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Food, feed, fiber & fuel

an overview of biodiversity and agribusiness

From the Secretariat



Photo courtesy of IUCN/Wetke Herding

By AHMED DJOGLAF, *Executive Secretary*

We are releasing this issue of *Business.2010* as a contribution to SBSTTA-13 which will be considering, amongst other agenda items, the in-depth review of the implementation of the Programme of Work on Agricultural Biodiversity. This is also fitting, given that the theme of the International Biodiversity Day, this year, is 'agriculture and biodiversity'.

Over the last few months, we have continued to witness tangible signs of an increasing interest in the business and biodiversity agenda. Following from the lead provided by Portugal in November 2007, several business and biodiversity events are planned in the run-up to the COP. The Secretariat is actively participating in a number of these.

The Secretariat, for instance, worked with the University of California Berkeley, Haas School of Business in the design of a seminar for MBA students and we were delighted to participate in the first session which took place in late January.

In Canada, Deloitte and IUCN, with the support of the Government of Canada, as well as the Secretariat, are organizing a conference on business and biodiversity in April.

The business and biodiversity conference – organized on 2-3 April by GTZ and the Global Nature Fund, in Bonn, Germany – will prove, I am sure, an important milestone in the preparation of the COP.

In the centre pages of this issue, we have compiled the first edition of a guide to business-related events at COP-9 which also includes an overview of pre-COP business related events.

In December 2007, the Secretariat signed a Letter of Intent with the Government of The Netherlands which focuses, *inter alia*, on business engagement. This agreement contributes, in particular, to the development of this newsletter.

As usual, I would like to sincerely thank all contributors for taking time to share their experience and contribute to the business and biodiversity agenda. I invite Parties, the business community and others to submit contributions for the April issue which will focus on COP-9.

In this issue: agribusiness



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Multinationals and industry associations provide their views on agribusiness and biodiversity



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Looking at certification schemes



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An overview of biodiversity initiatives; and mechanisms for promoting 'biodiversity businesses'



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We also include, at the end of this issue, more general updates on business and biodiversity.

In context: Agricultural biodiversity



This short note intends to put agricultural diversity in context and give new readers a way into the Convention on Biological Diversity.

The Programme of Work

The programme of work on agricultural biodiversity was endorsed in 2000 (decision V/5, annex 5) as a contribution to the implementation of decision III/11 on the conservation and sustainable use of agricultural biodiversity.

“Agricultural biodiversity” is a broad term that includes all components of biological diversity of relevance to food and agriculture. It also includes all components of biological diversity that support the ecosystems of which agriculture is a part (agro-ecosystems): the variety and variability of animals, plants and micro-organisms, at the genetic, species and ecosystem levels, which are necessary to sustain key functions of the agro-ecosystem, its structure and processes. Agricultural biodiversity provides not only food and income but also raw materials for clothing, shelter, medicines, breeding new varieties, and performs other services such as maintenance of soil fertility and biota, soil and water conservation, and pollination, all of which are essential to human survival.

The objectives of the Programme of Work are to promote the positive effects and mitigate the negative impacts of agricultural practices on biological diversity, the conservation and sustainable use of genetic resources, and the fair and equitable sharing of benefits arising out the use of genetic resources. The Programme of Work comprises four mutually reinforcing elements: (1) Assessments; (2) Adaptive management; (3) Capacity-building; (4) Mainstreaming.

For more information, see www.cbd.int/agro/background.shtml and www.cbd.int/agro/pow.shtml

The Conference of the Parties has decided to establish, within the programme of work on agricultural biodiversity, three cross-cutting initiatives: (i) for the conservation and sustainable use of pollinators (decision V/5, section II) and its action plan (decision VI/5, annex II); (ii) for the conservation and sustainable use of soil biodiversity (decision VI/5, paragraph 13) and its framework for action (decision VIII/23 B); and (iii) on biodiversity for food and nutrition (decision VII/32, paragraph 7, and decision VIII/23 A, annex).

Genetic Use Restriction Technologies (GURTs) constitutes a fourth cross-cutting initiative.

For more information, see www.cbd.int/agro/cross-cutting.shtml

In depth review

In the annex to decision VII/31 and in decision VIII/23 D, the Conference of the Parties requested the Executive Secretary, in partnership with FAO and in consultation with other relevant international organizations, to prepare the in-depth review of the implementation of the programme of work on agricultural biodiversity for consideration at its ninth meeting, by taking into account the guidelines for the review of the programmes of work of the Convention (decision VIII/15, annex III).

To this effect, a note has been prepared for SBSTTA-13. The note summarizes the findings of the in-depth review of the implementation of the programme of work on agricultural biodiversity, including its four programme elements and the three international initiatives. The note includes suggested recommendations.

For more information, see document UNEP/CBD/SBSTTA/13/2, as well as information documents 1, 2, 3, 4 and 17, available at www.cbd.int/doc/meeting=SBSTTA-13.



in memoriam

Dr. Roger W. Krueger (1953-2007)

The Secretariat was extremely saddened to learn of the passing away, on 28 December 2007, of Dr. Roger W. Krueger [1].

Roger was a familiar face to CBD delegates. Beginning with COP-II in Jakarta in 1995, he participated in numerous meetings, most recently SBSTTA-12 in July 2007. He always brought scientific expertise and provided constructive input but, most of all, exuded optimism concerning the achievement of the goals of conservation and sustainable use of biodiversity.

Roger actively promoted the relevance of the Convention to industry peers and worked to more broadly engage companies across business sectors. Amongst other things, he established and chaired the International Chamber of Commerce's Task Force on the CBD. Roger encouraged Harvard Business School to write a case study on the Convention for the Agribusiness Seminar held in early January 2007. He also contributed to this publication [2].

Roger was responsible for Seed Regulatory, Seed Policy and Stewardship at The Monsanto Company. He also served as Director of Technical/Environmental Stewardship and Global Product Development, Director of Technology Development, Technical Manager for Stewardship of Roundup Ready technology and selective chemistries.

Aside from his work at Monsanto, Roger had been an Executive-in-Residence for the College of Agriculture, Food and Natural Resources at University of Missouri, USA. He was also involved in many industry associations, including the International Seed Federation (ISF) and the American Seed Trade Association (ASTA). Prior to joining Monsanto, Roger held positions at American Cyanamid, Yale University and Dekalb-Pfizer Genetics.

He earned a B.S. in Plant Science (University of New Hampshire), an M.S. in Plant Nutrition (University of Rhode Island), a Ph. D. in Biology (University of Missouri-Columbia) and an Executive MBA (Dartmouth College).

Our thoughts go to his colleagues, friends and family, in particular his wife, Ann, and three children, Van, Mara and Hanna.

[1] see www.legacy.com/stltoday/DeathNotices.asp?Page=Lifestory&PersonId=100419575

[2] see www.cbd.int/doc/newsletters/news-biz-2007-09-low-en.pdf

Strengthening the supply chain



For a food manufacturing company such as Unilever, sustainable supply chains, underpinned by sustainable agriculture, are critical for long-term success in the market. GAIL SMITH argues that sustainable agriculture involves biodiversity management, and that foods businesses and farmers could do more to support biodiversity if more information was available on locally-applicable better management practices for farmland.

In Unilever, we believe that our main impacts and influence on biodiversity are indirect. Our supply chain activities (the influence we have on how our suppliers, and the farmers who supply them) and the ways in which our products are used and disposed of are areas of our most concern, rather than actions on the sites where Unilever has direct control of farms, offices or factories. We see biodiversity as one of our 11 key "Sustainable Agriculture" indicators, and therefore we deal with the consequences of changing farming practices on biodiversity in terms of interactions with, and sometimes trade-offs between, farm profitability and vulnerability, soil fertility and soil loss, nutrient and pest management, water, energy and waste (including greenhouse gas emissions and sequestration), social and human capital, the local economy and animal welfare.

We therefore see our in-house business and biodiversity initiatives not only as programmes with their own intrinsic value, but also as pilots and learning opportunities for us to understand where and how we are best able to influence biodiversity management in our suppliers businesses.

Local farmers and land managers

We have, for example, learnt from initiatives in our tea-growing businesses about the importance of tuning Action Plans to the local issues, local circumstances and projects that have resonance with local farmers and land managers. In Kenya, Unilever Tea developed an in-house Trees 2000 programme, based on the growing realisation that widespread deforestation was affecting the rainfall patterns in Kenya and thereby the long-term sustainability of the tea business itself. The business already ran tea nurseries, so the Trees 2000 team had access to most of the skills needed to run native tree nurseries. The programme has now raised and help plant and maintain over half a million native trees, not only on Unilever property but also in neighbouring communities, as part of educational and awareness-raising programmes, and within

processing businesses in various countries have also shown us the value of working with local priorities and local stakeholders, and of starting with programmes that tie in with local farmers' priorities. In most cases we have started our sustainability programmes by concentrating on improving crop- or farm- profitability using better agronomic practices and higher eco-efficiency (often with attendant pollution-reduction consequences). Farmers are then in a more receptive frame of mind to think about on-farm biodiversity enhancement programmes that have ecosystem-services value, such as encouraging raptors (e.g. Swainsons Hawk) that eat rodents in California, planting native trees that help reduce water tables in Australia or planting field-margins that may help reduce pest outbreaks by providing habitat for natural predators. Working on local biodiversity priorities – in some cases the national

Our in-house experiences of biodiversity programmes are important when we need to demonstrate to our suppliers the types of practical action they need to take to be able to farm profitably and in ways that are socially and environmentally responsible

biodiversity enhancement schemes run by the WWF in the Mau Forest.

By contrast, the Unilever tea business in neighbouring Tanzania has concentrated on learning better how to manage the large area of high conservation value Eastern Arc forest ecosystem located within its own concession boundaries. This has involved mapping, monitoring, identifying key locations, and working with local villagers to help reduce the negative impacts of gathering food, medicine, building poles and firewood from the forest. Unilever is the world's largest tea company, and we have committed to purchase all our tea for Lipton (the worlds best-selling tea brand) and PG Tips teabags from sustainable, ethical sources. We have asked the international environmental NGO, Rainforest Alliance, to start by certifying tea farms in Africa. Our in-house experiences of biodiversity programmes are important when we need to demonstrate to our suppliers the types of practical action they need to take to be able to farm profitably and in ways that are socially and environmentally responsible.

Our tomato-processing and vegetable-

BAP priorities where these are relevant to farmed areas – also links in with local expertise and local schemes and may even help (although currently only in very few cases) farmers or farming organisations to take advantage of government support or training linked into government-priority biodiversity programmes.

Our in-house projects have not only enabled us to develop an approach to farmland biodiversity that can be summarised as "find out what the local issues are that affect, or are affected by, your farming operation – and then do something about them", but also to be able to demonstrate that it is practical to make improvements within mainstream commercial farming.

There are, of course, areas where this approach is inadequate. Where there is large-scale land conversion from forest or marshland to agriculture, the problem lies well outside the control of individual farms or the businesses they supply. Here it is vitally important to encourage and work with multi-stakeholder initiatives (such as the Round Table for Sustainable Palm Oil, of which Unilever was one of the founding



members) to create the commercial environment where business activities can be directed to support more sustainable production that goes hand-in-hand with biodiversity conservation.

Access to information

In business, we are very good at making decisions and taking action in the light of current knowledge, if it can be made available to us in a straightforward way that can be easily understood.

What I think business needs most, in order to take appropriate action on biodiversity issues, is to have easy access to information on the biodiversity priorities in the geographical areas where it operates. Advice and support from governments, academics and NGOs on what should be the individual business priorities in any one country or location is also extremely important – Avoiding expanding into a sensitive area? Financial support for a Nature Reserve? Pollution-reduction

measures? Providing a ‘missing’ part of the portfolio of ecological needs for a rare species (such as nest boxes or isolated trees for courtship)?

When I first started working in the area of biodiversity on agricultural land, nearly every expert I spoke to stated that the first step in any programme must be an incredibly-expensive ‘full biodiversity survey’- before advice on actions to take could be provided. For a supply-chain base such as thousands of tea-producing farms in East Africa, South America and Asia, or for all our vegetable suppliers in Europe, this was always going to be an utterly impractical starting point. Fortunately nowadays, some national and local BAPs are available in a form that is useful to businesses. And more NGOs are prepared to engage with businesses on priorities for action. Some organisations (for example Conservation International) are now working towards developing databases or world maps where a user can enter a location and find out about local IBAs,

nature reserves, pollution clean-up plans and the endangered species and habitats that need protection in that area. This is the type of information that Health, Safety and Environment or Public Relations managers (with no biodiversity-specific training) need in order to take positive action. The provision of information is a public good and should not be seen as an opportunity for biodiversity experts to sell businesses expensive tools or consultancies (which they are unlikely to buy) – it should instead be seen more as an opportunity for making it easier for businesses to use their skills and resources to ‘do the right things’.

Dr. Gail Smith has a science background and worked with tropical crops before joining Unilever's agricultural environmental audit team and in Safety and Environmental Assurance. She is now part of the Unilever Sustainable Agriculture team.

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Photo courtesy of Edward Dillard/flickr.com

Agriculture and biodiversity: challenges and opportunities for agribusiness



ANNIK DOLLACKER and JUAN GONZALEZ-VALERO explore the interlinkages between agriculture and biodiversity.

Agriculture is one of the key motors of the global economy. It is a source of foods, fibers and, increasingly, fuel. It provides livelihoods and subsistence for the largest number of people worldwide. It is vital to rural development and therefore critical to poverty alleviation. Cultivated land, including arable lands and shifting cultivation, covers approximately 24% of the world's land area. Partly or fully irrigated agriculture claims 70% of the world's developed fresh water supplies. Today, agriculture accounts for over 38% of global employment.

Biodiversity and the ecosystem services it supports are crucial for successful agriculture. Agriculture relies on biodiversity for pollination, the creation of genetically diverse plant and crop varieties, development of robust, insect or disease-resistant strains, crop protection and watershed control. In short, agriculture has a high level of dependence on the whole range of ecosystem services.

Competition

It is estimated that a significant amount of the world's wild biodiversity is found in or around agricultural landscapes. Historically, agriculture served to attract and create new strains of biodiversity. It led to the creation of new plant and seed strains, attracted new animal species and fashioned fresh habitats for biodiversity. Together agriculture, biodiversity and ecosystems constitute a finely interwoven mesh of cross-cutting impacts and challenges. Today, they face a plethora of common threats. Climate change is driving species loss and leading to desertification. Likewise, a growth in the number of alien invasive species is threatening biodiversity and compromising agricultural produce. At the same time, demands on agriculture and pressure on biodiversity are forcing the two into competition.

The last 150 years have witnessed large-scale conversion of land to make way for agricultural and other activities to address demand from the growing world population. Land-use change has both positive and negative impacts. Biodiversity can benefit from agriculture. Making land productive often helps to attract greater biodiversity, while conversion of land for agro-forestry also encourages greater levels of biodiversity. By that same token, negatives can become positives, land that was once considered unproductive because it lacked the necessary nutrients for crop production, often supports a high number of species; this is now widely acknowledged as very

important. But deforestation, for example, to make way for agricultural activities has been a significant driver of biodiversity and ecosystem loss.

Global agriculture is under tremendous pressure. Population growth alone is not solely responsible for driving demand for food and non-food crops. As populations are becoming wealthier, consumption patterns are changing and demand for protein such as meat and milk products is going up. The production of 1 kg of chicken meat requires 2 kg of grain, for example, which further amplifies the demand on grain, not to mention increased demand for virtual water. It is estimated that world cereal stocks are currently at their lowest peacetime levels for more than two decades. Similarly, rural-urban migration is reducing the availability of agricultural labor. The UN Population Division estimates that, for the first time, the global urban population has outstripped the rural one, putting greater pressure on farmers to increase production to feed urban populations. In addition, the quest for carbon-neutral energy sources, as well as water scarcity, global food sourcing, fluctuating commodity prices and disproportionate government support to agricultural investment all collude to put further pressure on ecosystems and biodiversity.

Biodiversity is fundamental to agriculture, food production and sustainable development. For innovation in seeds, biodiversity is the crucial 'raw material'. Therefore,

biodiversity loss represents a significant business risk. The agricultural sector and the down-stream value chain – food, biochemistry, pharmaceutical, and textile industries – are particularly vulnerable. They face operational risks, including diminishing supplies or rising costs of key resources and inputs, such as raw materials and water, for example. Other potential challenges include governmental restrictions on access to biodiversity; damaged reputations and licenses to operate if public expectations are not met; and potentially restricted access to capital as the financial community adopts more rigorous lending and investment policies.

As the world's population continues to grow, with the knock-on effects this will have on requirements for land (for building and other uses), and demand for renewable resources to counter climate change continues to rise, it would be unrealistic to set past species diversity on cultivated land as a desired target. This level of ambition ignores not only the source and origin of this 'diversity', but also generally the fundamental requirements of sustainable development, biodiversity and ecosystems.

As overall land is limited and further encroachment into pristine habitats not sustainable either, agriculture has to be made more effective and sustainable on the land already cropped. This realization is not altogether recent. In the past 50 years, without the use of ever-improving agricultural technologies (seeds, crop protection products, fertilizers, mechanization, irrigation, etc.) a landmass of the size of North America would have had to be turned into farmland. Post war needs shaped agricultural policy which tended towards increased productivity at the expense of wildlife and agro-ecosystem sustainability. Integrated technology knowledge only really came into its own in the 1980s and 1990s.

Sustainable agriculture

The major challenge today therefore is to secure and increase agricultural yield while at the same time conserving biodiversity, ecosystems, and resources as well as maintaining a healthy base for those who rely on agriculture for their livelihoods. In other words, balancing agricultural productivity with the needs of ecosystems and biodiversity to ensure they are all able to deliver their services in a sustainable manner.

The key to achieving this lies in the implementation of sustainable agriculture. This more holistic and systemic approach integrates the three pillars of sustainability: profitability, environmental protection and

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social equity. It includes the premise that agriculture needs to be managed while supporting biodiversity and ecosystem health. Integrated Crop Management (ICM) strategies that are being implemented include, among others, setting biodiversity conservation goals for farmland, such as maintaining or enhancing wildlife habitats. Similarly, low-till, and conservation agriculture are also widely promoted approaches. Low-tillage avoids plowing the soil. Not only does this circumvent the use of carbon-emitting fossil fuels that accompany tractor plowing, this approach – often facilitated by herbicides – also helps avoid soil erosion and improves water retention, by maintaining more organic material in the soil.

The agricultural sector possesses a wealth of biodiversity-relevant knowledge and therefore has tremendous scope for the effective management of ecosystems and biodiversity resources. Farmers are the stewards of the agricultural landscape, its supporting ecosystems and biodiversity.

Crucially, business has a vital role to play in achieving agricultural sustainability. Particularly, those companies in the bio-crop and agricultural sectors can deliver solutions that make agriculture more effective. Some WBCSD member companies are continuously working to develop crop technologies that make agricultural production more effective while respecting biodiversity. Available solutions include energy and water-efficient irrigation techniques, energy-efficient harvesting mechanisms, etc. Similarly, green biotechnology solutions for new traits of seeds (higher yields and quality) and crop protection technologies will also help to achieve biodiversity and ecosystem-related objectives.

