

EMERGENCY PREPAREDNESS FOR **SOUTH AFRICA**

A Practical Family Survival Guide



Compiled by Japie Muller

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A NOTE TO THE READER

You may notice as you read through this guide that certain principles, reminders and pieces of advice appear more than once across different chapters. This is entirely intentional, and I want to explain why.

FIRSTLY, repetition is one of the most effective tools for learning. The more times you encounter an important principle — keeping your fuel tank above half, storing cash at home, knowing your neighbours, trusting God above your preparations — the more deeply it settles into your thinking and eventually into your behaviour. In a crisis, you will not stop to consult a checklist. You will act on what has become second nature. Repetition is how second nature is built.

SECONDLY, this guide is designed to be practical in the truest sense of the word. Not every reader will read it from cover to cover in one sitting. Many of you will use it as a reference — turning to a specific chapter when a specific threat feels relevant. Someone facing a water crisis will go straight to Food and Water. A family preparing to evacuate will go straight to Plan A. A person worried about civil unrest will go straight to that chapter.

For that kind of use, each chapter needs to stand on its own. It needs to be complete enough that a reader can open it in the middle of a crisis and find everything they need without having to search through the rest of the book for context they missed.

So, if you are reading from beginning to end and you find yourself thinking — "He mentioned this already" — you are right. And it was worth mentioning again.

My prayer is that by the time you have finished reading, the most important principles will feel less like information you learned and more like convictions you hold. That is the goal.



Are you in a crisis right now?

Stop here. If something has already happened and you have no time to read from the beginning, Turn directly to Section 2.1 — The Reactive Emergency Plan. This section was written specifically for you.

1.



Trust God.

Your faith is your foundation. Start here before anything else.

2.



Remain calm and stay positive.

A clear head makes better decisions. Panic costs time and energy.

3.



Fuel and cash.

ATMs and card machines fail in a crisis. Make sure you have both.

4.



Vital shopping.

Stock up on essential food and household supplies immediately.

5.



Medication.

Ensure you have enough prescription and emergency medication on hand.

6.



What to do at home.

Secure your home and know your immediate safety priorities.

7.



If you need to evacuate.

Know your route, your destination, and what to take with you.

85% Better Prepared.

Following these steps makes you better prepared than most of society.

"Go there now." The rest of this book will still be here when the crisis has passed.

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FOREWORD

All of us experience disappointments, accidents or setbacks that sometimes catch us off guard. I am by nature the kind of person that personally doesn't like surprises! That's why I prefer to be forewarned so that I can be mentally and emotionally prepared.

In 2009, I had a dream and I woke up in a sweat. I saw images of buildings burning, people running in the streets looking for shelter. A while later, I had a similar dream where people were lost in a desert, struggling to survive. It scared me so much that I took a week off work just to process everything, trying to figure out what it all means. I asked the Lord for a sign: I asked that if these dreams were of Him, He would send me to Israel to visit the places I had seen in my dream. The Lord is faithful, and six months later – in 2010 – my job required a group of us to go to Israel for a work-related project. With two extra days at our disposal, we were able to visit Megiddo, Jerusalem and the Golan Heights, the borders of Lebanon, Syria, and Jordan, among other places.

I have since developed a great interest in sustainability and have done a lot of research on the subject by ordering many books online, visiting forums, watching hundreds of YouTube videos, as well as reading a multitude of related articles that I found on the internet. Putting some of what I learned into practise, I set up aquaponics systems which make it possible to grow a high production of vegetables with very little water in a limited space at both the University of Stellenbosch and my home. When my wife developed breast cancer in 2015, I had to temporarily put my new found interests aside.

Disaster can happen at any time, often with little to no warning. The mass destruction can leave you cut off from the outside world for days. Emergency rescuers will soon be there to help following a disaster, but it may take time before they are able to get to you.

People — good Christian people — have asked me: *"If you trust God, why do you need to prepare? Does this not show a lack of faith?"* It is a fair question and it deserves a direct answer. God warns us for a reason. He does not give us prophetic warnings so that we can sit helplessly and watch them unfold — He gives them so that we can act wisely while there is still time. That dream in 2009 was a warning. This book is my response to it. I believe preparation IS faith in action — and in the pages that follow, I will show you exactly why.



It is a summary of many hours of research over the past 15 years and knowledge applied for South African conditions. We, as South Africans, come from a variety of backgrounds, with various opinions, conflicting statements, and different values that have made us into who we are today. My preparation goals or views might differ from yours, but my hope is that you take the advice and the various lists compiled for you for these scenarios, and that they will help make the transition to prepare, simpler and easier.

I believe we are living in the last days. The book of Revelations has warned us of the storms, droughts and persecution that have plagued our country recently. In the end, no matter how well-prepared you are, it is only God in whom you can totally trust and find true refuge and shelter.

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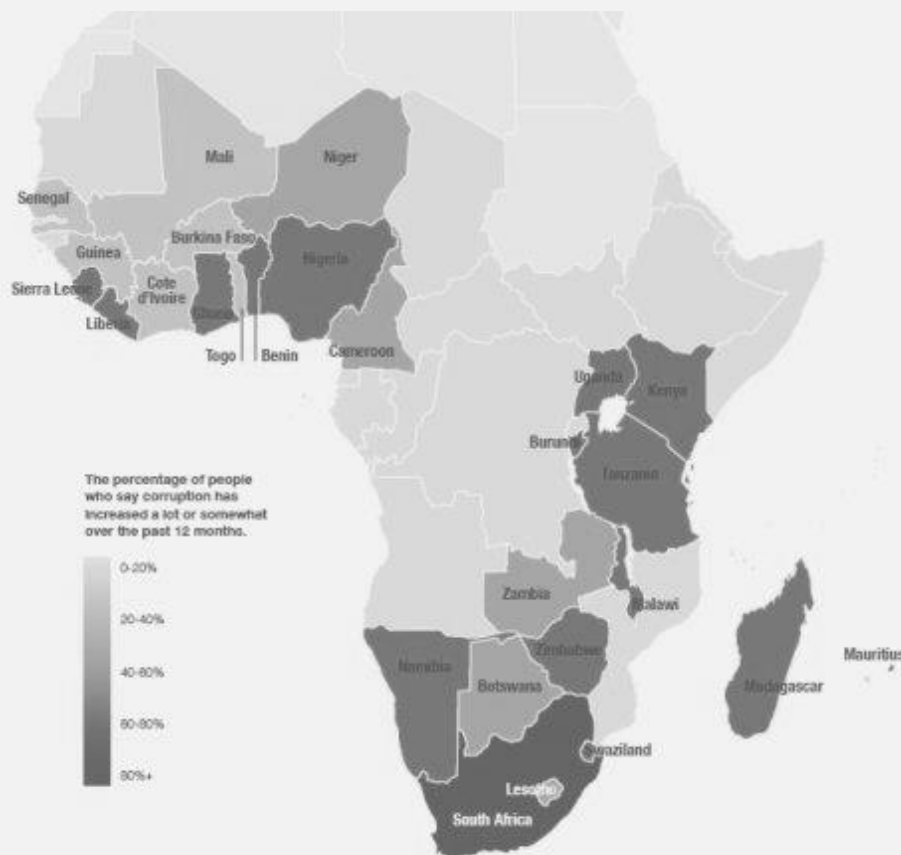
INTRODUCTION

CORRUPTION AND DEMOCRACY IN SOUTH AFRICA

BusinessTech – 29 January 2019

"*Transparency International*" has released its Corruption Perception Index (CPI) for 2018. The Index ranks 180 countries and territories according to their perceived levels of corruption in the public sector. The ranking position uses a scale that runs from 0 to 100, where zero is regarded as highly corrupt and 100 is considered open and transparent.

South Africa, during the past two years, has seen large-scale bribery, fraud, and corruption scandals. High-ranking officials in all levels of government – including the former president, Jacob Zuma – are involved in the State Capture by the Gupta family, where influence and bribes were used to obtain multi-billion Rand government contracts and alleged government appointments.



In recent months, evidence for the State Capture Commission – which was established in the wake of the scandal – revealed that the bribery and corruption runs far beyond just the Gupta family, and high-ranking officials' and politicians' involvement is being investigated by the Commission.

Despite the low CPI score for Sub-Saharan Africa, South Africa is ranked as one of the highest in the region, with a score of 43. The decision taken to establish a State Capture Commission is a positive step in the right direction. This count, however, is still outside the acceptable 50-point mark, indicating that the country should make more efforts to address its serious corruption. South Africa ranks 73rd out of the 180 countries and territories - down from 71st in the 2017 index. Thus, the country's corruption rating is unaffected.

There is a worrying attitude that prevails among many South Africans: complacency. Some individuals feel that they are somehow immune to disasters like political violence, droughts, and floods. If such disasters do occur, these people simply believe that the necessary emergency services (like those of an ambulance, helicopter or even the fire department) will always be available to help them in the crisis.



Unlike many other parts of the world, South Africa is not really exposed to natural disasters such as hurricanes, tornadoes, or massive snow storms. South Africa has its own set of challenges; during the period that this manual was being written, we already had been exposed to load shedding. The threat of our economy collapsing due to corruption and international debt, dragging us even closer to the brink of disaster.

Despite a growing population and a lack of proper planning, proved once again that we did not take our population growth into account. With ESCOM's inability to provide enough electricity made load shedding become part of our daily routine. The drought in the Western Cape has kept the water restrictions in Cape Town at level 6 until quite recently, and the region was declared a disaster area. Residents were faced with the prospect of having to stand in queues to get drinking water, only available at limited water points.

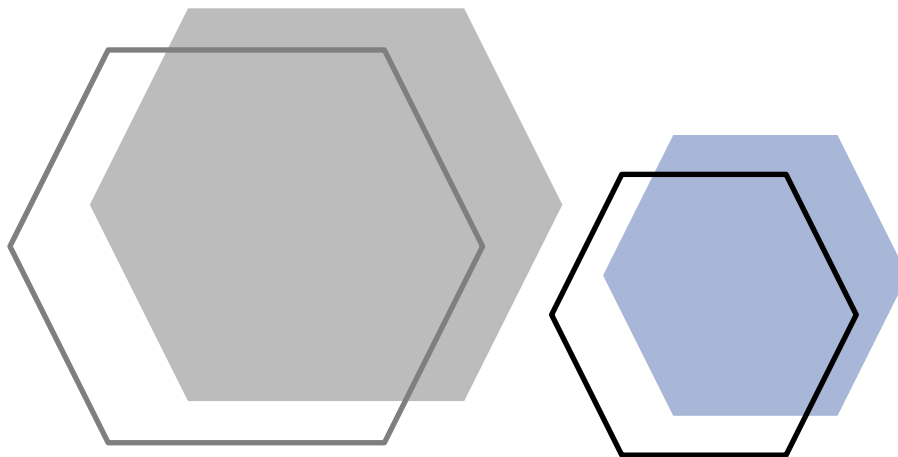
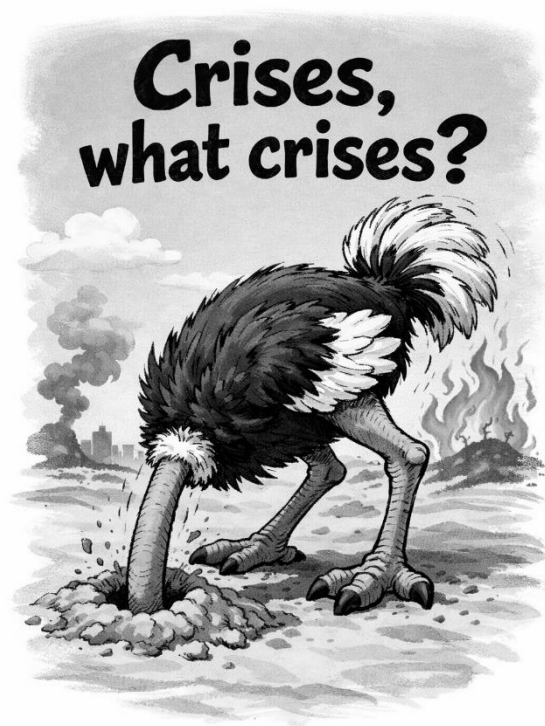
The choice not to prepare for disaster situations can be made for various reasons:

- **NO POINT** - Some of us just do not think that there is a need to prepare.
- **EXCUSES** - Others see the need but make many excuses as to why they cannot prepare. Excuses such as:
 - "I cannot afford to buy the emergency preparation supplies."
 - "The shops will have enough supplies for everyone."
 - "All I need is my rifle to provide food for my family."
 - And then lastly, "Surely the government will make a plan."
- **FEAR** - Many people are overwhelmed by the idea and would rather not think about it. They are terrified to admit that certain events can influence or change the lifestyle to which they are accustomed.
- **STIGMA** - Some are afraid of being ridiculed and labelled a "Doomsday Prepper".

Only 1% of the world's population is sufficiently prepared to cope with a disaster. Short-term disasters can be anything ranging from a few hours to a few weeks, but the side effects can be long-lasting. Disasters of any kind can cause great confusion and chaos - especially when people are not adequately prepared to deal with these situations.

Disasters will not discriminate. When these happen, a person will quickly come to realize that they're on their own and that they have to rely on their own knowledge and insight. If, beforehand, you start to build the necessary mental and spiritual foundation to survive a disaster, you will be able to quickly identify a threatening situation, and your survival mind-set will allow you to switch to an already prepared contingency plan.

This manual has been compiled to help you build the necessary foundation that you and your family can trust and rely on. It will not only make you and your family more aware of how to prepare for emergencies, but also help to address issues such as emergency evacuations, home security, and even possible personal disasters like job loss.



1 HAVING A SURVIVAL MINDSET

1.1 FAITH OVER FEAR IN UNCERTAIN TIMES



Before we go any further, I want to address a question that many Christians quietly carry but rarely ask out loud: "If you truly trust God — why do you need to prepare at all? Is this not a lack of faith?"

It is one of the most important questions this book raises and it deserves a clear answer.

Preparation and faith are not opposites. They never have been. Throughout Scripture, God's most faithful servants were also His most diligent preparers. Joseph received a God-given dream warning of famine and spent seven years building grain reserves that saved an entire nation — and preserved the bloodline through which the Messiah would come. That was not anxiety. That was obedience. Noah received God's warning of the flood and built an ark for a hundred years. That was not a failure to trust God. Building the ark was how he trusted God. The Proverbs 31 woman — held up by God Himself as the model of godly character — plans ahead, provides for her household and prepares for the future. And Proverbs 6 holds up the humble ant as a picture of wisdom, precisely because it stores its provisions before it needs them.

God warns us because He loves us. He does not send prophetic warnings so that we can sit helplessly and watch them unfold. He sends them so that those with eyes to see can recognise the season and respond wisely.

I also want to be honest about the limits of preparation. No one can prepare indefinitely. God Himself tells us that in the end times He will shorten the days — because without His direct intervention, none would survive. Our preparations are not our salvation. They are wise stewardship of the time and resources He has given us. Our trust ultimately rests not in our stockroom or our emergency plan, but in the God who holds the future in His hands.

So — prepare practically. Trust completely. And do not be afraid.

For me, if I'm honest, nothing matters more than your spiritual mindset and your relationship with Jesus Christ — especially when we're talking about faith over fear in uncertain times. Out of everything in this guide, if there's

just one thing you take to heart, let it be this: get your spiritual foundation right. When life feels shaky and fear starts creeping in, it's your faith that steadies you, anchors you, and carries you through.

Open your eyes and look around you. The signs are everywhere. Inflation is emptying our wallets with every passing month. The Rand continues to weaken. Load shedding disrupts businesses and family life daily. Unemployment is at record levels. Corruption has hollowed out our public institutions. Political tensions simmer just below the surface.

As the songwriter Ira Stanphill (1950s) once wrote: *"Many things about tomorrow I don't seem to understand, but I know who holds the future, and I know who holds my hand."* Though the reality is daunting and things may look dim, we will not fear. Our faith is anchored in God's promises.

Proverbs 22:3 gives us a clear warning:

"A prudent man foresees evil and hides himself, but the simple pass on and are punished."

These are not just isolated events unfolding around us. They are urgent calls to seek wisdom and to prepare for what lies ahead. The following five steps are not merely suggestions. For those of us who believe, they are divine instructions. What you do in the coming days, weeks and months will determine not only your financial future, but your family's well-being and your testimony before God.

1.1.1 STEP 1 – STRENGTHEN YOUR SPIRITUAL FOUNDATION

As we face the looming storms ahead, our first and most critical step is to strengthen our spiritual foundation. I cannot emphasise this enough. In times of crisis, it is not your bank account or your investment portfolio that will sustain you. It is your unwavering faith in God.

Isaiah 26:4 reminds us:

"Trust in the Lord forever, for in the Lord God is everlasting strength."

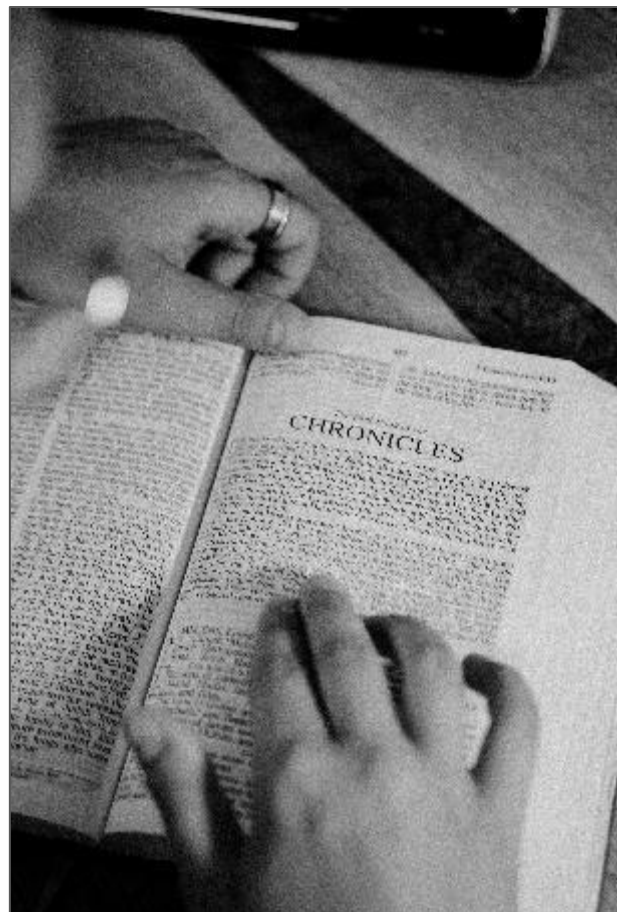
This is not just a comforting verse to put on your wall. This is a lifeline in turbulent times. But how do we build this kind of unshakeable trust?

1.1.1.1 READ GOD'S WORD

It starts with immersing yourself in God's Word. Now is the time to dust off your Bible and dive deep into scripture. Set aside time each morning — even if it is only fifteen minutes — to read, meditate and pray over God's promises. Let His truth sink into your spirit and become an anchor for your soul. Faith comes by hearing, and hearing by the Word of God.

1.1.1.2 PRAYER

Next, prioritise your relationship with God above everything else. In a world obsessed with material wealth and financial security, we must fix our eyes on the true source of our provision. Seek His face in



prayer — not just for a few hurried minutes, but with intentionality. Pour out your fears, your doubts, and your needs before Him. But don't just talk. Listen. Create space in your life for God to speak, to guide, and to comfort you. As you do this, you will find a peace that surpasses all understanding, even in the middle of economic turmoil.

1.1.1.3 SURROUND YOURSELF WITH FELLOW BELIEVERS

Surround yourself with fellow believers who can encourage and support you. Iron sharpens iron, and in these challenging times, we need each other more than ever. Your church community, your small group, your trusted friends of faith — these relationships are not a luxury. They are part of God's provision for you in a crisis.

1.1.1.4 GOD REMAINS IN CONTROL

Our God is not caught off guard by economic downturns. He is not wringing His hands in heaven wondering what to do about inflation or job losses. He remains on the throne, sovereign and in control. And as His children, we can rest in that assurance. So let us build our houses on the Rock of God's Word. When the storms of economic uncertainty rage around us, we will stand firm.

1.1.2 STEP 2 – DEVELOP FINANCIAL WISDOM AND STEWARDSHIP

As we navigate these turbulent economic waters, we must develop godly financial wisdom and stewardship. This is not just about balancing your budget or saving for a rainy day. It is about aligning your finances with God's principles and purposes.

Proverbs 3:9-10 says:

"Honour the Lord with your possessions, and with the first fruits of all your increase; so that your barns will be filled with plenty and your vats will overflow with new wine."

Our financial decisions must always begin with honouring God. What does this look like practically? It begins with a change in perspective. We are not owners of what we have. We are *stewards* entrusted with God's resources. Instead of asking, "How can I accumulate more?" we begin to ask, "How can I use what God has given me to further His kingdom and provide for my family?"

In Chapter 21 we will discuss the practical steps of cutting expenditure, paying off debt, and buying in bulk. Let me add a few further principles here.

1.1.2.1 DIVERSIFY YOUR INCOME STREAMS

In uncertain times, relying on a single source of income is like putting all your eggs in one basket.

Ecclesiastes 11:2 wisely advises: *"Give a portion to seven and also to eight, for you do not know what evil will come upon the earth."*



Consider starting a small side business, monetising a skill or hobby, or finding ways to generate additional income alongside your regular work. The Apostle Paul was a tent maker alongside his ministry. There is no shame in diversifying. It is wise stewardship.

1.1.2.2 BUILD AN EMERGENCY FUND

If at all possible, work towards saving at least three to six months of basic living expenses in cash. In a South African context where banking systems and ATMs may fail during a crisis, having physical cash in small denominations is also essential.

1.1.2.3 GET OUT OF DEBT

Proverbs 22:7 says it bluntly: *“The rich rules over the poor, and the borrower is servant to the lender.”*

As economic hardships increase, being debt-free gives you flexibility and peace of mind that money simply cannot buy. Create a plan to systematically pay off your debts, starting with the highest interest ones. It may require real sacrifice. But the freedom on the other side is worth every rand.

1.1.2.4 SEEK GODLY COUNSEL

Before making major financial decisions, seek wise, trustworthy counsel. Our ultimate security is not in our bank accounts. It is in our faithful God who promises to meet all our needs according to His riches in glory. Let us honour Him with our finances and watch as He opens the windows of heaven.

1.1.3 STEP 3 – CULTIVATE GRATITUDE AND GENEROSITY

1.1.3.1 GRATITUDE

In times of economic uncertainty, it is easy to fall into a mindset of scarcity and fear. But as believers, we are called to a higher standard: gratitude and generosity. These are not just nice qualities to have. They are powerful weapons against anxiety and greed.

1 Thessalonians 5:18 (NKJV) says: *“In everything give thanks, for this is the will of God in Christ Jesus for you.”*

Notice it does not say for everything, but in everything. Even in the most challenging circumstances, we can find reasons to be thankful. When we cultivate gratitude, we shift our focus from what we lack to what we have. Start each day by listing three things you are grateful for. It could be as simple as a roof over your head, food on your table, or the love of your family.

1.1.3.2 GENEROSITY



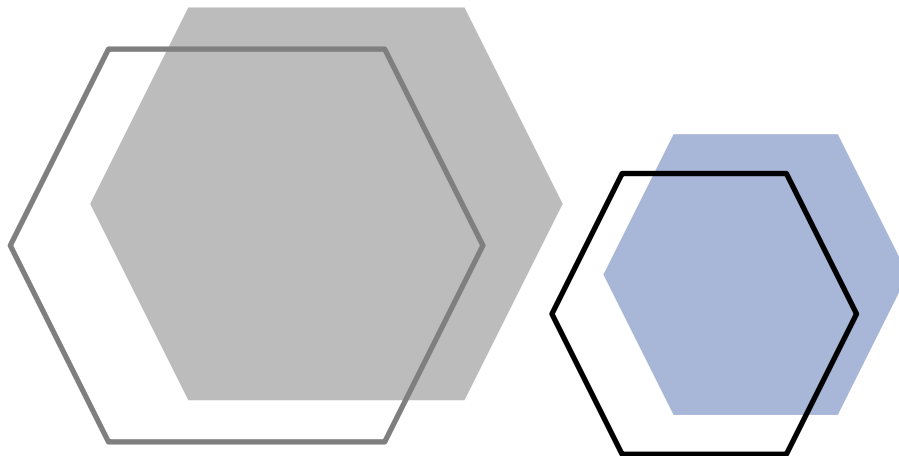
Luke 6:38 (NKJV) says: *“Give and it will be given to you. Good measure, pressed down, shaken together, and running over will be put into your bosom. For with the same measure that you use, it will be measured back to you.”*

This is a profound spiritual principle that goes far beyond mere financial transactions. When we give generously, we are not losing out. We are positioning ourselves for God’s blessing.

Giving and sowing into God’s kingdom could mean tithing to your local church, supporting a missionary, contributing to a ministry feeding the hungry, or simply buying a bag of groceries for the family next door who is struggling. When we sow into God’s kingdom, we are saying: *“God, I trust You more than I trust my bank account.”* And God honours that kind of faith.

I am not suggesting you give recklessly or irresponsibly. Wisdom and discernment are still important. But I am challenging you to stretch your faith in this area. As you cultivate **gratitude** and **generosity**, you will find that it breaks the power of materialism over your life. You will experience a

freedom and joy that no amount of money can buy. And you will be storing up treasures in heaven where economic collapses cannot reach them.





As we prepare for potential economic challenges, we must embrace the power of skill diversification and self-sufficiency. In a rapidly changing world, relying solely on a single skill set — or depending entirely on complex systems that may fail — leaves us dangerously vulnerable.

Acts 18:3 tells us that the Apostle Paul — despite being a learned scholar and a powerful preacher — maintained his trade as a tent maker. This practical skill allowed him to support himself while spreading the gospel. He did not rely solely on his ministry for provision. He used his hands when needed. That is wisdom we should follow.

Start by assessing your current skills and identifying areas where you can grow. Perhaps you are an office worker who could benefit from learning basic home repairs — plumbing, electrical, building. Or maybe you are a tradesperson who could expand into digital marketing or bookkeeping. The key is to become adaptable and resourceful. Every new skill you acquire is a potential tool for provision in a crisis. We cover this in more detail later on in this chapter — “Learn new skills”

Self-sufficiency does not mean isolating yourself or rejecting community. Rather, it is about developing the ability to meet your basic needs with less dependence on systems that may falter. We have already discussed vegetable gardens, water storage and alternative energy in this guide. These are not just prepper hobbies. They are practical expressions of wise stewardship. The following skills are worth investing time in:

- Growing your own food, even if it is just a small container garden or herb pot on a windowsill.
- Basic food preservation such as bottling, drying and pickling.
- Simple home and vehicle repairs that save you money and increase your independence.
- First aid and emergency preparedness — skills that benefit you and your entire community.
- Sewing, knitting and basic garment repair so that your family is clothed regardless of what the shops charge.

As believers, we are called to be wise stewards of our resources and capabilities. Our ultimate sufficiency comes from God. But as we develop these practical skills, we do so with an attitude of humble dependence on Him — knowing that He is the one who gives us the strength, the health and the opportunity to learn.

1.1.5 STEP 5 – ADOPT A MINDSET OF RESOURCEFUL SIMPLICITY

Philippians 4:11 gives us profound wisdom: “Not that I speak in regard to need, for I have learned, in whatever state I am, to be content.”

Paul wrote these words from prison. He was not writing from a comfortable study with a full pantry. He had learned contentment through hardship. And that word “learned” tells us something important: contentment is not a personality trait. It is a discipline. It can be practised and developed.

How do we cultivate this mindset of resourceful simplicity in practical terms?

1.1.5.1 REDEFINE NEEDS VERSUS WANTS

If we are honest, many of us are guilty of confusing the two. In a world that constantly pushes us to consume more, we must learn to find contentment with less. This does not mean living in poverty. It means appreciating and maximising what God has already placed in our hands.

1.1.5.2 PRACTISE CREATIVITY AND PROBLEM-SOLVING

Before immediately buying a solution to a problem, ask yourself: how can I address this need with what I already have? This approach saves money and develops invaluable ingenuity. As South Africans, we have a deep tradition of “boer maak ‘n maak plan” — making a plan with what is available. That spirit is a gift. Cultivate it.



1.1.5.3 LOOK FOR MULTI-PURPOSE ITEMS

When buying equipment or supplies, look for items that serve multiple functions. This principle applies to household items, tools, and even skills. Do you really need a separate gadget for every task, or can one good quality tool serve three purposes?

1.1.5.4 LEARN TO REPURPOSE AND REPAIR

Before discarding something, ask whether it can be repaired, transformed or reused. South Africa’s earlier generations understood this. Ouma’s generation wasted nothing. We would do well to recover that wisdom.

1.1.5.5 SIMPLIFY YOUR LIFESTYLE

Evaluate each area of your life and honestly ask: is this essential? Does this add real value to my family's life and our walk with God? You might be surprised at how much you can let go of without feeling deprived. In fact, many people who simplify their lives report feeling freer and more peaceful than before.

Adopting a mindset of resourceful simplicity is not about deprivation. It is about finding freedom from the constant pressure to acquire and consume. It is about developing resilience and creativity that will serve your family well in any economic climate. As you embrace this mindset, you will discover a richness of life that does not depend on material abundance. True wealth is not measured by what you possess, but by your contentment in Christ and your ability to creatively use what God has entrusted to you.

1.1.6 IN CLOSING

As we face the economic storms on the horizon, let us commit to these five steps: strengthening our spiritual foundation, developing financial wisdom, cultivating gratitude and generosity, expanding our skills and self-sufficiency, and adopting a mindset of resourceful simplicity.

By doing so, we prepare not only for the challenges ahead, but for the blessings that flow from faithful stewardship. We position ourselves not merely to survive, but to thrive — and to be a light to those around us in the coming darkness.

I close this chapter with a prayer. I invite you to pray it with me, or simply to read it and receive its blessing in faith.

PRAYER:

Almighty God, Creator of heaven and earth, I stand in awe of Your majesty and power. Your wisdom surpasses all understanding and Your love knows no bounds. You are the source of all provision, the giver of every good and perfect gift. Thank You for Your unfailing faithfulness even in times of economic uncertainty.

Forgive me, Father, for the times I have placed my trust in worldly wealth rather than in You. Lord, I pray for a strengthened spiritual foundation that can withstand any economic storm. Grant me the discipline to immerse myself in Your Word daily. Help me develop godly financial wisdom, always honouring You with my resources. Cultivate in me a spirit of gratitude that sees Your blessings even in times of lack. Empower me to be generous, sowing bountifully into Your kingdom without hesitation or doubt.

I pray for the courage and creativity to diversify my skills and increase my self-sufficiency. Lord, help me embrace a mindset of resourceful simplicity, finding contentment in all circumstances. I declare that my trust is in You alone — not in the fluctuating markets or uncertain economies of this world.

Guide us collectively as we navigate these uncertain economic times, always keeping our eyes fixed on You. For Yours is the kingdom, the power and the glory forever and ever.

In the mighty name of Jesus.

Amen.

1.2 EMOTIONAL MINDSET



Just as important as spiritual preparation, is your emotional mind-set, because in times of emergency it often determines how you will respond when everything around you feel uncertain and out of control.

When crisis hits, fear rises quickly and panic can easily take over, causing people to freeze, make rushed decisions, or follow the crowd without thinking. But if you are able to steady yourself, even for a moment, everything begins to change. Your thinking becomes clearer, your actions more deliberate, and you move from reacting in fear to responding with purpose.

A calm and grounded mind-set helps you see what truly matters, prioritise wisely, and take the next right step, even while the situation is still unfolding. It also allows you to be a source of strength for those around you, your family, your children, your community, who may be looking to you for reassurance and direction.

In many ways, your emotional state sets the tone for the outcome; it can either lead to confusion and chaos or to clarity and control, and that is why preparing your mind is not optional but essential, because in a moment of crisis you will not rise to the occasion, you will fall back on your level of preparation.

1.2.1 STAY CALM

Some people undergo incredible transformations in emergencies situations. They can put together a solid plan and tell everyone what to do with a confident, calm voice. The rest of us "freak out" or scream and sometimes might even use a swear word or two. The good news is that it's possible for any of us to learn the ability to stay calm in emergency situations. Here are some tips from survival and medical experts:

- 1) **BE PREPARED AND GET EXPERIENCE** – The first thing to do is to remain calm and to be confident; knowing what to do in an emergency situation. Learn basic first aid, have at least the basic supplies, learn some survival skills, and read as much material possible. The more you know, the less likely you are to panic.

- 2) **FOCUS ON A GOAL** – The extent of an emergency situation can overwhelm many people, especially when time is limited. If there is one thing you need to learn, is to focus on one task at a time. If the house is on fire, focus on getting the people out. If you're the one who calls emergency services, only focus on your conversation with the operator and nothing else.
- 3) **TAKE A DEEP BREATH** – In emergencies, one's body instinctively switches to a "fight or flight" response. When you are anxious, you tend to breathe fast, superficially – almost as if you're running away from danger. You can overcome it by taking deep breaths, making you feel like you are inflating your stomach to fill your lungs. In your mind, tell your body that you are calm and be in control of your mood.
- 4) **LEARN TO ADAPT TO YOUR CIRCUMSTANCES** – Almost every day we are confronted with unplanned situations. Experts say that people who make peace with their circumstances are calmer in general. The next time something small goes wrong during your day, see it as an opportunity to practice this critical survival skill.
- 5) **BE MORE ADVENTUROUS** – We are so set to follow the rules that we sometimes find it difficult to break social rules when needed. In emergencies, it is sometimes necessary to break emergency measures; such as disturbing the peace by making a noise; fighting with total strangers; tearing expensive clothes; or entering someone else's property, if it's necessary to save lives.
- 6) **LOOK AFTER YOURSELF** – For a large part of the population, panic and worry will not simply disappear when an emergency is over. Emergencies, or the threat of an emergency, can cause prolonged panic and anxiety. If you find yourself panicky or anxious, learn a habit that can help you manage your anxiety.

1.2.2 SUPPORT EACH OTHER

1.2.2.1 HELP EACH OTHER

You can start to empower your people. Start giving your business to your own people. To whom did you award that contract for doing the additions to your home? Who services your car or at which shop do you buy your groceries? The person you support now can support you later if things go wrong. For those of you, who can afford it; give that "little job" to your fellow Christian who struggles, as well as to the person who doesn't have a job. In difficult times, we need to support our fellow citizens, help him now to help himself, and he may be worth more to you at a later stage.

1.2.2.2 BE THE FIRST TO REACH OUT

According to the theory of "diffusion of responsibility" - the more spectators there are on a scene, the less the chances for someone to help the victim. The theory states that people who ask themselves: "**Why should I help the person if somebody else who can do it?**" Others feel that they don't want to get involved, fearing that they may be held liable for something they might do wrong. So here are some tips on how to overcome this "diffusion of responsibility":

- 1) If you are the patient, pick one person out of the crowd and make eye contact with the stranger. Chances are that the person might feel guilty and will come forward to assist you.
- 2) If you are a spectator, do something – Sometimes you have to make the first move before others will respond. Let that first person be you.
- 3) Make use of your natural tendencies to kindness - Expect the best in people, not the worst. Most people have a natural tendency to help others and will gladly do so if they get the chance. Suppose you are the only person in your street that has made preparations for such emergency situations. Will you be the person helping that person? If you take the lead, you will quickly get help from the bystanders if you ask.

- 4) Try not to worry about the consequences of offering help - It is unfortunately true that people fear that they will be held legally liable if things go wrong. But in contradiction to the idea is to live the rest of your life with your conscience if you were in a position to save someone.
- 5) Be an example for young people - By taking control and helping others in need, you will teach your children a valuable lesson.

It is your decision to **(1)** simply turn your back on and live with your conscience or **(2)** be the kind Samaritan to help that person. If you decide to turn away – just remember, the next victim might be your wife or child who needs somebody else's help.

1.3 HELPING CHILDREN THROUGH A CRISIS



As parents and caregivers, our instinct during an emergency is to focus entirely on the practical — food, water, safety and shelter. But children experience disasters very differently to adults, and their emotional and psychological needs during and after a crisis are just as real and just as urgent as their physical ones.

A child who is traumatised, terrified or confused will not eat properly, will not sleep and will not cooperate with the family's emergency plan. Understanding how to support your children emotionally during a crisis is not a soft extra — it is a core survival skill.

1.3.1 HOW CHILDREN EXPERIENCE CRISIS DIFFERENTLY

Children do not have the life experience or emotional vocabulary to process fear and uncertainty the way adults do. What they do have is an acute sensitivity to the emotions of the adults around them. Research consistently shows that a child's emotional response to a disaster is strongly shaped by how the adults in their life respond. If you panic, they panic. If you are calm and purposeful, they will draw strength from that.

Children of different ages respond very differently:

- **Young children (under 7)** often cannot distinguish between real threats and imagined ones. They may become clingy, regress to younger behaviours such as bedwetting or thumb sucking, have nightmares or refuse to be separated from a parent. They need physical closeness, simple reassurance and consistent routine above all else.
- **Children between 7 and 12** are old enough to understand that something serious is happening but not yet mature enough to process it fully. They may ask many questions, become angry or withdrawn, or complain of headaches and stomach aches without any physical cause. They need honest but age-appropriate information and a sense that they have a role to play.
- **Teenagers** often respond to crisis with either intense anxiety or a show of false bravado. They may withdraw from the family or seek information obsessively on social media. They need to be treated as near-adults, given real responsibilities and included meaningfully in the family's planning and decision making.

1.3.2 WHAT EVERY CHILD NEEDS DURING A CRISIS



Regardless of age, every child needs the following:

1.3.2.1 HONESTY WITHOUT ALARM

Children always know when something is wrong — they read it in your face, your voice and your body language long before you say a word. Do not lie to them or pretend everything is fine. Instead give them honest, simple, age-appropriate information. *"Something difficult is happening and our family is making a plan to stay safe"* is far better than false reassurance that collapses the moment they see the fear in your eyes.

1.3.2.2 ROUTINE AND PREDICTABILITY

In the midst of chaos, routine is an anchor for children. Maintain mealtimes, bedtimes and family rituals as much as circumstances allow. Even small rituals — a bedtime prayer, a story, a familiar song — signal to a child that life has structure and that the adults around them are in control.

1.3.2.3 A ROLE AND A RESPONSIBILITY

Children cope better when they feel useful. Give every child in your family an age-appropriate task in your emergency plan. A five-year-old can carry their own small backpack with their teddy and a water bottle. A ten-year-old can be responsible for knowing the family's emergency meeting point. A teenager can be responsible for keeping a younger sibling calm. Purpose combats helplessness.

1.3.2.4 PHYSICAL COMFORT AND CLOSENESS

Do not underestimate the power of a hug, a hand held or a parent sleeping in the same room during a frightening night. Physical closeness is deeply regulating for a child's nervous system. In a crisis this is not spoiling — it is medicine.

1.3.2.5 PERMISSION TO FEEL.

Allow children to express fear, sadness and anger without dismissing those feelings. Saying "*there is nothing to be scared of*" does not make the fear go away — it simply teaches the child to hide it from you. Instead say "*I understand you are scared. I feel it too sometimes. Let us talk about it.*" A child who can name and express their feelings is far less likely to be overwhelmed by them.

1.3.3 RECOGNISING TRAUMA SYMPTOMS IN CHILDREN

Not all children show distress in obvious ways. The following signs may indicate that a child is struggling and needs extra support:

- Persistent nightmares or difficulty sleeping
- Regression to younger behaviours — bedwetting, thumb sucking, baby talk
- Withdrawal from family and activities they normally enjoy
- Unusual aggression, irritability or emotional outbursts
- Physical complaints without medical cause — headaches, stomach aches, nausea
- Repetitive play that re-enacts the frightening event
- Persistent and intense fear that the danger will return
- Difficulty concentrating or remembering things

If these symptoms persist for more than a few weeks after the crisis has passed, seek professional support from a psychologist or counsellor. There is no shame in this — trauma is a normal response to abnormal circumstances.

1.3.4 PREPARING CHILDREN BEFORE A CRISIS

The single most effective thing you can do for your children's emotional resilience is to prepare them before anything happens. A child who has been included in age-appropriate emergency planning, who knows what the family plan is and who has practised their role in it, will be significantly calmer and more functional when a real emergency occurs.

Talk to your children about emergencies in a matter-of-fact, non-frightening way. Frame it as something the family is preparing for together rather than a catastrophe to be feared. Use the same tone you would use to discuss a fire drill at school — serious but calm, practical rather than alarming.

1.3.5 A WORD TO PARENTS



You cannot pour from an empty cup. If you are overwhelmed, traumatised or running on empty yourself, your capacity to support your children will be severely compromised. Taking care of your own emotional and spiritual wellbeing during a crisis is not selfish — it is the most important thing you can do for your children.

Lean on your faith. Draw on your community. Ask for help when you need it. And remember the words of Isaiah.

Isaiah 41:10 — *"Fear not, for I am with you. Be not dismayed, for I am your God. I will strengthen you, yes I will help you, I will uphold you with My righteous right hand."*

That promise extends to your children as much as it does to you.



It is common knowledge that regular exercise can dramatically improve one's physical and mental well-being. Health magazines constantly remind us that exercise contributes to weight loss and prohibits heart disease. But there's also a wealth of lesser-known benefits that just a few minutes of exercise each day will do to improve your health and mind-set.

ADVANTAGES OF EXERCISE

- **WEIGHT CONTROL** - Exercise can stop you from gaining extra weight or help you maintain your ideal weight. When you do physical activities, you burn calories. The more intense the activities, the more calories are consumed. You do not need hours of exercise to see the benefits of weight loss.
- **REDUCE THE RISK OF HEART DISEASES** - If we are active, high-density lipoprotein (HDL) or "good" cholesterol is increased and unhealthy triglyceride is reduced. This allows the blood to flow easily, reducing the risk of cardiovascular disease. Regular physical activity can help prevent or manage a range of health problems and issues, reducing the chances of having a stroke, metabolic syndrome and type 2 diabetes.
- **INCREASED ENERGY** - Regular physical activity can improve your muscle strength and boost your endurance. Exercise and physical activity deliver oxygen and nutrients to the tissue, and help the cardiovascular system to function more effectively. And if your heart and lungs work more effectively, you have more energy to tackle your daily tasks.
- **IMPROVING PERFORMANCE AND PRODUCTIVITY AT WORK** - Exercise is important to improve our overall quality of life, especially your work. If you are fit, you will feel more confident even in the

workplace and this will help you show leadership and perform better. It will also increase your overall productivity and focus.

1.5 LEARN NEW SKILLS

The question that you might ask yourself is, "*Why learning new skills?*" Most people have two areas of knowledge that they strive to master. It consists of dealing with issues that relates to your work or dealing with matters related to your hobbies and interests.

We don't realise how important it is to constantly learn new skills. Instead of reading story books, it would be worth your while to follow a workshop, course or self-study and in the process, acquire a full set of new skills that could potentially be used to acquire new business.

There are several reasons why it is better to follow a self-study course or workshop:

- When you pay entry fees for a self-study course or workshop, you tend to be more likely to complete the course. This will not only ensure that you follow a set structure, but it will also motivate you to take it more seriously.
- When you have successfully completed the new course, you will be the proud owner of a certificate of completion. This new qualification will not only make your day job easier, but you can also note it on your CV. It will also be possible for you to obtain a better job or negotiate a better salary. It can also mean the start of a new business.
- It is always better to tackle a course or self-study that not only provides textbooks, but also provide video clips that further illustrate their craftsmanship. Of course, if you follow a video course, you can always stop the instructor, the moment you don't get the full explanation. Thanks to technology, students who use self-study can use other methods that are as effective at communicating with a real-life teacher. This includes email, fax, phone calls and other technological miracles that enable our daily communication.
- To follow a course and to succeed with it will greatly increase your confidence and your skills. This will enforce respect from co-workers and greatly improve your own self-esteem.
- When you follow the course on some hobby, you will continually find that additional information and skills are being taught to you, which you will not find anywhere in any book or on the internet. We sometimes use the term "tricks of the trade", which I will translate to the finer art of the hobby.
- During the course you will meet many other people with the same interests as you. You can discuss problems together and find solutions more easily. It may even lead to new friendships and an enrichment of your personal life.
- To learn skills through a course, you may discover much new area that you still want to exploit and gain more knowledge about. It will encourage you to further discover the world around you. In others company you will never be bored, because you will know something about everything and be able to hold a conversation.



