



B@B Workstream 3: Access to Finance and Innovative Financing Mechanisms

Final Report

31 October 2014

Author: Matt Rayment and David McNeil



This page is intentionally blank



1 Introduction

This paper presents the findings of the 2014 work of the Finance Workstream (Workstream 3) of the EU Business and Biodiversity Platform.

Findings are drawn from evidence supplied by B@B members and from the wider literature on finance for business and biodiversity. The paper has been updated following discussion with the B@B Bureau on 8 July 2014, and comments received from workstream members in August and September 2014.

This paper complements similar papers for the Innovation Workstream (Workstream 2) and the Natural Capital Accounting Workstream (Workstream 1). There is some inevitable overlap, in particular between the papers on Innovation and Finance, given that a number of business innovations (e.g. for biodiversity offsetting) relate to the generation of finance for biodiversity.

1.1 Wider Objectives of the B@B Platform Phase 2

The objectives of the Platform for the current period include:

1. Providing an **EU level forum** for a sustained and strategic dialogue concerning the delivery of objectives under the EU Biodiversity Strategy to 2020;
2. Working with business to **develop tools and approaches** that will promote the integration of biodiversity considerations into business practice;
3. **Supporting the actions being undertaken by Member States** by encouraging and promoting potential synergies between different national actions and between the EU level and the national level; and,
4. Promoting **better communication, increased awareness and improved coordination** in relation to Business and Biodiversity activities.

Year 1 of the second phase of the B@B Platform, during the period October 2013 – October 2014, is based on three work-streams on (1) natural capital accounting, (2) innovation, and (3) financing for business and biodiversity.

1.2 The Finance Workstream

Workstream 3 of the B@B Platform seeks to demonstrate the benefits to business of biodiversity-related investment. The workstream provides opportunities for businesses, including SMEs, to showcase financing schemes for biodiversity and champions in the finance sector who are funding biodiversity related projects or who are using nature-related criteria for financing decisions.

The objectives of the Workstream are to:

- **Identify and profile biodiversity investment opportunities** (e.g. pro-biodiversity business/certified products; biodiversity offsetting and habitat banking, PES schemes and bio-carbon markets, financial services);
- **Identify funds and financial instruments providing investment** in biodiversity in the EU and worldwide.
- **Identify key actors in the financial sector championing integration of biodiversity** into investment decisions.

1.3 Approach and method

The main steps in the work of the finance workstream in 2014 were as follows:

1. **Research scoping.** Initial scoping work examined issues and opportunities in the three areas of interest: biodiversity investment opportunities; biodiversity funding mechanisms; finance sector champions. This informed the drafting of a call for evidence paper.
2. **Call for evidence from members.** A short call for evidence paper was circulated to members and observers on 4 April 2014. The paper provided an overview of the three topic areas to be covered by the workstream, gave examples of activities in each of these areas, posed a series of questions to B@B members regarding their experience in these areas, and requested submission of evidence on these. Replies to the call were initially requested by 25 April 2014. The deadline was subsequently extended to 15 May 2014, and reminders were sent to all members.
3. **Development of finance case studies.** Eighteen replies were received from Platform members, observers and representatives. These were used to draft 15 case studies showcasing experience and good practice in biodiversity and finance. These have informed the development of this paper and are presented on the B@B Platform website.
4. **Draft discussion paper.** A draft of the discussion paper was shared with members, observers and representatives on 8 August 2014. The draft paper presented the initial findings of the Finance Workstream, and invited comments and further discussion.
5. **Showcase report and examples on website.** The case study examples, as well as this final report, have been uploaded to the B@B website. Together they showcase examples and highlight progress and opportunities in biodiversity finance, for use by members and business more widely.

1.4 This paper

This paper presents the findings on biodiversity investment opportunities (Section 2), biodiversity funding mechanisms (Section 3) and finance sector champions (Section 4).

The names of B@B Platform members that have contributed are **highlighted in bold** in this paper, while examples from companies and organisations drawn from the literature are mentioned in normal type.

The paper is accompanied by 15 case studies provided by B@B Members, Observers and Representatives, as follows:

I. Biodiversity Investment Opportunities

1. Sinergieae Ambiente: *adding value through certification.*
2. CDC Biodiversite: *exploring long-term opportunities for biodiversity offsets.*
3. CDC Biodiversite: *developing payments for ecosystem services in the water sector*
4. SAR Consult: *supporting catchment-scale actions.*
5. European Green Roof Association: *maximising the potential of urban green roofs.*
6. Green4Cities: *securing new forms of finance for urban Green Infrastructure.*
7. Ecoacsa: *growing the market for biodiversity offsets in Spain.*
8. EDF: *exploring innovative financing mechanisms for biodiversity and ecosystem services.*

II. Biodiversity Funding Mechanisms

9. The Nature Conservancy: *tapping impact investment for natural capital.*
10. PIRAEUS Bank Group: *providing targeted conservation finance for Natura 2000.*
11. VCA Platform: *Investing in verified conservation*

III. Finance Sector Champions

12. Sumitomo Mitsui Trust Holdings: *pioneering pro-biodiversity investment products.*
13. CDP: *mobilising shareholders for pro-biodiversity investment.*
14. WWF China: *integrating sustainability in the Chinese financial sector.*
15. Community of Practice Financial institutes & Natural Capital (CoP FINC): *building financial sector sustainable investment capacities.*



2 Investment opportunities

Efforts to halt the loss of biodiversity are stimulating a wide range of opportunities for businesses. These are in turn reflected in financial needs and investment opportunities.

Experience from B@B members, including the case studies outlined here, indicates that large firms often have different motivations for investing in biodiversity than smaller ones. For established multinationals with a strong brand presence, reputational risks and opportunities, the sustainability of the supply chain and their 'licence to operate' are strong motivations to take action for biodiversity. For smaller enterprises, biodiversity may be more directly linked to revenue streams through the development of biodiversity-dependent goods and services¹.

SMEs represent 99% of all businesses in the EU, and could be well-placed to tap into new financing streams given necessary support; there is a key overlap in the interests of large and small companies in the biodiversity space and SMEs could be engaged as service providers to large multinationals, since biodiversity impacts are essentially local in nature.

Investments in small and medium scale projects have surged on a global basis, concentrating especially on organic agriculture, but also looking at sustainable timber and non-timber product production as attractive investment options. A number of successful investments in the area of conservation tourism have also signalled the potential of this niche sector², and there is growing interest in opportunities in green infrastructure, nature conservation and the provision of ecosystem services.

This section discusses the following types of biodiversity-related investment opportunities:

- *Certified goods and services;*
- *Biodiversity offsetting and habitat banking;*
- *Green infrastructure; and*
- *Payments for ecosystem services and bio-carbon markets.*

In addition to these, there are growing examples of pro-biodiversity business opportunities in a range of other sectors, particularly the tourism sector.

2.1 Certified goods and services

Goods and services certified as having minimal or positive impacts on biodiversity may command premium prices and present a range of growth opportunities.

Biodiversity is being increasingly incorporated within standards and certification systems for a range of sectors, particularly sustainable agricultural, food and timber products.

More than three-quarters of EU citizens are willing to pay more for environmentally-friendly products, if they are confident that the products are truly environmentally-friendly³, indicating that better provision and quality of information is key to capitalising on opportunities for green goods and services. Food health and safety concerns are another major driver of demands for better information on production processes, and in some cases have a key link to biodiversity (for example through reduced use of pesticides).

Certification systems can be instrumental in building consumer confidence in production processes, and there are increasing examples of the public and private sectors working together to maximise the potential for pro-biodiversity goods. For example, sales of certified

¹ Ricardo, et al. (2000) Financing Biodiversity Conservation. A Report to the Inter-American Development Bank <http://publications.iadb.org/handle/11319/4789>

² Moles (2003) Venture Capital as a Financing Tool for Conservation Finance: Lessons Learned http://conservationfinance.org/guide/WPC/WPC_documents/Apps_07_Moles_v2.pdf

³ COMM (2013) Flash Eurobarometer 367- Attitudes of Europeans Towards Building the Single Market for Green Products http://ec.europa.eu/public_opinion/flash/fl_367_en.pdf



sustainable seafood products have doubled in recent years, while sales of sustainable forest products have quadrupled.

Members of the B@B platform are engaged in a range of activities relating to both the supply and demand for certified green products.

In Portugal, environmental consultancy **Sinergiae Ambiente** is helping companies and municipalities to address biodiversity in their activities, and is keen to promote biodiversity certification and labelling more widely. It helps companies (especially wine growers and producers) to implement more sustainable practices, including the design and monitoring of Biodiversity Conservation Plans and Farm Plans. The company also helps companies involved in the Portuguese European Business & Biodiversity Initiative, promoted and managed by the public body ICNF (Institute for Nature Conservation). The Portuguese B&B Initiative is not an official certification scheme, but requires producers to provide evidence to the ICNF about biodiversity management on a yearly basis. Based on this experience, Sinergiae Ambiente proposes that the Initiative could evolve into a uniform biodiversity certification scheme at the EU level, since, for example, the EU Ecolabel does not address biodiversity directly. An EU wide scheme would help to recognise and reward biodiversity friendly management practices while promoting awareness and reducing confusion among consumers. Without such an approach, there is a risk that the increasing number of initiatives and lack of standardised protocols will lead to confusion and contribute to business and consumer scepticism.