Market mechanisms

Market mechanisms too may help achieve sustainable agricultural production and exploitation; particularly for companies further down the value chain that rely indirectly on agriculture and agricultural products. Examples include paying farmers for the supply of ecosystem services such as field margin management, watershed protection or planting cover crops to prevent soil erosion. Trading environmental liabilities such as carbon emissions, wetland

mitigation credits, or even biodiversity restoration credits may provide incentives for sustainable consumption. Finally, the use of certification schemes for sustainable production practices could also result in biodiversity and ecosystem gains as well as offer profitable business opportunities for farmers. These may prove essential if integration of biodiversity enhancements into agro-ecosystems is to yield positive results.

To advance the goal of encouraging agriculture which protects or enhances biodiversity, there is a compelling need to devise workable market mechanisms to quantify and monetize the economic value of agriculture's ecosystem services for the beneficiaries of those services.

Many companies, both in the agricultural sector and further down the value chain, are willing to make the investments and develop the technologies and approaches to contribute towards sustainable agriculture as witnessed by the number of business-led initiatives established to standardize certification procedures and environmental standards. However, to do so they need to gain an economic return on investment and therefore rely on supportive science-based policy frameworks and Intellectual Property Rights (IPRs).

Governments need to set targets and provide the necessary policy and market frameworks. However, such targets will remain moot if adequate enforcement mechanisms are not in place. Similarly, any policy framework needs to be properly integrated across a wide variety of sectors and technologies, as well as regions, to ensure that it does not create perverse or counter-incentives. Business and many leading non-governmental organizations are ready to work with governments to achieve these objectives.

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Healthy agro-ecosystems for sustainable business



JACQUES DU PUY, examines how technologies – such as improved seeds and pesticides – can contribute to sustainably raising productivity on land already been cropped.

The demands on agriculture are currently changing dramatically due to wealth and population increases, climate change and related matters. All of these put tremendous pressure on land. There is no rational alternative to increasing yields per hectare, since available land is finite and further encroachment into wildlife habitats is not a viable option.

The current rate of species extinction and levels of degrading ecosystems raise important questions for agricultural businesses. A key question for us as a company is: can a business case be made that supports efforts to promote agro-ecosystems health and biodiversity conservation? The answer is a resounding yes. Providing farmers – small and large holder farmers alike – with innovative technologies to manage agro-ecosystems effectively secures the agricultural production base in the long-term and is thus fundamental to the sustainability of their business ... and ours.

Crop technology R&D integrates conservation

An obligation we have as a crop science company is to take a holistic view of any potential effects our technologies might have on agro-ecosystems. Hence, we incorporate biodiversity protection aspects into our Research and Development (R&D) activities and are continuously pushing the science further. The introductions of new pesticides and new crop varieties take as long as ten years from initial discovery to first commercialization. Indeed, in view of the intended use of pesticides, their potential effects not only on human beings but

also on the environment are researched exhaustively, making them the most thoroughly studied chemicals worldwide. Protecting species and ecosystems requires a thorough understanding of these products. Therefore research includes basic laboratory studies, sophisticated testing in the field and waterpond trials (see picture below) to assess interactions between products and the ecosystems.

Sparing use of natural resources

Technologies best fulfil their purposes when they enable our customers, the farmers, to adopt farming practices that conserve natural resources. Hence, our experts direct additional efforts towards targeted crop protection measures, including seed treatment, devices to apply products more precisely, such as stem injectors, and computer-based tools that better forecast the development of pests. All of these approaches allow farmers to adjust their pest-management strategies towards when and where required.

One example of targeted pest-management is seed treatment. Treating seeds, rather than the whole field, reduces the amount of area exposed by 95%, while only the target pests are managed and beneficial insects living both on and in the crop are safeguarded. Another example is insect-resistant crops, which also spare beneficial insects. Both approaches additionally save fuel, water and labour.

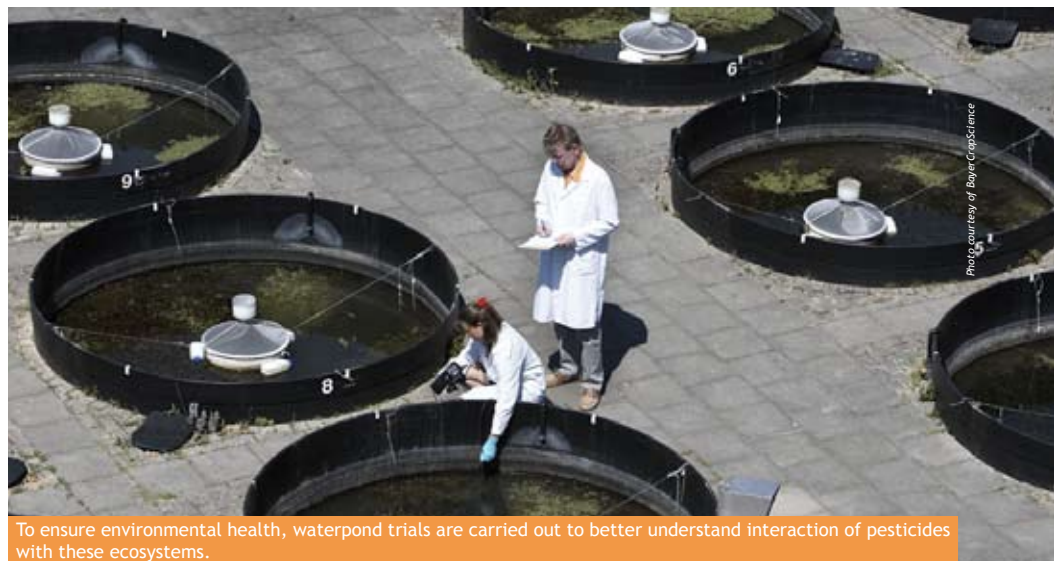
Learning from the field

To address the needs of agro-ecosystems health, there is also much to be learned

and done at the farm level. We cooperate with many partners to further develop farming practices that enhance biodiversity. For instance, in 2007 our colleagues in the UK opened Biodiversity Centres on the company's Research farms to evaluate measures such as the establishment of beetle banks, hedgerows, and ponds on farm biodiversity. The lessons learned are shared with farmers, distributors, agricultural consultants and the wider community to stimulate replication. In Brazil, we initiated a project to restore farmland surrounding a lake. About 8,000 native trees (63 species) were planted, with the result that soil erosion has been reduced, water flow stabilized and many native wildlife species have returned. During the pilot project a manual was developed, which gives directions on how to grow native plants. This encouraged scaling-up and has resulted so far in the planting of more than 100,000 native trees.

Looking forward

To achieve the goal of producing both enough food and non-food crops in a sustainable way, focus must be directed towards more outcome-oriented, biodiversity-enhancing measures. These need to be tailored and properly assessed to reflect the local situation. Market mechanisms, such as certification schemes, which take a holistic approach and clearly contribute to biodiversity enhancement at farm level should be developed by professionals, farmers, government bodies and other stakeholders to suit the 'terroir' hence the site specific needs. These initiatives should add commercial value and be an incentive for farmers. The concept is to turn



To ensure environmental health, waterpond trials are carried out to better understand interaction of pesticides with these ecosystems.

a set of apparent constraints to farmers and the agri-food industry into a win-win and profitable situation. However, a quantum leap in cooperation and co-ordination between all stakeholders is now required. To help healthy agro-ecosystems, our company is ready to share its expertise in natural resource management, project management, agronomy, biology and other areas and to learn from others.

As an R&D-based company, we rely on stringent, science-based and predictable regulatory systems, which stimulate technology innovation rather than impede their development. We call, therefore, on governments to provide enabling policy and market-framework conditions at national, regional and international levels that support investments in agriculture and strengthen Research to close knowledge gaps on the interactions between agriculture, technology and biodiversity.

AS AN R&D-BASED COMPANY, WE RELY ON STRINGENT, SCIENCE-BASED AND PREDICTABLE REGULATORY SYSTEMS, WHICH STIMULATE TECHNOLOGY INNOVATION. WE CALL, THEREFORE, ON GOVERNMENTS TO PROVIDE ENABLING FRAMEWORKS THAT SUPPORT INVESTMENTS IN AGRICULTURE AND STRENGTHEN RESEARCH TO CLOSE KNOWLEDGE GAPS ON THE INTERACTIONS BETWEEN AGRICULTURE, TECHNOLOGY AND BIODIVERSITY

Neither intensive agriculture that denies agro-ecosystem health nor extensive production systems that require more land to feed a growing population are sustainable. It is imperative to find a middle way forward. Rather than looking at agriculture in a segmented way, integration is necessary. An equally integrative policy framework is therefore also required to achieve a healthy agricultural production that fully realizes its potential.

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Can multinationals in the agribusiness sector save biodiversity?



SEIJI MITSUSHI recalls that the corporation was created in order to carry out projects beyond the reach of the individuals alone; sees a role for corporations – as opposed to individual consumers – in taking action to address the biodiversity challenge.

Globalization is a reality – we see this very clearly with our food which comes from overseas countries and travels sometimes half of the globe to reach our plates. From the sourcing of ingredients to final product delivery, through advanced manufacturing with modern food technology, multinationals in the agribusiness sector are key players in this global supply chain. However, few of us pay attention to the sourcing of the ingredients we eat. We rarely consider the environmental impacts, in particular on biodiversity, of our food. Unfortunately, this is also a reality which we need to recognize.

Knowing, saying and doing

Nobody can survive without food. Everybody knows about it; talks about it; and acts upon it. Most of us know about the state of biodiversity nowadays; some of us talk about it; but how many of us are actually doing something everyday to conserve biodiversity? This is a very important issue with an extremely low visibility in the short-term. When we notice something strange, it is often too late. Biodiversity conservation requires proactive and continuous action. All of us already knows this but, just like quitting smoking or drinking, it has been proven to be difficult.

The nature of the corporation

In the modern capitalistic world, competition is considered as natural. Any corporation – from large multinationals such as McDonald's to traditional 'Mom's fresh orange juice shop' near the highway parking lot – needs to confront competition. Basic management theory tells us that the best competitive strategy is either differentiation or low cost. This was mentioned already three decades ago; many corporations today are pursuing one of these strategies.

Monsanto's RoundUp Ready soybean is a well known example of differentiation. As globalization proceeds and the volume of business expands, many companies pursue more and more effective ways of doing business. Effectiveness means profit. Rather than handling diversified products, companies try to standardize them. The environmental impacts of large agribusiness are increasing tremendously. However, few people see these impacts or the fundamental relationship between agribusiness and biodiversity. The general public may, somehow, feel it; may gradually talk about it; but still too few individual consumers are actually doing something about it in their daily activities. This is why, I believe, multinational agribusiness companies can and should be more active in addressing biodiversity loss.

Balancing philosophy and reality

I do not think that anyone has a strong opinion against biodiversity... Most of us know its importance, but few of us want to sacrifice our current standard of living, which is extremely convenient and, in many ways, ensures that we feel remote from biodiversity. In short, maybe we do not want to pay ourselves, but want to be 'smart', which means being an environmentally or biodiversity conscious person. What did our ancestors do when everybody recognized that something was important but was tough to do on an individual level? One of our greatest inventions in history was the creation of the corporation.

Christopher Columbus, and many other ambitious people, achieved great accomplishments through risk-sharing or role-sharing schemes supported by the monarchs. This is what we may now call 'public-private partnerships'. This type of collective or organizational schemes appealed to people both emotionally and practically because although many people understood the importance of the issue at hand, they did not want to do and could not change things individually. Unless recognizing and talking, however, corporation's essential nature will naturally lead them the most effective and productive way to make profit. However, once corporation really recognize the importance of biodiversity, and talk inside and outside the organization about it, large agribusiness corporations will become potentially effective solution providers to the biodiversity challenge.

McDonald's recent leadership to protect the rain forest in the Amazon, in partnership with Greenpeace, seems to me like a good example of this. It changed the behavior of the industry. It switched from philosophy to reality in just six months, from Greenpeace's call for an industry-wide moratorium of soybean sourced from the rain forest. Because we live in the real world, proposed approaches need to produce real solutions which are viable within our current economic and compatible with the way businesses are organized.

Large agribusiness corporations have enough potential to maintain biodiversity. They just need to do it.

Seiji Mitsuishi is Professor of Business Administration, Miyagi University, Japan.

www.myu.ac.jp

Helping the world's farmers go green



JAMES C. GREENWOOD looks at the potential for biotechnologies for conserving biodiversity in crop production, animal husbandry, and forestry.

Plants are the lungs of the world, transforming sunlight into the food that sustains all life and producing the oxygen we breathe. The trees of vast forests are the major terrestrial contributor to global photosynthesis. But Earth's great woodlands are daily diminished by rapid increases in demand for wood products and for land to feed and house an exploding world population. The pressures are made more acute by economic growth and higher incomes. This is an outcome most would welcome, and it is accompanied by society's desire for higher consumption of animal protein. In combination, these challenges increase the environmental impact of the human diet. As president and CEO of BIO, I have met many of our members who are using biotechnology to develop tools that will help reduce our environmental footprint in a myriad of ways.

Crop production and protection

Pre- and post-harvest losses of food are estimated to consume about half the grain grown around the world. Research teams are developing tools for crop improvement and protection that result in increased crop yields per unit area and decreased production costs and impacts. Losses to destructive insect pests are reduced by improvements targeting specific pests without harming other animals and plants.

Farmers growing these crops report much higher levels of beneficial insects and associated biodiversity, like songbirds and hawks, than are seen with conventional agriculture. The best available studies indicate that in the first ten years of substantial biotech crop plantings, farmer income around the world was increased by USD 27bn while the environmental footprint of agriculture was cut by over 15%, with pesticide applications dropping by seven percent (volume of active ingredient). A major benefit has been the widespread adoption of no till weed control — measures that conserve soil quality, moisture content and biodiversity [1].

Forestry

Trees are the world's most plentiful and versatile source of renewable materials, and a potentially important source of biofuels.

Animal biotechnology may provide more nutritious foods, reduced environmental impact and solutions for human health

Increasing yields on existing cultivated land is one way to reduce agriculture's pressure to impact native forest land. Increasing the efficiency of commercially-grown trees is another. Researchers in Asia Pacific, Europe, and the U.S.A. are leading efforts to make trees grow more wood of higher quality on less land in less time with fewer inputs and reduced impacts. Research to reduce the levels of certain compounds, like lignin, thereby reducing chemicals and energy required during processing, is a high priority. If we could grow all the wood we need in smaller areas close to where we use it, we would dramatically reduce the pressures on native forests that host so much of Earth's biodiversity and provide the ecosystem services without which our life on earth would be impossible. It is my belief that biotechnology is helping bring this to pass.

Animal husbandry

Animal husbandry makes up a significant proportion of global agriculture, providing us with food, clothing, and companionship. Scholars look at the relationship between humans and domesticated animals as a co-evolved arrangement in which each depends upon the other. After 10,000 years of stewardship to livestock, the application of biotechnology to agricultural

animals will increase biodiversity through production of healthy animals that express consumer- and environmentally-friendly desirable traits. Animal biotechnology may provide more nutritious foods, reduced environmental impact and solutions for human health.

Livestock are major consumers of the crops we grow. Nearly 80 percent of the U.S. corn harvest is eaten by animals, with about 60 percent of that used in the U.S. and the rest shipped to countries around the world. It takes significantly more than a pound of feed to produce a pound of meat — estimates vary widely, but let's use the conversion ratios calculated by U.S. Department of Agriculture of about 10:1 for beef, 3:1 for chicken [2]. This leaves room for improvement. How can biotechnology help address this problem?

Biotechnology is being used to produce feed grain with improved nutrition that works better as animal feed. Making the phosphorus in soybeans easier for animals to absorb will lessen the environmental footprint of animal waste. Increasing the content of digestible energy, essential amino acids, and fatty acids in feedstuffs will cut the need for additional costly feed supplements. Applying our understanding of animal genomics is dramatically increasing animal health, animal growth rates and improving feed conversion ratios. Today's livestock production based on biotechnology is optimizing environmental impact, while efficiently producing the high quality meat, milk and eggs desired by society world-wide.

Biotechnology is also being used to develop animals resistant to diseases, including some which are transferable to humans. Cattle that cannot contract bovine spongiform encephalopathy (BSE) are being pioneered in Korea, the United States, and elsewhere. Chickens incapable of being infected by avian influenza are being investigated. Over 100 new biotech-derived vaccines, diagnostic devices, and biologics have been approved globally that reduce losses due to animal diseases. Some of these products treat major

developing world problems like rinderpest in Africa. Biotechnology is also being used to produce safe and more effective medicines for human use. Indeed a BIO member has the first product approved in the world from a biotech-derived animal – a human pharmaceutical that is an anti-blood clotting factor produced in the milk of genetically engineered goats.

We are becoming increasingly conscious of the obligations we hold to leave a healthy and sustainable world for future generations. I strongly believe that biotechnology, with its ever-expanding knowledge of the structure and function of life on our planet, will play a vital role in responding to the challenges of feeding the world's growing population, securing and maintaining natural habitats for the world's animals, and replenishing the plants and fauna in the world around us. To that end, strengthening the role of business and industry within the context of the Convention on Biological Diversity has the potential to further the goals of Agenda 21 and the 2010 biodiversity target, and contribute to a significant reduction of the current rate of biodiversity loss at the global, regional and national level. I encourage the Parties to consider at COP-9 various ways to more actively incorporate the expertise and resources of the business community in the implementation of the Convention - including through participation of business as part of national delegations - and to affirm a clear commitment to engage business in partnerships for biodiversity.

[1] See G. Brookes and P. Barfoot, 2006. *GM Crops: The First Ten Years – Global Socioeconomic and Environmental Impacts* (www.pgeconomics.co.uk/pdf/global_impactstudy_2006_v1_finalPGEconomics.pdf).

[2] National Corn Growers Association, 1999. *USDA Food Pyramid*, www.ncga.com/education/pdf/worksheets/unit6worksheets.pdf

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BIO represents more than 1,100 biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and 31 other nations. BIO members are involved in the research and development of healthcare, agricultural, industrial and environmental biotechnology products. BIO also produces the annual BIO International Convention, the global event for biotechnology.

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Nurturing biodiversity by feeding crops well



“‘Best’ is a relative term, not an absolute judgment”

One of the most important links between fertilizers and biodiversity is the beneficial impact of increasing nutrient use efficiency, thus reducing losses. In order to so, Fertilizer Best Management Practices must become more widely adopted, says PATRICK HEFFER.

The principles of Fertilizer Best Management Practices (FBMPs) are simple:

1. Fertilizers should be part of Integrated Plant Nutrient Management (IPNM). Farmers should start by recycling on-farm sources of nutrients (such as manures and crop residues) and then complement them with manufactured fertilizers.
2. Fertilizer use should be adapted to crop- and site-specific conditions. There is no one-size-fits-all solution. ‘Best’ is a relative term, not an absolute judgment.
3. The right product(s) should be applied at the right rate, time and place. This means that all nutrients should be provided in the ratios required.

The International Fertilizer Industry Association (IFA) is currently elaborating a global framework to foster the development and deployment of site-specific FBMPs. The initiative also aims to define indicators to measure the effectiveness of FBMPs [1].

To support greater nutrient use efficiency, policy-makers should:

- Fund research to better understand the most appropriate practices for various crop rotations under different agro-climatic conditions. As a result of ongoing enhancements of cultivars, climate change, shifting cropping patterns and other variables, best management practices need to be reviewed and refined regularly.
- Ensure that robust extension services exist so that farmers are exposed to recent research. It is even more effective if farmers are partners in the initial research, which allows socio-economic and cultural issues that could otherwise hinder uptake to be incorporated from the outset. Participatory research also strengthens farmers’ capacity to continually fine-tune their practices.
- Provide timely access to a full range of fertilizers so that farmers can make the best choices for their particular situations.