2 IT ALL STARTS WITH A PLAN

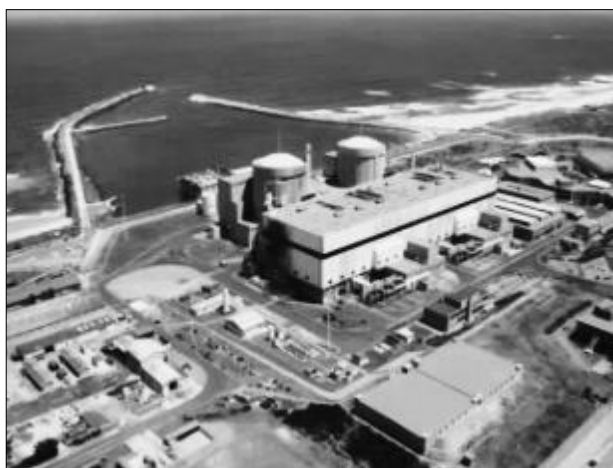
We have seen many disasters over the years on television, and as we watch from the safety of our living rooms, we assume that help will always come to our rescue with a simple call to “911”. But when the nation is in a state of emergency, rescuers may not be able to get to us as quickly as we expect, if at all. In an emergency, preparation can make all the difference between:

- Staying together or getting separated
- Being confident and prepared or living in fear
- Even life and death.

2.1 A REACTIVE EMERGENCY PLAN

Imagine you have only reached to this point in the manual, but suddenly, the electricity goes off and you are left sitting in the dark. Then a colleague rushes into your office and informs you that the Koeberg power station has gone down.

Due to inadequate maintenance, a reactor at Koeberg power station was no longer functional which caused a total blackout. The damage is calculated to billions of Rand, and it is currently undetermined how long it will take to repair the reactor (if it can be repaired at all). There is an announcement on the radio and, as a safety precaution; the surrounding areas of Melkbosstrand, Table View, Parklands and Milnerton must be evacuated. Its chaos everywhere; mobile networks are overloaded; you cannot get hold of your wife. All around you people are panicking and many are frustrated, while others are looting shops and starting to burn tires.



If you casually browse through this manual, you may feel intimidated by the amount of information available. You will soon realise that it will take quite a while to prepare adequately for the various emergencies in which you may find yourself. The big question is, what steps can be made immediately if an incident like the "Koeberg Scenario" has taken you by surprise, right now?

Although there are differences of opinion as to exactly what reactive steps should be taken, the list below contains the steps I would follow if I was caught unprepared.

2.1.1 STEP 1 – TRUST GOD

You may say "'Trust in God?' Is this honestly your first step?" For me personally, prayer is the very first step I would take, so I can find my refuge in God. Since these types of emergencies are usually out of our control, it may cause us to become disoriented and the natural human default reaction is to panic. These are a few of the steps that I recommend you take:

- **Put On Your Spiritual Armour** - Ephesians 6: 11-18
- **Trust In God** - Fear is the opposite of faith. Your faith will keep you calm when you trust in God.
- **Hold God to His Word** - Your prayers become more powerful when you remind God of His promises.
- **Believe that God will come through for you** - God has promised that nothing can take you out of His Hand.

The purpose of this particular chapter is to be brief, but you can read more about this in an earlier chapter ("*Faith over fear in uncertain time*").

"You will never know that God is all you need until you land up in a situation where God is all that you've got".

ANGUS BUCHAN

Mighty Men's Conference, 2008.

2.1.2 STEP 2 - REMAIN CALM AND BE POSITIVE

When a person is confronted with an emergency situation, human survival instinct usually causes people to react emotionally and impulsively. Disasters tend to have negative consequences, so it is important to remain calm and positive to be able to make prudent decisions and take preventative action where possible.

2.1.3 STEP 3 – FUEL AND CASH

- **Fill your car with petrol** - Most petrol garages have generators so the chances are good that the pumps, as well as the card machines, will still work for a short period of time. While filling up, ensure your tyres and spare tyre are inflated.
- **Make sure to have enough cash** - ATMs usually have a backup battery that will hold for at least a half-hour or hour. If the garage has an ATM, withdraw as much cash as possible.
- **Have gas bottles** - If you have a gas stove, get at least two 9kg gas bottles that fit comfortably behind your car's rear seat.



2.1.4 STEP 4 - VITAL SHOPPING

Take a trip to the supermarket and get the following non-perishable products. Because you have not done any preparation, get too much rather than too little. If card machines are not working, you can always pay in cash.

2.1.4.1 FOOD AND WATER

- **WHITE OR BROWN RICE** - White rice has a longer lifespan than brown rice, but brown rice has more nutritional benefits, so it's your choice.
- **BEANS** (Dried beans) - There is a variety to choose from. Beans will keep almost indefinitely if stored in a cool, dry place.
- **SUGAR** - White or brown sugar
- **SALT** - Packets or containers of iodised salt
- **SPICES** - Pepper, curry etc.
- **OIL** - Olive oil and cooking oil
- **CEREALS** - Oats, Weet-Bix and maize porridge
- **BABY** – Baby Formula
- **ANIMALS** - Pet food
- **MILK** - Powdered and Long Life
- **FLOUR** - Wheat flour and maize meal
- **CANNED FOOD** – Cans of fruits and vegetables, canned meat, fish and pasta
- **PLANT FATS** - Peanut butter (Contains more than 6,000 calories - a good option for survival food).
- **REFRESHMENTS** – Juice concentrate, chips, and chocolate
- **WATER** (5-liter containers) - Buy water containers that you can fill with tap water when you get home.



2.1.4.2 HYGIENE

- **PERSONAL** - Toothpaste, shampoo, soap, sanitary towels and enough toilet paper
- **BABY** - Disposable nappies and face cloths (Baby Wipes)
- **ANIMALS** - Flea and worm tablets
- **CLEANING AGENTS** - paper towels, dishwashing liquid, hand sanitizer, cleaning agent, and garbage bags

2.1.4.3 LIGHTING AND LIGHTERS

- **LIGHTING** – Candles and the best LED flashlight you can afford, with extra batteries and bulbs
- **LIGHTERS AND WOOD** – Enough matches, cigarette lighters, Blitz, and wood

2.1.5 STEP 5 – MEDICATION

If you have finished shopping, make a stop at the pharmacy. Some chain stores have their own where you can purchase the necessary items.

- **CHRONIC MEDICATION** - If you are dependent on chronic medication, you will unfortunately have to go to the specific pharmacy where your prescription is already on their computer system, or where the pharmacist knows you
- **SUPPLEMENTS** - Multivitamin and mineral supplements
- **TABLETS** - Painkillers
- **FIRST-AID KIT** - A First-Aid Kit containing the necessary dressings, bandages, and scissors.
- **DISINFECTANTS** - Dettol or Savlon



2.1.6 STEP 6 – AT HOME

- **INFORM YOUR FAMILY** – Let your family know what the situation is and what is happening.
- **FRIDGE AND FREEZER** - Open the refrigerator and freezer door as little as possible. Use these foods first before you use your emergency supplies. If something smells slightly off, get rid of it immediately.
- **WATER** - Due to a shortage of electricity, municipal pump stations as well as sewage works will stop. If you still have tap water available, fill up your water containers and water storage tanks with already treated municipal water. If you don't have water tanks, you can fill your sinks and bathtubs with tap water. Although this water may not be suitable for drinking purposes, it will be sufficient to wash your hands, dishes and to flush toilets.

2.1.7 STEP 7 – IN CASE OF EVACUATION

If the situation develops and it's necessary to leave your home, the following emergency list will come in handy. There will be more information on this topic later on in the manual.

- **PACK GOODS IN CONTAINERS OR CRATES** - Pack your goods in containers or crates ahead of time. This way, they will be easy to stack or load into a car. If you do not have containers or plastic crates, you could use suitcases, sports bags, or even school bags instead.
 - Pack your crates in order of use
 - Keep enough 5 litre bottles ready
 - Pack a bag or backpack with enough clothes and an extra pair of comfortable shoes.
 - Warm jackets and blankets can be packed in garbage bags.
- **CAR EQUIPMENT** - Pack your car with the necessary equipment, such as a compressor, Socket Set, wrenches, tire pressure gauge, battery cables, and a tow rope if you have them.

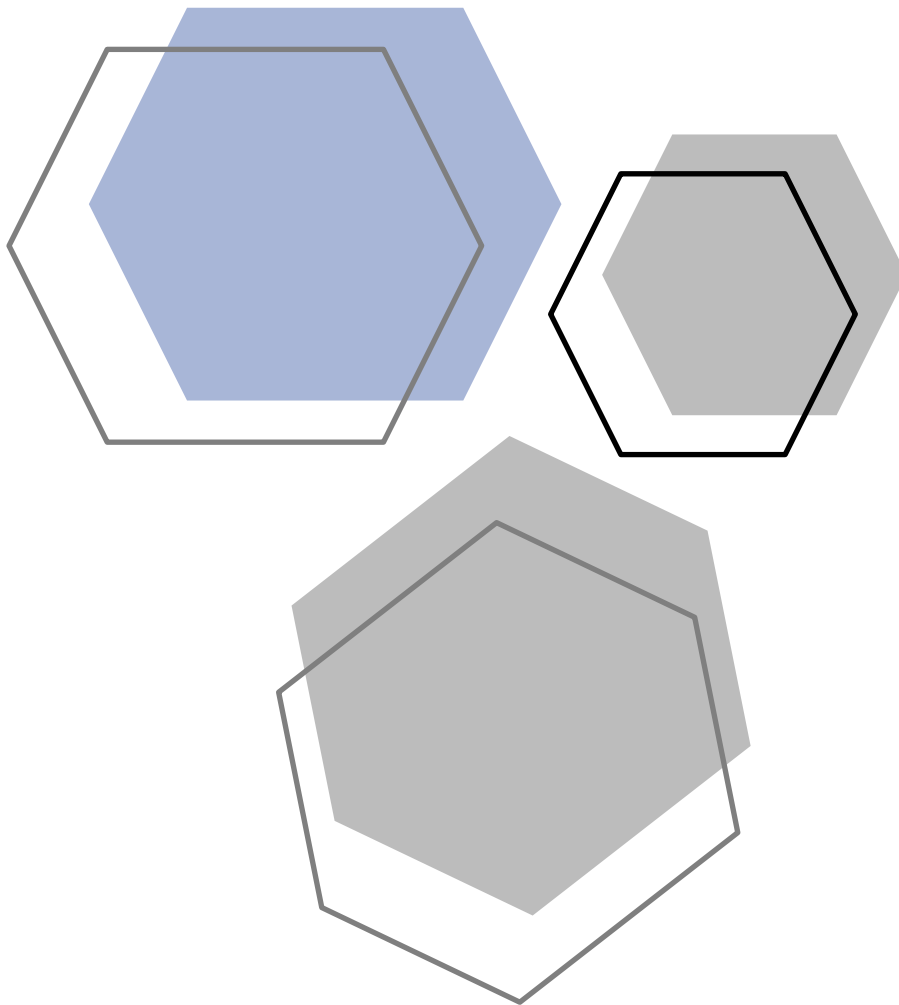


- **SELF-DEFENSE** - If you have a firearm, carry it on your person. Remember to bring along ammunition as well as your firearm license.
- **CHOOSE A ROUTE** - If you know your immediate environment well, try to stay away from main roads. Back roads usually have less traffic, and although they may sometimes cover a longer distance, it could get you to your destination sooner.
- **DECIDE ON A DESTINATION** - Avoid problem areas and drive to where it is safe. Try to stay with family or friends who live outside the danger zone (more on evacuation later in the book).

2.1.8 IN CLOSING

If you have only come to this point in the manual, and you have already followed and executed all the necessary steps, then you are already better prepared than 85% of society to face an emergency situation. Unfortunately, a reactive plan is not sufficient as a long-term solution, but it will buy you some time.

If a major incident happens and you are suffering when things go tough, put your full trust in God and hang on to His promises. In Joshua 1: 5, Deuteronomy 31: 6, and Hebrews 13: 5, the Lord promises us that He will never leave those who believe in Him. I pray that God will be merciful to us as a nation, and I also pray for God's richest blessings on you and your family. Amen.



2.2 A PROACTIVE EMERGENCY PLAN

WHAT NEEDS TO BE DONE TO STOP ZIMBABWE'S VIOLENT MELTDOWN?

News24 – 22/01/2019

“Zimbabwe is sliding into a violent meltdown and it’s expected to worsen, unless there are some serious interventions.

Days of mass protests have been characterised by violence, looting and heavy-handedness by the police and army. It has led to the deaths and injury of many people, largely in Harare and Bulawayo’s high-density areas. According to the Zimbabwe Human Rights NGO Forum, at least 12 people have been killed and thousands injured.

In addition to placing many urban areas under military siege, the government has also shut down social media platforms such as WhatsApp, Twitter and Facebook. These are viewed as the avenue through which the opposition and other civil society bodies have been communicating messages of “anarchy”. The internet has been shut down twice on separate occasions.

The deadly violence was triggered by President Emmerson Mnangagwa’s announcement of steep fuel price hikes on Saturday 9 January. Made in the dead of night, the announcement proved to be the straw that broke the camel’s back for a largely peaceful, if not somewhat passive, populace that has borne the brunt of two decades of economic meltdown. Mnangagwa’s regime increased the prices of fuel by a staggering 150%, making Zimbabwe’s fuel the most expensive in the world.

The sharp fuel hike prompted the country’s largest trade union body, the Zimbabwe Congress of Trade Unions, and other civil society bodies such as the Crisis Coalition, to call for a three-day mass stay away from work.

The reaction was hardly surprising. Conditions have become fertile for a massive militant mass revolt. Shortages of a lot of goods have become the order of the day. Long fuel queues, and incessant electricity and water cuts have not helped the situation for poverty-weary Zimbabweans.

Mnangagwa, and those he can rally behind him in the ruling Zanu-PF, need urgently to take steps towards forming a government of national unity, as has been done before in the country. This will require the opposition Movement for Democratic Change Alliance (MDC-Alliance) to get its act together by behaving maturely. Another urgent step that’s needed is that the country’s chaotic currency situation needs immediate resolution.”



Total chaos and confusion can be just as much of an enemy as the disaster that you experience. Together as a family you should decide beforehand what you will do in each of the different situations. Openly discuss the various possible threats that may affect the world as you know it. For instance, what if:

- Our country's economy collapses, and our currency loses value, as it was the case in Venezuela and Zimbabwe?
- Your safety is threatened by political violence?
- Fuel shortages continue for weeks, and the necessary food supplies cannot reach the towns or cities?
- People start looting shops and residential areas in search of food?
- Eskom's network fails and all refrigerated food spoils?
- Municipal services such as water purification, sewage, and garbage collection stops?
- Water restrictions become so bad and the area is declared a disaster area, as it almost happened in Cape Town where people have to stand in long lines to get clean drinking water?
- Fires destroy your property, as in the case of Knysna, Betty's Bay and Cape St. Francis?

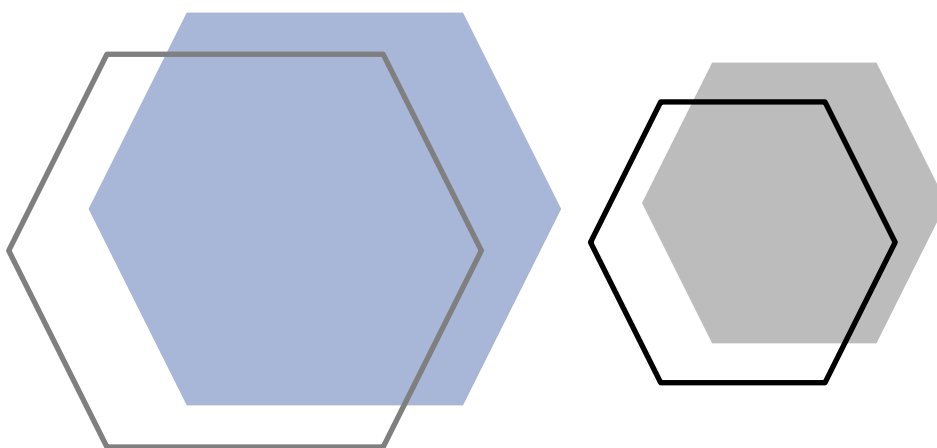
By the time this happens, it is already too late to plan. The situation in which you find yourself might force you and your family to respond reactively instead of carrying out a proactive plan. Preparing for a crisis or emergency situation ALWAYS begins with a plan. The following chapters of this manual are designed to help you to prepare and put your own proactive contingency plan together and give you and your family the guidance you need to prepare for disaster situations.

2.2.1 TALK ABOUT IT

Prepare your children by allowing them to help come up with a plan. They will be much more comfortable in an emergency if they know what to do and what to expect. The creation of various exercises is a good way to get family members involved and make them think interactively, which helps them stay focused and calm during an emergency situation.



As a family, discuss your emergency meeting places, contacts, and plans. Give your children the opportunity to express their feelings and allow them to ask questions so that they can fully understand the disaster plan. Ask yourselves the following questions:



2.2.2 HOW WILL YOU GET IN TOUCH WITH EACH OTHER?

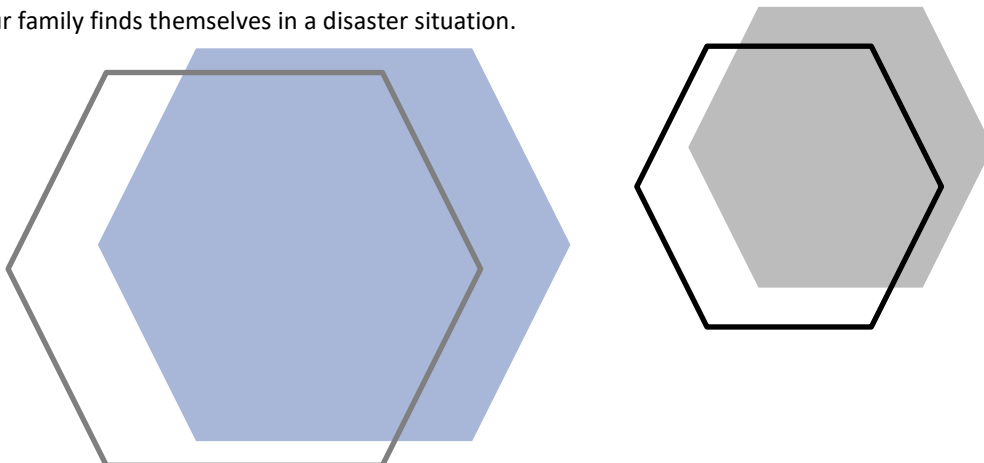


Everyone in the family should make sure they understand the emergency procedures. Typical examples of questions about emergency procedures will be:

- If the mobile phone networks are down and the children cannot contact you, the first plan is that the children wait at their school. If the school has to be urgently evacuated it can be agreed in advance that the children go to a friend's house.
- Dad picks up the youngest daughter from Primary School while mom picks up the two teenagers from their High School.
- Plan at least two alternative routes in case roads are blocked.

2.2.3 ABOUT CHILDREN AT SCHOOL

The education department requires that all schools have an emergency preparation plan in place regarding evacuation, storms, or other emergencies. The school's emergency plan should be taken into account when preparing your family plan. It is advisable to visit your children's teacher to understand the specific details of the school's emergency plan. The more information you have about what to expect, the more assurance you'll have when your family finds themselves in a disaster situation.



2.2.4 IMPORTANT INFORMATION TO MEMORISE

Since we conveniently started storing phone numbers on our cell phones, we have lost the habit of memorising phone numbers and addresses. In the chaos of a disaster, it's possible that both your wallet and cell phone might get lost and there might be chance that you can't get in touch with your loved ones. So, it is very important that the whole family at least memorise the following information:

- **CONTACT DETAILS** - Ensure that each member of the family knows each other's phone numbers, as well as an outside contact's details. Besides phone numbers, it is important that children know their parents' full names, as well as their home and e-mail addresses.
- **EMERGENCY NUMBERS** - Make sure your family knows the necessary emergency numbers (See the module on Communication for a list of emergency numbers).
- **PASSWORDS** - There may be several reasons why people decide to learn passwords and pass phrases. If you send messages through a stranger, it might be necessary that this person uses a pre-decided password to assure the family that you did indeed send the message.
- **SECRET PHRASE** - If circumstances prevent you from communicating directly with your family to let them know where you are, you can use pre-decided secret phrases. A typical example of this is detention or abduction (kidnapping). In war conditions, secret phrases are often used to indicate where troops are, or where to meet.
- **LEAVE A MESSAGE** - If you are separated, and there no means of communication, it is a good idea to leave a written note to a family member in case you had to evacuate and the person arrives at dead man's door. Place the note in a waterproof container or bottle and decide beforehand where it can be found.



2.2.5 SUMMARY

- **TALK ABOUT IT** - It is important that you, as the head of your household, realize that you and your family are not immune to potential disasters. It is important that you first talk about it with your family, and prepare yourself emotionally to respond proactively in a possible emergency situation.
- **PLAN TOGETHER AS A FAMILY** - Involve your children in terms of your preparation. Discuss with them the different types of disasters that may occur in your area and make your family a part of your disaster planning. There are several websites that offer further information on relevant topics, as well as fun methods and games to teach your children about what to do in case of an emergency.
- **DISCUSS IT WITH THEIR SCHOOL** - Ask your children's schools and/or day-care about their disaster plans. Examples of such questions:
 - How will the school communicate with the parents during a crisis?
 - Is there enough food, water, and emergency supplies for if a disaster were to hit the area?
 - Is the school prepared to serve as a shelter?
 - If you must evacuate, where will you take my child?

3 ESSENTIAL INFORMATION

As soon as you and your family have put together a basic plan, it's time to take action; start organising things. When a disaster hits, things can very quickly go wrong and cause panic, especially if family members get separated from each other.

The creation of an emergency identity card, as well as storing your medical information on your cell phone, will give a sense of comfort to you, your children, or vulnerable loved ones, in case you find yourself separated from each other. To simplify these unintended separations, suggest that each family member has their personal medical information as well as that of other family members handy at all times. This information will enable rescue workers and medical personnel to assist the victim much quicker and/or get them home safely. This information is especially important when it comes to children, the elderly, people with serious medical conditions as well as those who are mentally disabled.

3.1.1 MEDICAL INFORMATION ON CELLPHONE



Most medical ID apps for cell phones can provide emergency officials access to your medical information without having to type in your password. They can see information such as allergies, medical conditions, blood type, chronic diseases as well as the person's contact details in case of an emergency. If you have never put this information on your cell phone yet, you should do so as soon as possible.

SAFETY TIP

Protecting you and your family's personal information is more important today than ever before. Therefore, it is important that only essential information is recorded on the ID card or bracelet. Place the card in a safe place that can not easily be seen by strangers, like your wallet or the inside of your backpack. If a child is the cardholder, print only the first initial of their first name, for example: J. Muller. It is not even necessary to express the child's date of birth on the card, only the year of birth and age will be sufficient.



If a child is too young to carry a card during a crisis or emergency, it is proposed that the necessary information (name, contact number and parents' names) is written directly on the child's back with a permanent marker.

3.1.2 EMERGENCY ID CARDS OR WRISTBANDS

The possibility exists that you, for one reason or another, end up without your phone during a crisis. It is therefore important that you make an emergency identity card or wristband for yourself and your loved ones. It should include the following necessary medical information:

- Name and Surname
- Year of Birth and Age
- Medical Aid and Membership Number
- Blood Type
- Allergies and Medical Conditions
- For Children, the Parents' Contact Details
- The Numbers of your Out-Of-Area Contact

3.1.3 IMPORTANT INFORMATION



It is essential to compile the necessary checklists and instructions as well as to make copies of important documents. It's important keep these documents on hand, specifically for the day when you and your family find yourself in an emergency situation. Electronic copies of documents can easily be stored on your phone, memory stick (flash drive) or stored in the internet cloud. Examples of cyberspace repositories are Google Drive, Dropbox, and Microsoft OneDrive. In most cases, you can get free space at these repositories and every member of the family can upload their important documents and photos. These documents can be accessed through a mobile phone, laptop, or even at an Internet café.

However, it might happen that your phone gets stolen, the battery goes flat, or the internet becomes unavailable. So, it is very important that you also make hard copies of all important documents, and where necessary, even have them certified by a Commissioner of Oaths. The documents can then be bound together and placed in an A4-size zip-lock bag in order to protect them from moisture. The following table is a list of the most important documents:

LIST OF NECESSARY DOCUMENTS	
IDENTIFICATION	Passports and identification documents, extra ID photos, fingerprints of each family member, birth certificates, etc.
FAMILY PHOTOS	It may help to prove that a small child belongs to you in case you become separated
MAPS AND PROCEDURES	Emergency protocols, evacuation procedures and routes to destination.
SURVIVAL GUIDE	Survival Guide for family members regarding first aid, the building of a shelter, filtering of water, etc. Maps of the area showing emergency routes
SPIRITUAL PREPAREDNESS	A list of encouraging Bible verses for times of need to give hope to your family and to remind you of God's promises of unconditional love.
CONTACT DETAILS	Contact information of family and close friends
MEDICAL INFORMATION OF PETS	Veterinary records for pets (you may have to prove that they have been vaccinated during an evacuation scenario)
MEDICAL INFORMATION	Medical information for all family members; medicines they take, medical conditions, allergies, blood types, clinical guidelines, copies of prescriptions, etc.
OTHER DOCUMENTS	Copies of wills, car registration documents, firearms licenses & competency certificates, marriage certificates, bank account numbers and statements, payslips, mortgage documents, title deeds, life insurance, insurances, etc.
INVENTORIES AND POLICIES	Copies of life insurance, retirement annuities, home and car insurance as well as an inventory of your household, preferably with serial numbers

3.1.4 IMPORTANT EMERGENCY NUMBERS

Calling the right number can save a life. Here are some practical tips and important numbers you need to store on your phone:

- **South African Police** 10111 or 10177 (Our own 911)
- **Mobile emergency number** 112
- **Provincial Ambulance (Metro)** 10177
- **Private Ambulance (ER24)** 084124
- **Private Ambulance (Netcare)** 082 911
- **Fire Department Head Office** 021 590 1900

3.1.4.1 IMPORTANT TO REMEMBER

- You can make FREE emergency calls from your cell phone, even when you are out of airtime or without a SIM card.
- Emergency calls receive priority. When the network is overloaded, regular calls will be cut off to give emergency calls priority.
- Also store an outside-area contact number (see next point) on your phone under "ICE" (In Case of Emergency). This way, this person can inform your loved ones if you are injured and unable to communicate.

3.1.4.2 OUTSIDE-AREA CONTACT

Choose a person, preferably a friend or relative outside the immediate vicinity of where you live. This person may be less likely to be affected by the same disaster and can be a safe haven of communication.

Local communication may be temporarily unavailable due to a storm or natural disaster. A communication coordinator or outside-area contact can help re-unite family members that got separated. Each family member should have the phone number and contact details for this outside-area contact.

3.1.5 SUMMARY

1. **EMERGENCY INFORMATION** - Put your medical information on your mobile phone. Make an emergency Identity Card for each of you and order your identification bracelets.
2. **PHOTOS** – Regularly take photos of each family member in case you are separated during a disaster. This will help to identify each person if a search is needed. Place these pictures in a waterproof zip-lock bag and place it in each family member's emergency bag.
3. **IMPORTANT DOCUMENTS** – Always go to work organized and create a file with the necessary documentation. Remember to include a personal information card and a contact information card for each family member.
4. **DISABLED RELATIVES AND ANIMALS** - Please do not forget your pets. For family members who have special needs, you must ensure that sufficient provision is made in your emergency plan.

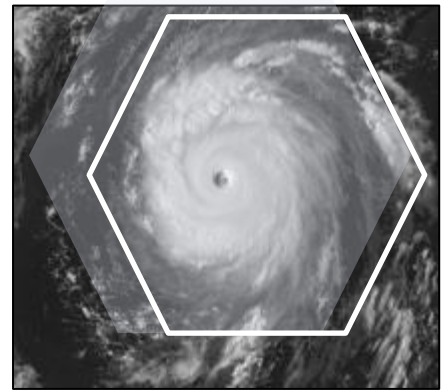
4 FOOD AND WATER

In 2005, in the USA, Hurricane Katrina left the city of New Orleans in ruins and the estimated damage amounted to more than 81 billion dollars. Hundreds of thousands of people had to evacuate the area and were at the mercy of the federal government and the Red Cross. Many people were stranded in homes, surrounded by water, without power or communication of any kind. Since any sign of civilization disappeared for weeks, the graceful old city fell victim to vandals and looters.

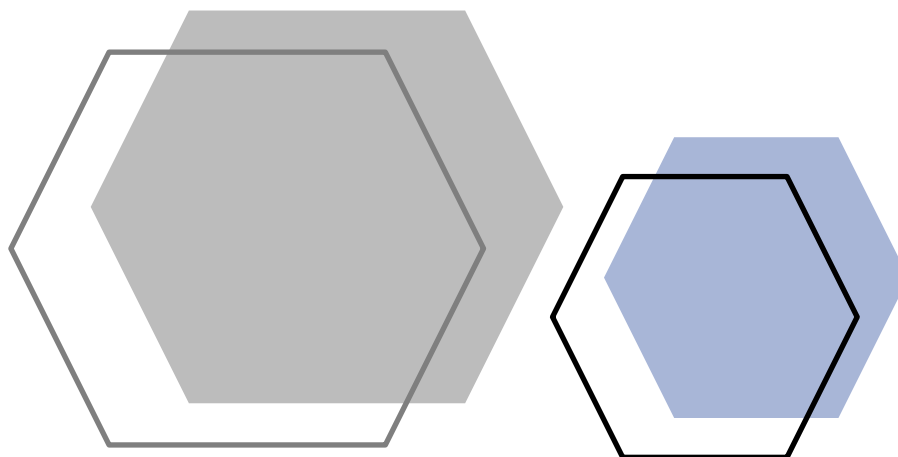
The government hastily set up temporary shelters in the superdome and the New Orleans convention centre for disaster victims. Thousands of others had to be squeezed in dwellings without adequate sanitation, food supplies and water.

Nobody was prepared for a disaster of this proportion - neither the residents, volunteers, emergency crews, nor the US government. The government and the Red Cross came under fire for they did not respond quickly enough when the emergency warnings were received.

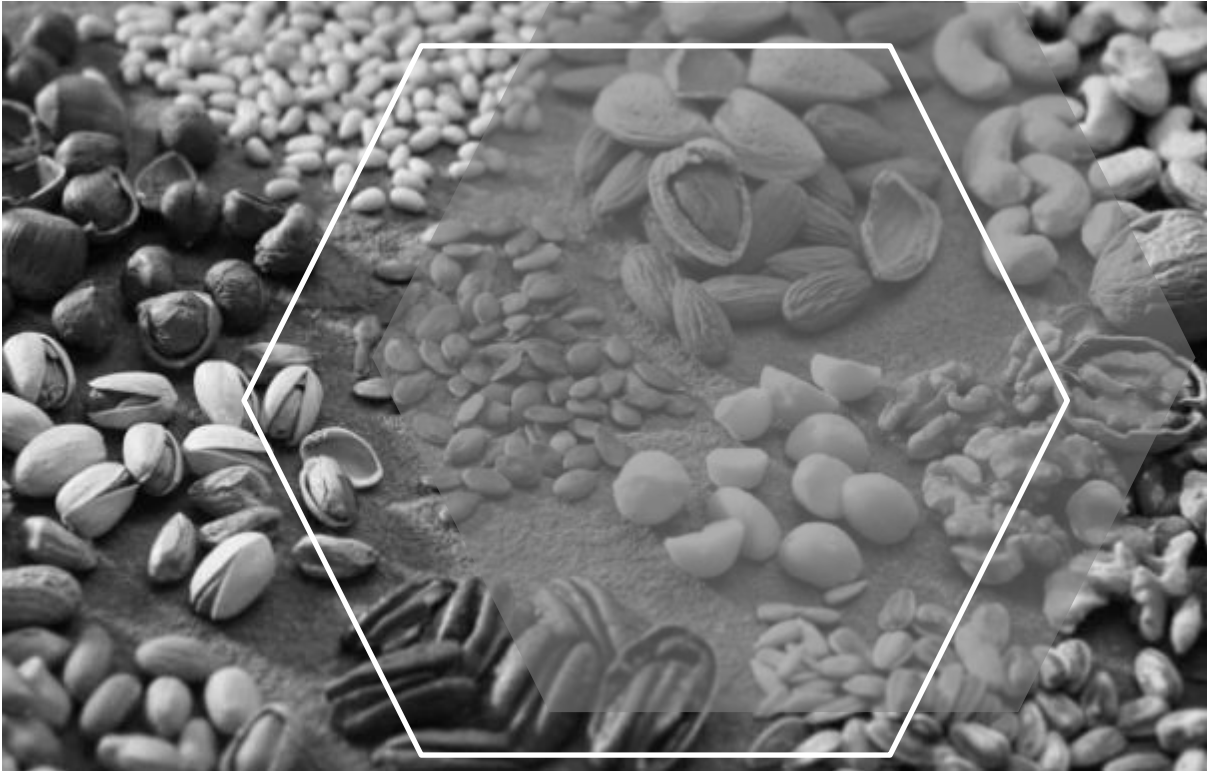
Due to the flooded, impassable roads and the total chaos that prevailed under which the rescue teams had to operate, the refugees who were housed in the superdome and New Orleans convention centre had to manage without supplies for four days. Those who chose to stay in their homes were without electricity, sewage or running water, and had to wait even longer for help to arrive.



The impact of Hurricane Katrina made all of us realize just how quickly a comfortable and civilized society can change to the status of a third world country, despite the support of the many people who made donations and did volunteer work to try to help the victims. For some of us, disasters like Katrina opened our eyes to the fact that we need to be more prepared.



4.1 FOOD



4.1.1 PLAN IN ADVANCE

During a disaster, it is possible that shops will end up running out of food after a few days. Fresh and perishable food that cannot be kept chilled can cause illnesses. It is therefore important that you allow for necessary food and water during your planning phase. A part of your financial budget should be allocated to for this purpose. By planning ahead of time and not buying it all at once, will drastically reduce the impact on your cash flow when you buy a few stock items each month. When a disaster strikes, it will most likely be too late to get to the supermarket in time - where you might have to fight your way through the stressed-out crowd to get the necessary supplies for your family.

4.1.2 PLAN ACCORDING TO YOUR BUDGET

Those of us who have already made a study of food supply will tell you that there are a variety of products available on the overseas market that is manufactured specially for survival and emergencies circumstances. The benefit of these foods (such as freeze-dried fruits and vegetables) is that they are very nutritious and retain their flavour. Unfortunately, they are very expensive and you might have to import it to South Africa.

Obtaining the necessary food supplies doesn't have to be an expensive endeavour. Gathering them gradually and steadily ahead of time will lessen the financial strain.

It is important to keep the following in mind when compiling your food supply:

- Do any of your family members have special dietary requirements?
- How long does your food supply need to last?
- How many people will you be providing for?
- How will you cook your food if there is no electricity?

Before you go to the supermarket and spend your money, first have a look to see what food you may have already. Most of us, at least, will have a few things like canned fruit and vegetables and a few dry goods such as rice and pasta, in stock. Use a checklist as a framework and you might be pleasantly surprised to know that you are already more prepared than you originally anticipated.

When shopping for the remaining items, study the nutritional value on the back of the pack. If you do get into an emergency situation, it is important to eat foods rich in vitamins and proteins to maintain good health and optimum energy.

SAFETY TIP

If you find yourself in a situation without electricity, it is important to use the food stored in the refrigerator and freezer first, before it spoils. Open your refrigerator / freezer as little as possible. The more often you open it, the harder it is for your fridge to regulate its temperature.

4.1.3 PLAN ACCORDING TO A MENU

The best way to plan your food supply is to put your heads together and establish an "emergency menu". This will help you better plan the kind and amount of food you should get while shopping. The menu should preferably be based on food that you like. No one wants to experiment with food during a crisis situation. Some favourite quick meals are easy to prepare. There are inexpensive items that can be stored without refrigeration and require very little or no energy to cook.

4.1.4 FACTORS TO CONSIDER

4.1.4.1 LOSS OF ELECTRICITY

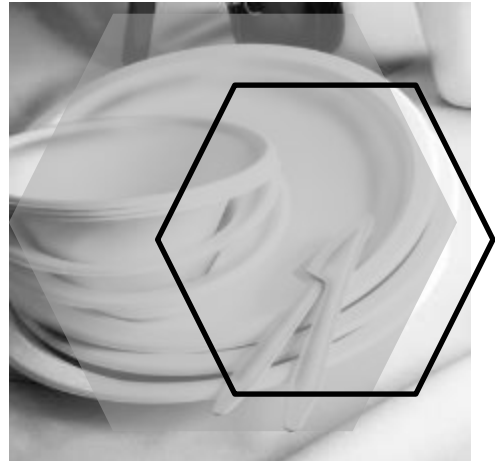


To further prepare your family, you should assume that you will be without electricity for a week, or even longer. It may happen that you won't have a stove or a freezer at your disposal. So, try to get stock that does not require extensive cooking, or need to be frozen. The easiest meals to prepare are foods to which you only need to add water, but there's limited choice for these kinds of meals. To have more options available, investing in a gas stove is a good idea. If your budget doesn't allow you to change your electric stove for a gas stove, it's highly recommended that you at least get a gas bottle with a burner. Further discussion on the topic can be found later in this Book: (See "LOSS OF ELECTRICITY")

4.1.4.2 KEEP DISHES TO A MINIMUM

It is important to keep preparations for meals as simple as possible. It is also important to restrict dishes to a minimum if your water supply is limited. Consider the following replacements:

- Styrofoam or paper plates
- Paper towels and napkins
- Plastic cutlery
- Plastic Cups
- Baby Wipes



4.1.5 GENERIC FOODITEMS

According to statistics provided by the United Nations, the minimum period you should plan for is two weeks. However, consider that it might take much longer than two weeks (perhaps up to two months) before sufficient stock may appear again on shops' shelves, and prices may then be significantly higher or even unaffordable. If you have at least two weeks of dry food and water in stock, you're more prepared than 95% of the population.

The following is a generic list of foods with their nutritional value and shelf life, and factors in the possibility that electricity might not be available. The quantities are determined by your family's needs and the meals you have planned. Even during a crisis situation, it is nice to be able to spoil your family, so there is nothing wrong with also stocking up on sweets and chocolates.

FOOD	CHARACTERISTICS	LIFE SPAN
DISTILLED OR BOTTLED WATER.	Although water is discussed at a later stage in this chapter, it is recommended to add it to your shopping list before you visit the shops to keep you from forgetting.	3 – 5 Years
CANNED LIQUIDS	It is important to remember to stock up on foods with high liquid content. <ul style="list-style-type: none"> ➤ Stewed tomatoes and vegetables, beef, or chicken stock can help give flavour to your food. ➤ It's also a good excuse to keep the necessary supplies of beer and wine. ➤ 	1 – 5 Years
MILK POWDER AND LONG-LIFE MILK	Long Life milk has a shelf life of between three to five years, if stored in a cool, dry place. Long Life milk that's already opened will last longer if stored at a cool temperature. Not all of us are very fond of powdered milk i.e. Cremora, but in an emergency, it will work for drinks like coffee. Powdered milk has a very long shelf life and in dry conditions can last up to 10 years or longer.	3 – 5 Years
EGGS AND POWDERED EGGS	Ordinary eggs usually have a shelf life of 3-5 weeks. To test whether the eggs are still edible, you can place the egg in a bowl of water. If it floats, it means that it has accumulated gas under the shell and therefore no longer safe to eat. If the egg sinks, it should still be fine. Powder eggs are usually without preservatives. Their shelf life is from 5 to 10 years, depending on whether they are stored in an airtight container in a cool, dry, place.	3 – 5 Weeks 5 – 10 Years

FOOD	CHARACTERISTICS	LIFE SPAN
TINNED MEAT AND FISH	<p>For most South Africans, meat is an important part of our daily diet. Meat contains necessary proteins, minerals, vitamins, and fat, and these nutrients have a beneficial effect on your well-being. However, some portions of meat, such as saturated fats, can have negative consequences for those who suffer from high cholesterol, so it is important to consider all the pros and cons when including meat in your diet.</p> <p>Canned salmon, sardines, and tuna are rich in important Omega-3 oils. Vienna sausages and ham can also be held for a reasonable period in a refrigerator, but if a power failure occurs, you should eat them first.</p>	Expiry date
CANNED FRUITS AND VEGETABLES	<p>Did you know fruit contains two times as many calories as vegetables? Peaches, packed in light syrup, offers a great calorie boost to your survival diet. The fluids also provide a valuable source of hydration, so please do not throw away the 'juice' in the cans! There are other options too, such as pineapple and tangerines. Tangerines are very rich in vitamin C.</p> <p>There is a wide variety of canned vegetables available on the market. Canned vegetables are very convenient because everything is already peeled and they contain essential nutrients. Canned olives, asparagus, and artichoke hearts will help you to make an easy pasta meal.</p>	Expiry date
COFFEE, TEA, HOT CHOCOLATE, AND CONCENTRATE	<p>As far as your survival needs are concerned, coffee will improve your blood circulation and the caffeine will keep you awake. Coffee is rich in antioxidants, which fight inflammation, and is also good for the morale.</p> <p>Tea is not only a warm and pleasant drink, but also can be used medicinally. In addition, many kinds of tea have anti-cancer properties (polyphenol), reduce the risk of blood clotting, and can even lower cholesterol levels. There are thousands of herbal teas available and each can be used to strengthen you, helping the body to protect against infections and even healing some. One of the most common ways to calm your nerves is drinking a cup of mint and chamomile tea before going to bed.</p> <p>There are several types of soft drink products on the market, but the shelf life of drinks in powder form is the longest. Sports drinks are the most popular and contain adequate electrolytes which help if you feel dehydrated. Some companies like Brookes Sweet-O or Kool-Aid are making soft drinks with artificial sweetener and can be used by diabetics.</p>	1 – 3 Years
CHICKEN AND BEEF STOCK AND VARIOUS VEGETABLE SOUPS	<p>Beef and chicken stock will greatly improve the taste of food. A variety of vegetable soup can be used for the same purpose and used to thicken watery food. On a cold night, there are few things as good as a hot cup of soup and a slice of bread.</p>	1 – 3 Years

FOOD	CHARACTERISTICS	LIFE SPAN
OIL	Oil is essential for a healthy body. Avocado oil as well as olive oil protects against heart disease by keeping bad cholesterol levels in check. It contains more mono-unsaturated fatty acids than any other natural oil and is easily digested. Sunflower oil is mainly used for cooking because it has a higher boiling point before it begins to smoke.	Longer than 10 years
PROCESSED CEREALS	Have enough cereals such as All Bran, Pro Nutro, Oats, cereals and Rice Krispies or whatever your family enjoys. Oats are the healthiest because they're very low in saturated fat. It is also a good source of fibre, which is especially important during "survival". To prepare oats, you need 4 cups of water for every cup of oats. A tip for preparing oats is to soak them overnight. This way, instead of taking 30 minutes, it will only take 9-12 minutes to prepare.	1 – 2 Years
OTHER STAPLES (WHEAT, CORN, AND RICE)	Staples are the foods that make up a dominant part of a standard diet. They are filling and will usually have a very long shelf life if stored in a cool, dry place. Apart from that, they are high in carbohydrates and include valuable proteins, minerals, and vitamins. Although brown rice is healthier, white rice has a longer shelf life because the process to make it white removes many impurities. Both rice and corn are rich in vitamins and minerals and they both contain antioxidants that are important to a healthy diet.	More than 10 years
PASTAS	Pasta is famous as the Italians' staple and is known for its versatility. Pasta is cooked in water and preparation takes about 10-12 minutes. Most pasta has a shelf life of more than 10 years since it contains no fat or moisture. It is important, though, to store them in a cool, dry place in airtight containers.	More than 10 years
COOKIES, BISCUITS, CRACKERS, AND RUSKS	The shelf life of these depends on a variety of factors (expiry date, preparation method, and how they are stored). Because of their relatively low cost and high calorie density, cookies are a popular dessert or snack. When stored in an airtight container in a cool, dry place, they will keep for four to six months.	4 – 6 months
RAISINS, DRIED FRUIT AND FRUIT ROLLS	Add more variety to your food by including dried peaches, apricots, apple rings, dates, mangoes, and pears, etc. Keep portions small, since dried fruit has the same number of calories before and after they dry and shrink. The nutritional value of a handful of raisins is equal to a full serving of fresh fruit. Most dried fruits are rich in protein, fibre, iron, and Vitamin C. Dried fruits are also rich in antioxidants which help keep you healthy.	More than 10 years

FOOD	CHARACTERISTICS	LIFE TIME
BEANS AND LEGUMES	<p>A stock of beans can include all kinds of dried beans, roasted beans as well as canned and light beans. Beans provide necessary fibre and energy. A 450g serving of beans contains about 1,250 calories.</p> <p>Legumes such as peas, lentils, peanuts and soybeans provide sufficient protein to supplement your diet.</p>	More than 10 years
NUTS & SEEDS	<p>Nuts are an expensive item but they have great nutritional value as well as a long shelf life. Nuts contain high levels of monounsaturated and polyunsaturated fats to restrain cholesterol. Nuts offer a good alternative for animal products because of the great amounts of protein they contain and are especially popular among vegetarians. Minerals such as magnesium, zinc, plant iron, calcium, copper, selenium, phosphorus and potassium are found in nuts and peanuts. Although peanuts own many of the characteristics of nuts, it is actually a legume like peas or beans.</p> <p>Seeds are usually added in small amounts as a side ingredient. Even in small quantities, they have rich nutritional value and contain protein, healthy fats, fibre, minerals like magnesium, potassium, calcium, iron and zinc plant.</p>	More than 10 years
HONEY	<p>Even if you personally don't use honey, it is wise to keep a few bottles in stock. Honey's shelf life is eternal and in times of crisis will give aged oatmeal, cereal or even tea renewed taste. Since raw honey contains antibodies, it is a good medicine for a sore throat and can even be used to cover wounds.</p>	More than 10 years
IODISED SALT	<p>Throughout history, salt has always been a desired commodity and is a very important part of our diet. Besides it enhancing a food's flavour, salt was also used to preserve food and inhibit the growth of bacteria. Iodised salt is important for preventing thyroid problems and helping regulate the body's fluid balance.</p>	More than 10 years
SUGAR	<p>Although brown sugar is healthier, white sugar will last longer because it contains fewer impurities. It is important to pour sugar in airtight plastic containers to protect it from moisture and ants.</p>	More than 10 years
DRIED SPICES & HERBS	<p>Spices and herbs are usually dried seeds, fruits, roots or leaves that are used primarily for flavour, colour, or preservation of food. Sometimes a spice is also used to hide bad smells.</p> <p>Spices have antimicrobial and medicinal properties. This explains why spices are more commonly used in warmer climates where people are more exposed to infectious diseases. Spices are prominently used in meat, especially for membranes that are more susceptible to decay.</p> <p>Select the basic spices and condiments necessary for your recipes. Avoid spices like curry that cause a strong odour. Although they have great taste, they can attract "human predators."</p>	More than 10 years

FOOD	CHARACTERISTICS	LIFE TIME
CONDIMENTS	Tomato sauce, Tabasco, soy sauce, Worcestershire sauce, mustard and mayonnaise are tasty condiments to add to things. Shelf life varies from product to product. Because condiments' shelf life is quickly shortened after it is opened, it is advisable to buy products in smaller packages.	1 – 3 Years
VITAMINS AND OTHER SUPPLEMENTS	It is important to try to keep your immune system and energy functioning optimally. While a multivitamin supplement is a necessity, additional supplements such as magnesium and calcium are also important to strengthen your frame.	1 – 3 Years
VINEGAR (white, red, balsamic as well as apple cider vinegar)	Vinegar is very versatile medium and can be used for cooking as well as for medical purposes. All you need for a tasty salad dressing or marinade is a little vinegar, a few drops of oil as well as a little salt and pepper. Vinegar can also be used to disinfect wounds. Apple cider vinegar serves as an appetite suppressant and also helps control blood sugar levels and food cravings. This will help to prevent you from overindulging. Apple cider vinegar can be used to detoxify and purify the liver, and that will help improve the blood circulation.	Longer than 10 years

4.1.6 KITCHEN EQUIPMENT

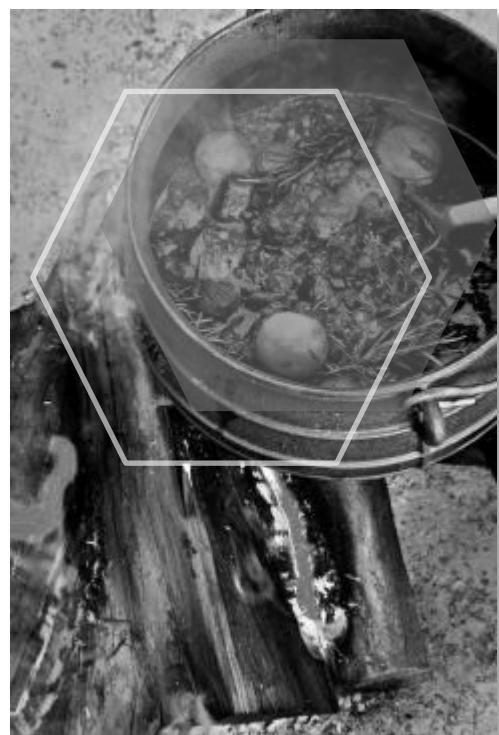
4.1.6.1 POTS AND PANS

Pots and pans are made of different metals, of which stainless steel and cast iron are the most desirable options.

