**Of thunder, lightning and tornadoes (Zimbabwe)**

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Many people and livestock are killed by lightning while some houses are also destroyed.

Some people believe that witches and wizards create or cause lightning which they then “dispatch” to kill or harm their victims or perceived enemies.

The following explanation about how lightning and thunder occur may help some people to understand the meteorological phenomenon which is quite common in hot tropical and sub-tropical regions. This may have nothing to do with witchcraft.

Lightning and thunder occur in thunderstorms resulting from heat — caused quick rising of the air. As the hot air gets higher, it condenses and rain drops are formed.

Some of those rain drops are too large and consequently split and give off minute electric charges, with negative and positive ones accumulating in different parts of a cloud.

They build up causing a powerful electric flash, lightning, which disturbs the air, making it reverberate with a loud, booming bang – that is thunder

We always see lightning before we hear the thunder. That is because light travels faster than sound, and if we can record the time gap between the lightning and the thunder, we can find out how far from us the phenomenon has occurred.

Scientists tell us that lightning usually strikes the highest object in any locality, and that is why tallest buildings are more or less always struck when there are lightning and thunder activities.

Nowadays those buildings are protected by lightning conductors which transmit the current to the ground where it does not do any damage.

It is the general belief that some trees, including the wild fig and the marula tree (umkhiwa, mpfula, umganu, mupfura), are safe to shelter under during a thunderstorm because they are natural lightning conductors.

Some people say baobab trees (mbuyu, umkhomo, muuyu) are also safe to stand under during a thunderstorm. However, they do not have any branches that can offer meaningful shelter.

There is a misconception that lightning does not strike the same object more than once. There are actually cases where some trees have been struck two or three times but in different rainy seasons, of course.

Another misconception is that lightning is caused by a bird.

That is unadulterated nonsense, of course. Some traditional medicine people identify one of the storks that seasonally come to Zimbabwe as the lightning bird. Only the most simple-minded, ignorant person can believe that crass nonsense.

If it were possible to harness lightning, our energy shortage problems could be solved. The possibility of doing so sooner or later cannot be ruled out.

Another occurrence associated with our rainy weather are hurricanes. These are described by meteorologists as small, compressed, and very intense air depressions which become what are called tornadoes if they are compressed much more.

Zimbabwe experiences tornadoes in a number of localities every rainy season.

A tornado covers just about 300m in width and hurtles at an average speed of just about 40km per hour.

However, that speed represents the forward motion of the violent wind and not that of its internal force whose speed can exceed 500km per hour.

That occurs more or less like a wheel one part of which moves upwards, another forward and yet another backward as the whole wheel moves forward. Winds in these various motional directions can reach different fantastic speeds as the tornado hurtles across a countryside, wreaking indescribable devastation and havoc in villages, schools and fields.

Some tornadoes were said to have carried kids and small lambs and other small animals and dumped them a couple of kilometres away from their pens or their original places of abode.

Tornadoes occur in hot land areas as hot air rises quickly, drawing winds into the central funnel. In dry, dusty regions, the process sucks in dust into the centre, and when the tornado breaks out, the violent dusty wind can be life-threatening.

In the 1952–53 rainy season, a tornado roared ruinously from somewhere between Johannesburg and Pretoria in South Africa and ended up on the Vaal Dam where it caused a tremendous waterspout.

A popular explanation on the buses and in shebeens of Alexandra Township, some 18 or so kilometers north of Johannesburg central business district, was that it was not natural wind but a huge water snake migrating from a smaller dam to the much larger Vaal Dam.

The destruction caused by that tornado along its path was attributed to that so-called huge serpent called mamlambo! That was all nonsense, of course, as that was a natural weather development as already explained above.

People living in areas that are prone to such occurrences should build strong houses as tornado winds destroy weak structures from within. In the event of a tornado approaching, it is advisable to be outside rather than inside a flimsy hut or house.

Other rainy season occurrences in our hot sub-tropical region are frost, mist and dew. Frost can be very destructive to crops such as tomatoes.

However, it occurs in winter and seldom in the rainy season. Seldom does not mean the same as “never” as guti weather sometimes occurs in October.

Mist is formed when warm air laden with water vapour cools and condenses in the air. Dew occurs when the water vapour- laden air condenses on the ground.

Dew occurs usually after a warm day that is followed by a calm, cool night.

Regions where dew is very common are likely to experience frost if the temperature falls below freezing point as that turns the dew into what is called hoar frost.

In Zimbabwe, an area where mist is quite common in this season is Shurugwi. The town is usually calm in December with mornings that are shrouded in mist. Another area that experiences a lot of mist is Chimanimani in the Eastern Highlands.

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