**A Study of the Physical and Human Geographical Assets of Africa South of the Sahara, South Asia, and East Asia and the Problems and Limitations They Face.**

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**Physical and Human Geographical Assets of Africa South of the Sahara, South Asia, and East Asia.**

Physical geographical assets include natural features like mountains, rivers, and climate. Human geographical assets encompass population, culture, infrastructure, and economic activities. Together, they shape a region’s character and development. Understanding these geographical assets helps in planning for future uncertainties based on comprehension of former and present environmental and geological conditions.

**Geographical assets of Africa South of Sahara and problems facing this region.**

The Sahel is a transition region between the humid Sudan savannah to its south and the drier Sahara Desert to its North. It stretches 5,900 km from the Atlantic Ocean in the west to the Red Sea in the East and it is about 700 – 1000 km wide (c. 600) and covers an area of 3, 053, 200 km2. The area experiences a hot steppe climate and though located in the tropics; it does not have a tropical climate. The topography of this Section is mainly flat which lies between 200 and 400 meters in elevation. In the north of Sahel, the annual rainfall is mainly low and varies from around 100 – 200 mm while in the south it’s moderate which is around 700 – 1,000 mm (Stockdale, Nancy, 2017). It has a variety of flora and fauna

The Ethiopian highlandsis a rocky mass of mountains in Ethiopia found in Northeast Africa. It forms the most extensive area of high altitude in Africa, with less of its surface falling below 1,500 m while its top reaches heights of up to 4,550 m above sea level (Philip Briggs & Brian Blatt, 15 July 2009). The elevated surface is split diagonally by the Great East African Rift System which starts from Syria to Mozambique across many East African Lakes.

Victoria Falls (Mosi-Oa-Tunya, “Thundering Smoke” by the Lozi people) is located along the great Zambezi River which is approximately 2700 km long from its source to the mouth and borders Zambia and Zimbabwe. It is also one of the largest waterfalls in the world with a width of 1,708 m (5,60f ft) and a height of 108 m (354 ft). It is one of the most spectacular physical features in Africa and attracts most tourists throughout the year. Victoria Falls and the area surrounding it were classified as a World Heritage site in the year 1989.

The East African Rift Systemextends from Syria to Mozambique covering a distance of approximately 6,400 km (4, 000 miles) in length and an average of 48 – 64 km (30 – 40 miles) wide. It is made up of two branches. The main branch is the Eastern Rift Valley (Great Rift Valley) which starts from the Ethiopian Denakil Plain, into Turkana through Naivasha to Lake Magadi in Kenya then continues to Tanzania to Mozambique. Through this system, there are salty and freshwater lakes which are mostly deep due to faults along this region. Plateaus found in this region generally slope upwards towards the rift floor and the average drop from 2,000 to 3,000 feet to the valley floor (G. Yirgu, C.J. (Cindy J.) Ebinger & P.K.H. Maguire 2006).

The Namib desert is found on the coast of Southern Africa. It stretches for more than 2,000 km along the Atlantic coast of Namibia, Northwest of South Africa, and Angola. This region experiences very low rainfall annually which ranges from 2 mm in the most arid region to 200 mm at the escarpment. It is considered one of the oldest deserts in the world and contains some of the driest regions which consist of sandy coast and gravel plain. This desert is completely uninhabited by humans apart from small indigenous groups who practice nomadic pastoralism. The plant and animal species found in the area are adapted to the harsh conditions.

Sub-Saharan Africa is home to a diverse collection of people. It has like 15 major language groups/families which comprise approximately 1,298 known languages. Colonialist languages forming part of the mother languages include Afrikaans, English, French, Portuguese, and Arabic. The ancient Bantu migration was responsible for forming major tribal distinct people in this region. This region has maintained its tribal identity despite the influence of European colonialism, national warfare, and the recent trials of HIV/AIDS, drought, and Famine (Stockdale, Nancy, 2017).

The Sub-Sahara region has a lot of mineral deposits, and mining has been a key aspect of most national economies. Almost half of Gold and Diamond supplies originate from this region and nearly a third of the world’s Uranium. There are also other minerals such as copper, iron-ore, platinum, bauxite, and cobalt as well as increasing production of Petroleum.

**Problems and Limitations**

Climate change has caused Lakes and rivers to reduce significantly and also caused increased desertification which has led to a decreased amount of land suitable for settlements and has caused farming communities to move to the humid and favorable climate of West Africa (Orioha, M.K 2018).

Increased drought has led to large-scale famine which has affected crop production and the survival of people and animals in this region. Desertification which is caused by over-farming, over-grazing, and natural soil erosion is another problem that is faced in this region which limits the number of living organisms surviving in the region

Victoria Falls is affected by extreme weather conditions. The rise in temperature due to Global Warming makes the area Hotter and Drier. Due to variability in the flow of water, there has been a significant drop in the general flow in September, October, November, and December caused by drought which is now more frequent as compared to past years. Such phenomena have affected the beauty of the waterfall.

The most common problems facing the East African Rift Systemregion are earthquakes, landslides, erosion, and volcanic activities which pose a threat to the existence of human beings and animals. This leads to the destruction of crops, buildings, and towns. Pests such as tsetse flies which are found in Labwe Valley and Nagana cause diseases in the region (G. Yirgu et al., 2006).

In the Namib Desert, the consequences of driving off-road vehicles for fun is one of the biggest threats to the Desert. On the gravel plains, this impact is greatly felt, where vehicles can make depressions that can stay for 50 years or more because rainfall is terrestrial and limited to carry them away.

Ethiopian Highland is faced with drought and soil erosion. Global warming and desertification are the main factors causing recurrent droughts which results in reduced precipitation. Soil erosion is extreme in the highlands and is mainly caused by deforestation, over-cultivation on steep slopes, overgrazing, and increased population growth.

Sub-Saharan people are faced with; Diseases (HIV/AIDS being the major disease and Ebola), drought, ethnical clashes (for example the Hutu and Tutsi of Rwanda), famine, extremism, poverty, and wealth imbalances where the gap between the rich and the poor is extremely huge. Although having vast amounts of Natural Resources, Sub-Saharan regions benefit lowly from the exploitation of its natural resources as most of them are taken to the developed countries for refinement. Poverty has led to the limited deployment of agricultural methods where most rural people practice small-scale farming to sustain their basic needs and cannot feed the ever-growing urban population.

**Geographical assets of South Asia and problems facing this region**

Of all the continents in the world Asia is the largest. This large continent is divided into 5 large sections that are, South Asia, Central Asia, East Asia, Southeast Asia, and West Asia. On the Western side where it borders Europe is a historical and established culture. The big Asia is about 44,614,00 km2 (17,226,200 m2) if Russia is included. Asia has a high Altitude and considerable high Relief. The tallest mountain Mt. Everest is located in this region with its peak reaching 8,850 meters (29,035 feet) and the most hallowed sea level at around 430 meters (1,410 feet) below sea level. South Asia is found between The Indian Ocean and Bengal Bay to the south, and in the North the Himalayan mountains.

The major physical features in South Asia are; three mountain ranges i.e. the Hindu Kush, the Karakoram range in the northern part, and the Himalayas.

The Himalayas are a series of mountains arranged in a line connected by high ground separating the plains of India from the Plateau of Tibet. It hosts the highest mountain in the world (Mt. Everest) and other more than 100 peaks that can reach up to a height of 7, 200 m (23,600 ft) above sea level. This magnificent range cuts across 5 countries; China, Nepal, Bhutan, India, and Pakistan. On the northwest, it borders Hindu Kush and Karakoram, north of the plateau of Tibet, and on the south the plain of Indo-Gangetic. Rivers; Indus, the Tsangpo-Brahmaputra, and the Ganges drains from these ranges and it supports a population of around 600 million people. Most of the peaks found in the Himalayas are sacred prayer grounds for the Hindu and Buddhist communities.

The Karakoram Range is a mountain range found at the borders of India, Pakistan, and China. It forms the bigger Himalayas Ranges system and has the second-highest mountain in the world known as the K2 Mountain.