CAST IRON - Pots made of cast iron are less hygienic than stainless steel pots and may need much scrubbing to get it clean. It is preferable to choose the types that have a laminated porcelain layer on the inside which aids in the cleaning of it, especially when it burned. Cast iron is the most suitable metal to use on an open fire or gas flame because it is hardier and retains heat the best. It is important to cover the pot in an oil layer after use to prevent it from rusting.

STAINLESS STEEL - The advantage of stainless steel is that it is very durable and won't easily rust or stain. For these reasons, it is easy to clean and requires less maintenance. Stainless steel pots are commonly available and affordable. When storing/carrying in a backpack, stainless steel pots are a better option than cast iron pots because of the weight.

CLAY OR EARTHEN POTS - Clay pots have been in use for thousands of years, storing food and water for long periods. Clay pots, however, are fragile and that makes it less suitable because it can break easily.



4.1.6.2 UTENSILS

It is advisable to rather use utensils that are made from stainless steel. Wood and plastic utensils is less hygienic than stainless steel. Plastic tools also have the risk of possibly melting if near an open flame or used in a hot pot. Wooden spoons are poor heat carriers and, for this reason, are popular where pots are concerned. Regardless of the material, it should always be washed very well with warm water and soap once it has been used, for obvious health reasons.



Basic Utensils

- Ladle
- Hole spoon
- Wooden spoon
- Teaspoons
- Beater
- Egg lifter
- Two-pronged fork

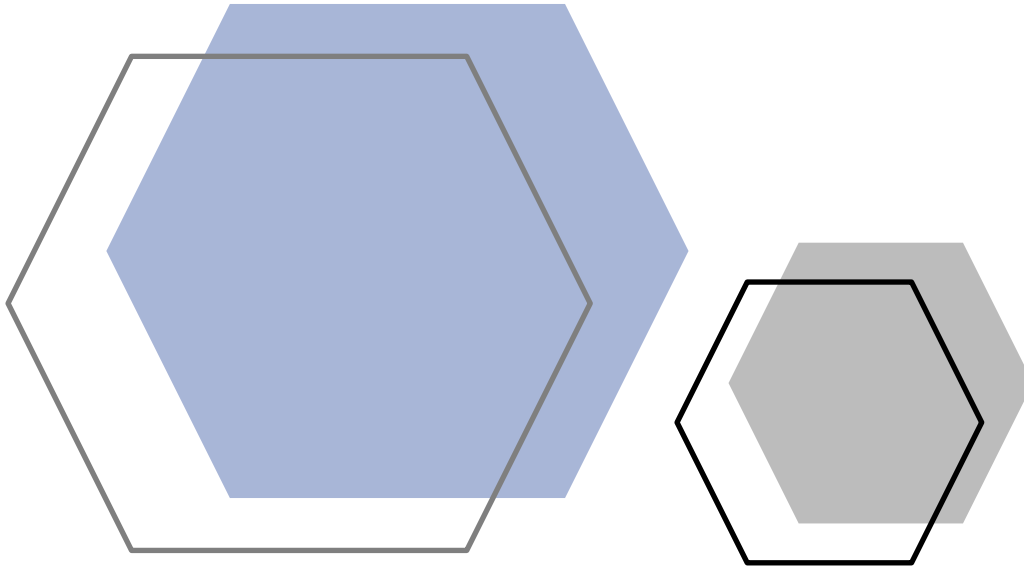
4.1.7 STORING YOUR FOOD SUPPLY

In a food storage location, there are four main causes of food spoilage that can destroy your hard work: (1) humidity, (2) air, (3) light and (4) temperature.

- 1) **HUMIDITY**- This is one of your biggest threats to your food storage. Humidity (or moisture) is bad for grain- mainly maize and wheat. Moisture causes cans to rust and is the main reason why you should not store food in your garage.
- 2) **AIR (OXYGEN)** - Bacteria need oxygen to survive in your storage of food. So, it's important to pack vacuum as much food as possible or to seal them in air-tight containers to try to keep oxygen out. Plastic is usually a deterrent for pests, but rats have strong teeth and have been known to chew through plastic. Since rats are more likely to go into your garage than into your home, store the plastic food containers preferably within enclosed room.
- 3) **LIGHT** – It will have a negative impact on the food and cause a deterioration of the nutritional value of food. This is the reason beer bottles are brown and wine bottles are green. It is therefore important to take your vacuum-packed stock and place them in dark plastic containers. The blue drums (see picture) can be easily found and is perfect for this purpose since they can easily be stacked on each other.



- 4) **TEMPERATURE** – The temperature is another factor that can affect the life of food. Heat causes the nutritional value and texture of food to deteriorate. A cool, moderate room temperature is the most ideal. In a non-insulated garage or attic, the temperature can drastically vary which thereby reduces the food's life and therefore is not appropriate for storage.



4.1.8 STORAGE OF ADDITIONAL STOCK

Regardless of the state of emergency in which you find yourself, it is always a good idea to store additional stock in an alternate location. There should always be additional inventory in an attic, basement, or even somewhere buried, to be retrieved at a later stage.

4.1.8.1 STORAGE IN A BASEMENT OR ATTIC

It is possible that your home might be broken into. So, it's possible that your stock may be stolen or damaged by vandals or looters. It is recommended, therefore, that additional stock be hidden somewhere like an attic, basement or in a locked room. Factors such as bright light, air, heat, and humidity can affect the life span of your stock and it is important to take into account when deciding on a room.

You can hide the entrance by placing a cabinet, panel or even a painting in front of the opening. It is important to keep this space closed at all times and put the key away in a safe place. Just make sure your family also knows where the entrance is and where to find the key.

4.1.8.2 UNDERGROUND STORAGE

It has happened in the past that people had to hastily leave their homes because of a flood or fire. Because natural disasters can easily catch you by surprise, the chances are that you will leave your home without any photographs, documents and means of communication as well as the necessary emergency supplies.

Saving additional rations with family or friends is not always a good idea. If they do not have the same mind-set for making preparations, the chances are great that they will use your stock when they find themselves in an emergency situation and have not personally prepared for it.



4.1.8.2.1 MAKING APPROPRIATE CONTAINERS

Storing food and water underground, in watertight containers, has been done for centuries. Of all the different options that you can choose from, a plastic (PVC) sewage or irrigation pipe is the most appropriate. These blue pipes come in different sizes or thicknesses and are sealed on either side with a custom cover (end cap). These already-made containers are waterproof, airtight, and lightweight, making it an effective option for storing food, water, and electronics underground separate from each other.

These pipes can be expensive and usually come in six-meter lengths. The already-made one has a diameter of 168mm and a length of 1.5 meters. The length makes the containers more mobile and portable.

4.1.8.2.2 BURIAL OF CONTAINERS

- The minimum depth advised is one metre to ensure that it does not break if/when a heavy vehicle drives over it.
- Containers should preferably be buried without anyone seeing you. It is important that you bury the containers near a landmark so you can dig it up without hassle later. Remember to have your family informed of where you buried it.
- If tools such as a drill or hammer are not available to cut open the container, a sharp stone can be useful for this purpose.



4.1.9 IMPORTANT THINGS TO REMEMBER

4.1.9.1 PROVISION FOR PETS

For those who have pets, it is important not to forget about them during your planning phase. Remember to include such things as these:

- Adequate food for at least a month
- Extra water for your pets
- Necessary medication if needed

4.1.9.2 SPECIAL NEEDS

Some family members as babies, people with health problems and the elderly may have additional needs and therefore must be kept in mind during emergency situations.

- Provision for babies as additional milk formula, disposable nappies, disposable wipes, Vaseline, Panadol, syrup to name only a few.
- Protein and calcium supplement as well as well as the necessary calorie drinks
- Chronic medication
- An extra pair of glasses

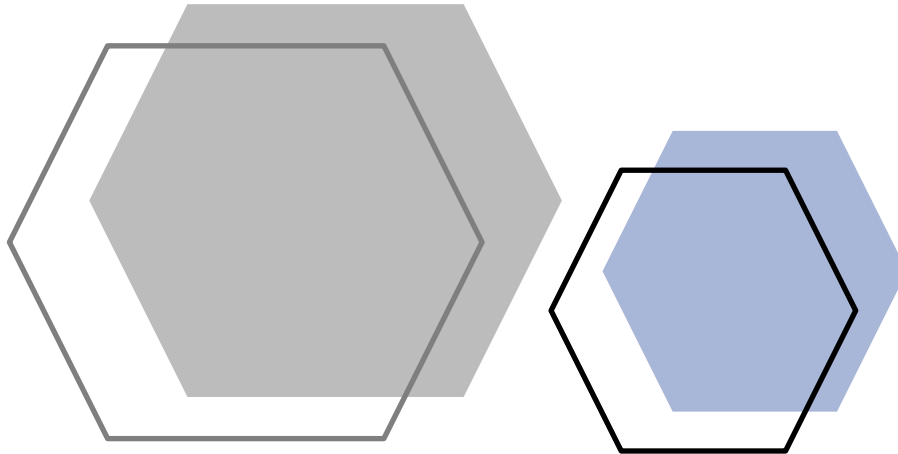
4.1.10 SUMMARY

1. Calculate the amount of food your family will need for types of emergencies that you're planning for.
2. Find a safe, dry area in the house to save your long-life food supplies. Those who lack of storage space should use creative methods to make enough space, such as extra shelf units up in their cupboards/closets in their extra bedrooms.
3. Try as much as possible to pack food content in zip-lock bags or vacuum-sealed packages before placing them in dark containers so they'll store for a longer period. Make sure that food lids are sealed correctly.

SHOPPING LIST

- Adequate food supply
- Dark plastic containers
- Vacuum sealing equipment
- Jiffy zip-lock bags
- Permanent marker
- Labels
- PVC pipe, caps and glue

4. The chances are that your bins will look the same. Mark each box clearly with a label and permanent marker and write the expiration dates on each crate.
5. If possible, rotate food products on a regular basis to prevent them reaching their expiry dates.
6. Those who have family members with special dietary needs, do further research on what type of food they may require.
7. Do not forget about your pets. Make sure you have sufficient provisions for them. Pets' food can also be stored in plastic containers to ensure it lasts as long as possible.



CAPE TOWN WATER CRISIS

Wikipedia, the free encyclopaedia

"The Cape Town water crisis in South Africa was a period of severe water shortage in the Western Cape region, most notably affecting the City of Cape Town. While dam water levels have been declining since 2015, the Cape Town water crisis peaked during mid-2017 to mid-2018 where water levels hovered between 15 to 30 per cent of total dam capacity. In late-2017, there were first mentions of plans for "Day Zero", a shorthand reference for the day when the water level of the major dams supplying the city fell below 13.5 per cent. "Day Zero" would herald the start of Level 7 water restrictions, where municipal water supplies would largely be switched off and residents would have to queue for their daily ration of water, making the City of Cape Town the first major city in the world to potentially run out of water.

The City of Cape Town implemented significant water restrictions in a bid to curb water usage, and succeeded in reducing its daily water usage by more than half to around 500 million Liters (130,000,000 US gal) per day in March 2018. The fall in water usage, combined with strong rains in June 2018, led dam levels to steadily increase, and for the city to continually postpone its estimate for "Day Zero". In September 2018, with dam levels close to 70 per cent, the city began easing water restrictions, indicating that the worst of the water crisis is over. "...And residents of Cape Town were limited to 50 litres of water per person per day, the public health professions expressed concern of communicable diseases spreading quickly by faecal-oral contamination due to a reduction in necessary handwashing. Health officials warn that water-borne diseases such as cholera, hepatitis A, and typhoid would probably become more common as people start storing their water in contaminated containers.

Inadequate sanitation is a major cause of disease, e.g. diarrhoea, which kills 2.2 million each year, with most deaths being among children younger than 5 years. With a population around 3.81 million and a population density of about 1,530 per square kilometre, diseases like cholera and others will rapidly spread without proper sanitation, especially in the poor neighbourhoods of Cape Town. Insects multiple in dirty water and then act as vectors for spreading community diseases."



The human body is about 60% water, and water is vital for people, animals, and plants to survive. The amount of water that the human body requires can vary according to age and gender. In general, an adult male requires about 3 litres per day, while an adult woman needs about 2.2 litres daily.

4.2.1 STORE ENOUGH WATER

The general rule is that you need about 5 litres of water per person per day. One half you drink, while the other half is used for hygiene. The amount of water required also depends on the circumstances in which you find yourself. If you find yourself in a warm climate, or someone is pregnant or nursing in your group, you will need to make provision for more water.

So, we assume that storage of 5 litres per day is acceptable measure. The big question is, how many days do you have to make provision for? The United Nations Health Department recommends that you should at least make provision for three days. Three days is only a starting point for we already know that the after effect of disasters may take even longer than that. After many hours of reading regarding the subject, the general consensus seems to be that you have to make provision for water for at least two weeks. This means that a single person must have 15 litres of available, so a family of four that means you will need 60 litres of water.

Whether you store more than the average two weeks – the minimum also depends on available storage space. Due to limited storage space, two weeks of stock for the ordinary man in the street may be sufficient.

4.2.2 STORAGE OF WATER

To store water for the long run, you must have sufficient sterile containers. The common practice is to use food-grade plastic bottles or glass bottles. Stainless steel is another option, but unfortunately, you will not be able to treat your stored water with chlorine as the chlorine will corrode stainless steel. In that case, just make sure you tightly seal your water to prevent any bacteria or impurities from contaminating your drinking water.

4.2.2.1 BOTTLED WATER AND CONTAINERS

PURCHASED WATER BOTTLES - The easiest (but slightly more expensive) way to reach your water storage quota is to simply buy prepacked bottled water. It's clean, well-sealed, and is available in sterile, plastic bottles. In addition, its bottled water is light and easy to handle when circumstances force you to evacuate. Purchased water is also a good option and takes up limited space as they can even be stored under your bed.

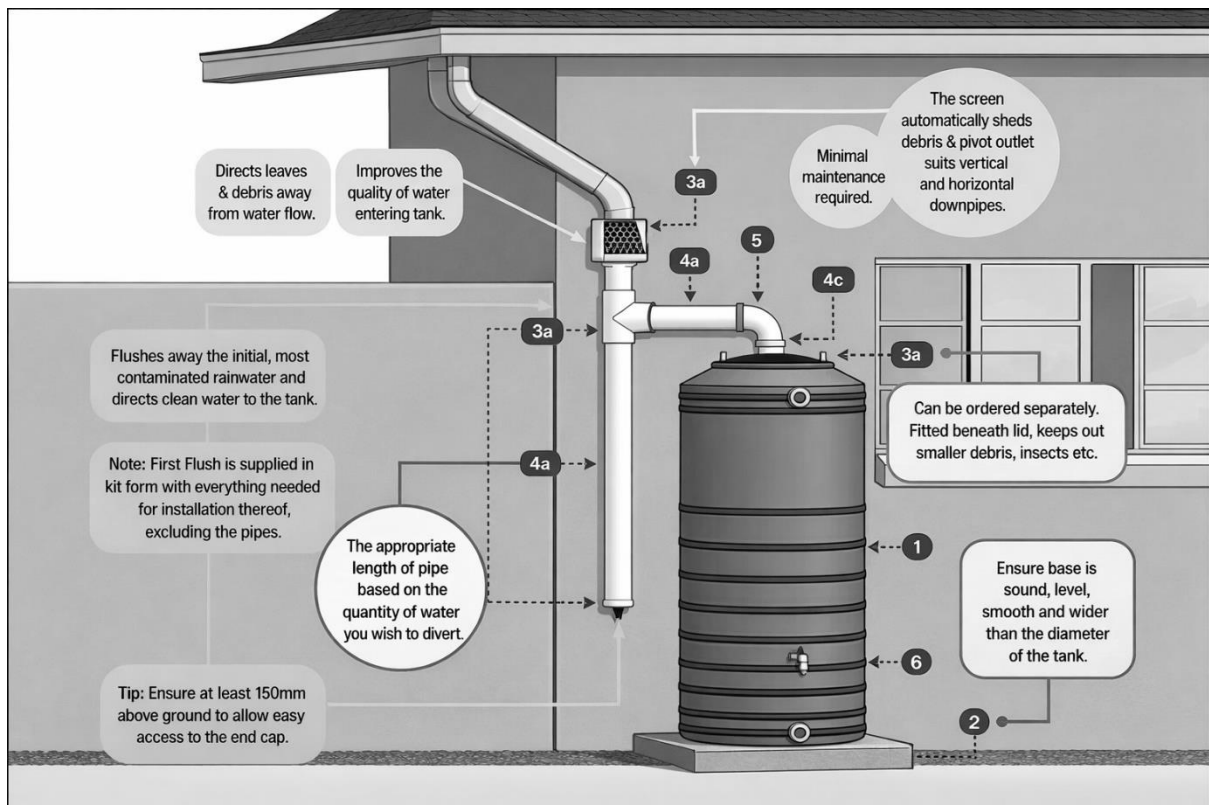
EMPTY SODA AND WATER BOTTLES - If you are a bit stingier, you can fill empty soda or water bottles at your tap with water. Be sure your bottles are cleaned thoroughly and is sterilized with boiling water before you fill them with water. Water containers should preferably not be transparent containers so as to avoid algae growth in the water. Where you have limited space, you can stack the kegs together on their sides. Just make sure the containers are properly closed to prevent leaks.

SAFETY TIP

Don't store water in containers previously used for milk or juice. Even if you try to clean these plastic containers thoroughly, sugars and proteins always stay behind and that's a perfect space for bacteria to grow.

4.2.2.2 WATER TANKS

Expense and space are the two main factors when it comes to storing water over a long period of time. Large water tanks are expensive, but in the long run, you cannot put a price on something your life depends on. 'Slim line' tanks are usually more expensive than regular tanks but it's a good idea to buy one if you have limited space. Most tank manufacturers offer a variety of solutions for a variety of applications, including domestic, agricultural, and industrial. Municipalities often rely on electric pumps to pump water into reservoirs or storage tanks, from where it is distributed to household taps. If the City is not able to refill their storage tanks from the reservoirs, taps can run dry in less than two days. It is therefore important to store enough fresh water to carry your family through a crisis period.



4.2.2.3 THE COLLECTION OF RAINWATER

The collection of fresh rainwater is dependent on you having a collection tank. It requires the installation of a pre-filtration solution as well as appropriate gutters and pipes to carry rainwater to the tank. This way you are not dependent on regulated water sources.

It is extremely important to keep the water tank clean from leaves and other impurities that may come from your roof. There are three pre-filtering options that improve the quality of the water in your tank:

- A Tank Screen (mesh) that replaces the tank's current cover.
- A Leaf Eater
- A First Flush Diverter

4.2.2.4 MAINTENANCE OF YOUR WATER TANK

Although rainwater systems are relatively maintenance-free, there are certain things you must do regularly to extend your rainwater system's life, to reduce possible damage, and to ensure that you receive the maximum benefits.

- 1) **CLEAN ROOFS** - Roofs must be cleaned regularly to avoid the water collecting dirt. Dust, leaves, animal excrement, and dead insects accumulate on the roof during dry weather. It is therefore important to ensure that the roof is cleaned at the start of the rainy season, followed by a monthly check-up to keep it clean.
- 2) **REMOVE OVERHANGING BRANCHES** - Make sure that branches hanging over the roof are cut regularly.
- 3) **Clean your gutters** - Make sure the gutters are free of leaves. It's a good idea to install a sieve into the tank entrance.
- 4) **REGULATE YOUR PRE-FILTRATION OR LEAF CATCHER** – Regularly inspect the pre-filtering devices to ensure that they are free of leaves and allowing the rainwater to flow through.
- 5) **CHECK YOUR FLUSH DIVERTER** - If a flush diverter is installed, you should check and clean it monthly.
- 6) **KEEP YOUR TANK CLEAN**- Inspect the inside of your tank every 3 months to ensure that leaves haven't piled up at the bottom of the tank. A well-designed rain water system should not let leaves and other material end up in the tank.
- 7) **CHECK THE WATER QUALITY** - Remember that water that is collected from your roof will not always be clean. If you want to use rainwater for drinking purposes, consult an installer who has experience in installing water filtration systems. For irrigation, however, this water is ideal...

4.2.3 WATER TREATMENT

Water treatment is any process that improves the quality of water to make it more acceptable for a specific end use, for example to drink it, with flushing toilets, washing dishes and wash clothes including the safe return of water to the environment. The treatment of water to remove contamination or reduce their concentration so that the water is suitable for extended uses.

4.2.3.1 BLEACH (JIK)

Bleach has a strong odour and contains chlorine that kills harmful bacteria. Avoid scented bleach and bleach which contains dyes and other additives. Water with any impurities should preferably be filtered before bleach is added.

- **STEP 1:** Buy a bottle 'Jik' Jewel or any kind of bleach at your local store.
- **STEP 2:** Add a teaspoon of bleach to every 20 litres of water.
- **STEP 3:** Leave overnight, or for a minimum of 2 hours.
- **STEP 4:** Keep the water covered with a cloth or lid to keep insects and dirt keep out.

WARNING

CHLORINE AND BLEACHING AGENTS

Concentrated chlorine and bleach are highly toxic. Poisoning can occur when they are handled without proper protection, swallowed, or inhaled.

- If chlorine gas is inhaled, immediately leave the room and move outside where there is clean air.
- If chlorine has landed on your skin or clothing, immediately remove your clothes and wash your entire body with soap and water.
- For burning eyes or blurred vision, immediately remove any contact lenses and rinse your eyes thoroughly with clean water.
- If you possibly swallow chlorine or bleaching agent by accident, avoid any liquids and try to vomit it out.

After following these steps, you should immediately seek medical advice before taking any further action.

4.2.3.2 IODENE

This refers to general household iodine (or "tincture of iodine"). You may have iodine in your medicine cupboard or first aid kit. Add five drops of 2% tincture of iodine in each quarter of litre of water you disinfectant. If the water is cloudy or coloured, add 10 drops of iodine. Stir and allow the water to settle for at least 30 minutes before use.

4.2.3.3 CHLORINE

If you're not too keen on the idea of using bleach, then you can use chlorine solution instead. When chlorine is handled, it is advisable to wear rubber gloves and to work in well-ventilated room with a mask.

Add a heaped teaspoon of swimming pool chlorine (HTH) to two litres of water and stir until dissolved. The mixture will produce a chlorine solution of about 500 milligrams per litre of water. To disinfect water, add one part of this chlorine solution to 100 parts water. If the chlorine taste is too strong, pour the treated water back and forth from one container to another to lessen the strong smell and for some of the chlorine to evaporate. Let it stand for a few more hours before you use it.

4.2.3.4 WATER PURIFICATION TABLETS

You can disinfect water in smaller quantities with tablets containing chlorine, iodine, chlorine dioxide or other disinfectants. These tablets are available at most pharmacies and outdoor stores and can also be ordered online. Please follow the instructions on the product label as the dose of tablets may differ from variant to variant.

4.2.4 WATER FILTRATION SYSTEMS

There was a time when we were all drinking water directly from the tap. But because of harmful bacteria, high levels of chlorine, and a bad taste and smell, many people began to use only bottled water. It is expensive and once you realize that bottling companies have fewer regulations than those regulating tap water, you will certainly start looking at alternative solutions. The most cost-effective option is to buy a water filter.

4.2.4.1.1 FILTRATION JUGS

Most water-filter jugs are simple containers with built-in filters (which have to be replaced, depending on the frequency of use). Some of the jugs purify water by running it through activated charcoal while others rely on higher technology.

4.2.4.1.2 REVERSE OSMOSIS FILTERS

To treat a larger volume of drinking water, the ideal solution is installing a reverse osmosis system. This is the best filtration system on the market to hook up to your municipal or rainwater system. A reverse osmosis system removes all the chemicals and trace elements from the water in order to improve the taste and smell. In the final stage of the osmosis process, the necessary minerals are put back in the water. Then you will get clean drinking water with all the necessary minerals, but without the presence of harmful substances.



4.2.5 GREY WATER

Water that has already been used in your household becomes what is called grey or black water. Grey water gets its name from its cloudy appearance. Many households divert grey water from showers, washing machines, and sinks into an underground storage tank and it's pumped out into your garden. Your vegetables and your lawn will love grey water - it even contains nutrients for the plants. When reusing dishwater, though, you must be careful because it contains a lot of grease which will accumulate and over time makes it harder for soil to absorb water.

SAFETY TIP

Grey water is never safe to drink. Contact with grey water should be avoided because it contains bacteria that may affect your health.



Limit the use of soap and detergents that have high phosphate content. Although plants need phosphates to grow, in the long run too much of it is not good for them. Most modern "green" washing powders and biodegradable soaps won't harm your garden. Keep bleach and other harmful detergents out of your grey water as much as possible.

Grey water in a tank is anaerobic – i.e. it has a shortage of oxygen - and will begin to smell bad after a day. To avoid this, it should be used immediately (as with a basic grey water system), or you can add oxygen with an air pump (as with the advanced system). Another option is to add bacteria to your grey water that will neutralise the smell (for both systems). These bacteria are on sale at Maskam Water and other water purifying companies. Just pour it in with the water that runs into your grey water tank.

4.2.5.1 OTHER METHODS FOR COLLECTING GREY WATER

- Collect your shower water in a plastic basin; afterwards you can use that water to flush the toilet or water your garden. The same rule applies to bath water.
- Use a plastic basin in the sink when you wash the dishes. Cleaner dishwater, which does not contain much grease, can definitely be used in the garden.
- Cut the pipe connection from your bath and sink before it reaches the sewer system. Connect a pipe of at least 40 mm onto this and run it straight into the garden.
- A filter will prevent clogging in your irrigation system and sprinklers. Make sure it is cleaned regularly.

4.2.6 SUMMARY

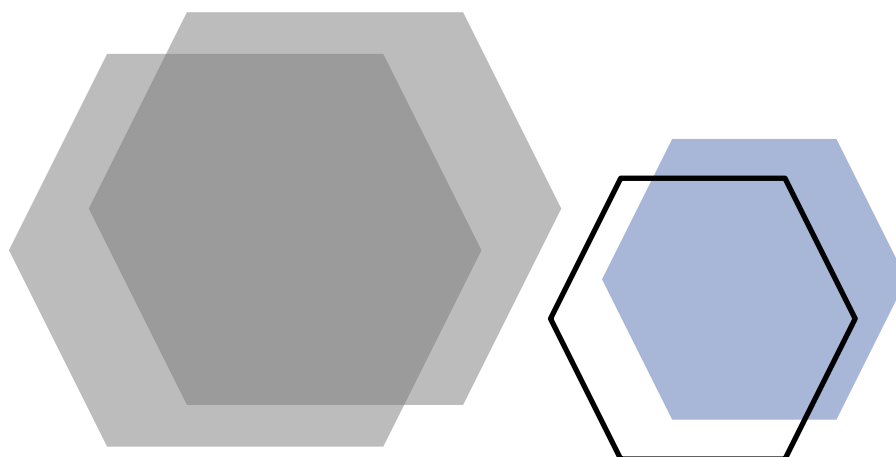
1. Determine how much fresh water you and your family will need. Besides drinking water, take into account what will be used to cook, to wash the dishes, and to flush the toilets.
2. Research the different filtration systems to determine what type is most suitable for you and your family.
3. Obtain more information on natural ways to filter water. YouTube has a lot of information on how to filter water for survival situations.
4. To avoid poisoning by chlorine and bleach, make sure you understand the ratio of chlorine/bleach to water.
5. Make sure you have enough medicine in stock to treat diarrhoea caused by contaminated water.

SHOPPING LIST

- 5 liters of water per person per day
- Opaque (blocks light completely) water containers or water tanks
- Filtration system that you can afford
- Water purification tablets (available at Cape Union Mart)
- Bleach
- Chlorine granules (available at most supermarkets or pool stores)
-

MEDICATION FOR CONTAMINATED WATER

- Anti-diarrhoea medicine
- Electrolyte and rehydration powders
- Vitamins to accelerate the recovery process.



GETTING BY AFTER FOUR YEARS OF WAR IN UKRAINE

NRC | Published 16. Apr 2018

Anastasia Ursova lives in a small village with her husband Mikhail and their two young sons. But it was not always like that. One night in 2014, they took the last train to escape from heavy artillery attacks. Anastasia now 28, comes from Alchevsk, 50 kilometres outside of the Ukrainian city, Luhansk. The town has been controlled by Russian separatists for four years.

The war in Ukraine has lasted four years. Anastasia and her family are four out of 4.4 million men, women and children who are paying the price for it. Almost 40 per cent of the people living along the 'contact line' are affected by shelling every day, one of the most mine-contaminated stretches of land in the world. Last year, more than 230 people were either killed or injured by mines. Those and other dangers force civilians to flee from their homes.

Many Ukrainians grow vegetables in their gardens, but due to Ukraine's harsh winter conditions, the harvest is never enough to get by. Food insecurity has doubled since 2016, leaving 1.2 million people without enough to eat due to lack of funding. Ukraine is one of the world's most underfunded emergencies, with only 35 per cent of the humanitarian appeal covered in 2017.

"We can't rely on humanitarian aid. For the four years of war, it's been four times only that we received assistance from international organisations: food packages and hygiene items. Sometimes we were refused, because we don't have certificates of internally displaced. It was in November when we received the food aid for the last time. And we were told there'll be no more."



Depending on how long a disaster lasts, the reality is that you usually only accumulated food for a limited time. So, one has to look at alternative methods such as planting your own vegetable garden in order to be self-sufficient.

It is a very satisfying to grow your own food. Small-scale farming can vary from one person to another, depending on the space you have available. A vegetable garden in your backyard, greenhouse, and patio or even on your apartment's windowsill can be a very rewarding activity.

In South Africa, the cultivation of herbs has become a fashionable activity. You can create a vegetable garden that meets the needs of a family of four in a space as large as your garage door. Climate does play a role. In

colder areas, fast-growing vegetables will perform better and usually have a quicker yield. In a warmer climate you can grow veggies in a container without too much worry and effort throughout the year.

4.3.1 PLANTING OF FRESH VEGETABLES

Some vegetable seeds can be sown directly in prepared vegetable beds, but others must first be sown in boxes or in a separate seedbed and made strong before they can go to the vegetable garden. The latter is usually also the kind that you can buy in ready-to-grow seedlings in nursery trays. Vegetables that you can sow directly are beans, beets, carrots, celery, peas, potato nuts (in winter rainfall regions), radishes and turnips.

4.3.1.1 PLANTING TIPS

- **SUMMER RAINFALL AREAS:** Plant summer crops in spring when the frost is over. Winter vegetables should be planted after the worst heat of summer and early autumn.
- **WINTER RAINFALL AREAS:** Because the growing season is so short, you should start as early as possible.
- **LARGE SEEDS:** Sow them about 30 cm apart, 1-3 cm deep (depending on the size of the seed).
- **FINE SEEDS:** Carrots, beet and turnips should generally be sown in foreheads of about 15 cm apart and 1 cm deep. Lightly water the seeds twice a day to keep the soil moist until they germinate. The plants will emerge dense at first and you should thin it out so that the final distance between two plants is about 5 cm for roots, 7 cm for beet and 5 cm for turnips.
- **DON'T SOW TOO MANY SEEDS AT A TIME** - It's much better to sow seeds with an interval of three to four weeks. This way the harvesting season will last longer and you won't be stuck with too many vegetables all ready to harvest at the same time.



4.3.2 VEGETABLE PLANTING GUIDE

On the consecutive page you will find a generic table shows the seasons for vegetables in the southern hemisphere. Note that seasons may vary between inland and coastal areas so you might have to adjust it a month or two accordingly. The table indicates whether crops grow in sun or shade as well as the time required for seedlings to reach full maturity.

Planting Guide															
South Africa - summer rainfall climate zones															
Plants	Space plants	Harvest in	Exposure	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Amaranth	50cm apart	7 - 8 weeks	○									P	P		
Asparagus	20 - 40cm apart	2 - 3 years	○	Tr							P	P	P	P	P
Asparagus pea	20 - 25cm apart	8 - 11 weeks	○									P	P	P	P
Basil	20 - 25cm apart	10 - 12 weeks	○	●	P	P	P	P				P	P	P	P
Beans - climbing	10 - 20cm apart	9 - 11 weeks	○	●							P	P	P	P	P
Beans - dwarf	5 - 15cm apart	7 - 10 weeks	○	●	P						P	P	P	P	P
Beetroot	20 - 23 cm apart	7 - 10 weeks	○	●	P	P	P	P			P	P	P	P	P
Broccoli	35 - 50cm apart	10 - 16 weeks	○	●	P									P	P
Brussel sprouts	45 - 60cm apart	14 - 28 weeks	●	●	P	P	Tr								
Cabbage	50 - 75cm apart	11 - 15 weeks	○		P	P	P	Tr		P	P	P	P	P	P
Cape Gooseberry	50cm apart	14 - 16 weeks	○								ST	Tr	Tr		
Capsicum	100 - 150cm apart	10 - 12 weeks	○								P	P	P	Tr	
Carrot	25 - 30cm apart	12 - 18 weeks	○	●	P	P	P	P			P	P	P	P	P
Cauliflower	60 - 100cm apart	15 - 22 weeks	○	●	P	P	P							P	P
Celery	15 - 30cm apart	17 - 18 weeks	○			ST	Tr	Tr			ST	Tr	Tr	Tr	Tr
Chilli pepper	40 - 50cm apart	9 - 11 weeks	○								ST	Tr	Tr	Tr	
Chives	5cm apart	7 - 11 weeks	○		Tr	Tr	Tr	Tr	Tr			Tr	Tr	Tr	Tr
Coriander	Thin to 45cm	30 - 45 days	○		P	P						P	P	P	P
Cucumber	40 - 60cm apart	8 - 10 weeks	○									P	P	P	P
Dill	15cm apart	8 - 12 weeks	○	●	Tr	Tr	Tr	Tr	Tr			ST	Tr	Tr	Tr
Eggplant	60 - 75cm apart	12 - 15 weeks	○								P	P	P	Tr	
Fennel	Thin to 30cm	14 - 15 weeks	○									P	P	P	
French tarragon	40 - 60cm apart	30 - 40 days	○	●	Tr	Tr	Tr	Tr	Tr			ST	Tr	Tr	Tr
Garlic	10 - 12cm apart	17 - 25 weeks	○	●		P	P	P							
Ginger	15cm apart	Approx. 25 weeks	○									P	P	P	
Globe artichokes	160 - 200cm apart	42 - 57 weeks	○		ST		Tr	Tr	Tr						
Leeks	10 - 15cm apart	15 - 18 weeks	○		P			Tr							
Lemon balm	25cm apart	8 - 10 weeks	○	●							ST	Tr	Tr	Tr	Tr
Lettuce	20 - 30cm apart	8 - 12 weeks	○	●	P		Tr				P		Tr	Tr	
Marrow	90 - 120cm apart	12 - 17 weeks	○									P	P	P	
Mint	30cm apart	8 - 12 weeks	●	●	P	P	P	P	P	P				P	P
Spinach	45 - 60cm apart	8 - 10 weeks	○								P	P	P	P	Tr
Onion (red, white, brown)	5 - 10cm apart	25 - 34 weeks	○	●		P	P	Tr							
Oregano	15cm apart	6 - 8 weeks	○	●	Tr	Tr	Tr	Tr	Tr	Tr		ST	Tr	Tr	Tr
Parsley	20 - 30cm apart	9 - 19 weeks	○	●	P	P	P	P	P	Tr		P	P	P	P
Parsnip	8 - 10cm apart	17 - 20 weeks			P	P	P	P			P	P	P		
Peas	5 - 8cm apart	9 - 11 weeks	○	●			P			P	P	P	P		
Potato	30 - 40cm apart	15 - 20 weeks	○	●	P	P				P	P	P	P	P	
Pumpkin	90 - 120cm apart	15 - 20 weeks	○									P	P	P	
Radish	3 - 5cm apart	5 - 7 weeks	○	●	P	P	P	P			P	P	P	P	
Rhubarb	90cm apart	Approx. 1 year	●								P	P			
Rosemary	100 - 150cm apart	Approx. 1 year	○		Tr	Tr						P	P	P	Tr
Sage	50cm apart	Approx. 18 mths	○		Tr	Tr					P	P	Tr	Tr	Tr
Shallot	15 - 20cm apart	12 - 15 weeks				Tr	Tr	Tr	Tr	Tr	Tr	Tr			
Silverbeet/swiss chard	15 - 30cm apart	7 - 12 weeks	○			P	Tr	Tr			P			Tr	
Snow/sugar peas	8 - 10cm apart	12 - 14 weeks	○				P			P	P	P	P		
Spinach	20 - 30cm apart	5 - 11 weeks	○	●	P	P	P	P			P	P	P	P	P
Spring onions	Close together	8 - 12 weeks	○			P	P	P							
Squash	60 - 80cm apart	7 - 8 weeks	○									P	P	P	
Strawberry plants	30 - 100cm apart	11 weeks	○	●							P	P	P	P	
Sunflower	20 - 30cm apart	10 - 11 weeks	○		P	P	Tr					P	P	P	P
Sweet corn	20 - 30cm apart	11 - 14 weeks	○									P	P	P	
Sweet marjoram	20cm apart	8 - 10 weeks	○	●	Tr	Tr	Tr	Tr	Tr	Tr		ST	Tr	Tr	Tr
Sweet potato	40 - 60cm apart	15 - 17 weeks	○										P	P	P
Thyme	25 - 30cm apart	42 - 52 weeks	○				Tr	Tr	Tr			ST	Tr	Tr	Tr
Tomato	40 - 60cm apart	8 - 17 weeks	○		Tr	Tr	Tr				ST	Tr	Tr	Tr	Tr
Turnip	12 - 20cm apart	6 - 9 weeks	○	●	P	P	P	P			P				
Watermelon	60 - 75cm apart	12 - 17 weeks	○									P	P	P	
Zucchini	50 - 90cm apart	6 - 9 weeks	○									P	P	P	

ST	Start under cover in seed trays, plant out in 4 - 6 weeks
Tr	Transplant seedlings
P	Plant in garden

4.3.3.1 CONVENTIONAL GARDEN

There are few things as enjoyable as harvesting your own vegetables directly from your garden. All you need is a small space in your backyard, a little patience and a bit of love.

4.3.3.1.1 SOIL

It is important to fertilize your soil in the winter months so you have the best and healthiest ground when it's time to plant. You could buy a test kit to test your soil. A good way to make your own compost is to use old leaves, vegetable peelings and grass cuttings and gather them on a compost heap. A compost container can be purchased to make your food waste ferment and later on you can throw the fermented food straight onto your land or on the compost heap.

4.3.3.1.2 HEIRLOOM SEEDS

Heirloom seeds are a necessity. The harvesting of your own heirloom seeds gives you the opportunity to gather and keep seed for the next season. This is the basis of food security. Store your unused seeds in a labelled, tightly closed glass bottle and keep in a cool, dark place.



4.3.3.1.3 PLANT ON A ROTATIONAL BASIS

Different plants have different requirements and it does affect the balance in the soil. Some plants such as brassicas (such as cabbage, cauliflower and radish) are heavy feeders that rapidly break down raw material, nitrogen and phosphorus. If you plant these in the same place year after year, the soil will lose nitrogen and phosphorus more quickly than other parts of your garden. By moving heavy feeders around you will be able to renew the soil where it grew last year and this will help to balance your soil. Planting on a rotational basis also helps keep your plants healthy and free of insects and other soil diseases.

4.3.3.1.4 DISADVANTAGES

Planting vegetables the traditional way does have its drawbacks. Traditional vegetable cultivation is more labour intensive because the ground constantly needs to be worked to combat weeds and the control thereof remains a never-ending task. Conventional gardening requires much more water than other cultivation methods and plants are more susceptible to insects and root diseases.

4.3.3.2 PERMACULTURE

Permaculture focuses on the sustainable use of land and food production in harmony with nature. Permaculture methods are based on three principles: (1) Reduce input, (2) reuse and (3) recover where possible. The idea is to plan your garden to be easily accessible, requires minimum labour and grows food without the use of any chemicals. Permaculture is designed to recycle and uses primarily natural compost and earthworms to ensure the necessary fertilizers.

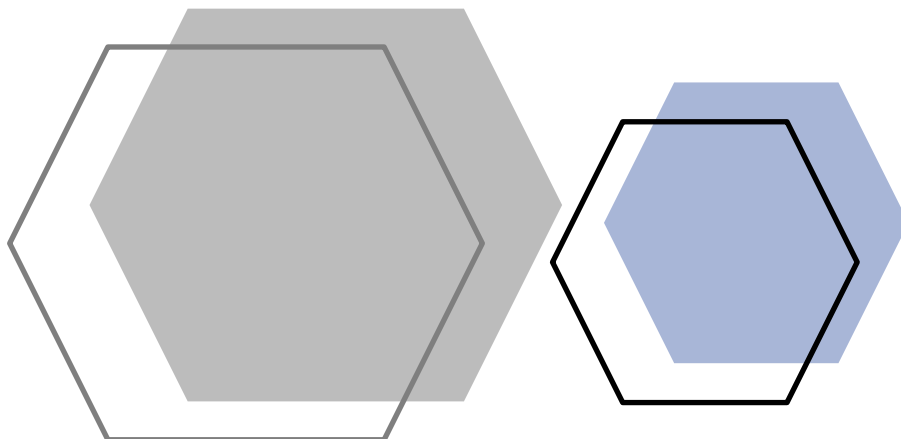
It is important that you take into consideration the necessary environmental factors like sunny areas, the shelter and the direction of the prevailing wind, to determine what is most suitable for the particular weather conditions.

4.3.3.3 RAISED BEDS

Raised beds is a form of gardening in which fertile soil is placed in a framework. Frames are usually built from wood, rock or concrete blocks and the soil is usually enriched with compost. Compared to conventional methods, vegetables in raised beds can be planted much closer in rows. The spacing is such that when the vegetables are mature, their leaves just touch each other, creating a microclimate in which the growth of weeds are suppressed, thus preserving moisture.



Since the gardener is not stepping or walking on the raised beds, the soil is not compacted and plant roots can establish themselves very easily. The close plant spacing and the use of compost usually leads to higher production compared to conventional farming methods.



4.3.3.4 CONTAINER GARDENING

Due to the fact that most city dwellers have limited space to grow vegetables, the use of containers such as pots and trays is a popular option. It is also easier and more affordable than traditional gardening and offers the best option to utilise even the smallest space.

4.3.3.4.1 CONTAINERS

Almost any container can be converted for the purpose of planting vegetables. Some people become creative and use wooden crates, plastic wash baskets and cold drink bottles to plant herbs. Depending on the size, these containers can be placed in whatever space can be made available. This gives the advantage of being placed in or out of the sunlight or can be moved out of the wind. Vegetables need usually deeper pots (minimum 20cm deep) to ensure that sufficient vegetables growth.

4.3.3.4.2 SOIL

When it comes to the choice of soil for your containers, creating it in your backyard is not always the best thing to do. Raw garden soil can sometimes be too poor and its texture may be undesirable for the cultivation of vegetables. It could also contain unwanted impurities and pests that might hamper the growth of your plants. It is better to go to a nursery and buy the right potting mix.



4.3.3.4.3 WATER

Holes at the bottom of containers are crucial to ensure that sufficient drainage takes place. Vegetables in containers use less water than vegetables in a traditional garden. Depending on the type of plant, the amount of water that is needed differs from container to container. Compared to conventional vegetable gardens, the amount of water required can be more easily regulated.

4.3.3.4.4 SUNLIGHT

Sunlight is necessary for any plant to grow. Some vegetables require more sun than others and containers offer the advantage that it can be moved in or out of the shade. If you only have a patio or windowsill at your disposal shade crops are the most appropriate to plant.

4.3.3.4.5 FERTILISER

Different plants have different nutritional needs. So, it is advisable to do some internet research or ask counsel at a nursery as to what type and quantity of fertilizer your plants will need. If you want a more organic solution, you might be recommended instead to choose a potting mix that would be more appropriate for the type of vegetables you want to plant in the container.

4.3.3.5 HYDROPONICS

Hydroponics is part of hydroculture and is a sought-after method for cultivating plants without soil. Plants' roots are exposed to a nutrient or mineral solution that is absorbed by the plants. Vegetables that produce fruits are supported by an inert medium such as perlite or gravel. The nutrients used in hydroponic systems can come from a variety of sources. It may consist of by-products of fish waste, duck or chicken manure as well as purchased chemical fertilizers.

With hydroponics, the pH of water can be regulated to ensure that plants absorb the exact nutrients they need. Hydroponics is a closed system and the water as well as nutrients can be reused that has not been absorbed by the plants. The ability to cultivate vegetables within tunnels helps to better regulate the temperature and thereby extend the seasons and improve plant production. Systems can be designed to use vertical space in tunnels and increase plant density.

Hydroponic systems are easy to maintain. The continuous recycling of water in the system ensures that the roots of the plants are constantly watered. A PH and a nutrient measuring instrument also make it easy to measure the amount of fertilizer in the system for you to make adequate adjustments.



4.3.3.5.1 BENEFITS OF HIDROPONICS

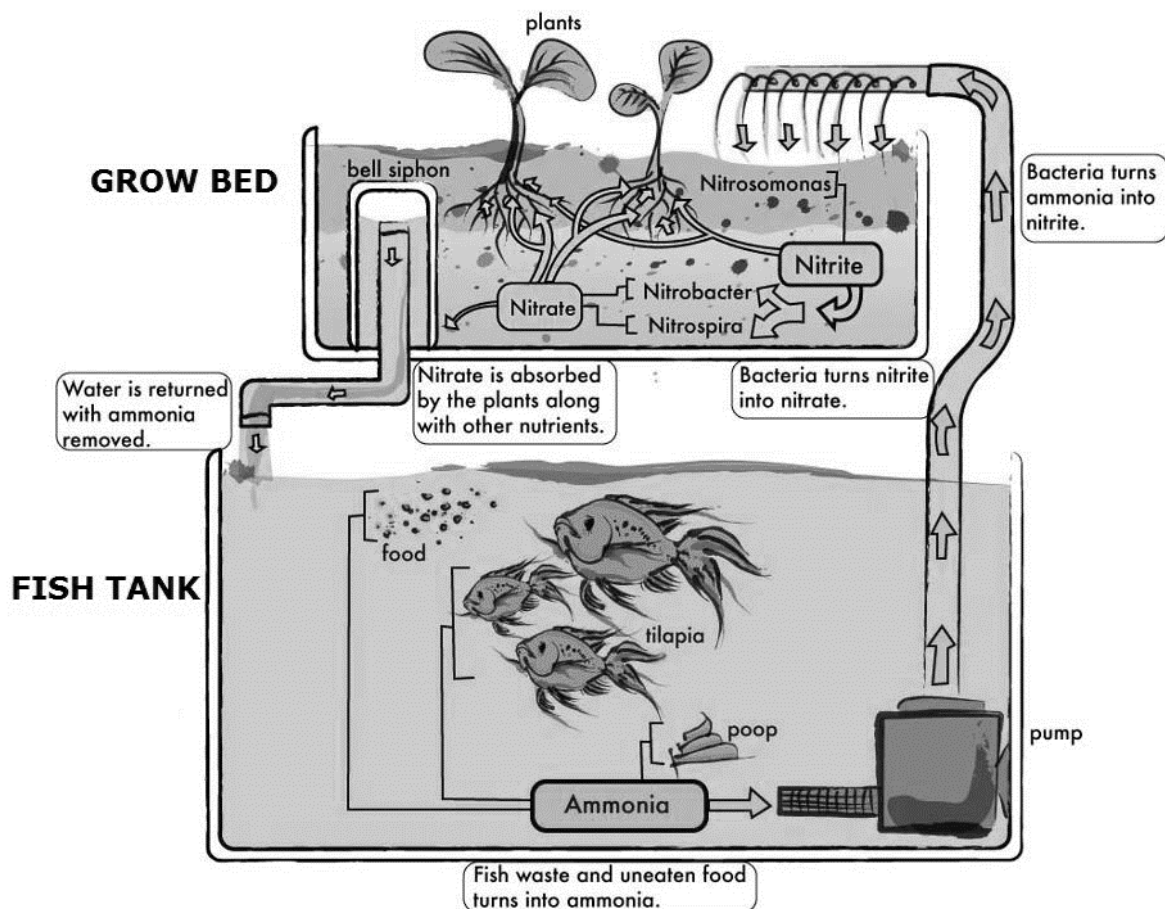
When hydroponics is compared to traditional soil cultivation production, hydroponics has the following advantages:

- Water is used up to 90% more efficient.
- In a well-controlled hydroponic system, production can be up to three times in the same amount of space compare to conventional agriculture.
- It reduces the time between harvests and increases the nutritional value of the end product.
- Hydroponics' climate-controlled environment allows food production where weather and soil conditions are not favourable to traditional food production.
- No chemical weed or pest control products are required when operating a hydroponic system.

4.3.3.6 AQUAPONICS

Aquaponics combines hydroponics with aquaculture. Hydroponics is the science of growing plants without soil in nutrient-rich water. The nutrients are precisely tailored to meet the growth needs of the plants. Plants need nitrogen, phosphorus, potassium and a variety of other micro-elements to thrive. Normally in a hydroponic system, synthetically produced fertilizers are dissolved in water.

AQUAPONICS BASIC DIAGRAM



Aquaculture is the breeding and farming of aquatic organisms, such as fish, shellfish and aquatic plants, usually for human consumption. In aquaponics the fish, plants and beneficial bacteria are interdependent of each other to coexist. In an aquaponics system, the fish provide the necessary nutrients in the form of their "waste" or excretion. This waste contains nitrogen in the form of ammonia. Nitrifying bacteria living in the gravel of the grow beds or on walls of the fish tank switch the ammonia to nitrite. The nitrates are used by the plants. The plants thus act as a biofilter that cleans the water and the ammonia-free water circulates back to the fish tank.

In smaller backyard aquaponics systems, the grow bed sits on top of the fish tank. A fountain pump, pumps the water from the underlying fish tank to the grow bed and the cleaned water returns to the fish tank.

4.3.3.6.1 ADVANTAGES

- 1) Aquaponics is a model for sustainable food production because it integrates hydroponics and aquaculture, which means that it recycles and use all the waste materials.
- 2) Aquaponics is effective as it produces both high protein (fish) and vitamin and minerals (vegetables) foods in one system.
- 3) Aquaponics is a closed system because it uses recirculating water. For this reason, up to 90% less water is used in comparison to conventional agriculture.
- 4) Food products can be grown in even in dry areas where fresh water is not always freely available.

4.3.3.6.2 DISADVANTAGES

- 1) The initial outlay is expensive and large systems rely on electricity to power pumps.
- 2) From my own experience, there are limited alternatives when it comes to fish food. Good quality fish food is essential to keep your fish healthy. In South Africa, good quality commercial fish food is very scarce and expensive. To preserve the nutritional value of fish food, it should preferably be stored in airtight, dark plastic containers.
- 3) The variety of fish is limited when it comes to aquaponics. If water temperature increases the amount of dissolved oxygen decreases. Trout is dependent on oxygen-rich, cold water to survive while Tilapia stops eating if the water temperature drops below 20 ° C. Since the temperature can vary dramatically between winter and summer in certain areas, carp species are usually the hardiest (from 3 ° C - 21 ° C).
- 4) The nitrates that are generated by fish waste are not necessarily always enough for all plants. Vegetables that bear fruit such as tomatoes, pumpkin and eggplant require additional trace elements (phosphorus, potassium and potassium) to grow healthy, colourful fruits.
- 5) Although plants are cultivated in a tunnel, the plants are still vulnerable to pests and diseases. Environmentally friendly remedies and control methods should therefore be used to avoid the negative effects on the fish and the health of the various organisms.

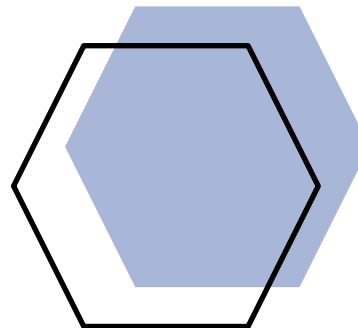
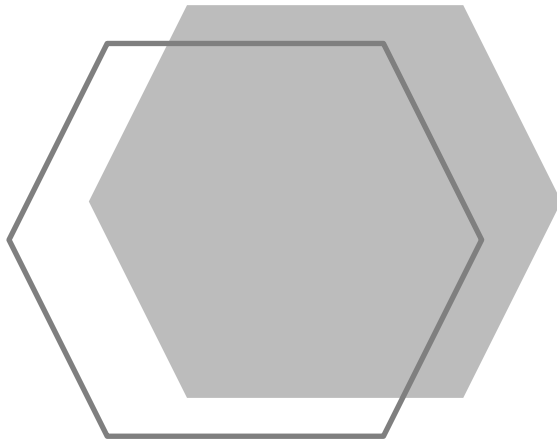


4.3.4 SUMMARY

- Do additional research as to which vegetables will work best in your area.
- Preferably order Heirloom seeds.
- Decide which food growing method will work best. Take into account the space available to you as well as the weather conditions (sun and shadows)

SHOPPING LIST

- Heirloom Seeds
- Gardening tools
- Compost
- Trays for seedlings
- Hose pipe
- Watering Can



5 COMMUNICATION



“A lack of communication between the firefighters during the attack on the World Trade Centre, 9/11, was directly responsible for the death of 300 firefighters.

A lack of communication during the earthquakes that caused the tsunami in the Indian Ocean in 2004 cost thousands of people's lives because they couldn't warn people in time to evacuate the low-lying areas.

A lack of communication during the aftermath of hurricane Katrina caused more than 5,000 children to be separated from their families.

A lack of communication after the earthquake in Kobe in Japan left tens of thousands of people without shelter in freezing temperatures and delayed rescue attempts for over a week.”

One thing that all these disasters have in common is a loss of communication with the outside world. A lack of communication between rescue teams causes delays for these teams because they don't always know where help is needed immediately. Loss of established communication systems occurs for three reasons:

- 1) The physical damage of network components
- 2) Disruption of the Supported Infrastructure (Backup)
- 3) Overload on cellular networks.

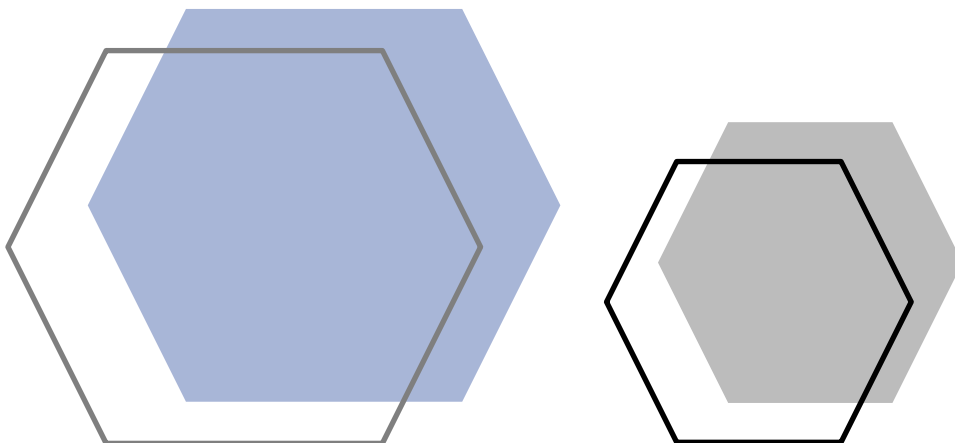
5.1.1 ALTERNATIVE COMMUNICATION RESOURCES



During a natural or man-made disaster, you cannot rely on your normal communication methods such as landlines or cell phones. Having alternative communication devices at hand can give you a link to the outside world. News over a portable radio can help you determine the size and impact of the disaster so you can warn your family in advance if evacuation is needed.

Each family must have at least one of the following alternative means of communication at their disposal:

- A portable radio (a wind-up radio is the most appropriate)
- Email (if there is a power source)
- Prepaid phone card
- SMS messages / SMS (WhatsApp requires data)
- Amateur Radio
- Two-way radio (walkie-talkie)
- Police scanner
- Whistles
- Air torches and flashy beacons



5.1.2 TWO-WAY RADIOS

A two-way radio can assist you to obtain first aid from first aid teams. It can also help the family communicate with each other, coordinate routes, and encourage each other in difficult times.

BUYING A TWO-WAY RADIO

When deciding on a two-way radio system, consider the following criteria.

- Is it simple to set-up and operate
- Should not be dependent on electricity (battery or dynamo operated)
- Rechargeable batteries – Must have at least one solar or motor charger socket for the device to recharge batteries.
- Effective range (distance)
- Preferably be water proof and shock resistant
- Protection against interference
- Affordable (low initial costs, low maintenance costs and preferably no monthly fees)
- Spare parts, accessories and support must be readily available.



5.1.3 CELLULAR PHONES

There is virtually no person today who doesn't own a cell phone. However, most of us limit our children usage by purchasing prepaid airtime and data to prevent us from getting an exorbitant account at the end of the month.

This limitation also has its disadvantages, especially when it comes to an emergency. Your child may have insufficient airtime or data to call a parent. Here are some tips to keep in mind when it comes to your child's cell phone.

The emergency number 112 can be dialled for free from any mobile phone at no cost. Your service provider will connect your child with an emergency Centre. Make sure that this number is saved in your child's phone's contact.



If an emergency occurs, it is advisable to immediately purchase airtime and data for your child. Also, buy an airtime voucher of at least R100 and place it in your child's wallet for emergencies.

Load one of the emergency applications on your child's phone so that you can keep track of your child. There are several of these applications available where your child can simply press a panic button and the application will send an emergency response with the GPS coordinates to an emergency Centre. By loading your contact numbers on the application, you, as parents, can be notified at the same time.

Today, children mostly use WhatsApp. In emergency situations when network towers are overloaded, voice and SMS gets priority over data calls. In many cases, text messages might go through when voice is not available. So, teach your child to send SMS messages.

5.1.3.1 ADDITIONAL TIPS

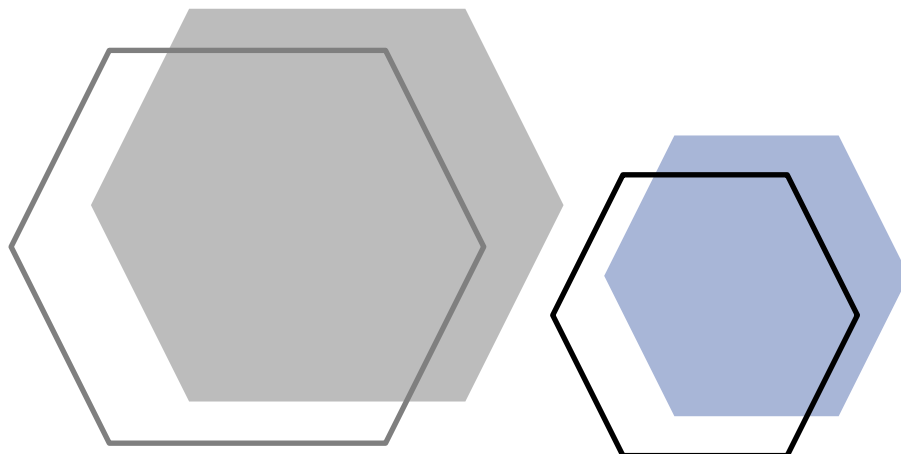
- **LIMIT NON-EMERGENCY CALLS** - This will prevent network congestion to allow for emergency communication. Keep your calls short. If you need to use a cell phone, just use it to convey the essential information to emergency personnel and / or relatives;
- **SAVE YOUR BATTERY** –By disabling Bluetooth and Wi-Fi can save you battery power. Just enable these in case of emergency. Also keep lithium-ion battery banks and car chargers available for backup power for your phone.
- **STORAGE OF VARIOUS EMERGENCY NUMBERS** – If possible, try to reach different emergency services if your call is unsuccessful. Alternatively, try a landline if you have one available.
- **BE PATIENT**– Wait 10 seconds before you retry a number. On the cell phones, to recall a number you can just press ‘call’.
- **STOP IF YOU ARE DRIVING** – If you are making a call in a moving vehicle, your phone will switch over from one network tower to another as the signal becomes stronger and weaker as you move. If a consecutive network tower is out of order or overloaded, your call may be cut off. Thus, it is advisable to stop your vehicle to retain your call.

5.1.4 SHOPPING LIST

- Signal flares, flashing emergency beacons or light (Available at most outdoor stores)
- Two-way radio
- Portable radio (FM/AM)
- Solar charger with rechargeable batteries
- Extra set batteries for all communication devices

5.1.5 SUMMARY

- Do an amateur two-way radio course.
- Make time to understand how your communication device works. Carefully study the manual.
- Get to know people in your community who can provide tips on emergency communication.
- Make sure your child, as well as the elderly, is aware of the emergency procedures when using a cell phone.



6 FUEL PREPAREDNESS AND STORAGE

WHEN THE WORLD'S OIL TAP WAS TURNED OFF

Farmers Review Africa — Johannesburg, 31 March 2026



The war involving Iran has moved from a geopolitical story to a supply chain shock — and fast. At the centre of it all is the Strait of Hormuz. In normal times, roughly a quarter of global seaborne oil flows through that narrow channel. Today, it is partially blocked, militarised, and unpredictable. That matters more than most people realise, especially in Africa.

This is not just an oil story. Yes, oil is the headline. The International Energy Agency is already calling this the largest disruption in oil market history, with up to 30% of global oil flows affected. Prices are responding accordingly. Analysts are openly discussing \$150 to \$200 per barrel scenarios if disruption persists into the next four to eight weeks.

But if you stop at oil, you are missing the real risk. Because Hormuz does not just move fuel. It moves fertiliser, petrochemicals, plastics inputs and liquefied natural gas.

Diesel is the bloodstream of African logistics. As oil spikes, transport costs rise almost instantly. Across East and Southern Africa, dependence on Middle Eastern supply chains is structural, not optional. Countries like Kenya, Tanzania, Ethiopia and Zambia are already implementing emergency measures. In parts of East Africa, over 50% of fertiliser imports come via these routes — and globally, up to one-third of fertiliser trade moves through Hormuz. Urea prices are already up by 50% since the conflict began. That translates directly into higher food prices, lower yields and increased inflation.

The brutal reality is that Africa is a price taker. Most African economies are net importers of fuel and fertiliser and are highly exposed to global shipping routes — which means there is very little control, only response.

South Africa's position: According to the South African government, imports were still arriving as planned, with current arrangements covering requirements through mid-April 2026. That is a useful assurance. But it is a near-term position, not proof that the underlying system is secure. A country can still receive fuel while remaining exposed to a chokepoint whose disruption raises insurance, freight and pricing risks across the entire economy.

The uncomfortable truth is that the businesses and households which act early will appear paranoid today — and exceptionally well-positioned in thirty days.

6.1 WHAT HAPPENED — AND WHY IT MATTERS TO YOU



On 28 February 2026, the United States and Israel launched a military campaign targeting Iran’s nuclear sites and military installations. Iran’s response was immediate. The Islamic Revolutionary Guard Corps declared the Strait of Hormuz — the narrow waterway between Iran and Oman through which approximately one fifth of the world’s daily oil supply flows — effectively closed to commercial shipping.

Within days, the world’s largest shipping companies suspended operations in the area. Tanker traffic through the strait collapsed by approximately 70 percent. Over 150 ships anchored outside the strait, unable to proceed. Oil prices surged faster than at any point in recorded history.

The Strait of Hormuz is a channel barely 33 kilometres wide at its narrowest point. In normal times, approximately 20 million barrels of oil pass through it every single day — representing around 20 percent of all global petroleum consumption. There is no practical alternative. When it closes, the oil simply stops moving.

For South African households the impact was visible within days. Fuel prices began rising sharply, with diesel price increases of up to R10 per litre forecast. Panic buying triggered localised shortages at petrol stations across the country — not because supply had stopped, but because demand surged as people rushed to fill tanks and jerry cans simultaneously. Fertiliser prices increased globally. Freight costs rose as ships were rerouted around the Cape of Good Hope, adding days and significant cost to every delivery.

The lesson is not new. This guide has been preparing you for exactly this kind of scenario from the very first chapter. The Hormuz crisis simply made visible what was always true: South Africa is structurally dependent on global supply chains that are vulnerable to events entirely beyond our control.

6.1.1 THE ONE HABIT THAT COULD SAVE YOUR FAMILY

Of all the supplies you will need in a crisis, fuel is the one that disappears first and is the hardest to replace once it is gone. Within hours of any emergency being announced — whether a national disaster, civil unrest, a power crisis or a global supply disruption — petrol stations across South Africa run dry. The queues form before most people have even heard the news. If you do not already have fuel, you are already too late.

The single most effective fuel preparedness habit requires no special equipment and costs you nothing extra. It is simply this:

Never let your fuel tank drop below half!

Make it a personal rule — a non-negotiable. The moment your gauge crosses the halfway point, you fill up at your next opportunity. This one habit gives you a meaningful head start in any emergency. While your unprepared neighbours are sitting in a three-hour queue at a petrol station that will run dry before they reach the pump, you already have enough fuel to drive 300 to 400 kilometres without stopping.

6.2 SAFE HOME FUEL STORAGE

Beyond your vehicle tank, it is wise to maintain a small reserve of fuel at home. This should be treated with the same discipline as your food and water storage — rotated regularly and stored responsibly.

6.2.1 HOW MUCH CAN YOU LEGALLY STORE?

In South Africa, the legal limit for storing fuel at a private residence is allowed in approved containers. For most families, a single 20 to 25 litre approved metal jerry can is a practical and affordable starting point. Two or three cans give you a meaningful reserve without requiring a dedicated storage structure.

The exact "safe" amount you can store without applying for a registration certificate from the Chief Fire Officer varies significantly:

MUNICIPALITY	PETROL (CLASS I)	DIESEL (CLASS II/III)
CITY OF JOHANNESBURG	40 litres	210 litres
CITY OF CAPE TOWN	200 litres *	200 litres *
CITY OF TSHWANE	200 litres	400 litres
ETHEKWINI (DURBAN)	210 litres	500 litres
EKURHULENI	100 litres	420 litres

* Total combined flammable liquid limit for Cape Town is often cited as 200 litres total.

6.2.2 CONTAINER REQUIREMENTS

- Use only approved metal fuel containers that comply with SANS standards. Never store fuel in plastic
- bottles, glass containers or unapproved drums — these are a serious fire hazard and are illegal.
- Containers must be clearly labelled with the fuel type. Petrol and diesel must never be mixed or stored in the same container.
- Keep containers tightly sealed at all times to prevent evaporation and contamination.
- Always store a fire extinguisher in the same location as your fuel containers.



6.2.3 STORAGE LOCATION RULES

- Store fuel in a cool, well-ventilated area — a detached garage or outbuilding is ideal.
- Never store fuel inside your home, in an attached garage, or near any heat source, open flame or electrical equipment.
- Keep fuel away from direct sunlight — heat accelerates degradation and increases pressure inside containers.
- Store containers on the ground, never stacked or on shelves.

6.2.4 FUEL DEGRADATION AND STABILISERS

Petrol begins to degrade within 30 days under normal storage conditions and can become unusable within three to six months. Degraded fuel causes engine problems and may prevent your vehicle from starting when you need it most.

Add a fuel stabiliser. Products such as Sta-Bil, added at the time of storage, extend the usable life of petrol to 12 to 24 months. This is a small investment that protects your entire fuel reserve.

Rotate your stored fuel. Use your stored fuel in your vehicle every three months and replace it with fresh fuel. This ensures your reserve is always fresh and that your vehicle runs on stored fuel regularly without issue.

Date your containers. Write the storage date on each container with a permanent marker so you always know how old the fuel is.

Diesel is more stable. Diesel can be stored for up to 12 months without stabiliser under good conditions. If your emergency vehicle or generator runs on diesel, your storage management is somewhat simpler — but rotation is still important.



6.3 WHEN PETROL STATIONS RUN DRY

If you find yourself in a situation where petrol stations in your area are empty, apply the following principles without exception:

- Do not drive from station to station consuming your remaining fuel in the search for more. Stay disciplined. Use your vehicle only for essential trips.
- Monitor community WhatsApp groups and neighbourhood watch communications for reports of which stations have been resupplied.
- If you have a fuel reserve at home, use it sparingly and only when absolutely necessary.
- Consider whether your destination can be reached on foot, by bicycle or by other means to conserve fuel for genuine emergencies.

PRIORITISE FUEL USE IN THIS ORDER:

- 1) Medical emergencies first
- 2) Evacuation second
- 3) Essential supply runs third

6.4 FUEL PREPAREDNESS CHECKLIST

Use this checklist to assess and strengthen your current fuel readiness:

- ✓ My vehicle tank is always kept above half full — without exception
- ✓ I own at least one approved metal fuel container (20–25 litres)
- ✓ My stored fuel is treated with a fuel stabiliser
- ✓ I rotate my stored fuel every three months and replace it with fresh fuel
- ✓ Each container is dated so I know exactly how old the fuel is
- ✓ My fuel is stored in a cool, ventilated, detached structure away from my home
- ✓ I have a fire extinguisher located with my fuel storage
- ✓ I know the location of at least three petrol stations in my area
- ✓ I have cash available to pay for fuel if card machines are offline
- ✓ My family knows the rule: we do not drive unnecessarily during a fuel crisis
- ✓ I have considered reducing fuel dependency through solar power or a gas generator

6.5 IN CLOSING

The world does not wait for us to be ready. The Hormuz crisis of 2026, the COVID lockdowns of 2020, the July 2021 unrest, the Cape Town Day Zero water crisis — every one of these events caught the majority of South Africans unprepared. Every one of them was survivable — and in many cases, barely inconvenient — for those who had prepared in advance.

Fuel is not a luxury. It is the lifeblood of every other preparation you have made. Without fuel you cannot evacuate. You cannot reach a hospital. You cannot transport supplies. You cannot run a generator. Take your fuel preparedness as seriously as your food, your water and your faith.

7 LOSS OF ELECTRICITY

REPORT SUGGESTS THAT LOAD SHEDDING IS ABOUT TO GET MUCH WORSE

by Tom Head | The South African | 2019-04-08

As Eskom's old units go offline and the cost to replace generational capacity soars, the severity of load shedding may well increase over the next decade.

If we think we've had it bad with load shedding this year, we should brace ourselves for the decade ahead. That's the message coming from Bloomberg on Monday after they published the results of their investigation into Eskom's generational capacity. Change is on the horizon, but things aren't looking up.

Why load shedding may get worse in South Africa

According to the publication, the oldest power stations still in operation will have to be shut down over the next 10 years. Both Komati and Camden are over 50 years old, with Grootvlei, Arnot and Hendrina fast-approaching that mark. Taking these stalwarts off the grid will dramatically reduce capacity quicker than it can be restored.

For those pinning hopes on the new builds, they aren't exactly the "silver bullet" solution that is often touted by energy officials. Medupi and Kusile are both running behind schedule and have both experienced major maintenance issues in their two-year existences. The plants don't boast the capacity of Komati and Camden, either.

How much power Eskom could lose by 2030

As the old units go offline and Eskom – who are hamstrung by an estimated R419 billion debt – attempt to plug the gap, there could be a shortfall of 25% by 2030. South African would, therefore, have to manage with about a quarter of its power supply lost to the ages.

The cost of correcting the output imbalance is estimated to total \$71 billion. At the current exchange rate, that would break the R1trn mark. Despite the recent receipt of generous loan agreements from BRICS, their amounts are just a drop in the debt-filled ocean. And, of course, Eskom will be expected to return the money owed to their creditors."



South Africa is still largely dependent on electricity generated from coal. The situation is unlikely to change in the short term. The inconvenience of recent load shedding and the possibility of a total blackout made one realise that such an event can have drastic consequences if we are not prepared for it. In this chapter alternative energy solutions are discussed as well as its practical application.

7.1 THE PREPARATION OF FOOD WITHOUT ELECTRICITY

So, you have all the necessary wheat, flour, dried foods, canned foods as well as enough water. The big question is - when a major disaster happens, would electricity be at your disposal? How are you going to prepare food?

In this modern era in which we live, most people haven't looked for alternative methods to prepare food without electricity. The majority of us rely on microwaves, electric stoves and toasters to prepare most meals.

7.1.1 ALTERNATIVE METHODS

1. **Gas stove** – Replacing your electric stove with a gas stove is a good option. However, it is important that you keep a sufficient supply of gas bottles to see you through the crisis period.
2. **Camp stove or gas burner** – If a gas stove is beyond your budget, a camping stove or a gas burner will always be a likely alternative. Gas is dangerous and it is always advisable to use it outside or in an open window
3. **Fireplace** - Most of us have a fireplace or indoor braai to cook food. Try to cook bread and other foods on sticks in your fireplace or indoor braai. Besides using a pot, you can always wrap potatoes and other vegetables in foil and cook it on the open fire. Don't forget about the marshmallows.
4. **Campfire** - Campfires and open braais are always very cosy and form an important part of our South African culture. With a braai grid or a clay pot, everything can be warmed or cooked. Maybe it's time for you to get yourself a new recipe book and explore alternatives than just having a braai or baking bread.
5. **Pizza oven** - A pizza oven is very popular choice when an electric oven is not an option. Everything you can cook or bake in an electric oven can also be prepared in a pizza oven. From cooking a whole chicken, legs of lamb, to the baking of rusks or bread are options to name a few.
6. **Coal Stove** - Many of us grew up in front of Grandma's coal stove. This is an adequate option for heating drinks, canned foods, as well as spaghetti and soup.
7. **Kerosene heaters** - Kerosene heaters are usually used for heating a room. It is also an alternative way to cook beans, pasta, other foods as well as making coffee and tea.

SAFETY TIPS

- Gas or coal stoves should be handled with caution not to get burned. Always keep a first aid kit nearby with the necessary ointment and bandages if an incident occurs.
- Gas is highly explosive and must be treated with due respect. Always ensure that gas bottles are properly closed to prevent gas poisoning.
- If you use a fireplace or indoor braai, make sure that the chimney vents adequately. Be careful with the wood you use. Treated wood like pine contains pesticides and chemicals that are detrimental to your health and can also affect the taste of food.
- Never ever pour flammable liquids such as petrol, paraffin or gasoline on an open fire.
- If you make a fire on the ground, make sure you use rocks to contain the fire from spreading.
- Never leave a fire or candle without adult supervision.
- Keep water handy if an accident happens.

7.2 ALTERNATIVE ENERGY (SOLAR AND WIND POWER)

Renewable energy is energy derived from sources that are constantly renewing themselves or not being exhausted for all practical purposes. Hydraulic (water) power, solar power as well as wind power is seen as renewable energy sources.

Solar energy is generated by the bright light and heat of the sun. It is an important source of renewable energy and is used by a whole range of innovative technologies. The most popular ones are the solar heating of water (solar geyser) as well as the generation of electricity by using photovoltaic solar panels.

7.2.1 SOLAR SYSTEMS

For the amount of sunlight available in South Africa, solar panel systems are a highly attractive source of electricity supply. A solar system is designed according to your household's energy requirements. The energy consumption of electrical appliances measured in Watt is added together and by using a formula, the size of the system is scaled according to a period of time. It is also advisable to reduce your energy consumption by purchasing equipment that is more energy efficient. Examples are a gas stove, a gas kettle for your gas stove, as well as a solar geyser.

7.2.1.1 INVERTERS

It is extremely important that you have the right solar inverter for your needs. A five (5) kVa inverter is the minimum size recommended for a household. If you want to connect refrigerators, freezers or pumps to your system, it is extremely important that you purchase a pure sine wave inverter. Square wave inverters can overheat and cause damage to fridge and pump motors.

Solar systems are usually classified into three categories;

- **Grid-tied solar systems** - directly connected to the electricity grid. The system does not have batteries. The household is powered by solar panels during the day and by Eskom at night.
- **Hybrid Solar systems** – These systems have batteries and are charged by both electricity and / or solar panels.
- **Off-grid or standalone solar systems** – These systems also have batteries but only get charged by solar panels. These systems are mostly used in remote areas where electricity is not available.



7.2.1.2 SOLAR BATTERIES

Solar batteries are rechargeable batteries that are used to store energy for later use. There are a large variety of solar battery types available on the market, but for the purpose of this manual I will only quickly touch on the best-known types.

7.2.1.2.1 SEALED LEAD ACID BATTERIES

There is a wide variety of sealed lead acid batteries available including 1 Ah, 2 Ah and single cell draw batteries. Sealed batteries are ideal because they don't require maintenance. However, they are more expensive than other types of batteries. The load management needs must be accurate and consequently they have a shorter life span. In situations where the use for long periods of time without proper maintenance, sealed lead acid batteries are the most appropriate choice.



7.2.1.2.2 DEEP CYCLE BATTERIES

Deep cycle batteries are more commonly used for camping and caravans. They look like a car battery, but the lead plate construction inside the battery is different. Their storage capacity usually ranges from 60Ah to 120Ah at 12V. The life span of these batteries is quite short giving you a few hundred cycles and is therefore not the best option for solar power.

7.2.1.2.3 GEL BATTERIES

Another type of solar battery is the absorbed glass mat (Absorbed Glass Matt or AGM) also known as Gel batteries and is highly resistant to vibrations. The type of batteries contains rechargeable cells and is equipped with a monoblock catalyst to improve performance and longevity. The battery storage capacity is measured in amp hours associated with the number of amperes that can deliver a battery in one hour.

7.2.1.2.4 LITHIUM-ION BATTERIES

Lithium-ion batteries are the most effective option in the long run. This battery type works quite differently from its lead acid counterparts. The batteries offer much more performance and efficiency benefits. However, lithium-ion batteries are still not the perfect solution, but they are very popular for various reasons.

ADVANTAGES

- **Lightweight and small** – In terms of the volume, the lithium-ion models are half the size.
- **More efficient** – With quality lithium batteries, charging and discharging is close to 100%. This means they can load and unload completely without losing amps.
- **Increased cycles** – Lithium-ion gives you the most possible cycles on average, about 5000 plus cycles (5 - 10 years)
- **Consistent discharge voltage** – The charge of lithium-ion batteries remains consistent throughout the discharge process, making it much safer for electrical equipment.
- **Low maintenance** – Chances are you will forget about the battery for it requires very little maintenance.

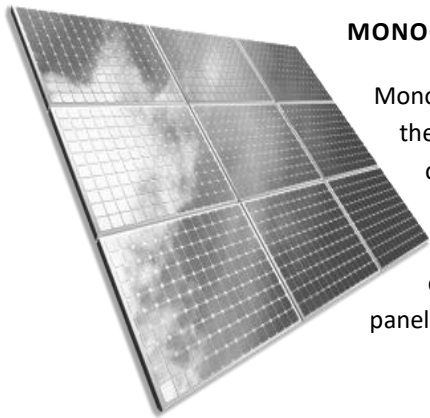


DISADVANTAGES

- **Cost** – The initial investment for a lithium battery is more than the lead acid alternative. But if you consider this battery's life span, capability and performance then lead acid batteries will eventually cost you much more in the long run.
- **Overheating** – You don't want lithium-ion batteries to overheat as it shortens efficiency and longevity.

7.2.1.3 SOLAR PANELS

The solar cell or photovoltaic cell converts photons into electricity. The silicon solar cell is the magical component that transforms the ultra-violet rays into direct current (DC) energy. There are mainly two different types of solar panel available:

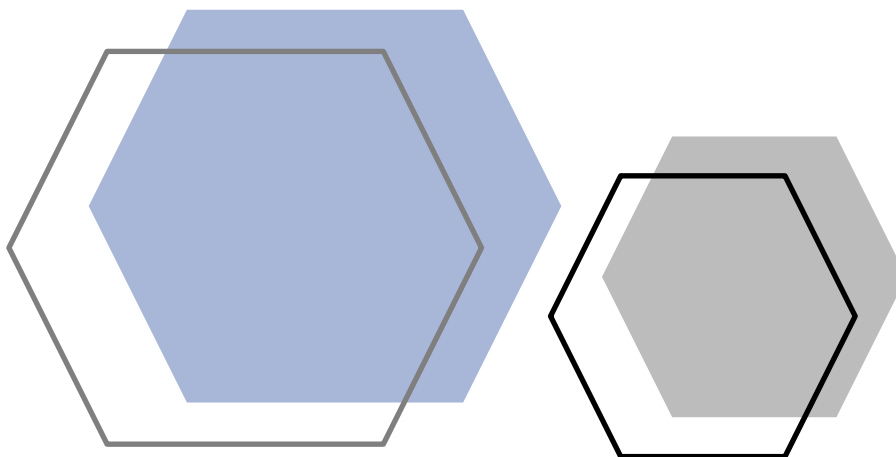


MONOCRYSTALLINE SOLAR PANEL

Monocrystalline solar panels are made of a single crystal structure. From the different variants, monocrystalline panels are the oldest of the solar cell technologies and this type of panel can be identified by the cells having a uniform dark grey (almost black) colour. They are more expensive per watt than polycrystalline panels, but they are more efficient. Comparing the output - you can install less monocrystalline panels in comparison to polycrystalline solar panels.

POLYCRYSTALLINE SOLAR PANELS

The polycrystalline panel is the newer technology of the two. Silicone panels have a less uniform appearance and are darker blue in colour. These panels tend to be the more affordable option of the two, offering the lowest price per watt. Although they generate a little less power, their efficiency is still acceptable in comparison with the price difference.



7.2.2 WIND TURBINES



A wind turbine, or alternatively referred to as a wind energy converter, is a device that converts the wind's kinetic energy into electricity. On cloudy days when your solar panels are less effective, turbines can be used to charge your batteries.

Wind energy is one of the fastest growing elements of the alternative energy movement. What this means is that the cost of installing and maintaining this type of system is becoming increasingly more affordable. High quality wind generators can be found at a fraction of the cost compared to a decade ago. These newer models are more efficient and therefore can produce more energy.

Wind turbines as an option must be thoroughly investigated to determine if it meets your energy requirements. When an evaluation is made, it is usually measured against the quality of available wind sources. Generally, an average wind speed of at least 6 km / h is needed for a small wind turbine to generate enough electricity and to be cost effective option. Study the wind patterns in your area and determine how the weather, climatic conditions and seasons affect the winds in your area.

7.2.3 SOLAR GEYSERS

Solar geysers are well known and have been used commercially worldwide for over 50 years. In many countries it is mandatory to have a solar geyser installed in each and every home. About 40% of average household electricity costs are attributed to water heating. This percentage is even higher in low-income households.

A solar geyser consists mainly of solar panels or glass tubes connected to a hot water tank (geyser). In South Africa, the system is installed on the northern roof of the home or building's roof. There are mainly two types of solar geysers available on the market.

7.2.3.1 VACCUUM TUBE

This system is the most efficient of all the solar geysers systems. A glass or metal tube containing the water is surrounded by a larger glass tube. The space between the two tubes contains a vacuum and, due to the thermal siphon effect caused by the tubes, the hot water in the tubes flows to the cooler water in the geyser. The process recirculates the hot water in exchange for colder water and becomes sufficiently hotter as the process repeats itself over and over. Vacuum tubes are so efficient that it can even work during cloudy conditions and low temperatures. Individual tubes are replaced if and when necessary.



7.2.3.2 STEEL PANEL SOLAR GEYSERS

Steel panels are less effective than vacuum tube systems, but are more suitable for areas where extreme weather conditions occur. Steel panel heaters are more efficient in areas where very high temperatures as hail occur. To prevent the storage tank from bursting due to overheating, it is always advisable to install a pressure release valve for both types.

7.2.3.3 SYTEM MAINTENANCE

The maintenance cost of solar heating systems is generally very low and a SABS approved system will come with at least a 5-year warranty. With the installation, most vendors provide a manual that covers some simple maintenance tests to ensure that the system is working properly. However, by far the most important thing is to make sure there are no leaks.

7.3 LIGHTING

For the purpose of this guide, lighting is basically classified into two categories:

- Fuel-based lamps (candles, kerosene and gas)
- LED lights and lamps

7.3.1 FUEL BASED LIGHTING (CANDLES AND LAMPS)



7.3.1.1 CANDLES

Candles are still the simplest and cheapest option to provide lighting. Although candles are more environmentally friendly than lamps, it remains an unacceptable choice for general lighting. Because candles generate limited light, one has to be very careful not to place them too close to flammable objects.

7.3.1.2 LAMPS

Electric lamps are in most respects better and safer than fuel-based lamps. When Eskom is available, candles, kerosene and gas lamps are unacceptable for most lighting tasks and are suitable for emergency or aesthetic purposes only. However, in cases like load shedding, fuel-based lamps play a much more important role and have many benefits. These lamps are portable and usually have a low maintenance cost. Lanterns and various types of fuel are freely available and most of them are manufactured locally.

Fuel-based lighting technologies use the flame of burning fuel to produce light. Lighting quality varies depending on the type of lamp technology used. These lamps release carbon dioxide into the atmosphere and should preferably be used in a ventilated room. Due to the fact that lamps hold a potential fire hazard, it should never be left alone with adult supervision.

7.3.1.3 OIL LAMPS

The use of oil lamps dates back thousands of years ago and are still in use today. Although not commonly used, they are known to create a specific atmosphere. Oil lamp fuel sources include a wide variety of plants (olive oil, sunflower oil) as well as animal fats such as fish oil, and shark liver oil.

