

A Brief Look at the Natural Conditions of the Hindu Kesh Mountain Range

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ABSTRACT

Afghanistan is a country that is located almost in the center of the Asian continent, it is a landlocked country and in terms of land structure, it introduces a mountainous country among the countries of the world. This country has been of great economic and political importance due to its important geographical and strategic location in different periods of history. The land structure of Afghanistan consists of steep mountains full of snow, deep valleys, raging seas, high levels, hills, plains and deserts, each of which it has special features. The range of mountains that are present in all its shares, generally extends from northeast to southwest. Some of the northeastern and central parts of the country are made up of large high plains, the backbone of which is the Hindu Kush mountain. The Hindu Kush mountain is located along the Pamir mountain chain, extending from the northeast to the southwest and the central regions of Afghanistan cover a wide area, and from this part, its width also increases, so the Hindu Kush mountains are divided into two parts, the eastern and the western is divided.

Knowing and knowing about the Hindu Kush mountain range, its natural conditions and obtaining information about the strategic and strategic importance of this mountain range.

Keywords- Hindu Kush, land structure, geological structure, strategic areas and Souq Al-Jishi.

I. INTRODUCTION

The first important feature of the natural geography of Afghanistan is its mountainous nature. Mountainous areas contain one-third of the country's total land area, and only five percent of our country's land area is agricultural development, and the other ninety-five percent are cultivated plains and mountainous hills.

The Hindu Kush ranges are among the highest points on earth. The Hindu Kush is mostly studied with the northern sides of the mountain chain of the Iranian plateau, but this type of union is possible from the perspective of orography and tectonics.

The Western Hindu Kush is not difficult to pass due to its slight height compared to the Eastern Hindu Kush. In this sense, the great highway of the north and south of the country passes through the heart of this same mountain range, as well as the Salang tunnel and the Shikari valley.

II. DENOMINATION

Various sources have presented different opinions regarding the designation of Hindu Kush or Hindu Kush, which are mentioned below.

1. This Batuta simplified the term Hindu Kush and said that Hindu Kush means the killer of Hindus and added that because some slaves and maids are brought from India, they often perish in these mountains due to severe cold, so they named it Hindu Kush.

2. According to some, in the word Hindukush, the second part of it is Kash/connection/ to the word Kushan, the dynasty of Kushan kings, as the word Kushan in the Shahnameh includes the same people. This opinion can be considered correct if we explain the first part of it and confirm the word /India/ from the linguistic point of view of the partitioned form of the Sanskrit word /Sandeh/, such as Hept (Seven) of Sanskrit. And the area of Sindh and Kabul included up to the Hindu Kush area, and this area was the main part of the mighty Kushan dynasty.

3. Some people believe that the word Hindu Kush consists of two parts, first (Hindu) which is the Avestan pronunciation of the word (Sandeh) which means sea, which is still preserved in Pashto language. And the second part (kash) which is pronounced in Khwarazmi and Saadi means /kath/ means place, town, town, there was a city named /kath/ in Khwarazm, and /kath/ with this meaning also appears at the end of the names of some cities. Because Akhsikh, Nomjakth (Bukhara), Panjgath (fifteen) and so on, then with this analysis, Hindu Kush = Sande Kath, which means the place of the seas, and thus they called Hindu Kush (Jabal Nahar) which means the mountains of Anhar. Of course, the truth of this statement is that many seas in the north and south are sourced from the Hindu Kush and its branches.

4. Hindu Kush, Hindu mountain, as it has been said that Sindeh in Parthian language became Indian by changing /s/ to the phonetic unit /e/, it is still possible that /kath/ or /kesh/ has become kir = gar = mountain, if in some words of the Kushan era, the sound unit /sh/ has been changed to /r/ in the Western script, for example /sh/ in /Hoshika/ the name of one of the famous Kushan kings was /r/ at all, as there are remnants of his name (Huirka) has been mentioned that it may have become (Hoishka) later, thus probably Hamdokth - Hindukush - Hindukar (Hindugar) and Hindukuh are related forms of the same name (Yemin, 1380 pp. 295-297)

The ancient name of the Hindu Kush mountain range is (Yupai Re Sena), the Greeks called this famous mountain range as "Para Pamizos" or a mountain higher than the flight of eagles. Some geographers have called this mountain the Caucasus of India. In fact, Hindu Kush is a name that has been given to it in recent years.

