Savannas have a world wide distribution lying almost entirely within the lines of the tropics. There are significant continental differences, with the Australian savannas generally having the driest and the South American the wettest climatic environments.

Savannas are amongst the most complex and variable biomes on earth and are difficult to define precisely. The vegetation consists of mixtures of trees, shrubs, grasses and ground plants but the proportions of these components can change rapidly from place to place and over time. Animal life above and below ground may show equal diversity. Nevertheless, a number of characteristics define savannas throughout the world: (i) a continuous or near-complete cover of a mostly grassy (C4) herbaceous stratum, with tree and shrub strata varying from a total canopy cover (savanna woodland) to open grassland; (ii) marked seasonal contrasts with periodic or annual fires typical of dry seasons, lasting anything from around 2 to 9 months; (iii) underlain by mostly nutrient-poor soils, liable to become desiccated in the dry and inundated in the rainy season; (iv) topographic variation, where lower slope positions are damper and often more nutrient-rich than upper and mid slope locations.

Frequently savannas are interspersed with other ecosystems such as gallery forests traversing the landscape or patches of deciduous woodland that usually reflect differences in the soils and geology. At low-lying sites approaching base level, there may be prolonged flooding giving rise to hyperseasonal savannas. Upland savannas usually have higher rainfall, with greater exposure to weathering and more marked relief assisting runoff and better drainage.

Although savannas cover a significant area of Belize, they form only a small proportion of world savannas, but they are interesting because they form some of the most northerly formations in the Americas (notably the lowland savannas), containing a distinctive range of plants and wildlife.
It has been estimated that around one-fifth of the world’s population lives in or around savanna areas. Most people depend upon pastoralism for a living although subsistence agriculture is important despite the uncertainties of climate and soil. Modern capital- and energy-intensive techniques are able to overcome some of these difficulties – a solution not open to most of the population. Plantations occupy an increasing area, and wood harvesting of introduced and native species is growing in importance. Wild foods, medicinal plants and other non-timber products are also significant as well as hunting for game. Savannas play an increasingly recognized role in providing ecosystem services – stabilizing environments by conserving moisture and soils. The high biomass and potential for carbon storage may offer a further alternative source of income. The wildlife of savannas and their scenic environments has inspired the conservation of many areas, either as National Parks or in one of many forms of protection. Tourism has grown up rapidly as a consequence and savannas combine attractive, open landscapes with great diversity of plants and animals.

References:


