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DRAFT GLOBAL MONITORING REPORT ON FINANCING FOR BIODIVERSITY

Note by the Executive Secretary

1. In decision IX/11, the Conference of the Parties requested that the Executive Secretary should prepare periodic global monitoring reports on the implementation of the strategy for resource mobilization, for consideration by the Conference of the Parties. The tenth meeting of the Conference of the Parties decided that the global monitoring reports on the implementation of the strategy for resource mobilization should be prepared in time for consideration by the Conference of the Parties at its ordinary meetings, with national and regional participation, and should provide essential information on the status and trends in biodiversity financing and help to disseminate funding knowledge and know-how as related to biodiversity (decision X/3, paragraph 5). The Conference of the Parties requested the Executive Secretary to prepare periodic global monitoring reports on the implementation of the strategy for resource mobilization (decision XI/4, paragraph 11), and welcomed the global monitoring report on the implementation of the strategy for resource mobilization and encouraged Parties to consider its findings (decision XII/3, paragraph 11).

2. The present draft of the monitoring report has been prepared in response to the set of messages from the Conference of the Parties. The first three sections provide essential information on the status and trends in international financial resource flows to biodiversity, as well as updates on major financial and development institutions. The remaining sections are focused on disseminating funding knowledge and know-how related to accessing resources available from the financial sector.

I. DEVELOPMENT ASSISTANCE MARKED FOR BIODIVERSITY

3. The Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) compiles data from member states regarding how much of their development assistance has biodiversity as either a principal or significant objective. The portion of total development assistance screened in this way has varied over time and by country.

4. Based on data accessed on 11 April 2016, over US$ 7 billion of development assistance screened for biodiversity objectives in 2014 had biodiversity as a principal or significant policy objective. The percentage of assistance screened, a measure of reporting efforts, also increased substantially, from 38% in 2006 to 87% in 2014.

* UNEP/CBD/SBI/1/1/Rev.1.

5. Using constant 2013 prices, and calculated assuming a constant screening rate (87%) and a constant proportion of screened aid having biodiversity as a principal or significant objective, total biodiversity aid in 2014 compared to the annual average for the period 2006-2009 would be estimated to have increased by 14.55%, with some 5.05% due to the overall increase in global official development assistance and the remaining 9.5% attributed to enhanced biodiversity efforts by donor countries and their development agencies. Annex I to the present note provides the methodology used here for estimating the contributions of each factor to the increase in total biodiversity aid.

6. Among member countries of the OECD/DAC Creditor Reporting System (OECD/DAC/CRS), several donor countries have more than doubled their international financial resource flows to biodiversity from the 2006-2009 average to 2014, and others have come close to doubling their flows. Sweden registered the highest percentage increase in amount of development assistance to biodiversity, followed by the United Kingdom of Great Britain and Northern Ireland, Norway, Austria, Denmark and France in descending order in terms of percentage increase in total amounts of biodiversity-related development assistance.

II. FINANCIAL AND DEVELOPMENT INSTITUTIONS FOR BIODIVERSITY

7. On 21-22 May 2015, on the occasion of the International Day for Biodiversity (IDB), the Executive Secretary convened the IDB Dialogue on International Financing for Biodiversity and Ecosystem Services as a global platform for key stakeholders and funding partners to share funding information, experiences and perspectives, including on pertinent funding programmes and initiatives and associated good practices and lessons learned, and on how to track and report biodiversity-related funding. Funding information from some 20 major donors and funding institutions, shown in annex II, has been updated and made available at https://www.cbd.int/financial/ibd2015.shtml, and nearly 7000 page views were done by a wide range of stakeholders in a period of just two days during 21-22 May 2015.

8. Information on World Bank support to biodiversity (https://www.cbd.int/financial/wb2015.shtml) provides a good example of how financial and development institutions have evolved their support over the past decades. The World Bank Group’s new Environment Strategy 2012-2022 explicitly recognizes that biodiversity loss and other factors increasingly threaten countries’ development efforts. Its biodiversity roadmap has outlined strategic priority actions for the World Bank Group (WBG) to support its clients in their quest to eliminate extreme poverty by 2030 and boost shared prosperity through the conservation and sustainable use of biodiversity, in four key areas: (a) addressing policy failures; (b) enhancing environmental governance and public sector capacity; (c) building resilience through investing in natural infrastructure across landscapes; and (d) generating financial flows. The WBG proposes a series of concrete institutional steps to support clients in developing solutions based on mainstreaming biodiversity across sectors, engaging upstream in investments, and leveraging knowledge and skills across the whole WBG. Other related policy statements include the WBG Agriculture Action Plan 2013-2015, Water Resources Sector Strategy 2003, Review and Update of the World Bank Safeguard Policies, Performance Standards on Environmental and Social Sustainability (January 1, 2012), and the IFC (International Finance Corporation) Sustainability Framework. Results include the following:

- Over the past decade (2004-13), the World Bank committed loans for US$ 31.8 billion, of which the IDA contribution was US$ 7.7 billion, to support investment in environment and natural resource management.

- The World Bank financed a portfolio of 243 biodiversity conservation projects worth over US$ 1.1 billion in the 10 years from FY2005 to FY2014. These projects have been undertaken in 74 countries with the majority in Africa and the Latin America and Caribbean region.

- The largest external source of financing for water projects (a total of US$ 7.5 billion in FY2011, comprising 53% for water supply and sanitation, 12.5% for irrigation and drainage, 23.5% for hydropower, and 9.9% for flood protection.

- In 2013, the World Bank Group had US$ 8.1 billion in new commitments to agriculture and related sectors, focused on five areas: raising productivity; helping farmers reach markets; reducing risk, vulnerability and inequality; improving incomes off the farm; and making agriculture more environmentally sustainable.

- The World Bank Group provided a total of US$ 11.3 billion in lending with mitigation and adaptation co-benefits in FY2014 (US$ 11.9 billion in financing including MIGA).

- The World Bank fund for the poorest countries, International Development Association (IDA), maintained a steady commitment to climate action, with about US$ 5 billion committed in FY2014.