[1] See the papers from the March 2007 IFA Workshop on FBMPs (www.fertilizer.org/ifa/publicat/bap/2007_brussels_fbmp.asp) as well as the special issue of the IFA newsletter *Fertilizers & Agriculture* (www.fertilizer.org/ifa/publicat/f&a/2007_09pt.asp).

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Best practice in tobacco, an example from Southern Brazil



FLAVIO GOULART, MARILIA BORGIO and MONICA HARRIS discuss some of the biodiversity challenges faced by British American Tobacco in its Southern Brazilian operations; and highlight progress of its partnership with conservation groups to better assess and manage these.

Tobacco, like other agricultural crops, can present a risk to biodiversity. Habitat fragmentation and clearance, soil erosion, pollution by pesticides, and others are often related with this activity. In the municipality of Paula Freitas in the southern state of Parana in Brazil, tobacco leaf growing farmers contracted by Souza Cruz, the Brazilian subsidiary of British American Tobacco (BAT) have been taking a hard look at how their activities affect the natural environment and the services it provides.

Biodiversity partnerships

The work is being undertaken by Souza Cruz in partnership with the Brazilian NGO Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental (SPVS), and Fauna and Flora International (FFI) with support from the British American Tobacco Biodiversity Partnership. The initiative is aimed at developing and implementing mechanisms to support sustainable management of tobacco farms, including conservation and rehabilitation of native areas; also to ensure 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.

Farmers growing tobacco leaf occupy only 3.6% of land in Paula Freitas municipality but it is the third main income generator in the municipality and, therefore, of vital economic importance. The project, to date, has surveyed 119 leaf growing farms. Preliminary results indicate that all farmers are involved in small scale production that uses around 70% of the farm area for agriculture. The survey has also confirmed that forest cover is still relatively abundant in the region, although the quality and long term sustainability of the forest is questionable.

Challenges

The challenges ahead are also very large. Although farmers are aware of 20% set asides stipulated by the Brazilian Forestry code, they are unsure of their role and responsibilities. Poor management practices in some farms where cattle are allowed to graze freely in the forest have led to the preservation of only the oldest trees with no

under-storey. This obviously has implications for levels of biodiversity. Natural forest continuity is reduced and the risk of soil erosion and soil nutrient depletion is increased.

The use of wood as a fuel for curing tobacco is another key potential impact. The lack of cultivated wood in the market and fair prices for this supply was noted as a general problem in several parts of Southern Brazil, where a wood deficit is foreseen in the short-term. This scenario has highlighted the importance of a Souza Cruz incentive programme for the production of fast growing cultivated wood species, which will be essential for the continuity of leaf curing and most importantly to prevent the illegal use of native forests.

Currently, the economic activity incentives work against the protection of biodiversity and in favor of the inadequate use of native forest. Furthermore, the controversial nature of the industry means that organic schemes and other means of price differentiation that might encourage sustainable farming practices are very low. This means that the role played by tobacco companies in directly influencing environmentally responsible production of tobacco and guaranteeing the global sustainability of the production chain is paramount, recognizing that maintenance of environmental quality needs to be part of their overall business agenda.

Ahead of the game

Stepping ahead of the game, the British American Tobacco Biodiversity Partnership developed a biodiversity best practice tool to support the business operations in assessing threats of business activities to biodiversity and ecosystems services [1]. The tool also supports the development of an action plan with corrective measures to mitigate these impacts. The tool was used to identify risks in the Paula Freitas region as a pilot study and the Partnership is now preparing to replicate the trial on a much larger scale looking at the three southern states of Brazil in 2008.

Although the challenges are paramount, there is a clear business case for Souza Cruz to use its strong outreach mechanisms to support farmers to comply with legislation and ensure that good practices guarantee the conservation of soil and water that are essential for crop productivity. For FFI and SPVS, to tap into the Souza Cruz network of contract farmers, initially in one municipality, but with potential to impact and replicate good practices to over 40,000 contracted farmers is a once in a life time opportunity to change the landscape of Southern Brazil where native Araucaria Forest is estimated to cover less than 1% of its original distribution in the state of Paraná.

The environmental problems identified are part of a broad and complex development scenario where natural resources have 'no value'. Environmental legislation is written for those with schooling and it is poorly enforced. Knowledge about the importance of ecosystem services and good practices to maintain them are in their infancy, if existent at all. Engaging farmers and government in the construction of the solution of these issues will be vital in guaranteeing the success of the project.

This project represents an innovative approach within the tobacco sector. Souza Cruz is working to understand the farmers' reality and to identify the problems of the farms by recognizing each one of them as an essential component of the ecosystem, not just a crop production area. Equally important is how the project identifies the farmers as having key responsibilities to the industry due to the integrated production system, where technical assistance is provided but the farmer is responsible for agricultural production and farm administration. The action-plan is evidence that the project is orientated towards making scientifically identified and positive steps to manage and mitigate impacts on biodiversity. This forward-looking approach reflects a comprehensive understanding of the effective management of business impacts on biodiversity and is illustrative of just how far some industry sectors have moved in recognizing the responsibility of their productive processes. However, the opportunities and incentives for business to move beyond legal compliance are limited by competition for supply of wood for fuel or other products, and lack of information on the amounts produced. This creates a difficult operating environment for all industries involved.

In this context, we see the potential role of government as twofold. Firstly, to ensure that all farmers comply with the law - this currently varies widely between different regions. Secondly, to convene the major players and develop an inclusive approach to identifying guidelines and the best way to apply them - working with industry, the NGO sector and farmers alike.

It is this collaborative way of working which is key if the potential benefits to biodiversity in this region are to be realized.

[1] www.batbiodiversity.org

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interview



Martin Taylor, Chairman of the Board, Syngenta

What does biodiversity mean to Syngenta?

Biological diversity is fundamental to agriculture, food production and sustainable development. We at Syngenta understand this well. Our understanding is not externally imposed, and it does not rely on our Corporate Responsibility Committee - this understanding is in our bones. For our seeds business, biodiversity is the crucial raw material. To increase the productivity of our crops, their reliability and their nutritional value, we must make full use of genetic diversity. Syngenta was the first company in our industry to support the Global Crop Diversity Trust [1]. Our business in the UK is working in entirely unprecedented ways with growers and a major supermarket chain to help preserve bee populations. I really believe that we have begun to acknowledge this issue internally.

Do you really think that business goals can support environmental goals?

Syngenta's principal contribution to biodiversity protection arises from the heart of our business, which is concerned with using technology to increase agricultural yields. At a time when population growth is starting to put huge pressure on food supplies, more efficient use of farmland is indispensable. Low yields are a recipe for deforestation and the destruction of fragile habitats. The fact that bien-pensant people in Europe recoil in horror at any mention of crop chemicals or GM crops does not alter what I understand is now called an inconvenient truth.

There are solutions, and we believe that the deployment of appropriate market mechanisms should be a large part of the response to the challenge. It is widely recognised that such mechanisms can achieve some environmental objectives at a lower economic cost and more easily than approaches such as uniform pollution standards or technology mandates. The market can advance the tipping point for success, after which market-supported progress gathers its own momentum. It is crucial to identify the most effective market mechanisms, in terms of environmental outcomes and financial leverage. A very powerful approach to ecosystem management involves creating new rights or liabilities for the use of natural resources, and then allowing these to be traded.

Market solutions for the environment is an interesting concept, can you explain this using a real example?

According to the IPCC, our current carbon flow adds 3.4 gigatons of carbon to the atmosphere every year. The same report concludes that the potential for increasing carbon sinks in croplands could be of the order of 40 to 80 gigatons – between 12 and 25 years' worth of emissions. Reducing tillage to a minimum, maintaining crop cover throughout the year and rotating crops all help to prevent soil erosion

“This issue, too, is crying out for market solutions”

and conserve biodiversity. This conservation agriculture can dramatically reduce carbon emissions from mechanised tilling and allows organic matter to build up in soil, absorbing carbon dioxide.

Soil sequestration was – most unfortunately – not incorporated in the Kyoto Protocol's first commitment period. The opportunity to include agriculture in the carbon market was therefore missed and farmers had no incentive to take on the transition costs. It is noteworthy that no-tillage is well developed in both North and South America, whereas it remains a marginal practice in Europe. Syngenta and the Syngenta Foundation for Sustainable Agriculture are both active in supporting the mitigation and sequestration of greenhouse gases in agriculture through our membership of the World Bank's BioCarbon Fund.

What are some of the most pressing challenges your company faces?

The world population will rise by some 30%, to 8 billion or so, by 2030 – and it won't stop there. Increased consumption of meat as a result of rising prosperity in the developing world, especially in Asia, means that demand for grain is likely to outstrip population growth very considerably. Overall grain demand will probably grow by almost 50% between now and 2030. Where will it all come from? Some from new farmland – Brazil can probably add a few tens of millions of hectares without encroaching on the Amazon or Atlantic rainforests. But most of the increase must come from higher yields.

And, anyone involved in agriculture has to worry about water, since agriculture uses some 70% of the world's fresh-water supplies – much of it rather badly. Those of us who are fortunate enough to have what is considered an adequate nutrition need a million litres each year to provide our food. The world as a whole needs quadrillions of litres. Freshwater resources are already being used unsustainably, and freshwater biodiversity is among the most threatened on Earth. This issue, too, is crying out for market solutions.

And what are some of the solutions?

Meeting the world's increasing food, feed, fibre and fuel needs can be achieved. Thanks to the investments of Syngenta and its major competitors – between us we spend more than USD 3bn a year on R&D in this area – the technology will be there to meet the challenge.

The interests of biodiversity and – not least – the avoidance of famine require that we make full use of all technological possibilities, including, of course, gene technology, with all its potential environmental benefits. Unfortunately, inexcusable trade distortions remain in place. In addition, we see a retreat from scientific reason that moves away from the risk-based evaluation systems that have allowed the safe and beneficial use of technology for decades. In its place are creeping in hazard-based systems based on little more than fear and ignorance. With hazard as the measure of safety, we should have no cars or aircraft in the world.

Technology, deforestation, hunger – a world with 8 billion people has to choose.

[1] www.croptrust.org

Sustainable wild collection of plants – make way for a new standard



The Decision Group and Secretariat for the ISSC-MAP [1]

DANNA J. LEAMAN explains the rationale for developing a specific standard for supporting sustainable wild collection; outlines roll-out plans

“Organic”, “Fair Trade”, “Ethically Sourced”, “Safe and Effective”... herbal medicines, cosmetics, and other plant-based products are marketed under a growing number and diversity of claims and labels. What is behind these labels? Most consumers don’t know that more than 70 percent of the plant species included in these products are wild collected from natural habitats, and many assume that these labels promise a production process that is ecologically sustainable, regardless of the source of the ingredients. They don’t. Not yet. But the future may be different.

An estimated 50,000 - 70,000 plant species are used in traditional and modern medicine throughout the world, and many more species are important to the growing market for plant-based cosmetics and other products. These species make an essential contribution to healthcare, provide an important source of income to rural harvesters, and fuel a growing botanical products industry. Approximately 3,000 of these plant species are traded internationally. The annual global export of medicinal plants is valued at USD 1.2 bn (based on customs value declarations – the real situation is likely higher based on actual invoiced prices).

The Medicinal Plant Specialist Group of the World Conservation Union (IUCN) predicts that at least 15,000 plant species used in herbal products could be threatened, many as a direct result of unsustainable collection practices. This pattern is likely

to continue into the future due to the costs (time, research, technology, land, and other agricultural inputs) of domestication and cultivation of species. Moreover, cultivation is not necessarily the most beneficial production system for many plant species. For many collectors, economic benefits and conservation incentives are derived from sustainable wild collection. Cultivation is unlikely to meet the demand for raw plant material, particularly for species that are slower growing, that are used in low volumes, that do not command sufficiently high and stable prices in the global market, or that are believed to be more potent in their wild form.

Existing labels

Organic standards have been developed to promote practices that will ensure the environmental and health security of agricultural systems. According to the International Federation of Organic Agricultural Movements (IFOAM), organic certification organizations are asked to include wild-collected materials and production processes because the scope of the organic regulations of the EU and USA include both cultivated and wild crops. Most organic standards address a menu of market expectations related to product safety, handling, and quality: for example, that products will be free of residues from conventional pesticides and fungicides; that fertilizers used are not made with synthetic ingredients or sewage sludge; and that no genetically engineered components are used. However, these standards are uniformly weak in defining important ecological criteria such as sustainable levels of harvest for wild-collection plant species. We have found the same weakness in good agricultural and collection practice (GACP) guidelines,

fair trade and ethical sourcing standards, and in standards promoting the safety and efficacy of herbal medicines. Standards promoting good forest practices, such as the family of certification systems and labels implementing the Forest Stewardship Council (FSC) criteria for sustainable harvest of non-timber forest products (NTFPs), do address ecologically sustainable collection practices more directly, but are difficult to apply to wild-collection situations that are not part of an organized forest management system.

Supporting sustainable wild collection

Industry, governments, organic certifiers, resource managers and collectors are concerned about declining populations and supplies of medicinal and aromatic plants, and are searching for a means to assess whether wild collection is sustainable. Over the last three years, the organizations we represent – the IUCN Medicinal Plant Specialist Group, the World Wide Fund for Nature (WWF), TRAFFIC – the wildlife trade monitoring network, the Institute for Marketecology (IMO), the German Federal Agency for Nature Conservation (BfN), the Foundation for Revitalisation of Local Health Traditions (FRLHT) and Traditional Medicinals, a private company – have been consulting with many other conservation organizations, industry associations and companies, certifiers, and other stakeholders in the herbal products market.

MANY ASSUME THAT THESE LABELS PROMISE A PRODUCTION PROCESS THAT IS ECOLOGICALLY SUSTAINABLE, REGARDLESS OF THE SOURCE OF THE INGREDIENTS. THEY DON’T. NOT YET. BUT THE FUTURE MAY BE DIFFERENT

The result of our consultation and collaboration is the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP), a set of principles and criteria that enable industry, resource managers, collectors, and other stakeholders to assess and monitor the sustainability of wild resources and collection practices. The ISSC-MAP focuses on ecological aspects of good collection practices (GCP), which are often neglected: the need for thorough but cost-effective resource assessments and the determination of sustainable yields. Social and economic factors are also addressed. ISSC-MAP builds on but

does not replace existing principles, guidelines, and standards for sustainable forest practices, organic production and good agricultural practices, fair trade, and product quality. While this standard has been developed with a focus on medicinal and aromatic plants, its theme and content are relevant to any plant resources subject to local and commercial use through wild collection.

Implementation of the new standard

Version 1.0 of the ISSC-MAP was launched in February 2007 during Biofach, an international organic products trade fair in Nuremberg, Germany, and is now available for application to MAP collection operations. Several implementation projects are being developed to test applicability in a variety of geographic, ecologic and socio-economic conditions for collection of medicinal and aromatic plants. These projects address alternative pathways for implementing the ISSC-MAP, including: product and process certification; coordination with permit systems for NTFP collection in managed reserves and protected areas; and as a reference for industry codes of practice. The outcomes of these projects and other experiences with using ISSC-MAP will be used to develop a guidance handbook, case studies, and models for good collection practice. This experience will also be used to further refine the standard, with Version 2.0 anticipated in 2009.

This period will also be used to develop an appropriate business model for ISSC-MAP. The aim is to ensure that the standard itself operates on a sustainable basis in order to deliver sustainable use and conservation of medicinal and aromatic plants, while meeting the needs of the different stakeholder groups.

[1] (from left to right) Josef Brinkmann, Danna Leaman, Ximena Buitrón, Britta Pätzold, Susanne Honnef, Uwe Schippmann, G.A. Kinhal and Rainer Bächli.

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For more information on the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants, contact Britta Pätzold or Susanne Honnef (WWF Germany and TRAFFIC, MAP-Standards-Criteria@wwf.de). All ISSC-MAP documents are available from: www.floraweb.de/map-pro

www.floraweb.de/map-pro

El Acuerdo con Europa y la Certificación Sostenible



JUAN MARCO ALVAREZ calls for favouring certified products, such as coffee, bananas, cocoa and pineapples in the trade agreement that is being negotiated between the EU and Central America.

La Unión Europea importa alrededor de USD 4.7 mil millones de Centro América, lo cual equivale a un 15% de las exportaciones totales anuales de nuestra región. Los productos agrícolas representan un poco más de USD 2 mil millones del total. Ahora bien, más del 55% las importaciones europeas provienen de países en desarrollo, y algunos productos provenientes de ex colonias en África, el Pacífico y el Caribe (los llamados países ACP) tienen un trato preferencial, como es el caso del banano y el azúcar. Esta tradición europea puede representar una buena oportunidad para nuestra región, si a través del Acuerdo de Asociación entre la América Central y la Unión Europea se logra algún reconocimiento a los productos agrícolas certificados, y en especial a los certificados con el sello Rainforest Alliance, como café, banano, cacao, piña, entre otros.

Impulsar la sostenibilidad

Es interesante destacar que el 70% de los productos agrícolas exportados a Europa no poseen ningún valor agregado. El café, el principal rubro de exportación agrícola de la región, se lleva uno de cada tres dólares recibidos de Europa. El banano y la piña constituyen el segundo y tercer producto de exportación respectivamente. Para el caso del banano, la mayoría de las fincas certificadas que le venden a las grandes compañías como Chiquita, son de productores independientes, muchas veces agrupados en cooperativas. Muchos ambientalistas y promotores de un desarrollo sostenible, incluyendo a este servidor, consideran que el sistema europeo de tarifas o aranceles realmente no ha sido muy beneficioso y lo mejor sería que esos mismos recursos financieros se devuelvan a proyectos que impulsen la sostenibilidad para los pequeños y medianos productores agrícolas, incluyendo al sector bananero, así como al sector azucarero, media vez se comience a certificar plantaciones de caña de azúcar en el futuro cercano.

Y es que uno de los grandes retos que se tienen dentro del programa de certificación Rainforest Alliance es precisamente como educar a los finqueros sobre la importancia de la diversidad biológica y el concepto de sostenibilidad. Posiblemente, parte de la cooperación que surja del Acuerdo puede destinarse para educación ambiental o educación para la sostenibilidad agrícola. De igual forma, otro reto que se tiene es como facilitar el acceso a la asistencia técnica para los micros y pequeños productores. El Acuerdo puede proporcionar incentivos económicos interesantes para que esto ocurra.

Tratamiento preferencial

Esta claro que este sistema de tarifas a las importaciones va en detrimento de la calidad de vida de todos los productores de nuestra región y no sólo de las grandes compañías agrícolas que exportan a Europa. Todos los productos certificados deberían tener preferencia en este acuerdo de Asociación entre la Unión Europea y Centro América, y en especial los certificados Rainforest Alliance por su fuerte componente social y ambiental. Esta certificación genera sostenibilidad económica, además de la social y ambiental, brindando oportunidades de diferenciación y competitividad para que el sector agrícola se desarrolle, adaptándose de esa forma a una apertura comercial gradual con Europa. El impacto que pudiese tener un tratamiento preferencial por parte de la Unión Europea, por ejemplo, para la piña de Costa Rica, con sus más de 40,000 hectáreas sembradas, o para el café de El Salvador, que representa su masa boscosa mas extensa cubriendo un 10% de su territorio, puede ser sumamente positivo y atractivo en términos de impulsar una verdadera sostenibilidad de largo plazo, reconociendo un valor agregado para los productos certificados.

