

The Himalayas: Development and Protection

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I. Co-relations between the Himalayas and human existence and development.

It is a fact that all ancient civilizations, with no exception, were evolved in and around the relevant mother rivers. And, all those rivers could trace up to the great mountains, one of which is the Himalayas. They serve as the cradle for the civilianizations both in East Asia and South Asia.

(I) **The common front-yard of China, India, Myanmar and Nepal.** The term “Himalaya” is the phonetic translation of the sun script, meaning the “home of snow”. The said mountains are dwelling right on the borders among China, India, Myanmar and Nepal. In accordance with the research findings, the Himalayas are still growing by 15 to 50 millimeters per year. As the mountains were merged from the bottom of the ocean around 20 some million years ago, they have remained the youngest mountains on earth, stretching 2,450 kilometers east-westward and 200-300 kilometers south-northward, with an average height of 6,000 meters above the sea level, and with seven mountains over 7,000 meters above the sea level. The Everest, which stands at 8,848.13 meters tall above the sea level, remains the highest peak in the world and is situated right between China and Nepal. Based on the above analysis, the glorious Himalayas have become the common cultural heritage of China and countries on the subcontinent of South Asia, and the common pride of the countries across the whole region.

(II) **The birth place of the Chinese culture and those of the countries on the sub-continent of South Asia.** The Himalayas are hugged by China, India, Myanmar and Nepal, and have created about 5,000 glacial formations over the history, covering an area of 11,055 square kilometers, and have thus become the common source of the Ganges River, the Indus River, the Yarlung Zangbo River, the Nujiang River, the Mekong River, the Yangtze

River and the Yellow River, etc. From the geographical perspective, the heavenly Himalayas have created two drastically different natural, geographical and climate conditions on the southern and northern slopes, which have helped to nurture two distinctive ancient civilizations of China and India, contributing to the diversification of human civilizations. They have also brought about many distinctive nationalities in China and the countries on the sub continent, giving birth to many different ways of living, evolving hundreds of languages, contributing to the world of colorful nations. Over the past 2,000 years, the unique geographical conditions have also given birth to Buddhism, which was further evolved and prospered in China whose culture is known for inclusiveness. Therefore, it is fair to say that Buddhism has become the common spiritual heritage of many countries in the region, constituting one of the spiritual pillars in the course of economic and social harmonization of the relevant countries, and serving as the natural media for the friendly exchanges among peoples across the region.

- (III) **The area pregnant with abundant natural resources.** Water is the prime element for human existence and development. Therefore, the abundant water from the Himalayas has become the lifeline for about 3 billion people in and around the region. Meanwhile, they have also become the cradle for the human civilizations, climate and geography across the region. The far-stretching high mountains have managed to withhold the damp air flows from the Indian Ocean, resulting in bumper rain-falls, deep forestation and rich vegetation in countries such as India, providing ideal environment for people to live and develop. The Ganges River, the prime river in India, has become the sacred river for the Indians and other peoples in the region, along which the most populous areas can be found, and where the key areas for economic and social development can be seen. Meanwhile, the Yarlung Zangbo River on the northern slope of the Himalayas has become No. 1 river with the highest sea level both in China and around the world, where important areas for agriculture, forestry and animal husbandry industries can be found. The slopes on both sides of the Himalayas stretch

down toward the sea level, thus creating various geographical conditions for many bio-species and vegetarian species to grow and prosper. Incidentally, almost all the rivers that flow down to India are originated in the northern slope of the Himalayas, which cut across the tall mountains, creating valleys of 3,000-4,000 meters deep. The surging water from the valleys has been providing abundant water and hydropower to the countries in the region. With the advancement of science and technology, the Qinghai-Tibet Plateau has proven to harbor conditions for mineral deposits such as iron ore, the low-sodium mineral water, native borax, manganese, sulfur, soda, soil alkali and rock quartz, etc. The above minerals, when properly developed, could drastically lessen the relevant supply shortages, which would be strategically important to China's economic development. Along both slopes of the Himalayas, many rare tree species have found home at various latitudes. Scientists have discovered more than 500 plant species that are of medical value, including fritillaria, Lithospermum, snow lotus, and ginseng fruit, etc. They have also discovered edible fungus including mushrooms and mizuki ears. On the northern slope, many wild animals have found their natural homes, i.e. wild ass, the Tibetan antelope, gazelle, argali, blue sheep, snow leopards, yellow wolves, deer, lynx, foxes, otters, snow pigs, as well as snow cocks, yellow ducks, ducks, cranes, turtles, eagles, owls, crows, etc.