CDP (formerly the Carbon Disclosure Project) is engaged in a range of activities relating to demand for certified products, through programmes examining dependencies between biodiversity, production and supply chains. CDP works on biodiversity issues primarily with food, beverage and animal feed companies and their institutional investor shareholders. The appropriate way to present biodiversity to this audience is through discussion of commodities, and more specifically, the security of supply of commodities (specifically, price, quality and availability considerations). The impact of degraded natural inputs on which commodity production relies, also impacts other sectors reliant on agricultural produce, like clothing and biofuels. To protect investment, CDP argues that companies need to integrate biodiversity concerns within their business strategy, through standards and certification systems for agriculture or specific commodities, as well as landscape-based approaches bringing together producers and buyers. CDP uses the authority of company ownership – shareholders – to steer companies in this direction. The intention is to use the learning and experience of leading companies, to promote improvement across the entire sector.

There are increasing examples of public and private sector collaboration towards the development of certified goods and services with minimal or positive impacts on biodiversity.

The European Centre for Nature Conservation's European Biodiversity Standard is one example of effective public-private partnership in the development of information labels, having been developed with a UK Consultancy, Middlemarch Environmental. The standard has a production site focus and requires companies to assess their impacts on biodiversity and ahead of a verification audit. EBS has been implemented by companies such as Nestle Waters, E.ON and Veolia Environmental Services at production sites, as well as tourist operator Center Parcs and British Airways⁴.

Eco-tourism is a rapidly growing segment of the European tourism industry, but as proliferation of different regional standards erodes confidence in the claims of providers, there is a strong case for a coordinated approach.

The European Ecotourism Network is an online platform intended to raise awareness of ecotourism projects and best practice through a European 'Atlas of Excellence'. The network also manages an EEN certification standard and provides training in ecotourism development. A common element of successful ecotourism initiatives is diversification of

⁴ <http://www.europeanbiodiversitystandard.eu/>



revenue streams. This helps to strengthen the resilience of local economies with a heavy dependence on the notoriously volatile tourism industry⁵.

Growing awareness of water as a reputational risk to the private sector is spurring proactive investment by a number of companies. The European Water Stewardship Standard, a production site voluntary standard that encourages water users to engage with the wider challenges and opportunities of the catchment in which they operate, has been implemented at sites across the EU by large multinationals such as BASF and Coca-Cola. The Standard is independently verified and a performance-based certification scheme can be used in marketing and communication activities in the manner of the Forest Stewardship Council label⁶.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to stimulate business and associated investment opportunities in labelling and certification:

- Harmonisation of labelling and certification, preferably at the EU level;
- Wider engagement (of public and private sectors and NGOs) in standard-setting processes;
- Financial incentives (tax relief, risk-sharing loans) to promote uptake of certified goods and services; and
- Targeted financial information for shareholders in biodiversity-dependent sectors - with certification standards playing an increasing role in market access for some sectors.

2.2 Biodiversity offsets and other activities designed to achieve no net loss

Achieving no net loss of biodiversity and ecosystem services in the EU would require significant investment in biodiversity conservation activities, giving rise to substantial financial needs and opportunities.

Under the EU Biodiversity Strategy, the Commission is committed to propose an initiative to ensure there is no net loss of biodiversity and ecosystem services. The principle of no net loss recognises that, because of the variety of pressures facing biodiversity in the EU, while we can take measures to avoid and reduce impacts on biodiversity, the absolute prevention of biodiversity loss is unlikely to be achievable, and that achieving no net loss – by requiring that residual losses are counterbalanced by equivalent gains – is a more realistic way of halting the overall loss of biodiversity and ecosystem services.

Biodiversity offsets are conservation activities that deliver measurable gains in biodiversity sufficient to compensate for losses sustained elsewhere. They are seen to have an important role to play in delivering EU policy objectives to achieve no net loss of biodiversity, by providing compensation for residual losses after all reasonable steps are taken to avoid, minimise, and restore biodiversity impacts.

Compensating for development impacts on biodiversity can accelerate regulatory approval for development, enhance reputational value and secure additional finance for conservation.

Voluntary investments in biodiversity conservation by the private sector are becoming increasingly widespread, and many Member States are now putting regulatory requirements

⁵ <http://www.ecotourism-network.eu/en-knowledge-center/en-euro-eco-atlas-excellence>

⁶ <http://www.ewp.eu/activities/ews/>



or guidance in place to incentivise the growth of biodiversity offsets and habitat banking. Conservation offsets are expected to form a key element of the proposed EU No Net Loss Initiative for 2015. The UK's Ecosystem Markets Taskforce has identified that offsets have high potential to mobilize private sector funds towards investment in ecological networks and nature protection, and one of its top five most promising business opportunities related to valuing and/or protecting nature.

In the USA, developers and public bodies have many years of experience of delivering offsets through habitat banking and other mechanisms. The sale of mitigation credits through these institutions has given rise to an estimated \$4bn credit trading market⁷. Research carried out for the Ecosystem Markets Task Force identified a potential annual market value of EUR112 – 588 million in England alone. The comparable figures for the EU were estimated at a potential annual market value of EUR 938m - 9.3bn⁸. Nonetheless, offsets are capital-intensive and complex, and require detailed financial and ecological planning to deliver on their objectives - and there are growing opportunities for organisations with specialist skills in these areas.

Members of the B@B platform are working to capitalise on the potential of biodiversity offsetting - either to mitigate impacts from their existing operations or to support the private sector in the design and implementation of effective offsets.

In France, the hydropower division of utility provider **Électricité de France (EDF)** recently launched a habitat banking pilot project under the supervision of the Ministry of Environment. These mechanisms are quite new and on-going experimentations are helping to understand what business models are viable (and therefore what financing is needed) in the French legal context. Financing issues relate to the costs of acquiring land, undertaking habitat restoration and management work, and securing the future of habitat management in the long term. The main barriers are reportedly currently legal frameworks, which are still unclear and not adapted for such new mechanisms. Transparent and sound rules are needed to secure the potential benefits of habitat banking. This still depends on national contexts: in France there is currently little place for trading due to a strict approach of offsetting on a species-for-species basis.

CDC Biodiversité is a first-tier subsidiary of the Caisse des Dépôts, entirely dedicated to biodiversity issues. It has been engaged in activities relating to biodiversity offsets for several years and has a detailed understanding of some of the issues inherent in the delivery of offset projects. One of its projects, the operation Cossure, is a pilot offset supply scheme. In 2008, the company acquired 357 ha of old fruit groves in the Crau Plain in South-east France. The old fruit grove was rehabilitated into a typical steppe-like habitat. A pilot offset supply scheme provides the opportunity to developers to offset their residual negative impacts by acquiring biodiversity units, as habitat banking does in other countries. CDC Biodiversité will oversee the project over a 30-year period and bring in local specialists. Although the project reached technical maturity in 2009, management is ongoing and to achieve profitability the company needs to sell all available offset credits. Demand for credits is in turn contingent on policy and regulatory incentives for offsetting, which are still emerging.

Where the project has been particularly successful is in providing practical lessons for designing the implementation of offsets - CDC Biodiversité has tested innovative approaches to ecological engineering, which provided knowledge on forthcoming restoration and rehabilitation schemes. Moreover, the project is independently monitored, and feedback has been good. Such feedback can be used to improve practices by making them more effective and efficient. This will help to improve ecological engineering methods and facilitate the accomplishment of projects. In the long run, opportunities may arise in the national market if

⁷ <http://www.europeanlandowners.org/files/Events/TheEBioConf2011/Duke%20Guy.%20The%20Environment%20Bank%20Ltd.pdf>

⁸ EMTF (2013) Ecosystems Market Taskforce: Final Report <https://www.gov.uk/government/groups/ecosystem-markets-task-force>



policies and regulations require that project developers offset biodiversity losses by buying biodiversity credits.

The Environment Bank Ltd. is a UK company which acts as a broker and delivery agent in emerging markets for environmental assets, in particular biodiversity offsetting. It has developed a unique and innovative business model in this respect. EBL is currently operational in the UK but is looking to extend its business operations to other European countries. Research for the Ecosystem Markets Task Force estimated that biodiversity offsetting could deliver 300,000 ha of ecological creation/restoration over 20 years in England alone. As the comparable figure for the EU was 10-50,000 sq km over 20 years this would represent a very considerable contribution to the EU No Net Loss Initiative.

In Spain, **Ecoacsa Reserva de Biodiversidad** is involved in a range of planning and support services relating to the delivery of biodiversity offsetting. Offsetting has recently been enabled by changes to Spanish environmental regulation, which is expected to contribute to increased demand. However, sources of financial support are relatively scarce, apart from La Fundación Biodiversidad (Biodiversity Foundation), some specialist savings banks such as *La Pedrera Foundation*⁹ and small philanthropic funds for wetland restoration such as *Andrena*¹⁰. The model that will be adopted in Spain for conservation banking is based on US regulatory systems - this will entail major financing needs for real estate, conservation plans, and above all long term funding instruments like endowment funds or similar. There is thus a key opportunity for the development of new financial products to meet this emerging demand. Ecoacsa's current activities relate to market development and promotion of offsetting, including training and capacity building, cost-benefit analysis of potential projects and comprehensive consultancy.

