3. Subequatorial zone

<u>Distribution</u>
5°-15° on both sides of equator in South America (Brazil, Venezuela), Africa (large belt around the Zaire basin), central and south India and northern Australia. Savannas border with equatorial rainforest and deserts.

<u>Climate</u>
Distinctive *wet season* from May to October (rainfall like in equatorial climate) and *dry season – drought period* (desert-like climate) <=> determined by the location of prevailing and trade winds at different times of the year => seasons of water surplus and water deficiency.
- *Temperature:* >25°C
- *Precipitation:* 500-2000 mm, convectional rain in summer period.
- *Humidity:* varying from 10% to 90% (winter/summer).

<u>Soils</u>
Ferralitic soils of wet season = rocks are chemically weathered <=> humid, hot conditions <=> aluminium and iron oxides remain in the soil => red colour, deep (30 m of thickness), with small topsoil cover, poor soil fertility.
Ferruginous soils of dry season = silica particles from roots and withering grass.

<u>Hydrology</u>
- *Rivers basins and lakes:* South America = Orinoco r., Paraguay r., Paraná r., Africa = Zaire (Congo) r., Niger r., Zambezi r., L. Victoria, L. Tanganyika, L. Malawi, Australia = Gilbert r., Mitchell r.
- *Ocean currents:* warm Guinea, warm South Equatorial (Africa), warm North Equatorial, warm Brazil (South America), warm South Equatorial, warm East Australian (Australia).

<u>Fauna and Flora</u>
Savanna merging with the equatorial rainforest => *dense woodland vegetation.*
Savanna meeting the desert => vegetation reduced to *drought-resistant bushes* and occasional clumps of grass.
During wet season grass seeds germinate and trees grow very quickly in the hot, humid conditions. Green landscape is dominated by acacia trees with their flattened crowns.
- *Fauna:* very diverse – Africa = lion, elephant, panther, hippopotamus, rhinoceros, gazelle, African buffalo, giraffe, hyenas = mix of herbivores and carnivores, Amazon basin = leaf monkeys, Asia = panthers, tigers. Lot of rodent species everywhere.
- *Flora:* acacia trees, palm, baobab tree, drought-resistant bushes, clumps of grass => tropical grassland (*xerophythic plants* – adapted to drought, deep roots, loss of leaves and *pyrophytic plants* – adapted to fire, thick bark, rapid regeneration after fire)

<u>Population and settlements</u>
Concentrated to *coastal areas* (Recife, Salvador, Fortaleza, Brasília, Caracas, Maracaibo, Medellín, Bogotá) or besides *rivers* (Niamey) or to *gulfs and lakes* (Gulf of Guinea, L. Victoria, L. Tanganyika, L. Malawi). Savannas are less populated. Indian, Bantu, Spanish, Portugal, Austro-Asian, Sino-Tibetan languages. *Literacy rate* in African subequatorial climate 50-80%, South America >75%, Asia 50-70%), Australia (99,9%). *Life* expectancy in Africa = 45-55 yrs., South America = 55-70 yrs., Asia = 55-65 yrs., Australia >75 yrs.)

<u>Agriculture and Industry</u>
Agriculture is underdeveloped in African countries <=> poor soil fertility (e.g. *nomadic agro* (pastoralists in Kenya – sheep, cattle) and *subsistence agro* (products consumed by the cultivators – rice, wheat). Cocoa and coffee = export commodities. Venezuela = oil. Low-tech or mid-tech industry. LDCs. Copper belt = exploitation of non-ferrous metals (Cu, Ni, Ag, Au, bauxite).
Positive effects of tourism: conservation (NPs), diversify the economy, creates employment.
Negative effects of tourism: soil erosion, water pollution, diverts investments from other development areas.

<u>Social problems</u>

Problems of large cities in Latin America (slums, favelas = shacks in city suburbs) with overpopulation (extreme urbanization) => *negative effects:* crime, prostitution, drugs (Colombia – coke, heroine, marijuana), corruption (Venezuela, Brazil, Africa), diseases (AIDS in Africa), malnutrition (Africa, India), civil/political conflicts (Jammu and Kashmir, Venezuela), caste (privileged groups) system.

Keywords:

savanna, wet/dry season, prevailing/trade winds, water surplus/deficiency, ferralitic and ferruginous soils, drought-resistant bush, acacia/baobab tree, xerophytic/pyrophytic plants, caste system, commodity, non-ferrous metals, subsistence/nomadic agriculture