A BAREFOOT GUIDE FOR
COPING WITH FLOODS
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6.1 WHY IS THE BAREFOOT GUIDE RELEVANT?
ACKNOWLEDGEMENTS

This guide is, in part, a product of community intelligence and resilience. We are profoundly grateful to the impacted communities that opened up to the researchers concerning how they are coping with the flood. A big thank you goes to the HOMEF and AAPW teams who were out there in the impacted communities gathering vital data that served as input to this guide.
1.1 INTRODUCTION

1.1.1 What’s in the Barefoot Guide and Why?

The barefoot guide contains practical steps to coping with flood episodes. It offers do-it-yourself coping strategies against flood incidents, beginning from pre-flood to during flood and post-flood periods. It is, therefore, a useful self-help guide for people in communities that have experienced or are experiencing flooding and; that are prone to flooding. It is a guide that can help in keeping impacted communities resourceful, alive and relatively healthy in times of flood and post-flood.

The steps in the guide are not just imaginably practicable but have been applied by several flood-impacted communities. In other words, from the knowledge of community people applied during their flood experience and other documented steps for coping with floods, this guide comes.

The barefoot guide is part of the outputs of a flood research carried out by Health of Mother Earth Foundation (HOMEF) in collaboration with Academic Associates PeaceWorks (AAPW). The research was carried out in five states in Nigeria (Bayelsa, Benue, Edo, Kogi and Rivers State) as the 2022 flood was raging. Thus, we were privileged to see first-hand how communities in these five states were coping as well as hear directly from them about their various coping mechanisms.

In the face of continuing climate change and other environmental as well as infrastructural factors causing devastating flood episodes, the guide becomes an important piece for communities and parties concerned about assisting communities to survive flood episodes.
1.1.2 What Needs to be Remembered about Floods?

• There are different causes of floods and what we experience now are climate-change induced floods.

• Floods can be caused by heavy rainfall, coastal storms, overflow of riverbanks, storm surges and release of water from water systems such as dams.

• With climate change leading to the continuous increase in sea level, the melting of European glacier, rainstorms, ocean storms and tidal waves, Nigeria is witnessing heightened coastal, river and urban flooding as well as flash floods.

• Some floods come quickly and recede quickly. Some build up slowly.

• There are floods that come with so much force and destruction, with swelling and lingering waters. They may come quickly but do not disappear quickly.

• Floods, depending on the magnitude, can cause: death; dislocation and utter destruction of livelihoods, homes, properties and basic public infrastructure.

• In some areas, even in countries considered most advanced like the US, flooding is seen as the most common natural disaster.

• Flooding is not an incident that should concern only areas categorized as prone to flood. It can happen anywhere not just in communities close to water bodies. That’s why there is the pluvial or surface flood that happens in high elevations areas lying well above river and coastal floodplains. This is different from coastal or surge flood and fluvial or riverine flooding that occur in areas along the coast and due to heavy rains causing the overflow of rivers. All three types of flood can occur together, causing greater devastation. The 2022 floods was reported to have affected the 36 states in Nigeria.
• The Nigeria Hydrological Services Agency (NIHSA) predicted in its Annual Flood Outlook (AFO) that 32 out of 36 states in Nigeria are Highly Probable Flood Risk States.

• People/communities now have the privilege of receiving flood warnings. Nigeria Hydrological Services Agency (NIHSA) is responsible for the timely dissemination of this warning.
2.1 COMMUNITIES’ FLOOD COPING MECHANISM

The flood research report shows the coping techniques that members of affected communities used during the 2022 floods. Most of the techniques greatly aided their sustenance and survival during the floods while a few (which are discouraged in this guide) may have negative effects in the short and long term.

2.1.1 Coping with Flooded Homes:

• Construct elevated platforms inside homes to allow the safe keeping of valuables including documents, books, money, jewellery, clothes, etc. Place beds and foams well above the flood level or on elevated platforms.

• Locate an Internally Displaced Persons’ (IDPs) camp in dry areas and move in.

• Seek out public infrastructure, for example school buildings, hospitals, etc. in dry areas and ask for permission for immediate use as IDPs’ camps.

• Move saved properties from flooded homes to high grounds, for example, the tarred roads in communities.

• Put up shelters/tents on the corners of main roads that have not been taken over by the floods, with elevated platforms constructed inside for sleeping and safe keeping of properties.

• Move to and put up tents in farms, bushes, hilly, rocky and other areas that floods hardly get to.

• Use materials in the immediate environment, for example, plastics, bamboo, old zinc, canopy materials and raffia palm, for construction of the tents

• Begin the search for alternative housing faster (as soon as the warning for flood is received).
• Secure personal belonging (e.g. clothing, documents, etc.) on trees and rooftops that are not likely to be submerged.

• Family members (especially, the adults) may separate and go in search of dry areas where the entire family may relocate to.

• Relocate younger (children) and elderly family members as well as nursing mothers to family relations and acquaintances in areas that are not flooded.

• Use strong iron ladders as staircase to access the upper floor of storey buildings with submerged ground floor.

• Construct elevated wooden walkways to create access road into flooded compounds.

2.1.2 Coping with Transportation, Movement and Security:

• Locate high grounds around main roads or nearby main roads themselves and convert to parking lot for cars not in use.

• Construct elevated and floating wooden platforms to aid movement into compounds and across flooded streets inside the community.
• Shift to transport and movement by water/boat.
• If possible, pay for the construction of a sizeable private engine boat for movement of family, acquaintances and personal belongings.
• Organise to construct temporary jetties with ticketing personnel for internally generated revenue and with vigilante or maritime security on patrol.
As a commuter, go for engine boats rather than small canoes which are more prone to mishaps.

Use/allow only stronger boats to ply the flood waters as passenger boats.

Avoid overloading of the boats and canoes with commuters and luggage.

Bigger and stronger vehicles, such as tipper trucks, should be used instead of buses to ply major roads when the force of the flood has reduced.

Bike should be used to ply less flooded main roads, only when the depth of the flood can be seen.
• Alternative access and exit routes to and from flood prone communities should be determined, especially by community people who are into transport.

• Wading and swimming through the flood should be the last option which must be down with caution.

2.1.3 Coping with Dislocated Livelihood Sources:

• Be flexible enough to try out and engage in new livelihood sources, for example, safely loading commuters’ luggage into boats or canoes.

• Fishing in the flood waters proved to be a great survival mechanism for both fishers and non-fishers in the impacted communities.

• Switch to fishing and fish trading if farming and other business activities have become paralysed due to the floods.

• Create alternative market sites, possibly around the temporary settlement areas, IDPs’ camps, main roads and areas connecting neighbouring communities.

• Use areas relocated to/tents constructed for the dual purpose of a residence and business area.

• Seek out boat construction experts and work with them to make some income.

• Join the temporary flood water transport sub-sector.

• Avoid livelihood sources, such as excessive cutting of trees, which will worsen the flood prone nature of the environment.

• Seeking out job (including menial job) opportunities in nearby less impacted communities would serve as temporally sustenance mechanism.
2.1.4 Coping with Destroyed Farms and Resulting Food Shortage:

- Harvested and processed food crops should be divided into two halves such that one part serves the family’s food needs and the other for selling to get money for the purchase of other needed items.

- Harvested crops should be processed and used quickly and not be stored for too long to avoid spoilage due to the penetration of excess water and pre-mature harvest.

- Support judicious sharing and use of relief materials sent in by local, state and national agencies, and other concerned entities.

- Get food supplies from neighbouring communities that are not flooded or experiencing minimal flooding.

- Sun or find other means of drying seeds salvaged from the flood for replanting when the floods recede.

- Sell off, as quickly as possible, excess prematurely harvested crops to avoid spoilage and wastage.

- Shift to alternative livelihood sources such as boat riding.

2.1.5 Coping with Contaminated Drinking Water Sources and Resulting Portable Water Shortage:

- Use water guard (a certified chemical) for the treatment of contaminated drinking water.

- Call on relevant ministries like water resources for supply of portable water.

- Avoid drinking and cooking with the flood water without any attempt at purification. Flood water is usually contaminated with oil, raw sewage and other waste.
• Call on the ministry of health as well as other state and local bodies, for medical attention, administration of prescribed medication and other necessary assistance.

2.1.6 Coping with Health Challenges and Risks Likely Ensuing from the Flood

• Use ointments (e.g. Ori/shea butter) and other natural remedies for the management of rashes and other skin infections.

• Locate nearby IDPs camps for medical attention from visiting health ministry officials.

• Do not pass waste in the flood water in the immediate temporary settlement area.
3.1 COPING MECHANISMS FOR VULNERABLE POPULATION

Infants, children, the aged, pregnant women, women who just put to bed (postpartum women) and nursing mothers, chronically ill people and the physically challenged are all considered the vulnerable population. They are all around us, some being part of our household. The best option is to have them and their caregivers relocated once there are signs of flood.

3.11 Infants:

- At all times, awake or asleep, babies must be kept constantly under the watchful eye of their mothers or caregivers.
- Infants must have good sleep. Ensure your baby sleeps safely by making a strong crib with wood and foam of soft cloths neatly folded inside to give the baby a soft sleep place above ground level.
- Guard against infant death syndrome (also known as SIDS) by ensuring that your baby always sleeps on his/her back (not side or with stomach down) and ensuring they are kept away from smoke.

3.12 Children:

- Do not let them swim or play around the flood.
- Do not give them a bath with the flood water except with some form of disinfection.
- Let them always be in the company of older family members or adults.
- Ensure they drink water.
- They should not be left to go and urinate outside alone.
• They should not be sent on errand around flooded areas.

• Ensure they don’t walk bare-footed.

• During and after floods when mosquito infestation will be on the increase, children should be fully clothed, with hands and legs covered.

• Look out for changes in their behaviour and body. For example: Do they cry more frequently? Are they scared or losing appetite? Are they running temperature? These may be signs to something more serious which early observation and quick action can help avert.

• Whenever health care givers come around, have them check your children whether or not you think they are fine.

3.1.3 Pregnant women

• Any opportunity to rest must be taken.

• Keep yourself hydrated, little sips of clean water.

• Once there is news of impending floods, get routine drugs pack. If you are unable to get enough vitamins before the flood, look out for health practitioners that may be coming around IDPs (if you are in one) and ask for routine drugs (multivitamins) as well as advice.

• Continue to take your multivitamins as prescribed by your doctor to keep you and your unborn child healthy.

• Avoid the flood water.

3.1.4 Nursing mothers

• Continue to breastfeed your baby and keep him/her close always.

• Do not drink the flood water at least not without disinfecting it through boiling or dropping in recommended quantity of water guard (usually written on the body of the container).
3.1.5 The aged

- Once flood is suspected, ensure sufficient amount of their drugs are purchased (for those on medication such as BP drugs).
- Monitor them to ensure they take their drugs routinely as prescribed.
- They should be encouraged to take as much rest as they need and be hydrated.
- They should be monitored to changes in their bodies.

3.1.6 The chronically ill

- They should have adequate supply of their medication.
- They should be monitored and changes observed be reported immediately to anyone that can offer some assistance.
- They are not to drink or bath in the flood.
- As an alternative to taking a bath, given scant water available, a towel wet with little clean water with little soap applied can be used to clean the body.

3.1.7 The physically challenged

- They should be offered help with relocation and movement around settlement area.
- Ask to know what specific assistance they need.
4.1 OTHER PRACTICAL FLOOD COPING MECHANISMS

The coping techniques in this section are the output of brainstorming instigated by personal observations made during the flood episode and from community members’ testimonies of their ordeals. The flood coping mechanism diagram below illustrates the interrelatedness of the coping strategies employed at the three major stages of a flood disaster. Mechanisms employed at the pre-flood stage aid coping during flood and after. Tactics engaged at post-flood period serve also as pre-flood techniques. For example, choosing to plant short term crops in certain areas identified as prone to higher volumes of flood would allow for ready (rather than pre-mature) harvest at the pre-flood stages as well as the early stages of flooding.

*Figure 3: The flood coping mechanism cycle*
4.1.1 Pre-Flood Period

- Contact family members and acquaintances in areas unlikely to be flooded once flood warning is sent out by authorities and begin plans for moving family and property out.

- Have important phone numbers such as those of the water resources and health ministries in the state, emergency agencies, public health bodies, etc.

- Acquire flood relevant skills: For example swimming, boat-riding, boat construction, life emergency vest making and fishing skills; flood life-guard training

- Identify persons with critical skills for flood emergencies in the communities, for example, fishers, divers, boat constructors and riders, security operatives, etc.

- Set up committees at community level for liaising with local, state and national authorities before, during and after flood episodes.

- Work with community leadership to designate areas that can serve as IDP camps in the event of floods. Planning here can span from post flood to pre-flood periods.

- Have a flood emergency kit

- Acquire hand-made canoes or engine boats as part of your flood emergency kit.
Figure 4: A farmer turned boat-rider in Akinima, Ahoada, Rivers State, Nigeria
4.1.2 During Flood

- Do not stay in areas very close to rivers, creeks and streams.
- Watch the direction, volume and force of the flood to determine the area(s) to avoid and routes to take while moving out.
- Leave your house whilst the flood is still on the low, with your doors and windows securely locked.
- Do not drive into flood to avoid tumbling of vehicle and imminent death of passengers.
- Move to high elevation areas.