7.3.1.4 KEROSENE LAMPS

Kerosene lamp (also known as a paraffin lamp) is a type of lantern that uses paraffin as fuel. The flame is protected by a glass bulb guarding the flame against blow out. Kerosene lamps are also a portable option and like oil lamps, it is suitable for power outages, camping and boating.

7.3.1.5 GAS LAMPS

Gas lamps use propane gas as fuel (LP gas). However, gas lamps are very dangerous if the bottle is leaking or not properly closed. As in the case of candles and kerosene lamps, gas lamps should also never be left unattended.

7.3.2 LED LIGHTING AND LAMPS

LED is the latest technology when it comes to lighting and is environment-friendly. LED lamps have a brighter light when compared to ordinary light bulbs, have a longer lifespan and are 70% more efficient than ordinary light bulbs. Because LEDs are so effective, it remains a popular choice for battery-powered torches and lights.

LED lights can last for many years before they need replacing. According to statistics, a typical LED light that averages three hours per day can last for 22 years. Today, there is an LED light available for virtually any application, from the smallest flashlight to blinding sports lighting.



7.4 ENERGY SAVINGS TIPS

The following table is a summary of different ways that you can save electricity.

DEVICES	DESCRIPTION OF TIP
SOLAR GEYSER	<ul style="list-style-type: none">- Solar geysers can reduce electricity consumption by 40% to 50%.- This will save you about 200kWh to 250kWh of electricity every month.
LIGHTING	<ul style="list-style-type: none">- Replace bulbs with LED lighting where possible.- Turn off the lights when not in use.- Dimmer switches also reduce electricity consumption.- Use compact fluorescent lamps (CFL) in kitchen instead of ordinary light bulbs.
HEATING AND COOLING	<ul style="list-style-type: none">- Avoid using heaters or air conditioners as much as possible.- Isolate your ceiling and close any gaps.- Make sure that your heating and cooling equipment has a thermostat installed.- If you need to use an electric blanket, make sure you turn it off when you get into bed.
DISHWASHER	<ul style="list-style-type: none">- Fill the dishwasher completely before use to save electricity and water.- Switch off the dishwasher before the drying cycle and rather dry by hand.- Keep the dishwasher's filters clean.- If you buy a new dishwasher, make sure its energy efficient.

DRYING OF CLOTHES	<ul style="list-style-type: none"> - If possible, at all, avoid using a tumble dryer. - Dry cloths by hand before placing it in the tumble dryer. - On sunny days, take the opportunity to hang your clothes outside on the washing line.
AUTOMATIC WASHING MACHINES	<ul style="list-style-type: none"> - A front loader uses less water and costs less to operate. - Choose the shortest possible washing program. - The use of cold-water washing powder also reduces electricity consumption.
STOVES	<ul style="list-style-type: none"> - Replace your electric stove with a gas stove. - Use pressure cookers when preparing food that takes a long time to cook. - Small pots on large plate waste electricity. - Keep the oven door closed until food is cooked. - Glass and ceramic pans retain heat better than metal pans.
MICROWAVE OVEN	<ul style="list-style-type: none"> - When you want to defrost food, leave it in the fridge overnight. You will use less electricity than trying to defrost in the microwave. - Use the microwave to cook small to medium quantities of food. For larger portions of meat, it is better to use a conventional oven or pressure cooker.
FRIDGE	<ul style="list-style-type: none"> - Do not open the door unnecessarily and make sure the seal is intact. - Turn off and empty refrigerator when you go on holiday. - Allow hot food to cool before placing in the refrigerator. - Defrost your fridge regularly. A build-up of ice reduced the operational efficiency and raises operation costs.
FREEZER	<ul style="list-style-type: none"> - Do not open the door unnecessarily and make sure the seal is intact. - Defrost the freezer regularly. Freezers work harder to remove heat and need more power. - Only 90% of the freezer capacity must be used for freezing.
GENERAL	<ul style="list-style-type: none"> - Don't buy larger or more powerful devices that you don't really need. - Do not buy an electrical appliance if you can do it by hand. - Use the correct device e.g. Do not make toast in the oven. - Do not fill a kettle to the top if you only need a small amount of boiling water. It is enough to just put enough water in the kettle to cover the element. - It is more economical to boil water in a kettle compared to boiling it in pot on the stove.

7.5 SUMMARY

- **SOLAR ENERGY SYSTEMS** – Do thorough research on different solar energy systems. Determine the type of system you need based on your energy requirements. Get quotes and build the system in stages if you can't afford to buy it once-off.
- **SOLAR GEYSERS** – It is recommended to replace your electric geyser with a solar-powered geyser, if you can afford to.
- **WIND TURBINES** – Determine whether the weather conditions are suitable enough for you to consider a wind turbine.
- **LIGHTING** – Replace ordinary bulbs with LED lights where possible. As a backup, buy the necessary alternative lighting such as candles and lamps for when electricity is not available.
- **GAS STOVE** – Replace your electric stove with a gas stove. Keep a few spare full gas bottles.
- **ADDITIONAL INFORMATION** – In this chapter, we only scratched the surface. It is strongly recommended that you do further research on the internet by visiting forums and talking to experts in the field.

8 PLAN A – EVACUATION BY VEHICLE

Despite of all the planning and preparation, we know that things don't always go according to plan. During an evacuation, your car may break or the roads may be dangerous or inaccessible. Whatever the situation, it is important to have a backup plan if things go wrong.



The decision to evacuate is a major one. There are quite a few factors that must be taken into consideration before doing it. Although your reasons to evacuate might depend on the situation, they all have one thing in common – you are running against the clock. If you are not properly prepared, you tend to be more hesitant to evacuate. On the other side, if you wait too long, you might have to make reactive decisions that might even worsen the circumstances if you haven't properly planned. If you are unprepared, you might have a shortage of supplies i.e. food, fuel and cash. Therefore, it is important to plan according to the different scenarios you set for yourself. It will help you to proactively identify emergency situations and to evacuate in time, when needed.

Since time is always a factor, it is essential that your family understands the necessary emergency drills and procedures as well as the different responsibilities expected from each other. You also have to decide:

- What equipment and supplies you will take with you.
- Which family member is responsible for the collection of which items?
- What method of transport will be used?
- Which routes to take.
- Plan two to three destinations.
- Should something go wrong, what is your backup plan or “Plan B”?

8.1 EVACUATE IN AN ORGANISED MANNER

During an evacuation, as you're preparing to leave your home, tensions are usually at an all-time high. The last thing you want is have a last-minute, frantic run-around for food, water, blankets, your child's teddy bear and personal documents. You'll probably also need to collect sentimental items that can't be replaced. Similar to the 'Koeberg scenario' earlier in this guide, you might only have maximum 10 minutes to grab your most important belongings before you have to evacuate.



To ensure that important things are not forgotten, make a checklist of these items and keep it in front of your grab bag (see next chapter *"PLAN B - BUGOUT BAG"*).

8.1.1 STRENGTH IN UNITY

To simplify the evacuation process, divide duties and responsibilities amongst family members. Make sure each family member has his/her own check list. This way you will know what to expect from one another. This will ensure efficiency, reduce duplication of efforts, and will prevent you from forgetting important items because you thought that someone else would pack it.

An effective way to divide responsibilities amongst family members is to categorise the different items and duties accordingly. Categories such as:

- Medical
- Sanitation and hygiene
- Sentimental Items

- Children's Needs
- Animals Needs
- Documents and cash
- Devices - phones, device chargers, memory sticks, hard drives
- Household responsibilities (see next point "BEFORE YOU VACATE THE HOUSE")

Make a list for each individual from your master list. Consider performing exercise runs to determine how much time it will take for your family to get ready and try to improve on these times.

8.1.2 BEFORE YOU LEAVE HOME

- Close all gas bottles.
- Turn off the water at the main water supply point.
- Disconnect electrical and electronic equipment from electrical sockets.
- Slightly open windows on opposite sides of the house to allow the house to ventilate.
- Lock your gas braai, children's bikes and other important items in the shed or garage.
- Put on the alarm.

8.2 PREPARATION OF MOTOR VEHICLE

Another way to prepare for an evacuation is to plan your transportation in advance. If you have more than one vehicle, you need to decide which one you should take. Factors to be considered are storage space, fuel economy and the terrain you are about to cross. This vehicle should be prepared with the following:

- Full tank of Petrol / Diesel
- At least 50 litre extra fuel
- Make sure that your services are up to date
- Maps of the area and to your destination
- GPS
- Car charger for GPS and cell phones.
- A Car radio
- Flashlight (remember extra batteries)
- Engine oil and anti-freeze
- Required equipment to fix punctures.
- Compressor and pressure gauge for tyres
- Jack with all accessories as well as an inflated spare tyre.
- Toolbox with a socket set, spanners, pliers, wrenches, jumper cables etc.
- First-aid Kit
- Extra blankets



During your preparations, keep in mind that your vehicle might malfunction and that you and your family might have to walk to safety by foot. So always ensure that your grab bags are packed (See "PLAN B – Bugout Bag" in the next chapter).

8.2.1 PLANNING YOUR ROUTE



When one think of evacuation scenarios, one usually imagines a mass exodus like we saw on television with storms such as hurricane or cyclone Aida where roads were completely blocked making them impassable.

One complicated factor in our major metropolitan areas such as Cape Town, is the fact that our road infrastructure is not adequately designed for massive evacuations. Having sufficient capacity to evacuate an entire population of a city in just a few hours is economically not feasible. Most of our roads are not adequately designed to handle peak-hour traffic.

The last thing you want to do is to get stuck in your vehicle for hours, especially with a threatening storm that can come down at any moment. If you have made the decision to evacuate, you need to be organised and ready to go as soon as possible. This will give you a head start over other people who might only leave their homes an hour later.

- Keep maps at hand with all the routes that you have planned.
- Stay away from highways if possible.
- During the evacuation, listen to the radio by tuning into the local news channel to remain updated with the latest developments. Traffic reports can warn you of any possible traffic congestions, road works, roadblocks or even car accidents.
- Discuss with your spouse who will be picking up the kids if a disaster happens during school hours.

8.2.2 DESTINATION

By choosing your destination in advance, you reduce the likelihood of separation from a family member. If everyone knows where to go, in the event that you are unable to travel together, you will be far more likely to be reunited quickly.

A local destination should be chosen, as well as one that is more distant in case of a large regional disaster. Map a minimum of 3 different routes to these locations. Be sure you have money available in small denominations of cash. Figure out how much you need to make it to your destination. Consider fuel expenses and lodging costs. Destinations can include:

- Hotels
- A family members house
- A friend's house
- A camping area
- Your holiday home

8.2.3 KEEP CASH IN HAND

During a disaster, debit and credit card machines might not be unusable due to the lack of communication or electricity. For this reason, it is important to always have cash on hand. Your cash should preferably be in small denominations. Have enough cash to pay for a hotel room, food and to cover other travel expenses. Some people use small number of precious metals like gold or silver coins as another form of payment.



8.3 WHAT IS YOUR “PLAN B”?

Despite the most careful planning, the very nature of a disaster makes it likely that something will go awry. Anticipate the possible failure of your initial plan by formulating a “Plan B” for all eventualities. Remember to designate a person outside of the area as a primary contact for the family. This person will be able to coordinate messages and locations for family members in the event that you are separated.



The following actions and items take priority in a walking evacuation.

- Hiking backpack that leaves your hands free and are not prohibitive in weight,
- Pre-planned walking route avoiding populated areas if possible
- Camping gear
- Important documents stored or saved on a flash drive
- Personal defence and security
- Extra food to compensate for the additional energy expended by walking with a fully loaded pack
- Comfortable sturdy footwear

In the following chapter “PLAN B - BUGOUT BAG” is described in more detail.

8.4 PREPARE MENTALLY AND SPIRITUALLY

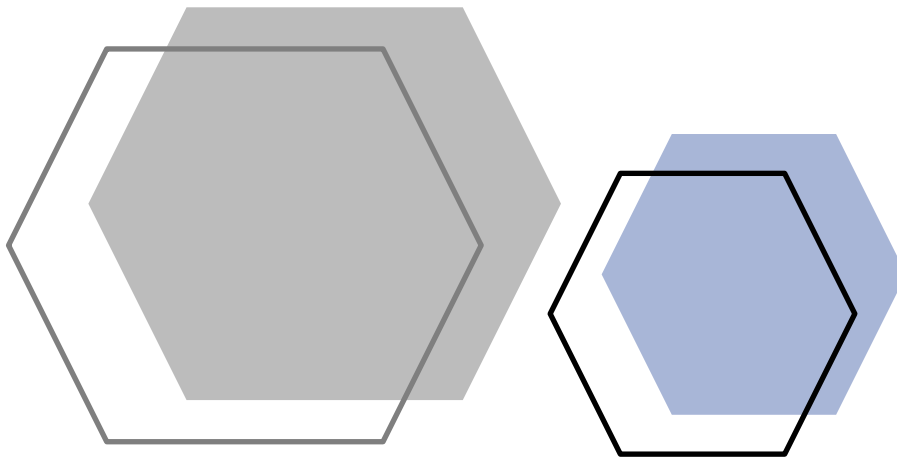
By far, the most important preparation in an evacuation is mental. If all of your best-laid plans deteriorate, a positive mental outlook and a problem-solving attitude can mean the difference between survival and failure. A little seed of hope can go a long way.

Finding faith in hard times can be compared to walking through a desert and finding water. It can save your life and give you the endurance to carry on. In the midst of disappointment and frustration, faith and hope can keep your positive momentum going. Concentrate on all that is good and positive.

“Don’t count your problems; count your blessings.”

8.5 SUMMARY

- 1) Create an evacuation plan including an emergency meeting area for family members, multiple evacuation routes, and a list of emergency phone numbers.
- 2) Assemble evacuation packs.
- 3) Place packs in an easy-to-access area.
- 4) As a family, discuss the evacuation plan, and include a discussion on the protocol and emergency exits. Make certain that all family members thoroughly understand the plan.
- 5) Get a tune up of the vehicle you plan to evacuate with.



9 PLAN B – BUGOUT BAG

Making the decision to “bug out” will undoubtedly be different depending on the scenario you are facing. In fact, have you considered that due to extraneous circumstances, you may be left with no other option but to “bug out” by foot? Therefore, think about the different “bug out” situations you could be faced with.

1. Mass evacuations due to natural or man-made disasters.
2. Disasters with little or no warning.
3. Massive infrastructure damage that will cause long term implications and road blocks.
4. Widespread crime waves and lawlessness



9.1 STOCK AND EQUIPMENT FOR 72 HOURS

According to a report of the International Red Cross, emergency services are usually overwhelmed during large-scale disasters. Depending on your circumstances, the average time that it can take for emergency teams to come to your rescue is 72 hours. Some people prefer to prepare their grab bags for a longer period, but other factors such as weight and awkward size can limit your movement.

Here are some tips to combine your 72-hour bags:

1. Sports bags, large plastic containers, backpacks or suitcases can be used to store your equipment.
2. Many experts recommend that the bag or container be waterproof.
3. Every person in the family must have their own 72-hour bag.
4. Be aware that there may be a situation where the only way to evacuate is by foot. Ideally, the best grab bag is a multi-compartment backpack that can help you keep stock and equipment organized and easily accessible.
5. 5. Let each family member walk with his or her own bag to make sure the weight is not too heavy and that it can be worn comfortably.
6. Find equipment that is lightweight, functional and versatile, so you don't carry an unnecessary load.
7. It's important that you and your family take time to test out your grab bags. Take one weekend out of your busy schedule to go camping with your family and to test all the equipment in your bag. In this way you will quickly find out what is superfluous as well as what you are short of.
8. 8. Please remember to refresh what's in your grab bag from time to time.

9.2 PREPARATION FOR YOUR GRAB BAG

9.2.1 WATER

Adults require about 4 litres of water per 24 hours. However, 12 litres of water adds up to 12 kg, which, when combined with your other gear, may add too much weight to your 72-hour bag. Because of this, many people carry about 2 litres of water and pack either water purification tablets or a water filter.

Some possibilities are:

- Individual water bottles or gallon jugs in the pack
- Canteen
- Collapsible water container
- Water filter
- Water purification tablets

You can also consider adding drink mixes or vitamin powders to water to increase your calories and add some nutritional content. Also keep in mind that many of the meals packed will require some sort of water for preparation.



9.2.2 FOOD

One thing is for certain, if you are walking with a backpack, walking for long periods and climbing up and down hills, you will get irritated, hungry, thirsty and tired. The right food will make a big difference in maintaining your energy levels as well as keeping the hunger at bay.

When you prepare your grab bag, you want a diet that provides you with enough calories, carbohydrates, proteins, vitamins as well as fats. However, keep in mind that age, as well as gender plays a role in the number of calories consumed. In high stress levels situations, it is important that your stress levels be managed as efficient as possible. With this in mind, it is important that you treat yourself with a small meal such as a snack bar every 2-3 hours.

The best approach to ensuring you have enough food for 72 hours is to sit down and put together an emergency menu based on your family's preferences. This will help you prepare, organize and simplify your shopping list. However, your menu must be realistic to make sure your body is satisfied with the necessary energy needs.

9.2.2.1 THE FOOD COMPOSITION

Research has proven that foods that are high in complex carbohydrates and dietary fibre are more effective and will make you feel fuller for longer periods.

Some energy-efficient food sources to consider are:

- **Fruits / Vegetables** – Having this dehydrated will lighten the load and give you something nutritious to snack on. Keep in mind that dehydrated foods can last for 12 months or longer, provided they have been stored properly. Pack fruits and vegetables that are the most calorie dense. Look for small boxes of dried fruits for easy meal assembly.
- **Whole vs. White** – We all know that whole grains are better for you. But did you know that they also keep you fuller longer? Whole grain breads with seeds and nuts can provide added nutrition. Look for whole grain pancake mixes, crackers, pasta, and bread to get good sources of whole grains.
- **Nuts** – This is one of the most nutrient dense foods and is also full of fibre to help you stay full longer. Due to the high protein count of these lightweight nutrition powerhouses, they can be an efficient meat replacement. Look for non-salted nut varieties to keep you hydrated longer.
- **Meat Source** – Protein sources are imperative during an emergency and can also cut down on stress. The amino acid in meat, specifically tryptophan, binds to protein and becomes a precursor for the neurotransmitter serotonin. Increased levels of serotonin may help you cope with stress. Freeze dried meats or TVP (textured vegetable protein), dehydrated meats, or cans of beef, chicken or tuna would be good choices to add to your pack.

FOOD STOCK

- Pasta
- Dried fruits and nuts
- Peanut Butter and Crackers
- Instant Oatmeal
- Powdered milk
- Biltong
- Rice and mash potatoes
- Dried soup powder
- Bubble gum
- Instant pudding
- Powder cold drink (Game, Kool-Aid)
- Camping cutlery
- Lollypops
- Energy bars (Granola bars)
- Small gastophilia as well as small pots to prepare food.

9.2.3 CLOTHING

When it comes to the packing of clothes, it can be a sensitive topic as women and children have different views to what they consider as important. If a person doesn't pack the appropriate clothing, harsh elements such as rain, cold and snow can have a catastrophic impact on the human body. This means that you must have the right tools and clothing to handle any emergency. Take into account temperature changes, climate as well as the seasons when deciding which clothes to pack in your grab bag.

PRACTICAL TIP:

It is advisable to vacuum pack individual garments. This will ensure that you have dry clothes and socks if you have to go through a river or if your grab bag falls into the water.

- Keep at least one set of extra clothes in your bag and two extra pairs of socks.
- Good pair of hiking boots with deep treads in the soles.
- For colder climates or weather, a warm jacket, cap, and waterproof pants.
- Work gloves
- Rain jacket or poncho
- Hat to protect your face and neck against sunburn



9.2.3.1 PROTECTION AGAINST THE ELEMENTS

Overheating can be as much of a problem as being cold. If you sweat when it is cold, the body chills when you stop sweating and your sweat-soaked clothing will act as a conductor to draw away body heat into the air. The best way to prevent this from happening is to layer your clothing. This provides you with a greater ability to control your body temperature in response to environmental factors and exercise.

Proper Layering Techniques:

- **Underwear** - Thermal underwear should be worn close against the skin.
- **Shirt** - A woollen or wool mixture shirt should be worn over the thermal underwear.
- **Jersey** - On top of this layer should be a woollen or good woven fibre sweater or jacket (woven fibre tends to be better because it is warmer and more windproof).
- **Jacket** - A jacket filled with synthetic fibre should be worn over the last layer. It is advised not to wear a down jacket as it tends to lose its insulating properties when it gets wet.
- **Wind Breaker** - The final layer must be windproof and waterproof. This jacket is the outer shell of the thermal protection gear. It should also be made of a “breathable” fabric such as Gore-Tex, which allows sweat to evaporate through the fabric into the atmosphere while as the same time stops rain and water from getting in. These last two layers can be combined into a single jacket.
- **Hat** – It is estimated that between 40 and 50% of heat loss emanates from your head. So, make sure you wear a warm cap to control your body heat. In warm weather, a broadband hat is needed to protect you from the sun.

9.2.4 THE RIGHT SHOES

Good shoes have everything to do with survival. A good pair of waterproof boots will protect your feet from the natural elements. Boots with flexible soles and deep treads are the most suitable option when it comes to wet and rough terrain.

There is quite a lot of debate whether one should buy leather boots that can be heavy sometimes or rather invest in a lighter-type canvas boot. Several studies have shown that wearing a 500-gram shoe or boot is equivalent to wearing 2.5kg extra weight on your back. There are many reviews of hiking shoes online to guide you to make the best choice for you.



9.2.5 SOCKS



Socks are essential to keep your feet warm and dry. Without a good pair of socks, the feet tend to swell and form blisters. Whether you're wearing two pairs of thin layered socks or wearing two thick pairs is entirely up to you. Put at least two pairs of socks in your backpack because if one gets wet, you will at least have a dry pair on hand. Always keep socks as clean and dry as possible to prevent fungal infections on your feet.

9.2.6 SHELTER

If you find yourself in an emergency where you have to evacuate on foot and with only the items you are carrying in your bug out bag, then you must have some type of emergency shelter. The weather may not be ideal and you will need some sort of shelter to protect you from the natural elements and maintain your body temperature. A small, light, two-person tent which you can easily fit into your grab bag.



- Decent Sleeping Bag
- A small, foldable Mylar emergency blanket that you can throw over your sleeping bag for extra insulation.
- A waterproof ground sheet. Tents' inseminated ground sheets are not always adequate for dampening.
- The waterproof soil sail can also be used in an emergency if a tent.
- Thick garbage bags can be folded small and different objectives can be improvised and applied.

9.2.7 COMMUNICATION



For the purpose of this chapter, we will lightly touch on the subject of communication as we have already discussed this (See chapter on COMMUNICATION). There are a few points that I would like to emphasise when it comes to preparing your grab bag.

If you vacate on foot, chances are very high that you will be totally cut off from the outside world. Ideally, you want to find a way to contact friends and family so you can co-ordinate your locations and movements. A two-way radio is a good idea. It is also important that you have access the latest news. The news reports can tell you whether you're moving in a safe direction or when the emergency situation is over and you can return home safely.

9.2.7.1 EMERGENCY FLOWS AND EMERGENCY CABLES

Another important means of communication is a whistle as well as emergency flares. The human voice is easily disguised by strong winds, waves or rivers that are coming down. In such cases, a shrill emergency whistle can lead rescue workers to your location where the visibility is poor or where you are pegged under a heap or rubble.

9.2.8 TOOLS

Tools and equipment can be used for various reasons. Equipment for use during hunting, fishing, cutting and navigation purposes is all essential items for a 72-hour grab bag.



- Knives (a large machete and a smaller Gerber hunter)
- Multiple tool kit (Leatherman)
- Foldable spade
- Hand axe with a blunt back which you can also use as a hammer
- A waterproof LED flash as well as a headlight.
- Foldable fishing rod with hooks, line, bobbers, etc.
- Maps, compass or GPS devices
- Five metres of Para chord to tie down your tent a strong wind.

9.2.9 SELF DEFENSE

As already discussed under the chapter “SAFETY AND SECURITY”, it is important that I only emphasise the following points for the purpose of evacuation on foot.

To maintain safety, you must have the ability to defend yourself. Threats could include wild animals or even other people. Weapons are a vital component of your bugout bag.

- Handgun or shotgun
- Extra magazines and ammunition
- Hunting knife
- Taser or stun gun
- Pepper Spray (mace)

9.2.10 HIGIENE

To keep you clean is extremely important for maintaining health. Some hygiene items to pack are:

- Toilet paper
- Toothbrush
- Toothpaste
- Baby wipes
- Soap
- Shampoo / Conditioner
- Detergent
- Sanitary towels / tampons

9.2.11 WRITTEN RESOURCES

In a high stress situation, it is easy to forget things you have studied in the past. By having some written information for quick reference with you, you can make life more bearable for yourself and your loved ones.

- Survival guides
- First aid manual
- A Bible, as well as a collection of spiritual texts and versions
- If children are with you, a favourite children's book for the usual bedtime story.



9.2.12 MAKING A FIRE

In your grab bag you want pack items to start a fire. Making a fire will help protect you against the cold, allow cooking as well as boiling water for coffee. Some of the following items can be packed in your grab bag:

- Waterproof matches
- Magnesium fire starters work particularly well with damp wood
- A BIC cigarette lighter (best) and block flash wrapped in plastic
- Small camp stove
- Fuel for the camp stove



9.2.13 PERSONAL DOCUMENTATION AND IDENTIFICATION

When evacuating to another location, you need to have identification and emergency information (See chapter on *ESSENTIAL INFORMATION*). To save some packing space in your grab bag, you can load a copy of your important documents onto a flash drive. Hard copies of important documents such as your ID or passport can be placed in a zip-lock bag.

9.2.14 CASH

Often in a disaster, debit/credit card machines are inoperable due to a down-grid situation. Therefore, it's always important to have cash with you. Your money should be in small denominations in case change cannot be made. You should have enough money to pay for a hotel room, food, and/or other travelling expenses. Many people also take a small number of precious metals, such as gold or silver coins, in order to have another form of currency.

9.2.15 FIRST AID KIT

There is no guarantee that everything will go as planned. Taking a basic first aid course now is instrumental in providing the right type of care. Packing a well-stocked first aid kit is essential in the event that someone gets injured. First aid kits should be filled with every type of first aid gear that could be needed.

- Band-Aids
- Antiseptic
- Gauze pads
- Medical tape
- Tourniquet
- Triple antibiotic cream
- Betadine pads
- Antiseptic spray
- Insect repellent
- Sun block and/or zinc oxide cream
- Calamine lotion
- Vaseline
- Pain and fever relief medication (both children and adult varieties)
- Anti-diarrheal medicine
- Anti-nausea medication (or other motion sickness pills)
- Prescription medicine
- Cold/flu medicine
- Antihistamine medication
- Provision for those who have severe allergies
- Scissors
- Bandages for blisters
- First aid manual

9.3 IMPORTANT THINGS TO REMEMBER

9.3.1 INFANT/BABY NEEDS

Any parent can tell you that getting out the door with an infant or toddler just to go to the store for a couple of hours requires almost military precision as well as enough gear to rival a week-long holiday from your pre-baby days. A baby's grab bag contains many of the same requirements, plus their baby paraphernalia.

9.3.2 PETS

Plan ahead for your furry friends. Leaving home in a bug-out situation is a traumatic event that you don't want to compound by leaving your pets behind to their fate. Invest in a "dog pack" – these look like saddlebags and have pockets to put your dog's gear in. A dog can safely carry his own weight.

- Dog food / cat food
- Water
- Tray for food and water
- Leashes
- Extra ID label

- Inoculation Records

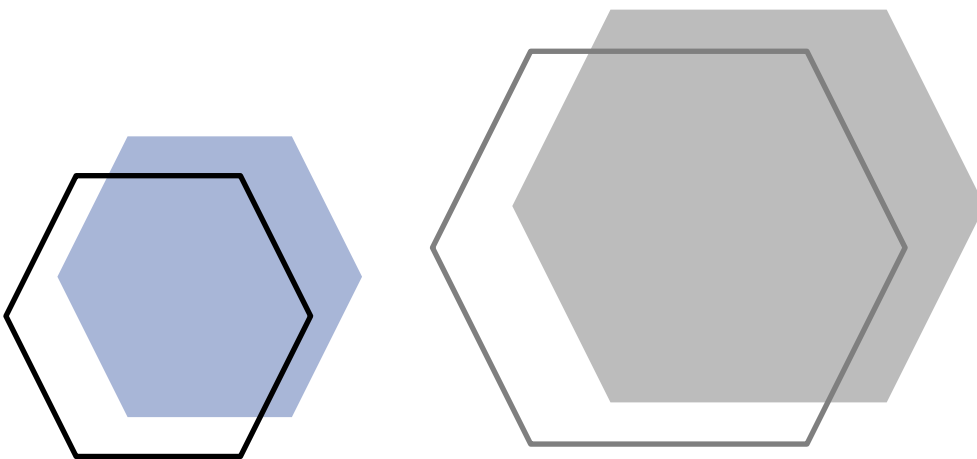
9.3.3 BAGS FOR THOSE WITH SPECIAL NEEDS

If a member of your family has a disability, it becomes even more important to prepare. Through careful planning and forethought, you can provide the things to keep your family member safe and healthy throughout an emergency evacuation. Consider the type of bag you are using – some bags can easily be attached to a wheelchair, if needed. Another family member may need to carry most of the items for the person, as they may tire more easily. These are some additional items that may need to be added to the 72-hour bag of a person with special needs and should be carried by the person themselves in a smaller bag.

- Prescriptions
- Medical devices: i.e. glucose monitors, blood pressure gauges
- Items for specific dietary requirements
- Medical records
- Extra Medic-Alert bracelet
- Comfort items

9.4 SUMMARY

- Put a grab bag together and ensure that you know how to use the content. Leave or add items according to your needs.
- Make sure all family members have a grab bag. As for your children, make sure you spread the added weight evenly between them.



10 TOOLS

One of my personal weaknesses is a love of gadgets and tools. When a person like me goes into a hardware store, it is easy to be overwhelmed by the wide range of choices. For every situation or repair there are at least ten different types of tools available that can all do the same job. It is important to set aside your emotions and wisely discern what tools or equipment you will need.



When you visit the various websites for the first time you may feel intimidated, overwhelmed and even "bankrupt" due to the number of tools and equipment you may require. On top of that, there are fierce disagreements on various forums as to over which tools or equipment is most appropriate for the different emergency situations that you might find yourself in.

Many people who participate in these forums are from overseas. Despite a difference in demographics, population composition and weather conditions, some of the principles and circumstances remain more or less the same. Many of the tools they refer to are not always available in South Africa. If possible, you can order and import from Amazon and/or eBay what is not available here.

However, it is important to think about the different emergency situations and plan your tools and equipment accordingly. For example, if a copper water pipe is broken during a disaster, a spanner can be used to blank off this pipe. Also, if you receive a warning of strong winds or a cyclone, you can strengthen your windows and doors by fastening them with a screwdriver and extra screws.

10.1.1 THE RIGHT TOOL FOR THE JOB

Quality tools are an investment which can last a lifetime, if they are properly cared for. In a disaster situation, tools are just as important as the preparation of food and water. In fact, our tools can help us to evacuate safely and to protect you and your property, and also to save other people.

Needless to say, there are also power tools, but in this chapter, we will mainly focus on basic tools which can operate without electricity, which are compact, lightweight, versatile and durable and can help you to get the job done. Power Tools will be discussed later in this chapter



10.1.2 SECOND HAND TOOLS

Tools and equipment don't have to be brand new. In some cases, second hand shops like Cash Converters or Crusaders are a much better option for getting tools. You will be able to purchase tools of a high quality at a fraction of the price.

10.1.3 SKILLS TO USE EQUIPMENT

We have all heard expression that 'tools are just as good as the person using them'. So, when tools are purchased, it is important that learn the skill to use them properly and often. Ability to use with the necessary tools will save you time and will prevent you from hurting. Take the time with your family and teach them some practical skills like using a hammer and nails, to cut wood with a hand saw and teach your son how to do the washing. Safety must be taken into account at all times and a first aid kit should be readily available at all times.

10.1.4 BASIC TOOLS AND ACCESSORIES

As mentioned above, there are many disagreements on which hand tools are best for the job. The following list is just in generic list of what you might require. You are more than welcome to adapt this list to your specific needs:

- A mobile, fold-up workbench
- Toolbox with enough plastic containers to store your nails and screws.
- Different thickness of plywood or shutterply as well as already planned wooden rafters.
- Hammer and nails
- Hand drill with drill bits
- A tape measure and a permanent marker
- Different size screwdrivers and screws
- Spanners of various sizes as well as a shifting spanner



- Wood saw, tree saw and metal saw
- Normal axe as well as a small hand axe
- Crowbar
- A large and a small spade
- Duct tape, masking tape & electrical isolation tape
- Strong ropes of different thickness and lengths
- Ordinary pliers as well as water pump pliers
- A roll of binding wire binder as well as a few packets of cable ties (zip ties) in different sizes.
- Multi-tool kit
- Lighter and matches (stored in a waterproof container)
- Various bungee cords and elastics
- Cleaning cloths and baby wipes
- Environmentally friendly hand wash soaps
- A solid pair of leather work gloves
- Adequate eye protection
- A rubbish bin with enough trash bags

10.1.5 POWER TOOLS

Power tools are electrical or battery operated (cordless). With the latest technology, cordless power tools are just as efficient, if not in some cases better than electrical power tools. The power consumption of these cordless tools is very efficient and makes use of lithium-ion batteries which can fully charge within two hours. If of the same brand, in many cases, the same battery can be used with multiple power tools. It is therefore advisable to have a second, back-up battery in your cupboard. Cordless power tools are more expensive than their electrical counterparts; however, the prices of spare parts are dropping as these cordless tools are getting more popular. Herewith a general list of cordless which is most handy in my opinion:



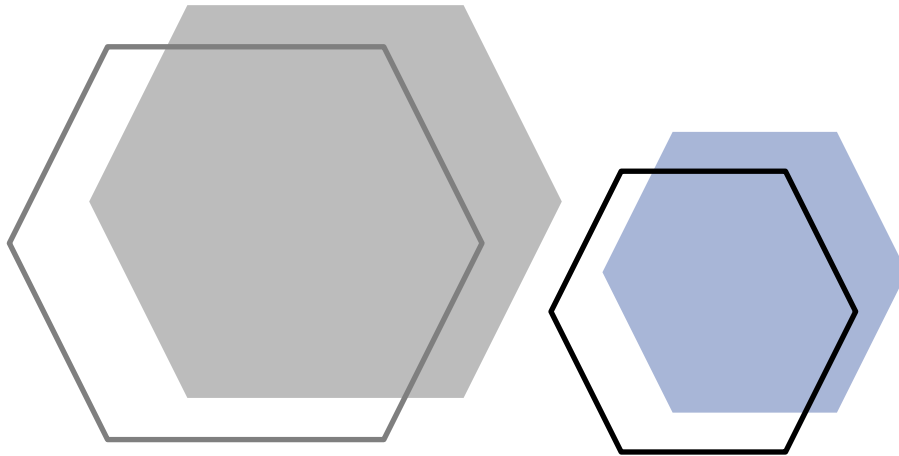
- Cordless screw driver
- Cordless drill
- Cordless jigsaw
- Cordless grinder
- Cordless oscillating tool
- Cordless circular saw

10.1.6 VEHICLE EQUIPMENT AND ACCESSORIES

Vehicle equipment and accessories will be discussed in the chapter *“PLAN A – EVACUATION BY VEHICLE”*

10.1.7 CONCLUSION

- 1) Make a list of tools and equipment for the different kinds of emergency scenarios.
- 2) Make a list of tools and equipment that you already have. Most people already have the basic tools and equipment such as hammers, nails, lighters, etc.
- 3) Gather the items you already have and put together an organised toolbox.
- 4) Make a shopping list of all other required tools and equipment that you may need.
- 5) Source the best prices -
 - 1) On the internet;
 - 2) Home improvement stores like Game, Makro, Builders Warehouse etc.;
 - 3) Outdoor activity shops like Sportsman's- and Outdoor Warehouse, Camp & Climb etc.;
 - 4) Auctions;
 - 5) Shop around for second-hand equipment i.e. Gumtree, Cash Converters, and Cash Crusaders
- 6) Remember not to always sacrifice quality for the price!



11 FIRST AID



Experts suggest that every home should maintain basic medical equipment and supplies that need to be uniquely tailored to your family's medical needs. Most of us have had our fair share of patches and antibiotic ointments, but do you have enough medication to treat dehydration, bleeding, nausea, diarrhoea or even poisoning?

During a major disaster such as a cyclone or an earthquake, roads can be blocked or overcrowded so much that they cannot be used. Knowing what to expect will help you make your emergency medical plans.

11.1 MEDICATION

Similar to making a list for starting an emergency food supply, we start a list of medical supplies by listing probable medical situations and what supplies would be required if it occurred. Also keep cognizance of any family members who have chronic conditions, allergies or long-term health issues. Furthermore, if you are planning to care for children or older members of the family when an emergency arises, make sure you have enough supplies to care for their medical needs.

SAFETY TIP

- Don't share personal prescription medications with anyone, even if they use the same medication.
- Check for any headaches, pain relief, anti-on and anti-vomiting medications accordingly and store them in a child-resistant container.
- Ensure that only responsible adults have access to medication.

11.1.1 STORAGE OF MEDICINE

Just as in the case of food, medicine can break down and spoil very easily if exposed to natural elements such as moisture, light, air and heat. Find an area in the home that is cool and dark to store your medical supplies. Make sure that you place medicine out of the reach of children.

Regularly check the expiration dates to ensure that the medicine is still fine and rotate stock as required. Although some medicines may last longer than their expiry dates, there are definite signs of spoilage that you should take notice of to determine if the medication is still fit for usage.

- Cream or ointment that has discoloured or changed texture over time.
- Cream or ointment that has separated.
- Medicine that has changed scent since it was opened.
- Tablets that are broken or changed in colour.
- Medication that has expired is usually less effective and, in some cases, even poisonous.

11.2 CHRONIC DISEASES

Chronic diseases can be hereditary, but it is known that various lifestyle and environmental factors such as smoking, inadequate diet, lack of exercise, and excessive alcohol consumption increase the risk for chronic diseases. These factors are, to some extent, controllable, but there are often other factors such as poverty, malnutrition during pregnancy and infancy, genetic susceptibility/propensity, and age, over which the individual has little or no control. In addition to early diagnosis, our focus is largely on the prevention of the disease and the promotion of healthy behaviour.

Chronic diseases that deserve priority include high blood pressure or hypertension, asthma, epilepsy, strokes, kidney disease, cancer, obstructive pulmonary disease, and Diabetes Type 2. (Diabetes type 1, which is mostly diagnosed in early childhood, is less common.) Most of these diseases are long-term illnesses and although many of these can't be cured, their symptoms can be controlled.

People of all ages are affected by chronic diseases, but the risk of developing a chronic disease is higher among the elderly, as are the chances of chronic illness leading to physical disability.

PLEASE NOTE:

Chronic medicine is usually 'schedule 5' medicines. This can only be obtained from a pharmacy by prescription. The prescription is usually only valid for a certain amount of time. If the prescription expires, the patient must revisit the doctor to obtain a new prescription.

However, a patient must ensure that the person has sufficient chronic medicine if a state of emergency is declared. If chronic medication cannot be obtained, one has to look for alternative options.

11.2.1 ASTHMA

Asthma is a lung disease that causes difficulty with breathing. Asthma can be either acute or chronic. When asthma attacks occur, there is an obstruction in the flow of air to the lungs. Some common causes of asthma are allergies, air pollution, respiratory infections, sulphites in food, and certain medication. Common symptoms include coughing, wheezing, shortness of breath, and chest distress. There are many medical treatments for asthma. These simple natural remedies can also bring relief to some of the symptoms.

There are several natural remedies that can provide meaningful relief during an asthma episode when prescribed medication is unavailable. These include ginger, garlic, honey, eucalyptus oil, mustard oil, figs, onions, lemon and salmon. For detailed guidance on each of these remedies — including how to prepare and use them — refer to the dedicated chapter on **Natural Remedies and Alternative Medicine** later in this guide.

11.2.2 HIGH BLOOD PRESSURE

If you have been diagnosed with high blood pressure, also known as hypertension, the use of medication to reduce your blood pressure may be of concern to you.

One's lifestyle plays an important role in the treatment of high blood pressure. If you manage your high blood pressure successfully by maintaining a healthy lifestyle, you can avoid, delay or reduce the need to take medication.

Here are seven lifestyle changes that you can make to lower your blood pressure and keep it low.



11.2.2.1 LOSING WEIGHT

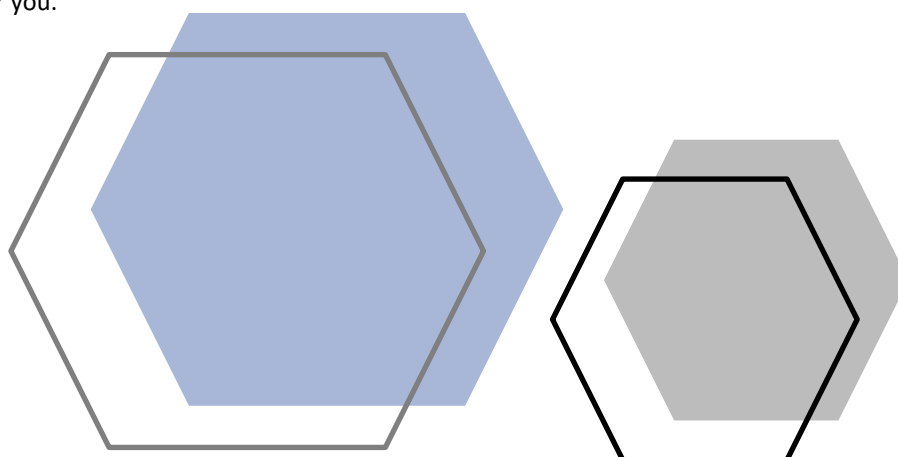
Hypertension associated with obesity is dangerous for one's long-term health. Obesity can cause poor blood circulation and stress on joints, bone structure, and the heart. This can worsen the symptoms of high blood pressure. Therefore, if you are someone who is struggling with obesity, it is important to prioritise weight loss when treating your high blood pressure.

11.2.2.2 KEEP AN EYE ON YOUR WAIST

Besides the extra few kilograms you shake off, you should also keep an eye on your waist. Having too much weight around your waist (belly) increases your risk of high blood pressure. Men usually are in danger if their waist size is greater than 100 centimetres, while women are in danger if their waist size is greater than 90 centimetres. Keep in mind that these figures vary for different ethnic groups. Ask your doctor about a healthy waist size for you.

11.2.2.3 EXERCISE

Regular physical activity of at least 30 minutes on most days of the week can lower your blood pressure by 4 - 9 millimetres of mercury (mmHG). It is important to keep exercising, because if you stop exercising, your blood pressure may rise again. Include cardiovascular exercise in your fitness routine will improve your circulation, lung capacity and heart efficiency. The combination of these will lower your blood pressure. The best type of exercise for lowering blood pressure includes walking, jogging, cycling, swimming and dancing. Exercises using weights can also help lower blood pressure. Talk to your doctor about setting up an exercise program for you.



11.2.2.4 EAT HEALTHY

A diet plan that contains whole-grain, fruit, vegetables, low-fat dairy products that avoids saturated fats can lower your blood pressure by about 14 mmHG. It's not easy to change one's eating habits, but with a few tips you can learn to keep a healthy diet.



- **Keep a diary of your food intake.** By keeping a record, even if it's only for a week, you can shed a lot of light on your true eating habits. Keep track of what you eat, how much, when and why.
- **Consider increasing your potassium intake.** Potassium may reduce the effect of sodium on your blood pressure. The best source of potassium is foods such as fruits and vegetables rather than food supplements. Talk to your doctor about which potassium level will be best for you.
- **Be a smart buyer.** Read food items' labels when shopping and stick to your healthy eating plan even when you go out for dinner.

11.2.2.5 CUTTING YOUR SALT INTAKE

People with high blood pressure, moderately high blood pressure and full-blown hypertension can drastically lower their blood pressure by decreasing their salt intake. According to the Mayo clinic in the USA, even a small reduction in sodium in your diet may reduce your blood pressure by 2 - 8 mmHG. It is recommended that people with hypertension should limit their salt intake to less than 1500 milligrams (600 milligrams of sodium) per day. We take in most of the sodium through processed foods. So, it's best to stay with unprocessed foods. When you eat food that has a label on the back – take note of the sodium content of the product.