Es un hecho que la demanda global de productos Rainforest Alliance Certified esta creciendo de manera impresionante, en particular en Europa. Eso se debe al compromiso de algunas compañías para el concepto detrás del sello, pero también al incremento de los consumidores responsables que prefieren productos diferenciados y certificados que mejoran la calidad de vida de las personas y el medio ambiente. Sin embargo, los mercados son todavía muy pequeños y es necesario estimular mayor conciencia en el consumidor. Acá amerita evaluar, dentro del Acuerdo de Asociación entre Centro América y la Unión Europea, el invertir en generar mayor conciencia en el consumidor europeo sobre la importancia de los productos certificados.

En definitiva, el mercado de tales productos certificados es un mercado verde con grandes oportunidades de crecimiento, y debería estudiarse su negociación dentro del Acuerdo por el bien de la diversidad biológica y de los trabajadores y productores agrícolas de Centro América.

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Delivering on biodiversity conservation through certification



Certification can help to realise a number of benefits from habitat protection to strengthening local communities to better address environmental and developmental challenges. However, a number of challenges remain that constrain the capacity of private standards to deliver, says SASHA COURVILLE. COP-9 represents an important opportunity for governments to address these challenges.

In recent years, we have seen exponential growth rates in the global market for certified products and services. Industry, government, consumer and civil society representatives are increasingly taking advantage of voluntary certification systems to demonstrate social and environmental performance. Accordingly, the use of certification as a tool to guarantee sustainability is leading to the development of a growing number of emerging initiatives in new sectors, from tourism and water to mining, climate change and bioenergy. As this growth continues, credibility, transparency and accountability of certification systems will become even more important as certification becomes a key tool in linking sustainable production and consumption.

Linking the CBD and certification

Biodiversity is at the very core of many of the pioneering international voluntary standards, and in particular of those applied in agribusiness, such as IFOAM - Organic Agriculture, Rainforest Alliance Sustainable Agriculture Network (SAN) and Fairtrade.

The table opposite illustrates a few examples of how international voluntary standards effectively contribute to deliver on CBD 2010 Biodiversity Target across focal areas.

Conservation in the Tropical Andes

International voluntary standards and certification systems have often acted as leaders in translating political commitments into accessible practices for businesses to adopt and implement.

Containing one sixth of all plant life in less than 1 percent of the world's land area, the Tropical Andes are a biodiversity hotspot [1]. The region is under threat from urban development and accompanying industries: mining, timber extraction, oil exploration, and narcotics plantations. Pronatur has been using certification schemes to help small farmers rebuild their economic base drawing from their traditional knowledge and the rich biodiversity of their environment [2].

The Asociación de Pequeños Productores de Tongorrape (APPT) is an association of nearly 80 family farms producing Fairtrade and organic bananas and mangoes in a coastal area where rainfall is practically nil and water conservation is essential. APPT use traditional farming methods

of ecologically sound and sustainable practices - in this case the protection of woodland. Endemic squirrels, some endangered birds, large iguanas and even a boa have already returned to the area and the success of this project is inspiring other farms to follow suit.

Higher up in the Alto Mayo Valley, Pronatur works with the hundreds of families that grow Arabica coffee beneath the Cloud Forest canopy. The cloud forests face increasing pressure from hydroelectric dams, and invasive species like the American bullfrog and grasses planted for cattle grazing.

Under the Rainforest Alliance's Sustainable Agriculture Network (SAN) Certification, the Alto Mayo Valley coffee producers are required to protect the existing forest and plant native species, facilitating the protection of thousands of hectares of forest and the wildlife it hosts. Certification has also brought non-financial benefits in the form of technology transfer and capacity building. It has helped farmers organise

International voluntary standards and certification systems have often acted as leaders in translating political commitments into accessible practices for businesses to adopt and implement

based on centuries-old irrigation methods to bring scarce river water from occasional rainfall high up in the Andes. In compliance with organic certification, a proportion of original woodland is conserved on each farmer's land, preserving the habitat for birds and reptiles that might otherwise be destroyed. They also comply with Fairtrade standards that specify the implementation

themselves into local associations, which coordinate production, conservation and social improvements. In lieu of pesticides, farmers use biological controls, such as a pathogenic fungus that is cultivated in simple 'labs' and used to combat the coffee pest 'broca'. Additionally, many farmers raise such wild animals as peccaries and agoutis for meat, which relieves hunting

2010 Biodiversity Target Focal Areas, Goals and Indicators		Examples from ISEAL Member Standards
Goal 1, Target 1.2	Areas of particular importance to biodiversity protected	RA SAN, Fairtrade and IFOAM organic standards all require the identification, restoration and/or protection of conservation areas
Goal 5, Target 5.1	Rate of loss and degradation of natural habitats decreased	RA SAN, Fairtrade and IFOAM organic standards all prohibit the clearing of primary forests to create new production areas.
Goal 8, Target 8.2	Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people, maintained	Fairtrade premiums are invested into local community priorities such as diversification to strengthen self sufficiency in staple crops, health and environmental improvements.

Recommendations to COP-9 on standards and certification

As COP-8 led to the updating of the clearing-house mechanism with information on best practice, COP-9 should recommend the CBD to work together with international voluntary standards to develop knowledge sharing and technical assistance tools to actually use that best practice and, crucially, collate an understanding of both their constraints in working towards CBD objectives, as well as the impacts they are actually delivering.

At the same time, business solutions such as voluntary standards and certification systems should not continue to be seen as separate approaches to those that the CBD engages in with governments. Examples of enhanced delivery through public - private collaborations are widespread. The shape of these collaborations can be very diverse, ranging from the use of standards as a tool for regulatory enforcement, through to governments as direct clients of private standards. Understanding what brought these partnerships about, and what lies behind their success, should be included in the 2009-2010 work programmes of the CBD, as it would provide the Convention with an enhanced tool-kit to be able to promote greater engagement by the voluntary sector alongside a more supportive regulatory environment by governments, needs already identified in COP-8 (Decision VIII/17).

Increasing the potential for collaboration between business and government is particularly important for the success of the CBD. Since for many companies business choices are defined at national level, the development and implementation of the national biodiversity strategies and action plans, cornerstones of the CBD's strategy (Decision VIII/8), offer an opportunity to ensure private sector integration in public policy implementation. COP-9 should recommend the use of international voluntary standards and certification systems as an important instrument Parties to the Convention should include in their biodiversity action plans to deliver on the Convention. Certification can be a simple and effective tool in translating broad policy commitments into concrete deliverables for the private sector to use in sustainable management.

pressures on wild populations.

The work of Pronatur is only one example among thousands highlighting how international voluntary standards can help the private sector deliver on the objectives of the CBD. Yet, despite their growing number, examples too often remain anecdotal and just nice stories. I believe that COP-9 represents an important opportunity for governments to address these challenges (see box for recommendations to COP-9).

[1] www.biodiversityhotspots.org/xp/hotspots/andes/Pages/default.aspx

[2] www.pronatur.com.pe

Sasha Courville is Executive Director, ISEAL Alliance.

The ISEAL Alliance is an open membership association of leading international social and environmental standards and certification systems. ISEAL strengthens and promotes credible and accessible voluntary standards and conformity assessment as effective policy instruments and market mechanisms to bring about positive social and environmental change. Members meeting full membership criteria include the International Federation of Organic Agriculture Movements (IFOAM), the Rainforest Alliance and its Sustainable Agriculture Network Standards, the Fairtrade Labelling Organizations International (FLO), the Forest Stewardship Council (FSC), the Marine Stewardship Council (MSC), the Marine Aquarium Council (MAC) and Social Accountability International (SAI).

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Pronatur has been using certification schemes in the Tropical Andes to help small farmers rebuild their economic base...



... drawing from their traditional knowledge and the rich biodiversity of their environment



Keeping farming organic and making it productive



ANGELA B. CAUDLE and DEMETERIS HALE recall the reliance on biodiversity for food safety and sustainable agriculture; highlight role of organic agriculture.

Honey bees pollinate about one-third of the food in the human diet. In the spring of 2007, farmers throughout North America scrambled to find bees to pollinate their crops as colony collapse disorder (CCD) potentially threatened to impact the production of more than 90 food, fiber and seed crops that depend on honey bees for pollination. The symbiotic relationship between bees and crops is one of many such partnerships that are tied to the biodiversity present on farms. CCD has been a harsh reminder of the importance of biodiversity to the economic success of a farm as the price of bees for pollination has sharply increased. Biodiversity is being compromised in major part due to agriculture expansion, but also climate change, depleted water sources, and changing ecosystems contribute to biodiversity losses. Diminishing biodiversity affects producers intimately tied to the functioning of these systems. Organic agriculturalists are uniquely and intensely tied to biodiversity for the livelihood of their farms.

Biodiversity as the corner stone

Organic food producers operate their farms within norms and principles, as propagated by private and public authorities, which necessitate the functioning of biodiverse systems on the farms. A producer of unprocessed or processed products must follow prescribed norms, including the conservation and use of biodiversity, in order to market their goods as "organic" [1]. The International Federation of Organic Agricultural Movements (IFOAM) for example has requirements that ensure that a producer use biodiversity (ecological systems and methods) to be classified as organic. IFOAM mandates the conservation of primary ecosystems on organic farms for certification to be granted [2]. Additionally, IFOAM operators are strictly prohibited from administering conventional pest and disease control inputs with ingredients that include carcinogens, teratogens, mutagens or neurotoxins and, are "required to manage pressure from insects, weeds, diseases and other pests, while maintaining or increasing soil organic matter, fertility, microbial and general soil health [3]"

National governments also have set legal

standards that must be met in order for a processed or unprocessed good to be considered organic. Although the labelling guidelines don't refer directly to biodiversity they may guide producers to take advantage of biodiversity benefits. European Union member countries, U.S.A., Australia, New Zealand, Canada, and other major organic food producing countries have standards in place to regulate organic production and labeling. Each organic farmer is dependent upon the distinct local ecosystem to produce goods for the market, sustain such production over time and retain their status as an 'organic' producer.

WHERE BIODIVERSITY FAILS AND THE SYSTEM BREAKS DOWN, ORGANIC FARMERS HAVE FEWER AVENUES OF RECOURSE TO ENSURE PRODUCTION TO MEET DEMAND

Expanding product markets

A biodiversity disruption or failure can also adversely affect the variety of products that can be marketed by a farm. It is a plain economic fact that greater diversity in a portfolio helps to spread risk and supplement production. Biodiversity also refers to diverse genes within a specific species. Organic farmers looking to move into new markets or develop a niche are facing a diminishing bank of genetic resources available from one or more species which hampers the organic product diversification and ultimately the potential profitability of organic farms. Breeding using organic sustainable methodology is a promising new vehicle for farmers to tap into livestock production of breeds more suitable for regional climate and feedstock. For example the reconstitution of the Giant Black Italian hens and other native species in the Ligurian region exemplifies the way in which farmers can use biodiversity to move into new markets to supplement farm income. However continued damage to biodiversity implies that these farmers may not have access to these gene pools and are constrained to more risk as a result of their concentration of production in one particular set of goods.

Production based on biodiversity

Colony Collapse Disorder affected farmers through out the world especially in crops where the bees were necessary pollinators or in the case of honeybee farmers where bee by-product is the crop. The disappearance of the bees meant lowered

production and higher costs. Biodiversity in the form of insects, helpful fungus, microbes, and other ecological system by-products are essential to an organic farmer to maintain production and profit. Where biodiversity fails and the system breaks down, organic farmers have fewer avenues of recourse to ensure production to meet demand. Organic farmers look to sustain the mineral, water and energy cycle while minimizing operating costs. Plant biodiversity and animal biodiversity are related so that even organic farms with mixed production will suffer in a causal chain that is ultimately tied to the survival of their farms and their communities. Finally losses in production will also mean problems with inputs to organic processed products. Most national labeling standards require that processed organic products contain 95 to 100 percent organic content for the purpose of marketing and retailing. Processed products will incur higher costs as a result of limited supplies available from farmers, which will mean higher prices passed on to the consumer and market shortages.

Biodiversity is important to food safety and sustainable agriculture systems. The optimal use and management of agriculture depends upon biodiversity and biological processes. "This calls for the widespread adoption of management practices that enhance [...] biological activity and thereby build up long-term [...] productivity and health". For organic agriculturalists there are important economic links between biodiversity and organic agriculture. Biodiversity in ecological systems and in plants, animals, and micro-organisms as well as interspecies genetic variability are the primary objects targeted for support by international conventions such as ITPGR, CBD and others.

[1] Under International Federation of Organic Agricultural Movements Basic Standards, "organic" is defined as "...[The] farming system and products described in the IFOAM Basic Standards..."

[2] IFOAM Basic Standards. Section 2.Ecosystem Management. Subsection 2.1.2

[3] IFOAM Norms for organic production and processing, 2005

Angela B. Caudle is the Executive Director of the International Federation of Organic Agriculture Movements (IFOAM). She has been active in both the United States and international organic industry, furthering the scope and acceptance of organics. Demeteris M. Hale is a strategic relations trainee at IFOAM in the FAO Liaison Office in Rome Italy. She is also a licensed attorney with a master's degree in international commerce and policy.

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COP 9 MOP 4 Bonn Germany 2008



Spotlight on COP-9

Update on the German Business & Biodiversity Initiative

The Federal Ministry for the Environment (BMU) has established a Business & Biodiversity Initiative [1] to win companies from different industries to become more committed to and actively involved in biodiversity conservation. The Initiative is implemented by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (see contact details below).

Companies are invited to set an example by signing a 'Biodiversity in Good Company' Leadership Statement [2]. The commitment of the 'Good Companies' will be communicated to the general public before and during the ninth meeting of the Conference of the Parties (COP-9).

In the run-up to the COP, a conference is being organized in Bonn, on 2-3 April (see details on page iv).

The Business and Biodiversity Initiative's official 'kick-off' will be on 29 May when signatory companies will be presented in the High Level Segment (to be held at the World Conference Centre). This will include a welcome and introduction by the German Federal Minister of the Environment, Sigmar Gabriel; a presentation of the Initiative; and the presentation of all signatory companies.

On 27 May, signatory companies will be invited to take part in expert fora and present their biodiversity activities.

During 27-30 May, the Initiative has reserved a presentation area for signatory companies at the exhibition fair ('Expo of Diversity').

A booklet on the signatory companies is also being prepared.

[1] www.bmu.de/english/nature/downloads/doc/40635.php. See also logo, this page.

[2] www.bmu.de/files/pdfs/allgemein/application/pdf/bb_leadership_erk_en.pdf

4 page pull-out guide

This guide provides an update on business related activities at COP-9.

This information will be updated in the April issue of the newsletter and again in early May.

Please send information on planned business related activities to the editor before 1 April 2008:

nicolas.bertrand@cbd.int



↑ The German Business and Biodiversity Initiative logo for COP-9.

Meet the business team

Herewith the contact details of the German / CBD Secretariat business and biodiversity team.

HOST GOVERNMENT

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GERMAN B&B INITIATIVE

2/ EDGAR ENDRUKAITIS, Coordinator and **3/ SILJA DRESSEL**, Project Officer, Business and Biodiversity Initiative (implemented by GTZ). T: +49-30-72614-497 / 496 / Edgar. Endrukaitis@gtz.de and Silja.Dressel@gtz.de



CBD SECRETARIAT

4/ NICOLAS BERTRAND, Programme Officer, Focal point for business, Secretariat of the Convention on Biological Diversity. T: +1 514 287 8723 / nicolas.bertrand@cbd.int



Side events

The Secretariat has received several requests for business related side events. To date, these focus on agribusiness, biofuels, biotrade, climate change, cosmetics, financial services, medicinal and aromatic plants, oil & gas, payments for ecosystem services, tourism, as well business and biodiversity in general.

Several side events will form part of a 'Business and Biodiversity Forum', organized by UNEP and UNU-IAS (see page iii).

Parties, companies, business associations, environmental organizations and others are invited to register for side events at www.cbd.int/cop9/register as soon as possible (and by **30 April at the very latest**). A compilation of business related side events will be made available prior to the COP.

Tentative calendar of business related events

We provide here an initial overview of business related events planned for COP-9. This information will be revised in the April edition of the newsletter (deadline for contributions 1 March). This information will again be updated shortly before the COP, when a full

Monday 19 May 2008	Tuesday 20	Wednesday 21	Thursday 22	Friday 23	Saturday 24
THE VENUE The ninth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP-9) will be held in Bonn, Germany from 19 to 30 May 2008. The meeting will be held at the Maritim Hotel Bonn which is located near the Rheinaue park and the former government quarter (including the Ministry of Transport) [1]. Plenary and Working Group I sessions will be held in the hotel and Working Group II sessions will be held in a temporary structure outside of the hotel. The exhibition fair ('Plaza of Diversity') will take place outside of the hotel. Several activities (such as the CEPA fair) will be held in nearby government buildings, such as the Ministry of Transport. Side events will be held in various locations throughout the site. Throughout the COP, a meeting room in the Ministry of Transport has been allocated for the business community. For more information: www.cbd.int/cop9 and www.bmu.de/english/nature/un_conference2008/aktuell/39655.php [1] www.maritim.de/typo3/english/hotels/hotels/hotel-bonn.html Other events in Bonn in May 2008: The fourth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP-4) will be held at the Maritim Hotel from 12 to 16 May 2008 (www.cbd.int/mop4).				10 am Working Group II is scheduled to begin discussions on Agenda item 4.13 (Cooperation with other conventions, international organizations and initiatives and engagement of stakeholders) (As per Annex II of document UNEP/CBD/COP/9/1/Add.1)	
			INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY (theme: biodiversity and agriculture) 5 pm Informal plenary session		
PLAZA FOR DIVERSITY (CAMPUS) 1-3 pm & 6-8 pm					
FAIR ON EXPERIENCES AND BEST PRACTICES IN COMMUNICATION, EDUCATION AND PUBLIC AWARENESS (CEPA) Ministry of Transport					
SIDE EVENTS 1.15-3 pm & 6.30-8.15 pm					

FORMAL AGENDA

Business engagement will be discussed in Working Group II, as part of **agenda item 4.13** (Cooperation with other conventions, international organizations and initiatives and engagement of stakeholders). The Secretariat has prepared document **UNEP/COP/9/21/Add.1** which reviews business and biodiversity developments since COP-8 and contains a draft decision.

Many other agenda items are relevant to business (see the COP-9 provisional agenda, www.cbd.int/doc/meetings/cop/cop-09/official/cop-09-01-en.pdf). All COP-9 documents will be posted at www.cbd.int/doc/?meeting=COP-09.

SIDE EVENTS

Requests for side-events should be made using the online system available on the Secretariat's web site at www.cbd.int/cop9/register **before 30 April 2008 at the very latest.**

An overview of business related side events will be made available prior to the COP. A full list of side events will be made available at www.cbd.int/cop9/side-events.

For more information, see the Information note for participants, at www.cbd.int/doc/meetings/cop/cop-09/other/cop-09-info-part-en.pdf.

GERMAN B&B INITIATIVE

The German government has launched a Business and Biodiversity Initiative. Events linked to the Initiative will take place on **27-30 May**. See page i of this guide.

HIGH LEVEL SEGMENT

A High Level Ministerial Segment (HLS) is being organized on **28-30 May** at the World Conference Centre. The German Business and Biodiversity Initiative will be profiled there on **29 May**. Additional information will be posted at www.cbd.int/cop9/hls.

Spotlight on COP-9

list of business related side events will be made available. All COP-9 information is posted at www.cbd.int/cop9.