The development of offsets across the EU will further increase demands for finance. Indeed, current research by ICF International for the European Commission highlights the importance of long term finance for the management of offsets – through conservation trust funds and similar mechanisms – in securing durable conservation gains and hence in achieving no net loss objectives.

Other offsetting initiatives and pilots are being developed by the private sector across the EU, often in response to changing regulatory drivers.

For example, No Net Loss of biodiversity is a requirement for all wind energy projects in France, and GDF Suez Group, which is currently developing an offshore wind project in a Marine Protected Area off the northern French coast, is exploring the potential of direct investment in the MPA as part of its offset requirement¹¹. Whilst experience with such in-lieu fee payments as compensation for environmental impacts is widespread, there has been little experience of investments in marine conservation. Outcomes from the project may have wider implications in the form of the proposed No Net Loss Initiative for the EU from 2015.

Voluntary offset schemes are increasingly following recognised standards or best practice, so as to increase the validity of their claims and to ease implementation.

The Business and Biodiversity Offset Programme's (BBOP) Standard on Biodiversity Offsets is the most commonly-recognised voluntary standard for biodiversity offsetting. The Standard draws on a range of international best practice, often derived from national regulatory systems, and is underpinned by an adaptive management approach, balancing ecological rigour with technical and financial feasibility criteria.

Biodiversity offsets should be seen in the context of the mitigation hierarchy, and applied to residual losses of biodiversity only after steps have been taken to avoid, minimise and restore unavoidable biodiversity impacts.

⁹ Formerly Fundacio Catalunya Caixa (<http://www.fundaciocatalunya-lapedrera.com>)

¹⁰ <http://www.mercadosdemedioambiente.com/actualidad/andrena-primer-fondo-privado-catalan-para-protger-la-biodiversidad/>).

¹¹ <http://openchannels.org/news/mpa-news/emerging-concept-marine-biodiversity-offsets-and-their-potential-uses-mpas>



Offsetting is likely to play a greater role in some sectors than others. For example, the **UEPG (European Aggregates Association)** argues that minimisation and restoration are normally the best means of achieving no net loss in the aggregates sector.

Other activities contributing to no net loss may also have significant financing needs and give rise to significant investment opportunities. Investments may be required at each stage of the mitigation hierarchy (avoid, minimise, restore, offset). These may include investments that seek to avoid or reduce the impacts of development (e.g. landscaping, pollution control, green bridges and corridors), and investments in the restoration of affected sites (e.g. restoration and aftercare of minerals sites).

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to stimulate business and associated investment opportunities in biodiversity offsetting:

- Provision of capital (i.e. debt or equity) to finance development of offset credits;
- Further pilot experience and monitoring of outcomes in key Member States;
- Wider exchange of best practice and specialist consultancy services bridging a range of disciplines (ecological restoration, financial planning, etc.);
- Stronger regulatory clarity and supplemental guidance on offsetting, including the role of finance in delivering long term conservation benefits;
- Better integration of international standards (e.g. BBOP); and
- Incentives to promote best practice, such as fast-track processing of loans and credit.

2.3 Green Infrastructure

There is significant potential for Green Infrastructure projects to tap into new and diverse financing and revenue streams, whilst contributing to wider public and private priorities.

The concept of Green Infrastructure (GI) refers to the strategic use of natural systems in urban and infrastructure planning to secure a range of ecosystem service benefits simultaneously. Common examples include investment in bankside habitats to provide co-benefits for water quality and floodwater management, or large-scale planting of trees in cities to mitigate the urban heat island effect and reduce the impact of storms on the built environment. In addition to the amenity benefits that these investments provide to society, GI projects also provide vital habitats, allowing wildlife to flourish where it may not otherwise be viable.

Green Infrastructure projects can yield substantial cost savings over comparative engineered 'grey' infrastructure solutions whilst having positive benefits for biodiversity, and the EU *Green Infrastructure Strategy* has links to a number of current policy priorities within Member States¹² in developing the green economy and associated skills and employment. Because the benefits of GI are usually shared between the public and private sectors, and provide long-term, relatively low-risk returns on investment, there is a strong case for public-private partnership models of delivery, whereby risk and returns are spread over time¹³.

¹² COMM (2013) 249

¹³ OECD (2012) Financing Urban Green Infrastructure http://www.oecd.org/gov/regional-policy/WP_Financing_Green_Urban_Infrastructure.pdf



Institutional investors such as pension funds have particular opportunities for capitalising on the benefits of GI. A recent OECD working paper highlighted the potential for pension funds to mobilise their €21 trillion of assets towards Green Infrastructure, but also pointed to the need for governments to play a supporting role in the early stages of such projects through joint ventures, subordinated equity positions or loan guarantees¹⁴.

Nonetheless, there are growing examples of major pension funds beginning to explore green infrastructure investments - with Denmark's ATP, as well as the Dutch fund PGGM and the American public funds CalSTERS and CalPERS making initial investments in recent years¹⁵.

B@B Platform members are actively exploring new and innovative means for delivering GI - often looking beyond more traditional beneficiaries.

Green4Cities is a knowledge-exchange company, based in Vienna, engaged in research, implementation and a range of financial activities relating to Green Infrastructure. The company actively promotes GI as a cost-effective solution to a number of environmental and public health challenges facing cities, including the urban heat island effect (UHI). The company points to the significant potential for green roofs in many European cities as one response to these challenges, as well as the general resilience and growth of SMEs providing such installations, even in the face of Europe's economic downturn. Green4Cities recognises better standards and communication as key to ensuring wider uptake of GI.

To this end, the company has been engaged in the development of a standard evaluation method and urban planning tool called Green Pass. By means of case studies and integration of existing knowledge a set of criteria for the evaluation of urban areas will be developed. These criteria will include microclimatic and technical aspects, resource demand and provision. The Green Pass will be tailored to the needs of key stakeholders from strategically chosen case study cities. Looking ahead, Green4Cities sees further development of demonstration projects and work with sympathetic investors, stronger municipality control over planning processes, and new ways of calculating building stock lifespan and footprints as key success formulae for Green Infrastructure.

Communication of GI benefits needs to go hand-in-hand with development of financing arrangements. The **European Federation of Green Roof Associations** is engaged in a range of activities linked to the promotion, financing and installation of Green Roofs as a form of innovative Green Infrastructure. One mechanism that the Federation uses to facilitate engagement is in the ongoing development of a specialised GI Policy Bureau, incorporating the insurance industry, local authorities, utilities and public estates to provide policy and financial instruments to support retrofit of GI to the existing building stock.

The Federation is also working on the development of multi-language e-learning tools for built environment and planning professionals, and piloting the use of 'green leasing' (essentially, Payment for Ecosystem Service models applied to the existing building stock) at a number of sites across London, whilst examining the wider applicability of these mechanisms across the EU. The Federation points to a long-term market potential in the region of EUR 25m in the UK, and EUR 44m in Germany, noting that around one-third of London's roof space is viable for installation of GI.

In Germany, specific tax incentives for green roofs are credited with supporting market development and retrofit. EFGRA points to significant growth potential although there is a need for utilities (water and energy) to engage in the benefits provided by these approaches and help to devise incentive programmes to provide retrofit solutions for GI. A number of mechanisms have been used in the US and Canada based on storm-water regulation. These mechanisms could be embraced and adapted to EU regions to ensure that

¹⁴ http://www.oecd-ilibrary.org/finance-and-investment/the-role-of-pension-funds-in-financing-green-growth-initiatives_5kg58j1lwdjd-en

¹⁵ <http://www.ipe.com/green-investment-by-pension-funds-needs-stable-regulatory-environment-oecd/42358.fullarticle>



biodiversity benefits from GI are highlighted, along with storm water and Urban Heat Island benefits.

A growing number of initiatives are linking Green Infrastructure investments to water management needs through an integrated catchment management approach. A number of large EU water utility companies have pioneered the approach of linking agri-environmental schemes to source protection measures. Crucially, many investors have familiarity of the issues inherent in the water sector and the access to debt financing of many water service providers in the EU opens up opportunities for innovative delivery models. As a result, water-related projects are often seen as the most mature or advanced forms of Green Infrastructure implementation.

In the area of freshwater and river management, the EU's Water Framework Directive is the primary policy driver at the Member State level. Member States are tasked with achieving good qualitative and quantitative water status by 2015 under the Directive, and strategic use of Green Infrastructure has a growing role in relevant areas such as management of eutrophication and flood risks. As a result, public authorities, water utility companies and large industrial water consumers alike are exploring the potential of catchment-level interventions as a cost-effective solution to their common water challenges.

Such projects often result in a range of benefits for biodiversity through restoration of natural floodplains and other processes. Specialist consultancies such as **Stream and River (SAR) Consult** are engaging with a diverse range of clients to develop strategies for addressing these challenges through a Green Infrastructure approach, and indicate that there is growing potential for public-private partnership models of delivery, incorporating insurers, public authorities, private sector corporations and landowners.

Integrating Green Infrastructure within existing or planned investments in grey infrastructure is emerging as a key opportunity to maximise GI implementation.

