio-economic development**: Compared to conventional logging, reduced impact logging (RIL) reduces carbon losses by up to 50% and provides habitat for significantly more forest species than planted forests or regenerated forests on cleared land. Sustainable natural forest management can also attract financing from institutional investors – assuming the multitude of risks which are connected with such investments can be reduced. Governments could focus on leveraging this opportunity and the respective project pipeline.

##### Policy option:

A **Biodiversity Forest Fund could finance sustainable forestry and forest conservation** in areas offering optimal growing conditions (often sub-tropical or tropical countries). The Fund could combat biodiversity loss and climate change by protecting forest habitat, sequestering carbon, reducing

<sup>42</sup> <http://gcpf.lu/home.html>

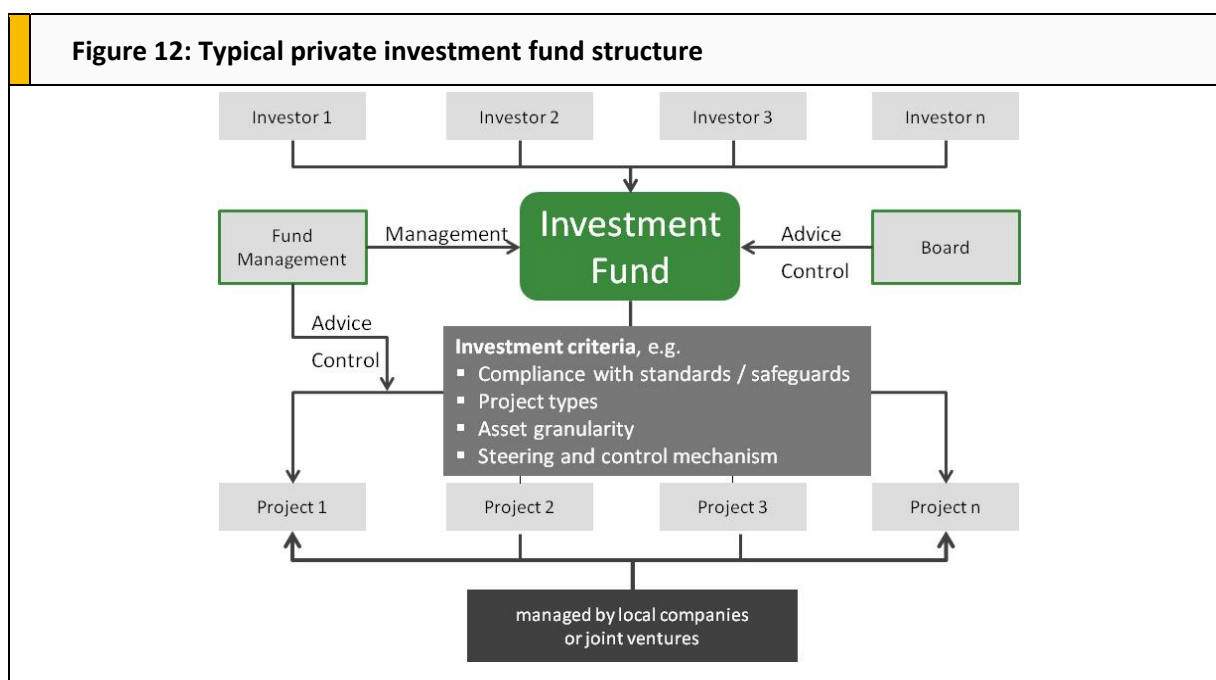
emissions from deforestation and create permanent qualified employment and income for local populations.

It would **focus on institutional investors and finance the establishment of forest plantations** (value timber and biomass), the **restoration and management of mixed natural forest and commercial agroforestry projects**. Its predominant **source of revenue** would be the sale of timber and derived forestry products. In addition, the evolution of land and timber prices and the commercialization of certified environmental services (CO<sub>2</sub> reduction, biodiversity conservation) would contribute to the Fund's yield. Investments would be planned and made in strict compliance with stringent ecological and social standards (e.g. FSC and IFC Safeguards) and the Fund would report regularly on compliance with these guidelines.

The fund would offer an investment opportunity which generates significant **ecological and social value and an inflation-linked yield** that is **weakly correlated with other asset classes**. The investment risk can be mitigated by **project diversification** regarding regions, products and target markets **and public first-loss guarantees**.

**A hybrid funding model would** allow for investments at three different levels, with a first loss tranche underwritten by, for example, development banks. Soft capital can be constituted by first loss investment (equity tranche) or first loss guarantees (for loan financing). Profits for institutional investors are capped depending on the level of public risk insurance they receive (see figure 12 and 13).

