'Asia' and the topic "legislation" have many commonalities: both entities are large, dissimilar and similar, subtle, uncertain, complex, and even contradictory. Asia, with 43 countries and a few protectorates in five regions, is the most diverse of the world's seven continents. Zoo legislation, or even environmental legislation referring to zoos, is diverse where it exists, reflecting Asian countries' widely varied cultures, attitudes, politics, and economies.

Asia is the largest continent in both area and population. Zoo legislation is patchy in each region and in most of the countries. Unlike other large land areas in North America, Europe, and Australia/New Zealand, each region in Asia contains from 5 to 17 distinct countries. Each has its own government, economy, developmental status, religions, and traditions which affect its concept of a zoo and its administration.

Therefore, many zoos in Asia look good on the outside, with their dramatic size and displays, but are not keeping up on the inside, where ethics, interest, and technical zoo animal management skills are required. Moreover, zoo legislation as such is meager in Asia, and this contributes to the imbalance.

LEGISLATION
It would appear that Asian zoo legislation is sparse. Many Asian countries now have wildlife and welfare legislation, which sometimes names zoos generally if any laws in the document apply. That is better than no legislation, but governments should know that specific standards of zoo exhibition and care are of paramount importance, and should include them. These standards are conspicuously absent in many of the Asian countries, whereas they are of primary importance in many other parts of the world. Western countries legislate standards of care and carry out inspections to ensure that zoos are following the law. Zoo associations work together with governments on accreditation or recognition. In Asia, few countries include standards of care, welfare, or display, and none have taxon-specific legislation that details precise values for different animal groups. The United Kingdom, Europe, and Australia have these standards in governmental legislation and national and or regional accreditation, while the American Zoo Association (AZA) covers it in their accreditation program.

It is noteworthy that most Asian national wildlife legislation rarely refers to zoos as part of the conservation effort. Ironically, most Asian forest and wildlife legislation includes strengthening, restocking, or reintroduction for declining wildlife populations, and also the leisure aspect of wildlife without linking zoos. It is as if they cannot conceive of zoos being helpful to wildlife and environmental managers.

Another interesting feature of Asian zoos is the paucity of regional or national zoo associations, "Friends of the Zoo," and other nongovernmental organizations that are so productive, helpful, and appreciated in Western countries. Asian governments seem reticent to recognize the few extant organizations unless they are themselves part of government.

SOUTH ASIA
South Asia includes eight countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka. Two of these countries have zoo legislation, and two more have drafts of legislation that are plodding through various governmental offices until their passage. Other South Asian countries will most likely opt for it in the coming years. The South Asian Zoo Association for Regional Cooperation (SAZARC) was founded to encourage zoo legislation and attention to conservation, welfare, and standards.

Sri Lanka was the first country in Asia to pass legislation specifically for zoos and not as part of other legislation. The National Zoological Gardens Act (No. 42 of 1982) provided for administration and management of the National Zoo, a zoo fund, a description of the zoo director's duties and responsibilities, standards of behavior, and penalties for noncompliant visitors.

When India became independent there was great interest in all wildlife, and also in zoos. Decades later it was realized that zoos had proliferated too rapidly and were out of control. Only legislation could bring about restraint. India's story of addressing this and other problems is so remarkable that a case study has been included in this book.

Afghanistan and Bhutan, with only one zoo and one Takin Centre respectively, have yet to see the need for zoo legislation, although both countries plan other wild animal facilities. Current and future zoos would benefit a great deal by having the structure and incentive provided by standards and guidelines.

Bangladesh has about 10 zoos currently managed by different governmental authorities. The government has drafted zoo legislation that various ministries must examine. The South Asian Zoo Association for Regional Cooperation (SAZARC) is a strong encouraging force, but transfer of senior ministry officials who could push legislation is an obstacle to its timely passage.