Sunday 25	Monday 26	Tuesday 27	Wednesday 28	Thursday 29	Friday 30
				<div>BUSINESS AND BIODIVERSITY FORUM</div> <p>Several business related side events, throughout the COP, are expected to be featured under a common ‘Business and Biodiversity Forum’ umbrella.</p> <p>The United Nations Environment Programme (UNEP) and the United Nations University / Institute of Advanced Studies (UNU/IAS) are taking the lead in organizing the forum, which should convene many other organizations. Preliminary plans are for the forum to include interactive side events on Access and Benefit-sharing, community based business, pro-poor carbon markets, indicators for business and biodiversity partnerships; the financial services sector, <i>etc.</i></p> <p><i>Contact Balakrishna Pisupati (Balakrishna.Pisupati@unep.org) or Nicolas Bertrand (nicolas.bertrand@cbd.int) for more information.</i></p>	
			<div>HIGH LEVEL SEGMENT</div> <p>World Conference Centre</p>		
		<div>GERMAN BUSINESS AND BIODIVERSITY INITIATIVE</div> <p>Expert fora (27 May, Ministry of Transport, room 0.121) ‘Diversity Wood’ (itinerary exhibition, throughout the COP) Presentation at the High Level Segment (29 May at 12pm, World Conference Centre) Booth at the Expo of Diversity (27-30 May)</p>			
		<div>PLAZA FOR DIVERSITY (EXPO)</div> <p>10 am - 8 pm</p>			

CEPA FAIR

A Fair on experiences and best practices in Communication, Education and Public Awareness (CEPA) will be held in the Ministry of Transport building and will include displays and presentations on National CEPA strategies; mobilization of the media; the integration of biodiversity considerations into education; best practices in raising public awareness.

Business is invited to contribute. Submissions should be received **no later than 26 March 2008**. See Notification 2008-020, posted at www.cbd.int/doc/notifications/2008/ntf-2008-020-cepa-en.pdf

PLAZA OF DIVERSITY (CAMPUS)

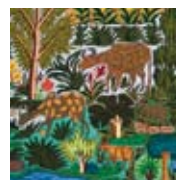
The 'Plaza of diversity' will include an exhibition fair, workshops, and many other activities. The 'Campus' will run throughout COP-MOP-4 and COP-9.

PLAZA OF DIVERSITY (EXPO)

The 'Expo' will run on **27-30 May**. The German Business and Biodiversity Initiative will hold a booth. For more information on the Plaza, which is organized by DBU, see the Information Note for Participants and/or www.plaza-of-diversity.org.

IBD 2008

On **22 May**, International Day for Biological Diversity (IBD) helps raise awareness of the importance of biodiversity – this year's theme is "Biodiversity and Agriculture". An informal plenary session will be held at 5 pm on 22 May. Several side events, on 22 May and throughout the COP, will also be organized. See www.cbd.int/ibd/2008.



INTERNATIONAL
DAY FOR BIOLOGICAL
DIVERSITY

22 May 2008

**BIODIVERSITY
AND AGRICULTURE**

In the run-up to COP-9, a number of business and biodiversity events are planned. The Secretariat is participating in the following:

23 February 2008, Rome, Italy
Roundtable meeting on biodiversity offsets, biodiversity credits and conservation banking

Over 30 countries now have regulations to encourage developers to undertake biodiversity offsets to achieve 'no net loss' or a 'net gain' of biodiversity when infrastructure projects will result in significant impacts. Some have developed these into conservation banking and credit trading schemes. In addition, a growing number of companies are undertaking voluntary biodiversity offsets, supported by conservation experts and increasingly required to do so by the conditions of bank loans.

Following SBSTTA-13, the Business and Biodiversity Offset Program (BBOP) is running a roundtable meeting to discuss biodiversity offsets and prepare for related discussions at COP-9, in the light of Decision VIII/17.

www.forest-trends.org/biodiversityoffsetprogram

29 February 2008, Galway, Ireland
Business and Ecosystems: Innovation, opportunities and challenges for the private sector

A satellite workshop to the Second International Conference on Health and Biodiversity (COHAB 2).

The COHAB Initiative Secretariat is convening this event to: examine the business case for nature conservation; explore business opportunities and challenges associated with biodiversity; discuss the tools available to help business managers identify options for developing new markets based on ecosystem services; and pool experience and perspectives from business.

The workshop will explore the following themes: the business case for biodiversity; what's happening at the policy level; how to identify risks and opportunities; creating new markets in different sectors; country and company experience.

Contact Conor Kretsch, Director, COHAB Initiative Secretariat (conor@cohabnet.org)
www.cohabnet.org

27-28 March 2008, New York, USA

Biodiversity & Ecosystem Finance

How can financiers & corporations take a lead in biodiversity & ecosystem conservation?

Endorsed by UNEP Finance Initiative this two day conference, organized by Green Power Conferences, will explore all the issues relating to the developing area of Biodiversity & Ecosystem Finance. Speakers will be a balance of industry experts; financial institutions' and early adopter best practice case studies. Day one of the conference will introduce the biodiversity finance challenge and corporate biodiversity considerations and day two will focus more closely on the financial services sector and biodiversity.

Against the backdrop of climate change the environment is now fully on the agenda of large corporations and financial institutions alike. These considerations now go far beyond carbon markets and emissions trading. For corporates, banks and investors biodiversity needs to be viewed from both from the risk mitigation angle (reputational and performance exposure) and the opportunity angle.

The CBD Secretariat is a Strategic Partner.

Top 10 speakers include Claudia Sobrevila (Senior Biodiversity Specialist, World Bank, USA); Sharon Maharg (Director, Sustainability Management, WestLB, USA); Courtney Lowrance (Vice President, Environmental & Social Risk Management, Citi, USA); Stuart Anstee (Principle Adviser - Environment, Rio Tinto, Australia); Sachin Kapila (Biodiversity Advisor, Shell, UK), Nicolas Bertrand (Programme Officer, SCBD, Canada); Susan Steinhausen (Programme Manager - Biodiversity & Ecosystem Services, UNEP FI, Switzerland); Ricardo Bayon (Founder and Head of Research, EKO Asset Management Partners, USA); Tammy E. Newmark, President, EcoEnterprises Fund, USA); Joshua Bishop (Senior Advisor, Economics and the Environment, IUCN, Switzerland).

www.greenpowerconferences.com/carbonmarkets/documents/biodiversity_brochure.pdf

3-6 March 2008, Rome, Italy
IATA World Cargo Symposium 2008

The Secretariat is participating, on 5 March, in a session on 'Sustainable Use & How Trade Contributes to Livelihoods'.

www.iata.org/events/wcs08/index.htm

2-3 April 2008, Bonn, Germany
International conference 'Business and Biodiversity'

What is the contribution of the business sector to the conservation of nature and biodiversity? How do companies deal with the increasing demand for natural resources and increasing intensive (over)use of ecosystems? What are the expectations of environmental and development organizations from industry?

The environmental foundation Global Nature Fund (GNF) and the Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ) will be hosting this conference to discuss the role of business in the conservation and sustainable use of natural resources and biodiversity.

The programme includes sessions on the importance of biodiversity linked to cor-

porate risk management and market potential for 'biodiversity-friendly' products. The current Business and Biodiversity Initiative of the German Federal Ministry for Environment will be presented. There will be discussion forums on the topics Corporate approaches to protect Climate and Biodiversity, the use of genetic resources and the importance of the financial sector in conserving biodiversity.

For further information, contact Stefan Hörmann (T: +49 228-2429018 / hoermann@globalnature.org) or Silja Dressel (T +49 30-72614-496 / Silja.Dressel@gtz.de).

www.globalnature.org/bio-div

April 2008, Montreal, Canada
Facing the biodiversity challenge. New risks and opportunities for Canadian business

Co-organized by IUCN and Deloitte, in collaboration with the CBD Secretariat, and with the financial support of the Government of Canada. Planned by and for Canadian business, this event will explore how Canadian companies can respond to the biodiversity challenge.

Additional information will be provided in the April issue of this newsletter.

Increasing the understanding of biodiversity for the Russian forestry sector



Mikhail Karpachevskiy



Alexei Grigoriev

MIKHAIL KARPACHEVSKIY and ALEXEI GRIGORIEV outline the rise in the use of FSC certification by the Russian forestry sector.

Russian timber companies really started to realize the importance of biodiversity in the early 1990s. This occurred at the Russian-Finnish border. In the Soviet times, areas along the border remained virtually inaccessible for national security reasons. As a heritage of the Cold War, a strip of old-growth forests along the Russian-Finnish border under guard by troops for the last 50 years enjoyed nearly natural conditions. From the Finnish side, the forest was clearcut to the border line and on the Russian side, clearcuts started 30-40 km from the border.

Old growth

After 1991, border restrictions were lifted and timber companies from both sides of the border anticipated the opportunity of harvesting in this unique strip of the old growth forests (the so-called Green Belt of Karelia), one of the largest in whole Europe.

Thanks to the Taiga Rescue Network, Greenpeace, WWF and other organizations, a strong awareness campaign directed at the leading consumers of Russian timber coming from the border forest started. As a result of this public pressure, Finnish companies ENSO and then UPM-Kymmene committed not to purchase timber from such forests. Many other foreign and Russian timber companies subsequently joined the Old growth forests logging moratorium for Republic of Karelia and Murmansk Oblast. To be able to follow these commitments large Finnish importers established a system to control sources of Russian wood.

Environmental activists developed a methodology, which allowed them to quickly produce maps of old growth forests. The first maps covered areas near the Finnish - Russian border, later ones covered the whole Northern European Russia. In 1999,

the map *The Last of the Last*. Old Growth Forests of Northern Europe was published as part of the awareness campaign.

Constructive relationships

Early conflicts between environmental activists and timber companies had thus gradually evolved into more constructive relations. Systematic information on old growth forest in other parts of the country was lacking. In the early 2000s, IKEA, the MacArthur Foundation, and the World Resources Institute (WRI) and others funded the preparation of the Atlas of Russia's Intact Forest Landscapes, a project implemented by a large consortium of Russian environmental NGOs and scientists. This was published in 2002 in Russian and English. IKEA started to use the Atlas to manage its supply chain in Russia and many other companies followed this example. This also marked the shift of the focus from old growth forests to a more general concept of high conservation value forests (HCVF).

Certification

Changes in the timber industry's attitude toward environmental issues, especially timber procurement, reflected a growing public awareness of forest destruction and degradation. Many consumers were concerned that their purchases of wood and other forest products not contribute to this destruction but rather help to secure forest resources for the future. Certification programmes held the promise of responding to these emerging demands. In this context, forest certification was to cover not only the issue of conservation of valuable forests, but also to minimize the environmental impact of harvesting methods and to consider social issues (local community rights, health and safety regulations for forest workers, etc.). Forest certification should also be supported by all stakeholders: NGOs, local communities and business community.

The Forest Stewardship Council (FSC) was

chosen as a model because it promotes environmentally responsible, socially beneficial and economically viable management of the world's forests, by establishing a worldwide standard of recognized and respected Principles of Forest Stewardship. A National FSC Working Group was established in 2000 in order to start a national standard setting process. The Working Group plays an important role in initiating a nation wide discussion on 'good' and 'bad' forestry practices and shortcomings in legislation and law-enforcement. It also helped to bring to light the limitations of existing environmental policies of many export-oriented timber companies.

All this triggered a fast growing interest from companies in FSC certification. In early 2008, there were around 18 million hectares of FSC certified forests in Russia. This places Russia on the second position globally by the area of FSC certified forests. All major timber industries (e.g. Ilim Group, StoraEnso, UPM-Kymmene, Mondi Business Paper Syktyvkar, IKEA etc.) operating in various regions of Russia are now involved in FSC certification.

As part of their preparation for certification these companies invested hundreds of thousands US dollars in introducing biodiversity protection measures, environmentally sound harvesting techniques, improving workers health and safety standards, communicating with local and indigenous communities and setting aside forest for nature conservation. Local communities nearby certified forests as well as forest workers witnessed a tangible improvement in their life standards, and the possibility to raise their concerns. Certified companies were able to significantly improve their environmental reputation, to make their operations more efficient and to strengthen their presence on environmentally sensitive markets in Western Europe, Japan and North America.

Dr. Mikhail Karpachevskiy, is the Forest Programme Coordinator at the Biodiversity Conservation Centre and currently the Chair of the Russian National FSC Initiative and Alexei Grigoriev is expert, IUCN - International Union for Conservation of Nature, Representative Office for Russia.

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Retailers push sustainable shrimps



In a globalised market, concern for sustainable development is increasingly expressed through purchasing preferences. MATHEW PARR looks at how voluntary standards are being used in the aquaculture sector as the business tool of choice by large retailers in Europe to achieve sustainability and responsible procurement objectives.

Although the majority of agriculture, aquaculture and fisheries production is still used in the country of origin, the integration of global markets is leading to a growing proportion to be traded internationally. This is primarily destined, in one form or another, for the shelves of food retailers in the northern hemisphere. Fish is the most internationally traded food commodity, and tropical shrimp one of the most valuable traded fish commodities. The largest retailers are working more closely with their suppliers on production standards to ensure not only food safety and quality but increasingly sustainability and responsibility as well, essential to their brand reputation. This is being driven by a number of complex factors, principally: food scares; changing legal frameworks; increased market concentration; changing consumer expectations and corporate social responsibility. Although our understanding of the role of voluntary standards and certification schemes is still evolving it is now widely accepted that, when governed in a credible, inclusive and transparent manner, they can be essential tools for achieving biodiversity conservation, sustainable use, social equity and business objectives.

European retailers and shrimp aquaculture

Aquaculture has recently overtaken fisheries in the supply of fish products to retailers and global markets, reflecting not only the levelling off of global fish catches but also the industrialisation of aquaculture.

Tropical shrimp has been at the forefront of this transition. In the last twenty years the shrimp aquaculture industry has grown rapidly in the coastal regions of many tropical countries and shrimp now accounts for around 20% of traded fish products. Whilst this has provided economic benefits for some groups in society, shrimp aquaculture has also been associated with large-scale ecological damage, in particular of mangrove forests, and marginalization and impoverishment of local communities.

The ecological and social impacts of shrimp aquaculture have been reported on by scientists and NGOs for over twenty years, but credible market based solutions to address these external costs have been slow to take hold, and problems persist [1]. Voluntary standards and certification have been proposed in consuming countries as a way to improve the industry and minimise some of the core impacts. Dutch and European retailers and their suppliers have recently developed a shrimp aquaculture standard with the organisation GLOBALGAP (formerly EurepGAP). This is the first time that a GlobalGAP standard aims to address a range of social and ecological issues, and the first time NGOs, including IUCN NL and

diat access to the huge and lucrative European retail market. To date, GLOBALGAP has issued over 70,000 certificates covering over one million ha of crops, livestock and aquaculture (pre-farm gate) in more than 80 countries. The GLOBALGAP aquaculture base is currently expanding to include new standards for shrimp, pangasius, tilapia and undoubtedly many more species in the future [2].

Standard development and governance

Standard development is a crucial stage in designing a credible voluntary standard, as the experts involved, decision-making and overall governance of the process will ultimately determine which issues are to be addressed by a standard. If a standard aims to address environment and social practices in production, then the governance of this process must be credible, inclusive and transparent. A key challenge is of course identifying and engaging the relevant stakeholders. It is often local NGOs who have the deepest and clearest understanding of these issues and are perhaps most suited to frame such standards. However, local NGOs are not yet convinced of the benefits of standards and certifica-

The growing role of private standards is providing many opportunities to achieve biodiversity objectives in unison with a more market and business oriented approach

OxfamNOVIB, have been invited to advise on environment, biodiversity and local community issues.

ONE standard

GLOBALGAP is one of the largest and most powerful voluntary standard setters in Europe. It is a membership organisation set up by some of Europe's largest retailers and their suppliers whose principal aim is "to establish ONE standard for Good Agricultural [and Aquaculture] Practice (G.A.P.) with different product applications capable of fitting to the whole of global agriculture".

Many of GLOBALGAP's retail members have committed to purchase only from GLOBALGAP certified suppliers in the near future. GLOBALGAP is a B2B label (see box, opposite page), and once certified to a particular standard, producers are entered into a database and have much easier and imme-

tion and have been reluctant to engage in such processes. A key reference document for many in the field of standard setting for social and environmental practices is the ISEAL Code of Good Practice [see article in this issue, pp. 16-17].

The GLOBALGAP salmon aquaculture module, currently the only functioning GLOBALGAP aquaculture module, was reviewed in a recent WWF report on certification schemes aimed at benchmarking all existing aquaculture schemes against a set of criteria [3]. The research reviewed over 30 certification programmes, and "identified numerous shortcomings, constraints and challenges with existing programmes that need to be addressed if they are to help the sector achieve long-term sustainability". GLOBALGAP scored well in Animal Welfare, Health Issues and Verification Procedures, achieving on average over 80%, but scored relatively poorly in three key areas: envi-

What is a standard?

Standards are essentially documents of codified information, approved by a recognized body, that provide rules, guidelines or characteristics for product or production processes, and for which compliance is voluntary. Standards often communicate good or best practice, and are frequently complemented by some sort of certificate, label, or other assessment to assure conformity.

Standards exist for a wide range of crops, livestock and aquaculture products, from coffee to poultry to salmon, and cover an increasing number of issues, from food safety, animal rights, labour issues, environment and, more recently, biodiversity and community rights. Developing and governing voluntary standards is a very complex, technical and political affair, and there is now a significant portfolio of assurance schemes working to different standards and at regional, national and international levels.

Certificates and labels may be visible to the final consumer (Business to Consumer; B2C), such as the Marine Stewardship Council, or between businesses themselves (Business to Business; B2B), such as food safety initiatives. Access to certain markets, particularly in OECD countries, increasingly depends on demonstrating to customers, primarily via the use of voluntary standards and certificates, that products have been produced according to the principles of sustainable development

environmental issues, community issues, and standard development and governance. Low scores on environment and community issues might be explained by the absence of environmental and social science experts and NGOs in the development of the salmon module, which also demonstrates the importance of this stage.

The three main concerns, amongst others, regarding standard development and governance described in the report are that GLOBALGAP offers: (1) Limited process of external stakeholder involvement in standard development; (2) Limited openness of governance (only open to retailer and supplier members); and (3) Insufficient interdependency of standard creation and standard holding body.

GLOBALGAP's recent experience of better inclusiveness in the development of the soon to be released shrimp standard with the advice of IUCN NL and Oxfam NOVIB should help in the development of environment and social standards and understanding NGO positions on these matters in the future. But challenges still remain as to how GLOBALGAP will address issues raised by many in the NGO community, and expressed in the WWF report, related to governance. Retailers dominate decision mak-

ing in GLOBALGAP, and whilst NGOs have recently been invited to provide advice and input, they are very much external stakeholders and have no decision-making power. It is not yet clear how GLOBALGAP will demonstrate that the current governance system can deliver appropriate, robust environmental and social standards, or whether indeed they will open up the governance structure to become truly transparent, inclusive and multi-stakeholder in the future.

Burning questions

The growing role of private standards is providing many opportunities to achieve biodiversity objectives in unison with more market and business oriented approaches. Three burning issues remain though for all organisations, private or otherwise, concerned with achieving such objectives.

Firstly, to what degree does a particular system effectively deliver what is being communicated to the market? WWF's re-

become of the role of governments in the governance of food production systems? Will governments revert to ensuring that private voluntary standards are run in credible ways, or will governments also allow this to be left to the market? The FAO is currently engaged in a process to "develop international guidelines on aquaculture certification, through a credible and transparent process" [4]. Should governments consider taking a more hands-on role in ensuring such guidelines are followed by the relevant private sector bodies?