**Figure 12: Typical private investment fund structure**



Source: Authors

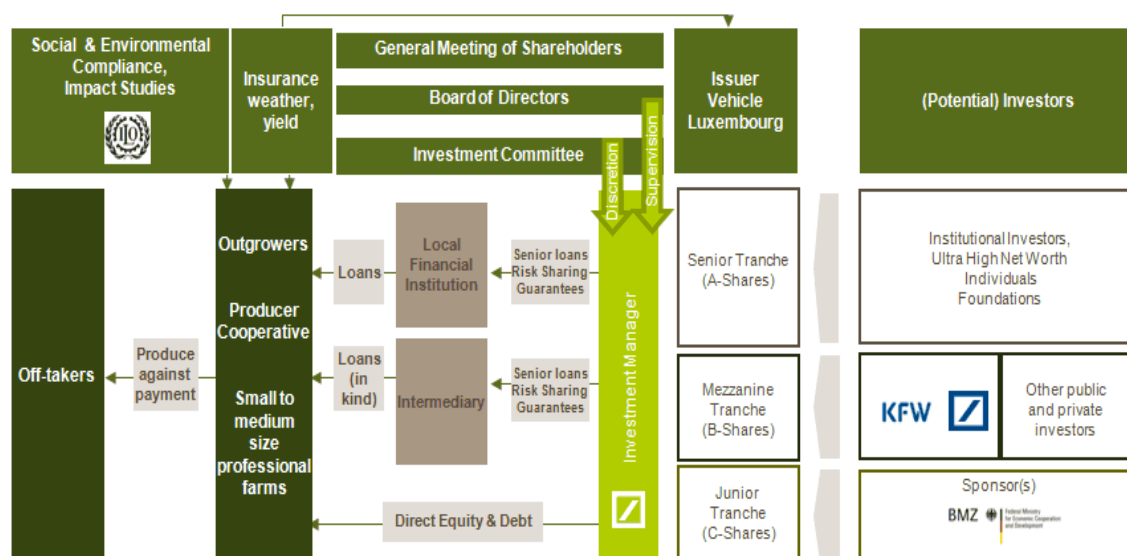
**Shareholder structure, voting rights, exit options and investment criteria** would be specially tailored to **balance biodiversity and social benefits with the profit expectations**. This also includes the interests of local forest rights holders and indigenous people associations. The Board **would include an NGO representative**, e.g. the FSC. The fund's investment criteria would be regularly reviewed. In

addition to the pure Fund management, the fund would also have a **technical assistance support facility** providing assistance to companies so that they can meet certain safeguard requirements.

Geographically, the fund could initially have a **global reach** given the relatively small amount of investable projects. However, the fund would focus on regional clusters, in order to cost-effectively sustain local project management and infrastructure. Projects would be secured by the establishment and continuous development of strong local partnerships. For the implementation of the projects, the Fund would rely on local subsidiaries and locally-present well-trained experts.

The **fund pipeline would be dynamic** and subject to changes with incoming and outgoing projects. Single investments would likely range between 5 and 20 million Euros. The fund could have a size of 150 – 250 million Euros with the aim to execute 10 – 20 investments. Not more than 20 % of the Fund should be invested in a single project and the fund portfolio should be also diversified in terms of project types, timber species, products, markets and regions to hedge production, political and reputation related risk. Main target groups are institutional investors. Fund lifetime would range between 12 and 15 years, including a five year investment period. The target return could be up to 6-10 % p.a. after fund-related costs and taxes, depending on the final investment criteria.

**Figure 13: Public-private shareholder structure of the AATIF**



Source: AATIF internet site ([www.aatif.lu](http://www.aatif.lu)), accessed on 7.02.2013

Projects would be sourced from local forest management entities with clear land rights or concession titles that may team up with experienced international forest management companies.

The fund portfolio can be split into three **forest management types**:

**Management of existing natural forests:** Existing forests would be acquired for close to nature forest management - maintaining the species richness of the forest, taking advantage of natural dynamics with a potential REDD+ project certification:

- Application of reduced impact logging practices with an intervention frequency between 10 and 20 years (depending on the forest productivity). Maintenance of high biodiversity values.
- Investment pre-conditions: Low to intermediate level of forest degradation, extensive forest-management know-how and skilled operational capacity; minimum project area: 5,000 ha; proximity to markets and market potential for less-known tree species
- Yield and profitability: Production according to site and stand conditions of 4 to 10 m<sup>3</sup>/ha/yr (wherefrom 20-30 value timber and 70-80 % secondary species and fuel wood)); net revenue: 30 to 100 US\$/ha/yr; return on investment: 5 to 12 %
- Income from REDD+ projects would be considered as a potential upside and would be invested in alternative future income generating activities to ensure projects' sustainability when carbon revenues decline and ultimately expire. Carbon credits from REDD+ activities will only be certified if the related additional transaction costs can be fully covered by CO<sub>2</sub> forward contracts.

**Forest establishment, management and harvesting / reforestation:** New forests would be planted and managed:

- Reforestation with high-quality species in pure or mixed stands (eucalyptus, pine, teak, acacia, and native tropical hardwoods), 12 to 30 years rotation period
- Investment pre-conditions: Availability of good drained, fertile soils with reasonable rainfall, Knowledge on ecology of planted species (site-species match); minimum project area: 2,000 ha; access to market and service providers; labor availability.
- Profitability: Production is a function of the site-species-market approach with yields of between 10 and 40 m<sup>3</sup>/ha/a; products: High value timber, timber for domestic construction market, and biomass (pulp, fuel wood) as by-product; positive cash-flow after 5 to 8 years, return on investment: 8 – 15 %.

