**A drought** is an extended lack of rainfall. It is easy to miss oncoming signs of drought because of the constant fluctuations of rain between seasons and in overall climate. The effects of drought last long after the drought itself because of its effect on water resource, soil and crops, and other natural systems which might take time to refill, generate or regrow.

**A flood** is a situation in which water temporarily covers land where it normally does not. Floods in Zambia can often be caused by heavy rainfall, dam failures or burst water pipes. Floods are directly connected to rainfall patterns, which affect the volume of water in lakes, rivers, canals and even sewers. All floods are not alike. In fact, floods can be classified into the following types:

- **Flash floods**
  Flash floods develop quickly, sometimes in just a few minutes and without any visible signs of rain. A flash flood is a sudden, large wall of water that carries rocks, mud and other debris and sweeps away almost anything in its path.

- **River floods**
  When water can no longer be removed or stored by the river, flooding occurs. Periodic floods occur naturally on many rivers, forming an area known as the floodplain, such as the Zambezi flood plains in Western Zambia.

**Climate change, droughts and floods**

“Globally, climate change has been linked to an increase in extreme weather conditions and natural disasters worldwide.” *(UN News centre)*

Increase in temperature causes both droughts and floods because warmer air, which causes the drought in the first place, also holds more moisture. “When warm air holding moisture meets cooler air, the moisture condenses into tiny droplets that float in the air. If the drops get bigger and become heavy enough, they fall as precipitation.” *(Concerned Scientists)*

Zambia has experienced climate change, over the past decades. The country has experienced an increase in temperature and a decrease in rainfall. In the last 30 years, temperature has been increasing at 0.6°C per decade. There has also been an increase in the occurrence of droughts and floods, along with their intensity and magnitude. *(Climate change in Zambia report)*
Droughts and floods affect the agricultural sector. Agriculture in Zambia accounts for almost 20% of the country’s gross domestic product, employs approximately two-thirds of the country’s labor force and is a key source of livelihood for half of the country’s population. (USAID)

Droughts cause failed crops, which impacts on food security. For example, within the last 20 years, prolonged periods of drought have reduced expected maize yields of up to 60%. (Adaptation to drought report)

85% of Zambia’s farmers are small scale farmers - farming on less than 5 hectares, and have little resources available to invest in drought mitigation technology. Failed crops have direct implications on small scale farmers’ livelihoods and their communities. (Agriculture in Zambia)

Impact on water, health and electricity

Droughts cause water scarcity. Many human-created water storage reservoirs, such as dams, go dry in prolonged periods of drought. Groundwater aquifers do not adequately recharge, the general water tables lower and boreholes and rivers dry out at some point.

Did you know a leaky toilet can waste 800 litres of water per day? Repair all toilet and faucet leaks right away. (Environmental Protection Agency)

Reduced water levels in Zambia have affected hydropower generation. (REUTERS)

High temperature and floods have been associated with increased cases of malaria in Zambia and major epidemics of diarrhoeal diseases such as cholera and dysentery among others. (USAID)

Droughts and floods also adversely affect biodiversity and wildlife-based tourism.
In general, there are two different strategies when it comes to dealing with climate change. We can try to stop future warming (mitigation of climate change) or we can find ways to live in our warming world (adaptation to climate change).

★ Here are simple but impactful ways of mitigation and adaptation;

- Turn off the tap when you brush your teeth – this can save 6 litres of water per minute.
- Take a shorter shower. Shower can use anything between 6 and 45 litres per minute.
- Fix a dripping tap. A dripping tap can waste 15 litres of water a day, or 5,500 litres of water a year.
- Water your garden with a watering can rather than a hosepipe. A hosepipe uses 1,000 litres of water an hour.
- Mulching your plants (with bark chippings, heavy compost or straw) and watering in the early morning and late afternoon will reduce evaporation and also save water.
- Drive Less, Drive Green: Changing your driving habits can dramatically reduce your carbon footprint. Walk, bike, carpool or use public transportation whenever possible. Combine errands to make fewer trips. Participate in, or start, car-free days in your community.

Internet resources

WATCH:
- United Nations warns of floods and drought in Africa
- The Water Cycle Rap Song

READ:
- Zambia Environmental Management Agency
- The Nature Conservancy in Zambia-TNC
- Lusaka Water and Sewerage Company
- Wildlife and Environmental Conservation Society of Zambia
- Living Sustainable lifestyles at Home
- World Wide Fund for Nature in Zambia
- Ramsar Resources on Wetlands
- Trees 4 Zambia
Resources

WATCH:
- Building a community water catchment in Cameroon
- Drip irrigation improves Africa food production
- Hippo rollers
- Rainwater harvesting for conservation agriculture with trees
- Building swales for a rainwater harvesting landscape

Something to think about:
Wetlands act as buffers for floods and drought by regulating water flow in times of drought and mitigating flood damage by absorbing and retaining large quantities of water. (IWMI)

WATCH:
The role of wetlands in stopping floods and droughts

The floating school

In Mongu, Malabo area of Zambia, a floating school has recently been built in partnership with UNICEF to mitigate the effect of yearly floods.

