

GEO-CLIMATIC & DEMOGRAPHIC SETTINGS OF EURASIA

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Abstract:

The present paper argues that Eurasian region and its neighbourhood embraced diverse climate and precipitation conditions that influenced human settlements from early times. Consequently, the life style of the people inhabiting the same geographical space varied region-wise. However, each ethnic group preferred settlement amid conditions akin to their original home of living. The adjustments therein, were always conditioned by the exigency of their survival besides finding better mode of existence. Quite precisely, whole Eurasian space and its neighbourhood had distinct zones occupied and inhabited by diverse ethnic and social groups and communities, the paper further argues.

Keywords:

Climate, Demography, Ethnicity, Central Asian, Europeans, Arabians, Turks.

Introduction:

The migration of different ethnic groups' to new territories has been usual to the human history right from the inception. It led to "territorialization" and "colonization" and the rule of vanquished by the dominant ethnic peoples. However, migration was always preferred in such areas as were climatically conducive to the occupants.

Co-relationship between Climate, Settlement, and Habitation:

Europeans carried out colonization in North America, and the south of South America, because their climate was akin to their own climate. Therefore, countries with the population mostly consisting of European ancestors, namely USA, Canada, Argentina, and Uruguay are located just in these regions. However, in the most parts of Central and South America, which has usually hot humid and hot dry climate in some areas, Europeans inhabit only those regions as are conducive for settlement, *per se*, the middle mountains for bearing relatively low temperature and suitable climatic conditions.

Later on, during 18th-20th centuries, Europeans colonized Australia, New Zealand and Africa for these had resemblance with European climate, excepting some arid and high-altitude territories situated in southernmost extremity (the modern Republic of South Africa), East (Kenya) and West (Senegal) Africa, all having tempered climate. However, the Europeans occupied non-European climatic zones in South

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Chinese spread out to the southern dimension of the Pacific coast for the reason that Hwang Ho river basin termed historical motherland of Chinese, had monsoon climate, i.e. hot humid rainy summer and cold dry winter due to proximity to East Siberia. The climate of the southern sector has warm winter and hot summer. Nevertheless, it has monsoon features, and is, as such, habitable for being located on the Hwang Ho river basin. Lot of vegetation takes place there for abundant rainfall. That's why Chinese occupied and retained the control of the said region for centuries together. Swaths of Chinese people in the Middle Ages moved to South-East Asian countries, for these had hot humid climate much like China. However, till the end of the 19th century, the Chinese did not stretch towards the west and the north (Manchuria) of the Hwang Ho river basin because of the resistance of the bellicose nomads to the Chinese intrusion. Apart from this, the climate featuring frosty winter and dry summer, was unfavourable to the Chinese demographic settlement in this part. Siberia remained sparsely populated over the centuries together, and its development by sedentary peoples started only in the 16th century. Even the peoples of Turkestan did not occupy it because the steppe and nomadic peoples inhabited it and its winter was too rigorous for any settlement. Siberia was occupied and developed by the Russians for they were accustomed to frosty winters.

Arabs spread widely to Atlantic Ocean in the west to the Tien Shan Mountains and Indus river basin in the east for the dissemination of faith, culture and language, and several factors favoured their spread and occupation. Firstly, these territories had considerable climatic affinity with the Arabian Peninsula in terms of temperature, latitude, and precipitation (with the precipitation maximum in cold season). Accordingly, the flow of Arab migrants to these territories was the maximal. Secondly, Semitic peoples being kindred to Arabs inhabited such a vast area, and that facilitated the assimilation of those aboriginal peoples by the Arabs. However, "Arabization" did not initially take place in Iran and Central Asia despite having the same precipitation regime (Mediterranean). The reason was that these non-Arab zones were especially in the north and southern regions of Iran, were located on high altitude and had cold winter. Similarly, present day Pakistan was not occupied by the Arabs for it had no direct territorial and geographical connection with Arab world due to the presence of Iran in between. Moreover, Pakistan's climate having approximately the same temperatures of winter and summer as that of the Arabs was characteristic of maximal humidity in summer as compared to dry

Arabian summer; hence, it was not favorable to the Arab settlement. Thus the Arabs mostly conquered the predominantly arid zones, say for instance, in India and Europe, North-West India (the modern Pakistan) and Iberian Peninsula and southern regions of the modern Italia. Turkic peoples Islamized Anatolian region featuring arid traits much like the Arabian Peninsula, at the later phase of their history.

