Linking Science with Policy: ACB (ASEAN Centre for Biodiversity) initiatives in ASEAN Region in Meeting the Objectives of the Convention on Biological Diversity (CBD)

Rodrigo U. Fuentes (Executive Director ASEAN Centre for Biodiversity)

Abstract: This presentation provides an overview on the regional efforts of the member countries of the Association of Southeast Asian Nations (ASEAN) on pursuing sustainable use of biodiversity resources. The ten ASEAN Member States (AMS) are committed to the Convention on Biological Diversity’s objectives in achieving a significant reduction in the rate of biodiversity loss by 2010. Picking up from the ASEAN Regional Centre for Biodiversity Conservation (ARCBC), the ten AMS established the ASEAN Centre for Biodiversity (ACB) in 2005 as one of the clear expressions of that commitment. ACB is elevated to a regional centre of excellence to facilitate cooperation and coordination among the members of ASEAN, and with relevant national governments, regional and international organizations, on the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising from the use of such biodiversity in the ASEAN region. Recognizing the importance of, and the need to promote, global and regional cooperation, ACB entered into a Memorandum of Cooperation with the SCBD, and engaged to implement a joint work programme to pursue strengthening of the capacities of the AMS to comply with their commitment to the Convention and information sharing through a regional database. The strategic directions of this initiative will be discussed with emphasis on the AMS’ efforts in meeting the CBD’s objectives.

1 The Association of Southeast Asian Nations (ASEAN) is composed of Brunei Darussalam, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.
Towards the CBD/COP10 from the KOBE Declaration

Hisae Tokumaru (Nature Conservation Bureau, Ministry of Environment of Japan)

Abstract: Prior to the Group of Eight Summit, namely the G8 Summit, held in Toyako Hokkaido in July 2008, the G8 Environmental Ministers Meeting (EMM) was convened in Kobe, Hyogo Prefecture in May. The host country of the EMM acts as Chair of the meeting and Environmental Ministers of the eight countries gather and exchange views and opinions. Environmental Ministers and high-level government officials who attended the EMM in May were from 19 countries, including the G8 countries. In addition, representatives from eight international organizations also attended. Three agendas were discussed: “Climate Change;” “The 3Rs: Recycle, Reduce, Reuse;” and “Biodiversity”.

Biodiversity constitutes the basis of all life and is essential for human beings as well. The 9th Conference of the Parties (COP9) to the Convention on Biological Diversity (CBD) was held in Bonn, Germany in May 2008, at around the same time that the G8 EMM was convened. At COP9, it was decided that COP10 would be held in the City of Nagoya, Aichi Prefecture, in Japan. Therefore, Japan must take responsibility of being an international leader in the field of biodiversity.

At the G8 EMM, for the COP10 in 2010, the “KOBE Call for Action on Biodiversity” was agreed by the G8 countries to call for additional action from all nations. The “Call” consists of 5 items: (1) achievement of the “2010 biodiversity Target” and its follow-up activity, (2) sustainable use of biodiversity, (3) biodiversity and protected areas, (4) private sector engagement, and (5) strengthening of science for monitoring of biodiversity.

In response to the Target Japan announced its challenge to implement the “KOBE Call for Action on Biodiversity,” and intends to make COP10 a success. Today, I will introduce a draft of Japan’s specific measures towards COP10 based on the challenges outlined above.
Biodiversity and Ecosystem Services

Tohru Nakashizuka (Graduate School of Life Science, Tohoku University)

Abstract: Ecosystem services can be defined as the function of ecosystems that are beneficial functions for human well-being, and can usually be classified into four services: provisionary, regulatory, cultural and supportive services. Among various ecosystem services, however, those in which biological diversity plays an important role tend not to be evaluated highly effectively, or as commercially valuable. Some services have linkages to others, while other services can be considered as trade-off among them. For example, recent changes to ecosystems have been made to increase services that provide food (provisionary), while sacrificing many other services. We should have a better understanding of the fact that biological diversity is particularly important in regulatory and cultural services, which are essential for human well-being.
Biodiversity of Coastal Marine Ecosystems: Interactions of Land and Sea

Hiroshi Mukai (Field Science Education and Research Center, Kyoto University)

Abstract: Coastal marine ecosystems have abundant biodiversity in marine environments. One of the reasons is high productivity because of the inflow of nutrients and organic substance from the land. On the other hand, influx of sand from the land results in complex and diverse topographical coastal environments. The topography is also made more complicated by ecosystem engineers. The complex structure of topography ensures sustainability of abundant biodiversity.