- The World Bank and the IFC are among the world's largest issuers of green bonds. To date, the World Bank Treasury has issued more than US$ 8.2 billion in green bonds since 2008, in 18 currencies. The IFC has issued US$ 3.7 billion in green bonds.

III. EQUITIES AND EQUITY MARKETS

According to the World Monitoring Indicators (2015) of the World Bank, the number of companies listed in equity markets increased from 14,000 to over 44,000 in the period from the early 1970s to 2014, and their market capitalization rose from nearly US$ 1.2 trillion to over US$ 66 trillion (figure 1). At the same time, the percentage of market capitalization of listed domestic companies in the world's gross domestic product also increased from slightly over 20% to more than 85%. This rapid growth has happened against a backdrop of growing recognition of the unsustainability of the current economic growth path in both social and environmental terms. The listed companies and stock exchanges are considered as both contributors to the problem and potential partners in the solution.

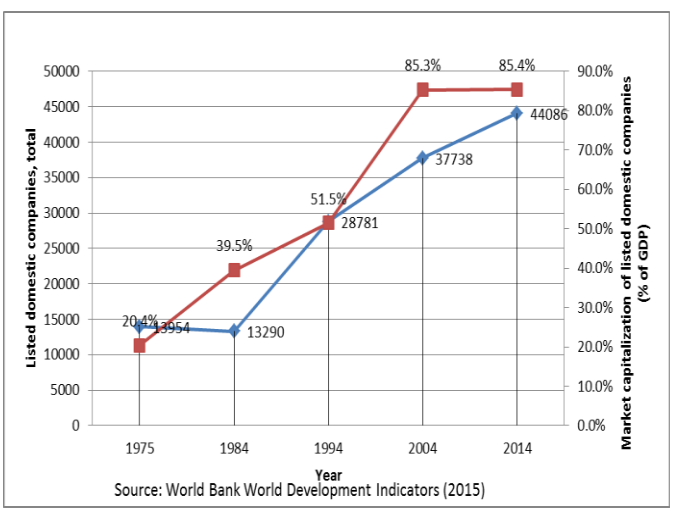

Figure 1. Growth of equity markets worldwide.

9. Examples of biodiversity-related initiatives in the equity sector include the following:

- In South Africa, the Code for Responsible Investing in South Africa (CRISA), effective in February 2012, provides guidance on how institutional investors should carry out their investment activities and use their influence to promote good governance. Since CRISA was launched, there has been a significant increase in the level of collaboration on company engagement. Under the country's Regulation 28, Integrated Reporting Standards (CRISA and the Johannesburg Stock Exchange ("JSE")) have influenced the level of investment that integrates environmental, social and governance (ESG) issues in its decision-making process, although more efforts need to be explored for the systematic integration of ESG issues into the entire investment processes and into value-creation models.[1]

- In France, public financial institutions such as the Caisse des Dépôts and Bpifrance are able to leverage regulated savings accounts and other sources of capital to provide financing in line with sustainability mandates. They have committed to mobilizing €15 billion by 2017 a towards low-carbon transition. Environmental, social and governance (ESG) reporting requirements were first introduced in the New Economics Regulation law of 2001, and were strengthened by the 2010 "Grenelle II" law and the 2015 Law on Energy Transition for Green Growth (EETG).[2]

- Indonesia's financial markets have seen a number of important design innovations over the past years aimed at encouraging green lending and investment, such as the development of sustainability ratings in its rapidly growing stock market. In December 2014, the Indonesia Financial Services Authority (OJK) launched a Roadmap for Sustainable Finance in Indonesia, which laid down a comprehensive work plan for promoting sustainable finance for the period 2015-2019. As part of this road map, OJK may develop a binding regulatory framework for green finance which, among other things, could include the establishment of compulsory environmental and social management systems and associated reporting in both banking and capital markets.[3]

- In India, the Federation of Indian Chambers of Commerce and Industry (FICCI) called for new policy and regulatory areas: development of equity tax credit and production tax credits; strengthening existing institutions such as the Indian Renewable Energy Development Agency to become green development financing institutions; deregulation to increase external commercial borrowing funding of green projects by exempting withholding tax, replacement of construction finance and refinancing and innovative solutions for hedging; inclusion of the renewable energy sector within the Priority Sector Lending (PSL) category requirements; and sharpening of the operation of the National Clean Energy Fund.[4]

- In China, a range of suggestions have been developed for the China Securities Regulatory Commission (CSRC) to simplify the IPO review and approval processes for green enterprises; require compulsory disclosure of environmental information by listed companies and bond issuers to increase the sense of corporate social responsibility, improve corporate environmental performance, incentivize investors to refrain from polluting investments and to strengthen green

[1] Naidoo, S. and Goldstuck, A. (2015). South Africa Financial Governance Innovations. Global Green Growth Institute/ UNEP Inquiry.

[2] Institute for Climate Economics (2015). France's Financial (Eco)system: Improving the Integration of Sustainability Factors. UNEP Inquiry Working Paper, November 2015.

[3] Volz, U. and Zadek, S. (2015). Indonesia - Towards a Sustainable Financial System. UNEP Inquiry/IFC/ASrIA. April 2015.

[4] FICCI (2014). Designing a Sustainable Financial System for India: Interim Report. UNEP Inquiry/Federation of Indian Chambers of Commerce and Industry.

investments; and create and promote green and sustainability indices.[5] The Shanghai Stock Exchange issued the SSE Guideline on Environmental Information Disclosure by Listed Companies in 2008, and the Shenzhen Stock Exchange released Social Responsibility Instructions to Listed Companies, Standard Operation Guidelines for Listed Companies in 2006 and 2010.

- Also in Indonesia, KEHATI and the Indonesia Stock Exchange (BEI) launched KEHATI SRI Index,[6] following the standards and regulations of Sustainable and Responsible Investment (SRI). The objective of the index establishment is to materialize biodiversity conservation programmes by raising awareness and consciousness of biodiversity among the public, business sector and capital markets, and to provide open information to aid the public at large in identifying the selected companies rated by the index. Twenty-five companies with the highest scores were declared eligible for inclusion in the KEHATI SRI Index.