11.2.2.6 LIMITING THE QUANTITY OF ALCOHOL THAT YOU DRINK

Alcohol can be good and bad for your health. In small quantities, it may reduce one's blood pressure by 2 - 4 mmHG. However, the opposite is true when you use too much alcohol. Generally, it is more than one drink a day for women and for men over 65, or more than two drinks a day for men aged 65 and younger. People who drink more than a moderate amount of alcohol a day can significantly increase their blood pressure. It can also reduce the effectiveness of blood pressure medication.

11.2.2.7 STOP SMOKING

Smokers are at greater risk of suffering from hypertension. Although tobacco and nicotine in cigarettes may cause temporary blood pressure increases, smoking is not considered a cause of chronic hypertension. Instead, factors associated with smoking, such as excessive alcohol consumption and lack of exercise, may be responsible. However, your blood pressure may drop a little if you stop smoking. Of course, there are many other health benefits to stop smoking.



11.3 FIRST AID KIT

It is imperative that a first aid kit should be handy, especially if medical assistance is not available immediately. Pills for flu, headache tablets, and plasters for accidental cuts are a must. The following list is a wide range of essential items. Of course, you are more than welcome to add or even to take away from this list.

11.3.1 NECESSARY ITEMS

- Duct tape to keep a splint in place
- Butterfly bandages, to hold the edges of a cut together
- Non-stick sterile dressings for small cuts or scrapes
- Sterile gauze to control bleeding and prevent contamination
- Sterile bandages, to support sprain
- Cream to relieve itching after insect bites and slight skin irritation
- Antibiotic ointment, to prevent infection of small wounds
- Antiseptic ointment, solution and syringe to clean wounds
- Cotton
- Disposable medical gloves
- Eye shield
- Loosing Solution to wash out an eye
- Triangle connection
- Sterile gel for fire and burns
- Aluminium wings splint
- Cold medication
- Plastic bags, different sizes
- Safety pins, different sizes
- Scissors
- Hand sanitiser
- Thermometer
- Suction device for wound coil
- Syringe, medicine cup or spoon
- CPR mouthpiece (breathing barrier)



11.3.2 MEDICATION

- Aloe Vera-Gel
- Calamine ointment
- Anti-diarrhoea medication
- Purgative
- Anti-acids (Rennies, Gaviscon)
- Antihistamine
- Pain-relievers
- Cortisone cream
- Cough and cold medicine



11.3.3 EXTRAS

- Small waterproof flashlight
- Batteries and accessories
- Waterproof matches
- A small notebook and pencil
- Space blanket
- Emergency whistle

Don't forget essential vitamins and nutritional supplements. This can help prevent health problems and build a strong immune system. Vitamins are essential for regulating body functions and also to help with the healing process. Centrum multivitamin is a good product to keep your body functioning at optimal levels.

11.4 BASIC EMERGENCY PROCEDURES

- **FIRST AID APPLICATIONS** - There are several first-aid applications for cell phones and tablets available. Some of these applications are quite intelligent. By answering a few basic questions about the symptoms of the patient, it can help to make diagnoses of the patient. By following a series of basic procedures by reading from this phone app, you can try to help the patient.
- **MEDICAL MANUAL** - Cell phones are not always available. Obtain a proper medical guide.
- **FIRST AID COURSE** - First-hand practical experience still remains the best option. So, it is strongly advised that you attend at least one first aid course.

11.4.1 BASIC FIRST AID TRAINING CAN SAVE A LIFE

Nobody is exempt from a life-threatening situation. Knowing the basic fundamentals of first aid have saved many lives in the past. Here are a few tips that you can keep in mind. Statistics differ but on average, more than 11,000 people die every year in car accidents, about 20,000 are victims of murder, robberies and hijackings, and 1 000 farms fall prey to farm attacks. It is therefore imperative that each and every one should be able to apply first aid.

After an attack or accident, the victims may be shocked, injured and possibly unconscious. Basic first aid techniques can help keep injured people alive until medical assistance arrives. (These are just tips, not complete first-aid training)

11.4.1.1 CLEARING OF AIRWAY

Make sure the patient's airway is open and clear. Sometimes dentures, vomit or bleeding can block the throat. Let the patient lie on his back; and pull his head back. If there is vomit in the airway, the patient should be turned on the side, but his head should still be pulled back.

If a patient no longer breathes by himself, you should help to get air in the patient's lungs. Turn the patient on his back, pull his head back and pinch his nose. Blow in his mouth. Make sure that the patient's lungs are filled. It can be easily observed by the up and down movement of his chest. Wait until the air has exhaled through his mouth or nose and then repeat the process

11.4.1.2 NO PULSE DETECTED

If someone's heart has stopped and there is no pulse, CPR should be started immediately. Turn the person on his back and pull his head back to open the airway. Mouth-to-mouth breathing should be done with cardiac massage (CPR) to get oxygen in his lungs. The heart massage thus helps to circulate blood flow to the brain, lungs and heart. Mouth-to-mouth respiration ensures that there is oxygen in the bloodstream. If there has been a lot of blood loss, legs should be lifted and placed on an object like a chair.



Blow air into the mouth four times quickly and follow it up with fifteen downward heart compressions (strictly regular once a second) on his chest. The right method is to place both hands flat on the lower part of the chest, straighten the elbows and press down hard. Then blow air into his lungs again and massage the heart five times. Repeat these two steps as many times as necessary.

11.4.1.3 BLEEDING

If an artery is ruptured, the bleeding is light pink or bright red and it rhythmically pulse out of the wound. Bleeding from an ordinary vein is dark coloured and it flows out regularly. The usual type of bleeding can be stopped with a pressure bandage, but an artery will only stop bleeding if a tourniquet bandage is placed on the wound. This is done by turning a dressing around the location of the artery to prevent blood flowing to the body part where the wound is. The dressing is wound up with a pen or stick until the blood supply to the wound is cut off.

A pressure bandage can be held around a leg or around an arm for up to three hours at a time without causing tissue damage. However, it is advisable to relieve the pressure bandage every half an hour for a few seconds so that the blood can take oxygen to the body part in question.

If it appears that an injured person may require surgery, he should not drink or eat anything, as this may cause him vomit during anaesthesia, which can be very dangerous.

The best painkiller for a fracture is immobilization. Place a pillow under the broken limb, or splint it between two sticks or boards. One can easily lose 1.5 litres to 2 litres if bleeding internally due to a fracture.

11.4.1.4 BULLET AND KNIFE WOUNDS

In the case of a gunshot wound, the patient should be moved as little as possible as the bullet can cause great damage if it is in a life-threatening place, such as the neck, back or in the torso.

In the case of a knife wound, try to stop the bleeding as soon as possible. If a knife or other sharp object is still stuck in the victim's body, it should not be removed. If it gets stuck, it might block arteries, which will start bleeding when the object is removed. An adult has six to seven litres of blood in his body. He can die due to a loss of blood in a few minutes if an artery is ruptured, as the heart will beat faster due to shock and the body will try to compensate for the loss of the body's functions.

11.4.1.5 CHRONIC DISEASES

People that suffer from chronic illnesses such as asthma, diabetes and high blood pressure should wear a Medic Alert bracelet or necklace at all times which will ensure that all medical information is available in case the person is unconscious.

11.4.1.6 MAKE USE OF EMERGENCY SERVICES

There is an emergency service organisation in South Africa that provides a vital medical service to the community. It consists of a group of people who are well trained to apply emergency treatment in any situation.

In an emergency, one national emergency number - 10177 - can be dialled. However, it is advisable to always keep a local emergency number at hand, which will directly connect you to an emergency centre.



When a disaster happens and for other logistical reasons, it is not always possible for rescue teams to be available at the scene when an incident happens. That is why the Bateleur club emergency communication Centre has been established. When someone experiences an emergency, often associated with trauma and panic, such as during a farm attack, call this centre. They will manage the situation by notifying the SA Police Service, neighbourhood watch, emergency services, fire brigade and other support groups, such as your neighbours, immediately and simultaneously in case of an emergency. Members can decide beforehand who needs to be contacted in the district. They also offer 24-hour access to a medical Centre (Nurse on Call) where experienced medical personnel can provide expert telephonic advice until help arrives. Bateleur club also arranges for the transport of patients by ambulance or helicopter, and provides assistance to minors.

11.4.2 TREATMENT OF BURN WOUNDS

Accidents happen in the blink of an eye; therefore, it is important to know what to do when someone gets hurt in your presence.

There are four different kinds of burns, classified according to what caused the burn:

- 1) heat, for example fire, steam or hot liquids;
- 2) electricity;
- 3) the sun;
- 4) Chemical substances.



11.4.2.1 GRADING OF BURN WOUNDS

The severity of a burn is measured by the depth of the wounds (expressed in degrees measuring from one to four) and the size of the wound (expressed as a percentage from 1 to 100):

- 1) **1st grade** - The skin is red, sensitive and usually moist. A mild fever, restlessness and headache can occur.
- 2) **2nd grade** - The skin is damaged and blisters can occur. The pain is worse and the redness is brighter.
- 3) **3rd grade** - The skin is deeply damaged and shows bright red, white or black. It is possible that you have no pain and no blisters, as the nerves are also burnt.
- 4) **4th grade** - The skin tissue is damaged to the muscles and bone.

PERCENTAGE OF DAMAGE

➤ Size of your hand	=	1 %
➤ Head and Neck	=	9 %
➤ One hand and one arm	=	9 %
➤ One foot and one leg	=	9 %
➤ Chest and stomach	=	18 %
➤ Back, including the buttocks	=	18 %
➤ Genitals	=	1 %

The percentages of the affected areas are added to ascertain the total damage:

➤ Little	=	15 %
➤ Moderate	=	15 - 49 %
➤ Large	=	50 - 69 %
➤ Huge	=	70 % and more.

11.4.2.2 WHEN SHOULD THE INJURED PERSON RATHER BE TAKEN TO HOSPITAL AND WHEN CAN A BURN WOUND BE TREATED AT HOME?

- Most first-degree burns that cover less than 15 percent of the body can be taken care of at home.
- All children under two must be taken to the doctor for an examination.
- When more than 70 percent of the body is burnt, the victim should be taken to hospital immediately.
- When the victim's consciousness is affected, the patient must be taken to hospital immediately.

- Any third-degree burns should go to hospital immediately.
- Anyone who obtains electricity burns should be examined by a doctor.
- If the hands, feet, genitals or face are burnt then a doctor should immediately examine the wounds.
- Chemical burns that caused blisters should be treated immediately by a professional.

6.4.2.3 TREATMENT: EACH TYPE OF BURN SHOULD BE TREATED DIFFERENTLY

11.4.2.2.1 WOUNDS CAUSED BY HEAT / FIRE

- 1) Extinguish the fire. If the victim is still burning, wrap the person in a blanket or towel to extinguish the flames.
- 2) Do not use any cream, butter or adhesive tape near or on the burns; it can trap the 'heat' inside.
- 3) Do not remove any clothing that has burnt into the flesh.
- 4) Remove jewellery before the affected areas begin to swell.
- 5) For small burns, immerse the burned part in cold water (not ice water). Restrict the immersion time to five minutes at a time to prevent a dead feeling and numbness. You can also put a damp cloth on the affected areas for 10 minutes to fifteen minutes at a time; it will relieve pain and swelling.
- 6) In the case of a limb, lift the affected part for the first 24 hours above the heart level.
- 7) Aloe Vera gel can be used for first degree burns, but first read the leaflet, as some gel contains alcohol. This can irritate the skin. The gel can be cooled in the refrigerator for greater relief.
- 8) Local anaesthetic ointment purchased without prescription can also help for pain relief.
- 9) Do not cut blisters as this can cause inflammation.
- 10) Wash the wound once a day with an antibacterial soap and apply antibiotic ointment.
- 11) If the blisters do break, remove any loose skin carefully.
- 12) Take lots of fluids to prevent dehydration.

USEFUL HINTS FOR FIRST AID

- Regularly replenish the stock of your first aid kit.
- Store it in a cool, dry place and out of reach of children.
- Make sure the whole family knows where the first aid kit is kept, what it contains and know how to use the content.
- Include a basic first aid manual or instruction booklet.
- Paramedics' top three must-have items are: a CPR mouthpiece, something to stop bleeding and medical gloves.
- Never touch blood or body fluids without wearing medical gloves.
- If you don't use the box often, at least check expiry dates once a year.
- In case of an emergency - try to provide the best assistance to the injured person, but always ensure your own safety.

11.4.2.2.2 ELECTRICAL BURNS

- 1) If there are any open wires near the person, immediately switch off the power supply or disconnect the device.
- 2) If it is not possible to switch off the power supply, isolate yourself by properly drying your hands and using dry gloves or a dry cloth before touching to the victim.
- 3) Stand on an isolated surface such as newspaper or towel. Do not earth yourself directly to the ground, metal or any other conductor.
- 4) Carefully remove the wires with a non-metal, non-conductive object, such as a broomstick or rubber.
- 5) Keep the victim calm and wrap the person in blankets.

- 6) Cover all open wounds with gauze or bandages.
- 7) If there is bleeding, limit it by applying pressure to the wound.
- 8) Immediately take the victim to a doctor or hospital.

11.4.2.2.3 BURN WOUND CAUSE BY EXPOSURE TO THE SUN

- 1) Put a wet cloth on the wound to relieve the burning sensation.
- 2) Give the person plenty of fluid to drink.
- 3) Run for the patient a lukewarm bath of baking soda or vinegar.
- 4) Determine the severity of the wounds and decide whether the victim should speak to a doctor.

11.4.2.2.4 BURN WOUNDS CAUSED BY CHEMICAL SUBSTANCES

- 1) Rinse the affected part for five minutes under cold running water. Make sure that the dirty water runs away.
- 2) If it is a major burn, the victim should lie flat on the way to hospital to ensure that the victim's blood pressure doesn't drop due to the shock.

11.4.2.3 WHAT DO I NEED IN MY FIRST AID KIT FOR THE TREATMENT OF BURNS?

- 1) A small pair of scissors
- 2) Aloe Vera-gel that does not contain any alcohol
- 3) Local anaesthetic
- 4) Antibacterial soap
- 5) Savlon or Dettol
- 6) Antibiotic ointment
- 7) Bandages and gauze
- 8) Baking soda
- 9) Cotton wool and gauze to clean the wounds

11.4.2.4 PREVENTION OF BURN WOUNDS

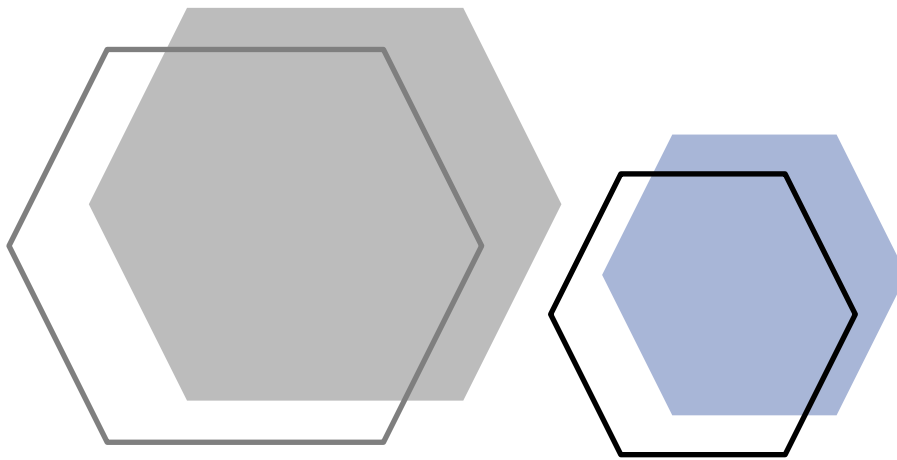
- 1) Keep a fire extinguisher nearby at all times. Make sure you know how to use it.
- 2) Do not wear loose clothing close to a fire.
- 3) Do not smoke in bed.
- 4) Turn all the handles of pots and pans to the rear of the stove to ensure that kids don't pull it over.
- 5) Do not light fireworks while holding them in your hand.

11.4.3 WATERBORNE DISEASES

When an emergency occurs, there is a particular increase in admissions at hospitals, namely diarrhoea, acute respiratory infections, dermatitis cause by contaminated water. These types of medical conditions are usually occurring as a result of a broken pipe that got the floodwater contaminated with oil, chemical waste or raw sewage. Flood water, standing pools of water and dams should ALWAYS be considered as contaminated and should never be drunk. This form of contamination can irritate the skin or irritate eyes. Serious viral infections such as diarrhoea, cholera and bilharzia can cause a range of other health problems. A significant number of these diseases can be avoided by using only clean drinking water and by applying adequate sanitation practices.

11.5 CONCLUSION

- 1) List the most likely medical problems you may experience during a disaster and make a list of the medical supplies you will need.
- 2) Remember to stock up on chronic medication when compiling your list.
- 3) Ensure that all members of the family know the emergency phone numbers.
- 4) Remember to get additional supplies for the elderly and young children.
- 5) Get yourself a plastic toolbox in which to store your medicine.
- 6) Obtain a proper medical guide or mobile app.
- 7) Subscribe to a CPR / First Aid class with your local Red Cross or your local emergency management department. For those who have limited time at their disposal, you can also get first aid.



12 NATURAL REMEDIES AND ALTERNATIVE MEDICINE



Throughout this guide we have emphasised the importance of stocking chronic medication and building a comprehensive first aid kit. That advice stands and should be your first priority. However, in a prolonged crisis — where pharmacies are closed, supply chains have collapsed or your medication runs out before you can replenish it — knowing how to use natural remedies and locally available plants to treat common ailments could make a significant difference to your family’s health and comfort.

South Africa is extraordinarily rich in medicinal plants. Our indigenous healing traditions stretch back thousands of years and many of the remedies used by our grandparents and by traditional healers have been validated by modern research. This section is not a replacement for professional medical care or prescribed medication. It is a practical supplement — a collection of accessible, locally available remedies for common conditions that may arise during an emergency when conventional medicine is not immediately available.

Several of the remedies in this chapter are particularly beneficial for respiratory conditions including asthma. Refer to the Asthma section in the First Aid chapter for specific asthma management guidance alongside these natural remedies.

IMPORTANT

Always consult a medical professional when one is available. Never stop prescribed chronic medication without medical advice. Use natural remedies as a bridge — not a replacement.

12.1 NATURAL MEDICINES

12.1.1 ALOE VERA

Aloe vera is arguably South Africa's most versatile medicinal plant and one that grows abundantly across the country with almost no maintenance required. Every South African household should have at least one aloe plant in the garden or in a pot.

- **Burns and sunburn** — the gel from a freshly cut aloe leaf applied directly to a burn provides immediate cooling relief, reduces inflammation and promotes healing.
- **Skin irritations, rashes and insect bites** — fresh aloe gel soothes itching, reduces redness and has natural antibacterial properties that help prevent infection in minor skin wounds.



How to use: Cut a mature leaf close to the base of the plant. Slice it open lengthways and scoop out the clear gel with a spoon. Apply directly to the affected area. Fresh gel can be stored in a sealed container in the refrigerator for up to one week.

12.1.2 ROOIBOS

Rooibos is uniquely South African — grown only in the Cederberg region of the Western Cape and used medicinally by the Khoisan people for centuries. It is widely available, inexpensive and has a remarkable range of health benefits.

- **Digestive problems** — soothes the digestive tract, relieves stomach cramps, nausea and diarrhoea. Gentle enough for infants and young children.
- **Allergies and anxiety** — contains a natural antihistamine and is caffeine-free with calming properties that promote relaxation and healthy sleep during stressful periods.
- **Hydration** — an excellent hydrating drink without the dehydrating effects of caffeine. Far preferable to coffee or regular tea during a crisis.



How to use: Brew as ordinary tea. For digestive complaints drink three to four cups per day.

BUCHU

Buchu is one of South Africa's most celebrated medicinal plants, available in health shops, pharmacies and supermarkets in dried, tea and tincture form.

-
- **Urinary tract infections** — powerful antibacterial and anti-inflammatory properties make buchu one of the most effective natural treatments for UTIs. During a crisis when access to antibiotics may be limited, buchu tea can provide significant relief.
- **Colds and flu** — natural antiviral properties help reduce the duration and severity of colds and flu.



How to use: One teaspoon of dried leaves per cup of boiling water, steeped for five minutes. Drink two to three cups per day. Important: do not use during pregnancy.

12.1.3 GARLIC

- **Infections** — contains allicin, a powerful natural antibiotic and antiviral compound effective against a wide range of bacteria and viruses.
- **Respiratory conditions and asthma** — boil ten to fifteen garlic cloves in half a cup of milk and drink once a day to clear congestion and support the airways.
- **High blood pressure** — regular consumption has been shown to reduce blood pressure measurably.



How to use: Raw garlic is most potent — crush or finely chop one to two cloves and consume directly or mixed into food.

12.1.4 GINGER

- **Nausea and vomiting** — one of the most effective natural treatments for nausea of any cause — motion sickness, food poisoning, morning sickness.
- **Respiratory infections and asthma** — for asthma relief mix equal amounts of ginger juice, pomegranate juice and honey and swallow one tablespoon two to three times a day.
- **Pain and inflammation** — significant anti-inflammatory effects useful for headaches, muscle pain and joint inflammation.



How to use: Slice or grate fresh ginger into boiling water, steep for ten minutes and drink with honey and lemon.

12.1.5 HONEY

Raw unprocessed honey stores almost indefinitely without refrigeration making it a perfect emergency supply item.

- **Wound care** — applied directly to wounds, cuts and burns it inhibits bacterial growth, reduces inflammation and promotes healing.
- **Sore throats, coughs and asthma** — one teaspoon in warm water three times a day soothes inflammation and suppresses coughing. Before bed take one teaspoon with half a teaspoon of cinnamon to remove mucus and promote sleep.

How to use: Apply raw honey directly to wounds as a dressing. For internal use dissolve one to two teaspoons in warm water or herbal tea. Never give honey to children under one year of age.



12.1.6 MUSTARD OIL

- **Respiratory relief and asthma** — heat mustard oil with a little camphor until lukewarm and gently massage onto the chest and back to open the respiratory tract and restore normal breathing. Repeat several times a day until symptoms subside.
- **Muscle and joint pain** — warm mustard oil massaged into sore muscles and stiff joints provides significant anti-inflammatory relief.



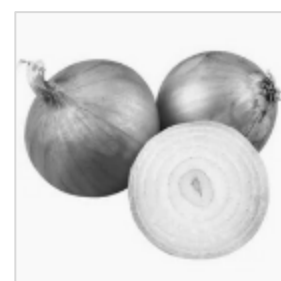
12.1.7 FIGS

- **Respiratory health and asthma** — soak three dried figs in water overnight. Eat the figs in the morning and drink the soaking water on an empty stomach. Continue daily for several weeks for best results.
- **Digestive health** — rich in dietary fibre and natural enzymes that support healthy digestion and relieve constipation.



12.1.8 ONIONS

- **Respiratory conditions and asthma** — powerful anti-inflammatory properties help reduce narrowing of the airways. The sulphur content helps reduce inflammation in the lungs. Eat raw onions to clear the airway.
- **Infections** — natural antibacterial and antiviral properties support the body during infections.



12.1.9 LEMON

- **Immune support and asthma** — squeeze the juice of half a lemon into a glass of water, add honey and drink regularly. People with asthma often have low Vitamin C levels — lemon addresses this. Note: do not use citrus during an active asthma attack as it may aggravate symptoms.
- **Dehydration support** — lemon water with a pinch of salt and a teaspoon of honey is a simple and effective oral rehydration solution for mild dehydration.



12.1.10 SALMON AND OMEGA-3 RICH FOODS

- **Respiratory health and asthma** — Omega-3 fatty acids help the lungs respond better to irritations that cause asthma symptoms. Canned salmon, sardines and tuna are all excellent sources that store well in your emergency supplies.
- **Cardiovascular health** — reduces the risk of heart disease and helps manage blood pressure naturally.



12.1.11 EUCALYPTUS OIL

- **Respiratory congestion and asthma** — place a few drops on a paper towel and hold near the face while sleeping. Alternatively add two to three drops to a bowl of boiling water and inhale the steam deeply.
- **Headaches and muscle pain** — diluted eucalyptus oil applied to the temples relieves tension headaches. Massaged into sore muscles provides cooling anti-inflammatory relief.



12.1.12 COFFEE AND CAFFEINE

Asthma relief — caffeine acts as a mild bronchodilator helping to open constricted airways during an asthma episode. One to two cups of strong hot coffee can provide meaningful relief while longer-term treatment is sought. Black tea provides a similar but milder effect. Important: use as an emergency measure only, not as regular treatment.



12.1.13 TURMERIC

- **Inflammation and pain** — a powerful natural anti-inflammatory and analgesic effective for headaches, joint pain, muscle soreness and general pain management.
- **How to use:** Mix one teaspoon of turmeric powder into warm milk with a pinch of black pepper which significantly increases absorption. Drink once or twice daily.



12.1.14 APPLE CIDER VINEGAR

- **Digestive problems** — one tablespoon in a glass of water before meals relieves indigestion, bloating and acid reflux.
- **Blood sugar management** — has been shown to reduce post-meal blood sugar spikes, particularly beneficial for diabetics with limited access to medication.
- **How to use:** Always dilute before internal use — one tablespoon in a glass of water. For topical use dilute one part vinegar in two parts water.



12.1.15 KANKERBOS (CANCER BUSH) — SUTHERLANDIA FRUTESCENS

Kankerbos is one of South Africa's most powerful and revered indigenous medicinal plants. It grows widely across the Western Cape, Northern Cape and parts of the Eastern Cape and has been used in traditional South African medicine for hundreds of years. Its Afrikaans name — kankerbos — reflects the traditional belief in its ability to fight serious disease, and modern research has increasingly supported what traditional healers have long known.



The plant is recognisable by its bright red-orange flowers and distinctive inflated papery seed pods. It is available across South Africa in dried leaf, tea, tincture and capsule form at health shops, pharmacies and traditional medicine suppliers.

- **Immune support and serious illness** — kankerbos is best known as a powerful immune system booster. It has been widely used to support patients undergoing treatment for cancer, HIV/AIDS and tuberculosis. During a crisis when immune function may be compromised by stress, poor nutrition and exposure to infection, kankerbos provides meaningful immune support.
- **Stress and anxiety** — contains L-canavanine and GABA which have proven calming and anti-anxiety effects. During a prolonged crisis kankerbos tea can help regulate the nervous system and promote emotional resilience.
- **Fever** — has natural antipyretic properties that help reduce fever during infections when conventional fever medication is unavailable.
- **Diabetes management** — research has shown that kankerbos helps regulate blood sugar levels, making it a valuable natural support for diabetics during a crisis with limited access to medication.

How to use: Brew one teaspoon of dried leaves per cup of boiling water, steeped for five to ten minutes. Drink one to two cups per day. Add honey to improve the bitter taste.

Important precautions: Do not exceed the recommended dosage. Do not use during pregnancy or while breastfeeding. May interact with immunosuppressants, corticosteroids and antiretroviral drugs. Do not give to children under twelve without medical advice. Source from a reputable supplier. Kankerbos can also be grown in most South African gardens — ask at your local nursery.

12.2 BUILDING A NATURAL MEDICINE KIT

In addition to your conventional first aid kit, consider assembling a natural medicine kit. The following items are affordable, widely available, store well and cover a broad range of common conditions:

- **Aloe vera plant** — grow one in your garden
- **Rooibos tea** — stock at least 200 teabags
- **Buchu tea** or tincture
- **Fresh garlic** — store in a cool dry place
- **Fresh ginger** — can be frozen for long-term storage
- **Dried figs** — store in an airtight container
- **Onions** — store in a cool dry well-ventilated area
- **Lemons** — stock regularly and rotate
- **Raw unprocessed honey** — stores indefinitely
- **Mustard oil** — available at Indian grocery stores
- **Turmeric powder** — store in an airtight container
- **Apple cider vinegar** — raw and unfiltered
- **Kankerbos** — dried leaves, tincture or capsules from a reputable supplier
- **Eucalyptus essential oil**
- **Coconut oil** — natural antibacterial and antifungal for skin conditions
- **Lavender essential oil** — antiseptic, relieves headaches and promotes sleep
- **Peppermint essential oil** — relieves headaches, nausea and respiratory congestion
- **Canned oily fish** — salmon, sardines, pilchards and tuna for Omega-3



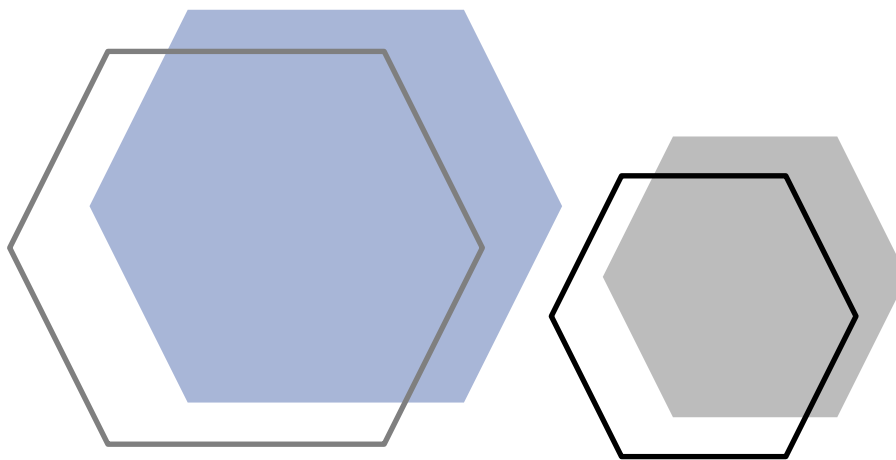
12.3 AN IMPORTANT CAUTION

Natural remedies are genuinely effective for many common conditions. However, they have real limitations: they are not a substitute for prescribed chronic medication; they are not appropriate for serious infections, medical emergencies or conditions requiring surgery; some interact with prescription medications; pregnant women should exercise particular caution with buchu, kankerbos and certain essential oils; children require smaller doses than adults. When in doubt do less rather than more and seek professional medical advice as soon as it becomes available.

12.4 SUMMARY

- **Aloe vera** — burns, skin irritations, wounds
- **Rooibos** — digestive complaints, allergies, anxiety, hydration
- **Buchu** — urinary tract infections, kidney health, colds
- **Garlic** — infections, blood pressure, immune support, asthma
- **Ginger** — nausea, respiratory infections, pain, asthma
- **Honey** — wound care, sore throats, digestive infections, asthma
- **Mustard oil** — respiratory relief, asthma, muscle pain

- **Figs** — respiratory health, digestive health, nutrition
- **Onions** — anti-inflammatory, respiratory, asthma
- **Lemon** — immune support, sore throats, asthma
- **Salmon and Omega-3** — respiratory health, asthma, cardiovascular
- **Eucalyptus oil** — respiratory congestion, asthma, antibacterial
- **Coffee** — emergency bronchodilator for asthma only
- **Turmeric** — inflammation, pain, immune support
- **Apple cider vinegar** — digestive problems, blood sugar, skin infections
- **Kankerbos** — immune support, stress and anxiety, fever, diabetes management
- **Natural remedies supplement but never replace** — conventional medical care



13 FIRE SAFETY AND PREVENTION



Earlier in this guide we discussed the treatment of burn wounds in detail. But as with most emergencies, prevention is always better than cure. A house fire during a normal situation is devastating enough. During a crisis — when emergency services may be unavailable, water pressure may be low and your family is already under stress — a fire can be catastrophic and potentially fatal.

South Africa has seen firsthand how quickly fires can destroy entire communities. The Knysna fires of 2017, the Betty's Bay fire and the devastating blazes in Cape St Francis are sobering reminders that fire does not discriminate and does not wait for a convenient moment. With load shedding forcing millions of South Africans to rely on candles, gas lamps, open fires and braais for light and cooking, the risk of accidental fire has never been higher.

THE MOST COMMON CAUSES OF FIRE DURING A CRISIS:

- Unattended candles left burning near curtains, paper or bedding
- Overloaded extension cords and power strips when electricity is restored after load shedding
- Gas leaks from incorrectly connected or damaged gas bottles and appliances
- Paraffin lamps that are knocked over or placed too close to flammable surfaces
- Open fires and braais that are not properly managed or extinguished
- Children playing with matches or lighters left within reach

13.1 PREVENTION — INSIDE THE HOME

13.1.1 CANDLES

- Never leave a burning candle unattended — not even for a minute
- Keep candles away from curtains, paper, clothing and any flammable surface
- Place candles in a proper holder on a stable non-flammable surface
- Extinguish all candles before going to sleep — without exception



13.1.2 GAS

- Always turn gas bottles off at the valve when not in use
- Never use a gas stove or burner in an enclosed space without ventilation
- If you smell gas, do not switch any electrical switches on or off — open windows and doors immediately and move everyone outside
- Store spare gas bottles upright in a well-ventilated outdoor area away from direct sunlight



13.1.3 ELECTRICAL

- When power is restored after load shedding, check that no appliances were left switched on before the outage
- Never overload extension cords or power strips
- Do not run electrical cables under carpets or rugs

13.2 EQUIPPING YOUR HOME

Fire extinguishers. Every home should have at least one dry powder ABC extinguisher — it handles wood, paper, liquid and electrical fires. Keep one in the kitchen and one in the garage. Remember the word PASS: Pull the pin, aim at the base of the fire, Squeeze the handle, sweep from side to side.

Smoke detectors. Install smoke detectors in every bedroom, hallway and living area. Test them monthly and replace batteries at least once a year.

Fire blankets. A fire blanket is an inexpensive and highly effective tool for smothering small kitchen fires. Keep one mounted on the kitchen wall within easy reach.



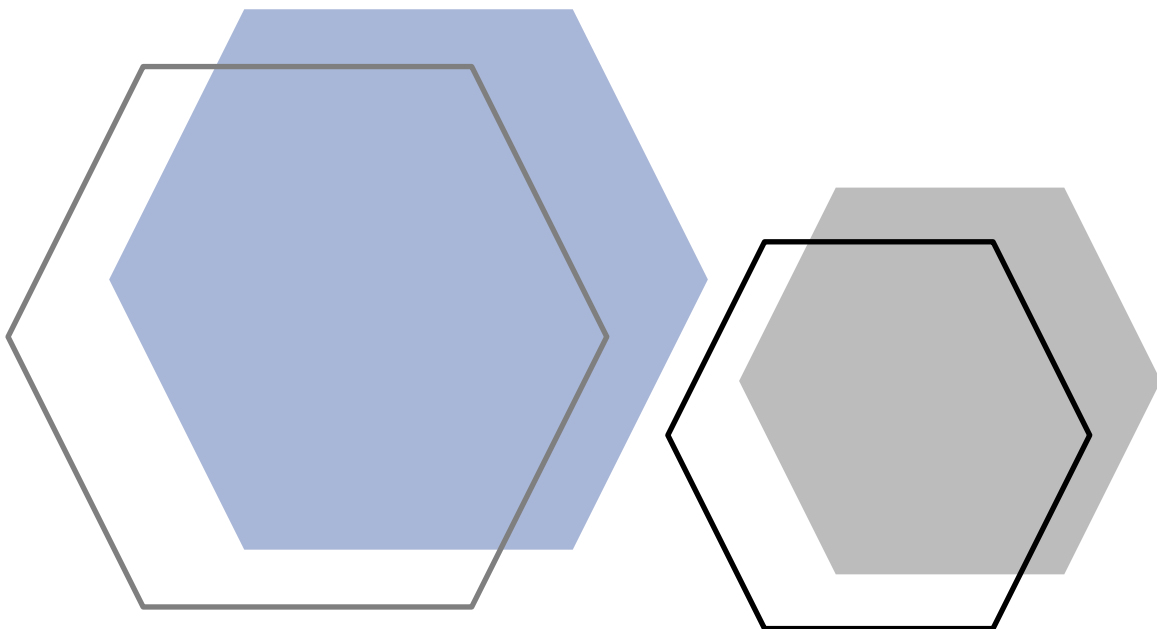
Escape routes. Every member of your family should know at least two ways out of every room. Discuss and practise your home escape route as a family and agree on a meeting point outside.

13.3 IF A FIRE STARTS

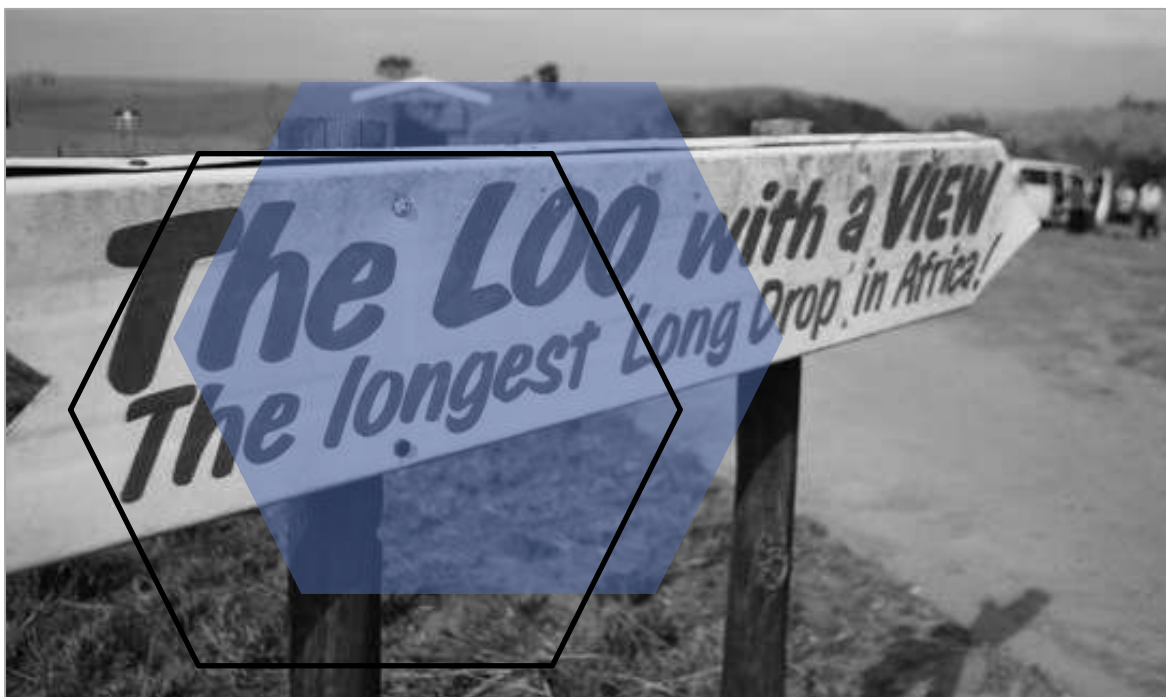
- **Get everyone out first.** No possession is worth a life.
- **Alert everyone** in the household immediately.
- **Feel doors before opening them.** If a door feels hot do not open it — find an alternative exit.
- **Stay low.** Smoke rises. Crawl along the floor where the air is cleaner.
- **Close doors behind you as you exit** — closed doors slow the spread of fire significantly.
- **Once out, stay out.** Never re-enter a burning building for any reason.
- **Call for help** as soon as you are safely outside — 10177 for fire department or 112 from any mobile phone.

13.4 SUMMARY

- **Prevention is everything** — Most home fires during a crisis are caused by carelessness with candles, gas and cooking.
- **Never leave flames unattended** — Not candles, not gas burners, not braais.
- **Equip your home** — Every household needs a fire extinguisher, smoke detectors and a fire blanket.
- **Know your escape routes** — practise them as a family before you ever need them.
- **Get out first** — No possession justifies staying in a burning building.
- **Know the numbers** — 10177 for fire, 112 from any mobile phone.



14 SANITATION AND HUMAN WASTE



Of all the topics covered in this guide, sanitation is perhaps the most overlooked — and yet in a prolonged emergency, it can become one of the most serious threats to your family’s health. When municipal sewage systems fail, and they will during extended load shedding or a water supply collapse, the risk of disease spreads rapidly. Cholera, typhoid, dysentery and hepatitis A are all directly linked to poor sanitation. These are not diseases of distant countries. They are diseases of any community that loses access to clean water and functioning sewage systems.

The good news is that with a little preparation and knowledge, you can manage sanitation safely and with dignity — even in the most challenging circumstances.

14.1 WHEN THE TOILET STOPS FLUSHING

Most flush toilets require municipal water pressure to function. When water supply is cut or severely restricted, you have several options:

Bucket flushing. A toilet can still be flushed manually by pouring approximately ten litres of water directly into the bowl quickly. This uses grey water from your bath, sink or collected rainwater. This is why storing water in your bathtub during the early stages of a crisis is so important.

Chemical toilets. These are portable self-contained units that use a chemical solution to break down and deodorise waste. They are widely available at outdoor and camping stores across South Africa and require no plumbing or water connection. A chemical toilet is one of the most practical investments you can



make for your emergency kit, particularly for families with young children or elderly members.

Cat holes and pit latrines. If you find yourself without any other option, human waste can be buried safely. Dig a hole at least 30 centimetres deep and at least 60 metres away from any water source, stream or borehole. Cover the waste completely with soil after each use. Never dig near your vegetable garden. This method has been used safely for centuries and remains effective when done correctly.

14.2 CONSTRUCTING A SIMPLE EMERGENCY PIT LATRINE

If a crisis extends beyond a few days and a chemical toilet is not available, a simple pit latrine can be constructed in your garden:

- Choose a location at least 30 metres from your home and at least 60 metres from any water source
- Dig a hole approximately one metre deep, 50 centimetres wide and 80 centimetres long.
- Build a simple wooden frame over the hole using planks or poles to sit on safely.
- Cover the seat frame with a wooden lid between uses to keep flies out.
- Keep a bucket of ash, dry soil or lime nearby and sprinkle a handful into the hole after each use to control odour and accelerate decomposition.
- When the hole is three quarters full, cover it completely with soil and dig a new one.

14.3 HYGIENE PRODUCTS TO STOCK

Your emergency supplies should always include the following sanitation items:

- Toilet paper — stock far more than you think you will need
- Disposable gloves
- Hand sanitiser and antibacterial soap
- Bleach or Jik — for disinfecting surfaces and toilet areas
- Lime powder — available at most hardware stores, used to treat waste and control odour
- Heavy duty refuse bags for waste disposal
- A portable chemical toilet or camping toilet seat
- Feminine hygiene products
- Baby wipes — invaluable when water is scarce



14.4 WASTE DISPOSAL DURING A CRISIS

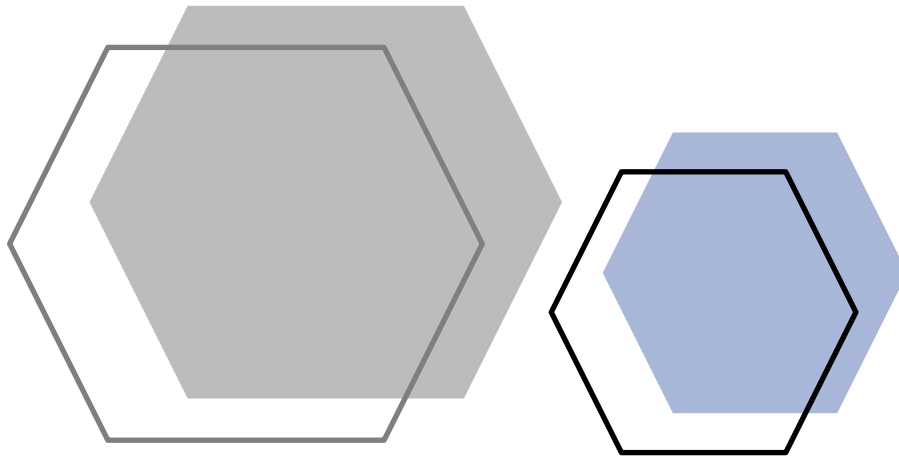
Never dispose of human waste in open areas near your home, in stormwater drains or in any watercourse. This is not only a health risk to your family but to your entire community. Responsible waste disposal in a crisis is an act of neighbourly love — the same principle of looking out for others that runs throughout this entire guide.

14.5 A FINAL WORD ON HYGIENE

In a crisis, handwashing becomes more important than ever, not less. Diseases spread through contaminated hands are responsible for a significant proportion of illness during and after disasters. Keep antibacterial soap and hand sanitiser at every toilet and food preparation area. Wash hands thoroughly after using any toilet facility and before handling food — every single time without exception.

14.6 SUMMARY

- **Bucket flushing** is your first option when municipal water fails — use grey water.
- **Chemical toilets** are a practical investment for every household.
- **Pit latrines** can be constructed simply and safely when no other option is available.
- **Stock sanitation supplies** including lime powder, Jik, gloves and a chemical toilet.
- **Handwashing** is more critical than ever during a crisis — never compromise on this.



15 SAFETY AND SECURITY



"61 House robberies and 676 house breakings a day in South Africa - how these thugs operate and how to protect your property and loved ones."