Thirdly, how do NGOs ensure that their own strategies related to food production are effective and credible in trying to influence and collaborate with business? Governance of voluntary standard initiatives forms the cornerstone of their design and implementation, but many NGOs have limited knowledge on this new and often complex subject. A greater understanding of such market mechanisms is needed by both business and NGO communities if



Photo courtesy of Mathew Parr

port certainly provides an excellent overview, and indeed concluded that no existing aquaculture system does this. This is the core of many local NGO concerns with certification as they are yet to see such initiatives deliver the environmental and social standards targeted. Improvements are certainly needed to existing systems before voluntary standards achieve their theoretical potential and prove to be anything other than 'new clothes on the same emperor'. This should be coupled with much more independent field-based academic research to investigate long term benefits and shortcomings. Conscious efforts are needed to ensure systems do not exclude small farmers from market access with unachievable standards and little investment or incentive.

Secondly, given the increasing role private voluntary standards are playing, what will

we are to find a permanent, trusted and transparent nexus where solutions can be found.

[1] De la Torre & Barnhizer, D. Eds. *The blues of a revolution: the damaging impacts of shrimp farming*. ISA Net/APEX, Seattle, USA. 2003.

[2] www.globalgap.org (accessed 20/12/07).

[3] http://assets.panda.org/downloads/benchmarking_study_wwf_aquaculture_standards_low_res_with_annex_.pdf. WWF is also running aquaculture roundtables for various species to "develop credible, voluntary standards geared toward minimizing or eliminating the main environmental and social impacts caused by aquaculture" (www.worldwildlife.org/cci/aquacultureoverview.cfm, accessed 20/12/07).

[4] www.enaca.org/modules/tinyd10/

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Let us Amazon our business



Photo © Gerard Tili Photography, The Netherlands

zones is therefore very important. If we can turn things on their head and make the sustainable and certified management of forests an acceptable alternative that has equal – or better still – more value than clearing the forest and stripping it of its biodiversity, then we may just succeed in stopping deforestation, one step at a time. Sustainable forest management using FSC principles and criteria is one of the tools to accomplish this.

Saving the Amazon forests on the one hand, and promoting significant, sustainable economic development for local communities on the other, means unsustainable logging can and must be pushed to the sidelines. In its place, sustainable, innovative, sophisticated and certified mainstream products will take centre stage.

High-quality consumer goods

The Amazon is a supplier of countless high-quality natural ingredients and other biodiversity products that can be

used in the food, beverage and cosmetics industries.

The first generation of sustainable and certified mainstream quality consumer goods has emerged in the Amazon: among them are energy drinks, snacks, wild gourmet chocolate, food dressings, food supplements, body care products, essences, cosmetics, aromatic oils, medicines, even kitchenware, furniture, shoes and fashionable rubber bags. And *Oro Verde*, or Green Gold, obtained in a responsible, sustainable way from tropical forests in Colombia, is just one example of how new standards are being set by Amazon products to which the rest of the world will aspire.

Ecological commodities, like the wilderness expanses, water and air, are still generally considered 'free goods'. However, this notion is changing. We are seeing a trend where stakeholders, like towns, companies and governments are beginning to pay for the ecosystem services they use.

For **MEINDERT BROUWER**, author of *Amazon Your Business*, the message to entrepreneurs is "make money with sustainable products from the Amazon. Consumers want them. At the same time you contribute to the protection of the Amazon and you increase the income of local people in the forest. This is an offer you cannot refuse". His message to politicians and governments is "facilitate market access for sustainable biodiversity products; this is an effective way to help realize Millennium Development Goals".

Demonstrating the economic value of sustainably managed forests outside protected areas is of key importance to safeguard the Amazon.

Saving the Amazon forest, first of all, means that large areas should be strictly protected, prohibiting any sort of 'modern' economical activity. Strictly protected areas, however, need buffer zones to keep them from the danger of encroaching, unregulated human activities. The management of buffer



A selection of sustainable Amazon-products: 1/ liba wooden bowls (Brazil); 2/ Rubber bag, by Treetap® Wild Rubber (Brazil); 3/ Rainforest Exquisite Products S.A. (REPSA) – wild gourmet chocolate (Bolivia)



2

3



Trends

Today, market trends in Europe and the United States of America reveal that consumers appreciate natural, authentic products; goods and services they are able and willing to pay more for. The intangible quality of a product is gaining weight in people's purchasing decisions as they value 'the story behind the product'. As conscientious consumers, they want to buy products that have had little impact on the environment, whose processes respect human rights, and that generate fair benefits for workers at the beginning of the supply chain.

This is one reason behind the growth we are seeing in international markets of sustainable quality products from the Amazon. Numerous international trends underscore the direction that is being taken towards sustainability, including:

- Consumer demand for authenticity in the products they use.
- Increasing global calls to eradicate poverty.
- Increasing pressure to protect and conserve nature.
- New concerns among corporate leaders about the deterioration of natural resources.
- A growing emphasis on transparency throughout the international business world.
- The mounting influence of ideas for corporate social responsibility.
- An increasing number of multinationals and large commercial supermarket chains selling sustainable products in growing numbers.

A call to action

All of us can contribute to take this further. Entrepreneurs, investors, politicians, civil servants, consumers - all of us have a part to play. And, with renewed focus, you and I can bring about this change.

Let us Amazon our business!

AMAZON YOUR BUSINESS

Amazon Your Business is the first guide to sustainable Amazon products from the forests and rivers in all the Amazon countries: Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname. Ministers of Amazon countries, local villagers, entrepreneurs, consultants, leaders of international organisations and NGOs share their views and experiences of the development and marketing of sustainable products and payments for environmental services in the Amazon.

Make money with sustainable products from the Amazon. Consumers want them. At the same time you contribute to the protection of the Amazon and you increase the income of local people in the forest. This is an offer you cannot refuse

Amazon Your Business side event at COP-9

22 May 2008, 6.15pm*

hosted by Meindert Brouwer Communications

DISCOVER many sustainable Amazon products

TASTE and ENJOY wild chocolate from the jungle in Bolivia and Açaí energy drinks from Brazil

MEET Amazon experts

* Tentative, see final list of side events nearer the date

Meindert Brouwer is an independent communication consultant from the Netherlands. He specializes in developing and implementing communication and marketing concepts for nature conservation, sustainable development and development cooperation. He started his career as a freelance journalist and has been employed by KPMG and WWF among others.

Amazon Your Business is available in English, Spanish, Portuguese and Dutch.

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Mixing medicinal plants and passion fruit. Making soap!



MATTHIEU BEAUCHEMIN and MARCELO MENDES AMARAL assess the viability of producing soaps using medicinal plants extracts from the Atlantic Forest.

When all but 7% of one of the world's richest ecosystems remain, it is critical to take concrete conservation measures towards its protection. Yet, when more than 100 million people live within that ecosystem, applying constant pressure on a strained environment, protection is not enough. In this case, what is needed is a new model of development; one that promotes the conservation of biodiversity not by fencing off protected areas but by giving an economic value to biodiversity.

The situation described above is that of the Atlantic Forest, a forest that partially covers 17 of the 26 Brazilian states and that extends from the Brazilian Nordeste all the way into Argentina and Paraguay. This forest is home to more than 20,000 species of plants (8,000 of which are endemic) and to about 1.6 million species of animals and insects (25 to 50% of them being endemic). Local people are best placed to become the defenders of this rich ecosystem. One of the best ways to ensure that they take up this role is to provide an economic incentive to conserving biodiversity.

Commercial venture

The Medicinal Plants project of Associação Amigos de Iracambi, a Brazilian not-for-profit organization aims at doing just that. Adopting a three-way approach to development, with an emphasis on environmental, socio-cultural and economic development, the project seeks to find economic value for both the medicinal plants themselves as well as the traditional knowledge of local people.

It is always a tremendous challenge to craft a commercial venture so that it also complements the promotion of sustainable development within small communities. After extensive research on native medicinal plants from the Atlantic Forest, the Medicinal Plants project at Iracambi looked at a number of alternatives for commercialization to find the perfect match. This proved to be with the production of soaps.

Biodiversity, especially with the Atlantic Forest, is a bottomless treasure box. We realized this mostly during the product development phase when we were looking for ways to maintain the majority of the value-chain within the local communities. Doing so, not only would we add locally produced medicinal plants extracts to an industrially produced soap base, but we could even explore using other native plants to produce that soap base.

Passion

One crop that has grown in importance in the region recently is passion fruit. This plant, native to the Atlantic forest, is mainly used to produce a delicious juice. As such, during the processing phase, the seeds are separated from the pulp and nearly always discarded – this is unfortunate, especially when one knows that the seeds contain a large quantity of an oil that can be used to produce a great soap base. Why not, then, use this by-product of passion fruit processing to create a whole new product? Passion fruit oil also possesses moisturizing properties and contains passiflora, a relaxing substance. Thus, by capitalizing on the possibilities offered by the biodiversity of the Atlantic Forest, we could create a soothing, relaxing soap with medicinal properties! And all the while making the most of the very production process of passion fruit.

Despite being grown mostly under the sun, passion fruit is *a priori* a shade-grown plant. To plant it in the sun, which can give higher yields, one must use a significant amount of chemicals. In order to promote more environmentally friendly agricultural practices, small-scale producers must be compensated for revenue lost implied by lower yields. This can be accomplished by introducing, as shade providers, plants that also have a commercial value. We therefore manage to create an interdependent system where both crops complement each other.

Further still, we can even think of expanding the concept to include other oil-producing plants whose farming can be beneficially coupled with traditional crops. In a region where wind causes land degradation, an oil-producing tree like the *Bombacopsis glabra*, which is also used to make natural fences, could improve yields of traditional crops while also being used to make a soap base. We are also looking at the possibility of using locally produced cachaça – the sugar cane alcohol from Brazil – to replace cereal alcohol in the production of the medicinal plants extracts. And who knows if one day we might not be able to produce even the packaging material from locally sourced products.

Capturing the value chain

This constant focus on trying to maintain the entire value chain within small local communities can bring about a number of benefits. By capturing most of the value chain, we maintain most of the additional income in the hands of small producers, providing a financial reward for the conservation of biodiversity. In doing so, we also support a form of development that is both sustainable and small-scale, with numerous suppliers of materials, thus promoting a better redistribution of financial benefits. Finally, focusing the production processes primarily at the local level, we reduce our impact on the environment by reducing the need for transporting materials over long distances, amongst other things, lowering emissions of greenhouse gases.

It is critical today that the conservation of the Atlantic Forest, and more generally of the world's biodiversity, be of concern especially to small local actors. And with our evermore globalizing world, we must take into consideration the needs and preoccupations of those local actors when proposing solutions to protect the environment.

At the time of writing, Matthieu Beauchemin was Junior Manager - Projeto Medicina da Mata, Iracambi RN; Marcelo Mendes Amaral is Manager of the Medicinal Plants Project, Iracambi RN.

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By capturing most of the value chain, we maintain most of the additional income in the hands of small producers, providing a financial reward for the conservation of biodiversity



A glass of wine for biodiversity



INGE KOTZE highlights how the conservation sector and wine industry in South Africa have come together to ensure that 'eco-friendly' wine farming is taken on board and made a priority within the South African wine industry.

South Africa is the world's ninth largest producer of wine. Approximately 90% of South Africa's wine production occurs within the Cape Floral Kingdom, the smallest yet richest plant kingdom on earth. The Cape Floral Kingdom is globally recognised as a biodiversity 'hotspot' and holds World Heritage Site status, as a home to 9,700 plant species, tens of thousands of animal species – as well as outstanding wine!

Due to the rapid loss of natural habitat through urban development, agriculture, invasive alien vegetation and frequent fires, only 8% of the original renosterveld and lowland fynbos ecosystems remain in the Western Cape. Many of these species are so specialised that they are commonly confined to one particular farm or patch of vegetation – and can be found nowhere else in the world! The climate, soil structure, plant and species diversity results in the same terroir that is responsible for the biodiversity of the Cape's flora and therefore, the unique and phenomenal diversity of the Cape Floral Kingdom is also partly responsible for the variety and unique flavours of our wine.

Biodiversity champions

The Biodiversity and Wine Initiative is a partnership between the South African wine industry and the conservation sector (The Botanical Society of South Africa and The Green Trust, WWF-Nedbank

partnership). This initiative is focused not only on conserving the remaining critical natural habitat, but also on incorporating best biodiversity management practices into the South African wine industry.

Launched in 2004, the BWI operates on two levels: BWI members (entry level) and champions (exemplary level). Membership status requires that local producers commit to conserve remaining priority natural habitats on their farms and to implement the programme's comprehensive biodiversity guidelines, as part of the industry's Integrated Production of Wine (IPW) scheme, an accreditation process to ensure the ecologically sustainable production of wine.

Championship status is conferred only on exemplary producers who have made outstanding progress in the conservation or restoration of the natural habitat, wetlands and river systems on their property. They need to conserve at least 10% of the total farm size in terms of natural habitat set aside in a conservation agreement and develop a conservation management plan and demonstrate progress in implementing of this plan.

The BWI has made excellent progress with industry uptake and commitment surpassing all expectations. To date, 101 of the Cape's wine producers have joined the Initiative and the area conserved collectively amongst all the members and champions (i.e. 63,262 ha as of November 2007) represents just over 63% of the 100,000 ha vineyard footprint in the Cape Winelands. For every 2 ha of planted vines, the Cape Winelands now has a further 1.5ha under conservation – a phenomenal achievement in just three years!

Many of the BWI members have incorporated biodiversity experiences into their visitor offerings with eco-tourism activities ranging from vineyard hiking trails, guided tours, biodiversity information centres, bird hides and the chance to see many indigenous plant and animal species now thriving on numerous wine estates. The world's first Biodiversity Wine Route – the Green Mountain Eco-route in the Grabouw-Elgin region, was also established under the auspices of this project in 2005 and provides the opportunity for both wine enthusiasts and nature-lovers to explore and enjoy both the natural and cultural heritage of the Cape Winelands!

Business strategies

This project has used various business strategies to incorporate the unique biodiversity of South African winelands into a competitive advantage in the global market, providing the producer with further incentive to conserve their natural areas and farm in an environmental sensitive manner.

The first business strategy focused on integrating the biodiversity theme as a unique selling point and integral component of the South African wine industry's marketing message, with a campaign launched in 2006 entitled: "Variety is in our nature" [1].

THIS PROJECT HAS USED VARIOUS BUSINESS STRATEGIES TO INCORPORATE THE UNIQUE BIODIVERSITY OF SOUTH AFRICAN WINELANDS INTO A COMPETITIVE ADVANTAGE IN THE GLOBAL MARKET, PROVIDING THE PRODUCER WITH FURTHER INCENTIVE TO CONSERVE THEIR NATURAL AREAS AND FARM IN AN ENVIRONMENTAL SENSITIVE MANNER

Furthermore, the project drives a demand for eco-friendly products by engaging with the retail sector and consumers to establish an awareness of the product. Our producers can use their conservation efforts and achievements as a competitive advantage and unique selling point in order to differentiate their products in a globally oversubscribed wine market.

The second key strategy focuses on incorporating the biodiversity theme into South African Wine Tourism through the development of biodiversity routes which tell the conservation story of each producer. The expansion of this category of wine tourism encourages producers to provide additional eco-tourism activities and product offerings, promoting BWI member farms as eco-tourism destinations to attract the eco-tourist, outdoor adventurer and general tourist to the farm over and above the traditional wine lovers, thereby providing the farm with increased revenue and diversification of product offerings to supplement their traditional income from wine sales.

[1] www.varietyisinournature.com

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When environmental practices rhyme with income



JEAN NOLET explains how the compensation of farmers for environmental goods and services can deliver multiple co-benefits to agricultural biodiversity and how riparian buffer zones or simple hedgerows could mean good business for an agricultural landowner.

The astounding evolution of the carbon market into what has now become a multi-billion dollar planetary project is a sign of great hope for the promoters of payments for ecological goods and services (EGS). Compared to carbon, the application of economic tools to biodiversity remains, by and large, theoretical. Standard accounting systems fall short of reflecting the true value of biodiversity since the breakdown of biodiversity values is complex and does not necessarily pass through markets. Yet, biodiversity's values are nevertheless very tangible for all of us; every day we rely on biodiversity for our very subsistence. Nowhere is this clearer than in the agricultural sector.

Multi-functionality

Healthy ecosystems are the foundation of agriculture and food production. Yet, the valuation of agricultural biodiversity remains — outside limited circles — uncharted territory. Beyond the impact on food supplies, agriculture is also the source of a wide variety of EGS, a reality which is not reflected in our economic system. This could be corrected by the recognition by policy-makers of the 'multi-functionality' of agriculture. We used this concept — which recognizes the multiple services offered by agriculture, among which the production of EGS is an integral part [1] — in a recent analysis.

This study, which we co-authored for Agriculture and Agri-food Canada on agricultural EGS [2], defines the advantages society draws from the implementation of beneficial management practices (BMPs) at the farm level, including the instigation of riparian buffer zones and intercropping systems or simple hedgerows. This was an attempt to evaluate which type of policy is the most efficient in encouraging farmers to adopt a greater number of BMPs and expand the environmental advantages related to their activities, thus leading to the creation of desired EGS by the agricultural sector. Evidently, traditional financial incentives — linked to production levels of commodities or of revenues — fail to recognise other goods and services provided by agriculture for which no markets exist. The recognition of agriculture's multifunctionality has the potential to include biodiversity indicators into a policy-maker's decision matrix.

The story of the company I founded provides real hope for environmental conservation movements

Before setting up such procedures, however, we deemed it necessary to estimate the monetary value of agricultural EGS.

In our analysis, we evaluated a range of agricultural policies pertaining to EGS which indirectly generate co-benefits to biodiversity. Whilst the scope of the study did not allow us to value the benefits that relate to biodiversity, we were nonetheless able to identify the source of such co-benefits, including the creation of habitats for a large number of species. Since farmers cannot sell EGS they 'produce' through traditional markets, there is a rationale for compensating them for the provision of EGS enjoyed by society as a whole. Instead of using a traditional cost-benefit analysis, we preferred to base our recommendations on cost-efficiency. This is where I believe our approach is appealing. When used in conjunction with EGS economic assessments, cost-efficiency analysis is a concept that can help develop measures to ensure the conservation and sustainable use of biodiversity important to agriculture. The idea is to provide policy-makers with the proper implementation tools so as to develop voluntary programmes where farmers would be rewarded or 'compensated' for setting up and maintaining sustainable management

practices favouring agricultural EGS implicitly beneficial to biodiversity.

The development of positive incentive measures could be of relevance to the forthcoming discussions on agricultural biodiversity under the Convention. In turn, it could be one step on the way to using economic instruments for the conservation of biodiversity in some of the world's most prized ecosystems: humanity's agricultural lands.

The story of the company I founded provides real hope for environmental conservation movements. In 2004, when I decided to leave the provincial government to create a consultancy firm specialized in environmental and natural resource economics, I could not imagine the demand would be so strong [3]. Moreover, this demand stems from a wide variety of stakeholders, including those

in business, NGOs, government agencies and international organisations. The rapid growth in interest from all of these actors, especially from private enterprises, was a very welcome surprise! My own professional interest was to promote the practical application of economic tools and of market mechanisms to resolve some of the greatest challenges of our time, namely climate change and biodiversity loss. In our daily practice, we see such an application of these tools move from theory to practice.

[1] The concept came internationally to light after the 1992 United Nations Conference on Environment and Development.

