

“A new normal between humans and wildlife as part of the biosphere”

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Overview and key sentences: (1) from nature protection to comprehensive Sustainable Development Goals; (2) sustainable use of natural resources, including SDGs; (3) a comprehensive approach of environment, economy, and society. and one characteristic of SDGs is that Leave No One Left Behind. This is idealistic rather than realistic. (4) The SDGs will end in 2030. Some people are now beginning to prepare the post SDGs. My idea is the risk tolerant society.

We need not only nature protection but comprehensive sustainable development goals. Our ultimate goal is not to protection of nature, but to human well being and good quality of people's life. Nature protection is indispensable measures to achieve good quality of life. But ecologists often recognizes nature protection as a goal, and do not explain linking from the nature protection to well-being. Sometimes they exclude ingenious people from nature reserve candidate in order to protect the wildlife,

One famous caricature is this prevention versus conservation. Wildlife preservatives by Gary Larson. A very similar idea is used in the UNESCO's MAB programme.

We do not preserve the wildlife, but they live in the open ecosystem including people.

We have some variations of global fashion. Protection of nature is still one, not to use a wildlife or not to use the primeval nature, but humans can live by using natural resources and natural capital. Therefore, the second idea is Conservation of Nature for the next generation. That means a sustainable use.

And the third idea is education for sustainable development.

The goal is not to protect nature supported by foreign power, but to nurture local people to conserve local natural resources and arrange consensus building.

Respect diversity, both nature and culture. UNESCO's idea is bio-cultural diversity.

Biosphere reserves, is a field tool for interdisciplinary MAB, Man and the Biosphere Programme work with the triple function: conservation, development and research on monitoring. Biosphere Reserves conserve biological and cultural diversity and propose innovative approaches to sustainable development, rather than the only nature protection and promote research.

This slide is modified from a past Chair of MAB-ICC (International Coordinating Council), Dr. Choi. Scientific institutions, legislation and local communities, these three components are very important for the management authorities or biosphere reserves, consisting of core area, buffer zone and transition area. Core area is to protect. transition area is for sustainable development.

Now, a very big number (727) of BRs from many (131) nations (after MAB-ICC held in September 2021).

10 BRs exist in Japan, making a domestic BRs network. I think this is convenient because in this network, local practitioners and scientists can discuss in Japanese language, and networks of BRs are arena of mutual learning.

Rhön BR is famous for branding of agricultural products.

Aya BR has similar activities, ecotour guides and certification of ecosystem-oriented agricultural products.

Biodiversity and ecosystem services are centered economy, social and cultural development on local populations. This is a key idea. BRs are model for SDGs using natural resources. This role of BR is not only natural protection, but also comprehensive sustainable development goals.

This is 17 goals of SDGs

Issues of the COVID-19 pandemic: I think, (1) mainstreaming zoonotic disease control is critical, (2) popularity of animal welfare and vegetarianism, (3) increasing human-wildlife conflict, not solely developing countries but also developed countries, (4) also poaching and the illegal trade of endangered species still serious. (5) Opposite, trophy hunting directory contribute to locally economy.

This articles found that poaching rates of African elephants has declined. Therefore, they said, The control of illegal poaching is now really succeeding. A reduction in poverty and corruption in communities and neighboring protected areas may have a greater effect and obvious additional benefits.

Trade bans and associated ivory seizures may even increase poaching incentives by causing price rises in elephant ivory.

And now, loss and fragmentation of the habitat due to the rapid growth is a measure of decrease of African elephants. Tanzania population increased by twice. The per capita GDP increased five folds. That means 10 times bigger impact than the 30 years ago.

And this makes the increase of human wildlife conflict. But we never say, please do not develop in developing countries. I usually say people fast, but we need such wildlife is indispensable for good quality of life. Therefore, sustainable development is more important, not only developing countries, but also developed countries including Japan.

This is Sapporo city, and Tokyo Olympic Marathon was held here. But brown bears appear frequently in this city areas. This becomes a big issue in wildlife-human conflict. Not only in Japan, but New York state kill wild deer, because now the wild deer is overabundant. Not only game hunting but professional culling exist.

Previously many Western people ate livestock, but they said, do not eat wild animals. But many people became vegetarians in quarter century ago, More recently, they become vegans, they do not eat even egg or milk, I predict in future, they will become to reject eating orange from farms under killing nuisance animals. There is a similar idea of dolphin safe. But do you consider that this is a good solution? No conflict means a cleaned up all wild animals there. But I think this farmland area in several centuries ago was probably a habitat of wildlife.

People determine the scope of protection. Some people do not eat monkeys, some people do not eat dog or cat, some do not like eat wild deer or bears, some do not eat fish, shrimp, or even sea-urchin. These are all animals. I respect for diversity of personal values. People choose their own boundary. Some people may another boundary. It's okay. Therefore, I usually say do not force your value on others. This is a cultural diversity.

In the case of Japan. CSF (swan fever) was once popular in 28 years, ago, when there were very few wild boar. But now, swan fever again outbreaking and boar is very abundant and they carry the swan fever. Therefore, the control of swan fever is more complicated because the wild animals is abundant and carry zoonosis.

Another example issue is "Cat war". Even domestic cat is recognized as an invasive alien species. Cats eat many endemic species, especially in small islands, and also this carries

toxoplasma. Europe is very high rate of carriers, and in South Korea and Japan the carriers are very few. And this is cultural diversity. There is a serious conflict between bird watchers and cat lovers. Therefore, I say, the idea of animal welfare is still developing in the world.

Basic concept of bear management: we discriminate good bears from bad bears. Good bears avoid people, even in their home range includes human residential areas. But bad bears has some risk of invading farms and attacking people. We have no choice but to remove bad bears. I said, people and bears are not friends, but can coexist by fearing each other. Therefore, some level of killing bears may be effective on coexistence.

I wrote in this book, people are inseparable from the biosphere, and thus not only use wildlife but are sometimes being used by wildlife too.

My idea of one health is: (1) It is up to each person to decide what range of taxa to be protected, and this should be mutually respected. (2) people think that eating vegetable will not perform well, this is not really a solution of the answer.

Exercises, (1) The next development in animal welfare after veganism and decide conditions of bushmeat use. I said an idea, but please consider by yourself. Another idea is eating insects instead of bushmeat. This may be a good idea. (2) The future vision of self sufficiency of agricultural products and free trade, (3) How to manage the risk of zoonosis and human-wildlife conflict at the same time. (4) How humans and wildlife can live separately. I said, increasing people's habitat may increase the conflict. But you may have another idea.

Thank you very much.