Turkic peoples spread to southern territories of India, Egypt etc. for having warm winter. They dominated these regions throughout centuries, though established settlements only in colder winter zones. This is why the Turks are not traceable in Arabic countries of the Middle East and Northern Africa (with the exception of the northernmost regions of Iraq and Syria), India and Pakistan despite having political domination over them for ages together.

Mass migration of the Aryans from colder and arid Central Eurasia space to a different climatic zone of India, is probably a sole exception to the peoples' migration to territories with similar climate. This migration was a breakthrough in human history because it considerably changed ethnic constitution and historical process in India.

It is worth mentioning that climate has a considerable role in shaping cultural fabric of a certain people in a certain region/s. Climatic conditions also frequently define certain mental community. Even in historical India, Islam spread in the most arid parts of Asia and North Africa, as well as the most humid parts of the South Asia.

Thus all Arab countries, Iran, Central Asia, Islamic regions of northwest and northeast Africa are arid regions. On the satellite map of the world, yellow land zone stretching from China to Africa's Atlantic coast indicating arid part of the planet virtually coincides with the main part of the Islamic world. Indonesia and Malaysia, being the part of the Islamic world in the Buddhist South-East Asia, are simultaneously the most humid countries in the humid South-East Asian space. Even Islam spread in the arid west i.e. Pakistan, and in the most humid east i.e. Bangladesh.

Location in certain latitude and existence or absence of the winter and its allied temperature, are such climatic issues that influence the cultural basket of peoples, and the process of their historical settlement and development in a specified region. Absence of winter or mild winter makes peoples' housekeeping much less power consuming. Therefore, southern countries symbolize developed economic zones though they have winters embedded in their geographical texture. In all likelihood, it was related to their potential to have requisite consumer goods, fodders, and firewood; hence, it encouraged development of abstract and strategic thinking.

Researches reveal that the frosty winter is one of the factors that contributes to the growth of most martial peoples, say Turkic peoples, Mongols, Russians, Vikings and their descendants, Germans etc. Therefore, the climate with frosty winter rather than the nomadic style of Turkic and Mongol peoples was the underlying reason of the formation of their high martial qualities. Based on the history of the Bedouins, one can gather that the nomadic peoples found great empires because of social energy surge and the monotheistic religious belief. Therefore, winter frosts exert greater influence on the individuals, their psychological framework, and martial characteristics.

Political influence of an ethnic group is initially determined by its internal qualities, such as solidarity and brotherhood, diligence and propensity for education. For instance, Jewish and Armenian peoples count not more than 15 million and 7 million respectively. Despite this, they dominate and over rule the neighbouring peoples with impunity. On the contrary, quantitative advantages of the Indian people, were undone sheerly by their internal disunity, rigid social structure, sharp ethnic, professional and caste divide. That's why India despite its large population was easily conquered by Britain. However, quantitative characteristics of ethnic groups have other consequences as well. Chinese community comprising more than 1.3 billion population has not also high qualitative characteristics, such as solidarity, diligence, and propensity for education. Nonetheless, around 40 million of them, succeeded in forming Chinese Diasporas in different parts of the world.