[2] *ÉcoRessources Consultants*, forthcoming. Cost-efficiency analysis of possible environmental goods and services (EGS) policy options.

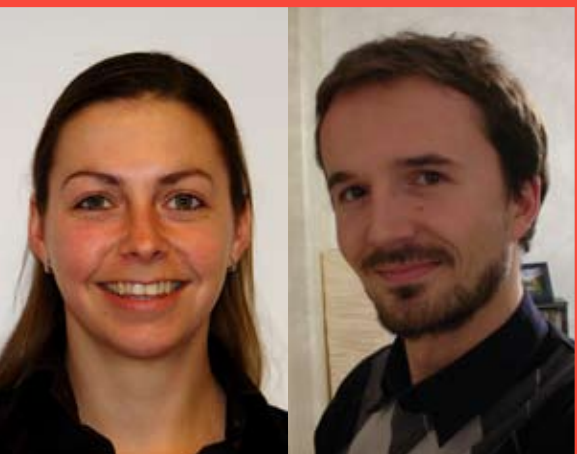
[3] *ÉcoRessources Consultants* is based in Quebec City, Canada and holds offices in Montreal, New-York City and Lima, Peru. The firm provides services in three main fields of expertise - all rooted in environmental and natural resource economics: climate change, energy and agri-foods / agribusiness.

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A role for biodiversity offsets in sustainable biofuels?



NADINE MCCORMICK and SÉBASTIEN HAYE discuss the opportunities and risks of applying biodiversity offsets to biofuel sustainability schemes.

Development imperatives, rising energy demand, and concerns over security and climate change are leading societies around the world to re-examine their energy options. The pursuit of low-carbon energy has reinvigorated demand for renewable energy sources. Biofuels — liquid fuels derived from biomass — are, in particular, being promoted as a substitute for petroleum-based fuels in powering machines, including transport vehicles.

The biofuel equation

Whether biofuels have a positive or negative impact depends on the type of feedstock used, how it is grown, how and where it is processed and transported. On the positive side, if well-planned and managed, biofuel markets may create incentives for landscape restoration, such as developing

abandoned and degraded lands, thereby promoting rural development. On the negative side, biofuel feedstock production may exacerbate existing adverse effects on biodiversity linked to agriculture, including land-use change and deforestation; soil degradation; water pollution and scarcity; introduction of invasive species; and increased GHG emissions.

Rural communities could potentially benefit from higher income resulting from local, regional and global biofuel markets, though weak tenure and access regimes and gender inequities may result in the further marginalisation of vulnerable groups such as indigenous people and their continued traditional use of nature.

Despite gaps in science and knowledge on potential impacts, investment in first generation crop-based biofuels carries on unabated, driven by government mandates and subsidies, thereby accelerating biodiversity loss through conversion of peat forests, rainforests, savannas and even 'set-aside' agricultural land.

well as regional stakeholder workshops in producing countries. The aim is to create standards that are simple, generic, adaptable and efficient that consumers, policy-makers, companies, banks, and other actors can use to ensure that biofuels deliver on their promise of sustainability.

To accelerate the process, the Roundtable makes use, where possible, of criteria developed under existing initiatives such as the Forestry Stewardship Council, the Roundtable for Sustainable Palm Oil, the Renewable Transport Fuel Obligation (in the UK), and the Cramer criteria (The Netherlands).

The current environmental principles relate to conservation, soil, water air and biotechnologies. Up until now, discussions within the Working Group on Environment have primarily focused on biodiversity issues. After two rounds of consultation in 2007, the general principle on Conservation has been thoroughly debated and edited. It currently reads: "Biofuel production should avoid negative impacts on biodiversity and

Biodiversity offsets are mainly applied to infrastructure projects: the question remains how relevant they are for agricultural developments for which impact assessments are rarely applied

Sustainability criteria

Governments, businesses and other organisations, realising that ambitious targets to increase biofuel production are unlikely to be met without significant imports, are calling for sustainability criteria for international biofuel trade. The European Commission's target for a 10% share of biofuels in petrol and diesel by 2020, for example, is to be accompanied by the introduction of a sustainability scheme for biofuels.

The Roundtable on Sustainable Biofuels (RSB) — coordinated by the Energy Center at the Swiss Federal Institute of Technology, Lausanne (EPFL) — was established to develop global standards for sustainable biofuel production and processing, which can cover any possible feedstock and process in any region of the world. Principles and criteria are being developed with companies, governments, inter-governmental agencies and NGOs through the use of wikis and teleconferencing, as

areas of High Conservation Values".

Led by an Expert Panel on Conservation within the Working Group on Environment, a set of criteria on conservation has also been developed. Whilst the wording of several criteria remains to be finalized, a consensus was met on the general content of criteria — see table, this page.

A role for biodiversity offsets?

The time lag for effective implementation of the Roundtable's criteria, due to be developed by mid-2008, means that more biodiversity will be lost through rapidly expanding biofuel markets. In answer to this, the Roundtable Working Group on Environment is currently debating the potential for using biodiversity offsets [1] as an accompanying measure when biodiversity loss resulting from feedstock production cannot be avoided entirely. Just recently, New Forests, an Australian forestry investment firm, announced plans to offer biodiversity offset credits to palm oil producers in a conservation finance

Criterion	Content
Environmental Assessment	Identification of HCV areas, native ecosystems, ecological corridors and other biological conservation areas + local Ecosystem Services and Functions.
High conservation value (HCV) areas, native ecosystems, ecological corridors and other biological conservation areas	No direct conversion of such areas; no loss of High Conservation Values; Indirect conversion and loss to be assessed and mitigated.
Ecosystem functions (EF) and services (ES)	Avoid or minimise negative effects on EF and ES.
Buffer zones (BZ)	BZ must be set between production site and surrounding areas; Riparian zones to be kept in a natural state or restored.
Ecological Corridors (EC)	No disruption of existing EC; In case habitat connectivity or wildlife movement is reduced, a significant area of the production site must be set aside to restore an equivalent connectivity.
Good practices	Promote the use of degraded land, native species, crop rotation, global landscape management system etc...



scheme for an area of Malaysian rainforest [2]. Yet, the issues surrounding this new concept are not straightforward.

The New Forests scheme simply offers credits to offset damage caused in producing 1 tonne of crude palm oil. For an effective offset, the challenge is to demonstrate 'no net loss' of biodiversity in a given location. This often requires substantial efforts to determine the baseline situation, quantify the impacts of the development as well as the offsetting conservation actions. Biodiversity offsets are currently applied to infrastructure projects: the question remains how relevant or feasible they are for agricultural developments for which impact assessments are rarely applied. The impacts of agriculture on biodiversity can be very hard to assess, particularly when production takes place across a large geographic area. While an individual farm's impacts on biodiversity may not be significant, collectively, they can become nationally, regionally and even globally significant.

Furthermore, social impacts of biofuel developments remain a challenge to measure and compensate. Underlying issues of weak tenure and access regimes and gender inequities may prevent effective implementation of biodiversity offsets for impacts on the most vulnerable communities.

The Working Group has not reached consensus on the possible inclusion of biodiversity offsets in the wording of the criteria. Whereas several members from the Expert Panel promote the concept, others fear that an offset mechanism may be misapplied, enabling biofuel producers to reduce their efforts to avoid HCV areas and skip essential steps in the mitigation hierarchy. Another concern within the Group about biodiversity offsets is that once a valuable ecosystem is damaged, it cannot be replaced exactly, no matter how much effort is invested in the recreation of an 'equivalent' ecosystem. It is likely that a common understanding of the very definition of offsets and their potential for agriculture developments would bring more clarity to the Group's discussions. The possible inclusion of market-based compensation mechanisms will be further debated at the implementation stage.

Continued on page 36 ●●●

Essential oils for sustainable job alternatives



STEPH HARTUNG profiles South African based BioAfrica, a company which produces and markets essential oils, creating sustainable jobs within the region.

The Witch Doctor traditionally in Africa has been the expert on plant extracts and their various uses either for treating a specific medical condition or to induce a specific condition in someone. Witch doctors or Sangomas, as they are known in South Africa, have been able to treat a very wide range of medical conditions due to the rich biodiversity of the region. The term used for this in East Africa, was "Putting the magic on someone".

Putting the magic

The same thing, we are informed, occurred in Europe in the past. Historically, some exponents of the art were burnt at the stake. Fortunately, over a period of some five millennia up to the present day, information has been filtered and sifted so the use of potions does not necessarily invoke the death sentence. Many plant extracts are used in everyday modern medicine. Ancient Egyptians used chamomile as a remedy for stomach cramps. In Europe, chamomile tea has been used as a mild sedative for centuries. It has also been used to relieve discomfort in cases of sunburn. We are all aware of the use of plant extracts. In Europe, the discomfort caused by a stinging nettle can be relieved by squeezing the juice of dock leaves on the area affected. In Lesotho, you might use lengana leaves as a decongestant. Numerous other plant extract remedies are in use throughout the world.

Essential oils

BioAfrica is in the business of growing, extracting and marketing essential oils which are used in perfumes, cosmetics, food and drink flavouring, incense and cleaning products. Due to the rich biodiversity of South Africa, a wide range of essential oil crops can be grown.

In addition to our wholly owned farms, we have developed a system of contract out-grower farmers throughout the region and we encourage linkages with new emerging black farmers. We enter into a contract with the farmer, sharing the cost of crop establishment and any risk of failure. Product extraction is carried out on site by a team of company personnel. This provides on the job training for the farmer. Profits are then shared between the farmer and the company.

BioAfrica designs and builds extraction machinery and giant one ton microwave ovens for extracting essential oils by steam distillation. In most cases the biomass residue is used as fuel for the extraction process.

The company has developed a successful line of cosmetics and health care aids which presently is directed to the mass markets. Our sales team is predominantly young black women some of whom have dropped out of school due to becoming pregnant; some have HIV parents or older HIV siblings who needed to be looked after. Some are looking after younger siblings in families where parents have died. Most of the team are unable to hold down a regular job due to commitments placed upon them by their families or society, and are usually, extremely poor. However, the incentive to work, for most of them is not financial. They want to be involved in something that can take them out of the family home, even if for just a few hours a day, just to lead the semblance of a normal life. If you have an HIV patient at home, do not expect to see many visitors.

Further development

A continuing challenge for BioAfrica is to source funding so as to enable new emerging black farmers to become part of the essential oils industry within South Africa. There are number of advantages to growing essential oil crops in the region. Many of these crops command the highest world market prices. Many of these are perennials, only requiring replanting every several years. The expertise in crop production, extraction and marketing has been well established over a number of years by BioAfrica and, through our partnership approach, this experience and knowledge is available to new farmers. With the help of others, BioAfrica would like to set-up a fund to assist emerging farmers with their initial steps into the industry.

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Promoting 'pro-biodiversity' SMEs



JEAN-MARIE FRENTZ, ZBIGNIEW KARPOWICZ and ZENON TEDERKO highlight efforts in Bulgaria, Hungary and Poland to encourage 'pro-biodiversity' SMEs.

We are witnessing today encouraging signs that biodiversity issues are gaining more traction in the political and commercial agendas. Fully engaging the business community and the financial services sector is a critical step in aligning economic and environmental objectives and redress the downward trends in biodiversity. In 2007, the G8 countries committed themselves to approach the financial sector to effectively integrate biodiversity into its decision-making frameworks [1].

A key objective is to develop conservation finance mechanism which can increase the volume of finance available and also contribute to economic development and poverty alleviation. The European Union's approach to biodiversity is based on the principles contained in the EU Nature Conservation Policy, particularly the Natura 2000 (N2000) ecological network of sites of high biodiversity value. However, in order to conserve the Natura 2000 network it has been estimated by the European Commission that at least EUR 6,1bn is needed per year, substantially more than current public outlays.

The Portuguese EU presidency also hosted a major conference in November 2007 on business and biodiversity which recognized that "there is an urgent need to promote biodiversity conservation in micro, small and medium sized enterprises, and in particular those with a strong link to biodiversity conservation as well as those based in the rural economy and to provide them with the information, relevant expertise and tools which are adapted to the operating conditions of these enterprises".

Many SMEs are nature-dependent ...
There are many companies, of varying

sizes and in a range of sectors, across Europe whose activities are based in areas of 'high' biodiversity or whose activities directly depend on biodiversity. For example, in Poland in seven pilot Natura 2000 areas, nearly 6,000 SMEs directly dependent on biodiversity were identified.

Such companies often need to be assisted to become 'pro-biodiversity', i.e. to shift into a sustainable mode of operation, through commercially viable solutions. In theory, doing so will ensure that investments made help reduce or mitigate impacts on biodiversity and contribute to sustainable development. Yet, until now, investing in 'pro-biodiversity' business has been largely neglected and there seems to be little support, from the mainstream banking sector to invest into such opportunities. Inadequate information certainly has been a key limiting factor for increasing lending to 'pro-biodiversity' businesses.

...but lack access to finance

Finding ways to increase financing options involves more, however, than overcoming the existing knowledge and information gaps. Businesses need to demonstrate both positive financial and biodiversity returns. At the same time, many of the benefits of biodiversity conservation are public goods with little scope for making money. With well developed private property rights, markets exist for many goods which can be produced in ways compatible with biodiversity conservation. Examples include forest products, eco-tourism, organic agriculture and certified timber.

A biodiversity financing facility could help improve both the commercial and environmental sustainability of these companies. To be eligible for financing, a company must meet both financial and biodiversity criteria. Whereas the financial eligibility would be established by a financing institution, the biodiversity eligibility would be assessed by a third party, e.g. an independent expert team or an NGO, to ensure that a SME has the capacity to run successfully investment projects in line with the standards and criteria of the facility.

Towards a Biodiversity Financing Facility

There are a number of challenges that will need to be resolved before biodiversity-friendly investments can be scaled up through such a financing facility. Private

players, both on the banking side and the company side are often not well aware of commercial biodiversity opportunities. Pro-biodiversity businesses often encounter obstacles in accessing credit. The rate of return on investment into pro-biodiversity businesses is generally perceived by financial institutions to be sub-optimal.

To overcome informational gaps and lack of capacity, both on the supply (banking) and demand (company) side, technical assistance is also needed for training activities and capacity building together with more effective partnerships between government and business at local, national, regional and global levels. As with carbon trading, national governments should establish appropriate regulatory frameworks and incentives to make investments into pro-biodiversity businesses attractive to banks and accelerate market development. To catalyse market development, international financial institutions, backed up by public co-financing, could provide attractive credit lines or guarantees so as to reduce the risk perceived by local banks.

In the immediate short-term, the creation of an 'institutional market place' to champion the newly recognised market for micro enterprises in N2000 and, more generally, SMEs and biodiversity is the natural next step. Thanks to an EU funded project, teams in Bulgaria, Hungary and Poland are currently working to create biodiversity technical assistance units in support of the creation of biodiversity facilities. They will provide the necessary technical assistance and develop a pipeline of pro-biodiversity investment projects.

A prospective biodiversity financing facility should be seen as an instrument of transition for, ultimately, it would be replaced by commercial banks. Such a facility would help 'accelerate' the market for mainstream banks by showing that investments into pro-biodiversity businesses are commercially viable.

[1] www.bmu.de/files/pdfs/allgemein/application/pdf/g8_potsdam_chair_conclusions_03_07.pdf

The authors would like to acknowledge the review and comments by Mr Paul Morling, Economist RSPB.

Jean-Marie Frentz, Programme Officer, European Commission; Dr Zbigniew Karpowicz, RSPB, International Coordinator of the EC Project "Supporting Business for Biodiversity" in Bulgaria, Hungary and Poland; and Dr Zenon Tederko, OTOP, Country Coordinator of the EC Project "Supporting Business for Biodiversity" in Poland.

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Identifying and managing risks and opportunities



CRAIG HANSON introduces the *Corporate Ecosystem Services Review*, a tool designed to identify business risks and opportunities that arise from a company's dependence and impact on ecosystems.

Ecosystems provide businesses with numerous benefits or 'ecosystem services'. Forests supply timber, purify water, regulate climate, and provide genetic resources. River systems provide fresh water, power, and recreation. Wetlands filter waste, mitigate floods, and provide nurseries for commercial fisheries. However, human activities are rapidly degrading these and other ecosystems. The Millennium Ecosystem Assessment [1] – the largest appraisal ever conducted of the condition and trends in the world's ecosystems – found that ecosystems have declined more rapidly and extensively over the past 50 years than at any other time in history. In fact, 15 of the 24 ecosystem services assessed globally had degraded over the past half-century.

Making the connection

These trends are highly relevant to business because company operations and ecosystems are inter-related. Businesses not only impact ecosystems and the services they provide but also depend on them. Ecosystem degradation, therefore, presents a number of risks and opportunities for corporate performance. Companies may face higher input costs, new government regulations, reputational damage, changing customer preferences, or more rigorous lending policies. At the same time, the degradation of ecosystem services can create new business opportunities such as new products and services, demand for technologies that improve the efficiency

of using ecosystem services, new revenue streams from company-owned natural assets, and emerging 'ecosystem service markets' in which to participate.

However, many businesses fail to make the connection between the health of ecosystems and their bottom line. Environmental impact assessments and other due diligence tools often are not attuned to identifying ecosystem service-based risks and opportunities. As a result, companies may be caught unprepared or miss new sources of revenue.

The Corporate Ecosystem Services Review (ESR) is designed to fill this gap. The ESR is a systematic methodology that helps corporate managers proactively identify specific business risks and opportunities that arise from their company's dependence and impact on ecosystems. The ESR was developed by the World Resources Institute (WRI) with support from the Meridian Institute and the World Business Council for Sustainable Development (WBCSD). During 2007, five WBCSD member companies – Akzo Nobel, BC Hydro, Mondi, Rio Tinto, and Syngenta – 'road tested' the ESR in selected business situations and provided on-the-ground feedback.

Many businesses fail to make the connection between the health of ecosystems and their bottom line. As a result, companies may be caught unprepared or miss new sources of revenue

Applying the Review

A business can apply an ESR at any stage in its value chain. For instance, the ESR can focus on a company's own operations, providing insight into the direct implications that ecosystem service trends pose for the company. Mondi, an international paper and packaging group, selected three South African plantation areas – Shanduka, Siya-Qhubeka and Tygerskloof – as the focus for its ESR road test. These sites were chosen for the range of physical, climatic and socio-environmental conditions under which the trees are grown.

Alternatively, a business can apply the ESR 'upstream' or 'downstream' in its value chain. Syngenta's road test, for instance, addressed one of its customer segments – farmers in southern India. By looking 'downstream', the ESR helps the com-

pany identify the risks these customers face due to ecosystem degradation and, in turn, identify opportunities for Syngenta in the form of new products or services that would address or mitigate these risks. Syngenta selected India because the country is a significant growth market for agriculture. Given India's geographic, demographic, agricultural, and climatic diversity, the company focused on the southern states of Andhra Pradesh, Karnataka, Kerala, Maharashtra, and Tamil Nadu to keep the analysis focused.

In March 2008, WRI, Meridian, and WBCSD will release guidelines on how to conduct an ESR [2]. The guidelines will:

- Introduce the concept of ecosystem services as a framework for assessing a company's interaction with the environment;
- Describe how a company can systematically evaluate its dependence and impact on ecosystems and the services they provide;
- Provide a structured approach for analyzing important trends in the ecosystem services that are the most relevant to a company's performance;
- Offer a framework for identifying potential business risks and opportunities arising

from these trends;

- Provide guidance on developing strategies to minimize these risks and maximize these opportunities; and
- Illustrate how companies have successfully addressed ecosystem-related risks and opportunities.