The drainage system of the Himalayas forms two main river systems; the rivers found on the western side form the Indus Basin and those draining to the Ganges-Brahmaputra Basin which consists of the Yamuna, the Brahmaputra, the Ganges, and other tributaries.

The main rivers are; the Ganges, the Indus, and the Brahmaputra which contribute immensely to agricultural development of the adjacent areas. Dams and Canals have been built along these rivers to be used in irrigation, controlling floods, and provision of hydroelectric power to the densely populated towns and cities.

Indus River extends to a length of about 3,219 km (2,100 miles) covering a drainage area of approximately 450,000 km2 making it among the longest rivers in the world. This river is fed by glaciers flowing from the Himalayas, Karakoram, and the Hindu Kush Mountain ranges making the river flow all year round having large volumes of water during spring and low volumes during winter. The region around the Indus River is regarded as a cultural hearth because the floodplains from the river provide water, food, irrigation, and trade channels.

The Ganges River **is** a transboundary river flowing through Bangladesh and India and is about 2,525 km (1,569 miles) long. Its source is on the western side of the Himalayas and flows east and south through the Gangetic plain and finally empties its water to the Bay of Bengal. Millions of people living in its basin derive their livelihoods from this river.

Brahmaputra Riverflows from Bangladesh, Northeastern India, and Tibet acting as a transboundary among these three countries. Its source is in the Manasarovar Lake area on the northern side of the Himalayas in Tibet and flows southern to the Bay of Bengal cutting across many regions. Its length is approximately 3,969 km (2,466 miles) and is significant for transportation and irrigation. It can averagely reach a depth of 30 m (100 feet) and a maximum of 135 m (440 feet). It can discharge a load of 19,800 m3/s on average and can reach 100,000 m3/s when it floods.

How is population measured? If you do a head count, South Asia will emerge as the most populous region in the world. This region experiences rapid population growth and due to its rugged nature, population densities are high as many people are concentrated on more productive and ideal areas such as agriculturally productive areas, along river mouths, and peaceful areas (Appollo, M. 2017). India is the most populated country in the region. Most of the population pyramids of the countries in the region show a preference for boys or male children, though not all are as extreme disparities in the ratio of male to female as in India.

**Problem and limitations**

Climate change has caused increased glacial retreat in the Himalayas ranges which if continued will lead to great changes in freshwater flows, with erratic impacts on biodiversity, human being, and their well-being. Deforestation to make room for agriculture, and settlements, exploit timber, and make wood fuel is another major problem. Endangered animal species like Tigers, rhinos, and elephants whose products have high economic values are poached at a high rate causing a threat to wildlife. The creation of many dams without undertaking an environmental impact assessment may result in engulfed productive lands and hotspots for biodiversity.

Pollution is one of the major problems facing the three South Asia Rivers. Due to numerous activities in this area by the large population, they end up dumping their waste in the rivers causing them to be polluted. This causes shortages of clean, fresh water and clogging of these rivers. Flooding is another problem experienced. Due to global warming, most glacier is being melted leading to flooding of these rivers downstream. Siltation of these rivers also causes the rivers to be impassable leading to reduced river transport.

As indicated by population pyramids, there is a preference for male children over female children in this region (Chakravorty et al., 2021).

**Geographical assets of East Asia and problems facing this region**

East Asia is a vast land with many amazing geographical features both physical and human. The region is bordered by a set of mountain and hill ranges in the west, southeast Asia to the south, and Russia and Mongolia to the north. On the Russian side it is bordered by the Altay Mountains, Tibet, and Nepal is bordered by the Himalayas, and the central side is bordered by Pamirs, Karakoram, and the Tian Shan Mountains.

The Yellow River (Huang He River) and the Yangtze River provide fresh water used for agriculture and domestic use in the region. Its source is in the highland of Tibet and flows through the plains found in North China and finally empties in the Yellow Sea and East China Sea. Canals, dams, and irrigation projects constructed along the river provide water for large-scale agricultural operations. The main crops grown in the area include; soybeans, wheat, and many others. Because of the large population in this region, food grown only sustains the population hence there is no surplus. The source of the Yangtze River (Chang Jiang River)is in the Tibetan Plateau and flows through the Sichuan province, the 3 Gorges, and finally empties into the East China Sea. Rice and wheat are extensively grown in this region. Large cities including; Shanghai, Wuhan, Nanjing, and Chongqing are located close to the delta near the coast. This river has the largest dam in the world; The Gorges Dam and produces a significant amount of electricity to be used by the big cities.

