

## **Security of supply and investment return:**

### **Pollination and agriculture in the USA**

In 2006 the US Congress estimated the monetary value of honey bees as commercial pollinators in the US was \$15 billion annually. Declining numbers of natural pollinators and the spread of new diseases such as colony collapse disorder are causing grave concern in the USA. Without bees, Californian agriculture alone would lose many of its highest value crops. There, 20 crops account for 74% of gross farm income and 10 of these are dependent upon insect pollination - almonds, strawberries, tomatoes, hay, cotton, broccoli, oranges, carrots, avocados and lemons. Without adequate pollination rates the risk is of reduced yield and potential crop failure. Without a strong bee-keeping industry companies dependent on insect pollinated crops risk increased costs, decreased income and higher commodity prices overall.

Source: [http://www.naturalvalueinitiative.org/content/001/case\\_studies.php?id=001](http://www.naturalvalueinitiative.org/content/001/case_studies.php?id=001)

### **Strawberry growing, water use and protected areas in Spain**

Irrigated agriculture is in serious competition with both humans and biodiversity for water in the Huelva Region of Spain, which supplies most of the UK's winter strawberries. Yet it is generally based on extracted water which impacts on a UNESCO natural World Heritage site. NGOs estimate that half these farms extract water illegally, which has led to the underground water level dropping by 50% in recent years, threatening irreversible damage to the nearby Doñana National Park wetlands. Despite complying with European standards, Carrefour came under fire from WWF who called for a consumer boycott of strawberries imported from Spain. As concerns increase regarding poor management of ecosystem services and declining levels of biodiversity, this may lead to difficulties in accessing markets or raw materials and reputational damage risks increase.

Source: [http://www.naturalvalueinitiative.org/content/001/case\\_studies.php?id=002](http://www.naturalvalueinitiative.org/content/001/case_studies.php?id=002)

### **Ahold and WWF: partnering to grow strawberries sustainably**

In Spain, **Ahold** and WWF are working in a project that links strawberry production with protecting wetlands. Since February 2007, strawberries are sold with a small booklet explaining that their purchase is helping to protect an important water source, the Coto Doñana wetland nature reserve, in the south of Spain. The partnership is also currently reviewing other potential supply chains for similar projects.

Source: <http://www.ahold.com>

## **Evaluating ecosystem services risk – water (SABMiller)**

SABMiller has committed its operations to a) reduce the amount of water required to produce a unit of beer, b) consider the needs of the surrounding communities in order to avoid potential water use conflict, and c) commit its vendors to a better understanding of SABMiller's supply chain water footprint. One of the three key elements of its water management programme includes a commitment to protecting critical watersheds, quantifying local risks and increasing the efficiency of irrigation practices.

The company undertook a watershed risk mapping exercise to identify the most critical areas of water availability. This resulted in a prioritisation of watersheds for management action linked to SABMiller's target for water consumption per litre of beer produced. SABMiller also reviewed the water footprint of beer, which indicated that over 95% of water usage was at the agricultural production stage of the product. SABMiller analysed water usage profiles for all major commodities sourced and long-term suitability of barley growing regions and then defined areas of risk that required management activity.

Source:

<http://www.nature.org/wherewework/southamerica/colombia/work/art24802.html> and SABMiller sustainable development report 2008

## **Payments for watershed services in Colombia (SABMiller)**

In Colombia, SABMiller is engaging in the Bogotá Water Project with the City, the Aqueduct and Sewage Company of Bogotá (EAAB) and The Nature Conservancy in a scheme investing in watershed management in the Bogotá area of Colombia. For SABMiller, Colombia is a promising market for beer, but the company faces risks associated with the costs of water (which are 12% higher in Bogotá than elsewhere in the country) and increasing water shortages (70% of the population is facing water shortages).

With a primary aim of assuring the company's continued access to water and to control the costs of water use, the company has engaged in a scheme which aims to reduce the negative impacts of downstream sedimentation from cattle ranching activities further upstream, by supporting improved land management and reduced deforestation. The scheme (which is administrated by a multi-stakeholder governing body) is expected to save water companies in

the region of US\$ 4million per year and the costs of implementation are estimated at US\$ 60million over ten years. These costs of implementation are not borne entirely by the private sector, but by governments and philanthropic foundations. This combination of commercial and public money is currently essential to create a case for private sector engagement, given the long payback period involved and the failure of the economic measures currently used to value ecosystem services.