Projects that link GI to existing 'grey' infrastructure - such as Gaz de France's creation of ecological networks linked to its gas pipeline infrastructure¹⁶ - can provide tangible early benefits and overcome scepticism amongst decision-makers. These projects can offset some of the initial impact on biodiversity - for example, counteracting the contribution of gas pipelines to habitat fragmentation - but they can also be applied in more innovative ways. The recent inter-industry White Paper, '*The Case for Green Infrastructure*¹⁷', provides a range of international case studies of GI implementation by large multinationals such as Shell, Dow Chemical and Unilever. In the case of **Shell**, green infrastructure has been utilised strategically to ensure protection of coastal gas pipelines against erosion, through natural reclamation processes, habitat restoration or development of oyster reefs.

Such applications relate to the use of GI to recapitalise aging or degraded physical infrastructure, or to secure production in areas of high environmental stress. Incentives also include significant capital or maintenance cost savings over alternatives. The report highlights the need for development of in-house GI-specific appraisal skills, including business strategy, new business development, project economics and environmental sustainability, as well as development of industry partnerships with conservation groups and academia to deliver these projects.

The innovative nature of GI encourages more experimental forms of financing and delivery

One example of innovative GI financial delivery is the emerging Green Business Improvement District (BID) model in the UK. Conventional BIDs (most of which can be found in the UK and Germany) apply a levy on businesses operating within a defined area to fund projects or improvements within the area's boundaries. The Green BID model extends this concept to the creation and maintenance of GI to provide benefits to surrounding businesses. The Greater London Authority recently funded a series of GI audits for over

¹⁶ <http://www.gdfsuez.com/en/commitments/climate-environmental/protecting-biodiversity/>

¹⁷ The Nature Conservancy (2013) The Case for Green Infrastructure www.nature.org/about-us/the-case-for-green-infrastructure.pdf



500ha of land in the 12 BIDs, identifying potential for over 300 ha of rain gardens, 200 ha of green walls and over 100 ha of green roofs. The GLA is now working with BID groups to support the delivery of the GI projects identified - it is envisaged that BID levies provide a stable, long-term source of financing for delivery of Green Infrastructure projects¹⁸.

The International Finance Corporation (IFC) has for some years worked with the UK's Department for International Development to promote the wider uptake of asset-backed securitisation (ABS). ABS relates to the financing (or refinancing) of income-yielding assets such as forests, fisheries and water supplies by packaging them into a tradable form such as through the issue of bonds. Most existing applications of ABS have been in financing tropical forestry, but there are a range of opportunities for issuing bonds for the conservation of natural resources¹⁹.

Lifetime and operational cost savings can also be a major incentive for investing in Green Infrastructure projects. In Eindhoven, the Netherlands, **Arcadis** has developed an innovative project (Sanergy) providing groundwater energy to an industrial site. A major challenge was historical pollution of the site, since normal groundwater energy methods would spread contaminants through the aquifer. The solution adopted produces energy whilst mimicking the natural circulation process of groundwater - thus responding to seasonal changes and stimulating natural degradation of pollutants. The system saves costs for heating and cooling the facilities to a factor of 4 and 5, and has attracted significant interest elsewhere in the Netherlands²⁰.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to stimulate business and associated investment opportunities in green infrastructure:

- Wider communication of scientific and financial research on the benefits of GI to diverse audiences
- 'De-risking' of the early stages of projects through government incentives, such as performance contracting, project bonds and securitisation
- Strategic integration of GI within grey infrastructure sectors (e.g. energy, transport) through the development of relevant internal skills (ecology, environmental economics)
- Deeper integration of GI within freshwater policy, and uptake by utility companies as a cost-effective solution to water quality management and other concerns.

2.4 Payments for Ecosystem Services and bio-carbon markets

New delivery models are emerging for PES which can yield benefits to business and biodiversity.

Whilst the global market for Payments for Ecosystem Services (PES) schemes is expected to reach \$7bn by 2020²¹, costs of establishing management and payment vehicles can be considerable, and securing finance can be problematic owing to lack of familiarity with the asset class, and difficulty of developing standardised transaction systems and business models - which is to some degree linked to a lack of regulatory certainty. Many existing examples of PES schemes relate to large-scale, national initiatives such as the 'Grain for Green' soil restoration programme in China, or Costa Rica's national PES agreements in the

¹⁸ <http://www.london.gov.uk/priorities/environment/greening-london/urban-greening/greening-bids>

¹⁹ www.assetbackedsecuritisation.com

²⁰ http://www.arcadis.com/Projects/Sanergy_groundwater_energy_system.aspx

²¹ Forest Trends (2008) Payments for Ecosystem Services: market profiles
http://ecosystemmarketplace.com/documents/acrobat/PES_Matrix_Profiles_PROFOR.pdf



forest sector. Both of these schemes are high-profile, long-term models that have benefited from substantial public funds - highlighting the challenges for securing private sector finance for individual PES schemes.

Nonetheless, a growing number of private sector initiatives are experimenting with innovative models of financial delivery for PES: for example exploring how PES can be 'bundled' (selling multiple ecosystem service benefits are sold to a single 'buyer') or 'stacked' (where multiple ecosystem service benefits are sold to different 'buyers')²². For organisations such as water utility companies, bundled PES schemes provide a cost-effective means to address a range of interests throughout the entire water cycle (water supply, wastewater treatment and disposal). For example, **CDC Biodiversité** is currently piloting performance-based payments for watershed services that contribute to biodiversity conservation in France.

In the UK, United Utilities has partnered with civil society and landowners to deliver a range of improvements to the entirety of its 56,385ha catchment area. Revenue from the project is again sourced in savings relating to water treatment cost and net water demand. Similar catchment-scale PES projects are being initiated by South West Water and Wessex Water in England²³.

Biodiversity supports a range of ecosystem services, but protection of ecosystem services may not always align with biodiversity interests. A common challenge for governments, civil society and business is to communicate the additional value of investing in biodiversity-friendly sources of ecosystem services; for example, whilst a plantation forest may yield carbon credits at lower cost, this could conceivably have mixed or even detrimental impacts on biodiversity.

B@B Members are supporting the financing of PES schemes as well as development of business models

Greece's **Piraeus Bank Group** is engaged in financing a range of innovative projects relating to biodiversity conservation, and has a dedicated Environment Unit addressing the specialist lending needs of the environmental sector. One key area of activity relates to strengthening the financial viability of Natura 2000 areas, which are currently facing funding pressures as a result of the fiscal situation of the Greek government. A recent project in Lake Stymfalia (one of the most important wetland ecosystems and wildlife refuges in southern Greece) aims to provide a full demonstration of the commercialization of two ecosystem services provided by Stymfalia: energy services (conversion of reed biomass into pellets) and soil fertilization (conversion of reed biomass into compost). A major achievement of the project in terms of converting reeds into a marketable product is not so much the size of the economic profit that will be generated, but mainly know-how in terms of the tools for ensuring economic benefit can be produced in a Natura 2000 site. The Environment Unit will investigate the potential investment scheme for the management of the site in a sustainable manner, through the economic exploitation of wetland services (circular re-financing process). For example, the lake's reedbed management could create surplus biomass, which in turn can be exploited economically, returning a portion of profits generated to ensure management of the area.

This model is intended to provide an example of an integrated funding model for wetland management (including private sector involvement), and could stimulate similar partnerships to create synergies towards the biodiversity finance. A challenge in extending the application of biodiversity financing on a larger scale (in other wetlands nationally and in the EU) is to establish a monitoring scheme in order to assure that the investment has delivered continuous benefits for biodiversity

Opportunities are emerging to link biodiversity strategically within markets for ecosystem services.

²² Lau (2012) Beyond carbon: conceptualising Payments for Ecosystem Services in blue forests on carbon and other marine and coastal ecosystem services, *Ocean and Coastal Management*, Vol. 83, pp.5-14

²³ <http://corporate.unitedutilities.com/scamp-index.aspx>



As a result of regulatory concerns (specifically, the ability to address multiple policy priorities) as well as public relations opportunities²⁴, there is growing interest in the private sector in the possibility of integrating biodiversity within more mature PES systems, such as carbon markets. The World Bank's BioCarbon Fund, for example, recently announced a dedicated \$280m Initiative for Sustainable Forest Landscapes, building on its broad portfolio of investments in forest and agro-ecological carbon stocks, and support from corporate partners such as Unilever, Mondelez and Bunge²⁵.

In the UK, the recently-launched Peatland Code²⁶ is adopting a similar approach, providing opportunities for the private sector to invest in the restoration of peatland ecosystems, which provide a habitat for many nationally-important species, water supply ecosystem services, and particularly, carbon sequestration services at a European scale. Market research indicates that motivations for uptake of Peatland Code credits (typically in the region of £1-1.5m per investment) relate to carbon offsetting and speculative acquisition of carbon credits, but also frequently to reputational and public image considerations.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to stimulate business and associated investment opportunities in relation to PES and bio-carbon markets:

- Further examples and particularly standardised models for private sector involvement in the management of conservation areas;
- Capacity-building in financial planning of PES; e.g. linking multiple ecosystem services to single payments to minimise transaction costs;
- Linking multiple regulatory and policy areas (e.g. carbon abatement, biodiversity conservation) through single management actions for companies;
- Use of certification systems to link regulatory requirements to marketing incentives; and
- Better models for integrating environmental information (e.g. flood risks, hydrology, soils) with geographical information systems and other data

²⁴ Bekessey, S. Wintle, B. (2008) Using carbon investment to grow the biodiversity bank, Conservation Biology, Vol. 22, Issue 3. P.510-513.

