# Lightning

Lightning wreaks havoc in Zimbabwe every rain season, killing an average of 83 people a year (Figure 3.10) and injuring several hundreds more, mostly children, as well as countless livestock. This figure is, in fact, likely to be an underestimate as additional deaths go unreported in remote rural areas of the country. When compared to the average figure of 73 (http:// [www.usatoday.com/weather/resources/basics/wlightning.htm)](http://www.usatoday.com/weather/resources/basics/wlightning.htm%29) for the whole of the United States, the significance of our average yearly fatalities becomes even more startling; the United States is about 25 times the area of Zimbabwe with more than 25 times the population. Our neighbour South Africa with storms of the same nature of those in Zimbabwe, but more than three times the area and four times the population, has only 40 deaths per year (UZ, 1991). These deaths and injuries usually occur when trees and huts in which people are sheltering or sleeping are struck by lightning or burnt by fire caused by lightning. It kills not only human beings, but also farm animals, at times in large numbers. Zimbabwe also holds the record on lightning fatalities in the Guinness Book of Records, with 23 deaths in one strike in Manicaland, and 100 cattle were killed by one strike in Gutu in 1991 (UZ, 1991). A lighting research done by the University of Zimbabwe (UZ) in 1991 showed that Gutu district leads the country, with ten fatalities per year.



Figure 3.10 Site of Lightning Counters Installed by ZESA at Meteorological Stations

Source: Zimbabwe Meteorological Office

In addition to the impact on homes and farms, enormous damage can be done by lightning to Zimbabwe Electricity Supply Authority (ZESA) substations and power lines, to TelOne rural lines, microwave link towers and relay links, to Zimbabwe Broadcasting Holdings (ZBH) relay transmitters and to National Railways of Zimbabwe (NRZ) overhead lines. All of these facilities are vital to the national economy. The total runs into millions of US dollars every rainfall season. The hundreds of insurance claims sent to the Meteorological Services annually for lightning confirmation bears witness to the high losses incurred through damage of domestic electrical appliances.

ZESA has installed lightning counters throughout the country to monitor lightning activity so as to find ways to protect their installations. For those who can afford it, insurance provides some recompense for equipment, property and livestock lost, but lives are irreplaceable. We have no alternative except to search for and find national countermeasures to remove Zimbabwe from its infamous position in the global lightning causality statistics. Many people are killed due to misinformation and inappropriate behaviour during electric storms. A few simple precautions can reduce the dangers posed by lighting. Therefore, in this section we seek to explain the perils associated with lighting and then recommend some countermeasures.