- In the United States of America, in 2010, the U.S. Securities and Exchange Commission (SEC) published binding interpretative guidance requiring companies to analyse risks and opportunities related to climate change. If material, the SEC required companies to report in their annual 10-K filings how climate change could potentially affect their businesses. In the period following the release of the SEC guidance, there was a jump of 10% in the number of companies providing disclosures on climate change related risks.[7]

- In Japan, the Financial Services Agency (FSA) issued a Stewardship Code in February 2014; the Codehas been signed by over 100 institutional investors. The Code states that institutional investors should aim to “enhance the medium- to long-term return on investments for their clients and beneficiaries by improving and fostering investee companies’ corporate value and sustainable growth through constructive engagement, or purposeful dialogue”.[8]

10. The Principles for Responsible Investment (PRI) were launched by the United Nations in 2006, and assets under management by PRI signatories amount to more than US$ 59 trillion, up from US$ 4 trillion in 2006.[9] The PRI has been instrumental in raising awareness about responsible investment among the global investment community, increasing the level of transparency around the activities and capabilities of its signatories and fostering collaboration between them, and supporting their engagements with companies and policymakers on environmental, social and governance (ESG) issues. The United Nations Conference on Trade and Development (UNCTAD), United Nations Environment Programme Finance Initiative (UNEP FI), United Nations Global Compact, and the United Nations-supported Principles for Responsible Investment (PRI) co-convened the Sustainable Stock Exchanges (SSE) initiative in 2009. The SSE initiative has been working to engage exchanges in the dialogue on how to promote better markets through more sustainable business practices and responsible investment.[10]

11. UNEP has identified four key areas for aligning equity markets with sustainability: sustainability disclosure requirements for reporting on environmental performance and risks; deepening the use of sustainability data by investment analysts and in benchmarks and indices by encouraging greater

[5] China Green Finance Taskforce (2015). Detailed Recommendation 6: Create A Green IPO Channel; Detailed Recommendation 9: Create A Green Stock Index; Detailed Recommendation 14: Make Environmental Information Disclosure Mandatory.

[6] OJK (2015). Towards a Sustainable Financial System in Indonesia, April 2015.

[7] UN Principles for Responsible Investment (2015). The Case for Investor Engagement in Public Policy, March 2015.

[8] www.fsa.go.jp/en/news/pub/01.pdf.

[9] http://www.unpri.org/.

[10] http://www.sseinitiative.org/.

transparency in both equity analysis and indices; upgrading the capital-raising function of equity markets, for example by reducing the registration costs for "green IPOs" and ensuring that regulations enable innovative infrastructure investment vehicles such as green infrastructure investment trusts (yieldcos); and review of financial regulations to remove unintentional constraints on investments in sustainable infrastructure and optimize "blended finance" approaches to ensure that good value is obtained for public spending, and to develop best practices and expertise.[11]

IV. INSURANCE SECTOR

12. The insurance sector is related to the management of collective sustainable development challenges by risk carrying, risk management and institutional investment. Insurers help reduce risk through research, as well as advocacy and support at the local level. Insurance pricing and other policy terms and conditions can provide clear risk signals and reward risk reduction efforts. The insurance companies held US$ 31.1 trillion of funds under management at the end of 2014.[12] Approximately four fifths of the total was from long-term insurance policies. There are a growing range of initiatives by insurance companies and policymakers to harness insurance for sustainable development across the dimensions of risk, access and investment:[13]

- In Brazil, CNseg, the National Confederation of General Insurance, Private Pension and Life, Supplementary Health and Capitalization, implemented a decision to integrate key targets:[14] 40% of insurers will integrate environmental, social and governance (ESG) issues in risk underwriting policy; 30% of insurers have engagement programme brokers on ESG issues; 50% of insurers will integrate into their social responsibility policies the official policies of local, state and federal governments; 50% of insurers will report on ESG issues by 2015.

- In Saudi Arabia, insurance regulator SAMA requires companies to set up disaster risk management plans and disaster coverage within reinsurance arrangements in order to obtain licenses, in addition to requiring companies to set up disaster reserves.[15]

- In Germany, Allianz considers sustainability risks across insurance and investment areas, such as including ESG guidelines on sensitive business areas in insurance activities and the development of strategies to engage corporate customers on ESG issues, and integrating ESG risks into global training modules for underwriters.[16]

- In China, the Ministry of Environmental Protection regards insurance as "a social and market-oriented approach to reduce environmental pollution damage, and can help to push enterprises to enforce environmental risk management and lower the number of pollution accidents; it is also helpful to respond to pollution incidents promptly, as well as timely compensate and effectively protect the pollution victims", and the Guidelines on Pilot Projects of Compulsory Environmental Pollution Liability Insurance were issued to help local governments develop and

[11] UNEP Inquiry (2015). The Financial System We Need: Aligning the Financial system with Sustainable Development. October 2015. Geneva: UNEP.

[12] TheCityUK (2015). UK Fund Management: an attractive proposition for international funds, November 2015.

[13] Bacani, B., McDaniels, J. and Robins, N. (2015). Insurance 2030: Harnessing Insurance for Sustainable Development. UNEP Inquiry Working Paper. UNEP Inquiry/PSI.

[14] CNSeg (2015). "Pesquisa da CNseg revela comprometimento das seguradoras com PSI" CNSeg Press Release, December 2014. http://sustentabilidade.cnseg.org.br/?p=3839.

[15] Bacani, B., McDaniels, J. and Robins, N. (2015). Insurance 2030: Harnessing Insurance for Sustainable Development. UNEP Inquiry Working Paper. UNEP Inquiry/PSI.

[16] Allianz (2015). ESG in Underwriting. Allianz website. https://www.allianz.com/en/sustainability/sustainability_at_allianz/insurer/esg_in_underwriting.html/.

test schemes for compulsory environmental pollution liability insurance in high-environmental-risk industries such as metals and petrochemicals.