²⁵ www.worldbank.org/en/news/feature/2013/11/20/biocarbon-fund-initiative-promote-sustainable-forest-landscapes

²⁶ <http://www.iucn-uk-peatlandprogramme.org/peatland-gateway/uk/peatland-code>



3 Biodiversity Funding Mechanisms

Investment in biodiversity-related business can be highly complex and often relies on local or context-specific information. As many established financial institutions lack the skills or expertise in this sector they may choose to partner with conservation groups, or to build their own employee capacities relating to biodiversity. Another option is to engage with companies with specialist experience in these areas. Over the long-term, forward-thinking organisations should work to build their internal capacities and know-how relating to natural capital and biodiversity issues - as signatories of the Natural Capital Declaration have committed to do²⁷.

Access to both public and private finance is often restricted for pro-biodiversity companies owing to perceived risks and lack of familiarity with the investment type. Nonetheless, a number of risk-sharing financial instruments are emerging in the EU and internationally. Since the benefits of biodiversity investments may impact on both the public and private sectors, it is appropriate that risks are distributed accordingly. However, this will require further development of innovative financing mechanisms and products.

3.1 Venture capital funds and debt finance initiatives

Equity investors are well placed to provide targeted funding for pro-biodiversity business.

Biodiversity investing is complex: client locations are sometimes remote, making logistics difficult. Often the venture illustrates some sort of demonstration effect, such as a new way of extracting product from or making in use of an ecosystem, or developing new products or markets.

Because such activities fall outside the competence of traditional investment funds, some international financial institutions are establishing specialist funds or partnerships to take advantage of strong market growth in areas linked to biodiversity, such as certified products. Land acquisition for environmental enhancement and resale is also a strong growth opportunity in the context of biodiversity offsets and sustainable production.

Given the complexity of biodiversity investments, there is a need to link different financing needs with the spectrum of providers - from early stage investors (including angel investors, business incubators and venture capital funds) to mid-stage debt and equity providers to more long-term support from institutional investors.

A number of international examples highlight the increasing emergence of specialist funds focusing on growth-stage private equity investments.

The EcoEnterprises Fund II is a private equity fund with support from a range of international institutions (including the Multilateral Investment Facility, European Investment Bank and JP Morgan Chase). The fund provides expansion capital to activities that would otherwise be ineligible for finance, including organic agriculture, apiculture, aquaculture, community-based energy, ecotourism and forest products. Investments range from \$500,000 to \$3m. The fund builds on an earlier partnership with The Nature Conservancy in Latin America, which benefited over 293 communities and conservation groups in Latin America whilst conserving 860,773 hectares of land.

Conservation International's Verde Ventures Fund²⁸ provides debt and equity financing to businesses that benefit healthy ecosystems and human well-being, including agroforestry, ecotourism, sustainable harvest of wild products and marine initiatives. Around \$23m of financing has been provided through a variety of debt instruments of \$30,000-\$500,000, with a repayment rate of 92%. In addition to loans, Conservation International also matches funds with contributions from governments, foundations and other donations; the fund benefits

²⁷ <http://www.naturalcapitaldeclaration.org/category/signatories/>

²⁸ <http://www.conservation.org>



from a diverse network of partners encompassing the private sector, development organisations and international NGOs, as well as national governments.

Other venture capital investors involved in biodiversity related activities include impact investor Root Capital, an impact investment fund with a focus on sustainable agribusiness and rural livelihoods²⁹. Root Capital represents several hundred large buyers' groups for commodities such as coffee beans, as well as sustainability pioneers such as The Body Shop, and combines work on financing with development of financial planning for agri-businesses and overall strengthening of value chains.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to stimulate debt and equity finance for biodiversity businesses:

- Examining financing needs relating to biodiversity and the spectrum of providers, from early stage investors (angels, incubators, VC funds) to mid stage debt and equity to institutional investors;
- Further leadership from the conservation community (e.g. in the development of pro-biodiversity microfinance products with the financial community);
- Linking venture capital to other forms of financing (e.g. public grants); and
- Deeper collaboration between the financial and conservation sectors, as well as leading corporations through associations such as the Banking Environment Initiative

3.2 Banking services which support biodiversity investments

Whilst investment in biodiversity goods and services can be complex and high-risk, investment demand continues to grow.

In this context, there are strong opportunities for financial institutions that have developed expertise in providing finance to pro-biodiversity business opportunities and projects. Support from national governments can also be instrumental in directing savings from banks to nature conservation projects - the long-term nature of returns associated with such investments is consistent with predictable and sustainable growth, but the relatively high up-front risk of investments may need to be mitigated through specific tax incentives or other forms of support.

The Netherlands, for example, provides tax incentives for the use of savings to fund green projects such as biodiversity offsets: ING Group has established a dedicated bank, 'Postbank Groen' for ecological savings and investments, including nature conservation. The bank invested 550m Euros in the first 3 years of its existence, around 17m of which was directed to nature protection projects.

The Netherlands' Triodos Bank has established a leadership position in Europe as a provider of retail banking services with a focus on sustainable investment. Triodos Bank has lending criteria for companies operating in sectors with a high risk of negative effects on biodiversity. This approach ensures businesses have a policy to identify these risks and act to deal with problems when they occur - these are published on Triodos' website as a list encompassing Triodos' Sustainable Investment Universe - company performance is reviewed periodically and companies can be removed from this listing where they do not meet sustainability criteria.

At the same time, Triodos Bank focuses on financing enterprises that protect and encourage biodiversity, with a major focus on sustainable agriculture and agribusiness investments, as

²⁹ <http://www.rootcapital.org>



well as some nature protection projects. One of the bank's best-known products is the Organic Saver Account, which donates 0.25% of the average annual balance of personal accounts to the Soil Association.

The UK's Green Investment Bank³⁰ was established in 2012 with support and capitalisation from the UK Government, with a focus on attracting private sector funds to green technologies and projects. Although a major focus of the bank's investments to date has been renewable energy projects, there is a growing interest and commitment to biodiversity conservation-related projects, including habitat banking.

Common standards for the socially responsible investment (SRI) market are creating particular opportunities for the issuance of bonds relating to biodiversity conservation. The International Capital Market Association's Green Bond Principles³¹ initiative is gaining increasing recognition as a framework of minimum standards for the development of environmental bond schemes.

France's largest region, Region Île de France, made headlines in 2012 with the launch of its €350m Sustainable Bond as the first local authority in Europe to tap green bond investors. In 2014, a second issue of 12-year bonds (with a 2.375% coupon) under the scheme raised over €600m from investors across Europe.

Half the funds raised are directed towards environmental projects - including biodiversity conservation investments - with the remaining half spent on social projects, mainly in housing. The project-selection criteria were validated by the extra-financial ratings agency Vigeo, and projects have to meet 11 criteria in the areas of climate change, ecological transition, spatial planning, economic and sustainable land development and the fight against inequality. This transparent accounting system allows the local authority to report project performance to investors without adding to the costs of the scheme.

According to the local authority, one of the aims of the scheme was to demonstrate the viability of targeting the socially responsible investment market to meet municipal and local authority financing needs - one of the factors in favour of this scheme was Île de France's ranking as the most sustainable of 26 EU local authorities rated by Vigeo³².

NRW Bank, the development bank of Germany's North Rhine Westphalia region, has recently issued a €250m 4-year bond, the proceeds of which will go to financing environmentally friendly water and energy projects in the state. Particular areas of focus are river restoration, maintenance of fresh water supplies, improvement of river flood management and improvement and development of the region's biodiversity. A range of banks, fund managers and institutional investors within and outside of Europe have invested in the bond issue³³.

The Climate Bonds Initiative, together with the Global Canopy Programme, has recently piloted the Unlocking Forest Finance Programme with the Brazilian states of Acre and Mato Grosso, which aims to link opportunities for investing in sustainable land use, conservation and sustainable livelihoods at the sub-national level with international institutional investors. A range of international partners have participated in the programme, which is expected to be extended to Peru in the coming year³⁴.

³⁰ <http://www.greeninvestmentbank.com/>

³¹ <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/>

³² http://www.managenergy.net/lib/documents/1075/original_The_%C3%8Ele_de_France_Sustainable_Bond.pdf

³³ <http://www.climatebonds.net/2014/05/germanys-nrw-does-water-bond-eur250m-4yr-aaa>

³⁴ <http://www.globalcanopy.org/projects/unlocking-forest-finance>



Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to stimulate banking services that support biodiversity investments:

- Providing a clear link between 'pro-biodiversity' products and beneficiaries;
- Greater transparency in lending and investing criteria, and wider reporting of biodiversity impacts and dependencies by clients;
- Targeted support from governments to the financial sector (e.g. tax incentives for pro-biodiversity banking services).

3.3 EU grants and financial instruments

There is potential to leverage EU funds more effectively through co-financing or risk-sharing agreements.

Co-financing (linking LIFE 2014-2020 and other EU investments to other financing loans or grants) is a major focus of public support for biodiversity in the current EU budget, and a major element of the Europe 2020 and EU Biodiversity Strategies. Overall financial support for biodiversity will increase within the EU current budget cycle, but this is unlikely to counteract declining public investment in biodiversity and Natura 2000 in many Member States experiencing constrained fiscal conditions. As a result, there is a growing need to consider how LIFE funds can be matched with less conventional forms of biodiversity financing.