We look forward to presenting the Guidelines at COP-9.

[1] www.millenniumassessment.org

[2] A subsequent article in Business.2010 will elaborate on the ESR process in greater detail.

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Landscape auctions, a new financing tool for nature



DAAN WENSING looks at the use of auctions for financing the conservation of landscapes in The Netherlands; explains plans to roll-out this tool internationally.

“Welcome to the future!” – it is with these words that the first auction of a landscape was opened by the mayor of Ubbergen, The Netherlands, in September 2007. Launched by Knowledge Centre Triple E, in cooperation with the NGO ARK and the ViaNatura Trust Fund, landscape auctions represent a new instrument in the conservation finance toolbox.

In just over an hour, EUR 140,000 was raised for the conservation of a typical Dutch river delta landscape. Hedges, ponds, trees and a walking trail were ‘sold’ to the highest bidder. Companies, individual citizens and a high school participated in the auction, which received coverage from national television, radio and newspapers. So far, three landscape auctions have been held, raising over EUR 240,000. In this way, people got a chance to actively conserve the area they live and work in. This is direct, tangible, and fun.

Incentives for conservation

Farmers in The Netherlands play a key role in maintaining nature and landscape. Their land forms an integral part of important biodiversity corridors, protected areas and regional conservation areas. Central government has acknowledged this role by providing financial incentives for conservation to farmers in the form of subsidies. However, European Union regulations now make this more and more difficult as these subsidies are seen as income support.

The river Rhine enters The Netherlands through the nature area of the Ooijpolder which plays a key role in buffering high water volumes in times of need. This was amply demonstrated during the major flooding of the 1990s, when huge parts of the Dutch river delta were threatened. The Ooijpolder was flooded, protecting highly

populated areas downstream. In the years following the flooding, ARK, WWF-NL and other NGOs managed to convince decision makers of the need for more river water buffering capacity by the re-creation of a dynamic river system. This proved the first case in The Netherlands – one of the most populous countries in the world – where nature was created, not just conserved. This exercise was undertaken in close co-operation with government, business and farmers.

The Ooijpolder attracts over 1 million visitors a year, making it one of the top attractions in the country. This, however, has not translated into the payments needed for biodiversity conservation. As with most nature areas in The Netherlands, entrance fees do not exist and parking is for free. Likewise, surrounding towns were unwilling to pay for its conservation even though

‘rules of the game’. In this way, buyers could base their bid on all relevant information. The catalogue is also published online and potential buyers are approached through the media and relevant networks.

On 15 September 2007, over 300 people (representing banks, accounting firms, a waste plant, a high school as well as many individual citizens) participated in the first landscape auction. Under a clear blue sky, set in the nature area, over EUR 140,000 was raised for the upcoming 10 years. When items proved too expensive for an individual bidder, the auctioneer then grouped bids in order to secure a winning bid. This created a feeling of unity: together we stand.

The landscape elements that were ‘sold’ through the auction did not actually change hands as they remained the property of

Citizens can and do participate – by buying the tree under which they had their first kiss, the area they walk their dog, the hedge next to their house



Photo courtesy of Henk Baron

most of their inhabitants use the area for recreational purposes. A new financing tool needed to be created.

How does it work?

Farmers in the Ooijpolder nature area approached Knowledge Centre Triple E with the task of creating a conservation finance tool which would be compatible with EU policies. This resulted in the concept of landscape auctions. A landscape is cut into tangible pieces called ‘landscape elements’, for instance a hedge, a pond or a group of trees. The farmers then determine the minimum price for each element by calculating how much it would cost them to maintain the ecological functions of these landscape elements for 10 years.

Before an auction is held, a catalogue is published listing all the landscape elements, the terms and conditions, and the

the farmers. Participants only ‘bought’ the maintenance costs of the element, not the element itself. The money raised through the auction is managed by ViaNatura, a regional trust fund, which also monitors compliance. Contracts are thus between farmers and the trust fund, as well as between winning bidders and the trust fund.

All bids are clearly labelled, ensuring that the money paid for a particular landscape element is only spent on that element. This is key to the concept of landscape auctions: a direct link between payments and product. When the money paid for an element exceeds the cost, the auctioneer and the bidder determine on what additional element that extra money should be spent. This ensures transparent, tangible and direct influence. Successful bidders can go and ‘enjoy’ the elements they bought.

Citizen participation

The auctions help to showcase the value of our landscape and to break a barrier between those who can take care of it and those who value this service. Companies can show their commitment to the landscape in a tangible way and communicate that CSR can be turned into something real (conservation of landscape elements). A funeral home, for example, bought an area with an ancient funeral mound in a protected area as they saw it as their responsibility to take care of a heritage which is intimately linked to its business.

Donations though the auctions are also tax deductible, as the payments are done to an NGO, making it even more attractive to participate. Auctions have now been carried out at three different locations in The Netherlands: the Ooijpolder, the Heuvel-landschap and the Gooij. The Gooij area is located in the most populous area of the country, showing that landscape conservation is possible not only in areas where relatively few people live.

Citizens can and do participate – by buying the tree under which they had their first kiss, the area they walk their dog, the hedge next to their house. A school adopted a hedge and its pupils helped maintain it as well, as an educational tool. A group of people who did not know each other joined hands and placed a bid to secure a landscape element they all felt connected to but could not afford alone. This clearly shows the power of this new tool: the direct link between what you pay and what you get.

We are looking into how to roll this concept internationally – not only by means of live auctions (as undertaken so far in The Netherlands) but also through the internet. Landscape elements from all over The Netherlands can already be bought online and, in a few weeks, elements from all over the world will be listed as well. Not only trees but also rhinos, the salary of a guard, a fire fighting squad, educational tours for schools,... One can buy the elements for oneself or as a gift to someone else. We will keep on developing the concept of landscape auctions – e.g. organizing auctions for business clubs – and are convinced that it will provide an attractive tool for the conservation of our landscape, here in The Netherlands and globally.

Daan Wensing is Coordinator, International Department, Triple E. Knowledge Centre Triple E (Economy, Ecology and Experience) is a knowledge centre specialised in the relation between nature, economy and the experience people gain through and from nature.

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Tracking the ethical reputation of companies



ANTOINE MACH co-developed a tool to assess the ethical performance of companies based on online information. He explains the first results of an analysis focusing specifically on biodiversity.

Political science teaches that modern society is heterogeneous, pluralistic and diverse. We experienced this complexity when founding, in 2001, Covalence to assess the ethical performance of multinational companies. This proved an extremely challenging task, as diversity can be found legitimately at two levels: that of setting criteria and that of evaluating practices.

Biodiversity in the news

Social diversity is found when analyzing the treatment of biodiversity by specialized agencies, as I had the opportunity of stating during the High-Level Conference on Business & Biodiversity in Lisbon [1]. How do Socially Responsible Investing (SRI) indices and rating agencies deal with biodiversity? It is clearly an important matter, as out of the 10 indices or agencies I analyzed in preparing for this conference [2], 8 include biodiversity in their indicators. Moreover, there are many differences in the way biodiversity is treated. The concept may appear as a single criterion, be embedded within a larger sustainability criterion, or cited in company profiles or stories about leaders. Biodiversity criteria can also be general or sector specific.

At Covalence, we track the ethical reputation of multinationals by gathering, coding and quantifying online information. We have extracted data which include

the word “biodiversity” and found over 730 news items, two thirds of which had a positive orientation regarding named companies. Biodiversity is a ‘CSR-friendly’ topic. Criteria registering the most positive biodiversity data were: environmental impact of production, sponsorship, social stability (community affairs) and information to consumers. Major negative criteria included: intellectual property rights (and biopiracy); environmental impacts of production; cultural issues; and product environmental risk (for instance GMOs). Sectors showing the most negative data are Chemicals and Pharmaceuticals, while Mining & Metals, Oil & Gas and Food & Beverages register the most positive results.

Reporting

How should governments encourage further action on biodiversity from companies? The Global Reporting Initiative [3] offers a good framework for reporting. In our view, the topic of biodiversity is so complex that it would not fit into a one-size-fits-all policy carrying content-related obligations: it seems very difficult to set standard quantitative targets to be reached by various companies among different sectors. A more realistic approach would be to increase biodiversity reporting obligations. We suggest that companies be obliged to publish a progress report every year, while remaining free to define its content, in line with the UN Global Compact example (promoting business action on human rights, the environment, labour and anti-corruption). This flexible approach would reward the most active companies and stimulate others to move on.

[1] www.countdown2010.net/business

[2] Asset4, Calvert, Dow Jones Sustainability Indexes, Eiris, FTSE4Good Index Series, Innovest, Jantzi Social Index, KLD Indexes, SiRI Company, Vigeo

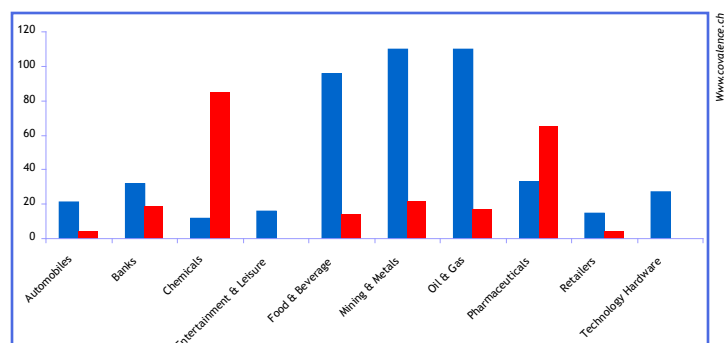
[3] www.globalreporting.org/

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Biodiversity: positive and negative news by sector, 2002-2007

■ Positive news (ethical offers)
■ Negative news (ethical demands)



Pet industry leadership on invasive alien species

By JAMIE K. REASER

Although pets bring companionship and joy into many people's lives, those which are abandoned or escape into the natural environment can become invasive alien species. Preparatory documents for SBSTTA-13 include a request to "collate best practices for addressing the risks associated with the introduction of alien species as pets, including aquarium species, such as fish, reptiles or insects, and as live bait and live food".

We are working with the Global Invasive Species Programme (GISP) to fulfill this request as well as to highlight proactive initiatives that we have developed to minimize the risk of the 'pet release' pathway. The mission of the Pet Industry Joint Advisory Council (PIJAC) is to promote responsible pet ownership and animal welfare, foster environmental stewardship, and ensure the availability of pets. Examples of relevant programs include:

- **Habitattitude™**: a campaign to educate consumers on wise pet choice (Attitudes), excellent pet care (Habits), and alternatives to abandoning pets (Habitats).
- **National Reptile Improvement Plan (NRIP)**: a standard-setting accreditation program for reptile and amphibian importers/distributors that provides guidance for animal inspection and the removal of external parasites.
- **Bd-Free 'Phibs'**: A campaign and standard setting program for reducing the risk of transmission of the highly devastating chytrid fungus (*Batrachochytrium dendrobatidis*) within/through the amphibian trade.

PIJAC looks forward to working with Parties and other organizations at SBSTTA-13.

[1] UNEP/CBD/SBSTTA/13/6, draft recommendation

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News in brief

Please send contributions to the editor.

AGRIBUSINESS

Through the **International Federation of Agricultural Producers (IFAP)**, farmer leaders are becoming actively involved in the agricultural biodiversity aspects of the review of the Programme of Work of the Convention. Farmers want to take the opportunity of this review to highlight the positive impact of agriculture on biodiversity through the promotion of sustainable agricultural practices that improve sustainability while at the same time maintaining the economic viability of their agricultural activity. The farmers' role needs to be better understood and documented in order to achieve progress in integrating biodiversity goals into agricultural production.

Mechanisms to create markets for ecosystem services to reward farmers for the protection of nature exist in many developed countries. However, these need markets to be opened up also to farmers in developing countries, through appropriate capacity building programs and adapted mechanisms.

Contact Nora Ourabah Haddad for more information (Nora.Ourabah@ifap.org).

BUSINESS SCHOOL

As companies put environmental strategies into practice, business schools are training the next generation of business leaders to understand environmental strategy from a business perspective. Students at the **Haas School of Business at University California, Berkeley** have taken initiative to organize a seven week Speaker Series to explore the innovative ways in which companies are redesigning 'business as usual'.

The Series, which runs from January to April 2008, will bring speakers from leading companies and organizations to discuss strategies and tools developed to help companies in a range of sectors address these new challenges, including biodiversity (the Secretariat participated in the 30 January session). A report will be provided in this newsletter.

Haas was recently ranked #1 among global business schools by the *Financial Times* for integrating issues of social and environmental stewardship into its MBA curriculum.

Contact Mira Inbar, a first year MBA candidate, for more details (mira_inbar@haas.berkeley.edu).

FINANCIAL SERVICES

The **International Finance Corporation (IFC)** — the private sector arm of the World Bank — announces the launch of the implementation of its Biodiversity and Agricultural Commodities Program (BACP), with its two main partners: Chemonics International (programme management) and Ecoagriculture Partners (monitoring and evaluation).

Although expansion of agriculture is the leading cause of habitat destruction and one of the greatest threats to global biodiversity, the last half century has seen a dramatic increase in the global production of tropical export commodities dominated by palm oil, soybeans, sugarcane and cocoa which together cover more than 100 million ha in areas of globally significant biodiversity. To reverse this trend, IFC is working in partnership with industry, NGOs, think tanks, banks and others, towards transforming select commodity markets by mainstreaming biodiversity friendly practices, specific commodity production methods and accelerate better practices adoption. Blending its own funds with grants from the Global Environment Facility and the Japanese Government, IFC's BACP will leverage beneficiaries' own contributions to mainstream biodiversity preservation in the production landscape and throughout commodity value chains. It will do so by supporting technical assistance projects that develop, test and roll-out auditable biodiversity standards and related better practices in above four commodities markets, or that remove barriers to the adoption of better practices. These standards and better practices must be accepted by the mainstream markets and have a verifiable positive impact on biodiversity. Specific market transformation strategies for each commodity will guide the priorities along which BACP will allocate funds.

Please be prepared for the upcoming Request for Project Proposals in the palm oil sector (soybeans will follow soon thereafter). Interested parties should monitor www.bacp.net or contact bacppmu@chemonics.com

In November 2007, the Portuguese Banking Association, Portuguese Industry Association, Luso-American Foundation and **Sustentare** launched a publication to help Portuguese banks integrate Environmental, Social and Governance (ESG) issues when analyzing credit for companies. In 2008, Sustentare aims to develop this initiative further, in particular by working with the Portuguese banks in the African Portuguese speaking countries.

The report is available at www.sustentare.pt/UKsustainablefinance1.html. For more information contact Sofia Santos (sofia.santos@sustentare.pt).

Publications

Please send information on new titles and upcoming events to the editor.

ACCESS AND BENEFIT SHARING

Elise Rebut, September 2007. *Les entreprises face à la gouvernance mondiale de la biodiversité.* L'Harmattan - Coll. « Entreprises et management ». www.editions-harmattan.fr/index.asp?navig=catalogue&obj=livre&no=24461

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AGRIBUSINESS

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Acronyms used in this issue

ABS	Access and Benefit-sharing
APPT	Asociación de Pequeños Productores de Tongorrape
BAP	Biodiversity Action Plan
BfN	German Federal Agency for Nature Conservation
BMPs	Beneficial Management Practices
BSE	Bovine Spongiform Encephalopathy
BWI	Biodiversity Wine Initiative
CBD	Convention on Biological Diversity
CCD	Colony Collapse Disorder
COP	Conference of the Parties
CSR	Corporate Social Responsibility
EGS	Ecological Good and Services
ESG	Environmental, Social and Governance (issues)
ESR	(Corporate) Ecosystem Services Review
FAO	Food and Agriculture Organization of the United Nations
FBMPs	Fertilizer Best Management Practices
FSC	Forest Stewardship Council
FRLHT	Foundation for Revitalisation of Local Health Traditions
FFI	Fauna and Flora International
GACP	Good Agricultural and Collection Practice
GCP	Good Collection Practices
GMO	Genetically Modified Organism
GURT	Genetic Use Restriction Technologies
HCVF	High Conservation Value Forests
IBA	Important Birds Area
ICM	Integrated Corp Management
IMO	Institute for Marketecology
IFOAM	International Federation of Organic Agricultural Movements
IPCC	Intergovernmental Panel on Climate Change
IPNM	Integrated Plant Nutrient Management
IPR	Intellectual Property Rights
ISSC-MAP	International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants
ITPGR	International Treaty on Plant Genetic Resources
NTFPs	Non-Timber Forest Products
SAN	Sustainable Agriculture Network
SBSTTA-13	Thirteen meeting of the Subsidiary Body on Scientific, Technical and Technological Advice
SPVS	Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental
WRI	World Resource Institute
WWF	World Wildlife Fund

Upcoming events

Details of all CBD meetings are available at: www.cbd.int/meetings. The calendar of business and biodiversity events is posted online at www.cbd.int/business/calendar.shtml.

The Secretariat is a Strategic Partner to the following event:

Biodiversity and Ecosystem Finance (27-28 March, New York, USA). www.greenpower-conferences.com/carbonmarkets/biodiversity_ny2008.html (see page iv of the pull-out guide at the centre of this issue).

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Agriculture and biodiversity: challenges and opportunities for agribusiness
- 8 **Jacques du Puy**
Healthy agro-ecosystems for sustainable business
- 9 **Seiji Mitsuishi**
Can multinationals in the agribusiness sector save biodiversity?
- 10 **James C. Greenwood**
Helping the world's farmers go green
- 11 **Patrick Heffer**
Nurturing biodiversity by feeding crops well
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- 13 **Martin Taylor**
Interview
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Recommendations to the CBD

Whilst the debate regarding the relevance of biodiversity offsets to the development of the principles and criteria for sustainable biofuels is ongoing, the pace of biofuel development worldwide continues to grow. Offsets may provide one vehicle for addressing the impacts of biofuels projects on biodiversity, but need to be complemented by other measures in order to address all of the sustainability questions associated with biofuels.

A principal recommendation, therefore, to SBSTTA and the CBD more generally is to encourage Parties and other Governments to support the development and application of biofuel production guidelines and standards, as part of a strategic environment and social impact assessment, alongside other measures such as biodiversity offsets where appropriate, to not only reduce the negative risks of liquid biofuel production on biodiversity but also to promote biofuel feedstock production that enhances ecosystems and livelihoods.

[1] *Biodiversity Offsets are conservation actions designed to compensate for the unavoidable impact on biodiversity caused by infrastructure projects, to ensure "no net loss", and preferably, a net gain of biodiversity. Offsets are only appropriate in the context of developments that are legal, and when the developer has first used best practice to avoid and minimize harm to biodiversity within a mitigation hierarchy. The Business and Biodiversity Offset Programme (BBOP) is currently developing a coherent, transparent and credible approach to biodiversity offsets. For more information, visit www.forest-trends.org/biodiversityoffsetprogram*

[2] www.newforests.com.au/insights/pdf/New_Forests_Orangutan_Bank.pdf

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www.bioenergywiki.net/index.php/Biodiversity_Offsets

<http://EnergyCenter.epfl.ch/Biofuels>

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Spotlight on COP-9

An overview of business related events at COP-9 is provided in the 4 page 'pull-out' guide at the center of this issue (between pages 18 and 19).

The guide will be updated for the April issue of the newsletter: Please send information on planned side events, workshops, book launches, and other activities before 1 April 2008 to the editor.

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Comments and suggestions for future columns are welcome and should be addressed to the editor.

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