Translated 'Vrouekeur' Article | 1/11/2017

"According to the most recent crime figures released this week by the SAPS, the number of house robberies and housebreakings in South Africa remains concerningly high, with 22 343 robberies and 246 654 burglaries reported during 2016/17.

'These statistics are shocking - on a daily basis, an average of 61 homes are robbed and 676 are affected by housebreakings. And it's just taking into account incidents that are reported to the police,' says Virseker spokesperson Elmarie Twilley. 'We are urging South Africans to be more vigilant than ever and to ensure that their homes are kept safe as possible. Not only to protect their possessions, but also themselves and their loved ones.'

Research by Professor Rudolph Zinn of UNISA's School of Criminal Law and Police - who conducted in-depth interviews with 30 convicted robbers - reveals the following key insights about who these criminals are and how they operate:

- *Most of these robbers were men in their early 20s.*
- *They usually work in groups of 4.*
- *Each criminal acknowledged guilt on an average of 103 crimes.*
- *Their motivation was mainly financial gain.*
- *They choose their targets based on wealth and how profitable a robbery would be.*
- *The majority of criminals said they received information from inside - often via domestic workers, gardeners and security guards.*
- *All offenders said they would spend a lot of time beforehand to monitor movements in and out of the property.*
- *Low security and availability of escape routes are important, but criminals will face any target if they see it as valuable enough.*

15.1.1.1 DISCUSS SAFETY AND SECURITY WITH YOUR FAMILY

Let everyone, including older children, talk to each other about their fears and what they think the home needs to make their home a safer place.

15.1.1.2 GENERAL SAFETY MEASURES THAT MUST BE IMPOSED

- Front doors must not be opened for strangers under any circumstances.
 - Talk through the door and first determine if you have business with the stranger e.g. a postman who delivers a post
 - Do not open the door for someone who asks for food, money or work.
- Front doors must never be opened by minors. Criminals can easily seduce young children or obtain information from them. Keys are never left in doors; the keys are out of reach of doors and windows.

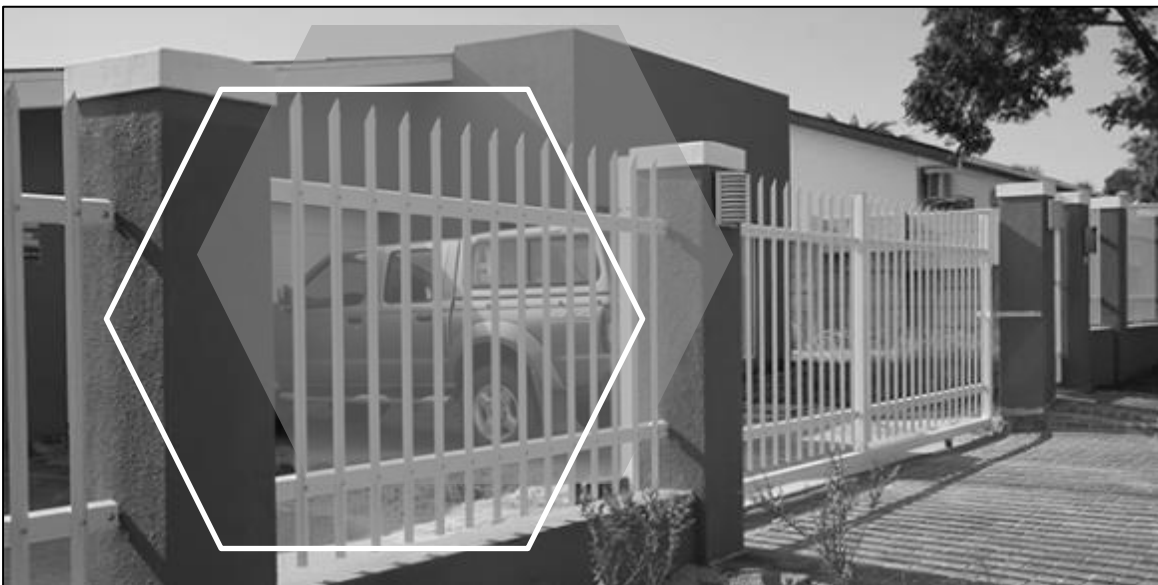
15.2 THE THREE LAYERS OF DEFENSE

Designing a home defence system that includes multiple layers is a proactive way to protect your family, home and belongings. Security layers are preventative measures that will advertise to intruders that they should avoid your home altogether. The more layers you have in and around your home, the less likely a criminal is going to be to target your home for his/her next “job.”

15.2.1 LAYER 1: THE OUTSIDE LAYER

This layer consists of the outer perimeter of your home. Due to certain architectural designs of houses (doors with decorative windows, sliding doors, etc.), today's homes are more vulnerable than before.

Installing visible preventative measures around your home will keep thugs on guard. Walk around your house regularly to see if there are any vulnerable areas. Small exterior modifications can help protect your home from the outside. One of the most vulnerable parts of your home is the windows.



A heavy chair can easily be thrown through a window, smashed it, creating easy access. Investing in a break-resistant window film or burglar bars is a possible solution.

Let the exterior of your home look more resilient to criminals with the following alterations:

- 1) Thorny bushes under windows.
- 2) "Beware of the dog" signs at your gate as well as your garage door (even if you don't have a dog)
- 3) Place burglar bars in front of all windows and Trellidors in front of all doors. If you can afford it, install aluminium storm shutters in front of all your windows.
- 4) Security Company or neighbourhood watch signs at your front gate's pillar or above your garage door.
- 5) Infrared-moving lights on the boundaries of your yard and garden walls.
- 6) A security camera pointing to the front door (even a fake one with a flickering light can fend off thugs).

15.2.2 LAYER 2: THE INSIDE LAYER

Preventative safety measures can help to ensure the safety of your home. Layer two (2) focuses on the resilience of your home thereby making it more difficult for thugs to access.



- 1) Install an alarm with panic buttons with enough infrared eyes in various rooms.
- 2) Join a trusted security company that can monitor your alarm and provide armed response.
- 3) Place hidden cameras (webcams) strategically throughout your home. Make sure the cameras can connect to the Internet and store imagery in cyberspace. This will prevent the burglars from destroying the footage. You can even view the footage on your cell phone.
- 4) Add a 2-way voice function to your existing alarm system. With this feature, your security system can communicate directly via the control panel. This feature also allows you to have remote access and turn on your system and listen to any activity or conversations of your child or other family members at home.
- 5) Make sure your doors are secure. (a metal or solid core door is the best)
- 6) Reinforce the door frame. A door is as strong as the frame it holds in place.
- 7) If your doors are made of glass, cover the glass with a shatterproof film.
- 8) Install a double cylinder lock on all outside doors.
- 9) Keep wallets, car keys, money and jewellery away from windows. These items may be visible from the outside.
- 10) Place a peephole in the front and rear doors.
- 11) Place a pipe or metal bar in the sliding door track to prevent it from forced open. The pipe must be the same length as the track when the door is closed.
- 12) Put anti-lift locks or sliders on all sliding doors and sliding windows.

15.2.3 LAYER 3: THE PERSONAL LAYER

This layer is the most critical layer, because it is based on all the procedures, defence training and emergency plans you have set up. The personal layer is also the only layer you can take with into the outside world. If you walk and someone is trying to attack you, you will be able to use your self-defence training as well as emergency procedures to avert the attack.



The personal layer is the final layer of defence. If all your deterrents and preventative measures are not enough to keep a determined intruder out of your home, then you have to take action to defend yourself and your family. It is wise to have several strategies to defend yourself. If the first strategy fails, always be prepared to have a backup strategy.

- Learn self-defence: Find a class that specializes in quick response techniques such as 'Krav Maga' of 'Wing Chun'.
- Get a firearm and learn how to use it safely and accurately. Go to the shooting range regularly and practice on a regular basis.
- Learn to improvise. Your home is full of other repellents like:
 - Hot coffee
 - Fire extinguisher
 - Hair spray
 - Cricket bat or hockey stick
 - Salt to throw in the eyes
 - Kitchen knives
 - Make sure your family knows the necessary emergency numbers by heart. Teach them how to calmly explain the emergency situation to a trained person.
 - Show your family how to use different escape routes to their advantage if they have to leave home.

15.3 FURTHER SAFETY TIPS IN AND AROUND THE HOUSE

15.3.1 AT NIGHT

- 1) Close all blinds and curtains after dark so that criminals cannot see into your home.
- 2) Activate the alarms for outside as well as the inside for the rooms that you don't use at night.
- 3) If you have to leave your home in the evening, leave a radio or TV on. Leave on the outside lights as well as 1 – 2 lights on the inside of the house.
- 4) Do not install your Flat Screen TV where it is visible from the street



15.3.2 GET TO KNOW YOUR NEIGHBOURS

- 1) Make sure that you have a relationship with your neighbours and that you have their contact details.
- 2) Avoid putting keys under planter boxes, rugs or in false rocks. If you must leave an extra key, the best option is to leave a set of keys with your trustworthy neighbour.
- 3) Ask your neighbour to help with the following in case you go away for a weekend or holiday:
 - Take in refuse bins so they are not left on the street for longer than necessary.
 - Empty your mailbox so post is not left in the post box for more than one day.

15.3.3 BE ALERT

- 1) Be alert when you get home. Look at your surroundings and make sure that you are not being watched.
- 2) Do not place newly purchased equipment's cartons / packaging outside your yard (display / advertise) for removal.
- 3) Obtain a street number plate and install it for the neighbourhood watch to easily find your home.
- 4) Do not fall for "sales jokes" or "repairs gimmick" tricks. Tell them to make an appointment, even though they wear Telkom, Eskom or police clothing.
- 5) Don't allow any strangers at or near your home (day or night). Strange visitors have strange plans. Get outside help and don't be curious by going outside to find out what's going on.
- 6) Arrange and communicate all these emergency measures with your family and neighbours. Speak regularly with neighbours and friends about activities in your area. Keep cell phones ready in case landlines get cut.
- 7) Keep all emergency services, SAPS, Neighbourhood Watch, Farm Guard and emergency numbers on all the cell phones in the house and call for outside assistance first asking them to secure your property. Don't go outside by yourself!



15.3.4 PREFERABLY STAY INSIDE

- 1) Don't go outside to see why the outside tap runs - the taps won't open by itself. Phone for help.
- 2) Do not go outside alone when your vehicle's alarm goes off – there may be someone waiting for you!
- 3) Don't open for someone that came for "help" or is "injured" that you don't know. Call the emergency units such as police or ambulance and keep your doors locked.
- 4) Do not just open for the "police" if they knock on your door. Call the nearest police station and get confirmation and full details.
- 5) Don't go out to see why the dogs are barking. Stay in and call the neighbourhood watch or police.
- 6) Do not go out if puppies are placed on your porch or at your front door while they make noise from being hungry or cold. Rather call your nearest SAPS or neighbourhood watch to investigate - this can be a snare!
- 7) If you are on a smallholding or farm, do not respond to a "help call" by workers at night - make arrangements for them to call you in crisis times and then call the ambulance or police!

15.4 SAFETY MEASURES FOR YOUR WIFE AND CHILDREN



15.4.1 WHEN YOUR WIFE IS HOME ALONE

- 1) Keep doors, patio doors, sliding doors closed while doing domestic work.
- 2) If you work in the front of your home, make sure the back or side doors are locked.
- 3) If you sit or work on the patio or in the garden, make sure the rest of the house's doors and window are shut.
- 4) If you work or relax in the area near your back door, make sure the front door and / or side doors are locked.
- 5) Don't open the front door to any strangers, talk through the door.
- 6) If you relax in front of the TV, please close the whole house. Do not first open all windows and patio doors when you relax – just open up the room where you are, if needed.
- 7) Do not open your whole house on hot summer days while you relax next to the pool area.
- 8) Generally, be ready and be aware of the different sounds of the neighbourhood and your home.
- 9) Keep pepper spray handy in your kitchen or bedroom or in the area where you work or relax.
- 10) If you have to drive after dark, keep pepper spray within reach in the car.

15.4.2 SAFETY OF YOUNG CHILDREN

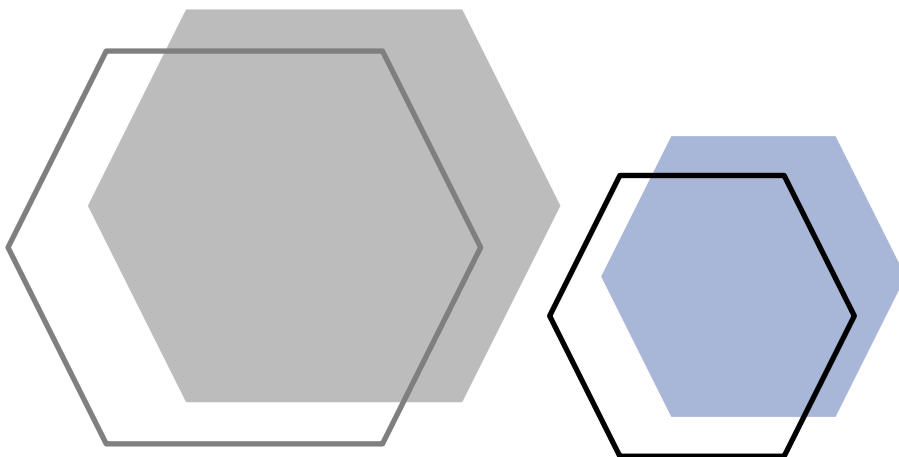
- 1) Young children should never answer the phone. They can easily be manipulated to disclose information.
- 2) Teenagers that are home alone after school must get into the habit of keeping doors closed, especially when watching movies or playing loud music, because they won't be aware if criminals come inside the house.



15.4.3.1 TEENAGERS IN PUBLIC

Teenage girls that move around in public must always be on the alert. Here are a few factors that teenagers must bear in mind:

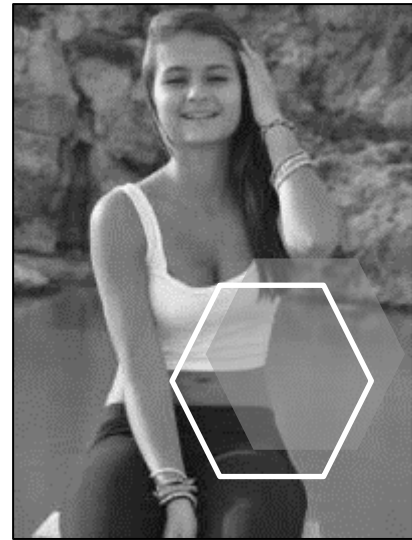
- 1) Make sure that you are aware who is walking behind you.
- 2) If a group of men make you feel uncomfortable, avoid them and walk the other way.
- 3) If a person looks suspicious, stay in open public places and not alone or in side streets.
- 4) If it is too dark to walk home, call your parents to come fetch you or have an adult walk with you to your home.
- 5) Make sure that your cell phone is always charged and that you have enough airtime and data.
- 6) Don't show your MP3 player, phone, or wallet in public.
- 7) Don't play loud music on your earphones so that you can't hear anything.
- 8) Use your cell phone only in safe places.



15.4.3.2 TEENAGERS ARE A SOFT TARGET

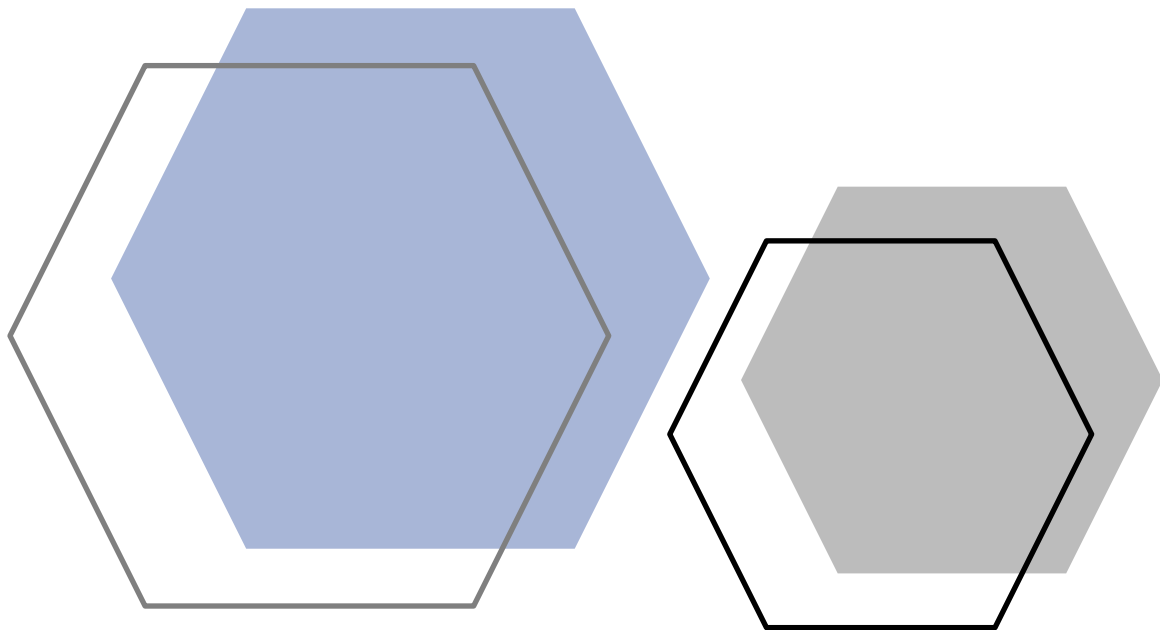
Teenage girls must be vigilant and be made aware that criminals see woman and teenage girls as soft targets.

- 1) Girls should be aware that high heels, short skirts or short tops and very low pants can be tempting for sex offenders and drunk men.
- 2) Girls never walk anywhere after dark on their own.
- 3) Girls should not wear high heels if they have to walk far; it will be harder to run away in an emergency situation.
- 4) All teenagers should preferably be dropped off and fetched by car, don't be too lazy to transport your teens for social events – they have the right to socialise.
- 5) Older teenage girls should carry pepper spray in their handbags or, preferably, hold it in their hand if they have to walk somewhere alone.



15.5 SUMMARY

- 1) Create the necessary emergency procedures and discuss them with your family. Make sure you include a list of emergency numbers and escape routes.
- 2) Take the time to walk through your home and garden and look through the eyes of a criminal. If you were to break into your house, how would you do that? Look for vulnerabilities. Do this to identify your weaknesses and then address them accordingly.
- 3) If you own a firearm, practice regularly by going to the shooting range. Also teach your family how to handle a firearm.
- 4) Purchase an alternative repellent such as pepper spray or even a taser.
- 5) Sit down with your family and discuss with your teenager the dangers if they are not careful and alert.



16 COMMUNITY AND NEIGHBOURHOOD PREPAREDNESS

There is an old African proverb that says: *“If you want to go fast, go alone. If you want to go far, go together.”* Nowhere is this more true than in a survival situation. No matter how well prepared you are as an individual or a family, your safety and long-term resilience will always be stronger when you are connected to a prepared community around you.

Throughout this guide I have referred repeatedly to the importance of knowing your neighbours and working together. This chapter is dedicated entirely to that principle — because in a South African context, community preparedness is not just a nice idea. It is a survival strategy.

16.1 WHY COMMUNITY MATTERS IN A CRISIS



When a disaster strikes, the first people to reach you will not be emergency services. They will be your neighbours. Roads may be blocked, emergency lines overloaded and rescue teams overwhelmed. Studies conducted after major disasters consistently show that neighbours helping neighbours save more lives in the critical first hours than any other intervention.

South Africa already has a remarkable culture of community solidarity. Stokvels, church networks, neighbourhood watches, street WhatsApp groups and community policing forums are all expressions of our natural tendency to look out for one another. The goal of this chapter is to help you build on those existing structures and make them deliberately disaster-ready.

16.1.1 START WITH YOUR STREET

You do not need a formal organisation to begin. Start with the people closest to you — your immediate neighbours on either side and directly across the street. Have a simple conversation about emergency preparedness. You may be surprised to discover that others share your concerns and have skills or resources that complement your own.

Consider calling a simple get-together — a braai, a cup of coffee, an informal street meeting. Use it to discuss the following questions as a group:

- What are the most likely emergencies we face in our area?
- Who in our street has medical training or first aid knowledge?
- Who has a generator, a water tank or solar power?
- Who has elderly or disabled residents who will need extra help?
- What communication method will we use if cell networks go down?

16.1.2 DIVIDE SKILLS AND RESOURCES

One of the most powerful aspects of community preparedness is the ability to pool skills and resources. Consider dividing responsibilities according to what each household already has or knows:

- A neighbour with medical training becomes your street's first aid coordinator.
- A household with a large water tank can supply emergency water to immediate neighbours.
- Someone with a ham radio or two-way radio becomes the communication hub.
- A household with a generator can charge essential devices for the street.
- Someone with mechanical skills handles vehicle breakdowns during an evacuation.

This reflects the same principle the early church lived by.

Acts 2:44-45: *“All the believers were together and had everything in common. They sold property and possessions to give to anyone who had need.”*

In times of crisis, generosity and cooperation are not weaknesses. They are the foundations of survival.

16.1.3 USE EXISTING STRUCTURES

16.1.3.1 NEIGHBOURHOOD WATCH

If your area has a neighbourhood watch, attend their meetings and raise the topic of emergency preparedness. Propose that the watch adds a disaster response protocol to its existing security mandate.

16.1.3.2 CHURCH NETWORKS

Your local church is one of the most powerful community resources available. Churches have established trust, existing communication networks, physical meeting spaces and a culture of mutual support. Speak to your pastor or elder about whether your church has an emergency preparedness plan in place.

16.1.3.3 WHATSAPP COMMUNITY GROUPS

Most South African streets and suburbs already have WhatsApp groups for security alerts. These same groups can be used for emergency communication during a crisis. Agree in advance on a protocol so that urgent messages stand out clearly from general conversation.

16.1.3.4 STREET COMMITTEES AND HOAs

If your area has a homeowners' association or street committee, propose that emergency preparedness be added to the agenda. Even a simple one-page emergency plan agreed upon by the street is infinitely better than no plan at all.

16.1.4 PLAN FOR YOUR MOST VULNERABLE NEIGHBOURS

Every community has members who are more vulnerable than others — the elderly, people with disabilities, single parents with young children, people with chronic illnesses. Before a crisis happens, identify who these individuals are in your immediate area. Make a conscious decision as a community to include them in your emergency planning. Assign a specific neighbour to check on each vulnerable person in the first hour of any emergency.

16.2 A WORD OF CAUTION

While community preparedness is vital, it must be approached with wisdom and discernment. Not everyone who knows about your preparations will be a trustworthy ally. In a prolonged crisis, desperation changes people. Share information about your supplies and resources carefully and only with those you genuinely trust. The goal is not to broadcast what you have but to build relationships of mutual trust and accountability before a crisis arrives.

16.3 SUMMARY

- **Start small** — begin with your immediate neighbours and build outward
- **Have the conversation** — a simple informal meeting is all it takes to start
- **Map your street's skills and resources** — know who can help with what
- **Use existing structures** — neighbourhood watch, church, WhatsApp groups and HOAs
- **Plan for the vulnerable** — identify and commit to looking after those who cannot look after themselves
- **Build trust before the crisis** — relationships formed in peace are strong

17 ECONOMICAL AND FINANCIAL CRISES

FITCH MAINTAINS SA'S RATING AT BB+ WITH a STABLE OUTLOOK

Marlize van der Merwe | 06 December 2018 | News24

Ratings agency Fitch on Thursday kept South Africa's sub-investment grade credit rating unchanged at BB+ with a stable outlook. SA's ratings are weighed down by low growth potential, sizable government debt and contingent liabilities, and the risk of rising social tensions due to extremely high inequality, Fitch said in a statement.



The ratings are supported by strong institutions, a favourable government debt structure, deep local capital markets and a healthy banking sector, Fitch added. "GDP growth was weaker than expected in 1H18, but Fitch expects a recovery of investment after a prolonged period of contraction to drive GDP growth to 2.1% in 2019 and 2020 from 0.6% in 2018," Fitch said.

"The president in September announced a package of measures to stimulate growth, focused on structural reforms as well as reprioritising expenditure. A revised mining charter has been approved, lowering uncertainty for the sector, but raising regulatory costs compared with the previous regime."

Fitch also praised measures to strengthen the telecoms sector, raise competition, reduce bulk transport costs and boost tourism by easing visa requirements. "However, in Fitch's view the measures will take time to implement and are not sufficiently far-reaching to raise medium-term potential growth significantly. As a result, potential growth is expected to remain just below 2%. This is well below the historical 'BB' category median of 3.4% and only just above population growth of 1.6%," the statement said.

S&P has also rated South Africa at sub-investment grade, while Moody's rating at Baa3, one notch above sub-investment grade."

Our economic outlook has never looked worse with the lowering of South Africa's credit rating. South Africa has experienced very unfavourable economic growth conditions over the past 20 years. The extremely high levels of corruption and ignorance in the public service have hampered investor confidence and capital dearly needed for growth in South Africa now flows to other countries instead. But what if you start taking physical financial distress, perhaps losing your job? The following few guidelines can put you in a very advantageous position for such circumstances.

17.1 HOW COLLAPSE ACTUALLY HAPPENS — WHAT NOBODY TELLS YOU



Most people who worry about an economic collapse are picturing the wrong thing. They imagine a single catastrophic moment. A flash. An explosion. The grid goes down, the banks close, the shelves empty, and suddenly it is every person for themselves. It makes for a great movie.

But that is not how it actually works. Not historically, and not now.

A real collapse is not a light switch being turned off. It is a slow leak. It is the tap dripping for months until one day you realise the whole ceiling has rotted through. And the reason these matters — the reason it is worth understanding — is that most people do not recognise a collapse while it is happening. They adjust. They rationalise. They wait for the dramatic moment that never comes. And meanwhile, the ground beneath them has already shifted.

17.1.1 THE PATTERN THAT REPEATS ITSELF

Economic collapses follow a remarkably consistent pattern across different countries, different economies and different decades. Once you know the pattern, you can see the early signs. And if you can see the early signs, you can act while there is still time to act calmly.

17.1.1.1 PHASE 1 — SLOW EROSION

Prices creep up. Wages do not keep pace. Services you relied on become a little less reliable. The pharmacy is out of your medication for a few days. The petrol station down the road closes. Your insurance covers a little less than it used to. None of these things alone feel like a crisis. They feel like inconveniences. That is exactly the point.

17.1.1.2 PHASE 2 — ACCELERATION

The inconveniences start stacking. You notice your grocery bill has jumped and your salary has not. You hear about retrenchments at companies that seemed solid. Your local hospital closes a ward. Things feel tighter, but the official story is still that everything is under control. Experts go on television and say the fundamentals are strong, the numbers are manageable, this is just a temporary adjustment.

17.1.1.3 PHASE 3 — THE ACUTE PHASE

This is the part most people think of when they hear the word collapse. Banks restrict withdrawals. Store shelves have gaps. Medicine becomes hard to find. People who were comfortable six months ago are suddenly choosing between groceries and rent. But here is the hard truth — by the time you are in the acute phase, the window for easy preparation has mostly closed.

The people who come through these situations best are the ones who took small, steady steps during Phase 1 — the slow erosion — while things still seemed mostly normal.

17.1.2 THREE COUNTRIES. THREE WARNINGS

These are not theoretical scenarios. These are things that happened to real countries with real people who had jobs and mortgages and children in school — people very much like you and me.

17.1.2.1 ARGENTINA, 2001

Argentina had been in a recession for three years before the crisis hit its peak. The economy had been shrinking steadily since 1998. Unemployment climbed. Businesses closed. But the government kept reassuring people that the banking system was safe, that things would turn around. People believed it because they wanted to believe it. They went to work. They shopped for groceries. They put money in the bank. They followed the rules they had always been taught — save, be responsible, trust the institutions.



Then in December 2001, the government froze bank accounts. Overnight, people could only withdraw 250 pesos per week. Your life savings were sitting right there in the bank, and you could not touch them. Within weeks the peso was devalued and those savings were worth a fraction of what they had been. The poverty rate hit 50 percent. Unemployment reached 30 percent in some areas.

Two decades later, Argentinians still keep cash at home. The rumour of another account freeze can trigger a bank run within hours. That kind of institutional trauma does not fade easily.

17.1.2.2 GREECE, 2008–2015



Greece was not a developing country. It was a member of the European Union with modern infrastructure, a functioning healthcare system, universities and high-speed internet. And still, between 2008 and 2012, its economy contracted by more than 20 percent. Unemployment peaked at 28 percent. Youth unemployment climbed above 60 percent — an entire generation that could not find work.

But here is what really affected people on the ground. It was not the GDP numbers or the bond yields. It was the pharmacy running out of blood pressure medication. The government owed pharmacists hundreds of millions of euros through the insurance system. The pharmacists could not pay their suppliers. The suppliers stopped delivering. Patients showed up and were told they had to pay full price in cash — and even then, the drugs might not be available. Five

hundred commonly used medications were in short supply, including drugs for hypertension, cancer, kidney disease and epilepsy. Pharmacists across Athens started trading medications with each other to try to serve their patients.

That is what economic collapse looks like in a modern country. Not tanks in the streets. Pharmacists bartering with each other like medieval traders in a country with fibre optic internet and EU membership.

By 2015, banks closed for weeks. ATM withdrawals were capped at 60 euros per day. Nearly 20 percent of Greeks could not afford their daily food expenses. Twenty thousand people became homeless in a single year. The public hospital budget was cut by more than a quarter at the very moment more people needed hospitals, not fewer.

17.1.2.3 VENEZUELA — THE FULL ARC

Venezuela had the largest proven oil reserves on the planet. Within living memory, it was one of the wealthiest countries in South America. Then oil prices dropped. The government, which had built its entire budget around oil revenue, started running out of cash. Rather than cut spending, they printed more currency. Inflation exploded. Price controls made it unprofitable for domestic producers to grow food, so agricultural production collapsed.



By 2017 the average Venezuelan living in poverty had lost 19 kilograms in a single year simply because there was not enough food. By 2018 more than 30 percent of the population was eating only one meal a day. Inflation hit 63 000 percent. Medicine shortages reached 85 percent. Diseases that had been eradicated years earlier — malaria, measles, diphtheria — came roaring back.

In Caracas people gathered every evening searching through discarded food. These were not just the traditionally poor. Journalists described small business owners, college students and retirees joining the lines. The food existed. It was simply priced beyond what ordinary people could afford. That is one of the cruellest features of economic collapse — the stuff is there. You just cannot reach it.

17.1.3 THE FOUR WARNING SIGNS NOBODY TALKS ABOUT

If you look at Argentina, Greece and Venezuela side by side, the same early warning signs appear before things unravel. These are not conspiracy theories or doomsday predictions. They are patterns that historians and economists have consistently identified after studying what went wrong.

17.1.3.1 SUSTAINED INFLATION THAT OUTPACES WAGES

Not a month or two of higher prices, but a persistent, ongoing gap between what things cost and what people earn. When that gap keeps widening and there is no clear mechanism to close it, pressure is building in the system. Sound familiar?

17.1.3.2 INCREASING DIFFICULTY ACCESSING BASIC GOODS AND SERVICES.

Not a single shortage, but a pattern. Your pharmacy is out of something. The grocery store stopped carrying a product and did not replace it. Wait times at the doctor get longer. Your insurance costs more but covers less. None of this alone mean anything. But when they start clustering together, pay attention.

17.1.3.3 EROSION OF INSTITUTIONAL TRUST

When people stop believing that the systems they depend on will function when they need them. In Argentina, people were quietly pulling money out of banks for months before the freeze. They could feel something was wrong even though every official statement said otherwise. The people who acted on that instinct before the freeze were the ones who still had cash when it mattered.

17.1.3.4 NORMALISATION OF DECLINING CONDITIONS.

This is the subtlest and perhaps the most dangerous sign. It is when things that would have been unacceptable a few years ago become just how things are now. In Venezuela, waiting four hours for basic food became normal. In Greece, paying full cash price for medications your insurance was supposed to cover became normal. When we normalise declining conditions, we stop preparing for the possibility that they might get worse. We stop noticing. And that is when things accelerate.

Now look honestly at South Africa over the past decade. Load shedding was unacceptable. Then it became inconvenient. Then it became normal. Service delivery failures were shocking. Now they are expected. Corruption scandals that would have brought down governments elsewhere barely make the front page anymore. We have been living through Phase 1 for some time already.

17.2 PRACTICAL FINANCIAL PREPARATION — WHAT YOU CAN DO NOW

The purpose of understanding all of this is not to frighten you. Fear paralyses. Awareness empowers. And those are very different things.

Fear makes you want to buy a bunker and distrust everyone around you. Awareness makes you want to stock an extra week of groceries, fill a prescription early, get to know your neighbours and keep some cash at home. The people who navigate hard times best are not the ones with the most gear or the biggest stockpile. They are the ones who saw reality clearly, made reasonable adjustments, and built some margin into their lives before they needed it.

Here is what people who have actually lived through economic collapse consistently say mattered most:

17.2.1.1 EXPLAIN TO YOUR FAMILY

Start preparing yourself psychologically for tough financial times. Discuss the possibility with your family and friends and make sure they understand this threat and start changing your mind-set. To expect 'something' is always better than to be caught off-guard in difficult conditions. Make sure that everyone understands that such circumstances will affect everyone (or many people) and that it will not only be limited to your family. If your family realises that the conditions in the country are the cause (something outside your family or close circle), the family will rather stand together and support each other, rather than raising accusations or reproaches.



17.2.1.2 KEEP CASH AT HOME

In almost every financial crisis there is a period where electronic payments become unreliable. Cards do not work. ATMs have limits or run dry entirely. Banks have restricted hours or simply close. In Argentina, when the account freeze hit, debit cards were useless because most businesses could not accept them. People who had cash at home could still eat, still pay for transport, still function. People who had trusted the banking system entirely could not.

You do not need a fortune. A few hundred rands in small denominations stored safely at home covers more scenarios than you think. Keep small notes — when systems are strained, making change becomes its own problem.

17.2.1.3 GET AN ADDITIONAL INCOME

Start increasing your disposable income by taking on more work or cutting business expenses. Every additional income stream reduces your vulnerability to the loss of any single one.

17.2.1.4 CUT EXPENDITURE

Start cutting household expenses now while it is a choice rather than a necessity. Buy groceries in bulk. Consider buying a whole sheep instead of a packet of meat at the Spar each day. Work together with family and friends,

pass on children's clothes, shower for shorter periods, cut back on entertainment. Clean your own home if necessary. Every rand saved now is a rand of resilience later.

17.2.1.5 PAY YOUR DEBT

Do not spend your bonus on a holiday or buy unnecessary items. Start tackling your debt aggressively. Pay off smaller debts first, then redirect those repayments to larger debts. Consider selling possessions you do not truly need — the boat, the extra car, the treadmill collecting dust. Debt is a chain. Break it while you still have the income to do so.

17.2.1.6 REDUCE YOUR LIFESTYLE

Could you rent out your house and move to a cheaper rental? Could you swap the luxury vehicle for something practical and economical? These are not comfortable questions. But they are far better to ask now voluntarily than to be forced into those decisions by circumstance.

17.2.1.7 BUDGET

If you do not have a budget, now is the right time to start. Checking your monthly spending creates awareness of where your money leaks unnecessarily. A budget is not a restriction — it is a map.

17.2.1.8 BUILD A SAVINGS BUFFER

Put away savings for difficult times. Usually, as soon as economic conditions worsen, the market floods with second-hand goods as people try to raise cash. That is not the time to be buying — it is the time to be selling. Position yourself on the right side of that equation.

17.2.1.9 DIVERSIFY AND PROTECT YOUR INVESTMENTS

Consider the possibility that the Rand's value might drop significantly or that access to bank accounts could be restricted in an extreme scenario. While very specific conditions are required for the latter, it is wise to think carefully about how your assets are structured and whether all your eggs are in one basket.

17.2.1.10 FOCUS ON BASIC NEEDS FIRST

In a genuine financial crisis, the priorities become very simple: food, water and shelter. As long as you can provide these things for your family, the rest of the financial mess can be sorted out at a later stage. Everything else is secondary.

17.2.1.11 WATCH FOR DISCOUNTS AND SPECIALS

Monitor grocery specials, coupons and discount offers carefully. Throw your brand loyalty away — a generic product that keeps your family fed is worth infinitely more than a branded product you cannot afford. In a financial crisis, pragmatism replaces pride.



17.2.1.12 BUY IN BULK

Learn from other people – they save more money by buying in bulk than buying individual products. Due to the constant rise in food prices, it is a positive way to buy supplies at the most economical price. It's also advisable to buy in bulk with others and divide groceries among yourselves. Buying in bulk can save a lot when getting emergency supplies together. Foods such as flour, sugar, oatmeal, and popcorn can be purchased in bulk quantities at discounted prices.

17.2.1.13 BUILD BARTER CAPACITY

Invest in negotiable commodities — things that do not lose value in times of need and may actually increase in value. Gold, non-perishable food, fuel and gas can be exchanged for other items or sold when paper currency is unreliable. In Argentina, Venezuela and Greece, barter economies sprung up in communities almost spontaneously when the formal economy faltered.

17.2.1.14 MEDICATION SUPPLY

If you or anyone in your family takes chronic medication regularly, having an extra 30-day supply is one of the most important preparations you can make. In Greece, patients with chronic conditions showed up at pharmacies that had nothing to give them — blood pressure medication, insulin, thyroid drugs, anti-seizure medications. Things people needed every single day to stay alive, and the shelves were empty. Talk to your doctor about keeping an extra month's supply. Most will work with you on this if you explain your reasoning.

17.2.1.15 SKILLS OVER STUFF

Every piece of equipment eventually runs out, breaks or becomes obsolete. But knowing how to cook from basic ingredients, how to do minor home repairs, how to grow even a small container garden — those skills do not expire and they do not break. In Venezuela, people who knew how to cook with basic staples could feed their families on almost nothing. The ability to turn basic dried beans and rice into a hot, filling meal is worth more in a crisis than any amount of expensive gear.

17.2.1.16 COMMUNITY CONNECTIONS

This may be the most important preparation of all, and it is the one least talked about — probably because it does not involve buying anything. In every economic collapse, the people who fared best were embedded in communities. Neighbours who shared resources, friends who helped each other, extended families who pooled what they had. In Argentina, neighbourhood groups organised to share food and childcare. In Greece, community kitchens sprang up to feed people who could no longer afford groceries.

The lone wolf survivalist fantasy is exactly that — a fantasy. Real resilience is relational. It is knowing the people around you and being known by them. This is not a new idea — it is the principle the early church lived by, and it is the spirit of Ubuntu that runs deep in the South African soul.

17.2.2 IN CLOSING

The Hemingway novel *The Sun Also Rises* contains a line that has become one of the most quoted descriptions of financial ruin. Asked how he went bankrupt, a character answers: "*Two ways. Gradually, then suddenly.*"

That is exactly how economic collapse works. The gradual part is long and boring and easy to ignore. The sudden part is short, sharp and impossible to prepare for once it starts. The entire strategy of preparedness is to use the gradual part wisely — to do the quiet work while things still look normal — because the window for calm, rational preparation does not announce when it is closing.

It is important to remember that collapse does not mean the end of the world. Argentina recovered. Its economy was growing again within two years. Greece eventually climbed back. Even Venezuela has seen some stabilisation. Countries go through these cycles. Societies bend, sometimes break, but they rebuild. Life continues afterwards.

The question is not whether things eventually get better. They do. The question is how you and your family get through the transition — that stretch of months or years when the old normal is gone and the new normal has not yet arrived. That is the gap you are preparing for. Not the apocalypse. The gap. And the gap is survivable, navigable and manageable with dignity if you have done a little quiet work beforehand.

It is important that we discuss these things with people we trust. The economic future may force many of us to take radical steps for survival. What sounds outrageous today can very quickly become reality tomorrow. Prepare yourself and your loved ones for it. You owe it to them.

And above all — keep your faith anchored. Not in banks, not in governments, not in economic forecasts. In the God who fed Israel in the wilderness, who sustained Elijah under the broom tree, and who promises in Philippians 4:19 that He will meet all your needs according to His glorious riches in Christ Jesus.

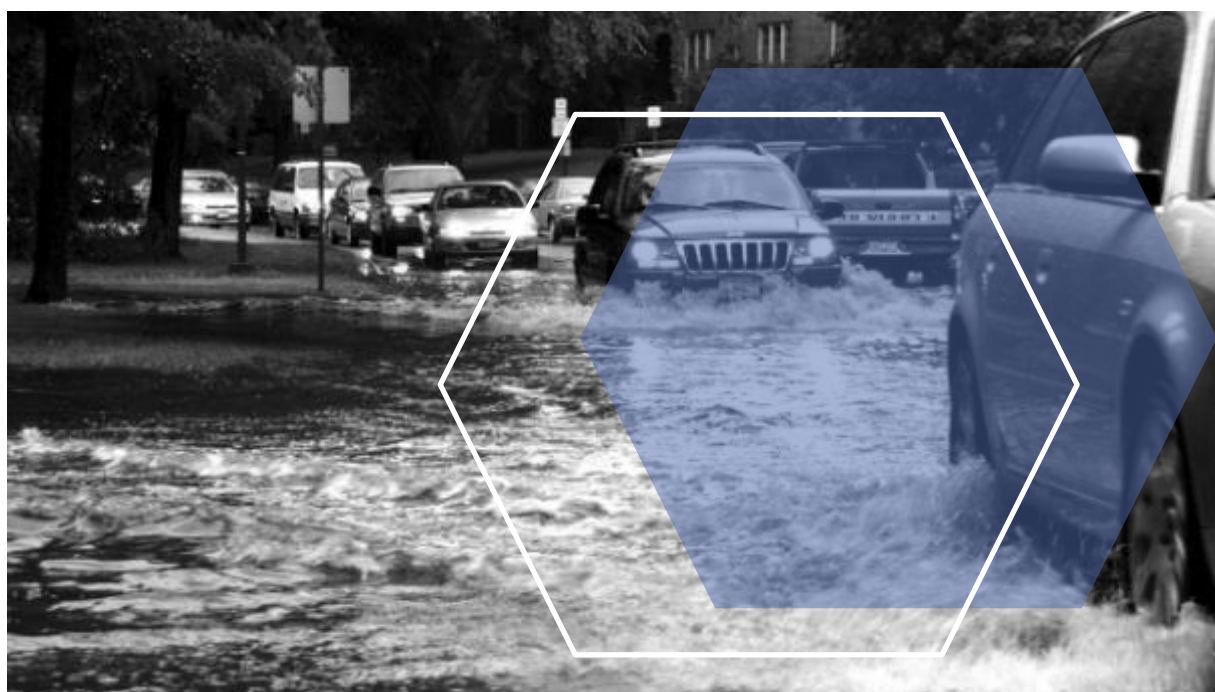
Prepare practically. Trust completely. And do not be afraid.

18 WEATHER-SPECIFIC EMERGENCIES

In the introduction to this guide, I noted that South Africa is not regularly exposed to the kinds of natural disasters that affect other parts of the world. That is true. But it would be a mistake to conclude that South Africa is therefore safe from weather-related emergencies. We have our own set of weather threats that are just as dangerous, just as destructive and just as capable of catching an unprepared family completely off guard.

The Knysna fires of 2017 destroyed more than 1 000 homes and killed seven people. The KwaZulu-Natal floods of 2022 killed more than 400 people and displaced tens of thousands. Flash floods in Johannesburg regularly kill motorists who underestimate the depth and power of flooded roads. Extreme heat events across the Northern Cape and Free State push vulnerable people to the edge of survival. Severe hailstorms cause billions of rands of damage to vehicles, crops and property every year. These are not distant possibilities. They are recurring South African realities.

18.1 FLASH FLOODS AND FLOODING



Flooding is the most common weather-related disaster in South Africa. It can occur with very little warning, particularly in low-lying areas, near rivers and streams, and on roads that cross drainage channels. The danger is not always obvious — a road that looks passable may have fast-moving water beneath its surface with the force to sweep a vehicle away in seconds.

18.1.1 BEFORE A FLOOD

- **Know whether your home or area is in a flood-prone zone.** Visit the South African Weather Service at www.weathersa.co.za for flood risk information relevant to your area.
- **Keep your stormwater drains and gutters clear of leaves and debris.** Blocked drains dramatically increase the risk of localised flooding.
- **Store emergency supplies and important documents above ground level** — never in a basement or on the floor in a flood-prone area.
- **Know your evacuation route to higher ground** and discuss it with your family before you ever need it.
- **Monitor weather forecasts during the rainy season**, particularly if you live near a river, stream or low-lying area.

18.1.2 DURING A FLOOD

- **Never attempt to drive through floodwater.** The most common cause of flood-related death in South Africa is motorists driving into flooded roads. If you cannot see the road surface clearly, turn around. No destination is worth your life.
- **If your vehicle becomes trapped in rising water**, get out immediately and move to higher ground.
- **If you are at home and water is rising**, move to the highest floor of your building.
- **Avoid walking through floodwater** — it may be deeper than it appears, moves faster than it looks and is almost certainly contaminated with sewage, chemicals and debris.
- **Stay away from rivers**, streams and drainage channels during and after heavy rain.