The EU Natural Capital Financing Facility (NCFF) currently being developed by the European Commission and the European Investment Bank represents a new and innovative approach to stimulating finance for natural capital projects.

The EU Natural Capital Financing Facility

The Natural Capital Financing Facility (NCFF), to be jointly administered by the European Investment Bank and European Commission, is a new financial instrument with a focus on risk-pooling of Natural Capital projects in the areas of PES, Green Infrastructure, biodiversity offsetting and pro-biodiversity business. The initial EUR 120m capitalisation of the fund represents a mix of existing LIFE resources with EIB capital, and this will be allocated in the form of direct and indirect lending in the region of EUR 5-12m per investment.

NCFF will provide direct loans and equity finance to projects, pool investment risk through co-financing and provide technical and business development expertise to project developers. As with other instruments such as the Risk Sharing Instrument (EIB) and Horizon 2020 (EC), the aim is to develop the commercial applicability of projects by absorbing short-term investment risks. A key criterion for inclusion of projects within the NCFF Pipeline is that the project design needs to demonstrate either a viable revenue stream or cost savings to the beneficiary, which will support repayment of the finance provided.

It is envisaged that 9-12 projects will be financed under the NCFF within its initial pilot phase (2014-2017) across the 4 project categories. It is hoped that, by tackling market failures that constrain current finance for natural capital projects, the facility will demonstrate the viability of applying new financing models for biodiversity and ecosystems across the EU.

For some regions, the EU Cohesion Policy represents another source of financial support for biodiversity investments. Although the major focus of funds such as the European Regional Development Fund is on regional economic growth and employment, there is a growing emphasis on ecosystem-based solutions that emphasise the links between environmental management and sustainable regional development. Some Operational Programmes under the ERDF provide co-financing for Natura 2000 in this regard, and ERDF funding has been



used variously in management planning (e.g. Poland) or restoration (e.g. Hungary) of Natura 2000 sites³⁵. Based on the underlying principles of the Cohesion Policy, the less-developed areas of the EU receive the majority of ERDF Funding. Several of these regions host a high percentage of priority species, habitats and ecosystems, and thus have considerable scope to benefit from applications of ERDF funding to biodiversity projects³⁶.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further enhance EU support for biodiversity investments:

- Targeting co-financing investment where biodiversity and economic development returns may be greatest;
- Stronger integration of financial and business planning across biodiversity projects;
- Wider use of public funds to 'scale up' existing projects and lock in private finance;
- Activities to raise awareness of opportunities for biodiversity finance through the EU budget.

3.4 Partnerships with the public, private and NGO sectors

A range of civil society organisations are providing finance and loans to support conservation projects.

Organisations with direct or indirect interest in biodiversity protection are increasingly stepping in to deliver financial support (loans or equity finance) to projects that may be difficult or costly to finance through conventional means.

For example, the International Union for the Conservation of Nature (IUCN) has developed several funds that provide support for conservation priorities. One of these, the European Conservation Farming Initiative provides debt, equity and guarantees in collaboration with existing financial institutions to support development of organic farming projects, with a focus mostly on Central and Eastern Europe³⁷.

Philanthropic organisation Rural Investment Support for Europe (RISE) provides technical and financial support to pilot projects which bring innovative solutions to a variety of rural development and agri-environment issues. A major focus of the organisation's work is linking project development to potential public and private sources of financing, and the RISE has acted as lead partner in a number of LIFE+ financed projects linking biodiversity to agri-environmental measures and public goods. The organisation also provides some small direct financing for feasibility and demonstration projects, so as to attract other forms of financing, and is closely involved in the development of habitat banking systems as a potential source of financing for biodiversity conservation³⁸.

Fauna & Flora International is developing a small fund to provide loans to small projects relating to biodiversity conservation. These loans will have more favourable terms for the projects by use of different assessment criteria than commercial loans³⁹, and provide an intermediary between impact investors and green entrepreneurs.

La Pedrera Foundation (formerly Fundació Caixa Catalunya) was created by the Caixa Catalunya Savings Bank in 1997 with the main aim to preserve, natural areas, biodiversity

³⁵ European Network of Environmental and Managing Authorities (2013) Position Paper on 2014-2020 Cohesion Policy and Biodiversity <http://ec.europa.eu/environment/integration/pdf/ENEA%20BiodivFINAL%2002042013.pdf>

³⁶ SURF Nature (2012) Handbook on financing biodiversity in the context of the European Fund for Regional Development http://www.ieep.eu/assets/1004/SURF_Handbook.pdf

³⁷ www.iucn.org

³⁸ <http://www.risefoundation.eu>

³⁹ <http://www.fauna-flora.org/initiatives/innovative-finance-instruments/>



and landscapes, as well as raise public awareness of conservation. LPF is engaged in acquisition of land in Catalonia and Spain to establish a network of protected areas, which are managed by the fund together with NGOs and local authorities. It is the largest private landowner in Catalonia and 99% of its property is included in the Natura 2000 network. LPF also supports land stewardship agreements on 159,000ha of private land. The foundation provides financial and technical support to biodiversity projects being implemented by international institutions worldwide, and carries out various educational programmes to develop and enforce environmental values in society. It has recently introduced a programme relating to protection of flagship species such as the Iberian Lynx. As a result of this programme, a number of iconic species have also been reintroduced to the region⁴⁰.

Rabobank, the World Wildlife Fund, Delft University of Technology and Wageningen University jointly created the Dutch Greentech Fund⁴¹. The Fund is investing in promising Dutch technology start-ups that use innovative technologies or processes that make the chain from raw material to end product more sustainable. The related focus is on agriculture, food production and hydro, wind and bio-energy, with links to biodiversity conservation through sustainable production processes.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to develop public–private partnerships that support biodiversity investments:

- Leveraging the technical expertise of the conservation community to support private sector investments and philanthropic activities
- Collaborative actions between civil society, authorities and the private sector through land trust models
- Further development of advisory role for NGOs relating to project financing (particularly EU grant application processes for small conservation projects).

3.5 Specialist funds

Governments are increasingly recognising the influence of specialist funds on biodiversity and are developing schemes to incentivise their growth.

According to a recent study, the current financial need to support global conservation efforts is approximately \$300 billion per year. However, only about \$51 billion is devoted to these activities annually, primarily from public and philanthropic sources⁴². Stepping up investment in conservation thus implies an expanded role for private finance, which is often difficult owing to the technical nature of the investments and lack of investor familiarity with the asset class.

In recognition of the unique challenges of investing in pro-biodiversity projects, a range of organisations are developing specialist products for investment, drawing on their specific conservation expertise and links with the financial sector. Nonetheless, there is a need to think creatively about how to address some of the practical barriers to investors, such as the relatively high levels of investment risk.

B@B Platform Members are pioneering new funds and mechanisms for securing finance, building on emerging approaches such as impact investing.

⁴⁰ <http://www.countdown2010.net/article/success-story-of-the-day-fundacio-caixa-catalunya>

⁴¹ <http://www.dutchgreentechfund.nl/>

⁴² McKinsey and Company (2014) Conservation Finance: Moving Beyond Donor Financing towards an Investor-driven Approach https://www.credit-suisse.com/responsibility/doc/conservation_finance_en.pdf



The Nature Conservancy's NatureVest programme will capitalize on the growing impact investment sector to create a platform to advance investment in conservation. Together with JPMorgan Chase & Co., TNC will convene investors; develop and execute innovative financial transactions; and continue to build an investment pipeline across multiple sectors, including agriculture, fisheries and environmental markets.

The Nature Conservancy first entered the impact investing market in 2012 with the Conservation Notes. The \$25 million offering was the first investment-grade retail product focused on conservation. Structured as general obligation debt of the Conservancy, the Notes carry an Aa2 rating from Moody's ratings service. Sold direct with no custodian and limited sales staff, the Notes were accessible to only a small segment of the retail investor market; nevertheless, the offering was fully subscribed. Investors responded strongly to the Conservancy brand, and the confidence it offered that proceeds from the Notes would be used for conservation outcomes. At the same time, investors expressed interest in opportunities to invest directly in specific assets — fisheries, floodplains, forests and more.

NatureVest's first research product will be a report on how conservation can be advanced through markets. The report will, for the first time, quantify the size of the market for conservation impact investing, with specific focus on market segments, transaction participants, and deal types. The report, to be released in autumn 2014, will be written in collaboration with JPMorgan Chase, EKO Asset Management Partners and supported by the Gordon and Betty Moore Foundation and the David and Lucile Packard Foundation. The paper is designed to help investors and other stakeholders better understand current opportunities and identify potential future prospects. In addition to its role in the research, EKO Asset Management, an environmental investment and consulting firm, is also providing consulting services on the design and execution of the NatureVest strategy.

The Verified Conservation Area (VCA) Platform provides a public service to facilitate market-based investments for positive biodiversity outcomes on the ground. VCAs are intended to offer a transparent and accountable way to care for the planet, enabling companies, public agencies, NGOs, foundations, and individuals to invest directly in verified conservation. The VCA Registry with its Standard and Toolkit has been fully operational since May 2014. There are now 15 Proposed VCAs listed on the website including one in France and several with the involvement of European-based stakeholders. VCAs are required to publicly list an audited conservation management plan and annual audited conservation performance reports to demonstrate how the area is being managed positively for biodiversity. Outcomes can be at the landscape/ecosystem level or at the habitat/species level and they can include both restoration/conservation and the sustainable provision of goods and services including ecosystem services.