Source: <http://www.nature.org/wherewework/southamerica/colombia/work/art24802.html> and SABMiller sustainable development report 2008<

## **Shrimp farming in Asia:**

Declining natural catches has led to an increase in interest in fish farming especially of shrimp and prawns. The industry has a number of environmental impacts including use of fish in fishmeal and oil, environmental degradation through pollution, erosion and siltation, and habitat loss, such as mangrove clearance (which results in the loss of habitat for fish breeding).

These impacts can affect the ability of the farm to sustain high yields, but also give rise to reputational risk to the production company itself and those retailers buying from it.

Walmart imports into the US about 20,000 tons of shrimp annually, to the value of over \$88 million. It has partnered with the Global Aquaculture Alliance (GAA) and the Aquaculture Certification Council (ACC) to ensure that its foreign shrimp suppliers adhere to Best Aquaculture Practices (BAP) standards. In response to environmental concerns Rubicon Resources LLC, Wal-Mart's major shrimp supplier, bought and upgraded roughly 150 Thai shrimp farms to ensure security of supply.

Anticipating and planning for such capital expenditure to upgrade standards or secure supply is vital or companies will be dependent on others to manage their reputation and costs, reducing investment returns in the longer term.

Source: [http://www.naturalvalueinitiative.org/content/001/case\\_studies.php?id=005](http://www.naturalvalueinitiative.org/content/001/case_studies.php?id=005)

## **Site level biodiversity risk and opportunity assessments (BAT)**

The British American Tobacco Biodiversity Partnership has developed a biodiversity risk and opportunity assessment tool. Intended for use by all British American Tobacco leaf growing operations, this was trialled in Indonesia, Uganda, Kenya and Brazil over a two year period and is now being rolled out throughout British American Tobacco's leaf growing operations.

In Brazil Souza Cruz, the Brazilian subsidiary of British American Tobacco commissioned a survey of 119 leaf-growing farms in the municipality of Paula

Freitas in the southern state of Parana as part of the risk assessment process. Together with the Brazilian NGO Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental (SPVS), and Fauna & Flora International (FFI), Souza Cruz is developing and implementing mechanisms to support sustainable management of tobacco farms as part of British American Tobacco Biodiversity Partnership. This includes conservation and rehabilitation of native areas and ensuring that farmers comply with national environmental legislation that, amongst other things, requires farmers to set aside 20% of their property for conservation of native areas in addition to protecting riparian forests and headwaters. The business case for Souza Cruz to use its farmer outreach mechanisms to support farmers is based on compliance with legislation and ensuring that good practices guarantee the conservation of soil and water that are essential for crop productivity.

In Indonesia the risk analysis identified protected areas adjacent to agricultural zones where the company sources tobacco - the Gunung Rinjani National Park on the slopes of Mt Rinjani in Lombok, the Kawah Ijen National Park near Bondowoso in East Java and the Way Kambas National Park near Lampung in Sumatra. Although no direct impacts of company activities were identified on this area, tobacco growing was found to be adversely impacted by ongoing forest degradation in some areas. Furthermore, a move from kerosene to coal fuel for tobacco, stimulated by a change in fiscal policies, was identified as a potential risk to the protected areas. The analysis showed that deforestation in critical watersheds on Lombok reduces water supply to agricultural areas including the tobacco growing area. British American Tobacco and local partners (including local and national government) are developing a plan for the protection of the watershed through measures including reforestation. Export Leaf Indonesia (the British American Tobacco subsidiary) is drawing up action plans based on the risk assessment findings.

Source:

[http://www.bat.com/group/sites/uk\\_\\_3mnfen.nsf/vwPagesWebLive/DO726HDM?openDocument&SKN=1](http://www.bat.com/group/sites/uk__3mnfen.nsf/vwPagesWebLive/DO726HDM?openDocument&SKN=1)