*Figure 6: Flood Emergency Kit (FEK)*
• Use natural materials (e.g. Nigeria’s bitter kola), specific plants and other resources like used engine oil to keep snakes away from the bushes, farmlands and other areas not formally inhabited but now used for temporary shelter.

• Dig holes for toileting in bushes miles away from the inhabited parts.

• Find and get nourishment from plants (e.g. palm and coconut trees) that have fruits containing good quantity of liquid.

• Keep food and water well covered, safe from rats, insects and away from the flood water.

• Make emergency life jackets with tightly covered plastic bottles and other floating materials, for example (preferably before the floods come).

• Use life-jackets during trips via water transport.

• Generate and execute business ideas that are viable in IDP camps.

• Selling of safe, recommended water treatment chemicals (for drinking water), and homemade disinfectants for sanitization of bathing water.
Box 3: Water purification by boiling

There are many ways to make water safe from harmful germs. The methods used most are:

- Boiling
- Chlorination
- Flocculant-Disinfection
- Solar Disinfection
- Slow Sand Filtration

Water that has fuel, toxic chemicals, or radioactive materials in it will not be made safe by any of these treatment methods. Use bottled water or a different source of water if you know or suspect that your water might be contaminated with fuel or toxic chemicals.

Boiling

Boiling or heating water is the most widely used and effective method to kill disease-causing germs, including viruses, bacteria, and parasites.

Steps for boiling water:

- Bring clear water to a rolling boil for 1 minute (at elevations above 6,500 feet, boil for 3 minutes)
- After boiling, allow the water to cool before use
- Store the boiled water in clean, sanitized containers with tight covers

If the water has a harmful chemical or radioactive material in it, boiling will not make it drinkable.
• A flood crisis might be a time to bring back certain old trading methods, for example, trade-by-barter maybe a good coping strategy—some part of what I have that you don’t for some part of what you have that I don't could go a long way.

• Try to boil contaminated water before drinking.

• Utilize the phone and other communication gadgets for spreading news, pictures and short clips about the flood situation.

• Boots should be worn to protect the feet if minimal flood water is to be waded.

• Take care not to get injured.

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**Box 4: Purifying water using the sun**

Solar Disinfection

Solar disinfection is a method of using heat and UV radiation to kill bacteria and parasites in water. Solar disinfection works by placing contaminated water in a transparent container and exposing it to strong sunlight for 6 to 8 hours if sunny, and 2 days (if cloudy).

This method is most appropriate when water is clear and clear, transparent containers for treatment are available.

If the water has a harmful chemical or radioactive material in it, solar disinfection will not make it drinkable.
4.1.3 Post-flood Period

The risks associated with flooding do not end after the floods recede. To minimize these risks, there are steps that come in handy especially for resettlement into the once partially flooded or submerged homes, shops and offices. Some of these guidelines were shared on the Green Alliance of Nigeria WhatsApp group chat.

- First entry into your house, shop or office (that was flooded before) should be done during the day when there is sufficient light and warmth.
- Do not enter quietly; stamp your feet, open the doors and windows noisily to alert possible animal refugees and force them to exit your property.
- Leave doors and windows wide open for some time to allow rodents and other creeping animals take their exit. And for your own quick exit if the need arises.
- Spray insecticides or throw repellents (such as carbide) into dark, hidden corners and closets (like wardrobes, cupboards, shelves, ceiling, etc.) to force rodents and the likes away.
- Keeps brooms, sticks and cutlasses handy to ward off attack from disturbed animal occupants.
- Inspect toilets and sinks, disinfect and wash them before use.
- Call in an electrician to check sockets and, other electrical and electronic appliances to certify them safe for use.
- Check all parameters of your home, office or shop, in the company of others, to be sure that walls, fences are solid. Use long sizable sticks to push walls to see if they are intact.
- Clear your roof of tree branches or other debris.
- Keep grasses around your home cut short to prevent snakes from hiding around the home.
• Check abandoned vehicles and damaged tires around the house to chase away animals that may be hiding in them.
• Plant cassava and other long term crops on farm lands on high grounds
• Plant short term crops on farms lands prone to flooding
• Practice shifting cultivation, especially on farm lands in hilly areas, to help replenish soil nutrients lost to the flood and reduce possible pest infestation so as to avoid overuse of fertilizer, pesticides and herbicides.
• Use manure to build soil fertility not heavy doses of fertilizer.