Several ethnic communities like the Anglo-Saxons, Russians, Arabs, Chinese, Indians, Turkic peoples etc. occupy vast territories, the extent of which, however, varies due to different indexes of population density in the occupied territories. The factor of land-man ratio, besides all else, is conditioned by peculiar climatic conditions, suiting or otherwise to the occupants/imperialists/ colonists, in terms of precipitation amount, duration of vegetation period (warm period required for plants growth), and level of comfort of residents in the occupied territory. Significantly, arid areas, excessively humid tropical and excessively cold northern regions/territories, are the lowest populated areas.

Europe has the optimal precipitation regime, because precipitation is not concentrated in the cold season, which unlike the Mediterranean regime, makes agriculture difficult due to dry summer. Further, precipitation is not concentrated in summer like monsoon climate, which renders the summer hardly sustainable, and the population density excessively high. Optimality of precipitation regime in Europe consists in the even distribution of precipitation throughout year. Europe is

located in the northern latitudes because of which it has mild and cool summers, whereas the similar features are absent in the Gulf Stream; hence, a source of discomfort to its people compared to the Europeans. The consequence is the Europe's relatively high population density of 100 people per-square kilometer.

Southern, south-eastern and eastern coastal regions of Asia with the monsoon climate are the most densely populated areas of the world. Average density in coastal and fluvial regions accommodates several hundred people together on per square kilometer, and the same is discerned for duration of the vegetation period and sufficiency of precipitation during the vegetation period. However, the climate of these regions is characterized by low comfort due to the concentration of humidity in a hot season, i.e. hardly sustainable summer. Excessively high population density is itself an unfavorable factor for the residence comfort. The Arab and Turkic world have average low population density due to arid location. This is perhaps why the Turkic peoples occupied steppe and desert areas of internal Asia during ancient and medieval times. Given climatic and geographical features, the modern Turkic world spans over four geographical regions; Southwestern, East European, Central Asian, and Siberian regions.

a) The Southwestern region includes Anatolia, Azerbaijan (including Iranian) and Turkic areas of the Middle East. This region is suited to the Turkic world in view of requisite conditions of precipitation and warmth. Accordingly, this region possesses the highest rate of population density amongst other regions of the Turkic world i.e. 80-100 people per square kilometer. The region occupies about 1 million square kilometers and counts about 90-100 million of Turkic population. Meanwhile, the non-Turkic peoples, mostly house Mediterranean and mountainous coast of Anatolia, though they fall under the Turkic political regime. In Turkey itself, non-Turkic peoples inhabit high-altitude regions for having excessive humidity especially towards the east of the Black Sea. On the contrary, high-altitude areas of Azerbaijan are inhabited mostly by Caucasian peoples, while the most humid region of Lenkoran is populated by Talyshs. Similarly, Azerbaijanis and Turkmen occupy arid zones of western and eastern Caspian Sea, whereas non-Turkic peoples inhabit Gilan and Mazanderan.

b) East European region stretches from the Turkic regions of the Balkans, Gagauzia, Crimea and the Turkic regions of North Caucasus to the Idel-Ural region. The entire region abounded with Turkic settlements during the ancient and medieval times. This zone virtually coincided with the steppe zone of Eurasia and it extended up to Hungary in Central Europe. The demarcation of the Turkic and non-Turkic settlements in

this region was drawn by the boundaries between steppe and forest zones. Sedentary peoples developed the steppes after dislodging the nomads, whereupon the Turks occupied the sedentary Islamic regions.

On the other hand, the Gulf Stream influences the west of Eurasia climate in many ways. The northern latitudes of Eurasia are marked with decrease in winter temperatures from the west to the east. Winters in the same latitude are warmer on the East European plain than in West Siberia, and in West Siberia than in East Siberia (except, of course coastal areas of East Siberia). The boundary between East European and West Siberian plains is drawn by the January thermal line (the line marking the boundary between average temperatures), and the 16 degree celsius obtains from north to south if not from the west to the east along the Ural mountains. Strikingly, due to climatic and precipitation diversity, the same geographic space is representative of different degrees of temperature. For instance, in Kazan city daily mean temperature in January is -10.4 Celsius degree,¹ whereas in Aralsk city situated in Kazakhstan to approximately one thousand kilometers south from Kazan, daily mean temperature in January is -10.6 Celsius degree.² and in Petropavlovsk city in Kazakhstan located approximately in the same latitude with Kazan, daily mean temperature in January is -15.6 Celsius degree.³