**Restoration of heavily degraded natural forests by enrichment planting:**

- Planting of commercial trees species in 15 to 20 m broad strips. Conserving natural regenerated trees if existent. Rotation period ten to twenty years.
- Leaving stripes of 20 to 30 m without any intervention alternating with planted stripes.
- Under the planted trees, natural regeneration would take place. After having cut the planted trees, the second forest generation will be composed exclusively by native species.
- Investment pre-conditions: Heavily degraded natural forests; extensive forest management know-how; minimum area of 2,000 to 3,000 ha.
- Profitability: Yields between 5 to 15 m<sup>3</sup>/ha/a of high quality timber: In function of site conditions and tree species planted. Positive cash-flow like in plantations after 5 to 8 years with; return on invest 8 to 12 %.

#### 7.4.7 Sustainable Tourism: Encourage the creation of hybrid investment funds

In addition to structured funds for the forestry sector, similar funds could be initiated for investments in the eco-tourism sector. This could be implemented **via a specific tourism fund – or via a cross-sectorial Biodiversity Fund** which is targeted at the geographic regions which are currently not covered by the existing Biodiversity Enterprise Funds (e.g. Asia).

Some of the existing Biodiversity Enterprise Funds which were described above follow a cross-sectorial approach and are also funding sustainable tourism projects. However, these funds often

follow a very narrow regional scope. For example, there is currently no cross-sector biodiversity fund which is specifically targeted at Asia.

**Policy option:**

**Co-fund a sustainable tourism investment fund.** As investments in the eco-tourism sector profoundly differ from investments in the forestry sector, the fund should in our view have a number of different properties in comparison to the above described structure:

- **Size:** As the single investment would likely range between 1 and 5 million Euros, a fund could have a size of 20 – 30 million Euros with the aim to execute a range of 8 – 12 investments.
- **Target investors:** As opposed to the forestry sector this type of fund is unlikely to attract large institutional investors. Due to the limited size of the fund and the single investments, the high entrepreneurial risk involved with the projects, and the philanthropic characteristic of the projects, the fund would more likely address high net worth individuals, environmental foundations (especially from the Anglo-American background), and possibly other impact investment funds.
- **Lifetime:** As opposed to a forestry fund which would require a very long lifetime, an eco-tourism fund would likely have a lifetime of 10 – 12 years. Alternatively, due to the long term commitment in the target regions, a fund with an unlimited lifetime (“evergreen”) could make sense.
- **Structure:** As a consequence of the smaller fund size the fund could have a simpler structure than outlined above. This could be a structure with two tranches, one first loss tranche underwritten by, e.g., development banks, and one tranche for private individuals or organizations, or alternatively a structure where government offers a first loss guarantee to private investors.

The fund could operate in a way that the fund management identifies attractive projects, executes due diligence analyses, and makes investment recommendations to an investment committee. The projects would be managed in cooperation with adequate operators.

As an alternative, development banks could also enter into a **strategic partnership with one of the leading eco-tourism operators and jointly invest into a fund vehicle** with the aim to jointly develop and finance a certain number of projects of a pre-defined characteristic in pre-defined regions. The investment of the development banks could serve to leverage the investment of the tourism operator and hence open the opportunity to initiate projects with a particularly strong biodiversity impact which would otherwise not materialize due to high financial risk. A partnership of this kind would have the advantage of structural simplicity without the need to go through a lengthy fund raising process. However, the size of such a fund would probably be limited due to the fact that a single tourism operator, even if it is one of the leading ones, would only have the resources to market and manage a limited amount of additional projects.

## 8 Conclusion

The analysis showed that biodiversity businesses can be important vehicles to attract private financing for conservation and improve the livelihoods of local communities. The growing market for socially responsible investments can provide a valuable opportunity for the financing of such businesses. There are numerous policy options that could help to improve the investment climate for biodiversity businesses, create a legal playing field for sustainable practices, support entrepreneurs

and encourage investors to invest into biodiversity. Implementing some of these policy options can represent valuable steps towards leveraging additional private financing at scale for conservation.

## 9 Annex

### 9.1 Interviews

Table 5: Interviews		
Name	Institution	Topic
Srey Bairiganjan	New Ventures, India	Conservation Enterprise Development
Joost Bakker	Global Nature Fund	Studie DUH/GNF
Marlene Carjaval	DEG	Impact Investing
Rod Cassidy	Doli Lodge, Dzanga Sangha	Nature Tourism
Rob Curtis	TNC	Climate Adaptation Notes
Giles Davies	Conservation Capital	Financing Models
London Davies	TNC	EcoEnterprise Fund, IBIS Rice Project
Robert Dilger	ehemals GIZ developPPP.de	Cooperation with large corporations
Andreas Drews	GIZ	Access and Benefit Sharing
Michael Dutschke	Global Conservation Standard	Safeguards
Andreas Eke	FuturoForestal	Impact Forestry
William Foote	Root Capital	FairTrade Financing
Thomas Fricke	CEO, ForesTrade	FairTrade Financing
Peter Hilliges	KfW	Risk Mitigation, Verde Ventures
Franziska Heidenreich	Myclimate	Plan Vivo
Bas Hoechstebach	Asilia Africa	Nature Tourism
Christian Heinz	Referent Dr. Ruck, MdB	Pipeline Sourcing
Birgit Holderied-Kress	KfW	AATIF
Neel Inamdar	VV	Verde Ventures
Andrew Johnson	Wilderness Safaris	Nature Tourism
Manuel Junck	GIZ Tourism and Sustainable Development	Nature Tourism
Reinhard Junker	Referent Dr. Ruck, MdB	Pipeline Sourcing
Maritta Koch-Weser	Earth3000	Rainforst Management School, Brazil
Chris Marais	LCA	Public Private Partnerships for