For it to scale up and become sustainable, the VCA Platform is seeking enabling investment for its upcoming implementation phase. Over time this will be complemented by fees from the services of the Platform to assist in conservation planning, financial planning, and brokering blended investments in VCAs. The Platform has identified opportunities for a wide range of innovative direct investments in positive area-based conservation management, including conservation performance funds, crowd funding platforms for conservation, payments for biodiversity and ecosystem services including offsets, investments in VCA properties and production systems, grants for VCA portfolios such as endangered species habitats or wetlands restoration, and fiscal reforms to direct area-based subsidies to accountable conservation outcomes.

Many national governments are taking steps to incentivise the growth of specialist financial products that can contribute to pro-environmental outcomes.

Green bonds and forest bonds are being actively promoted by a number of governments, with Ireland recently becoming the first country to provide tax incentives for forest bonds⁴³. Development of markets for combined carbon sequestration and conservation services also

⁴³ <http://www.irish-forestry.ie/>



looks set to grow with the emergence of instruments such as the UN REDD+ programme⁴⁴. Asset management and advisory firm Climate Change Capital⁴⁵ is also undertaking a programme on Green Bond finance for forestry conservation which will try to link private sector capital investment with donor nation payments for realisation of conservation.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to specialist funds that support biodiversity investments:

- Linking reputational value and brand recognition (e.g. for conservation bodies) to financing instruments to add credibility;
- Targeted regulatory and tax incentives from governments to facilitate private sector investments in conservation actions;
- Building coalitions of interest between the investment community, other businesses, public authorities and NGOs; and
- Building synergies between existing standards, certification and other market-based schemes.

⁴⁴ <http://www.un-redd.org/aboutredd/tabid/102614/default.aspx>

⁴⁵ <http://www.climatechange-capital.com/>

4 Finance sector champions

Whilst direct lending for biodiversity projects by financial institutions accounts for a limited proportion of financial markets, retail and investment banks as well as institutional lenders are increasingly applying sustainable investment criteria to their loans that incorporate impacts on biodiversity. The International Finance Corporation's Performance Standard 6 (relating specifically to impacts on biodiversity and natural resources) is a key example.

Access to reliable information relating to biodiversity impacts is a growing priority for lenders, but there is scope for leading financial institutions to work more closely with governments and conservation organisations so as to maximise the value of their data and accounting activities relating to biodiversity. There is also a growing need to work within and across industrial sectors so as to address industry-specific risks and opportunities relating to biodiversity, whilst avoiding the proliferation of competing reporting standards.

Various elements of the financial sector have different roles to play in championing biodiversity. The development of common standards rewards 'first movers' in the financial sector providing support or advisory services to pro-biodiversity business- providing a reputational 'carrot' to the 'stick' of tougher regulation and driving up biodiversity performance across the sector as a whole. Advisory services are emerging to help would-be investors navigate the complexity of biodiversity investing, whilst specialist insurance products allow businesses to address growing liabilities relating to biodiversity loss.

At a higher level, forward-thinking organisations are increasingly grouping together within associations to promote greater transparency within and between financial institutions relating to biodiversity, whilst a number of major stock market indices are launching specialist biodiversity metrics so as to better inform investors on the exposure of their investments to biodiversity related risk. Many firms are pre-empting such moves through voluntary reporting of their biodiversity activities through recognised standards or accounting frameworks- often, this is seen as a useful aid to internal communication and continuous improvement as well as an external communication tool.

4.1 Standards

Financial sector standards are playing an increasingly influential role in biodiversity protection.

Organizations such as the United Nations Environmental Programme (UNEP), the World Business Council on Sustainable Development (WBCSD) and the World Resources Institute (WRI) work on instruments and standards that support the integration of biodiversity in the decision-making of companies, such as the TEEB for Business⁴⁶ and the Corporate Ecosystem Services Review⁴⁷. The WBCSD signals an important role for banks and accountants as change agents in the transition to the incorporation of natural and social capital in the governance of companies. And financial institutions are beginning to realise that companies that have a good biodiversity policy have less financial risk and are also performing better on financial indices. This is why several major leaders in the sector have joined the Natural Capital Declaration (NCD), Natural Value Initiative (NVI) and/or the UNEP-Finance Initiative.

Industry initiative such as the Banking Environmental Initiative are also emerging, and working to promote greater transparency and good practice through the use of verification standards⁴⁸.

⁴⁶ <http://www.teebweb.org/areas-of-work/teeb-for-business/>

⁴⁷ <http://www.wri.org/publication/corporate-ecosystem-services-review>

⁴⁸ <http://www.beiforum2014.com/latest-news/first-banks-sign-up-to-the-beis-soft-commodities-compact>



B@B Platform Members are leading in the development of financial lending standards which are driving improvements in performance relating to biodiversity

Banks and commercial lenders such as ABN AMRO have developed biodiversity-related lending or investment criteria⁴⁹, in many cases through partnership with civil society. As regulatory, physical and reputational risks relating to biodiversity increase, adoption of such criteria looks set to grow, and this will increase the favourability of lending to biodiversity projects. Sector-wide initiatives such as the UNEP Finance Initiative are rapidly expanding and provide assurance to consumers and investors⁵⁰.

Use of recognised 'best practice' such as the Business and Biodiversity Offset Program (BBOP)⁵¹ as well as company-specific offset initiatives is expanding, as institutions such as the International Finance Corporation and European Investment Bank adopt mandatory offset requirements. The European Centre for Nature Conservation's European Biodiversity Standard is an example of effective public-private partnership that certifies companies according to biodiversity criteria, providing assurance to lenders that key biodiversity concerns have been addressed

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further develop biodiversity-related standards:

- Harmonisation of lending or investment criteria against recognised standards to accelerate uptake and add credibility;
- Wider input from the financial community (alongside the conservation community) in the development and refinement of standards.

4.2 Insurers

With growing recognition of biodiversity as an economic good, insurance firms are beginning to develop products that address some of the unique challenges of securing against the loss of biodiversity.

The complexity of biodiversity presents substantial challenges for insurers with regard to understanding risks to biological resources. Uncertainties relating to the scale or likelihood of the loss of biodiversity, or relating to the baseline condition of species prior to impacts, far exceed the levels of uncertainty that insurers or reinsurers are accustomed to dealing with. Nonetheless, a number of companies have begun selling specialist insurance products in the context of EU regulation relating to biodiversity.

A key regulatory development in the EU has been the introduction of the Environmental Liability Directive - which makes 'operators' responsible for the environmental damage they cause to the ability of species 'to maintain favourable conservation status'. Although the majority of ELD claims have been made against damage to water and land, in Germany most claims have related to biodiversity damage. In such instances, the costs of remedial measures (i.e. compensatory or complementary remediation) have ranged from €12,000 to €250,000, according to one study⁵². Such requirements reflect the cost of the loss or damage of biodiversity to society and incentivise more responsible stewardship of the natural environment.

⁴⁹ <http://www.abnamro.com/en/Sustainability>

⁵⁰ <http://www.unepfi.org/psi/the-principles/>

⁵¹ www.bbop.forest-trends.org

⁵² http://www.aig.co.uk/chartis/internet/uk/eni/ELD%20REPORT_tcm2538-379928.pdf



Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further develop biodiversity-related insurance products:

- Businesses with a high biodiversity impact could consider environmental liability insurance pools as a cost-effective form of insurance;
- Regulators could explore the potential to link compensatory measures to ecological networks and species protection objectives ('trading up') similar to current discussions surrounding biodiversity offsetting.

4.3 Advisory services

Financial institutions are building advisory capacities in areas relating to biodiversity protection.

In recognition of the need for specialist knowledge in investments relating to biodiversity, many financial institutions are developing internal or external advisory services, often in cooperation with conservation organisations and civil society.

B@B Members are engaging in inter-industry collaborative actions to build capacities in biodiversity issues.

One example of effective capacity-building in the financial sector is **Community of Practice-Financial institutes & Natural Capital**. The ASN Bank (initiator of the CoP and founding member of the Natural Capital Declaration) has elaborated investment criteria for biodiversity in its issue paper *Biodiversity*⁵³, which it applies for all its investment policies. Sectors that have a negative impact on biodiversity are excluded or are required to show more engagement. However, the bank has not yet established policy which takes into account the positive impact of companies on biodiversity. The ASN Bank wishes to develop such a policy together with other financial institutions interested in making a positive impact on natural capital. The main goal of the CoP Financial Institutes & Natural Capital is to increase knowledge for financial institutes when evaluating investments or developing new (insurance) products. Participants share their best greening practices with each other by exchanging knowledge and experience in private meetings. Participants also take turns hosting the meetings at a location that illustrates their financial practice concerning natural capital.

Such communities of practice (CoP) can accelerate the process in this early stage of development of a new topic within sustainable development such as biodiversity. A CoP can support implementation at a strategic level and in practical products by sharing knowledge and experience. A CoP can also help to identify opportunities and bottlenecks in policy, and can organize better communication with governments: regulatory and policy support can accelerate dissemination of information.

