

INTRODUCTION

Physical Features

Kenya is a tropical country in East Africa bordered to the west by Uganda, to the south by Tanzania, to the east by Somalia, to the north by Ethiopia and Sudan and to the southeast by the Indian Ocean with a coastline of about 400 km. The total area is 589 900 km² of which 98 % is land surface and the remaining is 2% inland water bodies.

The tropical region is a belt around the earth between the Tropic of Cancer at 23° 30' latitude north and the Tropic of Capricorn at 23° 30' latitude south of the equator. Inter-Tropical Convergence Zone (ITCZ), altitude and its geographic location near the ocean influence Kenya's climate. There are two distinct rainy seasons: the long rains (March - May) and the short rains (October - November). The distribution of the rain varies with altitude and location in relation to water bodies. Rainfall in these lowlands is low and erratic, with a mean ranging from 150 mm to 750 mm in various places. Potential evapotranspiration normally exceeds precipitation within the lowlands. In the humid highlands, mean annual rainfall ranges from 1400 to 2700 mm. Mean annual temperatures are highly modified by altitude where freezing temperatures are found high up on the mountains while mean daytime temperatures in lowlands of arid areas is 38° C. Based on the above climatic factors, the country is divided into seven agro-ecological zones as shown on Table 1.1.

Table 1.1: Agro-ecological zones of Kenya

Zone	Climate type	Mean annual Rainfall	% of total land area
I	Humid	1400 - 2700	3
II	Sub-humid	1000 - 1600	4
III	Semi-humid	800 - 1400	5
IV	Semi-humid - semi-arid	600 - 1100	5
V	Semi -arid	400 - 900	15
VI	Arid	300 - 550	22
VII	Very arid	150 - 300	46

A number of fruits listed above can continuously produce fruits; therefore, the apparent seasonality is only brought about by the prevailing weather conditions. The fruits that have that potential include bananas, annona, pineapple, papaya, watermelon, jackfruit, passion fruit, pomegranate, citruses, tree tomato and white sapote. When grown within the optimum temperatures, such fruits can be harvested continuously under irrigation. It is important to note that with constant harvesting nutrients are fast depleted and a regular supply through organic and inorganic sources should be maintained