**Table 5: Interviews**

Name	Institution	Topic
		Conservation
Sascha Müller-Kraenner	TNC	Financing Biodiversity
Tammy E. Newmark / Eugenia Villalobos Baldioceda	EcoEnterprise Fund	EcoEnterprise Fund
Klaus Lengefeld	GIZ	Role of GIZ
Craig McIntosh	African Parks Network	Pipeline Sourcing
Dr. Thorsten Permien	Umweltministerium Mecklenburg Vorpommern	Moor Futures
Dr. Christian Ruck	MdB	Pipeline Sourcing
Yasemin Saltuk	JP Morgan Social Finance	Financing Biodiversity Businesses, Impact Investing
Sanjoy Sanyal	New Ventures, India	Conservation Enterprise Development
Wouter Schalken	Consultant	Nature Tourism
Johannes Scholl	KfW	Risk Mitigation, Verde Ventures, Role of KfW
Arno Tomowski	Leiter Spezialisierte GE Wirtschaft Deutschland	Biodiversity Business Models
Randall Weary	TNC	Climate Adaptation Notes
Florian Winckler	Plantinum Madagascar	Biodiversity Business Models
Volkhard Wille	OroVerde Tropenwaldstiftung	Rainforest Conservation
Graham Wood	Abercrombie & Kent	Nature Tourism
Helma Zeh-Gasser	Gruppenleiterin Entwicklungspartnerschaften	develoPPP.dedeveloPPP

## 9.2 Bibliography

- Bishop et al (2008): Joshua Bishop, Sachin Kapila, Frank Hicks, Paul Mitchell and Francis Vorhies (2008). Building Biodiversity Business. Study contracted by Shell / IUCN.
- BMZ (2011). Federal Ministry for Economic Cooperation and Development (2011): Forms of Development Cooperation Involving the Private Sector – Strategy Paper 05/2011e
- BMZ (2012). Federal Ministry for Economic Cooperation and Development: REDD Early Movers (REM) - Rewarding pioneers in forest conservation. Financial rewards for successful climate change mitigation! Available at:  
[http://www.bmz.de/en/publications/topics/international\\_cooperation/FlyerREDD\\_lang.pdf](http://www.bmz.de/en/publications/topics/international_cooperation/FlyerREDD_lang.pdf)
- Bundesanstalt für Finanzdienstleistungen (2011): Jahresbericht 2010.

- CBD (2010). Convention on Biological Diversity (CBD). The Strategic Plan for the CBD; (<http://www.cbd.int/cop/cop-10/doc/press/press-briefs-en.pdf>, accessed on 1.3.2013)
- CBD (2010). Secretariat of the Convention on Biological Diversity: Biodiversity and Tourism (<http://www.cbd.int/iyb/doc/prints/factsheets/iyb-cbd-factsheet-tourism-en.pdf>), accessed on 4.3.2013
- CFA (2010): Conservation Trust Fund Investment Survey. Available at: <http://www.conservationfinance.org/upload/library/arquivo20111112064351.pdf>
- Ecosystem Marketplace (2012) Leveraging the Landscape: State of the Forest Carbon Market 2012. Available at: <http://www.forestcarbonportal.com/content/leveraging-landscape-state-forest-carbon-market-2012>EUROSIF - European Social Investment Forum (2012). European SRI Study 2012. September 2012.
- FAO (2006) Responsible management of planted forests: voluntary guidelines. Planted Forests and Trees Working Paper 37/E. Rome, available at: [www.fao.org/forestry/site/10368/en](http://www.fao.org/forestry/site/10368/en)
- FAO (2006). Choosing a forest definition for the Clean development mechanism. Available at: <http://www.fao.org/forestry/11280-03f2112412b94f8ca5f9797c7558e9bc.pdf>
- FAO (2010). Global forest resources assessment 2010, available at: <http://www.fao.org/docrep/013/i1757e/i1757e.pdf>
- FAO (2011). State of the World's Forests available at: <http://www.fao.org/docrep/013/i2000e/i2000e00.htm>
- Forum for the Future (2009). Forest Investment Review. Available at: [www.forumforthefuture.org](http://www.forumforthefuture.org)
- Frerk, C (2002). Finanzen und Vermögen der Kirchen in Deutschland.
- F.U.R. (2001): Reiseanalyse 2001.
- Grulke, M.; Tennigkeit, T.; Vogt, M. (2010): Investment: Wald und Holz als neue Anlageklasse. Holz-Zentralblatt, Nr. 26.
- Grulke, Markus; Walter, Philipp (2012): Marktanalyse für Forstinvestments. Holz-Zentralblatt, Nr. 3.
- IIED (2010): Review of funds which protect tropical forests. Report by Duncan Macqueen. Available at: <http://pubs.iied.org/pdfs/G02922.pdf>
- ITTO, 2009. Encouraging Industrial Forest Plantations in the Tropics Report of a Global Study. ITTO Technical Series No 33. Available at: [http://www.itto.int/direct/topics/topics\\_pdf\\_download/topics\\_id=2165&no=0](http://www.itto.int/direct/topics/topics_pdf_download/topics_id=2165&no=0)
- JP Morgan Social Finance / Global Impact Investing Network – GIIN (2013). Perspectives on Progress. January 2013.
- Merger, E., Dutschke, M., Verchot, L., (2011). Options for REDD+ Voluntary Certification to Ensure Net GHG Benefits, Poverty Alleviation, Sustainable Management of Forests and Biodiversity Conservation. Forests 2011, 2(2), 550-577. Available at: <http://www.mdpi.com/1999-4907/2/2/550>
- Monitor Institute (2009): Investing for Social and Environmental Impact. A Design for Catalyzing an Emerging Industry. By Jessica Freirich and Katherine Fulton.
- New Forests (2012). Responsible Investment in the Forest Sector. Recommendations for Institutional Investors, available at: [http://www.newforests.com.au/news/pdf/articles/Responsible\\_Investment\\_in\\_Forestry.pdf](http://www.newforests.com.au/news/pdf/articles/Responsible_Investment_in_Forestry.pdf)
- Newmark, Tammy E. (2012). Portfolio for the Planet. Lessons from 10 years of Impact Investing.
- Öko-Test. ÖKO-TEST Ratgeber Rente, Geld & Versicherungen 8:2010. Available at: <http://www.oekotest.de/cgi/index.cgi?artnr=96216;bernr=21;co=>
- PWC (2006). Sustainable Investments for Conservation - The Business Case for Biodiversity.