13. The UNEP Principles for Sustainable Insurance (PSI Initiative) was launched at the 2012 United Nations Conference on Sustainable Development, to serve as a global framework for the insurance industry to address environmental, social and governance risks and opportunities. As of July 2015, 83 organizations have adopted the Principles, including insurers representing approximately 20% of world premium volume and US$ 14 trillion in assets under management. The Principles are part of the insurance industry criteria of the Dow Jones Sustainability Indices and FTSE4Good.[17]

14. UNEP has identified three key policy packages for the insurance sector:[18] close the protection gap for effective insurance protection against natural hazards through tailored mixes of fiscal support, policy directed provision and purchase with regulatory concessions and market development; calibrate prudential governance to better reflect long-term economic and environmental realities and explore how to explicitly integrate long-term risk factors such as climate change and biodiversity loss into prudential reviews; bridge the sustainability frameworks for underwriting and investment by incorporating sustainability into the implementation of the international Insurance Core Principles.

V. BANKING SECTOR

15. Banks play a critical role in allocating credit to households and enterprises, and in originating loans that can be bundled into products for long-term holders of assets. With an aggregate balance sheet of US$ 135 trillion, banks hold over 45% of global financial assets and in most developing countries, the financial sector is bank-dominated. In Bangladesh, for example, 62% of assets are held by private commercial banks, 26% by state-owned commercial banks and 6% by state-owned development finance institutions, and 6% by foreign commercial banks.[19] There are around 750 national development banks[20] in the world, with varying regional distribution, different characteristics and mixed forms of ownerships, private, public and mixed, and the national development banks in G20 countries have combined assets exceeding US$ 3 trillion.

- In the Netherlands,[21] the ASN Bank aims to be climate neutral with all its investments by 2030. The development bank FMO has set an objective for 2020 to double its impact and halve its carbon footprint. Rabobank targets a sustainable food system. APG has committed to doubling its renewable energy investment by 2017. Dutch banks, like ABN AMRO Bank and ING, are increasingly integrating environmental, social and governance issues into their credit decisions and risk models, defining an ESG-risk appetite, moving away from excluding the worst offenders to recognizing the sustainability leaders. The Green Funds Scheme, a tax incentive scheme, was launched in 1995 to encourage individual investors to put money into projects that benefit nature and the environment. With technical and financial conditions to provide a significant and immediate environmental benefit, these projects range from environmentally friendly greenhouses and wind turbines to organic farming and afforestation. Individuals who invest in a green fund receive a lower rate than the market interest rate (generally 1% lower), and this is

[17] http://www.unepfi.org/psi/.

[18] UNEP Inquiry (2015). The Financial System We Need: Aligning the Financial system with Sustainable Development. October 2015. Geneva: UNEP.

[19] The Bangladesh Bank (2015). Designing a Sustainable Financial System in Bangladesh, Summary Briefing, October 2015.

[20] Centre for International Governance Innovation (CIGI) (2015). The Role of Policy-Driven Institutions: Developing National Financial Systems for Long-Term Growth, August 2015.

[21] Sustainable Finance Lab (2015). Design of a Sustainable Financial System, Netherlands Input to the UNEP Inquiry, October 2015.

compensated by the tax advantage. The Dutch Ministry of Housing, Spatial Planning and the Environment found that in 2010 alone around a quarter of a million investors put up €7 billion, enabling 6,000 green projects to be funded.

- In South Africa, the fees on entry level savings and transaction accounts eroded the value of the deposits, and the National Bank Account or Mzansi account was established to promote inclusive banking. The banks (ABSA, FNB, Nedbank, Standard Bank and Postbank), accounting for some 84% of deposits and 90% of loans, agreed not to charge a monthly service fee on such accounts.[22]

- France[23] introduced mainstream ESG reporting for financial institutions in 2010 through the adoption of the Grenelle II law addressing a broad range of environmental issues, with Article 224 requiring asset managers to report annually on how they include Environmental, Social and Governance criteria in their investment strategy and the management of their funds. These requirements were subsequently outlined in the Monetary and Financial Code (Article L533-22-1), the Commercial Code (Article L225-102-1) and in the corresponding secondary legislation (n° 2012-132). The Caisse des Dépôts et Consignations, a French public financial institution created in 1816, announced in 2015 its dedicated strategy on climate change issues and the broader ecological and energy transition.

- Bangladesh has developed a suite of green banking regulations and policies including concessional green refinancing, credit quotas for green finance and guidance and requirements on environmental due diligence.[24] The country disbursed US$ 13 million of green refinancing during FY10-FY14, US$ 0.5 billion of loans to key green sectors in 2014, US$ 4.5 billion of loans to industrial facilities with effluent treatment in 2014 (“indirect green financing”), and US$ 20 billion of loans to high impact sectors where environmental due diligence had been carried out. In 2011 the Bangladesh Bank issued Policy Guidelines for Green Banking.

- Two court decisions in Brazil pointed to the attribution of strict and joint liability to institutions that finance projects that cause environmental damages.[25] In 2003, a public civil action, on earthwork removal and potential buildings on the mangrove, and characteristic reforestation of the mangrove, involved the chain of causation established between the financial institution and the environmental harm. In 2006, in an ordinary action on redressing environmental damages caused by the mining company Companhia Mineira de Metais, the court determined that, if there is proof the financing institution was aware of the environmental harm or of the beginning of the existence of environmental harm, and still granted intermediate or final parcels lending resources for the mining project, the financing institution will be jointly liable along with the other defendants for the damages caused to the environment.

- The Brazilian Central Bank (BACEN) issued several Resolutions and Circulars that directly regulate topics related to socioenvironmental aspects.[26] Resolution 3545/2008 requires financial institutions to demand from credit borrowers of the Amazon biome documentation proving environmental compliance. Resolution 3813/2009 links agroindustrial credit to the

[22] Centre for International Governance Innovation (CIGI) (2015). Lessons from Inclusive Banking Experiments in South Africa and Kenya, August 2015.