The East China Sea is part of the Pacific Ocean that borders East Asia landmass and extends north-eastwards from the Southern side of the China Sea. It is connected by the shallow Strait of Taiwan between mainland China and Taiwan. It extends to the series of the Ryukyu Islands to the east, the Kyushu to the north, the Cheju Island to the northwest, and China to the west. The sea has a total area of approximately 750,000 km2 (290,000 square miles) and is mostly shallow with an average depth of 350 m (1,145 feet). The deepest points which can reach a depth of 1,000 m (3,300 feet) are found on the Ryukyu Islands and the Okinawa Trough. The shallowness is mainly caused by the sediments deposited by the Yangtze and other rivers near the northern part of the sea (Yu, Runze 2012). The Yellow Sea is a large channel of the western Pacific Ocean which lies between the Korean peninsula on the east and China's mainland on the west and north. It borders the East China Sea on the south where the Yangtze River mouth separates it from the East China Sea. It measures around 960 km (600 miles) from south to north and about 700 km (435 miles) from west to east. Its area is about 380,000 km2 (146,700 miles) and it has an average depth of 44 m (144 feet) and a maximum depth of approximately 152 m (500 feet) (Yu, Runze 2012).

The rich fertile soils and water from the rivers provide a suitable condition for agriculture to thrive. Grain, vegetables, and fruits are farmed within the river basins hence providing sufficient food for the large and ever-growing population of East Asia. The large population also provides sufficient and cheap labor. Fish farming is also practiced. Due to its large population, East Asia enjoys a large and skilled labor force which contributes significantly to the region’s economic sustainability. The personnel are well known for their rigor, discipline, and top-notch educational achievement. Countries like Korea, China, and Japan have provided capital for education, producing a large number of professionals with skills in Science, Technology, Engineering, and Mathematics (STEM). This know-how labor force has been a driving force behind the region’s victory in industries e.g., electronics, manufacturing, and information technology. All-inclusive, East Asia’s devotion to research and growth, integrated with exceptionally skilled personnel, and advanced technology has driven the region to the spearhead of the global technological topography.

This region is rich in culture which is characterized by arts, philosophies, customs that have progressed over time, and a fabric of traditions. It is a home of diverse cultures, traditions, and religious activities (Chang, Chun-Shu 2007). The cultural richness includes; Philosophical Traditions: east Asia has been affected by philosophical traditions for example; Taoism, Confucianism, and Buddhism. East Asia is recognized for its high academic standards, focus on STEM, work ethics and discipline, quality of teachers, investment in research and development, global recognition, and parental Involvement.

**Problems and limitations.**

The problems facing the River Basins of China that limit their maximum use include; water pollution, soil erosion, over-exploitation of water resources, and destruction of habitats. Expeditious urbanization and industrialization give rise to pollution from industrial waste and not treated sewage, affecting the quality of water. Dam constructions and diversion of water projects influence the ecosystems of the rivers and derange the natural flow patterns of these rivers. The problems facing the China Sea and The Yellow Seainclude; Marine pollution – the seas are affected by industrial effluents, oil spills, urban pollution, and runoff of nutrients from the farmlands. These can harm the organisms living in the sea and also affect the quality of water (UNDP/GEF, 2007). Overfishing, development of infrastructure, and urbanization on the coastal strip contribute to habitat loss, and disputes over territory and resources, leading to tensions over the rights of fishing and natural gas and oil resources. If issues are not controlled, they may lead to environmental impacts (Yu, Runze 2012).

Challenges emanating from skilled labour include; intense competition from the domestic and global labor force and an aging population which may lead to reduced workforce, work and life balance, technological disruption, global economic uncertainties, and education disparities. Some of the challenges East Asia is facing in terms of technological advancements include; Intellectual property concern, technology inequality, cyber security risks, environmental problems, and competition from other nations with advanced technology may also be a limiting factor.

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