- Ramage et al. (2013). Pseudoreplication in tropical forests and the resulting effects on biodiversity conservation; accepted by Conservation Biology.
- Riedel, I. / Ruile, S. (2008): Family Offices. Immer größere Bedeutung für das Management komplexer Familienvermögen.
- SAM – Sustainable Asset Management / Indufor (2010). Sustainable Investing in Forestry. Zürich.
- Symbiotics (2012): Microfinance Investments. Geneva
- UNCTAD (2007). UNCTAD Biotrade Initiative. BioTrade Principles and Criteria.
- UNWTO (2012). Tourism Highlights 2012
- Walter, Philipp (2010): Struktur- und Motivationsanalyse der Waldinvestoren Deutschlands. BSc-Abschlussarbeit an der Hochschule für Forstwirtschaft Rottenburg in Kooperation mit UNIQUE forestry and landuse.
- Volans (2013). Breakthrough. Business Leaders, Market Revolutions. London.
- WTTC (2005): The 2005 Travel and Tourism Economic Research

### 9.3 Useful links

<http://www.giirs.org>

<http://www.bcorporation.net>

<http://www.cbd.int>

<http://www.fao.org>

<http://www.biotrade.org>

<http://www.fairtrade-deutschland.de>

<http://www.freshplaza.com>

<http://www.bpmcentroamerica.org>

<http://www.deginvest.de>

<http://www.agaportal.de>

<http://www.aatif.lu>

<http://climatebonds.net>

<http://www.eif.org>

<http://www.developpp.de>

<http://www.wavespartnership.org>

<http://equatorinitiative.org>

## 9.4 Glossary and abbreviations

**Table 6: Glossary and abbreviations**

Term	Explanation
Asset manager	Organization or individual managing investments on behalf of a client.
Asset owner	Owner of investments managed by asset manager.
Biodiversity Business	Businesses that generate profits through production processes that conserve biodiversity, use biological resources sustainably and share the benefits arising out of this use equitably
Best-in-Class	Approach where leading or best-performing investments within a universe, category, or class are selected or weighted based on ESG criteria.
BMZ	Federal Ministry for Economic Cooperation and Development
BOOT	Build-own-operate-transfer (PPP model)
BoP	Base of the pyramid
BOT	Build-operate-transfer (a PPP model)
CAGR	Compound Annual Growth Rate
Community investing	Investments into local communities, either directly or through channels such as local community minorities.
CSR	Corporate Social Responsibility
DBO	Design-build-operate (a PPP model)
DC	Development cooperation
DEO	Former German Development Service (now GIZ)
Engagement and voting	Engagement activities and active ownership through voting of shares and engagement with companies on ESG matters. This is a long-term process, seeking to influence behaviour or increase disclosure.
ESG	Environmental, Social and Governance
Exclusions	An approach that excludes specific investments or classes of investment from the investible universe such as companies, sectors, or countries.
FC	Financial cooperation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
High Net Worth Individuals	Individual with more than US\$1 million in liquid financial assets.
Impact investing	Impact investments are investments made into companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return. Impact investments can be made in both emerging and developed markets, and target a range of returns from below market to market rate, depending upon the circumstances
Institutional	Large professional investors such as pension funds for instance. In this Study, Institutional