[23] I4CE (Institute for Climate Economics) (2015). France’s Financial (Eco)system, November 2015.

[24] The Bangladesh Bank (2015). Designing a Sustainable Financial System in Bangladesh, Summary Briefing, October 2015.

[25] Center for Sustainability Studies at Getulio Vargas Foundation (GVCes) (2015). The Brazilian Financial System and the Green Economy - Alignment with Sustainable Development, April 2015.

[26] Center for Sustainability Studies at Getulio Vargas Foundation (GVCes) (2015). The Brazilian Financial System and the Green Economy - Alignment with Sustainable Development, April 2015.

agroecological zoning for expansion and industrialization of sugar cane, and prohibits financing for crop expansion in the Amazon and Pantanal biomes, as well as in the Upper Paraguay River Basin, among other areas. Resolution 3896/2010 establishes the Program for Reducing Greenhouse Gas Emissions ("ABC Program") in the Brazilian Development Bank (BNDES) framework. Resolution 4008/2011 rules on the financing of projects aiming at climate mitigation and adaptation, backed by resources from the National Plan for Climate Change (FNMC). Circular 3547/2011 requires that the institution demonstrate how it considers the risk of exposure to socioenvironmental damages in its assessment process and in the calculation of capital needed for risks. Resolution 4327/2014 requires financial institutions under its regulatory jurisdiction to have a Socioenvironmental Responsibility Policy, as well as a governance structure for these aspects, a socioenvironmental risk management system and an action plan for the adequate monitoring and mitigation of these risks. Article 29 of the New Forest Code (Law 12651/2012) introduces the Rural Environmental Registry (CAR), and Article 78-A states that five years from the date of the publication of the Law (17 October 2017, accordingly) financial institutions will only concede agricultural credit of whatever modality to property owners whose rural properties are registered in the CAR. Brazilian banks in general have developed cross-cutting and comprehensive policies for considering socioenvironmental aspects in the processes for accepting new clients, credit limit evaluations and granting and monitoring of these loans.

- Indonesia's financial system is dominated by banking, which accounts for 79.8% of total assets, compared to 10.5% of assets held by insurers, 2.6% by pension funds and 6.4% by finance companies.[27] There are already some flows of private green investment—for example, a review by Bank Indonesia of green financing by banks found that green investment in May 2013 was about US$ 1 billion, which is already equivalent to a significant portion of the public budgets allocated to green relevant line ministries. Bank Indonesia Act 10/1998 obligates banks to conduct an environmental impact assessment for large loans or high risks loans. In January 2005, Bank Indonesia issued Regulation No. 7/2/PBI/2005 on Asset Quality Rating for Commercial Banks, where Article 11.1.e requires banks to appraise the "measures taken by the debtor to conserve the environment" as part of an assessment of the debtor's business prospects. In 2010, the Governor of Bank Indonesia and the State Minister of the Environment signed a Joint Agreement on Coordinating the Increased Role of Banking in Environmental Conservation and Management.

- In China, the Research Bureau of its central bank suggested the establishment of the China Ecological Development Bank[28] to create long-term and reliable funding sources for green loans, raise and steer private capital for developing green industries, create investment constraint and risk responsibility mechanisms, increase investment return, and promote the sustained, rapid and healthy development of green industries. In 2012 the China Banking and Regulatory Commission (CBRC) introduced its Green Credit Guidelines, requiring banks to ensure that environmental assessments are in place for projects using bank loans, and requiring banks to develop green credit products that support the country's environmental protection goals. This development was a response to the lack of compliance with a Green Credit Policy launched in 2007.

16. UNEP has identified policy packages that could be taken to align banking to sustainability:[29] extend risk-based governance to take environmental and social factors into account risk management and

[27] OJK (2015). Towards a Sustainable Financial System in Indonesia, April 2015.

[28] Research Bureau of the People's Bank of China (2015). China Green Finance Task Force Report: Green Banking System, April 2015.

[29] UNEP Inquiry (2015). The Financial System We Need: Aligning the Financial system with Sustainable Development. October 2015. Geneva: UNEP.

due diligence; improve access to sustainable lending with such instruments priority lending requirements, below-market rate finance via interest-rate subsidies and central bank refinancing operations and variations in capital requirements for certain classes of lending; and align banking culture and structure by looking at underlying skills, values and market composition the sector.

VI. INSTITUTIONAL INVESTMENT

17. Global institutional investment totals around US$ 100 trillion.[30] In 2013, investment funds, insurance company pension funds, public pension reserve funds and "other funds" accounted for total assets of US$ 92 trillion. Global assets managed by sovereign wealth funds amount to a further US$ 7.4 trillion. Sovereign wealth funds and other institutional investors from emerging markets, including public pension funds and private-sector-based savings systems, are growing rapidly and will play an increasingly important role in global capital markets in the decades to come. Most developing countries have also established national green funds,[31] often to manage extrabudgetary resources (including earmarked environmental taxes, nature-for-debt swaps, international and national environmental grants, etc.). These funds mostly provide technical assistance and capital grants or manage revolving funds.

- In Australia, under the Corporations Regulations 2001, superannuation funds are required to disclose "the extent to which labour standards or environmental, social or ethical considerations are taken into account in the selection, retention or realization of the investment".[32] The same requirements also apply to other investment products. Australia's Local Government Superannuation (LGS) Scheme's Sustainable and Responsible Investment Policy[33] "recognizes that LGS is long term in nature, and that the long term prosperity of the economy and the wellbeing of members depends on a healthy environment, social cohesion and good governance of LGS and the companies in which it invests."

- In the Netherlands, the pension fund for the healthcare sector, PFZW, set a goal to halve the carbon emissions of its portfolio by 2020 and raise its impact investments of 3% to 12%.[34] The pension fund's Investment Framework 2013-2020 states that "A sustainable, viable world is necessary in order to generate sufficient returns over the long term. […] Making sustainability an integral part of the investment policy therefore contributes to returns over the long term."[35] Article 135 of the Pension Act, paragraph 1 of which requires funds to invest in accordance with the prudent person rule, requires funds to state in their annual report how their investment policy takes account of the environment and the climate, human rights and social issues.[36]

[30] California Public Employees'' Retirement System (CalPERS) (2015). Financial Reform, Institutional Investors and Sustainable Development: A review of current policy initiatives and proposals for further progress, September 2015.