III. GEOLOGICAL BUILDING

The Hindu Kush with all its associated mountains, i.e. Nooristan, Kapisa, Parwan and Kabul mountains and the volcanic lands of the Upper Indus, forms a large crystalline region, which is located between the reservoirs or sedimentary formations of the former Soviet Turkestan and the Himalayan mountains. Its crystalline axis is composed of granite, which has diorite and monzonite in its western parts. Its high points, like Tarajmir, are thought to be volcanic rocks. Because it has turned broken and interrupted reservoirs into metamorphic rocks in large quantities.

The traces of the Devonian period have been seen in different regions of the Saar Mountains around Kotel Brughil and Chetral to the western parts of the Afghan Hindu Kush. The Great Titus Ocean, which covered the whole of Central Europe and Asia and left very thick deposits, and as a result of the Devonian calve movements, The water has risen and formed the main and sub-Hindu Kush, Paghman mountain, Kohdaman and Kabul plains. (Ahmadi, 2016 p. 19).

In the valley of Kohdaman mountains in the eastern region of Paghman and Stalaf mountains,

Estraghch, Top Dara, Kotel Khajah Hazar and Khair Khan, there are old and different lands of Al-Shakil such as gneiss and silty schist in Kotel Pai Minar, gneiss and schist and in the hills of Bagh Bala and Sari Mountain (2250 meters) and Asmai Mountain (2300 meters) and Shir Darwaza Mountain are crystalline rocks and behind the Forty Pillar Palace and Qorugh Mountain there is mephibolite, mica schist, gneiss and jade which belong to the pre-Deonian period. take (Ansari, 1390, p. 84)

The granite rocks of the first era occupy most of the Hindu Kush, especially the western Hindu Kush, i.e. the Salang mountains. He has also found limestones of the Devonian period in the south of Kotel Khavak to the south of Bazarak in the west of Golbahar and in Jebel Siraj, which is very folded, including the northeastern end of Paghman mountains. In the Ghorband Valley, two fixed layers of limestones from this period are placed on crystallized strings irregularly and with very different shapes.

At the end of the Permian period, active and new movements have started, which led to the formation of new mountains, whose direction seems to be inclined to the endurance of the Hindu Kush. They lasted throughout the Triassic period (the beginning of the first era of the second era) and Rittian (the beginning of the Jurassic era).

During the Lower Triassic period, the Verfinian Sea covered some parts of Afghanistan, and only one of the lakes in the east of Kabul, of which Himalayan animals such as Cefalod pod and branched lamelli, existed in abundance. This lake existed in the Upper Triassic period, and today limestones containing Megaldon and Dysnocardium can be seen in its place.

In the third epoch (Newzoic), the Eocene sea was the same size as the new Cretaceous sea. In this period, new mountain-forming movements took place and the axis of the Hindu Kush has emerged from the water.

In the Upper Neogene period, orogenic movements were again carried out and changed the deposits of the Pontine period into wetlands. In the pottery period of the 4th era, the wetlands of Kabulistan were accumulated from the materials brought by the seas. At this stage, the flood order was mitigated by the glaciers, as its effect can be seen in some of the horns of Brenti Mountain (2320 meters) and its northwestern slopes are polished, which can be seen up to the height of 1970 meters.