c) Central Asia (Turkestan) is the central and the largest territorial space of the Turkic world. It includes the East Turkestan presently under China (Xinjiang) and the northern areas of Afghanistan, both stretching over 5.6 million square kilometers. Its climate is characterized by inadequate precipitation and frosty winters in the north. Average population density is as low as 14 people per square kilometer.

In Uzbekistan, Turkmenistan, Tajikistan, south of Kazakhstan, Fergana part of Kyrgyzstan, and north of Afghanistan, precipitation regime coincides with Mediterranean type of climate with minimum precipitation in the warm season. For instance, Tashkent city has about 419 mm of annual precipitation (which is not as few for the arid region), out of which only 17 mm fall between June and September.⁴ In Ashgabat city, the share of annual precipitation of 227 mm, is 12 mm during June- September.⁵ In Turkistan

¹ *Kazan*, Wikipedia (in Russian), <http://ru.wikipedia.org/wiki/%D0%9A%D0%B0%D0%B7%D0%B0%D0%BD%D1%8C>.

² *Aralsk*, Wikipedia (in Russian), <http://ru.wikipedia.org/wiki/%D0%90%D1%80%D0%B0%D0%BB%D1%8C%D1%81%D0%BA>.

³ *Petropavlovs*, Wikipedia (in Russian), <http://ru.wikipedia.org/wiki/%D0%9F%D0%B5%D1%82%D1%80%D0%BE%D0%BF%D0%B0%D0%B2%D0%BB%D0%BE%D0%B2%D1%81%D0%BA>.

⁴ *Tashkent*, Wikipedia, <http://en.wikipedia.org/wiki/Tashkent>.

⁵ *Ashgabat*, Wikipedia, <http://en.wikipedia.org/wiki/Ashgabat>.

city of south Kazakhstan, the share of annual precipitation of 190 mm, is 12 mm during the same period,⁶ and in Maymana city of north Afghanistan, it is just 1 mm out of 365 mm annual precipitation.⁷

Therefore, climate aridity in these regions consists not only in a small amount of precipitation, but also in its distribution, i.e. few part of precipitation falls on vegetation period. Precipitation falling in the cold season frequently has scanty utility (except spring precipitation), and precipitation of the mountainous regions, is accumulated in the form of snow and glacier, whose melting in warm season provides the main source of water to Central Asian rivers. That's why agriculture in Central Asia mostly depends on artificial irrigation especially in the deserted terrains. Despite low-density of population in Turkestan, population density assumes great significance in coastal Asia as regards river networks and irrigation facility, say for instance, in Fergana valley of Uzbekistan. It is for minimum precipitation and maximum sunshine during summers that Central Asian vegetables and fruits especially watermelons and melons, are in taste and quality the best.

Tarim basin, a vast territory between Tibet and Tien Shan, in Eastern Turkistan (Xinjiang), is the most arid region of the Turkic world and Central Asia. Consequently, annual precipitation varies from city to city: Yarkand has 55 mm,⁸ Khotan 37 mm,⁹ Kashgar 64 mm,¹⁰ Artush 80 mm,¹¹ Aksu 74 mm,¹² and Kumul has 39 mm annual precipitation.¹³ In Turfan area as a whole, annual precipitation averages 16 mm for it is unique places in the world. Here daily mean temperature in July atnds at +32.3 degree, whereas in January it decreases only to 7.2 degree daily.¹⁴ Because of abundant sunshine, Turfan fruits especially grapes are of exquisite quality and taste.