**Table 6: Glossary and abbreviations**

Term	Explanation
investor	investors may comprise asset managers and asset owners, to the extent the latter manage internally a part of their invested assets.
Integration	The explicit inclusion by asset managers of ESG risks and opportunities into traditional financial analysis and investment decisions based on a systematic process and appropriate research sources.
KfW	Kreditanstalt für Wiederaufbau
MFI	Microfinancing institution
Microfinance	Microfinance generates a social value by improving access to financial services mostly in emerging and developing economies. Commonly investments into microfinance are channelled through microfinance investment vehicles, which are independent investment funds that allow private and public capital to flow to microfinance institutions.
NGO	Non-governmental organisation
Norms-based screening	Screening of investments according to their compliance with international standards and norms.
OEG	Deutsche Investitions- und Entwicklungsgesellschaft mbH
PIF	Partnerships in finance
Pooled fund	Collectively managed investment vehicle, pulling monies from multiple investors.
PPI	Private participation in infrastructure
PPP	Public-private partnership
PR	Public relations
PSP	Private sector participation
Retail fund	Pooled fund primarily targeting the retail market (see above).
Retail investor	Non-professional investor.
SEQUA	Foundation for Economic Development and Vocational Training
Social business	Investments made directly or through a fund into social businesses, which have the intention to generate a social and environmental impact alongside a financial return.
SPV	Special purpose vehicle
SRI	Sustainable and Responsible Investment
Sustainability themed	Investment in themes or assets linked to the promotion of sustainability. Thematic funds focus on specific or multiple issues related to ESG.
TC	Technical cooperation
Waterfall Principle	A type of payment scheme in which higher-tiered creditors receive interest and principal payments, while the lower-tiered creditors receive only interest payments. When the higher tiered creditors have received all interest and principal payments in full, the next tier of creditors begins to receive interest and principal payments.

## 9.5 Selection process of forestry projects

**Table 7: Selection process of forestry projects from a long-list to a short list**

PT-Nr	Project type	Go	No-Go	...because
<b>Natural forest</b>				
1	Biomass production in intact natural forests		x	A sustainable minimal invasive natural forest management works only with high value timber production
2	High value timber production in intact natural forests	x		There exist numerous positive examples for natural forest management with minimal invasive, sustainable exploitation of high-value timber that preserve these forests.
3	Agro-forestry production in intact natural forests		x	Agricultural use requires the clearing of significant areas.
4	Generation of ecosystem services in natural forests	x		Examples such as national parks or nature protection areas are managed for the purposes of water, soil, carbon sequestration
<b>Degraded natural forests</b>				
5	Biomass production in degraded natural forests		x	Biomass production requires fast growing tree species
6	Value timber production in degraded natural forests	x		Through interventions and good forest management practice degraded natural forests can be turned back to productive regenerated ecosystems
7	Agroforestry production in degraded forests	x	x	The limiting factor is that the agricultural part requires the clearing of significant areas which counterweighs the positive impacts of valorizing degraded forests.
8	Ecosystems services in degraded natural forests	x	x	The limiting factor is that no reference business case is available
<b>Close to nature mixed species afforestation/reforestation</b>				
9	Biomass production through afforestation reforestation with mixed species	x		Examples include the planting local fast-growing species in mixed stands
10	Value timber production through afforestation/reforestation with mixed species	x		There are a variety of examples where afforestation and reforestation with mixed tree species has been successfully implemented
11	Agroforestry production through afforestation/reforestation	x		
12	Generation of ecosystem services through afforestation/reforestation	x		Examples include afforestation/reforestation activities for carbon sequestration, watershed protection, soil erosion preventions etc.
<b>Plantations</b>				
13	Biomass production in plantations	x		
14	Value timber production in plantations	x		

**Table 7: Selection process of forestry projects from a long-list to a short list**

PT-Nr	Project type	Go	No-Go	...because
15	Agroforestry production in plantations	x		There are various examples of this type production systems such as coffee, cocoa production grown under shade
16	Generation of ecosystem services in plantations		x	If ecosystem services should be provided effectively, plantations are not a good option; mixed forestry schemes are to be preferred.

## 9.6 Biodiversity score-card assessment

Table 8: Biodiversity score-card assessment		
Criterion	Description of criterion	Max Points
<b>Environmental &amp; Biodiversity impact</b>		
<b>Biodiversity Relevance ...</b> ("Schutzwürdigkeit")	<p>Project is located in or around a biodiversity- rich or critical ecosystem</p> <ul style="list-style-type: none"> <li>• Key biodiversity areas = 25 (one or more globally threatened species, one or more endemic species which are globally restricted to the site or surrounding region; significant concentration of a species (e.g. important migratory stops, nesting sites, nurseries or breeding areas), globally significant examples of unique habitat types and species assemblages); definition by IUCN et al</li> <li>• Key biodiversity area criteria partially fulfilled = 20</li> <li>• Important / biodiversity-rich eco-system (such as tropical rainforests, mangroves etc.) = 15</li> <li>• Restoration of eco-systems, with long-term positive effect on biodiversity (e.g. mixed forestry on degraded land not linked to any critical eco-system) = 10</li> </ul>	20  (at a multiplier factor of 1)
<b>... to be multiplied by Impact Factor</b>	<p>Business activity can be attributed clear conservation / biodiversity benefits as opposed to baseline scenario ("what would happen otherwise")</p> <ul style="list-style-type: none"> <li>• Major contribution to conservation of eco-system, clear logical framework that links inputs -&gt; activities -&gt; outputs -&gt; outcomes -&gt; impact = Factor 1</li> <li>• Significant contribution to conservation of eco-system, with fairly clear logical framework = Factor 0,75</li> <li>• Indirect impact, through protective belt around protected area / taking pressure away from adjacent eco-system / pure financial support of protected area, with fairly clear logical framework = Factor 0,5</li> <li>• Business activity counter-productive in comparison to baseline scenario = Factor zero or minus 1 (depending on degree of negative impact)</li> <li>• Factor to be multiplied with score "Biodiversity Relevance" (see above); e.g. significant contribution to conservation of a key biodiversity area = Factor 1 x 25pts = 25 pts.</li> </ul>	20
<b>Towards "minimal invasive" business models ...</b>	<ul style="list-style-type: none"> <li>• No intervention in critical / biodiversity-rich eco-system = 20</li> <li>• Soft interventions in biodiversity-rich eco-systems (eco-tourism, NTFP including cocoa, vanilla embedded in natural forest landscape), FSC + CCBA certified natural forest management = 15</li> <li>• Reforestation with significant ecological compensation areas / locally embedded agro-forestry schemes / Conservation agriculture that stabilizes eco-systems (watershed, soil erosion etc) = 10</li> <li>• Business model poses risk of detrimental effects (e.g. through improved accessibility -&gt; population pressure etc) = minus 10</li> <li>• Businesses model poses severe environmental risks = minus 20</li> <li>• All other = 0</li> </ul>	20

**Table 8: Biodiversity score-card assessment**

Criterion	Description of criterion	Max Points
<b>Scale</b>	<p>Size of concession / project area:</p> <ul style="list-style-type: none"> <li>• &gt; 100.000 – 1.000.000 ha = 20</li> <li>• 10.000 – 100.000 = 15</li> <li>• 1.000 – 10.000 = 10</li> <li>• &lt; 1.000 = 5</li> </ul> <p>Financial transfers to national parks to be calculated as acreage x estimated percentage of annual budget of park sponsored by project</p>	20
<b>... that are embedded in Conservation Strategy or Landscape Approach</b>	<p>5 points for each of the following:</p> <ul style="list-style-type: none"> <li>• Project forms part of a broader landscape / sustainable local economic development strategy (e.g. partnership with national park)</li> <li>• Project provides financial or governance/management support to a protected area and or is designed as a protective buffer for a protected area</li> <li>• Project provides significant additional environmental benefits (e.g. soil erosion control/watershed management; carbon sequestration)</li> <li>• The project has a positive impact on sustainable land use outside project area (-&gt; indirect land use change)</li> </ul>	20
<b>Safeguards</b>	<p>For each aspect 10 points:</p> <ul style="list-style-type: none"> <li>• Collaboration with / endorsement by recognized environmental institution and/or cooperation with research partners (on nature conservation issues)</li> <li>• Compliance with best-in-class standards</li> </ul>	20
<b>Subtotal</b>		<b>100</b>
<b>Social &amp; Development Impact</b>		
<b>Employment generation</b>	<p>The company / project employs (full time equivalents)</p> <ul style="list-style-type: none"> <li>• &gt; 20 people / 1m€ investment (15 pts)</li> <li>• 5- 20 people / 1m€ investment (10 pts)</li> <li>• &lt; 5 people / 1m€ investment (5 pts)</li> </ul> <p>... and creates jobs / supply chain relations (e.g. service providers, outgrowers) with</p> <ul style="list-style-type: none"> <li>• &gt; 50 people / 1m€ investment (15 pts)</li> <li>• 10-50 people / 1m€ investment (10 pts)</li> <li>• &lt; 10 people / 1m€ investment (5 pts)</li> </ul>	30
<b>Poverty Alleviation /MDGs</b>	<p>The project plays a vital role in helping the local communities to improve their livelihoods. For each aspect 5 – 10 points:</p> <ul style="list-style-type: none"> <li>• Income increase beyond poverty line for a significant proportion (5 pts) of the population / for &gt; 50% of the population in the project area (10pts)</li> <li>• Improved access to basic goods and services for a significant proportion (5 pts) / &gt; 50% of the population in the project area (10 pts)</li> <li>• Improved health &amp; education for a significant proportion (5 pts) / &gt; 50% of the population in the project area (10 pts)</li> </ul>	30