18.1.3 AFTER A FLOOD

- **Do not return home** until authorities confirm it is safe to do so.
- **Treat all floodwater as contaminated.** Wash hands thoroughly after any contact with floodwater.
- **Check your home carefully** for structural damage before re-entering.
- **Document all damage thoroughly** with photographs for insurance purposes before cleaning up.

18.2 VELD FIRES AND WILD FIRES

Veld fires are a particular danger for South Africans living on the urban edge, in rural areas, on smallholdings and in coastal fynbos regions. They spread with terrifying speed — particularly in dry conditions, in areas with long unmanaged grass and in strong winds. A fire that is kilometres away can reach your home within minutes under the right conditions.



18.2.1 BEFORE A VELD FIRE

- **Create and maintain a firebreak around your property** — a cleared strip of ground that removes the fuel a fire needs to cross onto your property.
- **Keep grass short and remove dead vegetation** from around your home, outbuildings and fences.
- **Clear gutters and roofs of dry leaves and debris** — these are highly flammable and can ignite from airborne embers.
- **Store firewood, gas bottles and fuel containers away** from your home and outbuildings.
- **Know your evacuation route and be prepared to leave early** — do not wait until the fire is upon you.

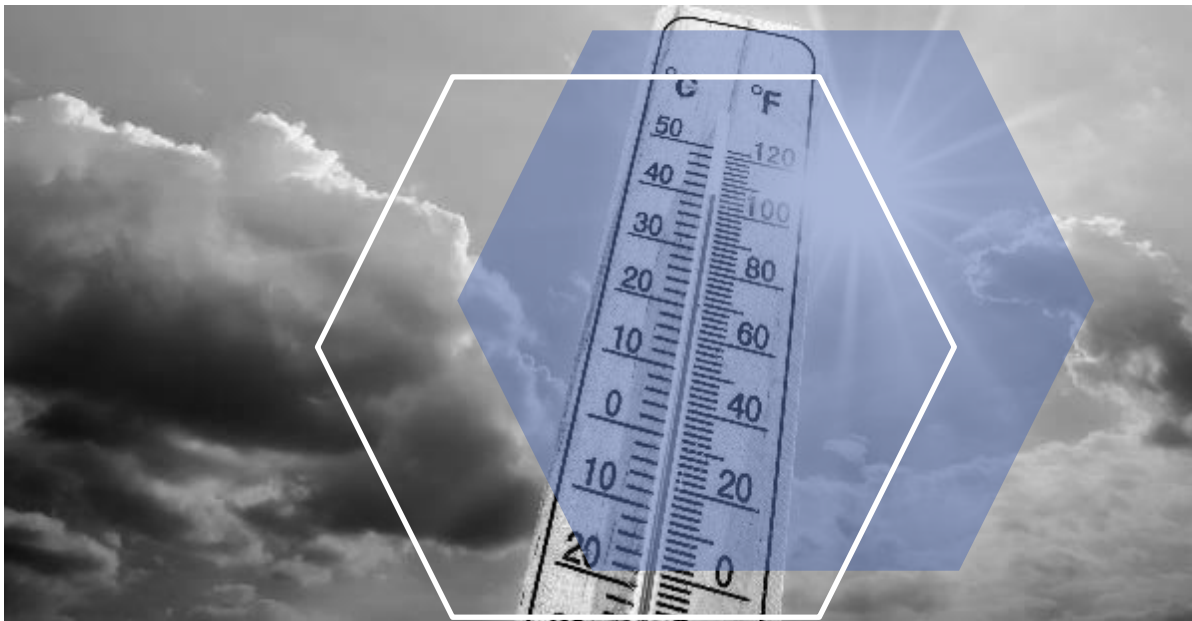
18.2.2 DURING A VELD FIRE

- If you smell smoke or see fire in your area, do not wait to see how it develops. Begin preparing to **evacuate immediately**.
- **Close all windows, doors and vents** to reduce the amount of smoke and embers entering your home.

- **If evacuation becomes necessary, leave early.** More people die trying to defend their homes at the last minute than die from fires they evacuated from in good time.
- **If caught in a vehicle by a fast-moving fire,** park off the road, turn off the engine, switch on hazard lights, get down below window level and cover yourself with a wool blanket.

18.3 EXTREME HEAT

South Africa's interior regularly experiences extreme heat events that can be genuinely life-threatening for vulnerable individuals. Heatstroke, severe dehydration and heat exhaustion can kill within hours if not treated promptly.



- **Stay indoors during the hottest part of the day** — typically between 11am and 3pm.
- **Drink water consistently throughout the day** — do not wait until you feel thirsty.
- **Never leave children, elderly people or animals in a parked vehicle** — temperatures inside can reach lethal levels within ten minutes.
- **Check on elderly neighbours and family members** during extreme heat events.

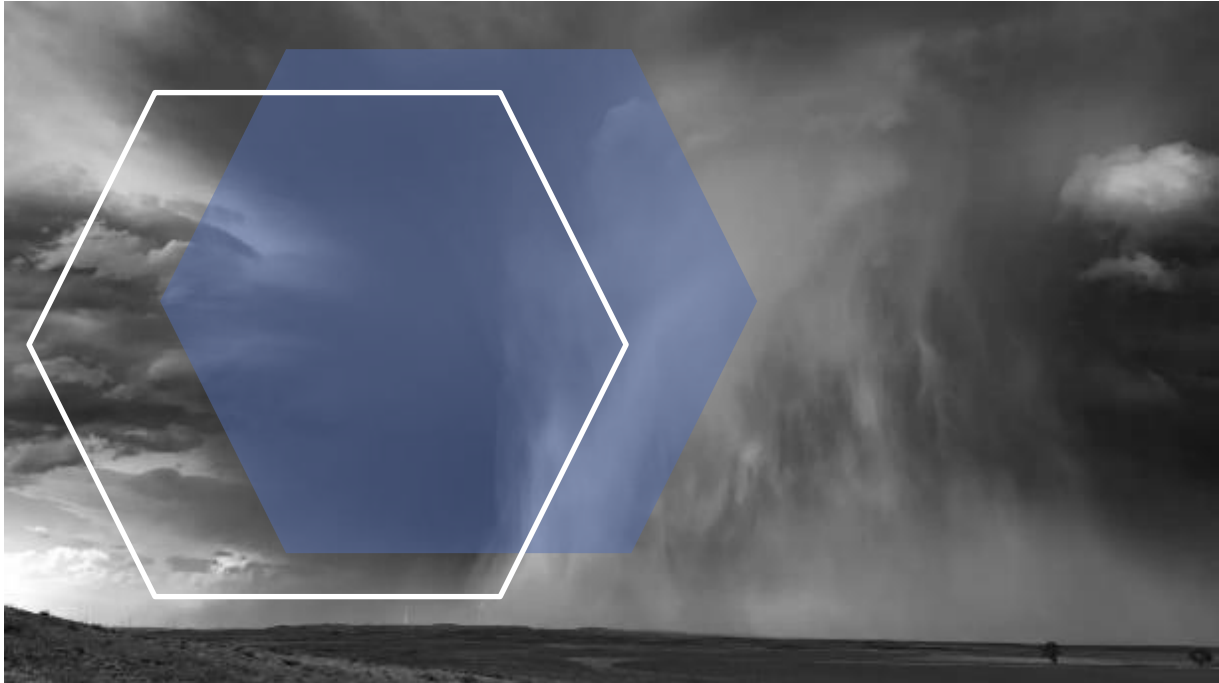
18.3.1 HEAT EXHAUSTION

Heavy sweating, pale and clammy skin, weakness, dizziness, nausea and a fast weak pulse. Move the person to a cool shaded area, apply cool wet cloths to the skin and give water in small sips. If symptoms do not improve within 30 minutes seek medical attention.

18.3.2 HEATSTROKE

A medical emergency. Body temperature above 40°C, hot and dry skin with no sweating, confusion and possible loss of consciousness. Call for emergency medical assistance immediately and cool the person as rapidly as possible.

18.4 SEVERE HAILSTORMS



South Africa — particularly Gauteng and the highveld — experiences some of the most severe hailstorms in the world. Hailstones the size of golf balls or larger can shatter windows, destroy vehicles, damage roofs and injure people caught in the open.

- **Monitor weather forecasts** during summer thunderstorm season and subscribe to South African Weather Service alerts.
- **Park vehicles in a garage** or under solid cover whenever severe thunderstorms are forecast.
- **Move indoors immediately** and stay away from windows during a hailstorm.
- **If caught in a vehicle with no shelter**, pull over and stop. Angle the vehicle so the front faces the storm. Cover yourself with a blanket and lean away from windows.

18.5 SUMMARY

- **Flash floods** — never drive through floodwater, know your evacuation route to higher ground
- **Veld fires** — maintain firebreaks, leave early and never wait until a fire is upon you
- **Extreme heat** — hydrate consistently, protect the vulnerable and know the difference between heat exhaustion and heatstroke
- **Severe hailstorms** — monitor forecasts, park vehicles under cover and stay away from windows
- **Know your local risks** — visit www.weathersa.co.za and understand the specific weather threats relevant to your area

19 CIVIL UNREST AND RIOTS



Nine Days That Shook South Africa

Mail & Guardian / ACCORD / Expert Panel Report — July 2021

It began quietly enough. On the evening of 9 July 2021, a handful of supporters of former President Jacob Zuma gathered near his homestead in Nkandla, KwaZulu-Natal. Zuma had just begun serving a 15-month prison sentence for contempt of court. By the following morning, burning tyres blocked the N3 highway. By the end of the week, South Africa was on fire.

What followed was the worst civil unrest this country had experienced since the end of apartheid. For nine days — from 9 to 17 July 2021 — KwaZulu-Natal and Gauteng descended into chaos. Shopping malls were stripped bare and set alight. Warehouses, factories and distribution centres were gutted. Trucks were hijacked and burned on the highways. The ports of Durban and Richards Bay ceased operations entirely.

The numbers tell a story that is almost impossible to comprehend:

- 354 people lost their lives
- 3 000 stores were looted
- 61 shopping malls were damaged or destroyed
- 11 warehouses and 8 factories were extensively damaged
- 40 000 businesses and 50 000 informal traders were affected
- 150 000 jobs were immediately placed at risk
- 50 billion was wiped from the South African economy
- 25 000 army troops were eventually deployed to restore order

In KwaZulu-Natal alone, R20 billion worth of stock was lost. In Durban, R1.5 billion of stock disappeared in a matter of days. Shoprite alone reported that 200 of its stores had been looted, vandalised or burned across the two provinces.

The impact extended far beyond the immediate destruction. Supply chains collapsed. Food shortages spread through the affected provinces. Pharmacies were looted — including those holding COVID-19 vaccines, at the height of South Africa's third wave. Banking branches closed across KZN and Gauteng. Ordinary families who had done nothing wrong could not buy food, could not access cash and could not move safely through their own neighbourhoods.

President Cyril Ramaphosa called it an attempted insurrection. The Expert Panel appointed to investigate described the period as an "orgy of destruction and looting" and found that the violence was well-orchestrated and deliberately planned — designed to make the country ungovernable.

But here is the most sobering finding of all. In the communities worst affected, families that had prepared — that had food in the house, cash at home, fuel in the tank and a plan for staying safe — survived those nine days with far less trauma than those who had not. The shops were empty. The ATMs were offline. The roads were dangerous. For the unprepared family, those nine days were a genuine crisis of survival.

For the prepared family, they were simply nine very difficult days spent safely at home.

"The glue that held communities together was shaken. Citizens felt abandoned by the State."

— Report of the Expert Panel into the July 2021 Civil Unrest, November 2021

South Africa has a long and complex history of civil unrest. From service delivery protests that block roads and burn tyres, to large-scale riots that engulf entire cities — as we witnessed during the July 2021 unrest — civil unrest is one of the most distinctly South African emergency scenarios that this guide must address.

What makes civil unrest particularly dangerous is its unpredictability. It can escalate from a localised protest to a city-wide crisis within hours. Supply chains collapse almost immediately. Shops are looted and closed. Roads become impassable or dangerous. Police and emergency services are overwhelmed. And ordinary families who were completely unprepared find themselves trapped — unable to buy food, unable to travel and unable to get help.

The good news is that the preparation you have already done throughout this guide — your food and water storage, your communication alternatives, your evacuation plan and your community network — is exactly what you need to survive a period of civil unrest.

19.1 UNDERSTANDING THE PHASES OF CIVIL UNREST

19.1.1 PHASE 1 — WARNING SIGNS

Unrest rarely erupts without warning. The signs are usually visible days or even weeks before violence breaks out — growing social media tension, protest announcements, political speeches that inflame public anger, service delivery grievances that have gone unaddressed. Pay attention to local news, community WhatsApp groups and neighbourhood watch communications. If tensions are rising in your area, begin quietly activating your emergency preparations without waiting for things to deteriorate further.

19.1.2 PHASE 2 — LOCALISED DISRUPTION

Road blockages with burning tyres, isolated incidents of looting, sporadic violence in specific areas. This is the time to fill your fuel tank, withdraw cash, top up your food and water supplies and make sure your family knows the emergency plan. Do not leave this until Phase 3.

19.1.3 PHASE 3 — WIDESPREAD UNREST

Violence has spread across a wider area. Roads are dangerous or impassable. Shops are closed or looted. Emergency services are overwhelmed. At this stage your priority is to stay home, stay safe and rely on your preparations.

19.1.4 PHASE 4 — STABILISATION

Security forces restore order and the immediate danger begins to recede. Even at this stage caution is warranted — sporadic incidents can continue and supply chains take time to recover.

19.2 IMPORTANT RULES

19.2.1 THE GOLDEN RULE — STAY HOME

The single most important principle during civil unrest is this: *stay home*. The vast majority of people who are injured or killed during civil unrest are those who went out unnecessarily, to watch what was happening, to try to reach a family member, to get supplies they should have already had, or simply because they underestimated the danger. Curiosity and complacency kill.

19.2.2 BEFORE UNREST REACHES YOUR AREA

- **Fill your fuel tank** and if possible, fill your reserve fuel containers.
- **Withdraw cash in small denominations.** ATMs are among the first things that become inaccessible during unrest.
- **Top up your food and water supplies.** Shops close within hours of unrest beginning and may remain closed for days or weeks.
- **Charge all devices** — phones, power banks, radios and torches.
- **Communicate with your family.** Make sure every member knows the plan and has emergency contacts memorised.
- **Activate your community network.** Contact trusted neighbours and establish a communication protocol.
- **Secure your property.** Close and lock all gates, doors and windows. Bring valuable items inside or behind secured gates.
- **Prepare your self-defence measures** as discussed in the Safety and Security chapter.

19.2.3 DURING ACTIVE UNREST

- **Stay informed without exposing yourself.** Monitor local news, community WhatsApp groups and social media carefully. Follow official SAPS and municipal accounts for updates.
- **Keep a low profile.** Do not draw attention to your home or your preparations. Do not post on social media about what supplies you have. Discretion is a form of security.
- **Do not engage with crowds or confrontations.** If unrest reaches your street, do not go outside to confront anyone or to protect property at the cost of your personal safety. No physical possession is worth your life.
- **Coordinate with trusted neighbours.** A street that is organised and communicating is significantly safer than a street of isolated households. Share information and watch out for each other.

19.2.4 IF YOU ARE CAUGHT OUTSIDE DURING UNREST

- **Do not drive towards the unrest** - Turn around immediately and find an alternative route home or to a place of safety.
- **Avoid main roads and shopping centres** — these are the most common flashpoints during unrest.
- If your vehicle is surrounded by a crowd, **remain calm**. Keep your doors locked and windows up. Do not make sudden movements or aggressive gestures.
- If you cannot get home safely, **go to the nearest place of safety** — a police station, a hospital, a church or the home of a trusted person.
- **If you are on foot**, move calmly and purposefully away from the unrest. Do not run. Find shelter as quickly as possible.

19.2.5 AFTER THE UNREST

- **Do not rush outside** the moment things seem quiet. Situations can reignite quickly.
- **Assess your supplies and determine what you need to replenish.** Expect shortages and higher prices in the weeks following significant unrest.
- **Document any damage to your property** thoroughly with photographs for insurance purposes.
- **Support your community.** After unrest, communities need to rebuild trust and solidarity.
- **Debrief with your family.** Talk through what happened, what worked and what gaps you identified. Update your emergency plan accordingly.

19.3 A WORD ON THE SPIRITUAL DIMENSION OF UNREST

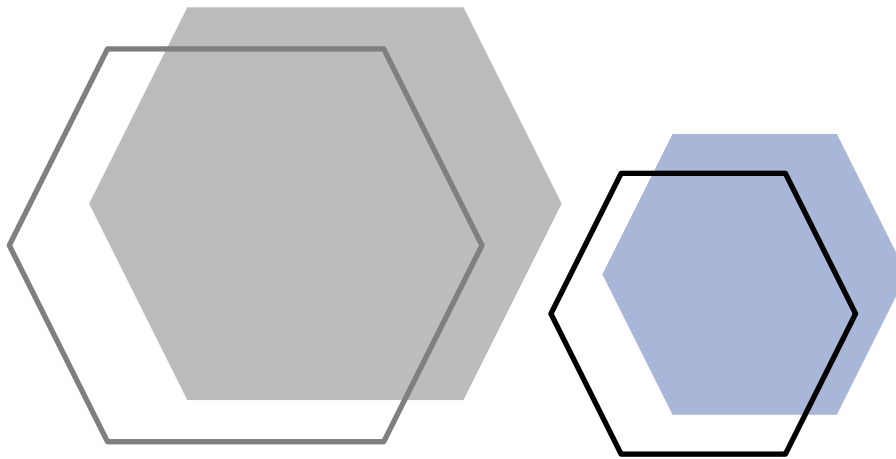
Civil unrest is deeply unsettling not only physically but spiritually and emotionally. Watching the society around your fracture, seeing fellow citizens destroy property and harm one another, feeling the fragility of the systems we depend on — these experiences shake something deep in the human spirit.

In those moments, return to the foundation laid in Chapter 1. Trust in God is not passive resignation — it is an active anchor that will keep you calm, purposeful and clear-headed when everything around you are chaotic.

Psalm 46:1-2 reminds us: “God is our refuge and strength, an ever-present help in trouble. Therefore, we will not fear, though the earth give way and the mountains fall into the heart of the sea.”

19.4 SUMMARY

- **Pay attention to warning signs** — unrest rarely happens without advance indicators
- **Act early** — fill fuel, withdraw cash and top up supplies before the situation deteriorates
- **Stay home** — the golden rule of civil unrest survival
- **Keep a low profile** — do not advertise your preparations or engage with crowds
- **Coordinate with neighbours** — an organised street is a safer street
- **After the unrest** — replenish supplies, document damage and debrief with your family



20 CYBER SECURITY AND DIGITAL PREPAREDNESS



CASE STUDY — Your Personal Information Was Already Stolen. You Just Did Not Know It.

Times Live / Business Insider South Africa / SABRIC — August 2020

*On 19 August 2020, South Africans woke up to news that stopped many of them cold. Experian — one of the country's largest credit bureaus, holding the personal financial records of virtually every adult South African — had handed the private details of **24 million people and nearly 800 000 businesses** to a fraudster.*

Not hacked. Not broken into. Simply handed over.

The fraudster had done something remarkably straightforward. He picked up the phone, pretended to represent a legitimate client and persuaded Experian to release its consumer data in what appeared to be a routine business transaction. By the time anyone realised what had happened, the names, ID numbers, contact details, addresses and financial histories of more than half the South African adult population were in the hands of a criminal.

Experian's CEO Ferdie Pieterse explained it on Radio 702: "A perpetrator, using very smart social engineering techniques, put himself forward as a known customer of Experian and then contracted with us in the normal course of business and in that way illegally obtained the records of 23.4 million individuals."

The South African Banking Risk Information Centre — SABRIC — issued an immediate warning to the public. Their message was sobering:

"The compromise of personal information can create opportunities for criminals to impersonate you. Criminals can use this information to trick you into disclosing your confidential banking details."

Standard Bank confirmed that its clients' demographic information had been leaked and urged customers to change their passwords immediately. Banks across the country scrambled to identify which of their customers were affected.

*Here is the most unsettling part of this story. **If you were a South African adult in 2020, the chances are extremely high that your personal information was in that data.** You did not have to be an Experian customer. You did not have to have done anything wrong. Simply by having a bank account, a store card, a cell phone contract or any form of credit, your information had been shared with Experian as part of the normal operation of South Africa's financial system — and it was now in a criminal's hands.*

Most South Africans never received a phone call, an email or any notification that their information had been compromised. They went about their daily lives completely unaware that somewhere, a criminal now knew their full name, their ID number, where they lived and their financial history.

This is exactly how modern cyber-crime works. It does not announce itself. It does not break down your door. It slips through a gap you did not even know existed — and by the time you discover it, the damage may already be done.

The numbers that should concern every South African household:

- South Africa suffers more than **150 data breach notifications every single month** — up from 56 per month just two years earlier (Information Regulator, 2024)
- South Africa recorded **34.5 million compromised accounts** in the first quarter of 2024 alone — making us the second most affected country in Africa for cyber incidents
- Digital banking fraud has surged by **45 percent**, with financial losses rising by **47 percent**
- The average cost of a single data breach in South Africa reached **R53 million** in 2024
- South Africa loses an estimated **R2.2 billion** to cyber-crime every year
- In 2024, Cell C suffered a breach exposing the ID numbers, banking details and SIM card information of **7.7 million customers** — creating direct risk of SIM swapping and banking fraud for every one of them

"I don't think South Africans take cyber security seriously, to be honest. The hackers have found very fertile ground in South Africa." — Advocate Pansy Tlakula, Chairperson of the Information Regulator, 2024

In previous chapters we discussed the importance of storing copies of your critical documents digitally — on a flash drive, in cloud storage or on your phone. This is excellent advice and I stand by it completely. However, the digital world comes with its own set of vulnerabilities that every South African family needs to understand and prepare for.

A personal disaster does not always arrive in the form of a flood, a power failure or a political crisis. Sometimes it arrives as a text message from your “bank” asking you to verify your details. Sometimes it is a phone call from someone claiming to be from SARS. Cyber-crime is one of the fastest growing threats in South Africa. According to the South African Banking Risk Information Centre, South Africa loses billions of rands annually to cyber-crime — making it one of the most targeted countries in the world relative to its size.



20.1.1.1 PHISHING

This is when a criminal sends you a fraudulent email, SMS or WhatsApp message that appears to come from a legitimate source — your bank, SARS, a courier company or even a government department. The message typically creates a sense of urgency and asks you to click a link or provide personal information. During a crisis, when people are anxious and distracted, phishing attacks increase dramatically.

20.1.1.2 SIM SWAPPING

A criminal uses your personal information to convince your mobile network to transfer your phone number to a new SIM card in their possession. Once they control your number, they can intercept one-time passwords and access your banking accounts. This can happen within hours and cause devastating financial loss.

20.1.1.3 IDENTITY THEFT

Your ID number, date of birth, home address and banking details are all that a criminal needs to open accounts, take out loans or commit fraud in your name.

20.1.1.4 DEVICE THEFT

In South Africa, phone and laptop theft is common. If your device is not properly secured, a thief gains access to your banking apps, emails, cloud storage and personal documents.

20.1.2.1 USE STRONG UNIQUE PASSWORDS

A strong password is at least twelve characters long and contains a mix of upper- and lower-case letters, numbers and symbols. Never use the same password for more than one account. Consider using a reputable password manager application.

20.1.2.2 ENABLE TWO-FACTOR AUTHENTICATION

Most banking apps, email providers and social media platforms offer two-factor authentication. Enable this on every account that offers it.



20.1.2.3 BE SUSPICIOUS OF URGENCY

Legitimate banks and government departments will never ask you to click a link in an SMS or email to verify your details urgently. If you receive such a message, call the institution directly using the number on their official website or the back of your bank card.

20.1.2.4 PROTECT YOUR SIM CARD

Contact your mobile network provider and ask them to add a SIM swap block to your account. This takes less than five minutes and is one of the most important precautions you can take.

20.1.2.5 LOCK YOUR DEVICES

Every phone, tablet and laptop should have a strong PIN, password, fingerprint or face recognition lock enabled. Set the device to lock automatically after thirty seconds of inactivity.

20.1.2.6 BACK UP YOUR DATA REGULARLY

Keep encrypted backups of important files on both a physical device such as an external hard drive or flash drive and a secure cloud storage service. Store the physical backup in a different location to your device.

20.1.2.7 BE CAREFUL WHAT YOU SHARE ON SOCIAL MEDIA

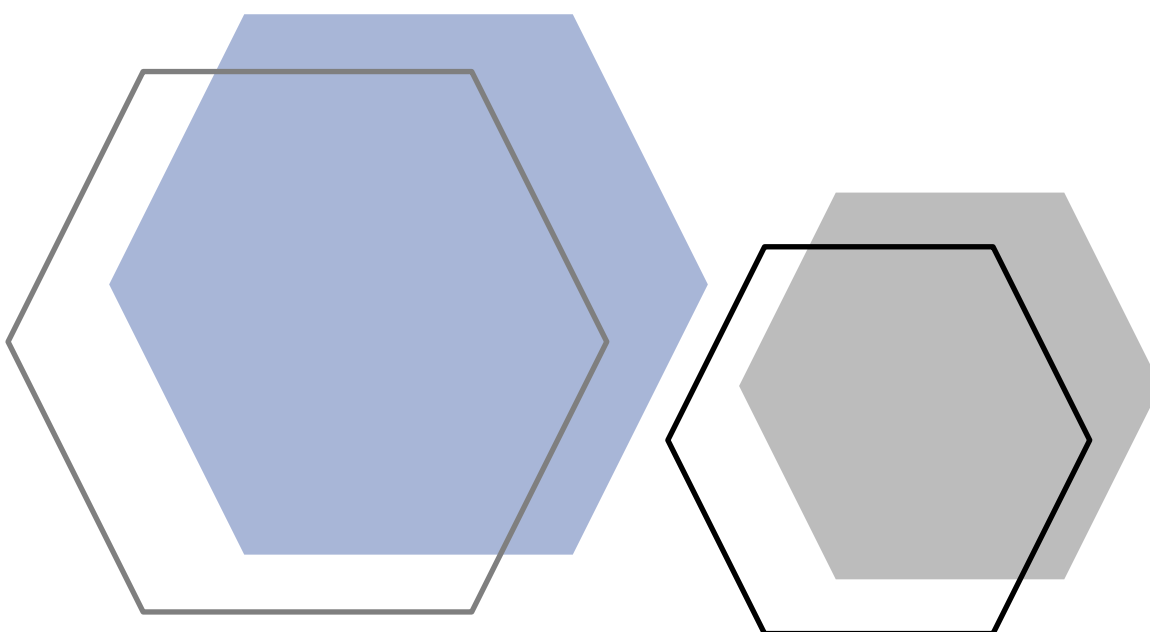
What you post publicly tells criminals a great deal about you — when you are away from home, what valuables you own, where your children go to school. Review your privacy settings regularly.

20.1.3 WHAT TO DO IF YOU ARE COMPROMISED

- **Contact your bank** on their official number the moment you suspect fraud. Ask them to freeze your accounts immediately.
- **Contact your mobile network** if you suspect a SIM swap has occurred.
- **Change your passwords** on all affected accounts from a secure device.
- **Report the incident to SAPS** and to the South African Banking Risk Information Centre at sabric.co.za.
- **Check your credit report** through TransUnion or Experian to identify any fraudulent accounts opened in your name.
- **Inform your family** so they are not caught off guard by fraudsters impersonating you.

20.2 SUMMARY

- **Cyber-crime is a real and growing threat** — treat it as seriously as physical security.
- **Use strong unique passwords** — and a password manager to keep them organised.
- **Enable two-factor authentication** — on every account that offers it.
- **Request a SIM swap block** — from your mobile network provider today.
- **Lock your devices** — and back up your data regularly.
- **Act immediately if compromised** — speed is critical in limiting damage.



21 A FINAL WORD TO YOU



When I started writing this guide, I sat at my desk surrounded by years of research — books, printed articles, forum threads, YouTube notes and handwritten lists accumulated over more than a decade of personal study. The task felt enormous. How do you distil ten years of learning into something practical, accessible and genuinely useful for ordinary South African families?

The answer, I realised, was not to write the most comprehensive survival manual ever produced. It was to write the most honest one I could — grounded in my own research and experience, shaped by my own faith and filtered through the very specific reality of living in South Africa at this particular moment in history.

This country that we love is under enormous pressure. The economic challenges are real. The political uncertainty is real. The infrastructure failures are real. Load shedding, water restrictions, unemployment, corruption, civil unrest — these are not the imaginings of pessimists or doomsday preppers. They are the daily realities of millions of South African families. And the people who will navigate those realities best are not the ones with the most money or the biggest properties. They are the ones who prepared — quietly, consistently and faithfully — before the crisis arrived. That is who this book was written for. That is who you are.

If you have read this far, you are already among the small percentage of people who have taken this seriously. You have thought about your food and water. You have considered your family's medical needs. You have planned your evacuation routes and packed your grab bag. You have thought about your community and your neighbours. You have invested time and energy into giving your family the best possible chance of coming through whatever lies ahead.

That matters enormously. Do not underestimate what you have done.

But I want to leave you with something more important than any checklist or supply list in this book.

In the end — when the lights go out, when the shops are empty, when the roads are blocked and the phones are dead — what will sustain you is not what is in your storeroom. It is what is in your heart.

I have seen this truth confirmed in my own life more times than I can count. When my wife was diagnosed with breast cancer in 2015, no amount of preparation could have softened that blow. No emergency plan addresses the moment when your world turns upside down and everything you thought was certain disappears. In those moments — and there will be such moments for all of us — the only anchor that holds is faith.

Not faith as a vague feeling of optimism. Not faith as a religious formality. But faith as a living, active, daily relationship with the God who made you, who knows you and who has promised — in His own words — that He will never leave you nor forsake you.

“Be strong and courageous. Do not be afraid or terrified because of them, for the Lord your God goes with you. He will never leave you nor forsake you.” Deuteronomy 31:6

That promise was made to people facing genuine, life-threatening danger. It was not a promise of comfort or convenience. It was a promise of presence. God with us — in the flood, in the fire, in the unrest, in the loss, in the darkness. That is the foundation on which everything else in this guide is built.

So here is my final encouragement to you.

- **Prepare your home** — but do not put your trust in your preparations.
- **Stock your supplies** — but do not put your trust in your storeroom.
- **Make your plan** — but do not put your trust in your plan.
- **Put your trust in God.** Let everything else be the practical expression of that trust — the wise stewardship of the resources and the time and the knowledge He has given you.

A man who prepares without faith is building on sand. A man who has faith but does not prepare is testing God unnecessarily. The combination of active faith and practical preparation is the posture this entire guide has been pointing you towards from the very first page.

I pray that this guide serves you and your family well. I pray that most of what is in these pages you never need to use. I pray that South Africa finds its way through this difficult season and emerges stronger, more united and more resilient than before.

But if the hard times do come — and some of them surely will — I pray that you will face them with full shelves, a clear plan, a prepared family, a strong community and above all an unshakeable faith in the God who holds the future in His hands.

“For I know the plans I have for you,” declares the Lord, “plans to prosper you and not to harm you, plans to give you hope and a future.” — Jeremiah 29:11

God bless you and your family.

To Him be all the glory.

22 CONTROL SHEETS



Weekly Meal Planner

Monday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Saturday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Tuesday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Sunday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Wednesday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Notes

Thursday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Shopping Lost
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> _____ <input type="checkbox"/> _____

Friday	Date:
Breakfast:	_____
Lunch:	_____
Snacks:	_____
Dinner:	_____
Extra:	_____
Extra:	_____

Shopping List

WATER [Bottled Water 2 Litre, 5 Litre]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CANNED LIQUIDS [Tomato Paste etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CANNED MEATS [Meat, Chicken & Fish]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CANNED VEGGIES [Beans, Peas etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CANNED FRUIT [Peaches, Apricot, Pear etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

DRIED EXTRACTS [Beef & Chicken stock, Variety of soups]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

DRINKS [Coffee, Tea, hot chocolate, powder cooldinks]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

MILK [Longlife & Powder Milk]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

OIL [Sunflower, Canola, Olive etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

PETS

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CERIALS [Muesli, Oats, Weet-Bix etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

STAPLES [Maize, Wheat, Rice etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CLEANING [Organic if possible]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

BABY FOOD [Purify, Formula etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

PASTA [Maccaroni, Spaghetti etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

SNACKS [Biscuits, Chips, Salty Cracks etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

DRIED FRUIT [Raisins, fruit rolls, dried fruit]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

DRIED BEANS AND LENTILS [Beans, Peas, Lentils etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

DRIED NUTS AND SEEDS [Hazel nuts, Peeka nuts etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

DRIED SPICES [Pepper, Curry etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

EGGS [Normal & powder eggs]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

SYRUP [Honey, Golden Syrup]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

SALT AND SUGAR [Iodised salt, Brown or White Sugar]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

CONDIMENTS [Tomato Sauce, Tabasco, Worcester Sauce]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

VINAGER [White en Brown vinager, Balsamic and Apple cider]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

OTHER [Paper Plates, Utensils, Plastic Bags etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

PERSONAL HIGIENE [Toothpaste, soap, shampoo etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

BABY HIGIENE [Nappies, Wet Wipes, Clean etc]

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

Medical Information

Name _____

Date of Birth _____

My Number #: _____

Blood Type: _____

Emergency Contact Number #: _____

Email: _____

Enige Allergieë _____

Revised by: _____ Name _____ Date _____

MEDICATION Brand, Dosage	APPEARANCE Type, form, colour	DOSAGE	METHOD	START Date:	END Date:	REASON FOR TAKING	DOCTOR	NOTES
AS NEEDED								
MORNING								
NOON								
EVENING								
BEFORE BEDTIME								

DOCUMENT CONTROL SHEET

IDENTIFICATION

- Birth Certificate
- Identity Document
- Passport
- Extra ID photos
- Fingerprints
-
-

POLICIES AND INVENTORIES

- Home and Car insurance
- Life Cover
- Retirement Annuities
- Inventory of household items and Serial nrs
-
-

PLANNING AND PROCEDURES

- Maps of surrounding areas
- Routes to destination
- Emergencies procedures as agreed
- Contact Details
- Bible (also a list of verses)
-
-

MEICAL INFORMATION

- Prescriptions
- List of Chronic Medication
- Blood Type
- Other Medical Conditions
-
-

IMPORTANT DOCUMENTS

- Certified copy of Will
- Bodn Information
- Title Deeds
- Bank Statements
- Banking Account Numbers

IMPORTANT DATA

- Family Photos
- Correspondence
- Other important lists

LICENSES

- Diver's License
- Firearm License
- Competancy Certificate
-
-

STORE OF IMPORTANT DATA

- 1) Make photocopies of all important documents or;
- 2) Make copies by scanning with your Cellphone
- 3) Print hardcopies and put it in a Zip Lock bag
- 4) Store documents in the cloud (OneDrive, Dropbox)

Important Passwords

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

Website

username

password

email

notes

IMPORTANT TIPS: Do not reuse passwords. Store this list securely.

Passwords should be >10 characters and use a random mixture of lowercase, uppercase, numbers, and symbols.

Consider using a separate list for highly important information (bank and financial sites) and locking it in a safe.

Evacuation Control Sheet

Food and Water	
<input type="checkbox"/>	Food
<input type="checkbox"/>	Water (2 x 25L)
<input type="checkbox"/>	Water filter
<input type="checkbox"/>	Purifying Tablets
<input type="checkbox"/>	Camp stove with gas
<input type="checkbox"/>	Camping pots and utensils
<input type="checkbox"/>	Cooking utensils
<input type="checkbox"/>	Cups
<input type="checkbox"/>	Plate and bowl
<input type="checkbox"/>	Sponge
<input type="checkbox"/>	Dishwashing Liquid
<input type="checkbox"/>	Containers that easily stack
<input type="checkbox"/>	
<input type="checkbox"/>	

Self Defence	
<input type="checkbox"/>	Firearm
<input type="checkbox"/>	Pepper Spray
<input type="checkbox"/>	Tazer
<input type="checkbox"/>	Hunting Knife

Communication	
<input type="checkbox"/>	Cellphone with accessories
<input type="checkbox"/>	Two-way radio with accessories
<input type="checkbox"/>	Portable Radio
<input type="checkbox"/>	GPS System
<input type="checkbox"/>	Flares and signalling mirror
<input type="checkbox"/>	Pen and paper

Electronics	
<input type="checkbox"/>	Camera with accessories
<input type="checkbox"/>	- Charger
<input type="checkbox"/>	Laptop with accessories
<input type="checkbox"/>	- Charger & Car Charger
<input type="checkbox"/>	Camp Freezer 12V

Medical	
<input type="checkbox"/>	Prescriptions
<input type="checkbox"/>	Chronic Medicine
<input type="checkbox"/>	First Aid kit
<input type="checkbox"/>	Vitamins
<input type="checkbox"/>	Hand Sanitiser
<input type="checkbox"/>	Sun lotion
<input type="checkbox"/>	Insect Repellent

Before you leave	
<input type="checkbox"/>	Make sure that the post is removed from the postbox
<input type="checkbox"/>	Make sure that the gas and water mains are turned off
<input type="checkbox"/>	Lock all doors and windows
<input type="checkbox"/>	Remember to switch on the alarm
<input type="checkbox"/>	

Clothing and overnight	
<input type="checkbox"/>	Boots
<input type="checkbox"/>	2 x sets of close suitable for season
<input type="checkbox"/>	Socks & underwear
<input type="checkbox"/>	Jerseys and Jackets
<input type="checkbox"/>	Beanie and gloves
<input type="checkbox"/>	Rain gear
<input type="checkbox"/>	Hat (Protection against sun)
<input type="checkbox"/>	Hiking Backpack (40L - 60L)
<input type="checkbox"/>	Tent (Depends of size of family)
<input type="checkbox"/>	Ground cover
<input type="checkbox"/>	Sleeping bag
<input type="checkbox"/>	Foldup mattresses
<input type="checkbox"/>	
<input type="checkbox"/>	

Children	
<input type="checkbox"/>	Snacks and wipes
<input type="checkbox"/>	Clotes/socks/underware
<input type="checkbox"/>	Coats/Hats/Gloves/Swimwear
<input type="checkbox"/>	Sleeping bags / Cussions
<input type="checkbox"/>	Games / Toys / Soft Toys
<input type="checkbox"/>	Books
<input type="checkbox"/>	Colour in books & Crayons
<input type="checkbox"/>	Sport Equipment
<input type="checkbox"/>	Other

Toiletries	
<input type="checkbox"/>	Toothbrush / Toothpaste
<input type="checkbox"/>	Dental flos, tooth picks
<input type="checkbox"/>	Mouthwash
<input type="checkbox"/>	Glasses and Contacts
<input type="checkbox"/>	Cotton Wool
<input type="checkbox"/>	Nail Clipper
<input type="checkbox"/>	Deodorant
<input type="checkbox"/>	Shampoo
<input type="checkbox"/>	Soap / Liquid
<input type="checkbox"/>	Face Cloth
<input type="checkbox"/>	Brush / comb
<input type="checkbox"/>	Gel / Hairspray
<input type="checkbox"/>	Small Mirror
<input type="checkbox"/>	Tissues
<input type="checkbox"/>	Lip ice / Lip Balm

E Baby	
<input type="checkbox"/>	Clothes / socks /shoes
<input type="checkbox"/>	Nappies
<input type="checkbox"/>	Baby Wipes
<input type="checkbox"/>	Creams
<input type="checkbox"/>	Baby Shampoo / soap
<input type="checkbox"/>	Breast pump
<input type="checkbox"/>	Formula
<input type="checkbox"/>	Bottles
<input type="checkbox"/>	Sip Cups
<input type="checkbox"/>	Pack-n-play
<input type="checkbox"/>	Blankets
<input type="checkbox"/>	Baby carrier
<input type="checkbox"/>	Car Seat
<input type="checkbox"/>	Baby toys
<input type="checkbox"/>	Baby medicine
<input type="checkbox"/>	

Geld	
<input type="checkbox"/>	purse
<input type="checkbox"/>	Cards
<input type="checkbox"/>	Cash

Voertuig	
<input type="checkbox"/>	Full tank of fuel
<input type="checkbox"/>	50L extra fuel
<input type="checkbox"/>	Fire extinguisher
<input type="checkbox"/>	Torch
<input type="checkbox"/>	Spare tyre
<input type="checkbox"/>	Motor oil and anti-freeze
<input type="checkbox"/>	Gloves
<input type="checkbox"/>	Tow rope
<input type="checkbox"/>	Compressor
<input type="checkbox"/>	Pressure meter
<input type="checkbox"/>	Kit to fix punctures
<input type="checkbox"/>	Car jack with accessories
<input type="checkbox"/>	Extra fan belts
<input type="checkbox"/>	Jumper Cables
<input type="checkbox"/>	Red reflectors

Bugout Bag	
<input type="checkbox"/>	See Next List

Documents	
<input type="checkbox"/>	Driver's and firearm license
<input type="checkbox"/>	Birth Certificates
<input type="checkbox"/>	Passports and IDs
<input type="checkbox"/>	Medical Records
<input type="checkbox"/>	Policies & Inventories
<input type="checkbox"/>	Maps or surrounding areas
<input type="checkbox"/>	Important phone numbers
<input type="checkbox"/>	Veterinary records

Bugout Bag Checklist

Clothing for Season

- Hiking boots (worn in, not new)
- Shirts, Pants, Shorts
- Socks, Underwear, + Extras
- Sweater or Jacket
- Parka or Coat
- Rain gear
- Hat (for blocking sun/rain)

Sleeping Gear

- Tent & Stakes
- Ground cloth
- Sleeping Bag
- Sleeping Pad
- Bear bag
- Bear bag rope
- Hand Warmers

Cooking Gear

- Food
- Stove & Fuel
- Cook kit (pot,pan,etc)
- Cooking utensils
- Cup
- Bowl or plate
- Spork
- Dish soap

Essentials / Survival

- Pocketknife
- First-Aid Kit
- Water Bottle or Canteen
- Flashlight w/extra batteries
- Matches in waterproof container
- Candle or Fire Starters & Lighter
- Map & Compass
- 50' Nylon Rope or Cord
- Pencil & Paper
- Sunscreen & Sunglasses
- Plastic Bags
- Metal Signaling Mirror
- Whistle
- Duct Tape
- Emergency Blanket

Cleanup Kit

- Biodegradable Soap
- Toothbrush & Toothpaste
- Small Towel
- Wash Rag
- Comb
- Toilet Paper in plastic bag
- Hand Sanitizer

Miscellaneous

- Snacks / Trail Food
- Insect Repellent
- Repair Kit
- Watch
- Emergency Coins
- Extra flashlight/bulb
- Extra Moleskin
- Bandannas

Optional

- Hiking Stick
- Camera
- Extra shoes/flipflops
- GPS receiver

Packing Tips

- 1) Small frequently used items in pants pockets (knife, compass, matches, moleskin)
- 2) Camp equipment deep in pack
- 3) Rain gear, first-aid kit, sweater, clean socks, and lunch under main flap
- 4) Map, water bottle, sunscreen, repellent, and snacks in outside pockets.
- 5) Keep fuel bottle isolated.
- 6) For comfort, keep center of gravity high and and close to your back.
- 7) For stability, keep center of gravity low by placing heavy items at bottom of pack.
- 8) Pad the front of pack's interior with clothing for cushioning against back.

This checklist should only be used as a guide. There is no guarantee that items you are going to need on your trip are included in this checklist. Be prepared and responsible.



ABOUT THIS BOOK

There is a worrying attitude that prevails among many South Africans, namely complacency. Some individuals feel that they are immune to disasters such as political violence, drought and floods. Should such disasters happen, people simply assume that the necessary emergency services, such as an ambulance, helicopter or even the fire brigade will always be available when an emergency situation occurs.

Only 1% of the world's population is sufficiently prepared to deal with a disaster. Short-term disasters can range from a few hours to a few weeks, but its side effects can be long-lasting. Disasters of any kind can cause great confusion and total chaos – especially if people are not sufficiently prepared for a particular situation.

Disasters do not discriminate. When it happens, a person will soon realise that you are on your own and that you need to rely on your own knowledge and insight to deal with the situation. If you build the necessary emotional and spiritual foundation to survive a disaster, you will be able to identify a threatening situation much quicker and your survival attitude will change over to your pre-prepared emergency plan.

This guide is designed to help you build the essential foundation on which you and your family can rely. The guide will not only make you and your family aware of preparing for emergencies, but will also help boost your mindset regarding emergency evacuation, home security and personal disasters such as losing your job.