However, Central Asia has potential reserves to increase population density in the whole Turkic world. The main is the water reserve, which can be best utilized for Improvement in water-saving technologies to ensure employment and sufficiency in agricultural produce; development of irrigation channels in the region, mainly in Kazakhstan; and realization of the projects for obtaining water resources from neighbouring regions.

⁶ *Turkestan*, Wikipedia, http://en.wikipedia.org/wiki/Turkestan_%28city%29.

⁷ *Maymana*, Wikipedia, <http://en.wikipedia.org/wiki/Maymana>.

⁸ *Yarkant Country*, Wikipedia, http://en.wikipedia.org/wiki/Yarkant_County.

⁹ *Hotan*, Wikipedia, <http://en.wikipedia.org/wiki/Hotan>.

¹⁰ *Kashgar*, Wikipedia, <http://en.wikipedia.org/wiki/Kashgar>.

¹¹ *Artux*, Wikipedia, <http://en.wikipedia.org/wiki/Artux>.

¹² *Aks*, *Xinjiang*, Wikipedia, http://en.wikipedia.org/wiki/Aksu,_Xinjiang.

¹³ *Kumu, Xinjiang*, Wikipedia, http://en.wikipedia.org/wiki/Kumul,_Xinjiang.

¹⁴ *Turpan*, Wikipedia, <http://en.wikipedia.org/wiki/Turpan>.

d) Siberian region: Turkic areas of Siberia also shrank significantly within the last centuries. Nevertheless, its Turkic inhabited belt is enormous large mainly at the expense of Yakutia, and Siberia in itself is the second largest part of the Turkic world. However, due to the frosty climate with a short vegetation period, Siberia is characterized by extremely low population density, about 3 people per square kilometre, and in Yakutia it is even lower, about 0.3 people per square kilometre.

Currently, Siberia has three zones meant for the Turkic peoples' settlement: Yakutia with the area of 3.1 million square kilometers, Sayan-Altay region, and the south of West Siberia inhabited by Siberian Tatars and Kazakhs who do not have statehood in this region. As regards climatic regularity, Lena basin, Sayan-Altay and south Siberian steppes are the territories with the minimum precipitation in Siberia. In Yakutsk city of Yakutia, daily mean temperature in January is remarkably 39.5 degree Celsius.¹⁵

Polemics is immensely present in Yakut towns of Oymyakon and Verkhoyansk towards the pole of cold of the Northern Hemisphere. Officially, the coldest temperature in Oymyakon was registered at 67.7 degree Celsius in 1933 and in Verkhoyansk it was recorded at 67.8 degree Celsius in 1892 (in that time observations in Oymyakon were not carried out yet) though unofficially it stood at 71.2 degree Celsius in 1924. Likewise, according to the Chief Geophysical Observatory data, annual minimum in Oymyakon were lower than Verkhoyansk by 3.5 degree Celsius. Till date, the difference obtains despite best possible efforts of Yakutia authorities to marginalize it.¹⁶ Significantly, despite cold winter and hot summer in Yakutia, the summer temperature touches the level of +35 degree Celsius though in proper Yakutsk city, it is as high as +38.3 degree Celsius. The amplitude between winter and summer temperatures in Yakut, reaches 100-105 degree. Nevertheless, the immigrants introduced and developed unique experience of cattle farming in Yakut's colder region towards the northern latitudes.

Conclusion:

In short, Eurasian region is unique in terms of its diverse climate, which tremendously impacts its geographical setting, and life style of its different ethnic groups. In fact, climatic factor has more do with above settings than any other factor, but that again depend on regional variation in geographic and climatic terms.

¹⁵ *Yakutsk*, Wikipedia, <http://en.wikipedia.org/wiki/Yakutsk>.

¹⁶ *Oymyakon*, Wikipedia, (in Russian). <http://ru.wikipedia.org/wiki/%D0%9E%D0%B9%D0%BC%D1%8F%D0%BA%D0%BE%D0%BD>.