In Nepal, concerned officials identified a need for captive animal legislation and have acted on it. Now, the Nepalese government has tracked the number of captive facilities or their agencies and has drawn up
Case Study 61.1. Government and Zoo Legislation in India

India, the Largest country in South Asia, probably has done the most of any country in the world to legislatively improve the quality and control the quantity of its once insufficiently managed but now dramatically proliferating zoos. In the decades after Indian independence (1947) there was official recognition that the existing zoos were not keeping up with the rest of the world, and many well-meaned actions were taken to improve them, including establishment of a zoo wing in the Indian Board for Wildlife, the establishment of an Indian expert committee, a visit of American zoo experts, inclusion of zoos in the Wildlife Action Plan, a meeting of Indian zoo directors, and other recommendations which largely stayed on paper.

A seminal event took place in 1987: A list of 187 zoos was published in a zoo magazine (Walker 1987) that challenged the official ministry list of 44. This demonstrated that zoos were springing up faster than government could keep up with. In 1988, the Department of Environment created the post of joint director for zoo affairs in the ministry, and from this point on, regular progress took place. Serious steps had been taken during these four decades to improve existing zoos, but in the end it was determined that the way forward was to develop serious and stringent national legislation. An enthusiastic minister gave the order for ministry officials to create the framework for the new Central Zoo Authority (CZA) and operational principles for implementing zoo legislation. An act establishing CZA was passed in 1991, and another one establishing norms and standards was passed in 1992.

According to law, all zoos were then (as now) required to register with the government. When the registration process was complete, the number of zoos was about 450. According to these new laws, all zoos had to be inspected and given time to improve. The zoos were also given funds by the CZA to do the work in a 50% matching scheme in which their respective states also contributed funds and did the work, after which they would be reinspected and either given recognition or be ordered to close.

Over the next decade, CZA gave recognition to almost 200 zoos, while closing more than 200 wild animal facilities and distributing those animals to recognized zoos. Also, a vast number of projects were designed and carried out to bring Indian zoos up to international standard and improve animal welfare. Those projects included training for all levels of zoo personnel, high-level committees (e.g., zoo design, education, and technical guidance), zoo associations (e.g., for curators, keepers, and educators), institution of small grants and fellowships for zoo personnel to conduct research projects, and establishment of a high-level DNA research facility.

Over the next 15 years there were a number of amendments to the act. Whenever CZA decided an existing statute was insufficient or inappropriate, it would improve the statute as an ongoing process. Later it was decided that CZA would set up regional offices that will have closer relations with zoos of north, northeast, south, west, and central India. These regional offices help insure that needs are met and work completed more effectively and efficiently for the further improvement of zoos.

legislation which is shy of one signature to become law. In addition, the Central Zoo, Kathmandu, which took the lead in convincing government of the need for legislation, has also created a network which brings all zoos in Nepal together for meetings.

There is no central zoo legislation for captive wild animals in Pakistan, but there is wildlife legislation in the four provinces, some of which can be applied to zoos. There are no standards for exhibition of animals or inspections, but animal welfare legislation can be used in some situations. Pakistan has a number of zoos, some of which date from the 19th century and others which are recently constructed.

SOUTHEAST ASIA

Southeast Asia includes ten countries: Singapore, Brunei, Malaysia, Indonesia, Thailand, Philippines, Laos, Cambodia, Myanmar, and Vietnam. The zoos in this region have some specific or implied legislated requirements within wildlife legislation. The “connect” between zoos and conservation of wildlife is lacking in these laws, but the regional association, South East Asian Zoos Association (SEAZA), connects more than 100 zoos and parks and offers training in conservation, helpful inspections, and advice.

Three zoos in Brunei are under some governmental authority: Tamburong Zoo, Louis Mini Zoo, and Hassanal Bokhiah Aquarium, all of which are of good repute. All but one of the royal family’s private collections, four zoos and an aquarium, are open to the public. His Majesty the Sultan of Brunei is to make rules regarding control of ownership and of import or export of any wildlife species.

Currently the organization of zoos in Thailand is on two levels: official zoo endeavors via the Zoological Parks Organization (ZPO) of the government of Thailand, and independent spurious facilities that are unregulated. In 1992 a Wildlife Preservation and Protection Act (BE 2535) was passed that applied to ex situ conservation in public zoos, as defined in chapter V.29 of the act. It includes rules for permission, establishment of zoos, compliance with notifications, and documenting of species.
Captive facilities in the **Philippines** include zoos, breeding centers, and rescue centers. Although strengthened with relatively recent legislation, enforcement is not effective. The Department of Environment instituted an accreditation process for zoos and wildlife facilities to control trade and improve standards, but implementation is scant.

**Laos** (Lao People’s Democratic Republic) is a rural country devastated by recent wars. The primary zoo in the country is the Vientiane Zoo, founded in 1992 and located in Vientiane, the national capital. There are other zoos associated with hotels and private menageries. Lao’s zoo legislation was passed in 2007 and is the major piece of legislation with application to captive facilities, covering wild capture, use of wildlife for public benefit (zoos, aquariums, etc.), need for veterinary units, and so on.

Wars destroyed the modern zoos established in the cities of colonial **Cambodia**. Today the Phnom Tamao Zoo, located outside Phnom Penh, founded in 1995 and managed by Department of Forestry and Wildlife, seems the only major zoo in the country. It is large and includes carnivore, bird, and herbivore parks, with native species donated or confiscated locally. Draft circulars have been issued by the State Wildlife Department that refer to zoos, but they are not available.

Currently there are two main zoos in **South Vietnam**, along with several small ones owned by businesses and private individuals. There are also several breeding and rescue centers for conserving endangered species and reintroducing animals back into the wild. Environmental legislation in South Vietnam is written in Vietnamese. There are translations of Vietnamese laws that include the management of captive bear facilities (due to the bear bile industry) up to the most detailed biodiversity legislation. Also available online are lists of decisions, circulars, and decrees from **North Vietnam** relating to captive management of bears, wild plants and animals, and management of import and export, including CITES regulations and penalties (Education for Nature-Vietnam: www.envietnam.org/library/law-library.html).

Of importance in **Singapore** is the Wild Animals and Birds Act, passed in 1965, which has had frequent revisions, most recently in 2002. Many other laws, such as the Animal Welfare Law, apply to captive animals, including licensing for commercial animals (e.g., those for sale and for exhibition), and the Endangered Species Act. Taken together, the requirements that apply to zoos in Singapore are stringent, and Singapore’s animal facilities reflect this.

There are three zoos in **Myanmar**: Yangon Zoo, Mandalay Zoo, and the relatively new Nay Pyi Taw Garden Project. Myanmar’s only apparent zoo legislation is a regulation that provides for the importation of wild animals going to zoos, issued under auspices of the Ministry of Livestock. This requires a valid import license from the Myanmar authority, disease certification, certification of year-long disease-free area of provenance, and quarantine on arrival for a minimum of 14 days.

In **Malaysia** the Association of Zoological Parks and Aquaria, founded in 1996, is an aid to that nation’s zoos. The Malaysian government also encourages good management and maintenance of zoos through its Wildlife Protection Act of 1973. A national zoo policy provides guidelines with minimum standards for safety, animal welfare, veterinary medicine, and enclosure design. Separate territories in Malaysia each have their own wildlife departments and regulations that apply to captive facilities.

**Indonesia** has made substantial efforts to organize and raise the standards of its zoos. The Indonesian Zoological Parks Association is a partner of the Ministry of Forestry and the Indonesian Scientific Institution. There are a diversity of zoos on three islands, including traditional zoological gardens, aquariums, bird parks, reptile parks, and butterfly parks. The most recent legislation for Indonesia is Ministerial Decree No. 479/Kpts-n/i998, which describes the functions of zoos and special fauna parks.

**EAST ASIA**

Of the six East Asian countries—China, Japan, South Korea, Taiwan, North Korea, and Mongolia—only Mongolia does not have a zoo or any similar captive animal facility. All other countries in the region have two to hundreds of zoos. None has a trace of zoo legislation as such, but the ways in which the different countries mind their zoos is varied and interesting.

**China** has as many as 700 zoos, but no specific zoo legislation. It does have a number of laws, acts, and decrees focused upon wild animal protection and management that can be brought to bear on zoos, if there is sufficient coordination between different agencies. The State Forestry Administration (SFA) has demonstrated its ability to issue and implement controls in zoos. The Chinese Association of Zoological Gardens (CAZG), itself a government organization, can, with its connections to other government ministries, put pressure on zoos that are out of line.

**Japan** lacks specific legislation for zoos but other laws cover some of the need for zoo regulation. The Act on Welfare and Management covers exhibition standards and breeding permits, although it places zoos and pet shops on the same level. The Japanese Association of Zoos and Aquariums (JAZA), with 89 member zoos, has brought out a husbandry manual.
with standards for care and exhibition and also acts as a monitor for quality and conditions.

Taiwan has at least 14 zoos or zoolike facilities displaying animals for public viewing. The Taiwan Aquarium and Zoological Parks Association (TAZA) currently has 14 institutional members, including zoos, aquariums, bird parks, museums, and rescue centers. There are two major pieces of legislation, the Taiwan Conservation Law and the Taiwan Animal Protection Law, that have to be followed by zoos, aquariums, and animal ranches, although these are not specifically zoo legislation.

Hong Kong is a special administrative region of the People’s Republic of China (PRC) and since 1871 has had a public zoo, the Hong Kong Zoological and Botanical Gardens. There are other zoos in Hong Kong now, most notably Ocean Park Hong Kong. There is no legislation devoted specifically to zoos, but certain portions of other legislation, such as the Amendments to the Protection of Endangered Species of Animals and Plants Ordinance, apply to zoos.

North Korea has one zoo, Pyongyang Central Zoo, with 5,000 individual animals and 600 species. There is no indication of zoo legislation, zoo ethics, or standards of care, as information about policy is not easily forthcoming. Certain animal species have been designated as “natural monuments” by the Cultural Properties Preservation Law.

South Korea can boast about the Seoul Grand Park Zoo, which is the 10th largest zoo in the world. There are also three other zoos in the country. There is no zoo legislation, but it may not be required in this disciplined country. The Animal Protection Act (1991, revised 2004) describes very simple standards of animal care and provides for wild animals to go to a zoo. The Protection of Wild Fauna and Flora Act (2004, revised 2008) purports to prevent extinctions by protecting and managing species in their habitat as well as in “ex-habitat conservation agencies.”

WEST ASIA (MIDDLE EAST)
West Asia includes two groups: the federation of seven countries known as the United Arab Emirates (UAE)—Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al-Qaiwain, Ras al-Khaimah and Fujairah—and the other countries of the region: Bahrain, Georgia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, and Yemen. Nearly all these countries have zoos, but none have zoo legislation as such. Some include zoos in their wildlife or environmental legislation, and some have no regulation at all. However, in December 2012 a well-attended meeting of Arab zoo personnel was held to discuss the need for an Arab regional zoo association, backed by Al Ain Zoo and its general director, Ghanim Al Haji.

Representatives from the World Association of Zoos and Aquariums (WAZA) and other regional zoo associations assisted in discussions, and it was decided overwhelmingly to undertake this important step.

Zoos in the United Arab Emirates are privately owned and "governed" by the wealthy sheikhs who own them. This is also the case in some non-Emirates countries, as some zoos are owned by wealthy individuals and others are not. Many zoos not under the guidance of wealthy patrons are poorly organized and dysfunctional. In some countries, CITES legislation permits the registration of "breeding centers," and zoos that are so recognized can get import/export permits for wild animals. Animal welfare legislation in the Emirates covers captive and wild animals and stipulates adequate diet, safe transport, and medical treatment for them. The Emirates have adopted the IATA Live Animals Regulations (LAR), and were the first in the Middle East to do so.

