UNEP FI
Biodiversity and Ecosystem Services Workstream

Sagarika Chatterjee, Senior Analyst, Governance & Sustainable Investment
F&C Management Limited
5th April 2007
Agenda

Section I  Introduction
Section II  F&C’s approach to biodiversity
Section III How effective are the current tools?
Section IV  What needs to change?
Section V  What tools would be useful?
Overview of F&C Management Limited

Europe’s partner of choice

- We are a leading provider of investment solutions
- We are one of Europe’s top twenty asset managers*
- We offer a wide range of tailored investment and servicing solutions
- Market leader in Governance and Sustainable Investment
- Market leader launching world first investment trust

*Source: F&C Management Limited, as at 31/12/06
Overview of F&C Management Limited

F&C has a balanced asset and client mix

By Asset Class
AUM as at 31/12/06

- Fixed Interest: 52%
- Equities: 37%
- Alt Investments: 5%
- Property: 5%
- Liquidity: 1%

31/12/06 AUM: £104 billion

By Product/ Client Type
AUM as at 31/12/06

- Insurance Funds: 56.6%
- Institutional Funds: 26.9%
- Sub-Advisory: 6.7%
- SICAVs: 0.5%
- Open Ended Prod: 2.9%
- Investment Trusts: 6.3%

Source: F&C Management Limited
F&C’s research on biodiversity: publications

▪ **Palm oil**
  New risks in old supply chains: Where does your palm oil come from?  December 2003

▪ **Extractives**
  Extractive Industries and Biodiversity: A Survey, February 2004

▪ **Materiality**
  Is biodiversity a material risk for companies? An assessment of the exposure of FTSE sectors to biodiversity risk,  September 2004

▪ **Principles for Responsible Investment**
  Incorporation of ESG issues into investment processes, February 2007

*Source: F&C Asset Management plc, as at 31/12/06*
<table>
<thead>
<tr>
<th>Red zone</th>
<th>Amber zone</th>
<th>Green zone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-risk sectors: Most companies exposed to risks; Risks likely to be significant</strong></td>
<td><strong>Medium-risk sectors: Some companies exposed to risks; Risks may be significant</strong></td>
<td><strong>Lower-risk sectors: Risks variable and significance unknown</strong></td>
</tr>
<tr>
<td>Construction &amp; Building Materials</td>
<td>Beverages</td>
<td>Aerospace &amp; Defence</td>
</tr>
<tr>
<td>Electricity</td>
<td>Chemicals</td>
<td>Automobiles &amp; Parts</td>
</tr>
<tr>
<td>Food &amp; Drug Retailers</td>
<td>Financial Services</td>
<td>Diversified Industriens</td>
</tr>
<tr>
<td>Food Producers &amp; Processors</td>
<td>General Retailers</td>
<td>Electronic &amp; Electrical Equipment</td>
</tr>
<tr>
<td>Forestry &amp; Paper</td>
<td>Household Goods &amp; textiles</td>
<td>Engineering &amp; Machinery</td>
</tr>
<tr>
<td>Leisure &amp; Hotels</td>
<td>Personal Care &amp; Household Products</td>
<td>Health</td>
</tr>
<tr>
<td>Mining</td>
<td>Pharmaceuticals &amp; Biotech</td>
<td>Information &amp; technology Hardware</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>Support Services</td>
<td>Media &amp; Entertainment</td>
</tr>
<tr>
<td>Utilities</td>
<td>Tobacco</td>
<td>Software &amp; Computer Services</td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td>Steel &amp; Other Metals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telecom Services</td>
</tr>
</tbody>
</table>
Categories of risk

- Access to land: Rio Tinto
- Reputation: Marks & Spencer
- Access to capital: Barclays
- Access to markets: Travis Perkins
- Security of supply: Unilever
- Relations with regulators: Carillion
- Liabilities: BP
Sectors most at risk

- Construction & Building Materials
- Food Producers & Processors
- Forestry & Paper
- Leisure & Hotels
<table>
<thead>
<tr>
<th>Red-zone sectors</th>
<th>Substantive &amp; consistent action</th>
<th>Understanding &amp; awareness</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction &amp; Building Materials</td>
<td>Hanson</td>
<td>Wolseley</td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>Scottish &amp; Southern</td>
<td>Sainsbury’s</td>
<td>Morrison</td>
</tr>
<tr>
<td></td>
<td>Scottish Power</td>
<td></td>
<td>Tesco</td>
</tr>
<tr>
<td>Food &amp; Drug Retailers</td>
<td>Unilever</td>
<td>Cadbury Schweppes</td>
<td>Associated British Foods</td>
</tr>
<tr>
<td>Forestry &amp; Paper</td>
<td></td>
<td></td>
<td>[DS Smith]</td>
</tr>
<tr>
<td>Leisure &amp; Hotels</td>
<td></td>
<td>Whitbread</td>
<td>Carnival</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enterprise Inns</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hilton, Intercontinental,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>William Hill</td>
</tr>
<tr>
<td>Mining</td>
<td>Anglo American</td>
<td>BHP Billiton</td>
<td>Antofagasta</td>
</tr>
<tr>
<td></td>
<td>Rio Tinto</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>BG Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BP, Shell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>Severn Trent</td>
<td>National Grid Transco</td>
<td>Centrica</td>
</tr>
<tr>
<td></td>
<td>United Utilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Expect excellence
Biodiversity is a material risk to certain companies in certain sectors.

It is difficult to put a precise financial value on the risks but where such values can be ascribed, they are often significant.

Companies need to investigate and manage biodiversity-related risks.

Integration of biodiversity-related risks into financial analysis is challenging.
What does F&C expect from companies?

- **Assess** whether risks are material

- If so, adopt and **publish specific biodiversity policies** or statements

- Implement a process to **manage** these risks, including:
  - those arising directly from activities of the company
  - those arising indirectly from activities of the company, including supply chains and the impact of secondary development
  - those that may threaten their business as a result of the mismanagement of biodiversity by others.

- **Integrate** with existing risk management systems and set performance targets

- **Report**
How does F&C integrate biodiversity into financial analysis?

- **Key biodiversity-related issues**
  - Access to land e.g. construction, extraction
  - Sustainability of supply
  - Growth in consumer interest in sustainable products
  - Relations with regulators

- **F&C’s priority sectors**
  - Oil & Gas
  - Mining
  - Food retail
  - Biofuels

*Source: F&C Asset Management plc, as at 31/12/06*
How material is biodiversity?

- Intuitively material:
  - Some good examples
  - Company statements

- However, generally little immediate cause-effect

- Relatively little financial evidence

- But: financial evidence is compelling

*Source: F&C Asset Management plc, as at 31/12/06*
Case study of materiality: ABP

Dibden Bay proposed for port development

Area of high biodiversity value

Permission refused by Department of Transport

Specifically cited ‘environmental impact on…internationally protected sites’

Share price immediately dropped 12%

Company wrote off £44.9 million in development costs
profits pre-tax and write-offs £65.2 million
annual turnover £252 million

[source: Financial Times; ABP; Department of Transport]
Case study of materiality [source: ABP]

Expect excellence
How effective are current tools for biodiversity?

- What guidelines and tools are available to F&C?
- How do we use them?
  - GRI
  - EW
  - EBI
  - GSI Index
  - FFI benchmark
  - MA
  - VBDO quick-scan
  - BITC/BiE

*Source: F&C Asset Management plc, as at 31/12/06*
“First of all, we don’t understand the science”

“It’s harder to quantify”

“It’s not as serious as climate change”

“I think it’s human psychology to ignore gradual change (like the frog in the saucepan), but to react strongly to sudden changes.”

“We’re starting to look at it – particularly with organics and biofuels”

“…a tiny critter can stop a $12bn mine”

“Blimey – that’s a tricky one… if we have a moment of inspiration I’ll let you know”
Is there a breakdown in communication?

Environmental community
World leaders, government
Scientists
Companies
Brokers, fund managers and buy-side analysts
What needs to change for the City to take biodiversity seriously?

- Substantial change needed in the visible risks and opportunities
- Significant disasters, with financial consequences
- Mass media and political attention to ecosystem services
- Government incentives for managing ecosystem services
- A value needs to be attached to ecosystem services
- Trading in ecosystem services
What tools would be useful for factoring ecosystem services into financial analysis?

- Mapping of ecosystem services risks against company performance
- Sector-specific and company-specific studies
- Relationship needs to be built with sell-side research
- Clear links needed to performance
- Alerts on current issues needed
- A change in language
Thoughts for moving forwards…

“Human history is a race between education and catastrophe” – HG Wells

Summary

- Better tools are needed to integrate biodiversity into financial analysis
- “Education” of the buy-side is key to supply from the sell-side
Past performance should not be seen as an indication of future performance. The value of investments and income derived from them can go down as well as up as a result of market or currency movements and investors may not get back the original amount invested. The information, opinions, estimates or forecasts contained in this document were obtained from sources reasonably believed to be reliable and are subject to change at any time. F&C Group Companies may from time to time deal in investments mentioned herein on behalf of their clients. The source of information in all graphs is F&C unless otherwise stated. F&C Management Limited is authorised and regulated by the Financial Services Authority (FSA) FRN: 119230. Limited by shares. Registered in England and Wales, No. 517895. Registered address and Head Office: Exchange House, Primrose Street, London, EC2A 2NY. United Kingdom. F&C Asset Management plc is the listed holding company of the F&C group. F&C Management Limited is a member of the F&C Group of companies and a subsidiary of F&C Asset Management plc. F&C, the F&C logo, REO and the ‘reo’ logo are registered trade marks of F&C Management Limited. F&C INVESTMENTS and the F&C INVESTMENTS logo are trade marks of F&C Management Limited. © Copyright F&C Management Limited 2007. All Rights Reserved. Neither this document nor any part of it may be reproduced by any party whether by photocopying or storing in any medium by electronic means or otherwise without the prior approval of F&C Asset Management plc.