There are some local ecosystems with characteristic fauna and flora in coastal areas, including tidal flats, seagrass beds, coral reefs, estuaries, mangrove swamps, etc. To sustain the abundant biodiversity of coastal ecosystems, the complex coexistence of these habitats is most important. Recently, many species of marine organisms are estimated to be endangered to the point of extinction. For this reason, land reclamation and water pollution are primarily important. Reduction or loss of such habitats for tidal flats, seagrass beds, and coral reefs and so on, is also a very important issue for immediate action. The disruption of connections and interactions between the land and coast can cause great loss to these habitats. As such, we must think of what we can do to recover the connection of land and sea for sustaining abundant biodiversity in the coastal marine ecosystem.
Developing a Local Community and Economy by Oriental White Storks

Ayumi Onuma (Faculty of Economics, Keio University)

Abstract: Is biodiversity conservation incompatible with economy? Many attempts of conservation have faced a trade-off between conservation and economic development. However, there are increasing examples of developmental achievement by succeeding in conservation. One example can be found in the conservation of the oriental white stork in Toyooka, Hyogo Prefecture.

In order for white storks to thrive in the wild, rice fields need to be restored to their former conditions. For example, the use of pesticides should be reduced and the irrigation methods used need to be altered to allow natural interaction of small wildlife with rice fields, which feed the wild oriental white storks. This method of growing rice is known as the “original agricultural method for white stork conservation”. However, as the method requires much more effort in agriculture, a very small number of farmers and areas adopted the method at the early stages. Today, however, the number of farmers and areas incorporating the method has expanded dramatically, thus contributing to the increase of wild oriental white storks in Toyooka.

In my research, I attributed the cause of the expansion to micro and macro factors. The micro factor is what makes the agricultural method very attractive for individual farmers and the macro one for the local community. I conclude that the way of biodiversity conservation with such two factors can be compatible with economic development.
Foster Parenthood of Hornbills (birds of the Bucerotidae family) in Thailand

Pilai Poonswad (Faculty of Science, Mahidol University)

Abstract: Hornbills are among the largest and most obvious elements of Asian tropical forests, and this makes them an ideal flagship species. Budo Mountain (190 km²) supports six sympatric hornbill species, i.e. Great Buceros bicornis, Wreathed Aceros undulates, Rhinoceros B. rhinoceros, Helmeted Rhinoplax vigil, Bushy-crested Anorrhinus galeritus and White-crowned Hornbills Berenicornis comatus. Where they rely on a cavity in a large tree for nesting, the combined forest encroachment and poaching would accelerate extirpation of hornbills from the park. After an intensive campaign, starting in 1994 and participated by over 40 villagers (former poachers/illegal loggers) from 13 villages around Budo Mountain and urban people in our research and conservation programs, i.e. hornbill nest adoption, to date, 1,622 nest-years of adoption have been accounted. The programme is considered successful in terms of poaching eradication and dissemination of hornbill conservation message to the public.

Since 1994, 1,303 nest cavity-years have been observed and guarded by villagers. Of these, there is 70% breeding success and over 400 chicks have fledged. The success of the nest adoption programme has led to the second phase, the establishment of the Budo Hornbill Conservation & Education Center in 2004 on a piece of land donated by a village family. The Center provides educational and conservation lessons to schoolteachers, children, teenagers and villagers in the surrounding area for approximately 400 individuals per year. Aside from these programmes, we are expanding the channel for communication between persons or groups with an interest in hornbills through the Hornbill Network. Presently, 18 local schools surrounding Budo Mountain are members of the network. Our conservation programmes show clear, progressive development of relationships among urban, rural and natural habitats using hornbills as a tool and, subsequently, hornbills are being conserved in a sustainable manner.
Joint benefits of Logging and the Conservation of Biodiversity in Tropical Rain Forests

Kanehiro Kitayama (Center for Ecological Research, Kyoto University)

Abstract: Tropical rain forests are one of the most biologically diverse ecosystems. However, a vast area of tropical rain forests undergoes deforestation annually due to various land-use developments. In the case of equatorial tropical Asia, forestry activities occur in the widest area of tropical rain forests among other developments. For many tropical countries, rain forests can bring about important revenue and they need to be sustainably managed. On the other hand, temperate countries that import tropical timber wish to avoid tropical deforestation.

Forest certification is a system that connects timber suppliers and consumers. Logging has conventionally been very destructive, but can avoid such destruction if improved techniques are applied and if yield is reduced. However, a higher cost will be incurred when improved techniques are applied. Forest certification is a system to certify timber from well-managed forests and green consumers can expect to pay a higher price for certified timber. This system is expected to lead to the sustainable management of timber resources as well as the conservation of tropical rain forests.

We have been studying the positive effects of sustainable forestry and forest certification on the rain forest ecosystems in Deramakot, Sabah, Malaysia, a model system of forest certification. Conventional destructive logging had been applied until 1989 in this forest, but was suspended thereafter. Sustainable forest management has been applied since 1989 with forest certification awarded in 1997. We compared various organisms including insects, mammals, fungi etc., in this forest versus those in the surrounding destructive logging sites. Many groups of organisms demonstrated an assemblage of species/genus/families comparable to that of a pristine forest, suggesting that forest certification can well conserve biological diversity.

Forest certification was originally coined as a mechanism to protect timber resources. However, if it is strictly applied, it can function to conserve ecosystem services of global concern including biodiversity.