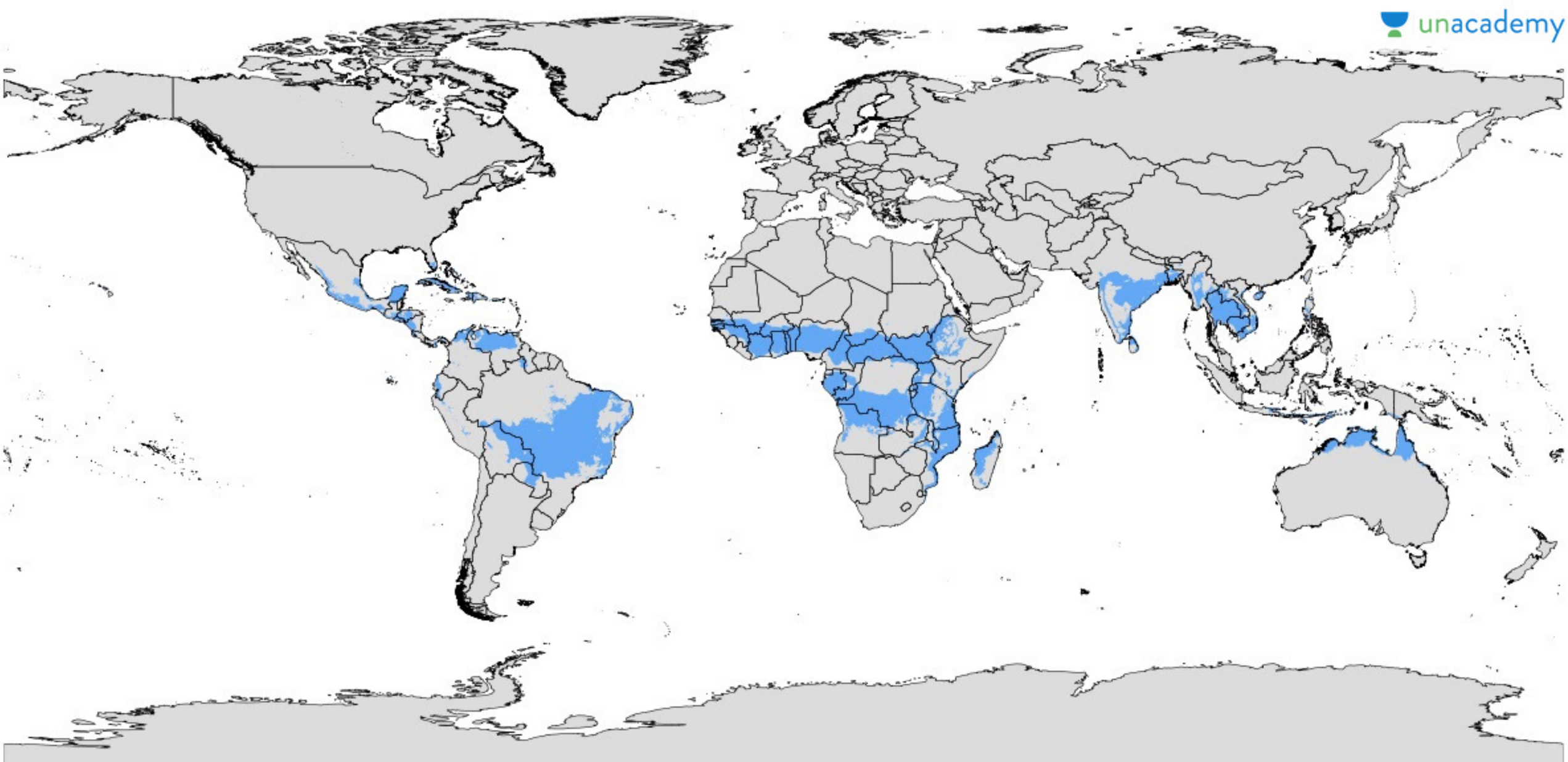

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Distribution

- The Savanna or Sudan Climate is a transitional type of climate found between the equatorial forests and the trade wind hot deserts.
- It is confined within the tropics and is best developed in the Sudan where the dry and wet seasons are most distinct, hence its name the Sudan Climate.
- The belt includes West African Sudan and then curves southwards into East Africa and southern Africa north of the Tropic of Capricorn.
- In South America, there are two distinct regions of savanna north and south of the equator, namely the llanos of the Orinoco basin and the Campos of the Brazilian Highlands.
- The Australian savanna is located south of the monsoon strip running from west to east north of the Tropic of Capricorn.