Tambudzai Mutale, 18, was one of five child climate ambassadors who got involved in this project to help more than 200 children on the Zambezi flood plain who miss school for up to six months a year.

LISTEN:
Listen to Tambudzai Mutale, youth reporter’s story
Preparing for the show

Ways to talk about droughts and floods in Zambia

- How droughts, floods and climate change evolved over time (personal testimony and experts)
- Floods, droughts and agriculture in Zambia
- Impacts of floods and droughts on livelihoods
- Mitigation and adaptation strategies for cities
- Mitigation and adaptation strategies for rural areas

Choose an angle

Different ways to talk about impacts of floods and droughts on livelihoods

- Consequences of floods on health
- Consequences of floods on infrastructure (homes, schools, clinics, transport, etc.)
- Droughts and the economy (agriculture, local business, tourism, etc.)
- Consequences of droughts on hydro energy capacity

Vox Pop aim:
To get many opinions on one topic.

Who do you talk to:
Anyone in the community.

Question:
What thoughts come to mind when someone says “droughts”? What thoughts come to mind when someone says “floods”? 

Audio commentary aim:
To get people’s opinion about a topic that they care deeply about.

Who do you talk to:
An elderly person in your community.

Audio profile aim:
To get a first person account of someone’s experience, passion and journey. Audio profiles often aim to inspire.

Who do you talk to:
A local farmer or business person

Questions:
Have you recently had issues with droughts and/or floods?
How has it affected your business or crops?
When did you realise floods and droughts were becoming a huge challenge in your community?
Do you think droughts and floods are getting worse?
Have you taken any measures to mitigate such problems happening again in the future?
What other measures would you encourage others to take in view of droughts and floods?

P.S.A.

The aim of a P.S.A:
To create a public awareness message

Example of P.S.A topic:
Stop climate change to end floods and droughts
[INTRO:]
Host 1: It’s just gone [TIME] and you’re just in time for the [NAME OF SHOW] on [RADIO STATION]. My name is [NAME]...

Host 2: And my name is [NAME], and today’s show is all about the impact of floods and droughts on livelihoods.

Host 1: That’s right, we’ll be talking about how climate change is causing both more droughts and floods in Zambia. Let’s be real - it’s happening and we need to discuss what can be done.

Host 2: We’ll be focusing on how droughts and/or floods, affect different parts of our life, such as health, infrastructures, business, farming and tourism.

Host 1: Let’s hear more about what people have to say about how droughts and/or floods have been affecting them and what can be done.

[PRESENT WHO IS BEING INTERVIEWED]
[PLAY THE INTERVIEW]

[OUTRO:]
Host 1: Today we’ve learnt so much about how droughts (and/or floods) are affecting us.

Host 2: Droughts and floods are affecting all of us, in some way or another. Good to keep this discussion going, and find ways to adapt and mitigate the ongoing effects of climate change.

Host 1: Next week on [DAY] at [TIME] we’ll be talking all about [NEXT WEEK’S SHOW TOPIC]. Until then, it’s bye from us!

Prepare to present your show

How to present your show

Use your produced radio features, research and the suggested script and questions to write your own script.

Suggested questions for your interview with someone who is dealing with droughts or floods, and what strategies they are using to mitigate the effects

★ Why are droughts (and/or floods) a problem in Zambia?
★ How is it affecting your community?
  • In what way has it affected people’s health?
  • Has it had any consequences on infrastructure (homes, schools, clinics, transport, etc.)
★ How is it affecting the economy (agriculture, tourism, etc.)
★ What can be done?
★ Are there any ways of mitigating the effects of droughts and floods in the future?

Once you’ve finalised your script, produced your radio features, finalised your show clock it’s time to go live on air!
Prepare your show

Show outline

| General intro |
| Intro vox-pop |
| Vox-pop |
| Outro vox pop |
| Music transition |
| Intro audio commentary |
| Audio commentary |
| Outro commentary |
| Music transition & jingle |
| Intro interview (or intro audio-profile) |
| Interview (or audio-profile) |
| Outro interview (or outro audio profile) |
| Music transition & jingle |
| PSA |
| General outro |
| End music – end |

Key

- Beginning
- Middle
- End

Ethics and consent

This is a sensitive topic, so make sure you inform your interviewees properly and get their full consent.

You must always introduce your show and radio features. Then once you’ve played your features have a concluding statement for each one. Don’t forget a final conclusion for the very end of the show. Use links (facts, tips, did you knows, music) to glue it all together.

Now write your radio script