[31] Centre for International Governance Innovation (CIGI) (2015). The Role of Policy-Driven Institutions: Developing National Financial Systems for Long-Term Growth, August 2015.

[32] Commonwealth of Australia (2001). Corporations Regulations 2001 – Schedule 10D. Available at http://www5.austlii.edu.au/au/legis/cth/consol_reg/cr2001281/sch10d.html.

[33] Local Government Superannuation Scheme (2015). Sustainable & Responsible Investment Policy. Available at https://www.lgsuper.com.au/documents/policies/LGS%20Sustainable%20and%20Responsible%20Invest%20Policy.pdf.

[34] Sustainable Finance Lab (2015). Design of a Sustainable Financial System, Netherlands Input to the UNEP Inquiry, October 2015.

[35] Pensioenfonds Zorg en Welzijn. (undated) Investment Framework 2013-2020 (in Dutch). Available at www.pfzw.nl/Documents/Over-ons/PFZW_Boekje_Beleggingskader.pdf.

[36] Kingdom of the Netherlands (2015). Pensioenwet. Available via http://wetten.overheid.nl/BWBR0020809/Hoofdstuk6/geldigheidsdatum_18-03-2015/opslaan.

- In Brazil, many constitutional and non-reimbursable funds have socioenvironmental aspects,[37] such as Fundo Constitucional do Norte (FNO) - North Constitutional Fund, Fundo Constitucional do Nordeste (FNE) – Northeast Constitutional Fund, Fundo Constitucional do Centro-Oeste (FCO) – Midwest Constitutional Fund, Fundo Amazônia – Amazon Fund, Fundo Social – Social Fund, Fundo Inovação Tecnológica (Funtec) – Technological Innovation Fund, Fundo Socioambiental (FSA) – Socioenvironmental Fund, Fundo Clima (FNMC) – Climate Fund, Fundo Nacional do Meio Ambiente (FNMA) – National Environment Fund, Fundo Brasileiro para a Biodiversidade (Funbio) – Brazilian Fund for Biodiversity, Fundos Setoriais – Sectorial Funds, and Fundos Eletrobrás – Eletrobrás Funds. The total amount of socioenvironmental lines contracted in 2013 from constitutional funds was BRL 11.4 billion. The total amount contracted in 2013 from non-reimbursable funds analysed was BRL 712 million.

- Brazil formed a Signatory Network for the Principles of Responsible Investment (PRI), with 56 signatories accounting for 60% of the assets under pension fund management and 70% of the resources managed by investment managers.[38] The funds, which address the theme of sustainability or corporate governance, total 33 products (17 investment funds and 16 equity funds) with a total of BRL 1.5 billion managed in December 2013, including the Fundo Ethical (Ethical Fund) in 2001, the Itaú Excelência Social (Itaú Social Excellence) fund in 2004 and other products that followed the launch of the BM&FBOVESPA ISE (Corporate Sustainability Index or CSI) in 2005. Among the pension funds, 10.8% of assets in equities are invested in companies that participate in the corporate sustainability index of the Brazilian stock exchange, corresponding to a volume of BRL 33.5 billion (BRL 21.4 billion in their own portfolios and BRL 12.1 billion in resources managed by third parties.). Investment managers who are PRI signatories represent a total of BRL 1.4 trillion or 56% of managed assets in the Brazilian market.

- The Norwegian Government Pension Fund Global is required to exclude companies if it is judged that there is an unacceptable risk that they will contribute to or be responsible for serious or systematic human rights violations, serious violations of individuals' rights in situations of war or conflict, severe environmental damage, gross corruption, or other particularly serious violations of ethical norms.[39] The Norwegian Finance Ministry, as the asset owner of the Government Pension Fund Global, has instructed the fund's manager, Norges Bank Investment Management, to establish environmental mandates in the range of 30 to 50 billion kronor (US$ 2.5-3.8 billion), and accepts the risk of any underperformance against the Fund's benchmark resulting from these investments.[40]

- In June 2015, Sweden announced a new legal requirement on the AP buffer funds to "give special attention to how sustainable development can be promoted, without compromising the prudent person principle".[41]

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[37] Center for Sustainability Studies at Getulio Vargas Foundation (GVCes) (2015). The Brazilian Financial System and the Green Economy - Alignment with Sustainable Development, April 2015.

[38] Center for Sustainability Studies at Getulio Vargas Foundation (GVCes) (2015). The Brazilian Financial System and the Green Economy - Alignment with Sustainable Development, April 2015.

[39] Government of Norway (2015). Guidelines for the observation and exclusion from the Government Pension Fund Global. https://www.regjeringen.no/en/topics/the-economy/the-government-pension-fund/responsible-investments/guidelines-for-observation-and-exclusion/id594254/.

[40] Norges Bank Investment Management (2014). Environment-related investment mandates in the Government Pension Fund Global. Available at http://www.nbim.no/en/transparency/submissions-to-ministry/2014/environment-related-investment-mandates-in-the-government-pension-fund-global/.

[41] Swedish Finance Ministry (2015). Nya regler för AP-fonderna (New Rules for the AP Funds). Available (in Swedish only) at www.regeringen.se/contentassets/8db380dbf4254e25a55df8d31ee3c74e/nya-regler-for-ap-fonderna-ds-201534.pdf.