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Climate of the Sudan Type

- **Rainfall.**
- The Sudan type of climate is characterized by an alternate **hot, rainy season and cool, dry season.**
- In the northern hemisphere the **hot, rainy season** normally begins in May and lasts up till September, as in Kano, Nigeria.
- The rest of the year is **cool and dry.**
- The annual rainfall for Kano, which is located at a height of 1,539 feet above sea level, is 34 inches and is almost entirely concentrated in the **summer.**
- The amount varies from 48 inches at Bathurst, in Gambia on the coast to only 5 inches at Khartoum, in Sudan in the interior.
- The length of the rainy season and the annual total rainfall decrease appreciably from the equatorial region pole wards towards the desert fringes.

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- On the whole, the annual precipitation is less than that of the **Tropical Monsoon Climate** and the length of **the wet** and **dry seasons** differs with the locality.
- In the southern hemisphere, the rainy season is from October to March (the southern summer) of Salisbury, in Rhodesia.
- Its annual precipitation of 32 inches also varies much from year to year.

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Temperature

- The monthly temperature hovers between 70°F. and 90°F. for lowland stations.
- An annual temperature range of 20°F is typical, but the range increases as one moves further away from the equator.
- It is interesting to note that the highest temperatures do not coincide with the period of the highest sun (e.g. June in the northern hemisphere) but occur just before the onset of the rainy season, i.e. April in Kano and October in Salisbury.
- There is also a distinct drop in temperature in the rainy period, due to the overcast sky and the cooler atmosphere.
- Days are hot and during the hot season, noon temperatures of over 100°F. are quite frequent.
- When night falls the clear sky which promotes intense heating during the day also causes rapid radiation in the night.
- Temperatures drop to well below 50°F. and night frosts are not uncommon at this time of the year.
- This extreme diurnal range of temperature is another characteristic feature of the Sudan type of climate.

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Winds

- The prevailing winds of the region are the Trade Winds, which bring rain to the coastal districts.
- They are strongest in the summer but are relatively dry by the time they reach the continental interiors or the western coasts of the continents, so that grass and scattered short trees predominate.
- In West Africa, the North-East Trades, in fact, blow off-shore from the Sahara Desert and reach the Guinea coast as a dry, dust-laden wind, called locally the Harmattan, meaning 'the doctor'.
- It is so dry that its relative humidity seldom exceeds 30 per cent.
- The doctor provides a welcome relief from the damp air of the Guinea lands by increasing the rate of evaporation with resultant cooling effects.
- It is such a dry dusty wind that, besides ruining the crops, it also stirs up a thick dusty haze and impedes inland river navigation.

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Natural Vegetation

- The savanna landscape is typified by tall grass and short trees.
- It is rather misleading to call the savanna 'tropical grassland', because trees are always present with the luxuriant tall grass.
- The terms 'parkland' or 'bush-veld' perhaps describe the landscape better.
- Trees grow best towards the equatorial humid latitudes or along river banks but decrease in height and density away from the equator.
- They occur in clumps or as scattered individuals.
- The trees are deciduous, shedding their leaves in the cool, dry season to prevent excessive loss of water through transpiration, e.g. acacias.
- Others have broad trunks, with water-storing devices to survive through the prolonged drought such as baobabs and bottle trees.
- Trees are mostly hard, gnarled and thorny and may exude gum like gum arabic.
- Many trees are umbrella shaped, exposing only a narrow edge to the strong winds.
- Palms which cannot withstand the drought are confined to the wettest areas or along rivers.

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- Vegetative luxuriance reaches its peak in the rainy season, when trees renew their foilage and flower.
- In true savanna lands, the grass is tall and coarse, growing 6 to 12 feet high.
- The elephant grass may attain a height of even 15 feet!
- The grass tends to grow in compact tufts and has long roots which reach down in search of water.
- It appears greenish and well nourished in the rainy season but turns yellow and dies down in the dry season that follows.
- The grass lies dormant throughout the long, rainless period and springs up again in the next rainy season.
- In between the tall grass are scattered short trees and low bushes.
- The rainfall diminishes towards the deserts the savanna merges into thorny scrub.
- In Australia, this scrubland is particularly well represented by a number of species: mallee, mulga, spinifex grass and other bushes.