Background
As the business community wakes up to biodiversity loss, companies are increasingly striving to manage their impacts and dependencies on natural systems. Businesses that aim to be sustainability leaders are exploring an integrated approach to mitigating their impacts - an ecosystem approach.

Ecosystems are communities of plants, animals and microbes and the physical environment that supports them, from soil minerals to weather patterns. They are essential to human life and wellbeing because they provide the goods and services on which we depend. These ‘ecosystem services’ include everything from water, food and fuel, to waste management and spiritual inspiration, all underpinned by biodiversity.

When we think about environmental management, we often only consider individual species, resources or habitats. In reality, these components are interlinked by dynamic processes over space and time. These include the cycle of water between the ocean and land, transport of nutrients between organisms and the environment, the flow of energy along food chains, and changes to ecosystems after disturbances such as fire.

If a process becomes unbalanced, for example by clearing land or introducing too much fertilizer to a system, the result might be erosion, pollution or changes to local climate. These effects are difficult to predict unless we consider how ecosystems function as a whole.

An ecosystem approach
An ecosystem approach is a science-based strategy for managing land, water and living resources. Unlike traditional environmental management approaches that focus on individual species, resources or habitats, an ecosystem approach considers people, nature and their interactions as part of a single system. It focuses on the essential structure, processes and functions that keep ecosystems in balance and provide the ecosystem services stakeholders depend on. Taking an ecosystem approach involves:

• Understanding ecosystems in terms of their living and physical components and interactions, their relationships with other ecosystems and the social and economic contexts
• Understanding the impacts a project will have on ecosystem structure, processes, functions and services across different scales and time frames
• Managing impacts to maintain ecosystem structure, processes, function and services

Adopting this holistic approach can help companies understand the wider consequences of their actions and, in turn, plan activities to manage them in a sustainable way that integrates social, cultural, economic and environmental needs.
The business case for an ecosystem approach

Many companies understand that managing their operational impacts and dependencies on biodiversity can mitigate business risks. However, if a business only assesses its impacts on specific species or resources, it may fail to understand impacts for the wider ecosystem and the ecological processes that underpin biodiversity and the services that ecosystems provide to people. This can have serious consequences for the business and for the people who depend on a healthy, functioning ecosystem.

Operations can impact ecosystems directly, for example by altering the structure and function of local habitats which may affect local species and decrease the supply of services to people. They can also affect social conditions, for example by increasing local population and income levels, creating greater demand for, and exploitation of, ecosystem services.

The resulting risks, often concerning natural processes and people, do not always have quick technical fixes. If a company’s operations decrease the ability of an ecosystem to filter contaminants, for example by overloading the system with toxins or removing natural filters such as reed beds, this could disrupt operations and jeopardise the company’s clean water supply. These actions could also affect a suite of ecosystem services that local communities and other land users depend on, including reducing the supply of fish for food and livelihoods or causing health problems related to polluted drinking water. As a result, the company could face repercussions ranging from social unrest and demands for compensation to direct legal action and reputational risk.

To mitigate these risks, businesses need to ensure that their operations do not adversely affect the biodiversity and ecological processes that underpin important ecosystem services. Many financial institutions, including IFC, now require their clients to ensure that there are no adverse impacts on important ecological processes as part of their loan agreements and advocate an ecosystem approach for large-scale and complex projects.

Businesses that take an ecosystem approach can receive significant operational, financial and reputational benefits, as well as the potential to attract new partners, employees and customers. By considering the plants, animals, physical environment and processes that underpin healthy ecosystems, a company can help maintain essential functions across the wider landscape and for the people living there. This integrated approach to managing social and environmental impacts can deliver greater, more efficient and more sustainable outcomes. In turn this can support a company’s relationship with local communities and other stakeholders and help it achieve sector best practice, increasing the likelihood of attracting new partners and accessing new markets.

Our ecosystem approach with business

Fauna & Flora International (FFI) works together with businesses to identify ecosystem services that company operations and local communities depend on. For example, FFI is supporting Repsol to achieve sector best practice through voluntary compliance with international standards and adopting an ecosystem approach in the Peruvian Amazon. This project demonstrates how an ecosystem approach can foster multi-disciplinary collaboration between stakeholders, giving companies a better understanding of the impacts a development will have on biodiversity, ecosystem services and people, and how best to mitigate them.

References

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