Sumitomo Mitsui Trust Group, led by Sumitomo Mitsui Trust Bank, has been a leader in the development of financial products targeted at Natural Capital, through a trust model and offers a diverse portfolio of financial products linked to Natural Capital. Whilst some financial institutions have developed risk screening profiles for biodiversity-related investments and general commitments to investment in green opportunities (for example, signatories to the Natural Capital Declaration), few lending institutions have developed the specialist capacities to invest directly in complex natural capital projects - needs which have been met primarily through public finance and some venture capital. As an institution with specific expertise in

⁵³ <https://www.asnbank.nl/web/file?uuid=760e2f4f-c742-40c9-82dc-f7d4204f9d0b&owner=9ccef6a9-c451-451a-963a-e931fe46c086&contentid=2214>.



these areas, SMTG is well-placed to capitalise on growing demand for investment in ecological goods and services.

Conservation group **WWF** has recently collaborated with China Banking Regulation Commission (CBRC), who together with major banks gave their joint commitment to calling for green credit standards in China. Enabling banks have advantages in facilitating loan approval procedures that relate to biodiversity, green infrastructure, and ecological systems. Twenty-nine leading Chinese banking financial institutions, including China Development Bank, the Import and Export Bank of China, and the Industrial and Commercial Bank of China, signed a joint commitment to implement the Green Credit Guidelines in November 2013. Benefits to business from these initiatives relate to continuous improvement of environmental and social performance, as well as developing opportunities for enterprises engaged in nature enhancement opportunities in line with government policy. The Green Credit Guidelines will help build capacities, allowing financing institutions to take advantage of growing opportunities associated with nature protection, as well as making strategic investments in efficiency measures.

Other financial institutions are engaging with the conservation community to develop staff capacities and innovative programmes relating to biodiversity.

Biodiversity for Banks (B4B) is a capacity-building initiative administered by the World Wildlife Fund, the Equator Principles Association and the Business and Biodiversity Offsets Program, designed to help financial institutions overcome the challenges of incorporating biodiversity and ecosystem services into lending decisions and to raise greater awareness of these issues. The B4B program includes a web-based resource centre, a training course delivered during regional workshops and a series of case studies addressing different sectors and geographies, and has attracted a range of international banks such as Citi Group⁵⁴.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further develop advisory services:

- Programme-level initiatives to promote dissemination and discussion of challenges and opportunities;
- Linking advanced CSR reporting to commercialisation of best practice through advisory services (e.g. SMTB); and
- Internal company capacity-building and training measures.

4.4 Reporting

Reporting and transparency are assuming increasing importance as awareness of biodiversity impacts increases.

B@B Platform Members are providing leadership in the mainstreaming of biodiversity and Natural Capital reporting systems within the financial sector.

Sumitomo Mitsui Trust Group been a leader in the development of financial reporting products targeted at Natural Capital. The Group recently published its 2013 CSR Report, which outlines the range of activities linked to natural capital that it supports. It also published a detailed Natural Capital Report, which outlines specific impacts and investments related to ecosystems and natural capital. The Group also undertakes Natural Capital Valuation activities. This expertise can have wider applications, for example The Natural

⁵⁴ Equator Principles Association (2014) Biodiversity for Banks Program <http://www.equator-principles.com/index.php/best-practice-resources/b4b>



Capital Efficiency Index is used as the standard to measure degrees of risk response readiness in companies based on the relationship between their sales and their footprints (involving energy, water, and waste with an emphasis on their material balance reports).

Benefits for biodiversity relate to the provision of detailed guidance and analytics for identifying biodiversity dependencies within investment screening and resource planning processes - thus highlighting the need for minimising impacts on biodiversity, incentivising investments, and generally raising awareness of biodiversity issues amongst decision-makers.

Natural Capital Valuation can be an important starting point for incentivising investment in pro-biodiversity business activities. Further use of EU certification systems for risk profiling of investments (e.g. EMAS) could be pursued in line with the use of international reporting and certification standards. The recent adoption by the European Parliament of the *Directive on Disclosure of Non-financial Reporting by Large Companies and Groups*⁵⁵ will require companies with more than 500 employees to analyse and report policies, risks and results relating to environmental matters. It is suggested that companies should adopt established reporting systems such as the GRI to lessen the burden of these activities, but further development of biodiversity metrics and indicators within existing standards may be necessary to ensure comprehensive assessment of biodiversity-related performance is undertaken.

Reporting systems are incorporating increasing ecological and scientific rigour.

Established reporting systems such as the Global Reporting Initiative⁵⁶ are increasingly complemented by indicators providing specific information relating to organisational impacts on biodiversity and ecosystems such as the Ecosystem Services Benchmark. Environmental Profit and Loss Accounts, as recently calculated for Puma by TRUCOST, are attracting significant interest as a means to maximise internal and external transparency⁵⁷, although data collection and monitoring requirements for such balance sheet accounts may be beyond the capacities of many organisations at present.

The work of the Natural Capital Declaration has been highly influential in establishing and mainstreaming common standards on biodiversity and Natural Capital reporting. The NCD's specific working group on *Accounting for Natural Capital*⁵⁸ seeks to develop a standard framework for analysing impacts, benefits and dependencies on Natural Capital at the company and portfolio level in order to ultimately apply this to balance sheets. Signatories to the working group include financial institutions such as Nedbank, BBVA, Kenya Commercial Bank, ASN Bank and Rabobank, as well as organisations such as the World Business Council for Sustainable Development and the European Commission (Directorate-General Environment).

The Biodiversity Indicators Partnership⁵⁹ is a global initiative designed to promote consistent monitoring and assessment of biodiversity in the context of the Aichi Biodiversity Targets. Partners involved in the development of indicators are drawn from across the scientific and conservation community, and include UNEP, WWF, Conservation International and the Convention on Biodiversity, and includes 12 headline indicators developed within the CBD Technical Group on Indicators. The partnership is actively looking to recruit new partners from the public, private and third sectors.

The **CDP** Forest Programme (formerly the Forest Footprint Disclosure Project) is a UK Government-supported initiative which engages with private sector companies to ask them to disclose their current understanding of their 'forest footprint' based on exposure to key

⁵⁵ Directive 2013/34/EU

⁵⁶ <https://www.globalreporting.org/Pages/default.aspx>

⁵⁷ <http://www.trucost.com/environmental-profit-and-loss-accounting>

⁵⁸ <http://www.naturalcapitaldeclaration.org/working-group-3/>

⁵⁹ <http://www.bipindicators.net>



commodities in their operations and/or supply chains⁶⁰. Reporting by the private sector has been strong, with a diverse range of sectors participating in the annual programme.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further develop biodiversity reporting:

- Strengthening transparency and validity of reporting through civil society scrutiny; and
- Expanding the scope of reporting across business activities over time to facilitate continuous improvement.

4.5 Associations of sustainable investors

Investors are increasingly grouping together to exert influence on the companies they invest in.

The Dutch Association of Investors for Sustainable Development (VBDO) has recently partnered with Flora and Fauna International to develop the Natural Value Initiative. The NVI aims to help financial institutions (and particularly, asset managers) better understand and address the biodiversity impacts and associated risks of the financial services they provide. To this end, the NVI has been heavily involved in the development of toolkits to enable asset managers to better understand the impacts of their investments and dependencies on ecosystem services and biodiversity - one key example is the Ecosystem Services Benchmark, developed in collaboration with tobacco, food and drink, oil and gas, and mining sectors. The NVI has also collaborated with a number of investors including Aviva Investors and F&C Investments in the development of its toolkits, reporting systems and guidance documents. Another project under the NVI is the Sustainable Seafood Finance Initiative, which provides a resource for banks (particularly, credit providers) and seafood companies to identify and address the sustainability risks within the sector. The SSFI encourages the use of practices in line with the Marine Stewardship Council (MSC) Standard.

UKSIF (UK Sustainable Investment and Finance Association) and its affiliate organisation EUROSIF are engaged in a range of activities relating to promoting CSR reporting by companies, including activities of relevance to biodiversity performance.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further develop consideration of biodiversity among associations of sustainable investors:

- Development of more targeted collaborations between conservation and financial communities, focusing on specific industries or conservation areas; and
- Development of specialist toolkits to support investors with specific industry interests.

4.6 Stock market indices

Market indices are increasingly incorporating biodiversity criteria.

⁶⁰ <http://www.globalcanopy.org/projects/cdp-forests-program>



Development of market indices represents a natural step in the communication and dissemination of biodiversity performance as an important aspect of company performance. However, as with certification systems, there has been a proliferation of different reporting systems and indices, which may lessen the validity of claims.

Examples of some CSR-focused indices with relevance to biodiversity performance include the FTSE4Good index, Global Compact 100 and SGI Global Environment Index.

Another notable example is the *Sustainable Stock Exchanges Initiative*. Currently, nine exchanges have become partner exchanges to the SSE initiative, including NYSE Euronext, NASDAQ OMX, BSE Ltd., the Borsa Istanbul Stock Exchange, BM&FBOVESPA, the Johannesburg Stock Exchange (JSE), the Egyptian Exchange (EGX), the Nigerian Stock Exchange and the Warsaw Stock Exchange. Major European stock exchanges are thus under-represented by international standards, and there may be scope to broaden participation in this Initiative as well as its focus on biodiversity performance.

Actions to promote further development

Responses from B@B platform members highlight the following actions that could be taken to further integrate biodiversity considerations into stock market indices:

- Harmonisation of market indices and reporting processes relating to sustainability; and
- Integration of specific biodiversity performance measures alongside other elements (e.g. carbon management).