The glaciers of the 4th era covered the entire Hindu Kush and Kabulistan and expanded to the east of the Gandmak and Namle Tajalges. These glaciers have deposited the flood sediments that were collected in the wetlands, and signs of it can be seen in the places where the New Gene floods have opened. In the south of Kotel Shabar, traces of the Ahed IV glacier can also be seen. After the end of the glaciers, a new period began in the lakes, as it is proven from the limestones of the lake that were found in Siah Sang Castle. That is, the horizontal limestones that rarely cover the thickness of 200 meters from the Neogene period and before the glaciers. As soon

as the lakes disappeared, the current seas were formed according to the seas of the Pontine period. (Ahmadi, 2016 pp. 20-22).

The Hindu Kush is estimated to be 200 to 220 million years old. The grano-diorite ridges cut the Paleozoic formations of Pamir, Badakhshan and Western Hindu Kush. These grano-diorite ridges have formed a Triassic oceanic crust as a result of the north-facing eruption.

In terms of geological structure, the Hindu Kush consists of metamorphic rocks such as: gneiss, crystal, marble, and igneous rocks. The Bandha mountains are made of crystal rocks, and Khwaja Mohammad mountain is made of amphibolite gneiss and marble, and the eastern Hindu Kush is made of igneous rocks. Composed. (Azeimi, 2013, p. 182)

In the western part of the Hindu Kush, especially its northern flanks, there are many depressions related to glacial lakes. The importance of Afghanistan's glaciers is that it feeds many of the northeastern seas of the country. The intense melting of glaciers in the flanks of the Hindu Kush mountain has been accompanied by floods and rising seas, which also occur in many areas of snow migration and glacier sliding. (Azeimi, 2013, pp. 195-195-196)

Hindu Kush dynasty

Afghanistan is a land in Southwest Asia, composed of plains and high mountains, a part of the Iranian plateau. This country is divided by several ranges of eastern and western highlands, which are mainly called Hindu Kesh. They join together in the Pamir plateau and are connected to the Himalayan mountain range. (Jaafari, 1384 p. 110)

Hindu Kush is one of the most famous and largest mountain ranges in Afghanistan, which covers an area of about 45,600 square kilometers. Its length is 600 km and it extends from the northeast to the southwest.

The mountains have influenced the climate of Afghanistan and have changed it from a desert state and made it possible for rainfall. The mountains have formed a vast area of snow and glaciers and it is considered as the source of big and small seas. In this sense, it has provided green valleys on the slopes of the mountains for agricultural, economic and human activities. If it were not for the mountains of Afghanistan, the geographical location of Afghanistan would be considered as one of the two dry belts of the world. Just as the Nile Sea is considered a gift of Egypt, they also consider the Hindu Kush as a gift of Afghanistan. (Sadiqi, 2019, p. 246)

The vast parts of Afghanistan, mainly in the north and east of the country, are covered by mountains and rocks. Hindvkash mountains are 600 km long and 100 km wide and stretch from the northeast to the west and southwest and almost pass through the middle of the country. These mountains cover more than half of the land of Afghanistan, and have created an important strategic value for the cities of Kabul, Kandahar and Herat.

There is always snow in the heights of the Hindu Kush. Even in summer, the peaks and glaciers are covered with snow. Among the heights of Hindu Kush there are deep valleys with good climate and fertility. which has formed a favorable environment for animal breeding and fruit production. (Ahmadi, 2016. 34-35)

The Hindu Kush and Karakoram ranges are among the highest points on the planet. The Hindu Kush is mostly studied together with the northern sides of the mountain range of the Iranian plateau, but this type of union is only possible from the perspective of tectonic orography. The lands of Hindu Kush are very different from the distant mountains of Iran and its neighboring mountains, Parapamiz, in terms of characteristics.

The Hindu Kush range is located along the Pamir mountain range, extending from the northeast to the south in the central regions of Afghanistan, and includes a wide border. And from this share, its width is also increased. In the central area of the country, it created different dynasties and branches, each of which is called by local names. The Hindu Kush series divides Afghanistan into north and south planes, i.e. into two geographical areas, and in this way separates the waters of the Kabul and Helmand basins from the waters of the Amu and North basins.