Box 5:

4.1.4 Specifics for during/post flood self-care and mental health care

Pay attention to changes in your body and behaviour and seek for help if the situation gets out of your control. Watch out and check your body for:

• Drop in energy, activity levels and appetite
• Any feeling of shock, numbness, fear, over worry, disbelief and increasing anger
• Struggle with focusing and sleeping
• Bad dreams and negative thoughts and imaginations
• Constant headaches, body pains, stomach problems, and skin rashes
• Worsening chronic health problems
• Increased use of alcohol, other drugs and smoking
• Other conditions that are unusual
5.1 GENERAL GUIDES PROVIDED BY STATES/CONCERNED PARTIES FROM ACROSS THE GLOBE

- Put together an emergency flood kit composed of life jackets, boots, waterproof flashlights, extra batteries, a first aid kit, and other essential items.

- Acquire some knowledge on essential lifesaving techniques such as Cardiopulmonary resuscitation (CPR) which is recommended in cases of near drowning where a victim has stopped breathing.

- Be aware of streams, drainages, canyons and other areas known to flood suddenly to avoid falling into them and drowning during flood.

- If you live in a storey building, move important items to the upper floor or out of the area even before or immediately the floods come, is noticed or announced.

- Disconnect all electrical appliances. Switch off all sockets and change overs once the flood comes or prior to moving out.

- During the flood, avoid walking, swimming or driving through the waters as it takes six (6) inches of moving water to bring a person down and one foot (12 inches) to sweep a vehicle away.

- Steer clear off bridges.

- Beware of fallen power lines.

- Do not touch electrical equipment when wet or standing in water.

- Find out if homes and business sites are safe before returning after the flood.

- Stay away from damaged areas like roads, houses, etc. as the flood begin receding and after it has.
• Only walk or drive on the firm parts of the road when returning to residential and business areas; avoid the weakened parts due to danger of collapse.

• Watch out for and avoid stepping on flood debris as they may contain sharp objects like broken bottles, pieces of wood, iron and steel.

• After the flood, work quickly to fix damaged sewer systems/septic tanks as they pose severe health hazards.

• Do thorough cleaning and disinfection of your home, office, markets and shops before resettlement.

• Wear protective accessories (e.g. gloves, boots, face masks, etc.) when clearing debris left by the flood

• Only turn on electrical appliances when home and work/business place is completely dry to avoid electric shock.

• The post flood period is a time to learn more about floods in your community and entire local government area; observe and try to know about the periods when flood is most likely to hit your area.

• Look out and plan for possible flood insurance.
6.1 WHY IS THE BAREFOOT GUIDE RELEVANT?

Why not just ask people to leave the flood prone areas, to relocate when the flood alarm goes off? The response to the question lies in a series of questions. What provisions for relocation has been made for the people? What options are available to the people? How many of the likely to be impacted community persons have these options? What happens to those with no options at all?

The fact remains that many will remain in or around the flooded communities seeking for ways to cope with the flood until help comes.

This guide is there to help the impacted cope in the most simple and best ways that are possible.


2 Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of Foodborne, Waterborne, and Environmental Diseases at CDC. (October 20, 2022). Global Water, Sanitation, & Hygiene (WASH). https://www.cdc.gov/healthywater/global/household-water-treatment.html

3 Centers for Disease Control and Prevention


5 City of Patterson (n.d.). What to do before, during, and after a flood. https://www.ci.patterson.ca.us/488/What-To-Do-Before-During-and-After-a-Flood

About HOMEF

Health of Mother Earth Foundation (HOMEF) is an ecological think tank advocating for socio-ecological justice and food sovereignty in Nigeria and Africa at large. HOMEF recognises that the global crises have systemic roots and the current paradigm of development and growth based on competition will lead to the critical destruction of biodiversity and continued destructive extraction of natural resources as well as dependency on risky technologies.

HOMEF works on Fossil Politics and Hunger Politics, using cultural tools to build and share knowledge through her Ikike platforms.

About AAPW

Academic Associates PeaceWorks is a Nigerian nongovernmental, non-profit organization. It was established in 1988 and registered with the Corporate Affairs Commission in 1999. The organization started with a small office in Lagos and now has the head office in Port Harcourt, Rivers State. It has been working in Nigeria and West Africa in the areas of conflict management and peace education since 1992.