<b>Criterion</b>	<b>Description of criterion</b>	<b>Max Points</b>
<b>Safeguards</b>	For each aspect 10 points: <ul style="list-style-type: none"> <li>Existence of worker associations (syndicates) and grievance mechanism for local population ("community health and safety")</li> <li>Compliance with social safeguards (e.g. ILO-Standard, IFC performance standard)</li> </ul>	20
<b>Capacity Building &amp; Employment</b>	The project has a significant capacity building component for the local population. <ul style="list-style-type: none"> <li>Significant education &amp; training of staff and / or high level of locals in middle or also senior management positions</li> <li>Capacity building measures for suppliers (or off takers) (5pts)</li> </ul>	10
<b>Local Embeddedness</b>	Creation of associations, cooperatives, strategic alliances (e.g. out grower schemes): <ul style="list-style-type: none"> <li>Significant increase of the social and/or environmental impact with limited financial performance loss</li> <li>Applies to a (very) high extent = 10</li> <li>Applies = 5</li> <li>Does not apply or applies only to a very limited extent = 0</li> </ul>	10
<b>Subtotal</b>		<b>100</b>
<b>Profitability &amp; Financial Sustainability</b>		
<b>Return on Invest</b>	Project IRR (independent of question if profits will be allocated to investor) <p>&gt; 14% = 40                      6-8% = 20  12-14% = 35                    4-6% = 15  10-12% = 30                  2-4% = 10  8-10% = 25                    0 -2% = 5</p>	40
<b>Risks and risk mitigation</b>	Existing risks (to be weighed from zero ("no risk") to 10 ("very high risk")) <ul style="list-style-type: none"> <li>Production risks = -10</li> <li>Market risks = -10</li> <li>Social risks = -10</li> <li>Political risks = -10</li> <li>a) Minimal risk: 40 / Total risk: 40 -40 = 0</li> <li>b) Existing risk Mitigation strategy</li> <li>Production risks = +10</li> <li>Market risks = +5</li> <li>Social risks = +5</li> <li>Political risks = +5</li> </ul> <p>With risk mitigation strategy: 0 + 20 = 20</p>	40

**Table 8: Biodiversity score-card assessment**

Criterion	Description of criterion	Max Points
<b>Duration / Exit options for investors</b>	<p>When and how does an investor get his investment back?</p> <ul style="list-style-type: none"> <li>• Short term (5-10 years), established secondary market exists = 20</li> <li>• Short to medium term (5-15 years); secondary market exists = 15</li> <li>• Short to medium term (5-15 years); (small) difficult secondary market = 10</li> <li>• Long term (15-20 years); difficult secondary market = 5</li> <li>• Very long term (&gt; 20 years); no secondary market = 0</li> </ul>	20
<b>Subtotal</b>		<b>100</b>
<b>Opportunity</b>		
<b>Scalability &amp; Replicability</b>	<p>The project can be further scaled with no major ecological, social or economic performance loss or replicated in different regional contexts:</p> <ul style="list-style-type: none"> <li>• Applies to a great extent = 20</li> <li>• Applies significantly = 15</li> <li>• Applies = 10</li> <li>• Applies to a low extent = 5</li> <li>• Does not apply = 0</li> </ul>	20
<b>Triple Bottom Line Potential</b> („Adjustability“)	<p>The ecological / social dimension of the project can be strengthened with no significant economic performance loss. [and vice versa: the financial performance of a socio-/ecological driven project can be improved with no major impact performance deficit]</p> <ul style="list-style-type: none"> <li>• Applies to a great extent = 20</li> <li>• Applies significantly = 15</li> <li>• Applies = 10</li> <li>• Applies to a low extent = 5</li> <li>• Does not apply = 0</li> </ul>	20
<b>“Low-hanging fruit”</b> (Independence of third party support)	<p>The project implementation depends on third party support, such as financial or technical support (from foundations, development aid, governments etc)</p> <ul style="list-style-type: none"> <li>• not at all (20 pts)</li> <li>• to a marginal extent (15 pts)</li> <li>• to a certain extent (10 pts)</li> <li>• to a significant extent (5 pts)</li> <li>• to a great extent or almost entirely (0 pts)</li> </ul>	20
<b>References</b> („Best practices“)	<p>Successful reference projects exist:</p> <ul style="list-style-type: none"> <li>• &gt; 6 similar, successful projects = 20</li> <li>• 4-6 similar, successful projects = 15</li> <li>• 2-3 similar, successful projects = 10</li> <li>• 1 similar, successful projects = 5</li> <li>• No or no successful similar project known = 0</li> </ul>	20

**Table 8: Biodiversity score-card assessment**

Criterion	Description of criterion	Max Points
Red flags („media“)	<p>There are no negative perceptions of the sector / business model due to negative media coverage or existence of bad practices of third parties</p> <ul style="list-style-type: none"> <li>• Applies to a great extent = 20</li> <li>• Applies significantly= 15</li> <li>• Applies = 10</li> <li>• Applies to a low extent = 5</li> <li>• Does not apply = 0</li> </ul>	20
<b>Subtotal</b>		<b>100</b>
<b>Total</b>		<b>400</b>

Source: Authors

## 9.7 Standards and certification schemes in the biotrade sector

**Table 9: Standards and certification schemes in the biotrade sector**

Label	Products	Organization
EU Bio Label	organic agriculture	European Commission
100% organic production labels	organic agriculture	Organic producer associations (demeter, Bioland etc.)
Rainforest Alliance	coffee, cocoa, tea, flowers, citrus fruits	Industry, Melinda & Bill Gates Foundation etc.
UTZ Certified	coffee, cocoa, tea	Industry own standard
Pro Planet	fruit, vegetables, fish etc	REWE own standard
FairTrade	fairtrade products	Transfair Verein
Hand in Hand	Coffee, tea, cocoa, pepper, vanilla	Rapunzel own standard
fair+	coffee, tea, cocoa etc	GEPA own standard
MSC	Fish	WWF, Unilever
FairWild	Wild collection	NGO (endorsed by WWF, IUCN, TRAFFIC et al)
Wildlife Friendly	All products	Wildlife Friendly Enterprise Network

Source: Authors

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