According to the existence of the Hindu Kush mountain range, the flow of flowing water in Afghanistan moves in different directions and strength. The advantages of this dynasty are that the natural resources of the country are hidden in it and it forms important wealth in terms of mines. Its catchment areas also cause freshness and agricultural activities. The area of forests, pastures and vegetable production in each of the Hindu Kush valleys has caused the population to settle down, but the problem of transportation and the extension of the communication lines, which has arisen due to the existence of this chain, is also due to the efforts of the government and manpower through the digging of the Salang tunnel. And the construction of Kabul's big highway and the northern sections has been completed. In addition to that, natural obstacles against today's technology cannot create a problem or barrier, because aviation activities have completely eliminated this problem. Of course, before the digging of the Salang tunnel and the improvement of transportation, the people of our country were facing many problems for commuting and commercial and economic activities, but today this issue cannot be questioned, the benefits of Hindu Kush are very good compared to this issue. It has brought life to the land of Afghanistan. (Ahmadi, 2019, pp. 24-25)

With a height of 7458 meters above sea level, Noushakh peak is one of its highest peaks, the Hindu Kush mountain range from the northeast to the southwest of the country (Afghanistan's glacier water reservoir) is a belt that divides the country's surface waters to the north and The south of the country extends to Baba Mountain, Feroz Mountain, Tirband Turkestan and some small mountain ranges. In the northeast, the Hindu Kush

mountain range is bordered by the Pamir plateau, which is known as the world's roof, and the Kara Qorum mountain range. (Iqar, 2019, p.)

Hindu Kush can be divided into two separate parts, which we will consider separately:

- 1- Eastern Hindu Kush: which extends from Zibak Valley to Kotel Khavak.
- 2- Western Hindu Kush: which extends from Kotel Khavak to Bamyan and Bandamir valleys.

Eastern Hindu Kush

Eastern Hindu Kush starts from the west of Zibak valley and extends to Kotel Khavak for a distance of (150) kilometers. The Kokche Sea in the north and the Kabul Sea in the south determine the extent of the expansion of this high chain. Therefore, it contains more distance from north to south and the equation is (230) kilometers. This distance forms a straight line from north to south between the cities of Faizabad and Mehtarlam, and in fact these two cities represent the ends of the northern and southern areas of the Eastern Hindu Kush.

The waters of the Elishang and Elingar valleys, the Kunar sea and the Panjshir sea are separated by this chain from the waters of Karan and Manjan, the Kokcheh and Ashkemsh seas, and it forms the Bakhsh water area above the said chain at an altitude of more than (5000) meters. In some low-lying places, there are many small hills, it connects Nangarhar and Laghman provinces to the valleys of Karan and Manjan, Warsaj, Taleghan and Badakhshan with a footpath. (Ahmadi, 1386. pp. 4-5)

The Eastern Hindu Kush, like the Wakhan and Pamir series, has been faced with extensive and intense tectonic activities, for this reason, in the early Tertiary, many fractures appeared in it, and many anticlines and synclines appeared in it, and the anticlines and valleys became numerous.

There are abundant granite rocks at the base of the mountains of this region and Wakhan, which are associated with the Permian, Precambrian and other Paleozoic era formations. On this level, there are many metamorphosed rocks from the Permian period of the Paleozoic era. The activity of glacial erosion in this area has made a great impact, in the period of Karan and Manjan, in the lower area of Anjuman, Pushal and Khavak, large-scale glacial morons can be seen. In the western Hindu Kush range, Khwaja Noor Ahmad mountains between Nooristan and Faizabad and Kashmand mountain in the north of Nangarhar are famous regionally.

Western Hindu Kush

The Western Hindu Kush starts from Kotel Khavak and extends to the western Astana to Bandamir and gradually decreases in height. Sighan and Kohmard valleys, Andrab and Kunduz seas are located in the north of it, the flat parts of Kabul and Maidan provinces are located in the south of this range, the high points of Salangs, Jabal Siraj mountains, Safi and Paghman

mountains are important branches of the western Hindu Kush. is counted The Panjshir and Ghorband seas in the southern lowlands are considered among its seas, which have made this area more lively and green.