Of the non-Emirates countries in this region, Georgia, Jordan, and Israel each have an administrative setup that seems to have direction and controls. The Georgia Law on Wildlife, Article 21, covers captivity, ex situ conservation, zoological collection, and the creation and filling of zoos. It includes some standards other than “appropriate care,” such as dimensions offences and cages. Jordan, with its Directive No. Z/44(2003), establishes technical and sanitary requirements for zoos and other animal facilities with articles on definitions; a Committee for Licensing Zoos; steps and conditions for licensing, transportation, fences, and cages; penalties for offenses. In Israel the Wildlife Protection Law 5715-1955 empowers the Minister of Agriculture to implement it and to make regulations for wildlife in zoos and other animal facilities. There are 15 known zoos and aquariums, all with different themes and venues, some with unique specialties and objectives. Several Israeli zoos have nongovernmental organizations (NGOs) contributing to their quality and care in various ways.

Saudi Arabia has several small zoos; two private facilities that display and breed animals, Assayd Nature Reserve and Riyadh Zoo (a municipal zoo); and two research centers managed by the National Commission for Wildlife Conservation. There is no obvious zoo legislation in the country, perhaps due to the sheikhs’ interest and involvement. In Bahrain, environmental law is pending under pressure from animal welfare groups to pass legislation for general animal welfare protection. Al Areen Nature Reserve protects a large community of local birds and mammals, and is divided into two parts, for researchers and other visitors. The only public zoological facility in Oman is the Oman Mammal Breeding Centre, of Arabian Oryx fame. Oman is credited by United Nations Environment Programme (UNEP) with establishing one of the world’s best records in environmental conservation, along with one of the world’s most seriously "green"
governments. There is a plethora of legislation for wildlife and wildlife protected areas, in the form of ministerial decrees and laws.

The only zoo in Kuwait was destroyed in the 1991 war with Iraq and later rebuilt with volunteer help, but it has no apparent controls or legislation. Iraq has Baghdad Zoo in Baghdad, which was nearly destroyed in the Gulf War, and bits of it were salvaged with help from zoos and welfare NGOs. Zoo legislation may be a long time coming to Iraq. Iran has two significant zoos in Tehran and Mashhad, and a few small zoos, but it still has no obvious zoo laws. The Department of the Environment runs the Pardisan Nature Park and also maintains an animal orphanage with no apparent legal controls. In Qatar, Doha Zoo seems to be the only significant public zoo and is a major tourist attraction in the country, but it is not without problems. Syria’s only functioning zoo is Duma Zoo, which is not of a good standard. Another facility, called Zoo Damascus, is under construction and looks very promising, with a sophisticated theme and two very professional architectural firms involved.

CENTRAL ASIA
The nations of Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) were once parts of the Soviet Union, and in those days they each had one or more zoos. This region has passed through very difficult times during its civil wars, and its zoos suffered losses of animals, infrastructure, and finance. The new countries are still in the early stages of establishing their various governmental agencies.

Kazakhstan has legislation in place that covers zoos reasonably well, although it is not called zoo legislation and may not apply to the two extant zoos, Almaty Zoo and Karaganda GOVERNMENT AND LEGISLATION IN ASIA 595 Zoo, which are not without problems. The legislation is part of a greater government conservation project that includes the setting up of elaborate state zoological parks.

Turkmenistan’s Environmental Law covers some aspects of zoos, such as State Protected Natural Areas (1992) and Protection and Rational use of Fauna (1997). In this country the government has recently opened the National Wildlife Museum Zoo, but a lack of standards is already affecting the animals, which suffer from a shortage of shade and water in 30 °C heat. Tajikistan and Uzbekistan each have at least one public zoo, but no legislation and no effective controls by any agency. Uzbekistan’s only official zoo was set up by the Cabinet of Ministers in 1997 and is a member of the European Zoo Association, which has a Code of Ethics and Standards that may compensate for lack of government-imposed standards. Kyrgyzstan’s only zoo was private and belonged to the country’s now deposed ruler. It is now closed and the animals have been moved outside the country.

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