

One Person's View

Utilizing Biological Resources to Build a Sustainable Society

THE term “seibutsu tayosei” (biodiversity) has become familiar in Japan thanks to the tenth meeting of the Conference of the Parties (COP 10) to the Convention on Biological Diversity which was held in Nagoya in October 2010. However, the number of people who realize that the issue of biodiversity is about more than just species at risk of extinction remains unexpectedly small. In addition to boosting efforts aimed at protection and preservation of living things, the strategic goals for 2020 decided upon at COP 10 and known as the Aichi Biodiversity Targets also resolved to aim for sustainable production and consumption (corporate activity, in other words) by 2020.

Why do corporations need to act sustainably to conserve biodiversity? In fact, the activities of corporations are linked more closely to biodiversity than you might think. Corporations make extensive use of biological products such as paper. They also use large quantities of resources such as fresh water and air that are purified and circulated by the ecosystem. If we do not reform our current ways of doing things with their negative impacts on biodiversity, the likely outcome is that we will be unable to continue enjoying the benefits of these corporate activities that depend on biodiversity because the foundation that underpins them will have been lost.

There is another reason why we need to take biodiversity seriously. This is the problem of what resources we will draw on to produce things in future. The oil, metals, and other resources upon which we are so heavily dependent are all of them finite. Although oil is not about to become scarce overnight, the International Energy Agency (IEA) has stated that we are already four years past the peak in oil production. The price is also likely to rise steeply in future. Even if we shift toward use of renewable energy, what are we to use as raw materials for products such as plastics and chemical supplies? We need to find an answer to this question within the next decade. Biological resources represent our best prospect for solving this problem. If managed and used with care, these resources will be renewable and therefore sustainable. However, sustainable is not the same as infinite. The quantity of biological resources available to use will depend on constraints such as the amount of arable land and water surface area. Accordingly, how and from where we will be able to acquire biological resources in a sustainable way is an important challenge for future corporate management.

Meanwhile, living things and other biological resources have another distinctive characteristic. This is their very elaborate design and structure. Owls, for example, are able to fly silently and an aerodynamic feature seen on their flight feathers have been adopted on the pantographs used by Shinkansen bullet trains as a way of reducing the amount of noise they produce. In another example now in commercial production, copying from insects such as butterflies has made it possible to produce cloth with beautiful color and sheen without the use of any toxic chemical substances. The study of living things is without doubt a way to obtain elegant materials and methods with higher performance than what is currently possible. Clearly, the existence of a wide diversity of living things represents a huge store of possibilities.

The Great East Japan Earthquake on March 11 demonstrated that our industry and other aspects of our way of life are both vulnerable and unsustainable. Its effects spread across the entire country and we urgently need to reconstruct a safer society in which we can feel confident. “Sustainability” is likely to be a keyword in this reconstruction and I believe that securing and utilizing a diverse range of biological resources in a sustainable way should be an objective of all corporations.



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Graduated from the Faculty of Science, The University of Tokyo in 1989. Awarded a doctorate from the Graduate School of Science, The University of Tokyo. Undertook research into tropical forests at the National Institute for Environmental Studies (NIES) and spent time at the Forest Research Institute Malaysia (FRIM). After leaving NIES, he set up his own consultancy business in 2002 and established Response Ability, Inc. in 2006. In addition to roles as a member of the Standing Committee of the Ecological Society of Japan, advisor to the Sustainable Management Forum of Japan, and trustee of Natural Step Japan, an international NGO, he has also served on numerous ministerial committees including at the Ministry of the Environment and the Ministry of Land, Infrastructure, Transport and Tourism. Recent publications include “Seibutsu Tayosei Keiei” (Capitalizing on Biodiversity—a Sustainable Resource Strategy) published by Nikkei Publishing Inc.