Khanjan Valley in the northern slopes of the Western Hindu Kush is famous for its mulberry production. The western and eastern Hindu Kush valleys have created beautiful recreation areas in their different parts, which attract tourists, tourists and passers-by..

Western Hindu Kush is not impassable due to its slight height compared to the Eastern Hindu Kush, that is why the main highway of the north and south of the country passes through the heart of this mountain range, the Salang tunnel and the Shekari valley also pass through this area. p. 33

Although the western and eastern Hindu Kush created a great wall between the northern and southern plates of Afghanistan, but its valleys and low hills created the communication lines between the north and the south.

The valleys, lowlands and high areas of the western Hindu Kush also have economic value in terms of animal breeding and livestock, because shepherds train their animals well in the lowlands of this area in the spring season, and favorable grasses are available for them.

In terms of geological structure, it is a tectonically active area, large geological fractures and deformations can be observed in it, granite rocks and remains of Paleozoic sediments are the majority here. Natural resources such as lime, coal, and Crimean stones are found in Panjshir Valley, Anjuman, Jebel Siraj, and Ashpashte, and the natural wealth of this region is there. Another advantage of it is its strategic value and Suq al-Jishi, which has had a great defensive role since the ancient civilization of the Aryans until its valleys and high points. (Ahmadi, 2019. p. 27)

Kotels and passages of the Eastern Hindu Kush

1. Kotel Yuli, with a height of 4279 meters, separates the Pamir Khurd of Afghanistan from Xinjiang of the People's Republic of China.
2. Kotel Vakhjir, 4822 meters high, Pamir Khurd connects the country with China, namely Tashqarghan Hattai, Yarkand and Kashgar.
3. Kotel Dehlis, with a height of 4297 meters, separates Pamir Hord and Pamir Kalan.

Kotels and Passages of Western Hindu Kush

1. Kotel Khavak, which has a height of 3548 meters, separates Panjshir Valley from Andrab.
2. Kotel Salang separates the Khanjan Valley area from Parwan, whose height reaches 3878 meters.
3. Kotel Valian, which has a height of 4128 meters, separates Parwan region from Andrab.
4. Kotel Charder, which connects the Parwan region with Andrab, has a height of 4226 meters.
5. Kotel Shabar, which has a height of 2987 meters, separates Ghorband valley from Tale and Barfak in Baghlan province.

IV. FINDINGS

From the research on the subject (a brief look at the natural conditions of the Hindu Kesh mountain range), I reached the following results:

- 1) Obtaining information about the natural conditions of the Hindu Kush mountain range;
- 2) Knowledge about the name of the Hindu Kush mountain;
- 3) Defining the land structure and geological structure of this mountain range;
- 4) Recognizing the importance of the strategic location of the Hindu Kush;

V. CONCLUSION

Afghanistan is a mountainous country, one-third of which is made up of mountains, located in the eastern and central regions of Afghanistan. When we consider the situation of the mountain range and other characteristics of Afghanistan's lands in relation to geological issues, natural environment, topographic structure, population settlement climate, economic activities and administrative divisions, the effectiveness and usefulness of the mountain range is more.

The Hindu Kush with all the related mountains, i.e. Nuristan, Kapisa, Parwan and Kabul mountains and the volcanic lands of the Upper Indus, forms a large crustal region that is located between the reservoirs or sedimentary formations of Russian Turkestan and the Himalayan mountains.

Handaksh mountains are among the highest points on the planet. The Hindu Kush is mostly studied together with the northern sides of the mountain range of the Iranian plateau, but this type of union is only possible from the perspective of orography and tectonics.

Therefore, the Hindu Kush mountain range can be divided into two separate eastern and western parts.

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