- Under the industry-led voluntary *Malaysian Code for Institutional Investors*, "Institutional investors should incorporate corporate governance and sustainability considerations into the investment decision-making process" on the basis that "institutional investors are expected to deliver sustainable returns in the long-term interest of their beneficiaries or clients."[42]

- In China, the Opinions of the State Council on Strengthening Major Environmental Protection Work promulgated in 2011 explicitly stipulate that environmental industry development funds should be established through multiple channels to broaden the financing avenues for the development of environmental industry.[43]

18. The Principles for Responsible Investment (PRI), established in 2006, provide a framework for investors to incorporate ESG factors into their operations and states that "As institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social, and corporate governance (ESG) issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes and through time)". The six principles seek to incorporate ESG issues into investment analysis and decision-making processes, ownership policies and practices, and promote appropriate disclosure on ESG issues by the entities invested. Membership of PRI has reached 286 asset owners, 904 investment managers and 199 service providers, with total assets under management of US$ 59 trillion.[44]

19. UNEP has identified policy packages in the context of aligning the financial system with sustainable development:[45]

(a) Align the design of pension and other investment systems with sustainability by clarifying fiduciary law and guidance and requirements for the skills and capabilities of fiduciaries, and building consumer literacy and requiring that funds report on sustainable performance and policies;

(b) Reset market and public incentive structures to help stimulate demand for sustainable investment products and encourage asset owners to align incentives down the chain, notably for investment consultants, asset managers and investment analysts.

VII. BONDS

20. Green bonds enable capital-raising and investment for new and existing projects with environmental benefits. The issuance of green bonds (green use of proceeds bond, green use of proceeds revenue bond, green project bond and green securitized bond) has risen dramatically, from US$ 806 million in 2007 to US$ 36.6 billion in 2014 and about US$ 100 billion in 2015.[46] Early bonds were issued by development finance institutions such as the World Bank and KfW, whereas now a wide range of agencies and private sector issuers have joined the market.

- France is a leading country in terms of total outstanding green bonds issued.[47] As early as 2012, the Region Ile-de-France issued one of the first large subsovereign public green bonds for an

[42] Minority Shareholder Working Group/Securities Commission Malaysia (2014). Malaysian Code for Institutional Investors. Available at http://www.sc.com.my/wp-content/uploads/eng/html/cg/mcii_140627.pdf.

[43] Research Bureau of the People's Bank of China (2015). Establishing China's Green Financial System: Detailed Recommendations 2: Develop Green Funds.

[44] As at 23 July 2015. See www.unpri.org/about-pri/about-pri/.

[45] UNEP Inquiry (2015). The Financial System We Need: Aligning the Financial system with Sustainable Development. October 2015. Geneva: UNEP.

[46] Climate Bonds Initiative (2015). Explosive growth in green bonds market. Available at www.climatebonds.net/market/history.

[47] I4CE (Institute for Climate Economics) (2015). France's Financial (Eco)system, November 2015.

amount of €350 million, renewed with a record-breaking issuance of €600 million in 2014. EDF issued a €1.4 billion green bond in 2013 and Engie issued the biggest green bond to date at €2.5 billion in 2014. The Agence Française de Développement (AFD) joined other development banks with a €1 billion climate bond of its own in 2014.

- In the United States of America, the Clean Renewable Energy Bonds (CREBs) and Qualified Energy Conservation Bonds (QECBs) allow for the issuance of taxable bonds by municipalities for the purposes of clean energy and energy conservation, where 70% of the coupon from the municipal bond is provided by a tax credit or subsidy to the bondholder from the federal government. In Hawaii, the government has passed legislation to enable the issuance of US$ 100 million green infrastructure revenue bonds to finance local clean-energy upgrades. The revenue bonds will be repaid by a surcharge on electricity bills for households and businesses and excluded from the state's debt limitations and general obligation guarantee. In September 2014, Overseas Private Investment Corporation (OPIC), a U.S. government development finance institution issued a bond for a solar project in Chile where returns are coming from project revenue streams, giving investors exposure to asset performance, but also backed by OPIC to keep risk low.[48]

- Before 2006, only South Africa had issued a sovereign bond.[49] In 2014, more than a dozen sub-Saharan countries had done so. Sub-Saharan African countries have raised nearly US$ 7 billion during the first three quarters of 2014.

- In June 2014, the city of Johannesburg in South Africa issued the first emerging market green city bond. The R1.5 billion (US$ 139 million), 10-year bond was rated BBB, based on the rating of Johannesburg as an issuer. The bond was 1.5 times oversubscribed, showing strong investor demand.

- In China, the bond market has grown rapidly, and the pilot issuance of green bonds at the earliest possible date has been suggested to support the green lending business of banks.[50] After the Opinions of the State Council on Further Promoting the Development of Small and Medium-Sized Enterprises (SMEs) in 2009, Chinese commercial banks issued by September 2013 a cumulative amount of 292 billion yuan (US$ 47 billion) in financial bonds of small and micro businesses, which vigorously supported the credit issuance by SMEs. On 1 July 2013, the China Banking Regulatory Commission (CBRC) promulgated the Notice on Relevant Matters Concerning the Issuance of Special Financial Bonds Relating to Agriculture, Farmers and the Countryside by Commercial Banks. The corporate bond market has grown 45% year-on-year since 2007, albeit from a low base, and bonds from financial institutions have grown 23%.

- In July 2014, the German development bank KfW issued its first green bond, a €1.5 billion bond earmarked for financing renewable energy. This issuance was followed by a second green bond issuance in October 2014 for US$ 1.5 billion.

- Norway's sovereign wealth fund has assets under management of US$ 882 billion, making it the largest in the world.[51] A separate programme for environmental mandates was established for the

[48] Research Bureau of the People's Bank of China (2015). China Green Finance Task Force Report: Green Bonds, April 2015.

[49] Centre for International Governance Innovation (CIGI) (2015). The Role of Policy-Driven Institutions: Developing National Financial Systems for Long-Term Growth, August 2015.

[50] Research Bureau of the People's Bank of China (2015). Establishing China's Green Financial System: Detailed Recommendations 5: Promote the Issuance of Green Bonds.

[51] Climate Bonds Initiative (2015). Scaling up Green Bond Market for Sustainable Development: A strategic guide for the public sector to stimulate private sector market development for green bonds, December 2015.

fund in 2009. The fund started investing in green bonds under the environmental mandate, and in 2014 noted that the main limitation to an increase in their investment in the green bond market is the still relatively small size of the green bond market.