II. The challenges that the Himalayas are faced with

The Himalayas are the cradle for the civilizations in East Asia and South Asia. However, as the processes of globalization and industrialization further evolve, and as more and more people have been converging into the relevant river valleys, the Himalayas have been under the crushing pressure .

- (I) **The evolving water crisis.** Over the past 30 years, there has been the population explosion in the Himalaya region. Industrialization and urbanization have jointly been causing havoc in terms of water supply. Consequently, countries around the region have been locked into the competition for the tight water supply, resulting in new frictions between

or among the countries. In line with the observation by Noguchi Takeminami, the Japanese mountaineer, the glaciers on the Himalayas have been melting at an alarming rate, due to the climate change, and in the areas 6,000 meters above sea level, the traditional snow falling has increasingly mixed with rain falls. Under the impact of the green house effect, the green house effect, the permanent glaciers on top of the Himalayas have been melting fast. And, the ice and snow on the Himalayas might come to a total depletion in 50 years down the road, if the above scenarios should be allowed to go on unregulated. Researches have also found that the fast contraction of the glaciers could cause over flow of water in the short and medium term, which would result in floods of large scales, destroy irrigation systems, transportation and communication systems, wash away mountain slopes, towns and mines at the lower valleys, thus inflicting huge costs for the economic and social development in and around the region. In the long term, the fast disappearing glaciers would result in water crisis, humanitarian crisis and even political crisis in the relevant countries, where industries would bog down, urbanization would be impeded. More importantly, countries in the region would be locked in the competition over the water supply, inducing conflicts and even armed confrontations.

- (II) **The pending crisis for bio-species and pant species.** Since the ancient time, many animal spices have found natural homes across the plateau on the snow-covered Himalayas, making the Qinghai-Tibetan Plateau and the sub-continent of Southeast Asia a living global museum for wild animal species. The dense virgin forest has provided natural habitats for many plant species to grow, and allowed animals to roam freely, constituting the paradise for the said bio-chains and plant chains. The numerous lakes of all sizes, that spring across the Qinghai Plateau, have become a natural paradise for many migratory birds. The vast grasslands on both sides of the Himalaya slopes have created ideal environment for the relevant countries to develop animal husbandry industry. The snaking rivers in the same region have facilitated unique conditions for the relevant countries to develop fishery industry.

However, the bucks never stop here. Countries have been bending backward in pushing forward industrialization and urbanization, which have been engulfing limited supply of land and forest. People across the region have been chopping down trees for firewood, resulting in rapid deforestation. Modern farming has been causing vegetation degradation. Over grazing has been causing degradation of grassland, and the ever-growing people and animals have been jointly producing exhaust gas in large volumes. All the above scenarios have been contributing to the ever-worsening environment in and around the Himalayas, and contributing to the green house effect. According to one report by the Oceanian Research Institute of University of California, the brown haze caused by the air pollution has helped the sunlight to increase its temperature at the bottom of the atmosphere by as much as 50%. As a result, the environment for the plant chains and animal chains that were evolved over the history has been deteriorating, which is to cause the break-down of the plant chains as well as the animal chains, eventually endangering the environment across the region in terms of human existence and development.

- (III) The threat from the ice crevasse.** Due to natural and human actors, since the 20th century, both slopes of the Himalayas have been under the pending threat from the glacial lakes. In line with one scientific research report, there are more than 5,000 glacial lakes of all sizes across the north and south slopes of the Himalayas. The report also discovers that over the past century, the temperature around the world has been rising at a rate of 0.06 degrees Celsius per year. The constant rise of temperature has been expediting the process of contraction of the glaciers and snow in the said region. As there will be more water from the above area, there would be more possibilities of the dis-embankment of glacial lakes.

According to Japan Kyoto News Agency, there are 77 problematic glacial lakes in China, 42 in Pakistan, and 20 in Nepal, Indian and Bhutan respectively. The fast melt-down of glaciers would create more glacial lakes or enlarge existing ones. As the temperature in and around Himalaya keeps rising, and as there will be more water from the melting glaciers,

many glacial lakes would be on the verge of dis-embankment. And, any of those scenarios would result in floods of different scales, sweeping away farmlands, villages, roads, power stations, inflicting huge damage to people and property in the region. More importantly, both the melting glaciers and the contracting ice crevasses would expose the microbes hitherto buried underground for millions of years, many of which would cause new human health risks as a result of drastic spreading of the said micro-organisms, posing new challenges to the medical and health policies of the governments across the region.

III. Policy thought on environment protection

Based on the analysis, countries in East Asia and Sub-continent of South Asia should join hands more closely, in order to adopt the common environment protection strategy, implement sustainable green development strategy, promote win-win water resource development, enhance environment protection in and around the Himalayas, ensure sustainability of plant and animal species across the region, and strengthen the security of the common homeland of the countries in the region.

- (I) **Jointly participate in the global climate governance.** Relevant countries should join hands in participating in global climate governance, put forward common stands, promote common agendas, protect common interests and strive for the common space of development, via the United Nations, the World Bank and G20, etc. They should appeal the developed countries to carry out more international obligations, take lead in green development, add up investment in environment protection, and seriously carry out green technology transfer. They should appeal the international community to establish the fund for environment monitoring, management and protection, support the developing countries in terms of green development, and protect the common homeland of the mankind.
- (II) **Implement coordinated and sustainable development strategy.** Relevant countries should implement concerted economic and social development strategies, in line with their national situations, in order to realize national

development not at the expense of environment degradation and the interests of the future generation. Efforts should be given to promoting green development strategy, sustainable energy development, and expediting the development and promotion of energy conservation and new energies, establishing and improve “low carbon city” demonstration programs, and encouraging and supporting enterprises and civic societies to participate in green development and environment protection.

(III) **Further strengthen more bilateral and multilateral hydro-cooperation.**

Relevant countries should expedite bilateral and subregional cooperation in environment governance, in order to promote comprehensive development and utilization of the available water resource. They should expedite the negotiation and signing of the agreement on transborder water resource development, in order to effectively implement green hydro-project cooperation, and protect the environment for the sustainable development of the region.

(IV) **Establish and improve joint scientific research.** Relevant countries should establish and improve mechanism of joint research in the areas of meteorological, hydrological and climate research, in an effort to discover and grasp the trend of the above fields, and provide early warnings to the countries in the region and to the international community. Meanwhile, they should also research and find new ways to protect the environment of the Himalayas, draw up experience and lessons on environment protection, and provide the oriental wisdom support in the global environment governance.

(V) **Establish and improve the system of environment protection.** Relevant countries should expedite policy consultation, in order to sign the agreement on environment protection across the Himalayas, regulate all the scientific researches, exploration, mountain climbing, tourist and economic activities, which would help ensure the relevant activities to be in line with the benchmarks of environment protection, effectively carry out oversight activities, take punitive actions on any activities that are against the relevant

laws and regulations, and effectively curb the trend of deterioration of the environment in the region.

- (VI) **Further carry out awareness campaigns on climate change and environment protection.** Relevant countries should modify the constitution, readjust policies on environment protection, formulate and implement national guideline of education on climate change and environment protection among respective countries, effectively promote consciousness of the people to participate in environment protection, give full play to the initiatives of the citizens to participate in environment oversight, bring up the awareness of the people in terms of green production, green consumption and green travel, which would, in turn, contribute to the sustainable environment of the relevant countries and those across the region.