- The world's central banks managed reserves to the tune of US$ 10.9 trillion in 2013. The central bank of Bangladesh became the first central bank to announce they would target some of their reserves for green bond investment in October 2015. The central bank's investment will focus on green bonds issued by multilaterals and other highly rated financial corporations.[52]

21. The Green Bond Principles (GBP), initially developed by four major banks (Citibank, Bank of America Merrill Lynch, JP Morgan and Credit Agricole) in January 2014 and updated as of March 2015, are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the green bond market by clarifying the approach for issuance of a green bond. The Green Bond Principles explicitly recognize several broad categories of potential eligible green projects aiming to address key areas of concern such as climate change, natural resources depletion, biodiversity conservation and/or pollution. These broad categories include renewable energy, energy efficiency (including efficient buildings), sustainable waste management, sustainable land use (including sustainable forestry and agriculture), biodiversity conservation, clean transportation, sustainable water management, and climate change adaptation.[53]

22. UNEP has identified two interlinked public policy priorities for bonds:[54]

(a) Enabling the growth of green bonds by developing credible and ultimately verifiable standards, developing pipelines of green bonds, aggregating and securitizing smaller projects, and improving returns through tax credits and incentives; and

(b) "Greening" bond markets by integrating environmental, social and governance factors into routine credit ratings.

[52] Climate Bonds Initiative (2015). Scaling up Green Bond Market for Sustainable Development: A strategic guide for the public sector to stimulate private sector market development for green bonds, December 2015.

[53] http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/.

[54] UNEP Inquiry (2015). The Financial System We Need: Aligning the Financial system with Sustainable Development. October 2015. Geneva: UNEP.

Annex I

CALCULATION OF TRENDS IN BILATERAL OFFICIAL ASSISTANCE MARKED FOR BIODIVERSITY OBJECTIVES

1. Data extraction

The data on aid activities targeting Global Environmental Objectives of the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System (CRS) was accessed on 11 April 2016 and extracted as shown in table A.1 below:

Table A.1. Aid screened for biodiversity-related objectives

Year	Screened, biodiversity principal objective	Screened, biodiversity significant objective	Screened, biodiversity not targeted	Not screened
		US$ millions (2013 price)		
2006	1 881	1 534	46 524	80 575
2007	2 898	1 142	56 739	51 500
2008	1 585	1 876	67 686	64 635
2009	1 692	2 678	79 823	46 123
Annual average (2006-2009)	2 014	1 807	62 693	60 708
2014	3 417	3 881	109 194	17 151

Source: OECD/DAC/CRS (accessed 11 April 2016).

2. Annual averages

Table A.1 provides annual averages for the period 2006-2009. Using constant 2013 prices, the sum of annual aid was calculated and then it was divided by 4 in order to arrive at the annual averages.

3. Screened aid

Total aid is the sum of “principal”, “significant”, “screened but not targeted” and “unscreened”. Screened aid is the sum of “principal”, “significant”, and “screened but not targeted”. The percentage of screened aid is the ratio of screened aid to total aid. Using the data compiled in table A.1, the percentage of screened aid was 52% for the annual average between 2006 and 2009, and 87% in 2014.

4. Counter-factual estimates

Counter-factual reasoning was used to estimate how much aid would have been be marked for biodiversity if 87%, instead of 52%, of total aid had been screened for the annual average of the four years between 2006 and 2009, assuming the proportion of screened aid having biodiversity as its principal or significant objective had also remained constant. Biodiversity aid was calculated by adding “principal” and “significant” together. Annual average biodiversity aid in 2006 to 2009 was US$ 3 821 million under the screening ratio of 52% and US$ 6 371 million if calculated using a 87% screening ratio and constant biodiversity proportion (table A.2).

Using a constant screening rate of 87% and constant proportion of screened aid with biodiversity-related objectives, biodiversity aid would be estimated to have increased by 14.55% from the annual average of the four year period 2006-2009 to 2014.

Table A.2. Counter-factual estimates (column "b")

Year	(a) Total biodiversity-related aid ("principal" and "significant")	(b) 87% screening rate
	US$ millions (2013 price)	
Annual average (2006-2009)	3 821	6 371
2014	7 298	7 298

5. Increase related to the overall increase of official development assistance

Using the data in tables A.1 and A.2, total official development assistance would be estimated to have experienced an increase of 5.05% from the period 2006-2009 to 2014. This in itself would have resulted in an increase in total biodiversity aid from US$ 6 371 million to US$ 6 693 million (a net increase of US$ 322 million) under a screening rate of 87%.

6. Increase due to enhancement of efforts related to biodiversity

Without efforts to promote biodiversity objectives, total biodiversity aid would have stood at only US$ 6 693 million in 2014, rather than US$ 7 298 million. The difference, US$ 605 million (US$ 7 298 million minus US$ 6 693 million; constant 2013 US$) can be considered to be due to enhanced biodiversity efforts by donor countries and their development agencies.

In other words, even if the overall official development assistance had stayed the same over the observing period, total biodiversity aid would have reached US$ 6 976 million in 2014 under the screening rate of 87%, a 9.5% increase over the annual average of the period 2006-2009.

Annex II

LIST OF DONORS AND AGENCIES PARTICIPATING IN THE 2015 IDB DIALOGUE ON INTERNATIONAL FINANCING FOR BIODIVERSITY AND ECOSYSTEM SERVICES

African Development Bank (AfDB)
Austria
Conservation International (CI)
Development Bank of Latin America (CAF)
Development Bank of Southern Africa (DBSA)
Economic and Social Commission for Asia and the Pacific (UNESCAP or ESCAP)
European Union (EU)
Food and Agriculture Organization of the United Nations (FAO)
France
Germany
Global Environment Facility (GEF)
Inter-American Development Bank (IADB)
International Fund for Agricultural Development (IFAD)
Norway
Republic of Korea
United Nations Development Programme (UNDP)
United Nations Economic Commission for Europe (UNECE)
United Nations Environment Programme (UNEP)
World Bank
World Wildlife Fund (WWF)